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Vol-II, WATER QUALITY DATA

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पूरब प्रवाही नदियाँ बेसिन
EAST FLOWING RIVERS BASIN



कावेरी एवं दक्षिणी नदियाँ परिमण्डल, बेंगलुरु
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COIMBATORE

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प्रस्तावना

जल लगभग सीमित मात्रा में उपलब्धता के साथ एक कीमती प्राकृतिक संसाधन है। स्वच्छ जल पूरी दुनिया में दिन-व-दिन एक दुर्लभ वस्तु बन गया है। यह योजना है कि जल संसाधनों का श्रेष्ठतम् उपयोग के लिए एक अच्छी तरह से विकसित डाटा बैंक हो और नियमित रूप से डाटा बैंक का अद्यतन किया जाना चाहिए। जल संसाधन बढ़ाने के अलावा, पानी की गुणवत्ता की निगरानी का काम भी किया जाना आवश्यक है। जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय के अंतर्गत, केन्द्रीय जल आयोग, जल संसाधन क्षेत्र के शीर्ष मंत्रालय का निकाय होने के अतिरिक्त, भारत के विभिन्न नदी घाटियों का जल विज्ञानीय आकड़ा संग्रह का एक विशाल नेटवर्क प्रणाली बनाये रखा है।

आकड़ा के कम्प्यूटरीकरण के आगमन से जल वर्ष पुस्तक के प्रकाशन प्रारूप में बहुत परिवर्तन आया है। संसोधित प्रारूप के अनुसार, पूरब प्रवाही नदियाँ बेसिन 2017-18 का जल वर्ष पुस्तक दो खण्डों में किया गया। प्रथम खण्ड में नदी धारा प्रवाह एवं निलम्बित तलघट आकड़े तथा द्वितीय खण्ड में जल गुणवत्ता आकड़े एवं प्रमुख नदियों के जल गुणवत्ता प्रचलन / परिदृश्य दिये गये हैं। पूरब प्रवाही नदियाँ बेसिन के अन्तर्गत जल गुणवत्ता की निगरानी, 26 जल विज्ञानीय प्रेक्षण स्थलों पर किया जाता है। जिसमें दक्षिणी नदियाँ मण्डल-कोयम्बतूर 8 स्थलों, जल विज्ञानीय मण्डल-चेन्नई 17 स्थलों एवं निचली कृष्णा मण्डल-हैदराबाद 01 स्थल की निगरानी उक्त मण्डलों के अधीन किया जाता है।

जल नमूना सीधे स्थलों से सम्बन्धित प्रयोगशालाओं में विश्लेषण हेतु भेजा जाता है। भौतिक, रासायनिक, जैविक तथा विषाक्त (पैरामीटर) प्राचल का विश्लेषण किया जाता है। तीन रासायनिक सूचकांको (Indices) का आकड़ा, गणितीय विधि से निकाला जाता है। सिंचाई की उपयुक्तता के लिये अमेरिकन सैलिनिटी रेखाचित्र (विलकाक्स डायग्राम) के द्वारा जल का वर्गीकरण किया जाता है।

इस प्रकाशन में प्रस्तुत किये गये आकड़े, जल संसाधन के योजनाकारों, प्रबन्धकों और जल के उपयोग कर्ताओं के लिये बहुत उपयोगी है। अनुसंधान एवं विकास संस्थानों, योजनाओं, पीने के जल की पूर्ति, सिंचाई, औद्योगिक एवं मल निपटान योजनाओं के लिये विशेष रूप से उपयोगी है।

इस परिमण्डल के अन्तर्गत दक्षिणी नदियाँ मण्डल, कोयम्बतूर, जल विज्ञानीय मण्डल, चेन्नई तथा कृष्णा एवं गोदावरी बेसिन संगठन के अन्तर्गत निचली कृष्णा मण्डल, हैदराबाद के प्रयासों से इस पुस्तक का प्रकाशन हुआ। सभी प्रशंसा के पात्र हैं।

बेंगलुरु
मार्च, 2019

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(व. मोहन मुरलि)
अधीक्षण अभियंता
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PREFACE

Water is a precious natural resource with almost fixed quantum of availability. Fresh water has been becoming a scarce commodity day by day in whole world. It's planning and optimal utilization calls for a well developed Data Bank and maintenance of the Data Bank by regular updating is equally important. Besides quantifying the Water Resources, the work of monitoring the Quality of Water is also required to be done. Central Water Commission under the Union Ministry of Water Resources, besides being an apex body on Water Resources Sector, has been maintaining a vast system of Hydrological Network in different River Basins of India.

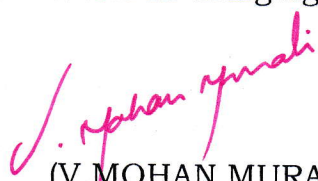
With the advent of computerization of the data, the format of publishing the Water Year Book has also undergone lot of changes. As per the revised format, the Water Year Book for East Flowing Rivers Basin for 2017-18 is published in Two Volumes, Volume-I containing the Stream Flow and Suspended Sediment Data and the Volume-II containing the Water Quality Data. The Water Quality under this East Flowing Rivers Basin is being monitored at 26 Hydrological Observation Stations – 08 stations on East Flowing Rivers (EFR) under SRD, Coimbatore, 17 stations on EFR under HD, Chennai, 01 station on EFR under LKD, Hyderabad. The Water samples collected at these Stations are being analysed at Divisional laboratories situated at Coimbatore, Chennai and Hyderabad.

The water samples received directly in the respective laboratories are analysed for parameters which include Physical, Chemical, Biological & Toxic elements. In addition to these parameters, three Chemical Indices are derived mathematically from the observed data. Waters are classified with the help of US Salinity Diagram (Wilcox Diagram) for its Irrigation suitability.

The Data presented in this publication is useful to the Water Resources Planners, Managers and Water Users in Catchment of East Flowing River Basin. The data may be especially useful for R&D institutions, planning, drinking water supply, irrigation, industrial and sewage disposal schemes. Soft copies of the publications will also be available to the user agencies.

The efforts made by the Southern Rivers Division – Coimbatore, Hydrology Division – Chennai under this Region & Lower Krishna Division – Hyderabad under Krishna & Godavari Basin Organization in bringing out this Book deserves appreciation.

Bangalore
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1. INTRODUCTION

1.1 Scope

Water quality data of 26 stations in the East Flowing Rivers are presented in this volume, for the year 2017-2018. The parameters covered in the data are as under:

1.1.1 Physical

River Discharge, Colour, Odour, Temperature, pH, Electrical Conductivity and T.D.S.

1.1.2 Chemical

Potassium, Sodium, Calcium, Magnesium, Iron, Ammonium, Carbonate, Bicarbonate, Chloride, Fluoride, Sulphate, Nitrate, Nitrite, Phosphate, Silicate, Total Alkalinity, Phenolphthalein Alkalinity and Boron.

1.1.3 Biological/Bacteriological

D.O., B.O.D and C.O.D.; Total Coliform and Fecal Coliform.

1.1.4 Trace & Toxic

Arsenic, Cadmium, Chromium, Copper, Mercury, Nickel, Lead and Zinc.

1.1.5 Chemical Indices

Hardness Number, Sodium Percentage, Sodium Adsorption Ratio, Residual Sodium Carbonate and USSL Classification.

1.2 Observation Technique

1.2.1 River water samples:

At each station one litre of river water sample is collected at a point of maximum flow and depth in the cross section at a depth of 10 - 20 cm below the water surface in a polythene bottle with double screw cap.

The polythene bottles are labeled with the requisite details of the sampled water and sent through a special messenger to the respective water quality research laboratory for detailed analysis.

1.3 Sources of information

The water quality stations for which data presented in this volume include 08 stations on East Flowing Rivers (EFR) under SRD, Coimbatore, 17 stations on EFR under HD, Chennai and 01 station on EFR under LKD, Hyderabad. The details of the above mentioned stations are as follows:

East Flowing River Basin

S.No.	Station Name	Station Code	Type of Site
1.	Gundlakamma at Marella	AU000E5	GDSQ
2.	Pennar at Nellore	AP000A6	GDSQ
3.	Sagileru at Nandipalli	APC00G7	GDSQ
4.	Pennar at Chennur	AP000I1	GDSQ
5.	Papagni at Kamalapuram	APE00C5	GDQ
6.	Kunderu at Alladupalli	APF00B8	GDSQ
7.	Pennar at Tadipatri	AP000L8	GDQ
8.	Pennar at Nagalamadike	AP000V5	GDQ
9.	Chitravathi at Singavaram	APG00E4	GDQ
10.	Swarnamukhi at Naidupeta	AC000G4	GDSQ
11.	Kalingi at Sulerpet	AB000N5	GDSQ
12.	Palar at Chengalpet	CQ000C1	GDQ
13.	Cheyar at Magaral	CQB00B4	GDQ
14.	Palar at Arcot	CQ000I7	GDQ
15.	Palar at Avarankuppam	CQ000S4	GDQ
16.	Varahanadi at Kumarapalayam	CCR00F3	GDQ
17.	Ponnaiyar at Villupuram	CP000C6	GDQ
18.	Ponnaiyar at Vazhavachanur	CP000H2	GDSQ
19.	Ponnaiyar at Gummanur	CP000R5	GDSQ
20.	Vellar at Kudalaiyathur	CE000F6	GDQ
21.	Vaigai at Paramakudi	CV000F3	GDSQ
22.	Suruliar at Theni	CVA00D4	GDSQ
23.	Vaigai at Ambasamudram	CV000U2	GDSQ
24.	Vaippar at Irrukkankudi	CY000K7	GDQ
25.	Thambraparani at Murappanadu	CT000H9	GDSQ
26.	Chittar at A.P.Puram	CTA00J1	GDQ

2. WATER QUALITY DATA

2.1 Explanatory Note

The explanatory note described here below is designed to assist in the interpretation of various parameters contained in the data presented subsequently.

- i) The water samples are collected at a regular frequency of once in a month from Trend / Flux stations and once in two months from Base line stations, usually on the first working day, from the main flowing portion of the stream. The Trace and Toxic elements are analysed once in a year in the month of April.
- ii) The collected water samples are neatly labeled and sent to the respective Divisional Laboratory for analysis.
- iii) Chemical indices namely Hardness number, Sodium Percentage, Sodium Adsorption Ratio and Residual Sodium Carbonates are computed as follows:
 - a) Hardness number is by adding the total Calcium and Magnesium in the sample expressed as equivalent parts of Calcium Carbonate (CaCO_3)
 - b) Sodium percentage (S.P) is given by

$$\text{S.P} = \frac{\text{Na}^+ \times 100}{[\text{Ca}^{2+} + \text{Mg}^{2+} + \text{Na}^+ + \text{K}^+]}$$

Ionic concentrations are in meq/L.

- c) Sodium Adsorption Ratio (SAR) is given by:

$$\text{S.A.R} = \frac{\text{Na}^+}{\sqrt{\frac{(\text{Ca}^{2+} + \text{Mg}^{2+})}{2}}}$$

Ionic concentrations are in meq/L.

- d) Residual Sodium Carbonate (RSC) is given by

$$\text{RSC} = (\text{CO}_3^{2-} + \text{HCO}_3^-) - (\text{Ca}^{2+} + \text{Mg}^{2+})$$

Ionic concentrations are in meq/L.

- iv) Based on Electrical Conductivity (E.C) and Sodium Adsorption Ratio (S.A.R), the water samples have been classified as per U.S. Salinity Laboratory standards using Wilcox diagram (Annexure – II)
- v) Water year is from 1st June of one calendar year to 31st May of the next calendar year.
- vi) Measuring authority refers to the field division responsible for the collection of water sample. The name of the division is abbreviated by taking first alphabet of each word followed by alphabets ‘D’ for division. For example “SOUTHERN RIVERS DIVISION” by “SRD” and “HYDROLOGY DIVISION” by “HD”.
- vii) The station code number is a unique seven column alphanumeric reference number which facilitates storage and retrieval of water quality data in data banks. The first column is the identifier of either an integral river basin or for convenience, a region having several continuous river catchment areas. This is followed by a column which identifies an independent river system which either have one or more outlets to the sea or crosses international border to enter into another country. The third, fourth and fifth column space denote first, second and third order tributaries respectively from the mouth upstream. The sixth and seventh column spaces indicate the location of the gauging station in one of the 225 slots earmarked on the river. The blank column spaces are filled by zero.

2.2. METHOD OF PRESENTATION

In the succeeding pages station wise water quality data is presented comprising History sheet, Water Quality data sheet for 2017-18, Water Quality Summary for 2017-18 and Water Quality Seasonal Average for 2007-2018. The serial of the water quality observation stations is arranged from the mouth of the river upstream, giving intense priority to an intermediate tributary station in similar fashion.

History sheet gives concise description of the water quality observation stations. Tables on the water quality analysis give the ionic concentrations of various parameters in mg/L. The samples are collected for water quality analysis once a month as already mentioned in para 2.1 above. Owing to shortage of infrastructure facilities all the parameters are not necessarily analyzed.

2.3. WATER QUALITY STATUS

2.3.1 RIVER WATER:

The East Flowing Rivers (South of river Krishna excluding Cauvery Basin) cover large areas in the states of Andhra Pradesh, Tamilnadu and some parts of Karnataka and Union territory of Puducherry. General assessment of the results of water samples collected from East Flowing Rivers shows that the waters are alkaline. pH is one of the most important operational water quality parameters. Compared to West Flowing Rivers, East Flowing Rivers shows remarkably high conductivity. Electrical Conductivity of water is due to the conductivity of dissolved ions. The presence of excess of dissolved salts in the water has an effect on the soil quality as well as crop yield. The alkalinity of the river waters are mainly due to the presence of Bi-carbonate and Carbonate ions in the samples. Multivalent cations, particularly Magnesium and Calcium are often present at a significant concentration in natural waters. These ions are easily precipitated and in particular react with soap to make it difficult to remove scum. Total hardness is normally expressed as the total concentration of Calcium (Ca^{2+}) and Magnesium (Mg^{2+}) in mg/L, equivalent CaCO_3 . Ca^{2+} and Mg^{2+} are the important parameters for total hardness. Among the cations, Sodium recorded the highest concentration, followed by Calcium, Magnesium and Potassium especially on the basins in Tamilnadu. In some samples, Calcium recorded highest concentration followed by Sodium, Magnesium and Potassium. Among the anions, Bicarbonate recorded the highest concentration, followed by Chloride and Sulphate. In some samples Chloride recorded the highest concentration, followed by Bi-carbonate and Sulphate. Appreciable quantity of Fluoride and Nitrate are found in some sites, sometime it does went beyond the desirable limit. The presence of carbonate is noted in some samples only. The chemical indices such as Sodium Adsorption Ratio (SAR), Sodium Percentage (SP) and Residual Sodium Carbonate (RSC) are found to be within the tolerance limit and the waters are classified as good to moderate quality for irrigation purpose.

Biological/Bacteriological parameters like D.O, B.O.D and C.O.D. Total Coliform & Fecal Coliform are analysed in water sample of some sites.

Water quality status of East Flowing Rivers, basin-wise is discussed in detail below:

2.3.1.1 GUNDLAKAMMA RIVER BASIN

Gundlakamma River originates in the Kurnool district of Andhra Pradesh. The river has a total length of 220 Kms. from its origin to its out fall into the Bay of Bengal. This perennial river drains an area of 8494 Sq.Kms. The water quality station on this river is located presently at **Marella** and has been shifted from the earlier station 'Thammavaram' and the hydrological observations started at the present site with effect from 28/06/2007.

The river water of this basin is generally alkaline in nature and the pH is varied from 7.9 and 8.3. The Electrical Conductivity is varied from 328 micro (μ) mhos/cm and the maximum is 1009 μ mhos/cm. Among the cationic constituents Sodium is the major cation followed by Calcium, Magnesium and Potassium; their maximum values are 164.6 mg/L, 63.0 mg/L, 24.4 mg/L, 1.1 mg/L and their minimum values are 91.3 mg/L, 24.0 mg/L, 4.7 mg/L, 0.4 mg/L respectively. The predominant anionic constituent is Bicarbonate followed by Chloride, Sulphate, Nitrate and Fluoride; their maximum values are 351 mg/L, 135.0 mg/L, 103.3 mg/L, 9.17 mg/L, 1.19 mg/L and their minimum values are 142.0 mg/L, 35.7 mg/L, 89.2 mg/L, 4.11 mg/L, 0.40 mg/L respectively. Small quantities of Iron, Phosphate and Silicate are found within the limit in the water samples. Regarding the biological parameters the COD values seemed to be very higher even though the BOD values are comparatively less. Fecal and Total Coliforms are also found in the water samples. The river water is classified as C₃S₁ category.

2.3.1.2 PENNAR RIVER BASIN

The Pennar River is one of the major East flowing rivers in Southern India. It rises in the Chennakesava hill of the Nandidurg range in Karnataka. The Pennar drains an area of 55,213 Sqs.Kms in the states of Karnataka and Andhra Pradesh as below. The total length of Pennar River is 597 Km of which 61 Km runs in Karnataka and the rest in Andhra Pradesh. This river has six major tributaries viz., the Jayamangali, the Kunderu and the Sagileru joining from the left, the Chitravathi, the Papagni and the Cheyyeru joining on the right. There are eight water quality stations on Pennar river

Basin i.e. the sites at **Nagalamadike, Tadipatri, Chennur** and **Nellore** in the main river, rest on the tributaries viz., Chitravathi at **Singavaram**, Kunderu at **Alladupalli**, Papagni at **Kamalapuram** and Sagileru at **Nandipalli**.

The water of this basin are generally alkaline in nature and the pH varied from 6.9 (Nagalamadike) to 8.3 (Chennur). Electrical Conductivity is used as an indicator of the abundance of dissolved inorganic salts or total concentration of ions. Electrical Conductivity values shows variety of results in Pennar River Basin. The lowest value is 127 $\mu\text{mhos/cm}$ (Nagalamadike), whereas the highest value is 1626 $\mu\text{mhos/cm}$ (Alladupalli). Sodium toxicity is not as easily diagnosed as Chloride toxicity, but clear cases of the former have been recorded as a result of relatively high sodium concentrations in the water (high Na or SAR). In the Pennar River Basin predominant cation is Sodium with the concentration ranging from 13.4 mg/L (Kamalapuram) to 246.0 mg/L (Chennur). The Calcium, Magnesium and Potassium are the other dominant cations ranging from 8.0 mg/L (Kamalapuram) to 77.0 mg/L (Chennur), 2.9 mg/L (Kamalapuram) to 42.8 mg/L (Alladupalli) and 2.3 mg/L (Tadipatri) to 9.1 mg/L (Alladupalli) respectively. Among the anions Bicarbonate is the dominant anion with the concentration ranging from 36.0 mg/L (Nagalamadike) to 293.0 mg/L (Chennur) followed by Chloride and Sulphate ranging from 17.3 mg/L (Kamalapuram) to 328.7 mg/L (Chennur) and 3.4 mg/L (Kamalapuram) to 220.5 mg/L (Alladupalli) respectively. Small quantities of Ammonia, Fluoride, Nitrate and Phosphate are also found within the limit in the water samples. Biological parameter B.O.D is within the tolerance limit for all the sites of this river basin. Among the Trace and Toxic elements considerable quantities of Arsenic, Cadmium, Chromium, Copper, Lead, Nickel and Zinc are also found in the water sample. The river water of this basin is classified as C_1S_1 (Nagalamadike, Tadipatri), C_3S_1 (Alladupalli, Chennur and Nandipalli) and C_2S_1 (Nellore, Kamalapuram and Singavaram) category.

2.3.1.3 SWARNAMUKHI RIVER BASIN

The Swarnamukhi is an East Flowing river basin having a small catchment area of 3,225 Sq.Km. It raises at an elevation of 300 m. in the Eastern Ghat ranges near Pakala village in Chittur district of Andhra Pradesh. Its total length is 130 Km. This is

an independent river and has no major tributaries and therefore its flow depends only on rainfall in its upper catchment.

The only site of this basin at **Naidupeta**, shows water is generally alkaline in nature and the pH ranges from 7.4 to 8.2 and Electrical Conductivity varied from 416 $\mu\text{mhos/cm}$ to 577 $\mu\text{mhos/cm}$. In this river basin predominant cation is Sodium with the concentration ranging from 50.4 mg/L to 86.2 mg/L. The Calcium, Magnesium and Potassium are the other dominant cations ranging from 21.0 mg/L to 37.0 mg/L, 5.8 mg/L to 17.5 mg/L and 3.6 mg/L to 3.8 mg/L respectively. Bicarbonate is the dominant anion with the concentration ranging from 82.0 mg/L to 140.0 mg/L followed by Chloride and Sulphate ranging from 67.9 mg/L to 117.6 mg/L and 22.9 mg/L to 55.2 mg/L respectively. Small quantities of Ammonia, Fluoride, Nitrate and Phosphate are also found within the limit in the water sample. The water is classified as good water and it comes under C₂S₁ category.

2.3.1.4 KALINGI RIVER BASIN

The river Kalingi is one of the East flowing rivers in Andhra Pradesh. It originates near Kalahasti in Andhra Pradesh and drains completely in Andhra Pradesh and joins Pulicat Lake after Sulurpet. The catchment area of Kalingi river is 5,927 Sq.Km and the length is 76 Km. The important tributary is Kalleru river which joins Kalingi river after Sulurpet town.

The only site of this basin at **Sulurpet**, shows water is generally alkaline in nature and the pH ranges from 7.1 to 7.4 and Electrical Conductivity varied from 175 $\mu\text{mhos/cm}$ to 203 $\mu\text{mhos/cm}$. In this river basin predominant cation is Sodium with the concentration ranging from 17.5 mg/L to 24.2 mg/L. The Calcium and Magnesium are the other dominant cations ranging from 10.0 mg/L to 13.0 mg/L, 3.9 mg/L to 5.8 mg/L respectively. Bicarbonate is the dominant anion followed by Chloride and Sulphate and their maximum values are 46.0 mg/L, 33.0 mg/L and 12.6 mg/L respectively. Small quantities of Ammonia, Fluoride, Nitrate and Phosphate are also found within the limit in the water sample. All parameters are within the tolerance limit. The water is classified as good water and it comes under C₁S₁ category.

2.3.1.5 PALAR RIVER BASIN

River Palar raises in the Kolar district of Karnataka State. It has two tributaries viz., Ponni and Cheyar. The total length of the river is 348 km. Three out of four stations in Palar basin are on the main river. They are **Chengalpet**, **Arcot** and **Avarankuppam**. The fourth station i.e. **Magaral** is on the tributary Cheyar.

The water of this basin is generally alkaline in nature and the pH varied from 7.1 to 8.5 both at site Arcot. Electrical Conductivity values shows variety of results in Palar River Basin. The lowest value is 196 $\mu\text{mhos/cm}$ (Avarankuppam), whereas the highest value is 1748 $\mu\text{mhos/cm}$ (Arcot). In the Palar River Basin predominant cation is Sodium with the concentration ranging from 17.5 mg/L (Avarankuppam) to 239.0 mg/L (Arcot). The Calcium, Magnesium and Potassium are the other dominant cations ranging from 13.0 mg/L (Chengalpet) to 79.0 mg/L (Arcot), 4.7 mg/L (Avarankuppam) to 40.3 mg/L (Arcot) and 1.7 mg/L (Avarankuppam) to 10.9 mg/L (Arcot) respectively. Among the anions, Bicarbonate is the dominant anion with the concentration ranging from 67.0 mg/L (Arcot) to 267.0 mg/L (Arcot) followed by Chloride and Sulphate ranging from 13.2 mg/L (Avarankuppam) to 311.7 mg/L (Arcot) and 5.8 mg/L (Chengalpet) to 186.5 mg/L (Arcot) respectively. Small quantities of Ammonia, Fluoride and Nitrate are also found in the water sample. Regarding biological parameters BOD is analysed. Small quantities of Trace and toxic elements viz., Arsenic, Chromium, Copper, Lead, Nickel and Zinc are also found within the limit in the water sample. The river water is classified as C₂S₁ (Chengalpet, Avarankuppam and Magaral) and C₃S₁ (Arcot) category.

2.3.1.6 VARAHANADHI RIVER BASIN

The main river Varahanadhi originates from the Northern part of Pakkammalai hills at an elevation of 566 m above m.s.l. The total drainage area of the basin is 2564 Sq.Kms. The river runs in Easterly direction up to Kodukkur and South-Easterly direction alternately in Tami Nadu and Puduchery states. The total length of Varahanadhi up to its outfall into Bay of Bengal, a little South of Union territory Puduchery, is about 78.50 kms.

The only site of this basin is at **Kumarapalayam** with the flow of only one month shows water is generally alkaline in nature and the pH is 8.0. Electrical Conductivity is 342 $\mu\text{mhos/cm}$. The predominant cation is Sodium followed by Calcium, Magnesium and Potassium; their values are 35.0 mg/L, 18.0 mg/L, 11.7 mg/L and 3.1 mg/L respectively. Bicarbonate is the dominant anion followed by Chloride and Sulphate; their values are 103.0 mg/L, 46.1 mg/L and 12.1 mg/L. Small quantities of Ammonia, Fluoride and Nitrate are also found in the water sample within the range. The river water is classified as C₂S₁ category.

2.3.1.7 PONNAIYAR RIVER BASIN

The Ponnaiyar or the Dakshina Pinakini River rises near Hongashenhalli village at an elevation of about 900 m. above m.s.l. in the Kolar district of Karnataka. From its origin, the river Ponnaiyar generally flows in the Southern direction for a length of 79 Km. through Kolar and Bangalore districts of Karnataka before entering the Krishnagiri district of Tamil Nadu. The total length of the river is 396 km. The Ponnaiyar drains an area of 16,019 Sq. Kms. There are three water quality stations on this river at **Villupuram, Vazhavachanur and Gummanur.**

The Ponnaiyar River water is alkaline in nature and the pH ranging from 7.1 to 8.8 both at Gummanur. The Electrical Conductivity varied from 225 $\mu\text{mhos/cm}$ (Gummanur) to 1388 $\mu\text{mhos/cm}$ (Gummanur). In the Ponnaiyar River Basin predominant cation is Sodium with the concentration ranging from 18.5 mg/L (Gummanur) to 198.0 mg/L (Vazhavachanur). The Calcium, Magnesium and Potassium are the other dominant cations ranging from 18.0 mg/L (Villupuram) to 115.0 mg/L (Gummanur), 6.5 mg/L (Gummanur) to 51.5 mg/L (Gummanur) and 3.2 mg/L (Gummanur) to 22.5 mg/L (Gummanur) respectively. Bicarbonate is the dominant anion with the concentration ranging from 87.0 mg/L (Gummanur) to 360.0 mg/L (Gummanur) followed by Chloride ranging from 25.9 mg/L (Gummanur) to 265.9 mg/L (Vazhavachanur). The other major anion Sulphate and Nitrate are ranging from 22.7 mg/L (Gummanur) to 117.9 mg/L (Vazhavachanur) and 0.05 mg/L (Vazhavachanur) to 35.6 mg/L (Gummanur) respectively. Small quantities of Carbonate, Fluoride, Iron, Silicate and Phosphate are also found in the water sample of this basin. The concentration of Nitrate is very high at Gummanur throughout the

year and maximum time the Nitrate concentration had crossed the desirable limit i.e. 10.0 mg/L. Regarding biological parameters only DO, BOD and COD are analysed. At site Gummanur B.O.D is high. Small quantities of Trace and toxic elements viz., Arsenic, Chromium, Copper, Lead, Nickel and Zinc are also found within the limit in the water sample. The river water is classified as C₃S₁ (Villupuram, Vazhavachanur and Gummanur) category.

2.3.1.8 VELLAR RIVER BASIN

The basin is located between Ponnaiyar and Cauvery basins. The Vellar River rises at an elevation of 900 m near the village of Tumba in the Chittori hills, of the Eastern Ghats in the Salem district of Tamil Nadu. It flows generally in an Easterly direction for a total length of 210 Km in the Salem and Cuddalore districts in Tamil Nadu and finally out falls in to the Bay of Bengal near Porto Nova in Cuddalore district. The Gomukinadhi and Manimukthanadhi are the important left tributaries and Swetanadhi and Chinnar are the right tributaries of the Vellar. The Vellar drains an area of 8,922 Sq.Km.

The only site of this basin is at **Kudalaiyathur**, shows water is generally alkaline in nature and the pH ranges from 6.9 to 8.1 and Electrical Conductivity varied from 206 µmhos/cm to 277 µmhos/cm. In this river basin predominant cation is Sodium with the concentration ranging from 20.0 mg/L to 27.0 mg/L. The Calcium and Magnesium are the other dominant cations ranging from 13.0 mg/L to 19.0 mg/L, 5.8 mg/L to 7.8 mg/L respectively. Bicarbonate is the dominant anion with the concentration ranging from 57.0 mg/L to 72.0 mg/L followed by Chloride and Sulphate ranging from 27.4 mg/L to 35.3 mg/L and 6.1 mg/L to 19.8 mg/L respectively. Small quantities of Ammonia, Fluoride, Nitrate and Phosphate are also found within the limit in the water sample. All parameters are within the tolerance limit. The water is classified as good water and it comes under C₂S₁ category.

2.3.1.9 VAIGAI RIVER BASIN

River Vaigai originates in Theni district of Tamilnadu and traverses through the state draining in its course a total area of 7741 Sq.Kms. There are three water quality

stations on Vaigai basin. Two are on the main river at **Paramakudi** and **Ambasamudram** and the third is on its tributary Suruliyar at **Theni**. The river Vaigai remained practically dry throughout the year and had flow only during the North East monsoon. The tributary Suruliyar had flow throughout the year.

The river at site Paramakudi is completely dry or no flow condition; hence water quality analysis at this site was not done. The water of Vaigai River basin is generally alkaline in nature with the pH varied from 7.0 to 8.1 both at site Theni. The Electrical Conductivity varied from 76 $\mu\text{mhos/cm}$ to 195 $\mu\text{mhos/cm}$ both at site Theni. In this river basin predominant cation is Calcium with the concentration ranging from 6.0 mg/L to 22.0 mg/L both at site Theni. The Sodium, Magnesium and Potassium are the other dominant cations ranging from 5.4 mg/L (Ambasamudram) to 21.1 mg/L (Theni), 1.9 mg/L (Ambasamudram) to 6.7 mg/L (Theni) and 1.6 mg/L (Theni) to 3.9 mg/L (Ambasamudram) respectively. Bicarbonate is the dominant anion with the concentration ranging from 32.0 mg/L to 95.0 mg/L both at site Theni followed by Chloride and Sulphate ranging from 7.8 mg/L (Ambasamudram) to 18.9 mg/L (Theni) and 1.4 mg/L (Theni) to 5.9 mg/L (Ambasamudram) respectively. Small quantities of Boron, Ammonia, Fluoride, Nitrate, Silicate and Phosphate are also found in water samples of this basin. Regarding biological parameters only DO, BOD and COD are analysed. Small quantities of Trace and toxic elements viz., Arsenic, Chromium, Copper, Lead, Nickel and Zinc are also found within the limit in the water sample. The river water in this basin is classified as C₁S₁ (Ambasamudram and Theni) category.

2.3.1.10 VAIPPAR RIVER BASIN

Vaippar River originates from the Western Ghats near Sivagiri in Thirunelveli District in Tamilnadu. It drains an area of 5069 Sq.Kms and lies entirely in Tamilnadu. The river covers a distance of 125 Kms from its origin to its out-falling into the Gulf of Mannar near Kalattur.

The water quality station on this river is at **Irrukkankudi**. Water samples from this river are not collected during the year 2017 – 18 due to no flow and dry bed condition; hence water quality analysis is not done.

2.3.1.11 THAMBRAPARANI RIVER BASIN

The Thambraparani River originating in the Thirunelveli district of Tamilnadu, traverses through the state and joins the Gulf of Manner, covering a total length of 130 Km. and draining an area of 5482 Sq.Kms. Its two important tributaries are Chittar and Manimuthar. There are two water quality stations in this basin, one on the main river at **Murappanadu** and another on its tributary Chittar at **A.P.Puram**.

The water at site Murappanadu on the main river is slightly alkaline in nature and the pH value varied from 6.9 to 8.1. The Electrical Conductivity varied from 63 $\mu\text{mhos/cm}$ to 274 $\mu\text{mhos/cm}$. Predominant cation is Calcium with the concentration ranging from 5.0 mg/L to 25.0 mg/L. The Sodium, Magnesium and Potassium are the other dominant cations ranging from 4.3 mg/L to 20.7 mg/L, 1.9 mg/L to 8.8 mg/L and 1.1 mg/L to 5.2 mg/L respectively. Bicarbonate is the dominant anion with the concentration ranging from 23.0 mg/L to 111.0 mg/L followed by Chloride and Sulphate ranging from 5.6 mg/L to 38.6 mg/L and 3.3 mg/L to 12.9 mg/L respectively. Small quantities of Iron, Boron, Fluoride and Nitrate are also found within the limit in water samples. Small quantities of Trace and toxic elements viz., Arsenic, Chromium, Copper, Lead, Nickel and Zinc are also found within the limit in the water sample. The river water is classified as C₂S₁ category. The water quality station on tributary Chittar is at A.P.Puram. Water samples from this river are not collected during the year 2017 – 18 due to no flow and dry bed condition; hence water quality analysis is not done.

HISTORY SHEET

		Water Year	: 2017-2018
Site	: MARELLA	Code	: AU000E5
State	: Andhra Pradesh	District	Prakasam
Basin	: EFR B Krishna-Pennar	Independent River	: Gundlakamma
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Gundlakamma
Division	: Lower Krishna Divn., Hyderabad	Sub-Division	: Lower Krishna SD 1, N.S.Dam
Drainage Area	: 7681 Sq. Km.	Bank	: Right
Latitude	: 15°52'55"	Longitude	: 79°54'36"
Zero of Gauge (m)	: 95.000 (m.s.l) 28.000 (m.s.l)	21/06/2007 01/06/2012	- 31/05/2012
	Opening Date	Closing Date	
Gauge	: 21/06/2007		
Discharge	: 28/06/2007		
Sediment	: 01/08/2007		
Water Quality	: 01/09/2007		

Water Quality Datasheet for the period : 2017-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water Analysis

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters		26/08/2017	01/09/2017
			A	A
	PHYSICAL			
1	Q (cumec)		225.2	2.584
2	Colour_Cod (-)			
3	EC_GEN ($\mu\text{mho/cm}$)		328	767
4	Odour_Code (-)			
5	pH_GEN (pH units)		8.0	8.3
6	TDS (mg/L)		309	706
7	Temp (deg C)			
8	Turb (NTU)		418.00	13.00
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)		0.0	17.9
2	ALK-TOT (mgCaCO ₃ /L)		116	184
3	B (mg/L)			
4	Ca (mg/L)		24	44
5	Cl (mg/L)		35.7	104.9
6	CO ₃ (mg/L)		0.0	21.6
7	F (mg/L)		0.40	0.59
8	Fe (mg/L)		0.2	0.5
9	HCO ₃ (mg/L)		142	181
10	K (mg/L)		0.4	0.7
11	Mg (mg/L)		12.4	16.3
12	Na (mg/L)		91.3	110.4
13	NH ₃ -N (mg N/L)		0.07	0.11
14	NO ₂ +NO ₃ (mg N/L)		4.35	6.78
15	NO ₂ -N (mgN/L)		0.24	0.14
16	NO ₃ -N (mgN/L)		4.11	6.64
17	o-PO ₄ -P (mg P/L)		0.350	0.810
18	SiO ₂ (mg/L)		0.0	14.6
19	SO ₄ (mg/L)		102.9	103.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)		2.0	1.8
2	COD (mg/L)		21.4	9.2
3	DO (mg/L)		6.9	6.0
4	DO_SAT% (%)			
5	FCol-MPN (MPN/100mL)		2400	5000
6	Tcol-MPN (MPN/100mL)		2400	5000
	TRACE & TOXIC			
1	Cu ($\mu\text{g/L}$)		22.00	2.00
2	Zn ($\mu\text{g/L}$)		77.00	71.00
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)		59	110
2	HAR_Total (mgCaCO ₃ /L)		111	177
3	Na% (%)		64	58
4	RSC (-)		0.1	0.2
5	SAR (-)		3.8	3.6
	PESTICIDES	Analysis not done due to malfunction of instrument.		

Samples not collected due to dry bed/ no flow condition during June, July, November, December, March, April and May months.

Water Quality Datasheet for the period : 2017-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water Analysis

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	03/10/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	2.648	14.66	0.866
2	Colour_Cod (-)		Clear	Clear
3	EC_GEN (μ mho/cm)	1009	580	1004
4	Odour_Code (-)		odour free	odour free
5	pH_GEN (pH units)	8.2	8.3	7.9
6	TDS (mg/L)	670	462	584
7	Temp (deg C)		25.0	26.0
8	Turb (NTU)	32.00	11.00	2.00
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)	0.0	20.6	0.0
2	ALK-TOT (mgCaCO ₃ /L)	288	186	153
3	B (mg/L)	0.12	0.03	0.14
4	Ca (mg/L)	38	63	27
5	Cl (mg/L)	135.0	82.0	88.0
6	CO ₃ (mg/L)	0.0	24.8	0.0
7	F (mg/L)	1.19	0.72	0.73
8	Fe (mg/L)	0.3	0.0	0.1
9	HCO ₃ (mg/L)	351	176	187
10	K (mg/L)	0.9	0.4	1.1
11	Mg (mg/L)	24.4	4.7	13.4
12	Na (mg/L)	164.6	97.9	118.8
13	NH ₃ -N (mg N/L)	0.03	0.07	1.39
14	NO ₂ +NO ₃ (mg N/L)	9.18	5.99	8.71
15	NO ₂ -N (mgN/L)	0.01	0.00	0.01
16	NO ₃ -N (mgN/L)	9.17	5.99	8.70
17	o-PO ₄ -P (mg P/L)	0.670	0.480	0.420
18	SiO ₂ (mg/L)	20.3	14.5	17.2
19	SO ₄ (mg/L)	96.0	94.4	89.2
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)	1.6	1.0	0.7
2	COD (mg/L)	39.3	8.2	21.3
3	DO (mg/L)	6.4	7.5	6.6
4	DO_SAT% (%)		91	81
5	FCol-MPN (MPN/100mL)	300	170	40
6	Tcol-MPN (MPN/100mL)	300	220	40
	TRACE & TOXIC			
1	Cu (μ g/L)	11.00	4.00	3.00
2	Zn (μ g/L)	8.00	175.10	24.40
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)	94	158	68
2	HAR_Total (mgCaCO ₃ /L)	196	178	124
3	Na% (%)	65	55	68
4	RSC (-)	1.9	0.2	0.6
5	SAR (-)	5.1	3.2	4.7
	PESTICIDES	Analysis not done due to malfunction of instrument.		

Water Quality Summary for the period : 2017-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

Sub-Division : Lower Krishna SD 1, N.S.Dam

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	225.2	0.000	3.206
2	EC_GEN (µmho/cm)	5	1009	328	737
3	pH_GEN (pH units)	5	8.3	7.9	8.1
4	TDS (mg/L)	5	706	309	546
5	Temp (deg C)	2	26.0	25.0	25.5
6	Turb (NTU)	5	418.00	2.00	95.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	5	20.6	0.0	7.7
2	ALK-TOT (mgCaCO3/L)	5	288	116	185
3	B (mg/L)	3	0.14	0.03	0.1
4	Ca (mg/L)	5	63	24	39
5	Cl (mg/L)	5	135.0	35.7	89.1
6	CO3 (mg/L)	5	24.8	0.0	9.3
7	F (mg/L)	5	1.19	0.40	0.73
8	Fe (mg/L)	5	0.5	0.0	0.2
9	HCO3 (mg/L)	5	351	142	207
10	K (mg/L)	5	1.1	0.4	0.7
11	Mg (mg/L)	5	24.4	4.7	14.2
12	Na (mg/L)	5	164.6	91.3	116.6
13	NH3-N (mg N/L)	5	1.39	0.03	0.33
14	NO2+NO3 (mg N/L)	5	9.18	4.35	7
15	NO2-N (mgN/L)	5	0.24	0.00	0.08
16	NO3-N (mgN/L)	5	9.17	4.11	6.92
17	o-PO4-P (mg P/L)	5	0.810	0.350	0.546
18	SiO2 (mg/L)	5	20.3	0.0	13.3
19	SO4 (mg/L)	5	103.3	89.2	97.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	5	2.0	0.7	1.4
2	COD (mg/L)	5	39.3	8.2	19.9
3	DO (mg/L)	5	7.5	6.0	6.7
4	DO_SAT% (%)	2	91	81	86
5	FCol-MPN (MPN/100mL)	5	5000	40	1582
6	Tcol-MPN (MPN/100mL)	5	5000	40	1592
	TRACE & TOXIC				
1	Cu (µg/L)	5	22.00	2.00	8.4
2	Zn (µg/L)	5	175.10	8.00	71.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	5	158	59	98
2	HAR_Total (mgCaCO3/L)	5	196	111	157
3	Na% (%)	5	68	55	62
4	RSC (-)	5	1.9	0.1	0.6
5	SAR (-)	5	5.1	3.2	4.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	53.50	2.002	19.54	37.26	5.006
2	EC_GEN (µmho/cm)	503	1334	949	997	1158
3	pH_GEN (pH units)	8.0	8.0	7.6	7.7	7.9
4	TDS (mg/L)					638
5	Temp (deg C)	26.5	27.8	27.5	29.1	29.4
6	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	1.6	2.0	1.6	0.0
2	ALK-TOT (mgCaCO3/L)	258	338	264	304	298
3	B (mg/L)	0.00	0.00	0.00	0.00	0.00
4	Ca (mg/L)	38	39	34	38	39
5	Cl (mg/L)	58.6	175.3	111.5	97.3	133.5
6	CO3 (mg/L)	0.0	1.9	2.4	1.9	0.0
7	F (mg/L)	1.17	1.13	1.55	1.29	2.00
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.0
9	HCO3 (mg/L)	315	409	317	367	364
10	K (mg/L)	5.7	6.1	6.8	6.5	6.4
11	Mg (mg/L)	16.5	16.9	14.8	20.8	22.4
12	Na (mg/L)	135.0	224.2	123.8	143.0	152.9
13	NH3-N (mg N/L)	0.05	0.05	0.00	0.00	0.00
14	NO2+NO3 (mg N/L)	0.01	0.01	1.30	0.00	0.42
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	0.01	1.30	0.00	0.42
17	o-PO4-P (mg P/L)					0.494
18	P-Tot (mgP/L)	0.001	0.001	0.000	0.169	0.494
19	SiO2 (mg/L)	19.8	24.9	24.8	19.9	19.3
20	SO4 (mg/L)	49.0	111.3	107.0	95.8	111.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.4	1.6	0.9	1.1	1.2
2	Chlf-a (µg/L)					
3	COD (mg/L)	13.3	40.4	28.9	39.7	25.3
4	DO (mg/L)	5.8	5.1	5.7	6.1	5.4
5	DO_SAT% (%)	72	64	72	80	71
6	FCol-MPN (MPN/100mL)			16000	9948	12846
7	Tcol-MPN (MPN/100mL)			16000	12808	12846
8	TOC (mg/L)					4.6
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	94	97	84	96	98
2	HAR_Total (mgCaCO3/L)	163	167	146	183	191
3	Na% (%)	63	73	63	61	63
4	RSC (-)	1.9	3.4	2.4	2.5	2.2
5	SAR (-)	4.6	7.6	4.5	4.6	4.9
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Flood				
		Jun-Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	1.660	10.87	6.158	1.663	20.45
2	EC_GEN (µmho/cm)	930	1124	1008	1318	742
3	pH_GEN (pH units)	8.1	8.0	8.4	8.0	8.3
4	TDS (mg/L)	671	654	615	813	534
5	Temp (deg C)	26.3	28.7	28.5	27.3	27.6
6	Turb (NTU)	0.10	1.96	8.00	14.00	17.33
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	1.3	1.4	2.1	0.0	3.0
2	ALK-TOT (mgCaCO3/L)	216	232	157	318	178
3	B (mg/L)	0.26	0.13	0.14		
4	Ca (mg/L)	22	37	37	38	24
5	Cl (mg/L)	114.6	126.2	107.2	165.5	72.4
6	CO3 (mg/L)	1.6	1.7	2.5	0.0	3.6
7	F (mg/L)	0.82	1.41	1.05	1.63	0.49
8	Fe (mg/L)	0.2	0.1	0.1	0.0	0.1
9	HCO3 (mg/L)	261	279	187	388	209
10	K (mg/L)	8.0	7.5	7.8	12.8	6.5
11	Mg (mg/L)	14.8	20.9	20.9	21.6	13.2
12	Na (mg/L)	144.9	168.2	153.8	235.5	102.2
13	NH3-N (mg N/L)	0.02	0.09	0.00	0.04	0.00
14	NO2+NO3 (mg N/L)	1.17	1.04	0.99	1.00	1.08
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	1.17	1.04	0.99	1.00	1.07
17	o-PO4-P (mg P/L)		0.143	0.214	0.221	0.227
18	P-Tot (mgP/L)	0.189	0.347	0.269		
19	SiO2 (mg/L)	18.5	17.0	17.3	17.8	11.7
20	SO4 (mg/L)	72.3	111.3	189.3	116.0	41.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.4	1.5	0.7	1.3	1.8
2	Chlf-a (µg/L)					
3	COD (mg/L)	29.4	8.4	25.9	25.0	16.2
4	DO (mg/L)	6.5	5.8	5.6	4.7	5.4
5	DO_SAT% (%)	81	75	72	59	68
6	FCol-MPN (MPN/100mL)	5810	837	8115	530	8377
7	Tcol-MPN (MPN/100mL)	6210	1137	9200	9400	16000
8	TOC (mg/L)	5.5			54.5	
	TRACE & TOXIC					
1	As (µg/L)	0.01	5.41			
2	Cd (µg/L)	0.00	0.78			
3	Cr (µg/L)	0.00	0.48			
4	Cu (µg/L)	0.02	6.51			
5	Hg (µg/L)		0.12			
6	Ni (µg/L)	0.01	14.60			
7	Pb (µg/L)	0.01	5.64			
8	Zn (µg/L)	0.06	0.03			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	55	91	92	96	60
2	HAR_Total (mgCaCO3/L)	117	178	179	186	115
3	Na% (%)	70	65	64	72	64
4	RSC (-)	2.0	1.1	0.7	2.7	1.3
5	SAR (-)	5.8	5.7	5.1	7.5	4.2
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Flood	Winter			
		Jun-Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	76.82	79.38	136.4	32.68	63.10
2	EC_GEN (µmho/cm)	701	761	638	756	888
3	pH_GEN (pH units)	8.2	7.5	7.7	8.2	7.6
4	TDS (mg/L)	562				
5	Temp (deg C)		26.5	26.5	26.8	27.3
6	Turb (NTU)	154.33				
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	6.0	0.0	2.0	2.0	2.0
2	ALK-TOT (mgCaCO3/L)	196	267	196	280	272
3	B (mg/L)	0.12	0.00	0.00	0.00	0.00
4	Ca (mg/L)	35	38	44	45	40
5	Cl (mg/L)	91.9	60.4	43.9	72.6	78.2
6	CO3 (mg/L)	7.2	0.0	2.4	2.4	2.4
7	F (mg/L)	0.73	1.38	0.72	1.72	1.09
8	Fe (mg/L)	0.3	0.0	0.0	0.0	0.0
9	HCO3 (mg/L)	225	326	234	337	327
10	K (mg/L)	0.6	5.1	3.2	4.1	4.4
11	Mg (mg/L)	17.7	15.8	9.5	20.6	22.6
12	Na (mg/L)	122.1	113.0	65.8	119.5	110.4
13	NH3-N (mg N/L)	0.07	0.05	0.05	0.00	0.00
14	NO2+NO3 (mg N/L)	6.77	0.01	0.01	0.61	0.00
15	NO2-N (mgN/L)	0.13	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	6.64	0.01	0.01	0.61	0.00
17	o-PO4-P (mg P/L)	0.610				
18	P-Tot (mgP/L)		0.001	0.001	0.000	0.306
19	SiO2 (mg/L)	11.6	20.6	13.2	16.8	16.5
20	SO4 (mg/L)	100.7	48.5	46.1	73.1	71.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	1.1	1.0	1.1	0.7
2	Chlf-a (µg/L)					
3	COD (mg/L)	23.3	16.5	15.7	25.8	20.0
4	DO (mg/L)	6.4	6.9	6.7	7.3	6.9
5	DO_SAT% (%)		86	83	91	87
6	FCol-MPN (MPN/100mL)	2567			16000	12075
7	Tcol-MPN (MPN/100mL)	2567			16000	16000
8	TOC (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)	11.67				
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)	52.00				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	88	94	109	112	99
2	HAR_Total (mgCaCO3/L)	161	160	148	198	193
3	Na% (%)	62	59	46	56	55
4	RSC (-)	0.7	2.2	1.0	1.7	1.6
5	SAR (-)	4.2	3.9	2.3	3.7	3.5
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	34.44	5.024	38.61	24.17	
2	EC_GEN (µmho/cm)	948	800	810	660	
3	pH_GEN (pH units)	8.1	8.0	8.2	8.2	
4	TDS (mg/L)	587	514	467	519	
5	Temp (deg C)	27.5	26.0	26.8	25.4	
6	Turb (NTU)	0.25	0.10	16.25	6.25	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	3.0	0.0	1.0	0.0	
2	ALK-TOT (mgCaCO3/L)	283	211	258	275	
3	B (mg/L)	0.30	0.19	0.15	0.19	
4	Ca (mg/L)	43	26	40	41	
5	Cl (mg/L)	87.1	88.5	70.5	80.1	
6	CO3 (mg/L)	3.7	0.0	1.3	0.0	
7	F (mg/L)	1.51	0.76	0.91	1.26	
8	Fe (mg/L)	0.0	0.1	0.0	0.1	
9	HCO3 (mg/L)	338	257	312	335	
10	K (mg/L)	4.4	1.1	4.5	6.4	
11	Mg (mg/L)	23.8	14.6	22.8	22.9	
12	Na (mg/L)	132.6	113.5	102.5	117.0	
13	NH3-N (mg N/L)	0.02	0.05	0.00	0.05	
14	NO2+NO3 (mg N/L)	0.88	0.65	0.90	1.08	
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.03	
16	NO3-N (mgN/L)	0.88	0.65	0.90	1.05	
17	o-PO4-P (mg P/L)	0.325		0.407	0.260	
18	P-Tot (mgP/L)	0.327	0.241	0.195		
19	SiO2 (mg/L)	19.1	19.6	12.7	15.8	
20	SO4 (mg/L)	76.1	79.0	51.9	105.4	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.5	1.2	1.2	0.4	
2	Chlf-a (µg/L)	9000.0				
3	COD (mg/L)	10.7	15.4	6.5	17.3	
4	DO (mg/L)	6.1	6.5	6.6	7.0	
5	DO_SAT% (%)	77	80	83	86	
6	FCol-MPN (MPN/100mL)	8220	2400	4355	1850	
7	Tcol-MPN (MPN/100mL)	6210	5000	4473	6125	
8	TOC (mg/L)	5.3	4.6		50.0	
	TRACE & TOXIC					
1	As (µg/L)	0.83				
2	Cd (µg/L)	0.04			1.24	
3	Cr (µg/L)	1.77			5.63	
4	Cu (µg/L)	22.03			2.19	
5	Hg (µg/L)					
6	Ni (µg/L)	2.32			0.92	
7	Pb (µg/L)	1.18			5.07	
8	Zn (µg/L)	15.90			3.00	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	109	66	100	102	
2	HAR_Total (mgCaCO3/L)	208	127	195	197	
3	Na% (%)	57	66	52	55	
4	RSC (-)	1.5	1.7	1.3	1.6	
5	SAR (-)	4.0	4.4	3.2	3.6	
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Winter		Summer		
		Nov-Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)		7.764	20.14	9.859	13.21
2	EC_GEN (µmho/cm)		792	886	955	1083
3	pH_GEN (pH units)		8.1	8.0	7.1	8.0
4	TDS (mg/L)		523			
5	Temp (deg C)		25.5	27.3	26.7	29.3
6	Turb (NTU)		6.50			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		10.3	0.0	0.0	2.7
2	ALK-TOT (mgCaCO3/L)		169	286	301	308
3	B (mg/L)		0.08	0.00	0.00	0.00
4	Ca (mg/L)		45	39	53	38
5	Cl (mg/L)		85.0	57.9	54.6	105.3
6	CO3 (mg/L)		12.4	0.0	0.0	3.2
7	F (mg/L)		0.72	1.42	1.17	2.23
8	Fe (mg/L)		0.1	0.0	0.0	0.0
9	HCO3 (mg/L)		181	349	367	369
10	K (mg/L)		0.7	4.4	4.0	8.4
11	Mg (mg/L)		9.0	18.3	15.7	16.5
12	Na (mg/L)		108.4	110.7	108.7	168.6
13	NH3-N (mg N/L)		0.73	0.05	0.05	0.00
14	NO2+NO3 (mg N/L)		7.35	0.01	0.01	0.00
15	NO2-N (mgN/L)		0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)		7.34	0.01	0.01	0.00
17	o-PO4-P (mg P/L)		0.450			
18	P-Tot (mgP/L)			0.001	0.001	0.000
19	SiO2 (mg/L)		15.9	21.2	22.7	23.0
20	SO4 (mg/L)		91.8	52.0	74.4	89.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		0.8	2.0	0.9	1.2
2	Chlf-a (µg/L)					
3	COD (mg/L)		14.8	39.9	5.4	24.3
4	DO (mg/L)		7.0	6.1	6.5	6.1
5	DO_SAT% (%)		86	77	80	80
6	FCol-MPN (MPN/100mL)		105			11467
7	Tcol-MPN (MPN/100mL)		130			11467
8	TOC (mg/L)			4.3		
	TRACE & TOXIC					
1	As (µg/L)					3.38
2	Cd (µg/L)			0.90	2.48	0.00
3	Cr (µg/L)			2.00	2.00	0.00
4	Cu (µg/L)		3.50			
5	Hg (µg/L)			0.00		
6	Ni (µg/L)			10.10	4.18	0.35
7	Pb (µg/L)			16.64	35.00	0.00
8	Zn (µg/L)		99.75	5.02	20.67	12.76
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		113	97	132	96
2	HAR_Total (mgCaCO3/L)		151	173	198	165
3	Na% (%)		61	58	53	67
4	RSC (-)		0.4	2.3	2.1	2.9
5	SAR (-)		3.9	3.7	3.4	5.8
	PESTICIDES					
1	Aldrin (µg/L)			0.010	0.058	0.003
2	BHC (µg/L)			0.160	0.100	0.070
3	DDT (µg/L)			0.100	0.100	0.007
4	Dieldrin (µg/L)			0.010	0.010	0.002
5	Endos (µg/L)			0.100	0.100	0.125

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	16.34	6.237		4.425
2	EC_GEN (µmho/cm)	933	1183		1166
3	pH_GEN (pH units)	7.1	8.2		8.1
4	TDS (mg/L)		712		755
5	Temp (deg C)	29.7	30.0		27.7
6	Turb (NTU)		0.00		5.33
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	257	286		333
3	B (mg/L)	0.00	0.00		0.19
4	Ca (mg/L)	42	34		38
5	Cl (mg/L)	89.0	114.0		114.9
6	CO3 (mg/L)	0.0	0.0		0.0
7	F (mg/L)	1.35	1.02		1.14
8	Fe (mg/L)	0.0	0.1		0.3
9	HCO3 (mg/L)	313	349		406
10	K (mg/L)	4.7	5.8		17.0
11	Mg (mg/L)	24.1	19.7		21.7
12	Na (mg/L)	123.8	159.3		169.7
13	NH3-N (mg N/L)	0.00	0.02		0.00
14	NO2+NO3 (mg N/L)	0.00	1.04		0.76
15	NO2-N (mgN/L)	0.00	0.00		0.00
16	NO3-N (mgN/L)	0.00	1.04		0.76
17	o-PO4-P (mg P/L)		0.200		0.067
18	P-Tot (mgP/L)	0.137	0.199		0.200
19	SiO2 (mg/L)	19.7	17.6		19.9
20	SO4 (mg/L)	74.0	92.1		98.0
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.5	1.0		0.8
2	Chlf-a (µg/L)				
3	COD (mg/L)	25.5	8.7		4.9
4	DO (mg/L)	6.0	6.0		5.5
5	DO_SAT% (%)	79	79		69
6	FCol-MPN (MPN/100mL)	11400	8010		814
7	Tcol-MPN (MPN/100mL)	11667	8020		5377
8	TOC (mg/L)		3.7		
	TRACE & TOXIC				
1	As (µg/L)		4.16		1.70
2	Cd (µg/L)	1.02	0.57		0.00
3	Cr (µg/L)	0.00	0.00		0.00
4	Cu (µg/L)				
5	Hg (µg/L)		2.03		0.22
6	Ni (µg/L)	2.74	4.81		0.00
7	Pb (µg/L)	0.00	27.13		0.00
8	Zn (µg/L)	3.13	17.51		107.40
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	104	85		96
2	HAR_Total (mgCaCO3/L)	205	167		186
3	Na% (%)	56	66		60
4	RSC (-)	1.1	2.4		3.0
5	SAR (-)	3.8	5.4		5.5
	PESTICIDES				
1	Aldrin (µg/L)	0.040	0.003		
2	BHC (µg/L)	0.076	0.112		
3	DDT (µg/L)	0.000	0.006		
4	Dieldrin (µg/L)	0.038	0.002		
5	Endos (µg/L)	0.055	0.016		

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MARELLA (AU000E5)

Division : Lower Krishna Divn., Hyderabad

Local River : Gundlakamma

River Water

Sub-Division : Lower Krishna SD 1, N.S.Dam

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	6.370		1.094	
2	EC_GEN (µmho/cm)	984		488	
3	pH_GEN (pH units)	8.1		7.8	
4	TDS (mg/L)	628		368	
5	Temp (deg C)	25.0		27.5	
6	Turb (NTU)	2.00		2.00	
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	270		148	
3	B (mg/L)	0.31			
4	Ca (mg/L)	42		35	
5	Cl (mg/L)	97.9		52.2	
6	CO3 (mg/L)	0.0		0.0	
7	F (mg/L)	1.30		0.99	
8	Fe (mg/L)	0.0		0.0	
9	HCO3 (mg/L)	329		181	
10	K (mg/L)	4.4		4.1	
11	Mg (mg/L)	23.8		11.1	
12	Na (mg/L)	143.4		73.0	
13	NH3-N (mg N/L)	0.00		6.30	
14	NO2+NO3 (mg N/L)	0.22		1.13	
15	NO2-N (mgN/L)	0.00		0.14	
16	NO3-N (mgN/L)	0.22		0.99	
17	o-PO4-P (mg P/L)	0.190		0.540	
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	10.1		8.9	
20	SO4 (mg/L)	100.5		80.8	
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.0		0.9	
2	Chlf-a (µg/L)				
3	COD (mg/L)	14.1		4.9	
4	DO (mg/L)	5.9		5.7	
5	DO_SAT% (%)	71		72	
6	FCol-MPN (MPN/100mL)	2			
7	Tcol-MPN (MPN/100mL)	1700			
8	TOC (mg/L)	42.8			
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)			0.00	
5	Hg (µg/L)				
6	Ni (µg/L)				
7	Pb (µg/L)				
8	Zn (µg/L)			0.00	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	104		88	
2	HAR_Total (mgCaCO3/L)	203		134	
3	Na% (%)	60		53	
4	RSC (-)	1.4		0.3	
5	SAR (-)	4.4		2.7	
	PESTICIDES				
1	Aldrin (µg/L)				
2	BHC (µg/L)				
3	DDT (µg/L)				
4	Dieldrin (µg/L)				
5	Endos (µg/L)				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Nellore	Code	: AP000A6
State	: Andhra Pradesh	District	Nellore
Basin	: Pennar	Independent River	: Pennar
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Pennar
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 50800 Sq. Km.	Bank	: Right
Latitude	: 14°28'13"	Longitude	: 79°59'20"
Zero of Gauge (m)	: 43.500 (m.s.l) 7.230 (m.s.l)	14/08/1987	- 31/05/2003
		01/06/2003	-
	Opening Date	Closing Date	
Gauge	: 14/08/1987		
Discharge	: 28/08/1987		
Sediment	: 21/06/2014		
Water Quality	: 01/09/1988		

Water Quality Datasheet for the period : 2017-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD ($\mu\text{mho/cm}$)			
4	EC_GEN ($\mu\text{mho/cm}$)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	HCO ₃ (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH ₃ -N (mg N/L)			
12	NO ₂ +NO ₃ (mg N/L)			
13	NO ₂ -N (mgN/L)			
14	NO ₃ -N (mgN/L)			
15	o-PO ₄ -P (mg P/L)			
16	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/09/2017	01/10/2017	07/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	1.275
2	Colour_Cod (-)			Clear
3	EC_FLD (μmho/cm)			710
4	EC_GEN (μmho/cm)			725
5	Odour_Code (-)			odour free
6	pH_FLD (pH units)			7.8
7	pH_GEN (pH units)			7.8
8	TDS (mg/L)			371
9	Temp (deg C)			24.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			0.0
2	ALK-TOT (mgCaCO3/L)			139
3	Ca (mg/L)			45
4	Cl (mg/L)			101.9
5	CO3 (mg/L)			0.0
6	F (mg/L)			0.38
7	HCO3 (mg/L)			170
8	K (mg/L)			5.7
9	Mg (mg/L)			13.6
10	Na (mg/L)			78.0
11	NH3-N (mg N/L)			0.02
12	NO2+NO3 (mg N/L)			0.43
13	NO2-N (mgN/L)			0.01
14	NO3-N (mgN/L)			0.43
15	o-PO4-P (mg P/L)			0.028
16	SO4 (mg/L)			49.6
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			2.2
2	DO (mg/L)			8.9
3	DO_SAT% (%)			106
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			112
2	HAR_Total (mgCaCO3/L)			169
3	Na% (%)			49
4	RSC (-)			0.0
5	SAR (-)			2.6
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD ($\mu\text{mho/cm}$)			
4	EC_GEN ($\mu\text{mho/cm}$)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	HCO ₃ (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH ₃ -N (mg N/L)			
12	NO ₂ +NO ₃ (mg N/L)			
13	NO ₂ -N (mgN/L)			
14	NO ₃ -N (mgN/L)			
15	o-PO ₄ -P (mg P/L)			
16	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD ($\mu\text{mho/cm}$)			
4	EC_GEN ($\mu\text{mho/cm}$)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	HCO ₃ (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH ₃ -N (mg N/L)			
12	NO ₂ +NO ₃ (mg N/L)			
13	NO ₂ -N (mgN/L)			
14	NO ₃ -N (mgN/L)			
15	o-PO ₄ -P (mg P/L)			
16	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	7.910	0.000	0.049
2	EC_FLD (µmho/cm)	1	710	710	710
3	EC_GEN (µmho/cm)	1	725	725	725
4	pH_FLD (pH units)	1	7.8	7.8	7.8
5	pH_GEN (pH units)	1	7.8	7.8	7.8
6	TDS (mg/L)	1	371	371	371
7	Temp (deg C)	1	24.5	24.5	24.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	139	139	139
3	Ca (mg/L)	1	45	45	45
4	Cl (mg/L)	1	101.9	101.9	101.9
5	CO3 (mg/L)	1	0.0	0.0	0
6	F (mg/L)	1	0.38	0.38	0.38
7	HCO3 (mg/L)	1	170	170	170
8	K (mg/L)	1	5.7	5.7	5.7
9	Mg (mg/L)	1	13.6	13.6	13.6
10	Na (mg/L)	1	78.0	78.0	78
11	NH3-N (mg N/L)	1	0.02	0.02	0.02
12	NO2+NO3 (mg N/L)	1	0.43	0.43	0.43
13	NO2-N (mgN/L)	1	0.01	0.01	0.01
14	NO3-N (mgN/L)	1	0.43	0.43	0.43
15	o-PO4-P (mg P/L)	1	0.028	0.028	0.028
16	SO4 (mg/L)	1	49.6	49.6	49.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	2.2	2.2	2.2
2	DO (mg/L)	1	8.9	8.9	8.9
3	DO_SAT% (%)	1	106	106	106
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	112	112	112
2	HAR_Total (mgCaCO3/L)	1	169	169	169
3	Na% (%)	1	49	49	49
4	RSC (-)	1	0.0	0.0	0
5	SAR (-)	1	2.6	2.6	2.6
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	1.190	1.478	11.93	3.466
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		469	657	672	689
4	pH_FLD (pH units)		7.0	7.0	7.0	6.0
5	pH_GEN (pH units)		7.5	8.0	8.0	8.4
6	TDS (mg/L)					
7	Temp (deg C)		24.0	25.8	29.0	28.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	7.3	14.3
2	ALK-TOT (mgCaCO3/L)		150	237	232	170
3	Ca (mg/L)		33	30	33	30
4	Cl (mg/L)		71.5	99.1	98.8	88.7
5	CO3 (mg/L)		0.0	0.0	8.8	17.3
6	F (mg/L)			2.60	0.49	0.61
7	Fe (mg/L)					
8	HCO3 (mg/L)		183	290	266	173
9	K (mg/L)			9.8	5.4	5.5
10	Mg (mg/L)		10.7	18.5	20.1	19.8
11	Na (mg/L)			107.8	94.6	98.9
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.59	2.28
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)			57.5	41.0	62.8
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			4.0	1.3	1.8
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		82	75	82	75
2	HAR_Total (mgCaCO3/L)		127	152	166	158
3	Na% (%)			57	55	57
4	RSC (-)		0.5	1.7	1.4	0.3
5	SAR (-)			3.8	3.2	3.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	2.715	1.191	0.405	0.193	Dry Bed
2	EC_FLD (µmho/cm)			706		
3	EC_GEN (µmho/cm)	731	779	694		
4	pH_FLD (pH units)	6.2	7.3	7.9		
5	pH_GEN (pH units)	7.8	7.7	9.3		
6	TDS (mg/L)	389	414	382		
7	Temp (deg C)	28.8	26.9	27.0		
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	1.6	10.0		
2	ALK-TOT (mgCaCO3/L)	191	149	125		
3	Ca (mg/L)	32	35	29		
4	Cl (mg/L)	119.8	149.7	141.8		
5	CO3 (mg/L)	0.0	1.9	12.0		
6	F (mg/L)	0.87	0.80	0.46		
7	Fe (mg/L)	0.0	0.0			
8	HCO3 (mg/L)	233	177	128		
9	K (mg/L)	4.8	4.7	6.6		
10	Mg (mg/L)	20.9	15.7	14.3		
11	Na (mg/L)	103.5	117.3	106.5		
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)	1.58	3.42	1.54		
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	49.3	73.5	71.4		
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	1.6	2.0		
2	DO (mg/L)			7.9		
3	DO_SAT% (%)			99		
	TRACE & TOXIC					
1	As (µg/L)	3.1	3.1			
2	Cd (µg/L)	0.1	2.4			
3	Cr (µg/L)	1.7	1.0			
4	Cu (µg/L)	34.5	1.0			
5	Hg (µg/L)		0.4			
6	Ni (µg/L)	2.8	2.8			
7	Pb (µg/L)	2.7	4.9			
8	Zn (µg/L)	1.1	4.0			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	80	87	72		
2	HAR_Total (mgCaCO3/L)	167	152	131		
3	Na% (%)	57	62	62		
4	RSC (-)	0.6	0.0	0.0		
5	SAR (-)	3.5	4.2	4.1		
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	1.582	72.10	15.42	5.041	122.6
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		486	325	590	563
4	pH_FLD (pH units)		7.0	7.0	7.0	7.0
5	pH_GEN (pH units)		8.2	7.3	8.1	8.1
6	TDS (mg/L)					
7	Temp (deg C)		26.0	25.5	26.7	24.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	10.4
2	ALK-TOT (mgCaCO3/L)		158	117	230	160
3	Ca (mg/L)		26	23	28	28
4	Cl (mg/L)		51.5	53.4	68.3	83.2
5	CO3 (mg/L)		0.0	0.0	0.0	12.5
6	F (mg/L)				0.51	0.49
7	Fe (mg/L)					
8	HCO3 (mg/L)		193	142	281	169
9	K (mg/L)				8.1	4.2
10	Mg (mg/L)		13.6	10.7	16.2	13.2
11	Na (mg/L)				88.3	75.5
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					0.47
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)		26.4		42.8	31.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				1.6	1.9
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		64	58	71	69
2	HAR_Total (mgCaCO3/L)		121	103	138	124
3	Na% (%)				56	56
4	RSC (-)		0.8	0.3	1.9	0.7
5	SAR (-)				3.3	2.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	52.08	1.362	2.342	0.297	313.6
2	EC_FLD (µmho/cm)				665	574
3	EC_GEN (µmho/cm)	564	768	679	680	395
4	pH_FLD (pH units)	6.5	7.0	6.7	7.3	7.2
5	pH_GEN (pH units)	7.9	7.9	7.7	7.8	7.5
6	TDS (mg/L)		410	361	368	227
7	Temp (deg C)	27.3	25.3	25.9	24.0	24.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	134	151	127	140	92
3	Ca (mg/L)	26	35	27	35	22
4	Cl (mg/L)	74.7	130.2	107.0	119.6	61.7
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	0.45	1.09	0.57	0.42	0.35
7	Fe (mg/L)					
8	HCO3 (mg/L)	163	184	155	171	112
9	K (mg/L)	7.2	4.9	3.7	4.9	3.0
10	Mg (mg/L)	11.9	15.7	16.8	18.9	9.3
11	Na (mg/L)	70.1	109.8	88.6	86.7	45.9
12	NH3-N (mg N/L)					0.05
13	NO2+NO3 (mg N/L)					0.23
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.57	0.79	5.03	1.99	0.23
16	o-PO4-P (mg P/L)					0.004
17	SO4 (mg/L)	43.3	64.0	54.0	59.7	28.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	1.2	2.1	1.6	1.5
2	DO (mg/L)				5.7	5.7
3	DO_SAT% (%)				68	68
	TRACE & TOXIC					
1	As (µg/L)	1.8				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	0.7				
4	Cu (µg/L)	4.3				
5	Hg (µg/L)					
6	Ni (µg/L)	6.1				
7	Pb (µg/L)	1.8				
8	Zn (µg/L)	57.1				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	64	88	66	86	55
2	HAR_Total (mgCaCO3/L)	114	154	137	165	94
3	Na% (%)	56	60	58	52	50
4	RSC (-)	0.4	0.1	0.1	0.0	0.0
5	SAR (-)	2.9	3.9	3.3	2.9	2.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	0.276	0.319	1.333	0.505	4.002
2	EC_FLD (µmho/cm)	547	710			
3	EC_GEN (µmho/cm)	609	725	514	583	503
4	pH_FLD (pH units)	7.1	7.8	7.0	7.0	7.0
5	pH_GEN (pH units)	8.1	7.8	7.6	7.8	8.3
6	TDS (mg/L)	324	371			
7	Temp (deg C)	23.0	24.5	27.5	26.5	26.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	20.7
2	ALK-TOT (mgCaCO3/L)	95	139	185	237	148
3	Ca (mg/L)	26	45	32	37	23
4	Cl (mg/L)	104.6	101.9	57.2	57.1	80.0
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	25.0
6	F (mg/L)	0.61	0.38			0.50
7	Fe (mg/L)	0.1				
8	HCO3 (mg/L)	115	170	226	290	129
9	K (mg/L)	3.9	5.7		3.0	4.3
10	Mg (mg/L)	13.6	13.6	14.6	10.7	8.7
11	Na (mg/L)	74.3	78.0		79.4	83.4
12	NH3-N (mg N/L)	0.03	0.02			
13	NO2+NO3 (mg N/L)	0.19	0.43			
14	NO2-N (mgN/L)	0.00	0.01			
15	NO3-N (mgN/L)	0.19	0.43			0.19
16	o-PO4-P (mg P/L)	0.012	0.028			
17	SO4 (mg/L)	54.2	49.6	29.4	27.5	47.8
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.4	2.2			1.6
2	DO (mg/L)	6.7	8.9			
3	DO_SAT% (%)	78	106			
	TRACE & TOXIC					
1	As (µg/L)	2.5				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	1.0				
4	Cu (µg/L)	3.2				
5	Hg (µg/L)					
6	Ni (µg/L)	4.4				
7	Pb (µg/L)	1.2				
8	Zn (µg/L)	3.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	64	112	80	92	58
2	HAR_Total (mgCaCO3/L)	121	169	141	137	94
3	Na% (%)	56	49		55	65
4	RSC (-)	0.0	0.0	0.9	2.0	1.1
5	SAR (-)	2.9	2.6		3.0	3.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	9.317	2.488	1.077	0.176
2	EC_FLD (μmho/cm)				
3	EC_GEN (μmho/cm)	640	682	797	695
4	pH_FLD (pH units)	7.0	6.3	7.5	7.0
5	pH_GEN (pH units)	8.3	7.6	7.8	7.7
6	TDS (mg/L)			423	368
7	Temp (deg C)	27.2	29.0	26.5	26.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	29.8	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	196	173	163	133
3	Ca (mg/L)	27	27	34	29
4	Cl (mg/L)	112.7	97.6	136.0	114.9
5	CO3 (mg/L)	35.9	0.0	0.0	0.0
6	F (mg/L)	0.60	0.55	1.13	0.62
7	Fe (mg/L)		0.0	0.1	
8	HCO3 (mg/L)	166	211	199	162
9	K (mg/L)	4.7	8.3	3.9	4.2
10	Mg (mg/L)	19.8	21.1	15.2	16.9
11	Na (mg/L)	91.0	87.0	107.5	88.2
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.07	3.07	0.72	6.13
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	43.5	47.5	45.6	53.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.6	2.1	1.3	2.4
2	DO (mg/L)				
3	DO_SAT% (%)				
	TRACE & TOXIC				
1	As (μg/L)	1.8	1.1	3.2	
2	Cd (μg/L)		0.1	0.0	
3	Cr (μg/L)	0.8	12.5	0.2	
4	Cu (μg/L)	5.3	21.5	2.4	
5	Hg (μg/L)			1.2	
6	Ni (μg/L)		3.4	21.6	
7	Pb (μg/L)	0.4	6.7	0.2	
8	Zn (μg/L)	9.6	7.0	5.1	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	68	67	84	72
2	HAR_Total (mgCaCO3/L)	150	155	148	142
3	Na% (%)	56	54	60	57
4	RSC (-)	0.9	0.4	0.3	0.0
5	SAR (-)	3.2	3.1	3.9	3.2
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nellore (AP000A6)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	0.758	4.537	Dry Bed	Dry Bed
2	EC_FLD (μmho/cm)	760	614		
3	EC_GEN (μmho/cm)	741	378		
4	pH_FLD (pH units)	7.5	7.0		
5	pH_GEN (pH units)	7.9	7.6		
6	TDS (mg/L)	403	206		
7	Temp (deg C)	27.0	26.0		
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		
2	ALK-TOT (mgCaCO3/L)	163	85		
3	Ca (mg/L)	34	21		
4	Cl (mg/L)	121.9	58.9		
5	CO3 (mg/L)	0.0	0.0		
6	F (mg/L)	0.57	0.34		
7	Fe (mg/L)		0.0		
8	HCO3 (mg/L)	199	103		
9	K (mg/L)	3.2	2.7		
10	Mg (mg/L)	17.3	10.2		
11	Na (mg/L)	94.1	43.3		
12	NH3-N (mg N/L)	0.09	0.03		
13	NO2+NO3 (mg N/L)	0.83	0.20		
14	NO2-N (mgN/L)	0.00	0.00		
15	NO3-N (mgN/L)	0.83	0.19		
16	o-PO4-P (mg P/L)	0.008	0.000		
17	SO4 (mg/L)	56.9	24.9		
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.9	1.3		
2	DO (mg/L)	5.1	5.7		
3	DO_SAT% (%)	64	70		
	TRACE & TOXIC				
1	As (μg/L)		1.7		
2	Cd (μg/L)		0.3		
3	Cr (μg/L)		1.0		
4	Cu (μg/L)		3.4		
5	Hg (μg/L)		0.0		
6	Ni (μg/L)		2.2		
7	Pb (μg/L)		0.5		
8	Zn (μg/L)		6.5		
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	85	52		
2	HAR_Total (mgCaCO3/L)	157	95		
3	Na% (%)	56	49		
4	RSC (-)	0.1	0.0		
5	SAR (-)	3.3	1.9		
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Nandipalli	Code	: APC00G7
State	: Andhra Pradesh	District	Cuddapah
Basin	: Pennar	Independent River	: Pennar
Tributary	: Sagileru	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Sagileru
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 2486 Sq. Km.	Bank	: Right
Latitude	: 14°43'16"	Longitude	: 79°01'08"
Zero of Gauge (m)	: 95.000 (m.s.l)	10/11/1989	
	Opening Date	Closing Date	
Gauge	: 10/11/1989		
Discharge	: 18/06/1990		
Sediment	: 12/06/2013		
Water Quality	: 01/06/1994		

Water Quality Datasheet for the period : 2017-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	28/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	1.730
2	Colour_Cod (-)			Brown
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			357
5	Odour_Code (-)			odour free
6	pH_FLD (pH units)			6.0
7	pH_GEN (pH units)			7.7
8	TDS (mg/L)			187
9	Temp (deg C)			28.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			0.0
2	ALK-TOT (mgCaCO3/L)			93
3	Ca (mg/L)			16
4	Cl (mg/L)			50.0
5	CO3 (mg/L)			0.0
6	F (mg/L)			0.58
7	Fe (mg/L)			0.4
8	HCO3 (mg/L)			113
9	K (mg/L)			7.6
10	Mg (mg/L)			8.8
11	Na (mg/L)			38.2
12	NH3-N (mg N/L)			0.03
13	NO2+NO3 (mg N/L)			0.11
14	NO2-N (mgN/L)			0.00
15	NO3-N (mgN/L)			0.11
16	o-PO4-P (mg P/L)			0.010
17	SO4 (mg/L)			7.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			1.3
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			3.0
2	Cd (μg/L)			0.0
3	Cr (μg/L)			22.0
4	Cu (μg/L)			3.0
5	Pb (μg/L)			4.0
6	Zn (μg/L)			13.0
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			40
2	HAR_Total (mgCaCO3/L)			77
3	Na% (%)			49
4	RSC (-)			0.3
5	SAR (-)			1.9
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	18/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	4.359	6.599	Dry Bed
2	Colour_Cod (-)	Light Brown	Brown	
3	EC_FLD (µmho/cm)	960	960	
4	EC_GEN (µmho/cm)	283	270	
5	Odour_Code (-)	odour free	odour free	
6	pH_FLD (pH units)	6.0	6.0	
7	pH_GEN (pH units)	7.7	7.6	
8	TDS (mg/L)	150	144	
9	Temp (deg C)	27.5	27.5	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	93	59	
3	Ca (mg/L)	16	13	
4	Cl (mg/L)	33.0	44.7	
5	CO3 (mg/L)	0.0	0.0	
6	F (mg/L)	0.76	0.78	
7	Fe (mg/L)			
8	HCO3 (mg/L)	113	72	
9	K (mg/L)	7.6	7.5	
10	Mg (mg/L)	12.8	3.9	
11	Na (mg/L)	25.6	35.0	
12	NH3-N (mg N/L)	0.04	0.03	
13	NO2+NO3 (mg N/L)	2.97	0.20	
14	NO2-N (mgN/L)	0.00	0.01	
15	NO3-N (mgN/L)	2.97	0.19	
16	o-PO4-P (mg P/L)	0.066	0.038	
17	SO4 (mg/L)	4.2	4.2	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.4	0.9	
2	DO (mg/L)	5.6	5.6	
3	DO_SAT% (%)	71	71	
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Pb (µg/L)			
6	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	40	32	
2	HAR_Total (mgCaCO3/L)	94	48	
3	Na% (%)	35	57	
4	RSC (-)	0.0	0.2	
5	SAR (-)	1.2	2.2	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/12/2017	03/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	1.498	Dry Bed
2	Colour_Cod (-)		Clear	
3	EC_FLD (μmho/cm)		835	
4	EC_GEN (μmho/cm)		874	
5	Odour_Code (-)		odour free	
6	pH_FLD (pH units)		7.9	
7	pH_GEN (pH units)		8.2	
8	TDS (mg/L)		464	
9	Temp (deg C)		25.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	
2	ALK-TOT (mgCaCO3/L)		168	
3	Ca (mg/L)		19	
4	Cl (mg/L)		156.8	
5	CO3 (mg/L)		0.0	
6	F (mg/L)		0.98	
7	Fe (mg/L)			
8	HCO3 (mg/L)		205	
9	K (mg/L)		4.1	
10	Mg (mg/L)		25.3	
11	Na (mg/L)		118.0	
12	NH3-N (mg N/L)		0.03	
13	NO2+NO3 (mg N/L)		0.33	
14	NO2-N (mgN/L)		0.01	
15	NO3-N (mgN/L)		0.32	
16	o-PO4-P (mg P/L)		0.002	
17	SO4 (mg/L)		36.1	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.3	
2	DO (mg/L)		4.1	
3	DO_SAT% (%)		50	
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Pb (μg/L)			
6	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		48	
2	HAR_Total (mgCaCO3/L)		153	
3	Na% (%)		62	
4	RSC (-)		0.3	
5	SAR (-)		4.2	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Pb (μg/L)			
6	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	31.72	0.000	0.510
2	EC_FLD (μmho/cm)	3	960	835	918
3	EC_GEN (μmho/cm)	4	874	270	446
4	pH_FLD (pH units)	4	7.9	6.0	6.5
5	pH_GEN (pH units)	4	8.2	7.6	7.8
6	TDS (mg/L)	4	464	144	236
7	Temp (deg C)	4	28.0	25.0	27
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	4	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	4	168	59	103
3	Ca (mg/L)	4	19	13	16
4	Cl (mg/L)	4	156.8	33.0	71.1
5	CO3 (mg/L)	4	0.0	0.0	0
6	F (mg/L)	4	0.98	0.58	0.77
7	Fe (mg/L)	1	0.4	0.4	0.4
8	HCO3 (mg/L)	4	205	72	126
9	K (mg/L)	4	7.6	4.1	6.7
10	Mg (mg/L)	4	25.3	3.9	12.7
11	Na (mg/L)	4	118.0	25.6	54.2
12	NH3-N (mg N/L)	4	0.04	0.03	0.03
13	NO2+NO3 (mg N/L)	4	2.97	0.11	0.9
14	NO2-N (mgN/L)	4	0.01	0.00	0.01
15	NO3-N (mgN/L)	4	2.97	0.11	0.9
16	o-PO4-P (mg P/L)	4	0.066	0.002	0.029
17	SO4 (mg/L)	4	36.1	4.2	12.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	4	1.4	0.9	1.2
2	DO (mg/L)	3	5.6	4.1	5.1
3	DO_SAT% (%)	3	71	50	64
	TRACE & TOXIC				
1	As (μg/L)	1	3.0	3.0	3
2	Cd (μg/L)	1	0.0	0.0	0
3	Cr (μg/L)	1	22.0	22.0	22
4	Cu (μg/L)	1	3.0	3.0	3
5	Pb (μg/L)	1	4.0	4.0	4
6	Zn (μg/L)	1	13.0	13.0	13
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	4	48	32	40
2	HAR_Total (mgCaCO3/L)	4	153	48	93
3	Na% (%)	4	62	35	51
4	RSC (-)	4	0.3	0.0	0.2
5	SAR (-)	4	4.2	1.2	2.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	12.39	1.932	3.602	2.866	2.367
2	EC_FLD (μmho/cm)					
3	EC_GEN (μmho/cm)		700	657	662	859
4	pH_FLD (pH units)		6.8	7.0	7.0	7.0
5	pH_GEN (pH units)		8.2	8.1	8.0	8.2
6	TDS (mg/L)					
7	Temp (deg C)		29.9	28.3	29.8	26.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		19.2	0.0	0.0	13.5
2	ALK-TOT (mgCaCO3/L)		234	281	242	256
3	Ca (mg/L)		20	21	21	29
4	Cl (mg/L)		106.3	95.3	107.7	121.2
5	CO3 (mg/L)		23.1	0.0	0.0	16.3
6	F (mg/L)			0.84	0.85	1.10
7	Fe (mg/L)					
8	HCO3 (mg/L)		239	343	295	279
9	K (mg/L)			9.7	5.1	5.5
10	Mg (mg/L)		16.4	22.0	15.7	25.5
11	Na (mg/L)			108.4	124.1	138.5
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.59	4.31
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)		56.0	16.5	37.2	24.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			0.4	1.4	1.6
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Hg (μg/L)					
6	Ni (μg/L)					
7	Pb (μg/L)					
8	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		49	53	51	72
2	HAR_Total (mgCaCO3/L)		117	145	117	178
3	Na% (%)			55	69	62
4	RSC (-)		2.4	2.8	2.5	1.6
5	SAR (-)			3.9	5.0	4.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	1.245	0.750	0.000	1.632	0.277
2	EC_FLD (μmho/cm)		926	920	890	960
3	EC_GEN (μmho/cm)	911	976	716	232	288
4	pH_FLD (pH units)	7.0	7.7	7.0	7.0	7.0
5	pH_GEN (pH units)	8.0	7.8	8.1	7.8	7.7
6	TDS (mg/L)	485	521	380	122	152
7	Temp (deg C)	27.2	27.3	27.0	25.5	27.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	296	249	140	61	86
3	Ca (mg/L)	26	27	34	12	11
4	Cl (mg/L)	117.3	177.5	119.1	33.0	26.8
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	1.21	1.53	0.65	0.48	0.56
7	Fe (mg/L)		0.1			0.1
8	HCO3 (mg/L)	361	304	171	75	105
9	K (mg/L)	4.7	4.4	5.0	2.4	2.2
10	Mg (mg/L)	24.0	17.2	15.4	7.3	3.9
11	Na (mg/L)	141.1	180.3	91.4	25.5	45.1
12	NH3-N (mg N/L)				0.02	0.03
13	NO2+NO3 (mg N/L)				2.10	1.03
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	1.98	3.84	1.26	2.10	1.02
16	o-PO4-P (mg P/L)				0.019	0.023
17	SO4 (mg/L)	26.2	37.5	71.8	10.1	14.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	2.0	2.4	2.4	0.4
2	DO (mg/L)		4.8	5.0	6.9	5.6
3	DO_SAT% (%)		61	63	84	71
	TRACE & TOXIC					
1	As (μg/L)		3.0			1.6
2	Cd (μg/L)		2.2			0.1
3	Cr (μg/L)		1.0			3.4
4	Cu (μg/L)		1.6			4.5
5	Hg (μg/L)		0.3			
6	Ni (μg/L)		18.6			0.7
7	Pb (μg/L)		6.2			0.5
8	Zn (μg/L)		5.0			2.4
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	65	68	84	30	28
2	HAR_Total (mgCaCO3/L)	165	140	148	60	44
3	Na% (%)	64	73	56	47	68
4	RSC (-)	2.7	2.2	0.0	0.0	0.8
5	SAR (-)	4.8	6.7	3.3	1.4	3.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	2.538	12.02	89.97	4.241	7.866
2	EC_FLD (μmho/cm)	960				
3	EC_GEN (μmho/cm)	303		700	984	860
4	pH_FLD (pH units)	6.0		7.0	7.0	7.0
5	pH_GEN (pH units)	7.7		7.8	8.2	8.2
6	TDS (mg/L)	160				
7	Temp (deg C)	27.7		26.3	27.4	24.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	11.4	27.0
2	ALK-TOT (mgCaCO3/L)	81		273	469	342
3	Ca (mg/L)	15		27	24	29
4	Cl (mg/L)	42.5		94.9	149.8	113.2
5	CO3 (mg/L)	0.0		0.0	13.7	32.5
6	F (mg/L)	0.70			1.12	1.04
7	Fe (mg/L)	0.4				
8	HCO3 (mg/L)	99		333	544	351
9	K (mg/L)	7.6			8.7	4.3
10	Mg (mg/L)	8.5		17.1	22.8	24.3
11	Na (mg/L)	32.9			231.7	137.5
12	NH3-N (mg N/L)	0.03				
13	NO2+NO3 (mg N/L)	1.10				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	1.09				0.77
16	o-PO4-P (mg P/L)	0.038				
17	SO4 (mg/L)	5.2			24.7	23.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.2			0.7	1.2
2	DO (mg/L)	5.6				
3	DO_SAT% (%)	71				
	TRACE & TOXIC					
1	As (μg/L)	3.0				
2	Cd (μg/L)	0.0				
3	Cr (μg/L)	22.0				
4	Cu (μg/L)	3.0				
5	Hg (μg/L)					
6	Ni (μg/L)					
7	Pb (μg/L)	4.0				
8	Zn (μg/L)	13.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	38		69	59	72
2	HAR_Total (mgCaCO3/L)	73		140	154	173
3	Na% (%)	47			75	63
4	RSC (-)	0.2		2.7	6.3	3.4
5	SAR (-)	1.7			8.2	4.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	10.34	2.534	2.164	0.126	0.521
2	EC_FLD (μmho/cm)			895	760	950
3	EC_GEN (μmho/cm)	737	964	1049	749	469
4	pH_FLD (pH units)	7.0	7.0	7.3	7.2	7.1
5	pH_GEN (pH units)	7.8	8.0	8.0	8.2	7.6
6	TDS (mg/L)		515	559	396	277
7	Temp (deg C)	24.9	24.6	26.0	28.0	26.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	3.5	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	268	290	187	140	129
3	Ca (mg/L)	18	29	13	30	24
4	Cl (mg/L)	96.2	154.8	251.1	119.6	66.1
5	CO3 (mg/L)	0.0	0.0	4.2	0.0	0.0
6	F (mg/L)	0.92	2.10	1.20	0.75	0.49
7	Fe (mg/L)	0.0			0.0	
8	HCO3 (mg/L)	327	354	220	171	157
9	K (mg/L)	8.0	3.8	3.8	5.0	3.4
10	Mg (mg/L)	24.3	22.6	21.8	17.4	15.4
11	Na (mg/L)	110.8	169.6	189.6	90.5	55.9
12	NH3-N (mg N/L)					0.04
13	NO2+NO3 (mg N/L)					0.33
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	1.34	0.70	4.77	2.22	0.32
16	o-PO4-P (mg P/L)					0.007
17	SO4 (mg/L)	21.8	28.6	27.8	63.3	45.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	1.4	2.2	2.2	1.8
2	DO (mg/L)			5.7	6.4	5.6
3	DO_SAT% (%)			70	82	69
	TRACE & TOXIC					
1	As (μg/L)	1.1				
2	Cd (μg/L)	0.1			0.4	
3	Cr (μg/L)	1.7			0.6	
4	Cu (μg/L)	9.8			3.8	
5	Hg (μg/L)					
6	Ni (μg/L)	12.1			0.2	
7	Pb (μg/L)	1.7			2.2	
8	Zn (μg/L)	25.5			4.0	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	45	74	32	76	60
2	HAR_Total (mgCaCO3/L)	146	168	124	148	124
3	Na% (%)	61	68	76	56	49
4	RSC (-)	2.5	2.5	1.3	0.0	0.1
5	SAR (-)	4.0	5.7	7.4	3.2	2.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.375	Dry Bed	1.191	0.383
2	EC_FLD (μmho/cm)		835			
3	EC_GEN (μmho/cm)		874		876	1190
4	pH_FLD (pH units)		7.9		7.0	7.0
5	pH_GEN (pH units)		8.2		8.1	8.2
6	TDS (mg/L)		464			
7	Temp (deg C)		25.0		28.0	30.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0		25.3	0.0
2	ALK-TOT (mgCaCO3/L)		168		327	521
3	Ca (mg/L)		19		25	28
4	Cl (mg/L)		156.8		90.5	173.0
5	CO3 (mg/L)		0.0		30.5	0.0
6	F (mg/L)		0.98			1.29
7	Fe (mg/L)					
8	HCO3 (mg/L)		205		337	636
9	K (mg/L)		4.1		2.3	6.4
10	Mg (mg/L)		25.3		20.7	28.2
11	Na (mg/L)		118.0		139.9	243.6
12	NH3-N (mg N/L)		0.03			
13	NO2+NO3 (mg N/L)		0.33			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.32			2.42
16	o-PO4-P (mg P/L)		0.002			
17	SO4 (mg/L)		36.1		20.9	22.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.3			1.0
2	DO (mg/L)		4.1			
3	DO_SAT% (%)		50			
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Hg (μg/L)					
6	Ni (μg/L)					
7	Pb (μg/L)					
8	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		48		64	69
2	HAR_Total (mgCaCO3/L)		153		150	187
3	Na% (%)		62		70	73
4	RSC (-)		0.3		3.6	6.7
5	SAR (-)		4.2		5.4	7.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	1.669	0.544	0.086	0.094
2	EC_FLD (µmho/cm)				930
3	EC_GEN (µmho/cm)	903	1148	1236	1188
4	pH_FLD (pH units)	7.0	7.0	6.0	8.4
5	pH_GEN (pH units)	8.1	7.7	8.0	8.2
6	TDS (mg/L)			659	635
7	Temp (deg C)	28.8	26.3	23.0	27.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15.4	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	327	372	355	237
3	Ca (mg/L)	30	22	35	15
4	Cl (mg/L)	128.7	154.6	188.1	300.6
5	CO3 (mg/L)	18.6	0.0	0.0	0.0
6	F (mg/L)	1.18	1.39	2.78	1.37
7	Fe (mg/L)		0.0	0.1	
8	HCO3 (mg/L)	361	454	433	289
9	K (mg/L)	4.6	9.9	3.5	4.5
10	Mg (mg/L)	24.0	40.2	28.6	26.6
11	Na (mg/L)	147.9	185.8	195.5	231.5
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	6.19	8.58	0.85	6.26
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	29.4	25.2	28.8	35.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.5	2.0	1.2	2.4
2	DO (mg/L)				4.0
3	DO_SAT% (%)				50
	TRACE & TOXIC				
1	As (µg/L)	1.9	1.8	4.2	
2	Cd (µg/L)	0.1	0.1	0.0	
3	Cr (µg/L)	0.9	11.1	0.6	
4	Cu (µg/L)	5.2	21.4	1.8	
5	Hg (µg/L)			0.1	
6	Ni (µg/L)		8.2	21.5	
7	Pb (µg/L)	0.8	14.8	1.5	
8	Zn (µg/L)	4.7	31.0	5.4	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	75	55	86	38
2	HAR_Total (mgCaCO3/L)	175	222	205	149
3	Na% (%)	64	63	67	77
4	RSC (-)	3.1	3.0	3.0	1.8
5	SAR (-)	4.9	5.5	6.0	8.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nandipalli (APC00G7)

Division : Hydrology Division, Chennai

Local River : Sagileru

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	0.973	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)			425	
4	pH_FLD (pH units)			6.0	
5	pH_GEN (pH units)			7.5	
6	TDS (mg/L)			254	
7	Temp (deg C)			28.5	
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)			0.0	
2	ALK-TOT (mgCaCO3/L)			122	
3	Ca (mg/L)			32	
4	Cl (mg/L)			51.9	
5	CO3 (mg/L)			0.0	
6	F (mg/L)			0.32	
7	Fe (mg/L)			0.1	
8	HCO3 (mg/L)			149	
9	K (mg/L)			3.5	
10	Mg (mg/L)			13.6	
11	Na (mg/L)			39.5	
12	NH3-N (mg N/L)			0.06	
13	NO2+NO3 (mg N/L)			0.40	
14	NO2-N (mgN/L)			0.00	
15	NO3-N (mgN/L)			0.40	
16	o-PO4-P (mg P/L)			0.004	
17	SO4 (mg/L)			35.3	
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)			2.0	
2	DO (mg/L)			4.1	
3	DO_SAT% (%)			53	
	TRACE & TOXIC				
1	As (µg/L)			7.0	
2	Cd (µg/L)			0.0	
3	Cr (µg/L)			15.0	
4	Cu (µg/L)			11.0	
5	Hg (µg/L)				
6	Ni (µg/L)			2.0	
7	Pb (µg/L)			2.0	
8	Zn (µg/L)			9.0	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)			80	
2	HAR_Total (mgCaCO3/L)			137	
3	Na% (%)			38	
4	RSC (-)			0.0	
5	SAR (-)			1.5	
	PESTICIDES				

HISTORY SHEET

Water Year : 2017-2018

Site : Chennur

Code : AP000I1

State : Andhra Pradesh

District : Kadapa

Basin : Pennar

Independent River : Pennar

Tributary : -

Sub Tributary :

Sub-Sub Tributary :

Local River : Pennar

Division : Hydrology Division, Chennai

Sub-Division : PSD, Kadapa

Drainage Area : 37981 Sq. Km.

Bank : Right

Latitude : 14°34'20"

Longitude : 78°48'00"

Zero of Gauge (m) : 111.000 (m.s.l)
115.805 (m.s.l)

13/07/1989 - 31/05/1992
01/06/1992

Opening Date

Closing Date

Gauge : 13/07/1989

Discharge : 13/07/1989

Sediment : 08/08/1989

Water Quality : 01/09/1989

Water Quality Datasheet for the period : 2017-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	03/07/2017	21/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	1.363	2.144	21.70
2	Colour_Cod (-)	Clear	Clear	Brown
3	EC_FLD (μmho/cm)	1106	1226	911
4	EC_GEN (μmho/cm)	1615	1112	646
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.0	7.8	7.7
7	pH_GEN (pH units)	8.0	8.0	7.3
8	TDS (mg/L)	860	591	347
9	Temp (deg C)	27.0	26.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	146	158	97
3	Ca (mg/L)	40	46	16
4	Cl (mg/L)	328.7	171.1	126.9
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.95	0.92	0.88
7	Fe (mg/L)			0.2
8	HCO3 (mg/L)	178	193	118
9	K (mg/L)	7.0	5.8	7.7
10	Mg (mg/L)	25.6	22.1	14.7
11	Na (mg/L)	246.0	133.5	98.4
12	NH3-N (mg N/L)	0.03	0.03	0.03
13	NO2+NO3 (mg N/L)	0.01	0.43	3.71
14	NO2-N (mgN/L)	0.00	0.00	0.00
15	NO3-N (mgN/L)	0.01	0.43	3.71
16	o-PO4-P (mg P/L)	0.028	0.030	0.012
17	SO4 (mg/L)	162.5	139.0	11.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.4	2.2	2.2
2	DO (mg/L)	6.1	6.5	6.2
3	DO_SAT% (%)	76	81	75
	TRACE & TOXIC			
1	As (μg/L)			2.0
2	Cd (μg/L)			0.0
3	Cr (μg/L)			20.0
4	Cu (μg/L)			2.0
5	Ni (μg/L)			
6	Pb (μg/L)			4.0
7	Zn (μg/L)			11.0
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	101	115	40
2	HAR_Total (mgCaCO3/L)	208	208	102
3	Na% (%)	71	58	66
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	7.5	4.0	4.3
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	04/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	42.62	653.0	398.2
2	Colour_Cod (-)	Clear	Brown	Clear
3	EC_FLD (μ mho/cm)	917	559	620
4	EC_GEN (μ mho/cm)	940	351	645
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.0	7.0	8.3
7	pH_GEN (pH units)	7.5	7.8	7.5
8	TDS (mg/L)	500	188	342
9	Temp (deg C)	27.0	25.0	27.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	240	63	105
3	Ca (mg/L)	65	13	40
4	Cl (mg/L)	118.4	64.1	86.3
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.63	0.62	0.12
7	Fe (mg/L)			
8	HCO3 (mg/L)	293	77	128
9	K (mg/L)	8.1	7.5	4.1
10	Mg (mg/L)	34.4	7.8	13.6
11	Na (mg/L)	88.0	48.0	66.0
12	NH3-N (mg N/L)	0.08	0.03	0.03
13	NO2+NO3 (mg N/L)	0.15	0.07	0.23
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.14	0.06	0.22
16	o-PO4-P (mg P/L)	0.014	0.044	0.006
17	SO4 (mg/L)	59.6	19.3	77.8
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.7	2.3	1.9
2	DO (mg/L)	6.1	5.3	5.4
3	DO_SAT% (%)	77	64	68
	TRACE & TOXIC			
1	As (μ g/L)			
2	Cd (μ g/L)			
3	Cr (μ g/L)			
4	Cu (μ g/L)			
5	Ni (μ g/L)			
6	Pb (μ g/L)			
7	Zn (μ g/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	162	32	100
2	HAR_Total (mgCaCO3/L)	305	64	157
3	Na% (%)	38	59	47
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.2	2.6	2.3
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	04/12/2017	03/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	250.8	31.86	20.66
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	530	547	583
4	EC_GEN (µmho/cm)	735	936	1018
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.1	7.6	8.2
7	pH_GEN (pH units)	8.2	8.1	8.2
8	TDS (mg/L)	390	496	540
9	Temp (deg C)	26.0	25.5	25.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	118	122	119
3	Ca (mg/L)	43	21	43
4	Cl (mg/L)	88.2	139.2	149.5
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.50	0.53	0.65
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	144	149	145
9	K (mg/L)	3.8	4.2	5.0
10	Mg (mg/L)	18.5	35.0	21.4
11	Na (mg/L)	68.0	109.5	114.2
12	NH3-N (mg N/L)	0.04	0.02	0.07
13	NO2+NO3 (mg N/L)	0.10	0.08	0.19
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.09	0.07	0.18
16	o-PO4-P (mg P/L)	0.028	0.006	0.010
17	SO4 (mg/L)	85.4	114.4	125.5
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.4	1.3	1.1
2	DO (mg/L)	5.2	5.9	6.2
3	DO_SAT% (%)	64	71	75
	TRACE & TOXIC			
1	As (µg/L)	7.9		
2	Cd (µg/L)	0.0		
3	Cr (µg/L)	5.0		
4	Cu (µg/L)	1.8		
5	Ni (µg/L)	11.4		
6	Pb (µg/L)	1.2		
7	Zn (µg/L)	23.4		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	108	52	108
2	HAR_Total (mgCaCO3/L)	185	198	197
3	Na% (%)	44	54	55
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.2	3.4	3.5
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	02/03/2018	03/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	6.219	2.898	0.659
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	872	1135	1133
4	EC_GEN (μmho/cm)	1249	1324	1577
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.7	8.2	7.8
7	pH_GEN (pH units)	8.0	8.3	8.3
8	TDS (mg/L)	662	705	840
9	Temp (deg C)	22.0	25.5	27.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	187	183	215
3	Ca (mg/L)	63	71	77
4	Cl (mg/L)	176.6	182.5	223.2
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.72	0.70	0.94
7	Fe (mg/L)		0.1	
8	HCO3 (mg/L)	228	223	262
9	K (mg/L)	5.3	4.9	6.2
10	Mg (mg/L)	30.2	31.1	32.1
11	Na (mg/L)	136.2	140.5	172.5
12	NH3-N (mg N/L)	0.05	0.17	0.12
13	NO2+NO3 (mg N/L)	0.39	0.15	0.31
14	NO2-N (mgN/L)	0.01	0.02	0.11
15	NO3-N (mgN/L)	0.38	0.13	0.20
16	o-PO4-P (mg P/L)	0.033	0.032	0.025
17	SO4 (mg/L)	138.7	162.8	220.5
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.4	2.2	1.1
2	DO (mg/L)	5.1	5.1	5.0
3	DO_SAT% (%)	58	61	63
	TRACE & TOXIC			
1	As (μg/L)		1.2	
2	Cd (μg/L)		0.1	
3	Cr (μg/L)		0.8	
4	Cu (μg/L)		3.4	
5	Ni (μg/L)		2.8	
6	Pb (μg/L)		2.0	
7	Zn (μg/L)		30.9	
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	156	176	192
2	HAR_Total (mgCaCO3/L)	282	306	326
3	Na% (%)	51	50	53
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.5	3.5	4.2
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1643	0.000	113.2
2	EC_FLD (µmho/cm)	12	1226	530	845
3	EC_GEN (µmho/cm)	12	1615	351	1012
4	pH_FLD (pH units)	12	8.7	7.0	8
5	pH_GEN (pH units)	12	8.3	7.3	7.9
6	TDS (mg/L)	12	860	188	538
7	Temp (deg C)	12	27.0	22.0	25.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	12	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	12	240	63	146
3	Ca (mg/L)	12	77	13	45
4	Cl (mg/L)	12	328.7	64.1	154.6
5	CO3 (mg/L)	12	0.0	0.0	0
6	F (mg/L)	12	0.95	0.12	0.68
7	Fe (mg/L)	3	0.2	0.0	0.1
8	HCO3 (mg/L)	12	293	77	178
9	K (mg/L)	12	8.1	3.8	5.8
10	Mg (mg/L)	12	35.0	7.8	23.9
11	Na (mg/L)	12	246.0	48.0	118.4
12	NH3-N (mg N/L)	12	0.17	0.02	0.06
13	NO2+NO3 (mg N/L)	12	3.71	0.01	0.48
14	NO2-N (mgN/L)	12	0.11	0.00	0.02
15	NO3-N (mgN/L)	12	3.71	0.01	0.47
16	o-PO4-P (mg P/L)	12	0.044	0.006	0.022
17	SO4 (mg/L)	12	220.5	11.1	109.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	12	2.3	0.4	1.4
2	DO (mg/L)	12	6.5	5.0	5.7
3	DO_SAT% (%)	12	81	58	69
	TRACE & TOXIC				
1	As (µg/L)	3	7.9	1.2	3.7
2	Cd (µg/L)	3	0.1	0.0	0
3	Cr (µg/L)	3	20.0	0.8	8.6
4	Cu (µg/L)	3	3.4	1.8	2.4
5	Ni (µg/L)	2	11.4	2.8	7.1
6	Pb (µg/L)	3	4.0	1.2	2.4
7	Zn (µg/L)	3	30.9	11.0	21.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	12	192	32	112
2	HAR_Total (mgCaCO3/L)	12	326	64	212
3	Na% (%)	12	71	38	54
4	RSC (-)	12	0.0	0.0	0
5	SAR (-)	12	7.5	2.2	3.6
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	494.5	78.57	215.8	100.5	82.51
2	EC_FLD (µmho/cm)		730	724	804	871
3	EC_GEN (µmho/cm)	537	871	730	776	952
4	pH_FLD (pH units)	8.2	7.5	7.0	8.0	8.0
5	pH_GEN (pH units)	7.5	8.2	8.0	8.0	8.2
6	TDS (mg/L)					
7	Temp (deg C)	24.6	26.1	26.2	28.1	25.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	19.9	5.8	12.5	14.3
2	ALK-TOT (mgCaCO3/L)	130	174	213	234	166
3	Ca (mg/L)	32	34	33	36	40
4	Cl (mg/L)	64.8	132.1	96.8	130.2	128.4
5	CO3 (mg/L)	0.0	24.0	7.0	15.0	17.3
6	F (mg/L)			0.64	0.60	0.68
7	Fe (mg/L)					
8	HCO3 (mg/L)	158	163	245	256	167
9	K (mg/L)			5.9	5.4	6.3
10	Mg (mg/L)	13.1	18.9	14.6	22.6	27.2
11	Na (mg/L)	50.5		114.0	125.1	137.3
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.64	3.78
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	63.9	86.0	86.7	86.3	121.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.7	0.6	2.0	1.4	1.9
2	DO (mg/L)	6.2	6.0	5.9	6.5	7.0
3	DO_SAT% (%)	74	74	73	83	85
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	81	86	83	89	99
2	HAR_Total (mgCaCO3/L)	135	164	144	183	213
3	Na% (%)			61	57	55
4	RSC (-)	0.0	0.3	1.4	1.1	0.0
5	SAR (-)	1.9		4.1	4.1	4.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	14.22	104.5	154.8	28.55	270.3
2	EC_FLD (µmho/cm)	912	888	712	744	821
3	EC_GEN (µmho/cm)	1081	913	791	846	924
4	pH_FLD (pH units)	7.9	7.9	8.0	7.7	8.0
5	pH_GEN (pH units)	7.9	7.7	7.8	7.7	7.6
6	TDS (mg/L)	576	485	452	494	525
7	Temp (deg C)	27.8	25.0	26.4	27.4	26.6
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	195	114	132	132	126
3	Ca (mg/L)	26	34	30	32	44
4	Cl (mg/L)	138.7	176.8	157.7	158.0	163.5
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	0.92	1.01	0.77	0.67	0.62
7	Fe (mg/L)	0.0	0.0			0.0
8	HCO3 (mg/L)	238	140	161	161	153
9	K (mg/L)	5.3	4.9	4.5	4.3	4.3
10	Mg (mg/L)	28.3	16.4	19.9	19.5	16.3
11	Na (mg/L)	150.6	136.0	120.3	117.8	125.3
12	NH3-N (mg N/L)				0.09	0.06
13	NO2+NO3 (mg N/L)				1.24	1.93
14	NO2-N (mgN/L)				0.00	0.06
15	NO3-N (mgN/L)	3.12	2.47	1.02	1.23	1.86
16	o-PO4-P (mg P/L)				0.024	0.044
17	SO4 (mg/L)	114.7	117.4	97.5	85.4	109.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.5	1.9	2.0	2.4	1.9
2	DO (mg/L)	7.2	7.4	6.7	6.6	6.9
3	DO_SAT% (%)	91	89	83	83	85
	TRACE & TOXIC					
1	As (µg/L)	4.8	2.6			0.2
2	Cd (µg/L)	0.7	3.1			0.1
3	Cr (µg/L)	3.0	0.6			5.6
4	Cu (µg/L)	20.1	2.3			3.3
5	Hg (µg/L)		0.2			
6	Ni (µg/L)	3.5	4.3			0.8
7	Pb (µg/L)	4.4	2.0			0.5
8	Zn (µg/L)	1.8	7.0			4.6
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	66	86	75	79	109
2	HAR_Total (mgCaCO3/L)	184	154	158	160	177
3	Na% (%)	58	60	59	55	57
4	RSC (-)	0.5	0.0	0.0	0.0	0.0
5	SAR (-)	4.7	4.6	4.1	3.9	3.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	144.2	171.6	146.1	58.88	143.0
2	EC_FLD (µmho/cm)	944	587	607	807	739
3	EC_GEN (µmho/cm)	933	653	762	805	758
4	pH_FLD (pH units)	7.7	8.2	7.9	7.0	8.1
5	pH_GEN (pH units)	7.7	8.0	7.9	8.3	7.7
6	TDS (mg/L)	497				
7	Temp (deg C)	26.0	22.8	23.0	24.0	25.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	2.6	5.2	14.5	0.0
2	ALK-TOT (mgCaCO3/L)	141	164	178	313	208
3	Ca (mg/L)	36	34	30	38	41
4	Cl (mg/L)	161.8	67.4	106.8	111.7	106.7
5	CO3 (mg/L)	0.0	3.1	6.2	17.5	0.0
6	F (mg/L)	0.80			0.58	0.56
7	Fe (mg/L)	0.2				
8	HCO3 (mg/L)	172	193	204	347	254
9	K (mg/L)	7.2			7.2	4.5
10	Mg (mg/L)	20.9	17.1	30.0	21.4	21.0
11	Na (mg/L)	122.8	49.6		150.2	97.7
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	0.87				
14	NO2-N (mgN/L)	0.00				
15	NO3-N (mgN/L)	0.87				0.79
16	o-PO4-P (mg P/L)	0.026				
17	SO4 (mg/L)	78.3	65.9		80.4	85.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.7	1.1	1.6	1.1	1.6
2	DO (mg/L)	6.0	5.4	5.8	6.4	7.0
3	DO_SAT% (%)	74	63	67	76	86
	TRACE & TOXIC					
1	As (µg/L)	2.0				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	20.0				
4	Cu (µg/L)	2.0				
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)	4.0				
8	Zn (µg/L)	11.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	90	86	75	96	102
2	HAR_Total (mgCaCO3/L)	177	157	200	185	190
3	Na% (%)	58			63	52
4	RSC (-)	0.0	0.2	0.0	2.6	0.5
5	SAR (-)	4.1	1.8		4.8	3.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	99.41	23.81	130.1	46.67	11.67
2	EC_FLD (µmho/cm)	726	723	805	950	863
3	EC_GEN (µmho/cm)	754	939	690	1049	995
4	pH_FLD (pH units)	7.9	7.9	8.0	8.0	8.0
5	pH_GEN (pH units)	8.0	7.8	7.9	8.0	7.7
6	TDS (mg/L)		500	368	564	571
7	Temp (deg C)	24.6	23.6	24.4	24.3	23.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	5.7	0.0	0.0	3.7	0.0
2	ALK-TOT (mgCaCO3/L)	161	181	92	186	167
3	Ca (mg/L)	28	46	21	53	42
4	Cl (mg/L)	103.1	163.5	119.0	180.6	168.7
5	CO3 (mg/L)	6.9	0.0	0.0	4.5	0.0
6	F (mg/L)	0.46	1.28	0.53	0.60	0.66
7	Fe (mg/L)	0.1			0.1	
8	HCO3 (mg/L)	183	220	113	218	204
9	K (mg/L)	7.3	4.0	3.6	4.0	4.2
10	Mg (mg/L)	29.9	19.0	16.0	25.1	24.3
11	Na (mg/L)	89.9	143.9	86.7	130.3	129.3
12	NH3-N (mg N/L)				0.07	0.06
13	NO2+NO3 (mg N/L)				3.19	0.46
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	0.69	0.85	4.46	2.80	0.45
16	o-PO4-P (mg P/L)				0.025	0.008
17	SO4 (mg/L)	83.1	101.6	64.3	114.6	115.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	1.2	2.8	1.0	1.5
2	DO (mg/L)	7.1	7.2	7.4	6.9	6.2
3	DO_SAT% (%)	85	84	88	82	73
	TRACE & TOXIC					
1	As (µg/L)	2.0				
2	Cd (µg/L)	0.1			0.0	
3	Cr (µg/L)	5.0			2.8	
4	Cu (µg/L)	56.9			7.5	
5	Hg (µg/L)					
6	Ni (µg/L)	6.5			19.5	
7	Pb (µg/L)	1.3			12.6	
8	Zn (µg/L)	32.6			11.2	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	71	115	53	132	105
2	HAR_Total (mgCaCO3/L)	196	194	119	236	206
3	Na% (%)	49	61	61	54	57
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.8	4.5	3.5	3.7	3.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP00011)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	67.20	175.4	13.12	6.859	20.31
2	EC_FLD (µmho/cm)	639	570	662	1083	1070
3	EC_GEN (µmho/cm)	744	834	900	1025	1061
4	pH_FLD (pH units)	7.6	8.1	8.3	7.0	7.0
5	pH_GEN (pH units)	7.7	8.0	8.0	8.1	8.3
6	TDS (mg/L)	400	442			
7	Temp (deg C)	23.1	26.0	25.5	25.3	26.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	11.3	27.7
2	ALK-TOT (mgCaCO3/L)	118	116	186	253	310
3	Ca (mg/L)	40	37	40	35	40
4	Cl (mg/L)	115.2	115.8	116.7	135.2	148.8
5	CO3 (mg/L)	0.0	0.0	0.0	13.6	33.3
6	F (mg/L)	0.59	0.45			0.70
7	Fe (mg/L)	0.1	0.0			
8	HCO3 (mg/L)	144	142	227	281	310
9	K (mg/L)	3.4	4.3		3.7	5.9
10	Mg (mg/L)	15.3	22.1	21.2	24.6	31.8
11	Na (mg/L)	87.3	89.4		189.5	175.4
12	NH3-N (mg N/L)	0.04	0.04			
13	NO2+NO3 (mg N/L)	0.35	0.15			
14	NO2-N (mgN/L)	0.00	0.01			
15	NO3-N (mgN/L)	0.35	0.14			1.29
16	o-PO4-P (mg P/L)	0.013	0.013			
17	SO4 (mg/L)	74.7	100.8	108.5	160.9	144.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.7	1.1	0.9	0.7	0.4
2	DO (mg/L)	6.4	5.7	6.2	6.2	6.7
3	DO_SAT% (%)	74	70	75	76	84
	TRACE & TOXIC					
1	As (µg/L)	2.2	7.9	2.6	55.3	
2	Cd (µg/L)	0.0	0.0	1.0		
3	Cr (µg/L)	1.8	5.0	0.8	1.9	
4	Cu (µg/L)	2.9	1.8	14.4	8.4	
5	Hg (µg/L)					
6	Ni (µg/L)	4.3	11.4		21.6	
7	Pb (µg/L)	0.7	1.2	2.1	1.1	
8	Zn (µg/L)	1.6	23.4	21.0		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	100	92	99	88	99
2	HAR_Total (mgCaCO3/L)	164	184	188	191	232
3	Na% (%)	53	50		68	61
4	RSC (-)	0.0	0.0	0.1	1.5	1.6
5	SAR (-)	3.0	2.9		6.1	5.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP000I1)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	34.80	3.822	1.958	23.35
2	EC_FLD (µmho/cm)	866	1077	940	813
3	EC_GEN (µmho/cm)	956	1213	1201	934
4	pH_FLD (pH units)	8.0	8.0	7.9	8.0
5	pH_GEN (pH units)	8.1	7.8	8.0	8.4
6	TDS (mg/L)			638	496
7	Temp (deg C)	26.2	26.2	25.8	25.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	6.2
2	ALK-TOT (mgCaCO3/L)	206	217	163	135
3	Ca (mg/L)	43	32	35	34
4	Cl (mg/L)	149.7	184.4	218.7	159.8
5	CO3 (mg/L)	0.0	0.0	0.0	7.4
6	F (mg/L)	0.68	0.69	1.38	0.69
7	Fe (mg/L)		0.0	0.1	0.0
8	HCO3 (mg/L)	251	265	198	149
9	K (mg/L)	5.3	10.8	4.9	3.8
10	Mg (mg/L)	26.2	36.9	23.5	23.9
11	Na (mg/L)	136.0	193.8	173.7	120.9
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.65	8.93	1.63	6.29
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	115.2	177.8	124.6	105.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.2	2.1	0.9	2.5
2	DO (mg/L)	7.1	7.3	7.1	7.0
3	DO_SAT% (%)	88	90	87	84
	TRACE & TOXIC				
1	As (µg/L)	1.9	1.7	3.0	4.5
2	Cd (µg/L)	0.0	0.1	0.4	0.1
3	Cr (µg/L)	0.4	22.5	0.9	0.2
4	Cu (µg/L)	4.8	20.4	3.5	3.0
5	Hg (µg/L)			0.4	
6	Ni (µg/L)		7.1	170.9	4.1
7	Pb (µg/L)	0.4	10.9	11.8	1.7
8	Zn (µg/L)	4.8	39.0	19.6	9.0
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	107	79	87	86
2	HAR_Total (mgCaCO3/L)	216	233	185	185
3	Na% (%)	57	62	66	58
4	RSC (-)	0.1	0.1	0.0	0.0
5	SAR (-)	4.0	5.6	5.6	3.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chennur (AP000I1)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	1.782	0.498	3.870	3.259
2	EC_FLD (μmho/cm)	1360	1384	1114	1047
3	EC_GEN (μmho/cm)	1511	1474	1308	1383
4	pH_FLD (pH units)	8.1	8.2	8.1	8.2
5	pH_GEN (pH units)	7.8	8.1	7.4	8.2
6	TDS (mg/L)	913	883	714	736
7	Temp (deg C)	25.8	28.0	26.5	24.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	174	202	170	195
3	Ca (mg/L)	48	61	53	70
4	Cl (mg/L)	310.9	251.5	207.6	194.1
5	CO3 (mg/L)	0.0	0.0	0.0	0.0
6	F (mg/L)	0.78	0.82	0.81	0.79
7	Fe (mg/L)		0.0	0.1	0.1
8	HCO3 (mg/L)	213	247	207	238
9	K (mg/L)	6.0	6.2	5.7	5.5
10	Mg (mg/L)	29.8	35.0	24.6	31.1
11	Na (mg/L)	240.2	192.5	159.7	149.7
12	NH3-N (mg N/L)	0.13	0.03	0.03	0.11
13	NO2+NO3 (mg N/L)	1.15	0.45	0.30	0.28
14	NO2-N (mgN/L)	0.01	0.00	0.00	0.04
15	NO3-N (mgN/L)	1.14	0.45	0.30	0.24
16	o-PO4-P (mg P/L)	0.011	0.000	0.005	0.030
17	SO4 (mg/L)	212.9	208.2	163.9	174.0
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.5	0.7	2.4	1.2
2	DO (mg/L)	7.2	7.1	6.5	5.1
3	DO_SAT% (%)	87	91	81	61
	TRACE & TOXIC				
1	As (μg/L)		1.7	17.0	1.2
2	Cd (μg/L)		0.7	0.0	0.1
3	Cr (μg/L)		0.4	11.0	0.8
4	Cu (μg/L)		2.4	9.0	3.4
5	Hg (μg/L)		0.0		
6	Ni (μg/L)		5.9	0.0	2.8
7	Pb (μg/L)		1.5	5.0	2.0
8	Zn (μg/L)		4.8	9.0	30.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	120	152	134	175
2	HAR_Total (mgCaCO3/L)	244	298	236	305
3	Na% (%)	68	58	59	51
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	6.7	4.9	4.5	3.7
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Kamalapuram	Code	: APE00C5
State	: Andhra Pradesh	District	Cuddapah
Basin	: Pennar	Independent River	: Pennar
Tributary	: Papagni	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Papagni
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 7187 Sq. Km.	Bank	: Left
Latitude	: 14°35'30"	Longitude	: 78°41'00"
Zero of Gauge (m)	: 135.650 (m.s.l) 132.650 (m.s.l)	06/11/1989	- 31/05/2008
	Opening Date	01/06/2008	
		Closing Date	
Gauge	: 06/11/1989		
Discharge	: 16/06/1990		
Sediment	:		
Water Quality	: 01/06/1994		

Water Quality Datasheet for the period : 2017-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	25/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	16.17
2	Colour_Cod (-)			Brown
3	EC_GEN (μmho/cm)			215
4	Odour_Code (-)			odour free
5	pH_FLD (pH units)			7.0
6	pH_GEN (pH units)			7.6
7	TDS (mg/L)			114
8	Temp (deg C)			27.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			0.0
2	ALK-TOT (mgCaCO3/L)			80
3	Ca (mg/L)			18
4	Cl (mg/L)			17.3
5	CO3 (mg/L)			0.0
6	F (mg/L)			0.55
7	Fe (mg/L)			1.6
8	HCO3 (mg/L)			98
9	K (mg/L)			7.1
10	Mg (mg/L)			5.9
11	Na (mg/L)			13.4
12	NH3-N (mg N/L)			0.03
13	NO2+NO3 (mg N/L)			0.24
14	NO2-N (mgN/L)			0.01
15	NO3-N (mgN/L)			0.24
16	o-PO4-P (mg P/L)			0.014
17	SO4 (mg/L)			4.5
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			3.7
	TRACE & TOXIC			
1	As (μg/L)			3.0
2	Cd (μg/L)			0.0
3	Cr (μg/L)			24.0
4	Cu (μg/L)			10.0
5	Pb (μg/L)			5.0
6	Zn (μg/L)			13.0
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			45
2	HAR_Total (mgCaCO3/L)			69
3	Na% (%)			27
4	RSC (-)			0.2
5	SAR (-)			0.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	07/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	14.34	67.17	Dry Bed
2	Colour_Cod (-)	Brown	Brown	
3	EC_GEN (µmho/cm)	260	190	
4	Odour_Code (-)	odour free	odour free	
5	pH_FLD (pH units)	7.0	7.0	
6	pH_GEN (pH units)	8.1	7.8	
7	TDS (mg/L)	140	101	
8	Temp (deg C)	27.0	26.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	69	46	
3	Ca (mg/L)	16	8	
4	Cl (mg/L)	34.9	29.1	
5	CO3 (mg/L)	0.0	0.0	
6	F (mg/L)	0.58	0.31	
7	Fe (mg/L)			
8	HCO3 (mg/L)	85	57	
9	K (mg/L)	7.4	7.3	
10	Mg (mg/L)	8.8	2.9	
11	Na (mg/L)	26.4	22.6	
12	NH3-N (mg N/L)	0.05	0.03	
13	NO2+NO3 (mg N/L)	2.20	0.50	
14	NO2-N (mgN/L)	0.01	0.01	
15	NO3-N (mgN/L)	2.19	0.49	
16	o-PO4-P (mg P/L)	0.010	0.028	
17	SO4 (mg/L)	5.2	4.2	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.5	1.4	
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Pb (µg/L)			
6	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	40	20	
2	HAR_Total (mgCaCO3/L)	77	32	
3	Na% (%)	40	54	
4	RSC (-)	0.0	0.3	
5	SAR (-)	1.3	1.7	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Pb (μg/L)			
6	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Pb (μg/L)			
6	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	348.1	0.000	2.923
2	EC_GEN (µmho/cm)	3	260	190	222
3	pH_FLD (pH units)	3	7.0	7.0	7
4	pH_GEN (pH units)	3	8.1	7.6	7.9
5	TDS (mg/L)	3	140	101	118
6	Temp (deg C)	3	27.0	26.0	26.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	3	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	3	80	46	65
3	Ca (mg/L)	3	18	8	14
4	Cl (mg/L)	3	34.9	17.3	27.1
5	CO3 (mg/L)	3	0.0	0.0	0
6	F (mg/L)	3	0.58	0.31	0.48
7	Fe (mg/L)	1	1.6	1.6	1.6
8	HCO3 (mg/L)	3	98	57	80
9	K (mg/L)	3	7.4	7.1	7.3
10	Mg (mg/L)	3	8.8	2.9	5.9
11	Na (mg/L)	3	26.4	13.4	20.8
12	NH3-N (mg N/L)	3	0.05	0.03	0.04
13	NO2+NO3 (mg N/L)	3	2.20	0.24	0.98
14	NO2-N (mgN/L)	3	0.01	0.01	0.01
15	NO3-N (mgN/L)	3	2.19	0.24	0.97
16	o-PO4-P (mg P/L)	3	0.028	0.010	0.017
17	SO4 (mg/L)	3	5.2	4.2	4.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	3	3.7	0.5	1.9
	TRACE & TOXIC				
1	As (µg/L)	1	3.0	3.0	3
2	Cd (µg/L)	1	0.0	0.0	0
3	Cr (µg/L)	1	24.0	24.0	24
4	Cu (µg/L)	1	10.0	10.0	10
5	Pb (µg/L)	1	5.0	5.0	5
6	Zn (µg/L)	1	13.0	13.0	13
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	3	45	20	35
2	HAR_Total (mgCaCO3/L)	3	77	32	60
3	Na% (%)	3	54	27	41
4	RSC (-)	3	0.3	0.0	0.2
5	SAR (-)	3	1.7	0.7	1.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	6.839	0.657	0.488	0.956
2	EC_GEN (µmho/cm)		190	238	208	179
3	pH_FLD (pH units)		7.0	7.0	7.0	7.0
4	pH_GEN (pH units)		7.7	8.1	8.3	8.3
5	TDS (mg/L)					
6	Temp (deg C)		26.5	23.5	24.5	28.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	20.8	10.0
2	ALK-TOT (mgCaCO3/L)		79	102	59	78
3	Ca (mg/L)		14	16	15	12
4	Cl (mg/L)		34.3	36.2	31.5	26.5
5	CO3 (mg/L)		0.0	0.0	25.0	12.0
6	F (mg/L)			3.34	0.37	0.44
7	Fe (mg/L)					
8	HCO3 (mg/L)		97	124	21	71
9	K (mg/L)			3.4	2.4	2.3
10	Mg (mg/L)		9.7	4.9	8.8	12.6
11	Na (mg/L)			40.5	24.3	19.1
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.35	0.26
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)			8.4	18.0	6.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			0.2	1.8	1.9
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		34	41	37	30
2	HAR_Total (mgCaCO3/L)		75	61	73	83
3	Na% (%)			58	41	33
4	RSC (-)		0.1	0.8	0.0	0.0
5	SAR (-)			2.3	1.2	0.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	35.33	Dry Bed	1.916	1.941
2	EC_GEN (µmho/cm)		184		200	183
3	pH_FLD (pH units)		7.0		7.0	7.0
4	pH_GEN (pH units)		7.8		7.9	8.0
5	TDS (mg/L)		97		115	100
6	Temp (deg C)		26.8		27.3	24.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0		0.0	4.2
2	ALK-TOT (mgCaCO3/L)		55		56	57
3	Ca (mg/L)		13		11	12
4	Cl (mg/L)		25.5		31.2	21.5
5	CO3 (mg/L)		0.0		0.0	5.0
6	F (mg/L)		0.30		0.57	0.44
7	Fe (mg/L)					0.0
8	HCO3 (mg/L)		67		69	60
9	K (mg/L)		2.3		1.8	1.9
10	Mg (mg/L)		6.6		6.5	3.9
11	Na (mg/L)		21.1		23.7	22.1
12	NH3-N (mg N/L)				0.03	0.04
13	NO2+NO3 (mg N/L)				0.43	0.55
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)		2.25		0.43	0.55
16	o-PO4-P (mg P/L)				0.015	0.023
17	SO4 (mg/L)		22.7		11.1	6.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.0		2.4	1.0
	TRACE & TOXIC					
1	As (µg/L)					0.6
2	Cd (µg/L)					0.1
3	Cr (µg/L)					3.8
4	Cu (µg/L)					2.0
5	Ni (µg/L)					1.3
6	Pb (µg/L)					0.9
7	Zn (µg/L)					3.8
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		33		28	30
2	HAR_Total (mgCaCO3/L)		61		55	46
3	Na% (%)		42		48	50
4	RSC (-)		0.0		0.0	0.2
5	SAR (-)		1.2		1.4	1.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	19.54	1.281	2.031	Dry Bed	1.257
2	EC_GEN (µmho/cm)	222		426		258
3	pH_FLD (pH units)	7.0		7.0		7.0
4	pH_GEN (pH units)	7.9		8.4		8.5
5	TDS (mg/L)	118				
6	Temp (deg C)	26.7		25.0		28.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		20.7		19.1
2	ALK-TOT (mgCaCO3/L)	65		203		78
3	Ca (mg/L)	14		26		16
4	Cl (mg/L)	27.1		47.7		33.7
5	CO3 (mg/L)	0.0		25.0		23.0
6	F (mg/L)	0.48				0.40
7	Fe (mg/L)	1.6				
8	HCO3 (mg/L)	80		197		49
9	K (mg/L)	7.3				2.9
10	Mg (mg/L)	5.9		15.1		7.8
11	Na (mg/L)	20.8				25.7
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	0.98				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	0.97				0.85
16	o-PO4-P (mg P/L)	0.017				
17	SO4 (mg/L)	4.6				19.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.9				1.2
	TRACE & TOXIC					
1	As (µg/L)	3.0				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	24.0				
4	Cu (µg/L)	10.0				
5	Ni (µg/L)					
6	Pb (µg/L)	5.0				
7	Zn (µg/L)	13.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	35		64		41
2	HAR_Total (mgCaCO3/L)	60		127		73
3	Na% (%)	41				42
4	RSC (-)	0.2		1.5		0.1
5	SAR (-)	1.3				1.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	3.732	Dry Bed	8.515
2	EC_GEN (µmho/cm)			443		409
3	pH_FLD (pH units)			7.0		7.0
4	pH_GEN (pH units)			8.4		8.3
5	TDS (mg/L)			236		247
6	Temp (deg C)			25.0		24.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			9.6		4.6
2	ALK-TOT (mgCaCO3/L)			68		131
3	Ca (mg/L)			6		25
4	Cl (mg/L)			73.0		60.6
5	CO3 (mg/L)			11.6		5.5
6	F (mg/L)			0.43		0.84
7	Fe (mg/L)					
8	HCO3 (mg/L)			59		149
9	K (mg/L)			3.5		2.9
10	Mg (mg/L)			8.8		14.6
11	Na (mg/L)			55.0		45.4
12	NH3-N (mg N/L)					0.04
13	NO2+NO3 (mg N/L)					0.29
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)			2.30		0.28
16	o-PO4-P (mg P/L)					0.016
17	SO4 (mg/L)			13.3		20.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			1.5		2.2
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			16		63
2	HAR_Total (mgCaCO3/L)			53		124
3	Na% (%)			68		44
4	RSC (-)			0.3		0.2
5	SAR (-)			3.3		1.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kamalapuram (APE00C5)

Division : Hydrology Division, Chennai

Local River : Papagni

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

Water Year : 2017-2018

Site : Alladupalli

Code : APF00B8

State : Andhra Pradesh

District Kadapa

Basin : Pennar

Independent River : Pennar

Tributary : Kunderu

Sub Tributary :

Sub-Sub Tributary :

Local River : Kunderu

Division : Hydrology Division, Chennai

Sub-Division : PSD, Kadapa

Drainage Area : 8758 Sq. Km.

Bank : Left

Latitude : 14°43'02"

Longitude : 78°40'07"

Zero of Gauge (m) : 94.000 (m.s.l)
132.955 (m.s.l)

18/07/1985 - 31/05/2003
01/06/2003

Opening Date

Closing Date

Gauge : 18/07/1985

Discharge : 21/08/1985

Sediment : 11/07/1996

Water Quality : 01/07/1987

Water Quality Datasheet for the period : 2017-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	04/07/2017	17/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	2.732	2.605	2.180
2	Colour_Cod (-)	Clear	Light Brown	Light Brown
3	EC_FLD (µmho/cm)	998	1012	912
4	EC_GEN (µmho/cm)	1626	1006	1190
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.5	7.5	7.5
7	pH_GEN (pH units)	7.9	8.1	7.5
8	TDS (mg/L)	865	539	634
9	Temp (deg C)	25.0	24.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	188	163	168
3	Ca (mg/L)	42	49	49
4	Cl (mg/L)	326.8	142.3	178.8
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.96	0.97	0.84
7	Fe (mg/L)			0.2
8	HCO3 (mg/L)	229	198	205
9	K (mg/L)	6.4	5.4	9.1
10	Mg (mg/L)	37.3	25.6	28.5
11	Na (mg/L)	242.0	110.5	137.6
12	NH3-N (mg N/L)	0.03	0.03	0.03
13	NO2+NO3 (mg N/L)	0.03	0.64	2.03
14	NO2-N (mgN/L)	0.00	0.01	0.01
15	NO3-N (mgN/L)	0.02	0.64	2.03
16	o-PO4-P (mg P/L)	0.025	0.035	0.017
17	SO4 (mg/L)	142.1	129.4	101.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.1	1.9	2.5
2	DO (mg/L)	4.8	4.7	6.4
3	DO_SAT% (%)	58	55	77
	TRACE & TOXIC			
1	As (µg/L)			3.0
2	Cd (µg/L)			0.0
3	Cr (µg/L)			11.0
4	Cu (µg/L)			5.0
5	Ni (µg/L)			
6	Pb (µg/L)			5.0
7	Zn (µg/L)			8.0
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	105	121	123
2	HAR_Total (mgCaCO3/L)	261	228	242
3	Na% (%)	66	51	54
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	6.5	3.2	3.9
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	04/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	43.27	497.3	338.0
2	Colour_Cod (-)	Light Brown	Brown	Light Brown
3	EC_FLD (µmho/cm)	986	884	892
4	EC_GEN (µmho/cm)	924	637	794
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.5	7.0	7.7
7	pH_GEN (pH units)	7.3	7.4	7.3
8	TDS (mg/L)	490	338	421
9	Temp (deg C)	26.0	26.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	99	109	122
3	Ca (mg/L)	31	24	46
4	Cl (mg/L)	186.4	102.9	111.7
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.55	0.58	0.08
7	Fe (mg/L)			
8	HCO3 (mg/L)	121	134	149
9	K (mg/L)	8.2	7.8	4.4
10	Mg (mg/L)	16.7	12.7	18.5
11	Na (mg/L)	136.5	80.0	85.5
12	NH3-N (mg N/L)	0.05	0.03	0.03
13	NO2+NO3 (mg N/L)	0.18	1.46	0.68
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.17	1.46	0.67
16	o-PO4-P (mg P/L)	0.061	0.199	0.004
17	SO4 (mg/L)	56.4	28.8	88.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	3.1	1.5	2.3
2	DO (mg/L)	5.5	7.1	6.7
3	DO_SAT% (%)	67	87	81
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	77	60	116
2	HAR_Total (mgCaCO3/L)	147	113	193
3	Na% (%)	66	59	48
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	4.9	3.3	2.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	04/12/2017	03/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	184.7	35.31	29.73
2	Colour_Cod (-)	Light Brown	Clear	Light Brown
3	EC_FLD (µmho/cm)	816	912	846
4	EC_GEN (µmho/cm)	888	1076	1076
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.6	8.5	8.3
7	pH_GEN (pH units)	8.2	8.1	7.1
8	TDS (mg/L)	471	572	571
9	Temp (deg C)	24.0	22.0	21.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	206	88	174
3	Ca (mg/L)	55	30	56
4	Cl (mg/L)	100.0	196.0	133.9
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.76	0.62	0.84
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	252	108	213
9	K (mg/L)	3.5	4.2	4.6
10	Mg (mg/L)	22.4	16.5	30.2
11	Na (mg/L)	78.0	154.0	101.2
12	NH3-N (mg N/L)	0.03	0.05	0.05
13	NO2+NO3 (mg N/L)	0.09	0.11	0.52
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.08	0.11	0.51
16	o-PO4-P (mg P/L)	0.018	0.004	0.000
17	SO4 (mg/L)	68.3	132.4	135.7
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.7	1.4	0.6
2	DO (mg/L)	8.1	6.4	7.1
3	DO_SAT% (%)	96	73	80
	TRACE & TOXIC			
1	As (µg/L)	2.0		
2	Cd (µg/L)	0.0		
3	Cr (µg/L)	5.1		
4	Cu (µg/L)	3.7		
5	Ni (µg/L)	1.5		
6	Pb (µg/L)	1.2		
7	Zn (µg/L)	13.6		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	136	76	140
2	HAR_Total (mgCaCO3/L)	229	145	266
3	Na% (%)	42	69	45
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.2	5.6	2.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	02/03/2018	03/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	10.54	2.278	1.419
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	914	926	918
4	EC_GEN (µmho/cm)	1224	1358	1385
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.1	7.9	8.1
7	pH_GEN (pH units)	7.6	7.9	7.8
8	TDS (mg/L)	648	723	737
9	Temp (deg C)	22.5	24.0	26.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	187	191	226
3	Ca (mg/L)	64	69	67
4	Cl (mg/L)	168.9	192.2	163.1
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.77	0.74	0.89
7	Fe (mg/L)		0.1	
8	HCO3 (mg/L)	228	234	275
9	K (mg/L)	5.4	5.7	5.7
10	Mg (mg/L)	30.2	34.1	42.8
11	Na (mg/L)	128.2	147.5	126.0
12	NH3-N (mg N/L)	0.05	0.11	0.11
13	NO2+NO3 (mg N/L)	0.41	1.51	0.86
14	NO2-N (mgN/L)	0.01	0.01	0.04
15	NO3-N (mgN/L)	0.40	1.50	0.82
16	o-PO4-P (mg P/L)	0.036	0.036	0.028
17	SO4 (mg/L)	126.4	172.4	206.6
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.7	1.0	1.7
2	DO (mg/L)	6.1	7.1	5.0
3	DO_SAT% (%)	70	84	61
	TRACE & TOXIC			
1	As (µg/L)		1.2	
2	Cd (µg/L)		0.1	
3	Cr (µg/L)		0.8	
4	Cu (µg/L)		0.9	
5	Ni (µg/L)		2.1	
6	Pb (µg/L)		2.5	
7	Zn (µg/L)		30.6	
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	160	172	168
2	HAR_Total (mgCaCO3/L)	286	314	347
3	Na% (%)	49	50	44
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.3	3.6	3.0
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1529	0.000	100.3
2	EC_FLD (µmho/cm)	12	1012	816	918
3	EC_GEN (µmho/cm)	12	1626	637	1099
4	pH_FLD (pH units)	12	8.6	7.0	7.9
5	pH_GEN (pH units)	12	8.2	7.1	7.7
6	TDS (mg/L)	12	865	338	584
7	Temp (deg C)	12	26.0	21.5	24.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	12	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	12	226	88	160
3	Ca (mg/L)	12	69	24	49
4	Cl (mg/L)	12	326.8	100.0	166.9
5	CO3 (mg/L)	12	0.0	0.0	0
6	F (mg/L)	12	0.97	0.08	0.72
7	Fe (mg/L)	3	0.2	0.0	0.1
8	HCO3 (mg/L)	12	275	108	195
9	K (mg/L)	12	9.1	3.5	5.9
10	Mg (mg/L)	12	42.8	12.7	26.3
11	Na (mg/L)	12	242.0	78.0	127.3
12	NH3-N (mg N/L)	12	0.11	0.03	0.05
13	NO2+NO3 (mg N/L)	12	2.03	0.03	0.71
14	NO2-N (mgN/L)	12	0.04	0.00	0.01
15	NO3-N (mgN/L)	12	2.03	0.02	0.7
16	o-PO4-P (mg P/L)	12	0.199	0.000	0.039
17	SO4 (mg/L)	12	206.6	28.8	115.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	12	3.1	0.6	1.6
2	DO (mg/L)	12	8.1	4.7	6.2
3	DO_SAT% (%)	12	96	55	74
	TRACE & TOXIC				
1	As (µg/L)	3	3.0	1.2	2.1
2	Cd (µg/L)	3	0.1	0.0	0
3	Cr (µg/L)	3	11.0	0.8	5.6
4	Cu (µg/L)	3	5.0	0.9	3.2
5	Ni (µg/L)	2	2.1	1.5	1.8
6	Pb (µg/L)	3	5.0	1.2	2.9
7	Zn (µg/L)	3	30.6	8.0	17.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	12	172	60	121
2	HAR_Total (mgCaCO3/L)	12	347	113	231
3	Na% (%)	12	69	42	54
4	RSC (-)	12	0.0	0.0	0
5	SAR (-)	12	6.5	2.2	3.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	279.9	26.94	138.5	74.62	81.92
2	EC_FLD (µmho/cm)	443	438	606	818	810
3	EC_GEN (µmho/cm)	423	733	676	886	927
4	pH_FLD (pH units)	7.2	7.0	7.0	7.5	7.6
5	pH_GEN (pH units)	7.5	8.0	7.6	8.0	8.1
6	TDS (mg/L)					
7	Temp (deg C)	26.2	26.8	26.7	29.8	28.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	10.0	0.0	10.3	8.0
2	ALK-TOT (mgCaCO3/L)	132	177	183	280	162
3	Ca (mg/L)	35	38	36	39	38
4	Cl (mg/L)	58.4	118.0	82.3	128.8	126.4
5	CO3 (mg/L)	0.0	12.0	0.0	12.4	9.6
6	F (mg/L)			0.66	0.66	0.67
7	Fe (mg/L)					
8	HCO3 (mg/L)	161	191	223	317	178
9	K (mg/L)			7.1	6.0	6.4
10	Mg (mg/L)	12.9	17.1	17.7	28.5	26.3
11	Na (mg/L)	48.9		82.8	136.4	139.1
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.89	3.71
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	52.6	83.7	86.9	101.1	126.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	1.2	2.1	1.3	1.8
2	DO (mg/L)	5.9	5.8	6.0	5.0	4.9
3	DO_SAT% (%)	73	73	75	66	64
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	87	95	91	97	94
2	HAR_Total (mgCaCO3/L)	141	166	164	216	203
3	Na% (%)			50	56	55
4	RSC (-)	0.0	0.2	0.5	1.3	0.0
5	SAR (-)	1.8		2.9	4.1	4.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	21.73	77.51	128.2	7.043	295.7
2	EC_FLD (µmho/cm)	924	948	952	914	871
3	EC_GEN (µmho/cm)	1138	942	870	1087	881
4	pH_FLD (pH units)	7.5	7.5	7.6	7.6	7.6
5	pH_GEN (pH units)	7.7	7.3	7.8	7.5	7.4
6	TDS (mg/L)	607	501	505	653	478
7	Temp (deg C)	28.9	27.5	29.5	28.7	26.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	235	141	134	133	120
3	Ca (mg/L)	40	42	32	33	42
4	Cl (mg/L)	173.7	178.4	183.2	225.7	143.7
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	1.07	1.06	0.80	0.76	0.70
7	Fe (mg/L)	0.0	0.0			0.1
8	HCO3 (mg/L)	287	172	163	162	147
9	K (mg/L)	6.5	4.7	5.1	5.7	4.6
10	Mg (mg/L)	27.8	17.7	20.2	20.3	16.0
11	Na (mg/L)	181.8	137.6	141.4	172.1	110.4
12	NH3-N (mg N/L)				0.08	0.04
13	NO2+NO3 (mg N/L)				1.61	1.51
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	3.33	2.63	1.12	1.61	1.51
16	o-PO4-P (mg P/L)				0.066	0.102
17	SO4 (mg/L)	127.9	119.1	113.8	129.2	103.4
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.4	2.1	1.8	1.7	2.0
2	DO (mg/L)	5.1	6.3	6.0	6.6	7.0
3	DO_SAT% (%)	67	80	79	84	88
	TRACE & TOXIC					
1	As (µg/L)	1.3	0.1			0.3
2	Cd (µg/L)	0.1	0.4			0.1
3	Cr (µg/L)	1.7	6.0			12.0
4	Cu (µg/L)	23.8	1.8			3.5
5	Hg (µg/L)		0.5			
6	Ni (µg/L)	4.7	4.9			3.0
7	Pb (µg/L)	3.3	5.2			0.3
8	Zn (µg/L)	2.7	9.0			3.5
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	99	106	80	82	104
2	HAR_Total (mgCaCO3/L)	215	180	164	167	171
3	Na% (%)	61	59	61	68	55
4	RSC (-)	0.7	0.0	0.0	0.0	0.0
5	SAR (-)	5.3	4.4	4.7	5.8	3.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	109.6	51.57	43.05	59.52	91.04
2	EC_FLD (µmho/cm)	958	426	436	584	882
3	EC_GEN (µmho/cm)	1077	673	798	900	733
4	pH_FLD (pH units)	7.4	7.0	7.0	7.0	7.5
5	pH_GEN (pH units)	7.6	8.0	7.8	7.8	7.9
6	TDS (mg/L)	573				
7	Temp (deg C)	25.2	21.8	20.9	22.8	25.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	3.6	4.2	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	145	159	196	356	219
3	Ca (mg/L)	39	32	31	42	39
4	Cl (mg/L)	187.4	71.0	101.5	122.1	96.3
5	CO3 (mg/L)	0.0	4.4	5.0	0.0	0.0
6	F (mg/L)	0.78			0.65	0.56
7	Fe (mg/L)	0.2				
8	HCO3 (mg/L)	177	185	229	434	267
9	K (mg/L)	7.4			8.3	4.7
10	Mg (mg/L)	24.1	22.6	33.4	29.6	23.5
11	Na (mg/L)	141.3	46.2		150.9	93.9
12	NH3-N (mg N/L)	0.03				
13	NO2+NO3 (mg N/L)	0.87				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	0.86				1.01
16	o-PO4-P (mg P/L)	0.067				
17	SO4 (mg/L)	91.6	71.5		89.4	88.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	1.6	0.6	1.4	1.3
2	DO (mg/L)	5.7	5.7	5.5	6.1	5.6
3	DO_SAT% (%)	69	65	62	71	68
	TRACE & TOXIC					
1	As (µg/L)	3.0				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	11.0				
4	Cu (µg/L)	5.0				
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)	5.0				
8	Zn (µg/L)	8.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	97	79	78	104	98
2	HAR_Total (mgCaCO3/L)	198	173	217	228	196
3	Na% (%)	59			58	50
4	RSC (-)	0.0	0.1	0.1	2.6	0.6
5	SAR (-)	4.4	1.5		4.4	2.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	69.10	28.41	144.0	65.72	2.752
2	EC_FLD (µmho/cm)	884	932	971	907	985
3	EC_GEN (µmho/cm)	766	944	765	1132	1502
4	pH_FLD (pH units)	7.5	7.5	7.6	7.5	7.5
5	pH_GEN (pH units)	7.7	7.6	7.5	7.9	7.6
6	TDS (mg/L)		504	407	606	885
7	Temp (deg C)	26.3	25.8	25.9	25.0	26.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	156	190	109	213	223
3	Ca (mg/L)	29	57	26	58	67
4	Cl (mg/L)	97.1	159.2	131.5	182.0	248.7
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	0.51	1.33	0.61	0.63	0.69
7	Fe (mg/L)				0.0	
8	HCO3 (mg/L)	190	232	133	259	271
9	K (mg/L)	6.9	3.8	3.9	4.3	5.3
10	Mg (mg/L)	23.6	16.9	17.8	26.6	35.4
11	Na (mg/L)	88.4	137.1	97.4	137.6	186.7
12	NH3-N (mg N/L)				0.07	0.06
13	NO2+NO3 (mg N/L)				4.49	0.96
14	NO2-N (mgN/L)				0.00	0.02
15	NO3-N (mgN/L)	0.60	0.86	4.94	3.39	0.93
16	o-PO4-P (mg P/L)				0.009	0.007
17	SO4 (mg/L)	84.2	105.0	76.3	120.9	200.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.7	1.3	2.6	1.3	1.9
2	DO (mg/L)	4.7	5.8	6.0	5.9	5.8
3	DO_SAT% (%)	58	71	74	72	72
	TRACE & TOXIC					
1	As (µg/L)	1.2				
2	Cd (µg/L)	0.1			2.5	
3	Cr (µg/L)	1.6			0.1	
4	Cu (µg/L)	5.1			9.8	
5	Hg (µg/L)					
6	Ni (µg/L)	6.4			11.6	
7	Pb (µg/L)	1.8			14.5	
8	Zn (µg/L)	20.7			179.4	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	73	141	66	146	168
2	HAR_Total (mgCaCO3/L)	171	212	140	256	316
3	Na% (%)	52	58	60	53	56
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.9	4.1	3.6	3.7	4.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	68.36	146.9	8.218	9.640	19.14
2	EC_FLD (µmho/cm)	856	867	465	897	1020
3	EC_GEN (µmho/cm)	853	959	857	1029	1079
4	pH_FLD (pH units)	7.5	8.3	7.0	7.0	7.0
5	pH_GEN (pH units)	7.8	7.7	7.8	8.0	8.1
6	TDS (mg/L)	458	509			
7	Temp (deg C)	22.4	23.1	26.3	27.0	25.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	12.7	24.9
2	ALK-TOT (mgCaCO3/L)	148	148	197	262	326
3	Ca (mg/L)	48	47	39	40	47
4	Cl (mg/L)	133.1	135.4	109.6	126.3	152.5
5	CO3 (mg/L)	0.0	0.0	0.0	15.3	30.0
6	F (mg/L)	0.63	0.58			0.73
7	Fe (mg/L)	0.1	0.0			
8	HCO3 (mg/L)	181	180	240	288	336
9	K (mg/L)	3.4	4.2		4.0	5.7
10	Mg (mg/L)	16.3	21.9	23.2	22.7	34.3
11	Na (mg/L)	102.0	104.7		188.4	169.7
12	NH3-N (mg N/L)	0.05	0.04			
13	NO2+NO3 (mg N/L)	0.85	0.35			
14	NO2-N (mgN/L)	0.12	0.01			
15	NO3-N (mgN/L)	0.73	0.34			0.48
16	o-PO4-P (mg P/L)	0.049	0.006			
17	SO4 (mg/L)	74.0	106.1	98.1	152.3	144.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.5	1.3	1.1	0.9	1.1
2	DO (mg/L)	6.7	7.1	5.7	6.2	6.6
3	DO_SAT% (%)	78	82	71	77	81
	TRACE & TOXIC					
1	As (µg/L)	1.9	2.0	8.5	49.9	
2	Cd (µg/L)	0.0	0.0	1.1		
3	Cr (µg/L)	1.8	5.1	0.8	1.5	
4	Cu (µg/L)	3.2	3.7	3.3	6.8	
5	Hg (µg/L)					
6	Ni (µg/L)	5.3	1.5		8.0	
7	Pb (µg/L)	0.0	1.2	2.2	0.9	
8	Zn (µg/L)	2.2	13.6	19.0		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	121	117	98	100	117
2	HAR_Total (mgCaCO3/L)	189	208	195	195	260
3	Na% (%)	53	51		70	58
4	RSC (-)	0.0	0.0	0.1	1.7	1.3
5	SAR (-)	3.2	3.3		6.3	4.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	30.83	5.557	3.172	30.75
2	EC_FLD (µmho/cm)	1044	1131	1085	1007
3	EC_GEN (µmho/cm)	950	1235	1200	913
4	pH_FLD (pH units)	7.6	7.5	7.5	7.5
5	pH_GEN (pH units)	8.1	7.3	7.5	7.9
6	TDS (mg/L)			640	489
7	Temp (deg C)	27.7	28.7	29.7	28.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	222	236	192	135
3	Ca (mg/L)	45	34	48	33
4	Cl (mg/L)	130.6	177.5	228.6	165.4
5	CO3 (mg/L)	0.0	0.0	0.0	0.0
6	F (mg/L)	0.69	0.72	1.42	0.73
7	Fe (mg/L)		0.0	0.1	0.1
8	HCO3 (mg/L)	270	288	234	165
9	K (mg/L)	5.4	11.0	6.3	3.7
10	Mg (mg/L)	23.0	32.4	22.2	21.5
11	Na (mg/L)	134.7	193.6	177.8	126.8
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.78	9.06	1.58	6.21
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	116.4	167.2	123.0	101.5
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.0	2.1	0.9	2.1
2	DO (mg/L)	5.1	3.1	4.2	4.6
3	DO_SAT% (%)	64	40	56	59
	TRACE & TOXIC				
1	As (µg/L)	1.9	1.3	2.3	3.8
2	Cd (µg/L)		0.1	0.4	0.0
3	Cr (µg/L)	0.8	14.6	1.0	1.2
4	Cu (µg/L)	6.6	19.8	2.0	6.1
5	Hg (µg/L)			1.0	
6	Ni (µg/L)		4.3	20.3	2.8
7	Pb (µg/L)	0.4	13.3	10.6	8.1
8	Zn (µg/L)	5.1	6.0	4.3	12.0
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	112	84	121	82
2	HAR_Total (mgCaCO3/L)	208	219	214	171
3	Na% (%)	58	64	63	61
4	RSC (-)	0.4	0.4	0.0	0.0
5	SAR (-)	4.1	5.7	5.4	4.2
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Alladupalli (APF00B8)

Division : Hydrology Division, Chennai

Local River : Kunderu

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	4.142	1.435	6.598	4.746
2	EC_FLD (µmho/cm)	972	986	992	919
3	EC_GEN (µmho/cm)	1459	1402	1576	1322
4	pH_FLD (pH units)	7.7	7.5	7.5	8.0
5	pH_GEN (pH units)	8.0	8.0	7.6	7.8
6	TDS (mg/L)	884	774	868	703
7	Temp (deg C)	28.3	32.5	25.5	24.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	184	172	220	201
3	Ca (mg/L)	52	51	71	67
4	Cl (mg/L)	294.8	230.1	253.8	174.7
5	CO3 (mg/L)	0.0	0.0	0.0	0.0
6	F (mg/L)	0.77	0.85	0.78	0.80
7	Fe (mg/L)		0.0	0.1	0.1
8	HCO3 (mg/L)	224	210	269	246
9	K (mg/L)	5.6	6.1	6.3	5.6
10	Mg (mg/L)	37.1	30.6	30.8	35.7
11	Na (mg/L)	219.8	175.3	194.7	133.9
12	NH3-N (mg N/L)	0.11	0.04	0.05	0.09
13	NO2+NO3 (mg N/L)	1.27	0.61	1.14	0.93
14	NO2-N (mgN/L)	0.09	0.00	0.01	0.02
15	NO3-N (mgN/L)	1.18	0.61	1.14	0.91
16	o-PO4-P (mg P/L)	0.021	0.000	0.004	0.033
17	SO4 (mg/L)	206.1	178.2	172.1	168.5
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.2	1.3	2.6	1.1
2	DO (mg/L)	5.9	5.8	5.4	6.0
3	DO_SAT% (%)	76	80	66	72
	TRACE & TOXIC				
1	As (µg/L)		1.2	9.0	1.2
2	Cd (µg/L)		0.5	0.0	0.1
3	Cr (µg/L)		0.3	22.0	0.8
4	Cu (µg/L)		3.1	1.3	0.9
5	Hg (µg/L)		0.0		
6	Ni (µg/L)		6.4	0.0	2.1
7	Pb (µg/L)		0.5	12.0	2.5
8	Zn (µg/L)		4.4	8.0	30.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	131	128	177	167
2	HAR_Total (mgCaCO3/L)	285	256	305	316
3	Na% (%)	62	59	58	48
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	5.7	4.8	4.9	3.3
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Tadipattri	Code	: AP000L8
State	: Andhra Pradesh	District	Anantapur
Basin	: Pennar	Independent River	: Pennar
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Pennar
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 12482 Sq. Km.	Bank	: Left
Latitude	: 14°55'19"	Longitude	: 78°00'59"
Zero of Gauge (m)	: 227.500 (m.s.l) 224.000 (m.s.l) 223.650 (m.s.l)	21/08/1971	- 22/12/1975
		23/12/1975	- 20/08/1979
		21/08/1979	
	Opening Date	Closing Date	
Gauge	: 21/08/1971		
Discharge	: 12/12/1971		
Sediment	:		
Water Quality	: 01/09/1979		

Water Quality Datasheet for the period : 2017-2018

Station Name : Tadipatttri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/09/2017	06/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	15.30	Dry Bed
2	Colour_Cod (-)		Brown	
3	EC_GEN (μmho/cm)		231	
4	Odour_Code (-)		odour free	
5	pH_FLD (pH units)		7.0	
6	pH_GEN (pH units)		7.5	
7	TDS (mg/L)		122	
8	Temp (deg C)		26.5	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	
2	ALK-TOT (mgCaCO3/L)		42	
3	Ca (mg/L)		10	
4	Cl (mg/L)		40.8	
5	CO3 (mg/L)		0.0	
6	F (mg/L)		0.55	
7	HCO3 (mg/L)		51	
8	K (mg/L)		2.3	
9	Mg (mg/L)		4.9	
10	Na (mg/L)		29.8	
11	NH3-N (mg N/L)		0.07	
12	NO2+NO3 (mg N/L)		0.71	
13	NO2-N (mgN/L)		0.01	
14	NO3-N (mgN/L)		0.71	
15	o-PO4-P (mg P/L)		0.009	
16	SO4 (mg/L)		4.3	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.8	
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		24	
2	HAR_Total (mgCaCO3/L)		44	
3	Na% (%)		58	
4	RSC (-)		0.0	
5	SAR (-)		2.0	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	17.17	0.000	0.265
2	EC_GEN (μmho/cm)	1	231	231	231
3	pH_FLD (pH units)	1	7.0	7.0	7
4	pH_GEN (pH units)	1	7.5	7.5	7.5
5	TDS (mg/L)	1	122	122	122
6	Temp (deg C)	1	26.5	26.5	26.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	42	42	42
3	Ca (mg/L)	1	10	10	10
4	Cl (mg/L)	1	40.8	40.8	40.8
5	CO3 (mg/L)	1	0.0	0.0	0
6	F (mg/L)	1	0.55	0.55	0.55
7	HCO3 (mg/L)	1	51	51	51
8	K (mg/L)	1	2.3	2.3	2.3
9	Mg (mg/L)	1	4.9	4.9	4.9
10	Na (mg/L)	1	29.8	29.8	29.8
11	NH3-N (mg N/L)	1	0.07	0.07	0.07
12	NO2+NO3 (mg N/L)	1	0.71	0.71	0.71
13	NO2-N (mgN/L)	1	0.01	0.01	0.01
14	NO3-N (mgN/L)	1	0.71	0.71	0.7
15	o-PO4-P (mg P/L)	1	0.009	0.009	0.009
16	SO4 (mg/L)	1	4.3	4.3	4.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	1.8	1.8	1.8
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	24	24	24
2	HAR_Total (mgCaCO3/L)	1	44	44	44
3	Na% (%)	1	58	58	58
4	RSC (-)	1	0.0	0.0	0
5	SAR (-)	1	2.0	2.0	2
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	1.712	5.915	3.735	0.977	10.68
2	EC_GEN (µmho/cm)		598	528	250	173
3	pH_FLD (pH units)		7.0	7.0	8.0	7.0
4	pH_GEN (pH units)		7.9	8.3	7.9	9.5
5	TDS (mg/L)					
6	Temp (deg C)		27.5	29.0	26.0	28.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	39.8
2	ALK-TOT (mgCaCO3/L)		221	229	88	92
3	Ca (mg/L)		28	26	13	13
4	Cl (mg/L)		73.7	74.3	36.0	33.1
5	CO3 (mg/L)		0.0	0.0	0.0	48.0
6	F (mg/L)			0.65	0.73	0.67
7	HCO3 (mg/L)		269	279	108	15
8	K (mg/L)			6.5	3.2	2.6
9	Mg (mg/L)		10.4	13.6	6.1	11.7
10	Na (mg/L)			92.5	36.4	20.7
11	NH3-N (mg N/L)					
12	NO2+NO3 (mg N/L)					
13	NO2-N (mgN/L)					
14	NO3-N (mgN/L)				0.39	0.08
15	o-PO4-P (mg P/L)					
16	SO4 (mg/L)		45.1	17.5	15.4	6.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			1.9	0.9	2.1
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		71	65	32	32
2	HAR_Total (mgCaCO3/L)		114	122	58	81
3	Na% (%)			61	56	35
4	RSC (-)		2.2	2.2	0.6	0.2
5	SAR (-)			3.7	2.1	1.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	3.960	1.296	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	207	168			
3	pH_FLD (pH units)	7.0	7.0			
4	pH_GEN (pH units)	8.3	8.2			
5	TDS (mg/L)	108	89			
6	Temp (deg C)	27.0	27.0			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	8.1	0.0			
2	ALK-TOT (mgCaCO3/L)	73	63			
3	Ca (mg/L)	19	12			
4	Cl (mg/L)	51.9	19.9			
5	CO3 (mg/L)	9.8	0.0			
6	F (mg/L)	1.30	0.29			
7	HCO3 (mg/L)	70	77			
8	K (mg/L)	0.9	1.6			
9	Mg (mg/L)	8.6	4.1			
10	Na (mg/L)	32.6	20.6			
11	NH3-N (mg N/L)					
12	NO2+NO3 (mg N/L)					
13	NO2-N (mgN/L)					
14	NO3-N (mgN/L)	0.13	0.94			
15	o-PO4-P (mg P/L)					
16	SO4 (mg/L)	20.5	7.5			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.5	1.4			
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	47	29			
2	HAR_Total (mgCaCO3/L)	83	46			
3	Na% (%)	46	48			
4	RSC (-)	0.0	0.3			
5	SAR (-)	1.6	1.3			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	3.060	12.70	4.740	1.069	Dry Bed
2	EC_GEN (µmho/cm)	231		725	860	
3	pH_FLD (pH units)	7.0		7.0	7.0	
4	pH_GEN (pH units)	7.5		8.2	8.3	
5	TDS (mg/L)	122				
6	Temp (deg C)	26.5		24.5	24.2	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		27.7	30.4	
2	ALK-TOT (mgCaCO3/L)	42		274	378	
3	Ca (mg/L)	10		22	22	
4	Cl (mg/L)	40.8		81.4	124.5	
5	CO3 (mg/L)	0.0		33.3	36.7	
6	F (mg/L)	0.55			1.19	
7	HCO3 (mg/L)	51		266	386	
8	K (mg/L)	2.3			8.3	
9	Mg (mg/L)	4.9		24.6	19.1	
10	Na (mg/L)	29.8			182.6	
11	NH3-N (mg N/L)	0.07				
12	NO2+NO3 (mg N/L)	0.71				
13	NO2-N (mgN/L)	0.01				
14	NO3-N (mgN/L)	0.70				
15	o-PO4-P (mg P/L)	0.009				
16	SO4 (mg/L)	4.3			35.4	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8			1.2	
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	24		55	54	
2	HAR_Total (mgCaCO3/L)	44		157	134	
3	Na% (%)	58			73	
4	RSC (-)	0.0		2.4	4.9	
5	SAR (-)	2.0			7.0	
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	HCO3 (mg/L)					
8	K (mg/L)					
9	Mg (mg/L)					
10	Na (mg/L)					
11	NH3-N (mg N/L)					
12	NO2+NO3 (mg N/L)					
13	NO2-N (mgN/L)					
14	NO3-N (mgN/L)					
15	o-PO4-P (mg P/L)					
16	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	HCO3 (mg/L)					
8	K (mg/L)					
9	Mg (mg/L)					
10	Na (mg/L)					
11	NH3-N (mg N/L)					
12	NO2+NO3 (mg N/L)					
13	NO2-N (mgN/L)					
14	NO3-N (mgN/L)					
15	o-PO4-P (mg P/L)					
16	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.164	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	605			
3	pH_FLD (pH units)	7.0			
4	pH_GEN (pH units)	8.4			
5	TDS (mg/L)				
6	Temp (deg C)	25.0			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	71.2			
2	ALK-TOT (mgCaCO3/L)	259			
3	Ca (mg/L)	27			
4	Cl (mg/L)	84.6			
5	CO3 (mg/L)	85.8			
6	F (mg/L)	0.48			
7	HCO3 (mg/L)	142			
8	K (mg/L)	4.5			
9	Mg (mg/L)	21.4			
10	Na (mg/L)	88.1			
11	NH3-N (mg N/L)				
12	NO2+NO3 (mg N/L)				
13	NO2-N (mgN/L)				
14	NO3-N (mgN/L)	1.03			
15	o-PO4-P (mg P/L)				
16	SO4 (mg/L)	10.5			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.4			
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	68			
2	HAR_Total (mgCaCO3/L)	157			
3	Na% (%)	54			
4	RSC (-)	2.1			
5	SAR (-)	3.1			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Tadipattri (AP000L8)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	HCO3 (mg/L)				
8	K (mg/L)				
9	Mg (mg/L)				
10	Na (mg/L)				
11	NH3-N (mg N/L)				
12	NO2+NO3 (mg N/L)				
13	NO2-N (mgN/L)				
14	NO3-N (mgN/L)				
15	o-PO4-P (mg P/L)				
16	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Nagalamedike	Code	: AP000V5
State	: Karnataka	District	Tumkur
Basin	: Pennar	Independent River	: Pennar
Tributary	:	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Pennar
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 5050 Sq. Km.	Bank	: Left
Latitude	: 14°11'20"	Longitude	: 77°22'20"
Zero of Gauge (m)	: 544.550 (m.s.l)	07/02/1978	
	Opening Date	Closing Date	
Gauge	: 07/02/1978		
Discharge	: 17/07/1978		
Sediment	:		
Water Quality	: 01/06/1980		

Water Quality Datasheet for the period : 2017-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/09/2017	16/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	20.08	Dry Bed
2	Colour_Cod (-)		Light Brown	
3	EC_GEN (µmho/cm)		127	
4	Odour_Code (-)		odour free	
5	pH_FLD (pH units)		7.0	
6	pH_GEN (pH units)		6.9	
7	TDS (mg/L)		67	
8	Temp (deg C)		25.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	
2	ALK-TOT (mgCaCO3/L)		29	
3	Ca (mg/L)		8	
4	Cl (mg/L)		19.4	
5	CO3 (mg/L)		0.0	
6	F (mg/L)		0.14	
7	HCO3 (mg/L)		36	
8	K (mg/L)		2.9	
9	Mg (mg/L)		2.9	
10	Na (mg/L)		14.0	
11	NH3-N (mg N/L)		0.03	
12	NO2+NO3 (mg N/L)		0.15	
13	NO2-N (mgN/L)		0.01	
14	NO3-N (mgN/L)		0.14	
15	o-PO4-P (mg P/L)		0.065	
16	SO4 (mg/L)		3.4	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		2.7	
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		20	
2	HAR_Total (mgCaCO3/L)		32	
3	Na% (%)		46	
4	RSC (-)		0.0	
5	SAR (-)		1.1	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN ($\mu\text{mho/cm}$)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	HCO ₃ (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH ₃ -N (mg N/L)			
12	NO ₂ +NO ₃ (mg N/L)			
13	NO ₂ -N (mgN/L)			
14	NO ₃ -N (mgN/L)			
15	o-PO ₄ -P (mg P/L)			
16	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	20.08	0.000	0.147
2	EC_GEN (μmho/cm)	1	127	127	127
3	pH_FLD (pH units)	1	7.0	7.0	7
4	pH_GEN (pH units)	1	6.9	6.9	6.8
5	TDS (mg/L)	1	67	67	67
6	Temp (deg C)	1	25.0	25.0	25
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	29	29	29
3	Ca (mg/L)	1	8	8	8
4	Cl (mg/L)	1	19.4	19.4	19.4
5	CO3 (mg/L)	1	0.0	0.0	0
6	F (mg/L)	1	0.14	0.14	0.14
7	HCO3 (mg/L)	1	36	36	36
8	K (mg/L)	1	2.9	2.9	2.9
9	Mg (mg/L)	1	2.9	2.9	2.9
10	Na (mg/L)	1	14.0	14.0	14
11	NH3-N (mg N/L)	1	0.03	0.03	0.03
12	NO2+NO3 (mg N/L)	1	0.15	0.15	0.15
13	NO2-N (mgN/L)	1	0.01	0.01	0
14	NO3-N (mgN/L)	1	0.14	0.14	0.14
15	o-PO4-P (mg P/L)	1	0.065	0.065	0.065
16	SO4 (mg/L)	1	3.4	3.4	3.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	2.7	2.7	2.7
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	20	20	20
2	HAR_Total (mgCaCO3/L)	1	32	32	32
3	Na% (%)	1	46	46	46
4	RSC (-)	1	0.0	0.0	0
5	SAR (-)	1	1.1	1.1	1.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	9.717	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		184			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		7.1			
5	TDS (mg/L)					
6	Temp (deg C)		29.0			
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)		100			
2	Ca (mg/L)		18			
3	Cl (mg/L)		43.8			
4	F (mg/L)					
5	HCO3 (mg/L)		122			
6	K (mg/L)					
7	Mg (mg/L)		6.8			
8	Na (mg/L)					
9	NH3-N (mg N/L)					
10	NO2+NO3 (mg N/L)					
11	NO2-N (mgN/L)					
12	NO3-N (mgN/L)					
13	o-PO4-P (mg P/L)					
14	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		46			
2	HAR_Total (mgCaCO3/L)		74			
3	Na% (%)					
4	RSC (-)		0.5			
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	2.514	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		122			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		7.9			
5	TDS (mg/L)		66			
6	Temp (deg C)		26.5			
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)		46			
2	Ca (mg/L)		10			
3	Cl (mg/L)		15.6			
4	F (mg/L)		0.17			
5	HCO3 (mg/L)		57			
6	K (mg/L)		3.0			
7	Mg (mg/L)		3.0			
8	Na (mg/L)		13.3			
9	NH3-N (mg N/L)					
10	NO2+NO3 (mg N/L)					
11	NO2-N (mgN/L)					
12	NO3-N (mgN/L)		0.91			
13	o-PO4-P (mg P/L)					
14	SO4 (mg/L)		5.4			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		0.7			
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		25			
2	HAR_Total (mgCaCO3/L)		38			
3	Na% (%)		41			
4	RSC (-)		0.2			
5	SAR (-)		0.9			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	4.016	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	127				
3	pH_FLD (pH units)	7.0				
4	pH_GEN (pH units)	6.8				
5	TDS (mg/L)	67				
6	Temp (deg C)	25.0				
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)	29				
2	Ca (mg/L)	8				
3	Cl (mg/L)	19.4				
4	F (mg/L)	0.14				
5	HCO3 (mg/L)	36				
6	K (mg/L)	2.9				
7	Mg (mg/L)	2.9				
8	Na (mg/L)	14.0				
9	NH3-N (mg N/L)	0.03				
10	NO2+NO3 (mg N/L)	0.15				
11	NO2-N (mgN/L)	0.00				
12	NO3-N (mgN/L)	0.14				
13	o-PO4-P (mg P/L)	0.065				
14	SO4 (mg/L)	3.4				
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.7				
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	20				
2	HAR_Total (mgCaCO3/L)	32				
3	Na% (%)	46				
4	RSC (-)	0.0				
5	SAR (-)	1.1				
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)					
2	Ca (mg/L)					
3	Cl (mg/L)					
4	F (mg/L)					
5	HCO3 (mg/L)					
6	K (mg/L)					
7	Mg (mg/L)					
8	Na (mg/L)					
9	NH3-N (mg N/L)					
10	NO2+NO3 (mg N/L)					
11	NO2-N (mgN/L)					
12	NO3-N (mgN/L)					
13	o-PO4-P (mg P/L)					
14	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)					
2	Ca (mg/L)					
3	Cl (mg/L)					
4	F (mg/L)					
5	HCO3 (mg/L)					
6	K (mg/L)					
7	Mg (mg/L)					
8	Na (mg/L)					
9	NH3-N (mg N/L)					
10	NO2+NO3 (mg N/L)					
11	NO2-N (mgN/L)					
12	NO3-N (mgN/L)					
13	o-PO4-P (mg P/L)					
14	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	ALK-TOT (mgCaCO3/L)				
2	Ca (mg/L)				
3	Cl (mg/L)				
4	F (mg/L)				
5	HCO3 (mg/L)				
6	K (mg/L)				
7	Mg (mg/L)				
8	Na (mg/L)				
9	NH3-N (mg N/L)				
10	NO2+NO3 (mg N/L)				
11	NO2-N (mgN/L)				
12	NO3-N (mgN/L)				
13	o-PO4-P (mg P/L)				
14	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Nagalamedike (AP000V5)

Division : Hydrology Division, Chennai

Local River : Pennar

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	ALK-TOT (mgCaCO3/L)				
2	Ca (mg/L)				
3	Cl (mg/L)				
4	F (mg/L)				
5	HCO3 (mg/L)				
6	K (mg/L)				
7	Mg (mg/L)				
8	Na (mg/L)				
9	NH3-N (mg N/L)				
10	NO2+NO3 (mg N/L)				
11	NO2-N (mgN/L)				
12	NO3-N (mgN/L)				
13	o-PO4-P (mg P/L)				
14	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Singavaram	Code	: APG00E4
State	: Andhra Pradesh	District	Anantapur
Basin	: Pennar	Independent River	: Pennar
Tributary	: Chitravathi	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Chitravathi
Division	: Hydrology Division, Chennai	Sub-Division	: PSD, Kadapa
Drainage Area	: 6262 Sq. Km.	Bank	: Right
Latitude	: 14°35'52"	Longitude	: 78°00'48"
Zero of Gauge (m)	: 256.000 (m.s.l) 256.465 (m.s.l)	24/09/1979 01/06/1981	- 31/05/1981
	Opening Date	Closing Date	
Gauge	: 24/09/1979		
Discharge	: 25/09/1979		
Sediment	:		
Water Quality	: 15/09/1981		

Water Quality Datasheet for the period : 2017-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/09/2017	01/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	21/12/2017	01/01/2018	07/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	2.024	Dry Bed	33.64
2	Colour_Cod (-)	Clear		Clear
3	EC_GEN (μmho/cm)	440		497
4	Odour_Code (-)	odour free		odour free
5	pH_FLD (pH units)	7.0		7.0
6	pH_GEN (pH units)	8.1		8.3
7	TDS (mg/L)	233		264
8	Temp (deg C)	26.0		24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	76		102
3	Ca (mg/L)	19		34
4	Cl (mg/L)	62.7		54.4
5	CO3 (mg/L)	0.0		0.0
6	F (mg/L)	0.44		0.32
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	92		125
9	K (mg/L)	3.7		3.7
10	Mg (mg/L)	11.7		19.5
11	Na (mg/L)	48.0		42.2
12	NH3-N (mg N/L)	0.04		0.05
13	NO2+NO3 (mg N/L)	0.07		0.03
14	NO2-N (mgN/L)	0.01		0.01
15	NO3-N (mgN/L)	0.06		0.02
16	o-PO4-P (mg P/L)	0.006		0.010
17	SO4 (mg/L)	46.6		61.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.2		1.0
	TRACE & TOXIC			
1	As (μg/L)	1.9		
2	Cd (μg/L)	0.0		
3	Cr (μg/L)	4.2		
4	Cu (μg/L)	4.1		
5	Ni (μg/L)	0.1		
6	Pb (μg/L)	4.8		
7	Zn (μg/L)	17.8		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	48		84
2	HAR_Total (mgCaCO3/L)	97		165
3	Na% (%)	51		35
4	RSC (-)	0.0		0.0
5	SAR (-)	2.1		1.4
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water Analysis

Sub-Division : PSD, Kadapa

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

Sub-Division : PSD, Kadapa

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	33.64	0.000	0.523
2	EC_GEN (µmho/cm)	2	497	440	469
3	pH_FLD (pH units)	2	7.0	7.0	7
4	pH_GEN (pH units)	2	8.3	8.1	8.2
5	TDS (mg/L)	2	264	233	249
6	Temp (deg C)	2	26.0	24.0	25
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	2	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	2	102	76	89
3	Ca (mg/L)	2	34	19	26
4	Cl (mg/L)	2	62.7	54.4	58.5
5	CO3 (mg/L)	2	0.0	0.0	0
6	F (mg/L)	2	0.44	0.32	0.38
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	2	125	92	109
9	K (mg/L)	2	3.7	3.7	3.7
10	Mg (mg/L)	2	19.5	11.7	15.6
11	Na (mg/L)	2	48.0	42.2	45.1
12	NH3-N (mg N/L)	2	0.05	0.04	0.05
13	NO2+NO3 (mg N/L)	2	0.07	0.03	0.05
14	NO2-N (mgN/L)	2	0.01	0.01	0.01
15	NO3-N (mgN/L)	2	0.06	0.02	0.04
16	o-PO4-P (mg P/L)	2	0.010	0.006	0.008
17	SO4 (mg/L)	2	61.9	46.6	54.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2	2.2	1.0	1.6
	TRACE & TOXIC				
1	As (µg/L)	1	1.9	1.9	1.9
2	Cd (µg/L)	1	0.0	0.0	0
3	Cr (µg/L)	1	4.2	4.2	4.2
4	Cu (µg/L)	1	4.1	4.1	4.1
5	Ni (µg/L)	1	0.1	0.1	0.1
6	Pb (µg/L)	1	4.8	4.8	4.8
7	Zn (µg/L)	1	17.8	17.8	17.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	2	84	48	66
2	HAR_Total (mgCaCO3/L)	2	165	97	131
3	Na% (%)	2	51	35	43
4	RSC (-)	2	0.0	0.0	0
5	SAR (-)	2	2.1	1.4	1.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	3.159
2	EC_GEN (µmho/cm)					663
3	pH_FLD (pH units)					7.0
4	pH_GEN (pH units)					8.3
5	TDS (mg/L)					
6	Temp (deg C)					23.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					26.9
2	ALK-TOT (mgCaCO3/L)					251
3	Ca (mg/L)					20
4	Cl (mg/L)					86.3
5	CO3 (mg/L)					32.4
6	F (mg/L)					1.34
7	Fe (mg/L)					
8	HCO3 (mg/L)					241
9	K (mg/L)					6.1
10	Mg (mg/L)					23.1
11	Na (mg/L)					94.5
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					1.76
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					19.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					1.2
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					49
2	HAR_Total (mgCaCO3/L)					145
3	Na% (%)					58
4	RSC (-)					2.1
5	SAR (-)					3.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	8.915	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		469			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		8.2			
5	TDS (mg/L)		249			
6	Temp (deg C)		25.0			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0			
2	ALK-TOT (mgCaCO3/L)		89			
3	Ca (mg/L)		26			
4	Cl (mg/L)		58.5			
5	CO3 (mg/L)		0.0			
6	F (mg/L)		0.38			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		109			
9	K (mg/L)		3.7			
10	Mg (mg/L)		15.6			
11	Na (mg/L)		45.1			
12	NH3-N (mg N/L)		0.05			
13	NO2+NO3 (mg N/L)		0.05			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.04			
16	o-PO4-P (mg P/L)		0.008			
17	SO4 (mg/L)		54.3			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.6			
	TRACE & TOXIC					
1	As (µg/L)		1.9			
2	Cd (µg/L)		0.0			
3	Cr (µg/L)		4.2			
4	Cu (µg/L)		4.1			
5	Ni (µg/L)		0.1			
6	Pb (µg/L)		4.8			
7	Zn (µg/L)		17.8			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		66			
2	HAR_Total (mgCaCO3/L)		131			
3	Na% (%)		43			
4	RSC (-)		0.0			
5	SAR (-)		1.8			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Singavaram (APG00E4)

Division : Hydrology Division, Chennai

Local River : Chitravathi

River Water

Sub-Division : PSD, Kadapa

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Naidupeta	Code	: AC000G4
State	: Andhra Pradesh	District	Nellore
Basin	: EFR B Pennar-Cauvery	Independent River	: Swarnamukhi
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Swarnamukhi
Division	: Hydrology Division, Chennai	Sub-Division	: Palar Ponnaiyar SD, Chennai
Drainage Area	: 2650 Sq. Km.	Bank	: Left
Latitude	: 13°56'54"	Longitude	: 79°53'46"
Zero of Gauge (m)	: 42.000 (m.s.l) 20.130 (m.s.l)	14/10/1977 01/06/1980	- 31/05/1980
	Opening Date	Closing Date	
Gauge	: 14/10/1977		
Discharge	: 01/12/1978		
Sediment	: 22/10/2013		
Water Quality	: 01/12/1980		

Water Quality Datasheet for the period : 2017-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/09/2017	01/10/2017	03/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	15.92
2	Colour_Cod (-)			Brown
3	EC_FLD (μmho/cm)			450
4	EC_GEN (μmho/cm)			416
5	Odour_Code (-)			odour free
6	pH_FLD (pH units)			8.2
7	pH_GEN (pH units)			7.4
8	TDS (mg/L)			221
9	Temp (deg C)			28.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			0.0
2	ALK-TOT (mgCaCO3/L)			80
3	Ca (mg/L)			27
4	Cl (mg/L)			68.6
5	CO3 (mg/L)			0.0
6	F (mg/L)			0.43
7	HCO3 (mg/L)			98
8	K (mg/L)			3.6
9	Mg (mg/L)			5.8
10	Na (mg/L)			50.5
11	NH3-N (mg N/L)			0.02
12	NO2+NO3 (mg N/L)			0.06
13	NO2-N (mgN/L)			0.01
14	NO3-N (mgN/L)			0.05
15	o-PO4-P (mg P/L)			0.002
16	SO4 (mg/L)			22.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			2.2
2	DO (mg/L)			7.7
3	DO_SAT% (%)			98
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			68
2	HAR_Total (mgCaCO3/L)			92
3	Na% (%)			53
4	RSC (-)			0.0
5	SAR (-)			2.3
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/12/2017	23/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	2.857	8.438
2	Colour_Cod (-)		Clear	Clear
3	EC_FLD (μmho/cm)		432	565
4	EC_GEN (μmho/cm)		577	549
5	Odour_Code (-)		odour free	odour free
6	pH_FLD (pH units)		7.8	7.8
7	pH_GEN (pH units)		7.9	8.2
8	TDS (mg/L)		306	292
9	Temp (deg C)		24.0	22.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	0.0
2	ALK-TOT (mgCaCO3/L)		67	115
3	Ca (mg/L)		21	37
4	Cl (mg/L)		117.6	67.9
5	CO3 (mg/L)		0.0	0.0
6	F (mg/L)		0.54	0.47
7	HCO3 (mg/L)		82	140
8	K (mg/L)		3.8	3.7
9	Mg (mg/L)		13.6	17.5
10	Na (mg/L)		86.2	50.4
11	NH3-N (mg N/L)		0.07	0.06
12	NO2+NO3 (mg N/L)		0.03	0.11
13	NO2-N (mgN/L)		0.01	0.01
14	NO3-N (mgN/L)		0.02	0.10
15	o-PO4-P (mg P/L)		0.006	0.000
16	SO4 (mg/L)		40.4	47.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		2.5	1.5
2	DO (mg/L)		7.5	4.5
3	DO_SAT% (%)		89	51
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		52	92
2	HAR_Total (mgCaCO3/L)		109	165
3	Na% (%)		62	39
4	RSC (-)		0.0	0.0
5	SAR (-)		3.6	1.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	B
	PHYSICAL			
1	Q (cumec)	9.137	Dry Bed	Dry Bed
2	Colour_Cod (-)	Clear		
3	EC_FLD (μmho/cm)	490		
4	EC_GEN (μmho/cm)	574		
5	Odour_Code (-)	odour free		
6	pH_FLD (pH units)	7.9		
7	pH_GEN (pH units)	8.1		
8	TDS (mg/L)	305		
9	Temp (deg C)	24.0		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		
2	ALK-TOT (mgCaCO3/L)	106		
3	Ca (mg/L)	30		
4	Cl (mg/L)	81.5		
5	CO3 (mg/L)	0.0		
6	F (mg/L)	0.48		
7	HCO3 (mg/L)	130		
8	K (mg/L)	3.7		
9	Mg (mg/L)	11.7		
10	Na (mg/L)	62.2		
11	NH3-N (mg N/L)	0.06		
12	NO2+NO3 (mg N/L)	0.19		
13	NO2-N (mgN/L)	0.09		
14	NO3-N (mgN/L)	0.10		
15	o-PO4-P (mg P/L)	0.004		
16	SO4 (mg/L)	55.2		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.7		
2	DO (mg/L)	7.7		
3	DO_SAT% (%)	91		
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	76		
2	HAR_Total (mgCaCO3/L)	125		
3	Na% (%)	51		
4	RSC (-)	0.0		
5	SAR (-)	2.4		
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	151.8	0.000	2.208
2	EC_FLD (μmho/cm)	4	565	432	484
3	EC_GEN (μmho/cm)	4	577	416	529
4	pH_FLD (pH units)	4	8.2	7.8	7.9
5	pH_GEN (pH units)	4	8.2	7.4	7.9
6	TDS (mg/L)	4	306	221	281
7	Temp (deg C)	4	28.0	22.0	24.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	4	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	4	115	67	92
3	Ca (mg/L)	4	37	21	29
4	Cl (mg/L)	4	117.6	67.9	83.9
5	CO3 (mg/L)	4	0.0	0.0	0
6	F (mg/L)	4	0.54	0.43	0.48
7	HCO3 (mg/L)	4	140	82	112
8	K (mg/L)	4	3.8	3.6	3.7
9	Mg (mg/L)	4	17.5	5.8	12.2
10	Na (mg/L)	4	86.2	50.4	62.3
11	NH3-N (mg N/L)	4	0.07	0.02	0.05
12	NO2+NO3 (mg N/L)	4	0.19	0.03	0.09
13	NO2-N (mgN/L)	4	0.09	0.01	0.03
14	NO3-N (mgN/L)	4	0.10	0.02	0.06
15	o-PO4-P (mg P/L)	4	0.006	0.000	0.003
16	SO4 (mg/L)	4	55.2	22.9	41.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	4	2.5	0.7	1.7
2	DO (mg/L)	4	7.7	4.5	6.8
3	DO_SAT% (%)	4	98	51	82
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	4	92	52	72
2	HAR_Total (mgCaCO3/L)	4	165	92	123
3	Na% (%)	4	62	39	52
4	RSC (-)	4	0.0	0.0	0
5	SAR (-)	4	3.6	1.7	2.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	1.668	6.565	Dry Bed	1.968	Dry Bed
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	299	345		574	
4	pH_FLD (pH units)		6.0		6.7	
5	pH_GEN (pH units)	8.9	7.3		8.4	
6	TDS (mg/L)					
7	Temp (deg C)	27.0	23.0		27.2	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	15.6	0.0		45.7	
2	ALK-TOT (mgCaCO3/L)	110	98		210	
3	Ca (mg/L)	18	25		26	
4	Cl (mg/L)	33.4	51.5		96.9	
5	CO3 (mg/L)	18.8	0.0		55.0	
6	F (mg/L)				0.36	
7	Fe (mg/L)					
8	HCO3 (mg/L)	97	119		145	
9	K (mg/L)				4.5	
10	Mg (mg/L)	5.8	8.7		18.5	
11	Na (mg/L)	28.5			90.4	
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.67	
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	11.6			19.1	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				1.7	
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	62		64	
2	HAR_Total (mgCaCO3/L)	68	98		141	
3	Na% (%)				57	
4	RSC (-)	0.8	0.0		1.4	
5	SAR (-)	1.5			3.3	
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.385	0.523	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)		426			
3	EC_GEN (µmho/cm)	769	410			
4	pH_FLD (pH units)	6.0	7.2			
5	pH_GEN (pH units)	8.2	7.6			
6	TDS (mg/L)	404	223			
7	Temp (deg C)	21.0	27.8			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			
2	ALK-TOT (mgCaCO3/L)	147	93			
3	Ca (mg/L)	31	18			
4	Cl (mg/L)	34.0	77.1			
5	CO3 (mg/L)	0.0	0.0			
6	F (mg/L)	0.78	0.35			
7	Fe (mg/L)					
8	HCO3 (mg/L)	179	113			
9	K (mg/L)	3.2	3.9			
10	Mg (mg/L)	18.1	6.5			
11	Na (mg/L)	26.1	61.1			
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)	0.11	3.19			
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	35.0	15.3			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.2	1.4			
2	DO (mg/L)		6.0			
3	DO_SAT% (%)		76			
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	79	45			
2	HAR_Total (mgCaCO3/L)	154	72			
3	Na% (%)	27	63			
4	RSC (-)	0.0	0.4			
5	SAR (-)	0.9	3.1			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	15.85	52.77	11.26	18.84
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		443	350	421	572
4	pH_FLD (pH units)			6.5	7.0	6.5
5	pH_GEN (pH units)		8.0	7.6	7.9	8.2
6	TDS (mg/L)					
7	Temp (deg C)		25.6	24.9	25.9	22.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		3.9	0.0	5.2	10.4
2	ALK-TOT (mgCaCO3/L)		152	122	186	190
3	Ca (mg/L)		23	22	22	29
4	Cl (mg/L)		45.8	64.8	58.4	93.2
5	CO3 (mg/L)		4.7	0.0	6.2	12.5
6	F (mg/L)				0.38	0.35
7	Fe (mg/L)					
8	HCO3 (mg/L)		176	149	214	207
9	K (mg/L)				8.0	4.7
10	Mg (mg/L)		14.7	10.2	16.5	16.9
11	Na (mg/L)		25.3		64.6	73.5
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					0.60
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)		12.2		25.1	17.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				1.4	1.1
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		58	54	55	72
2	HAR_Total (mgCaCO3/L)		119	97	124	142
3	Na% (%)				51	52
4	RSC (-)		0.7	0.5	1.3	1.0
5	SAR (-)		1.1		2.5	2.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	18.51	23.87	4.396	5.731	169.3
2	EC_FLD (µmho/cm)			712	586	409
3	EC_GEN (µmho/cm)	535	555	670	594	387
4	pH_FLD (pH units)	6.5	6.0	7.9	7.1	7.7
5	pH_GEN (pH units)	8.1	7.8	7.8	7.8	7.7
6	TDS (mg/L)		295	357	316	212
7	Temp (deg C)	22.3	24.0	27.6	26.4	25.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	7.2	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	131	151	134	140	103
3	Ca (mg/L)	15	32	23	30	26
4	Cl (mg/L)	81.6	95.9	123.7	97.2	55.2
5	CO3 (mg/L)	8.6	0.0	0.0	0.0	0.0
6	F (mg/L)	0.36	0.75	0.57	0.57	0.29
7	Fe (mg/L)	0.1			0.0	
8	HCO3 (mg/L)	142	184	163	171	125
9	K (mg/L)	7.2	3.6	4.1	3.5	2.8
10	Mg (mg/L)	16.8	10.5	16.4	17.4	11.2
11	Na (mg/L)	64.5	77.5	93.3	67.8	38.0
12	NH3-N (mg N/L)				0.08	0.05
13	NO2+NO3 (mg N/L)				2.98	0.29
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	0.59	0.70	4.89	2.38	0.29
16	o-PO4-P (mg P/L)				0.004	0.020
17	SO4 (mg/L)	19.3	18.5	37.3	31.1	19.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	1.4	1.8	1.3	1.6
2	DO (mg/L)			7.3	6.0	7.1
3	DO_SAT% (%)			93	74	87
	TRACE & TOXIC					
1	As (µg/L)	0.3				
2	Cd (µg/L)	0.0			2.2	
3	Cr (µg/L)	0.6			0.2	
4	Cu (µg/L)	13.4			7.6	
5	Hg (µg/L)					
6	Ni (µg/L)	2.6			38.9	
7	Pb (µg/L)	1.9			0.1	
8	Zn (µg/L)	36.3			11.4	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	37	79	58	74	64
2	HAR_Total (mgCaCO3/L)	107	123	127	146	111
3	Na% (%)	55	56	61	50	42
4	RSC (-)	0.5	0.6	0.2	0.0	0.0
5	SAR (-)	2.8	3.0	3.6	2.5	1.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	0.713	6.804	Dry Bed	Dry Bed	0.978
2	EC_FLD (µmho/cm)	489	482			
3	EC_GEN (µmho/cm)	469	514			532
4	pH_FLD (pH units)	7.0	7.9			7.0
5	pH_GEN (pH units)	8.2	7.8			8.2
6	TDS (mg/L)	261	273			
7	Temp (deg C)	24.5	24.7			26.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	101	87			208
3	Ca (mg/L)	26	28			28
4	Cl (mg/L)	63.4	84.7			74.4
5	CO3 (mg/L)	0.0	0.0			0.0
6	F (mg/L)	0.31	0.48			0.48
7	Fe (mg/L)					
8	HCO3 (mg/L)	123	107			253
9	K (mg/L)	3.0	3.7			4.3
10	Mg (mg/L)	14.6	12.3			14.6
11	Na (mg/L)	48.5	62.4			91.0
12	NH3-N (mg N/L)	0.03	0.05			
13	NO2+NO3 (mg N/L)	0.18	0.06			
14	NO2-N (mgN/L)	0.00	0.01			
15	NO3-N (mgN/L)	0.18	0.05			0.39
16	o-PO4-P (mg P/L)	0.000	0.003			
17	SO4 (mg/L)	33.1	37.1			49.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.1	2.1			2.4
2	DO (mg/L)	5.7	6.5			
3	DO_SAT% (%)	68	79			
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	64	71			69
2	HAR_Total (mgCaCO3/L)	125	122			130
3	Na% (%)	45	52			60
4	RSC (-)	0.0	0.0			1.6
5	SAR (-)	1.9	2.5			3.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	1.781	0.645	0.797	0.244
2	EC_FLD (µmho/cm)				752
3	EC_GEN (µmho/cm)	657	735	752	728
4	pH_FLD (pH units)	7.0	6.0	6.0	7.8
5	pH_GEN (pH units)	8.1	7.8	8.1	8.1
6	TDS (mg/L)			399	387
7	Temp (deg C)	22.0	23.0	23.0	29.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	26.7	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	213	196	194	167
3	Ca (mg/L)	30	18	37	34
4	Cl (mg/L)	103.1	110.0	134.6	133.3
5	CO3 (mg/L)	32.2	0.0	0.0	0.0
6	F (mg/L)	0.46	0.49	0.80	0.53
7	Fe (mg/L)			0.1	
8	HCO3 (mg/L)	194	239	237	204
9	K (mg/L)	5.2	11.1	3.0	3.8
10	Mg (mg/L)	20.4	30.6	20.9	19.4
11	Na (mg/L)	90.9	84.5	102.2	101.0
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.14	1.94	0.76	6.29
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	23.5	32.7	25.1	39.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.6	2.1	1.2	2.7
2	DO (mg/L)				6.2
3	DO_SAT% (%)				81
	TRACE & TOXIC				
1	As (µg/L)			0.7	
2	Cd (µg/L)			0.0	
3	Cr (µg/L)			0.3	
4	Cu (µg/L)			1.7	
5	Hg (µg/L)			0.6	
6	Ni (µg/L)			31.5	
7	Pb (µg/L)			0.1	
8	Zn (µg/L)			5.8	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	76	44	92	84
2	HAR_Total (mgCaCO3/L)	161	172	180	165
3	Na% (%)	54	50	55	57
4	RSC (-)	1.1	0.5	0.3	0.1
5	SAR (-)	3.1	2.8	3.3	3.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Naidupeta (AC000G4)

Division : Hydrology Division, Chennai

Local River : Swarnamukhi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	1.462	Dry Bed	0.544	3.046
2	EC_FLD (µmho/cm)	610			490
3	EC_GEN (µmho/cm)	664			574
4	pH_FLD (pH units)	7.6			7.9
5	pH_GEN (pH units)	8.2			8.1
6	TDS (mg/L)	352			305
7	Temp (deg C)	28.0			24.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	126			106
3	Ca (mg/L)	27			30
4	Cl (mg/L)	107.8			81.5
5	CO3 (mg/L)	0.0			0.0
6	F (mg/L)	0.55			0.48
7	Fe (mg/L)				
8	HCO3 (mg/L)	153			130
9	K (mg/L)	3.1			3.7
10	Mg (mg/L)	15.1			11.7
11	Na (mg/L)	81.8			62.2
12	NH3-N (mg N/L)	0.10			0.05
13	NO2+NO3 (mg N/L)	1.01			0.19
14	NO2-N (mgN/L)	0.00			0.09
15	NO3-N (mgN/L)	1.01			0.10
16	o-PO4-P (mg P/L)	0.011			0.004
17	SO4 (mg/L)	53.2			55.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.5			0.7
2	DO (mg/L)	6.6			7.7
3	DO_SAT% (%)	85			91
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Hg (µg/L)				
6	Ni (µg/L)				
7	Pb (µg/L)				
8	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	67			76
2	HAR_Total (mgCaCO3/L)	130			125
3	Na% (%)	57			51
4	RSC (-)	0.0			0.0
5	SAR (-)	3.1			2.4
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Sulurpet	Code	: AB000N5
State	: Andhra Pradesh	District	Nellore
Basin	: EFR B Pennar-Cauvery	Independent River	: Kalingi
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Kalingi
Division	: Hydrology Division, Chennai	Sub-Division	: PPSD, Chennai
Drainage Area	: 5927 Sq. Km.	Bank	: Left
Latitude	: 13°42'28"	Longitude	: 80°00'36"
Zero of Gauge (m)	: 13.000 (m.s.l) -2.000 (m.s.l)	01/10/1988 01/05/2003	- 30/04/2003
	Opening Date	Closing Date	
Gauge	: 01/10/1988		
Discharge	: 05/10/1988		
Sediment	: 23/10/2013		
Water Quality	: 01/12/1988		

Water Quality Datasheet for the period : 2017-2018

Station Name : Sularpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water Analysis

Sub-Division : PPSD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Sularpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water Analysis

Sub-Division : PPSD, Chennai

S.No	Parameters	01/09/2017	31/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	10.24	10.03
2	Colour_Cod (-)		Brown	Clear
3	EC_FLD (μmho/cm)		268	265
4	EC_GEN (μmho/cm)		203	175
5	Odour_Code (-)		odour free	odour free
6	pH_FLD (pH units)		7.5	7.4
7	pH_GEN (pH units)		7.1	7.4
8	TDS (mg/L)		108	93
9	Temp (deg C)		25.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	0.0
2	ALK-TOT (mgCaCO3/L)		38	38
3	Ca (mg/L)		10	13
4	Cl (mg/L)		33.0	23.5
5	CO3 (mg/L)		0.0	0.0
6	F (mg/L)		0.46	0.38
7	HCO3 (mg/L)		46	46
8	K (mg/L)		2.1	2.1
9	Mg (mg/L)		5.8	3.9
10	Na (mg/L)		24.2	17.5
11	NH3-N (mg N/L)		0.04	0.04
12	NO2+NO3 (mg N/L)		0.32	0.48
13	NO2-N (mgN/L)		0.01	0.01
14	NO3-N (mgN/L)		0.31	0.47
15	o-PO4-P (mg P/L)		0.005	0.039
16	SO4 (mg/L)		12.6	9.0
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.3	2.0
2	DO (mg/L)		6.5	5.0
3	DO_SAT% (%)		78	60
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		24	32
2	HAR_Total (mgCaCO3/L)		48	48
3	Na% (%)		51	43
4	RSC (-)		0.0	0.0
5	SAR (-)		1.5	1.1
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Sularpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water Analysis

Sub-Division : PPSD, Chennai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Sularpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water Analysis

Sub-Division : PPSD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	HCO3 (mg/L)			
8	K (mg/L)			
9	Mg (mg/L)			
10	Na (mg/L)			
11	NH3-N (mg N/L)			
12	NO2+NO3 (mg N/L)			
13	NO2-N (mgN/L)			
14	NO3-N (mgN/L)			
15	o-PO4-P (mg P/L)			
16	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Sularpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

Sub-Division : PPSD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	233.9	0.000	2.287
2	EC_FLD (μmho/cm)	2	268	265	267
3	EC_GEN (μmho/cm)	2	203	175	189
4	pH_FLD (pH units)	2	7.5	7.4	7.5
5	pH_GEN (pH units)	2	7.4	7.1	7.3
6	TDS (mg/L)	2	108	93	101
7	Temp (deg C)	2	25.0	25.0	25
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	2	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	2	38	38	38
3	Ca (mg/L)	2	13	10	11
4	Cl (mg/L)	2	33.0	23.5	28.3
5	CO3 (mg/L)	2	0.0	0.0	0
6	F (mg/L)	2	0.46	0.38	0.42
7	HCO3 (mg/L)	2	46	46	46
8	K (mg/L)	2	2.1	2.1	2.1
9	Mg (mg/L)	2	5.8	3.9	4.9
10	Na (mg/L)	2	24.2	17.5	20.9
11	NH3-N (mg N/L)	2	0.04	0.04	0.04
12	NO2+NO3 (mg N/L)	2	0.48	0.32	0.4
13	NO2-N (mgN/L)	2	0.01	0.01	0.01
14	NO3-N (mgN/L)	2	0.47	0.31	0.39
15	o-PO4-P (mg P/L)	2	0.039	0.005	0.022
16	SO4 (mg/L)	2	12.6	9.0	10.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2	2.0	1.3	1.6
2	DO (mg/L)	2	6.5	5.0	5.7
3	DO_SAT% (%)	2	78	60	69
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	2	32	24	28
2	HAR_Total (mgCaCO3/L)	2	48	48	48
3	Na% (%)	2	51	43	47
4	RSC (-)	2	0.0	0.0	0
5	SAR (-)	2	1.5	1.1	1.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	1.472	5.494	Dry Bed	0.897	4.377
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		249		396	430
4	pH_FLD (pH units)		7.0		7.0	7.0
5	pH_GEN (pH units)		7.1		7.4	8.4
6	TDS (mg/L)					
7	Temp (deg C)		27.0		26.0	29.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0		0.0	25.9
2	ALK-TOT (mgCaCO3/L)		98		130	114
3	Ca (mg/L)		18		20	26
4	Cl (mg/L)		51.5		69.1	81.0
5	CO3 (mg/L)		0.0		0.0	31.2
6	F (mg/L)				0.37	0.41
7	Fe (mg/L)					
8	HCO3 (mg/L)		119		159	76
9	K (mg/L)				3.2	4.1
10	Mg (mg/L)		7.3		11.7	19.9
11	Na (mg/L)				53.4	53.5
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.34	0.24
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)				11.6	17.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				2.9	1.5
2	DO (mg/L)					
3	DO_SAT% (%)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		44		49	64
2	HAR_Total (mgCaCO3/L)		74		98	147
3	Na% (%)				53	44
4	RSC (-)		0.5		0.7	0.0
5	SAR (-)				2.4	1.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.350	1.697	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)		381			
3	EC_GEN (µmho/cm)	614	375			
4	pH_FLD (pH units)	7.0	7.5			
5	pH_GEN (pH units)	7.8	7.4			
6	TDS (mg/L)	329	201			
7	Temp (deg C)	30.0	28.5			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			
2	ALK-TOT (mgCaCO3/L)	131	78			
3	Ca (mg/L)	22	16			
4	Cl (mg/L)	121.8	71.3			
5	CO3 (mg/L)	0.0	0.0			
6	F (mg/L)	1.21	0.43			
7	Fe (mg/L)	0.0				
8	HCO3 (mg/L)	159	96			
9	K (mg/L)	3.9	3.3			
10	Mg (mg/L)	14.3	7.9			
11	Na (mg/L)	87.1	55.3			
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)	0.21	3.24			
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	29.7	22.6			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.9	1.2			
2	DO (mg/L)		5.9			
3	DO_SAT% (%)		76			
	TRACE & TOXIC					
1	As (µg/L)	3.3				
2	Cd (µg/L)	1.0				
3	Cr (µg/L)	1.3				
4	Cu (µg/L)	22.9				
5	Ni (µg/L)	3.1				
6	Pb (µg/L)	2.0				
7	Zn (µg/L)	3.0				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	55	39			
2	HAR_Total (mgCaCO3/L)	114	72			
3	Na% (%)	62	61			
4	RSC (-)	0.3	0.2			
5	SAR (-)	3.6	2.8			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulpurpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	2.048	4.250	41.92	8.747	6.830
2	EC_FLD (µmho/cm)	268				
3	EC_GEN (µmho/cm)	203		288	364	417
4	pH_FLD (pH units)	7.5		7.0	7.0	7.0
5	pH_GEN (pH units)	7.1		7.3	7.9	7.7
6	TDS (mg/L)	108				
7	Temp (deg C)	25.0		26.0	27.0	26.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	38		115	172	151
3	Ca (mg/L)	10		23	21	26
4	Cl (mg/L)	33.0		51.5	55.6	66.3
5	CO3 (mg/L)	0.0		0.0	0.0	0.0
6	F (mg/L)	0.46			2.05	0.39
7	Fe (mg/L)					
8	HCO3 (mg/L)	46		140	209	184
9	K (mg/L)	2.1			5.9	3.4
10	Mg (mg/L)	5.8		10.2	8.3	14.1
11	Na (mg/L)	24.2			74.5	50.0
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	0.32				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	0.31				0.48
16	o-PO4-P (mg P/L)	0.005				
17	SO4 (mg/L)	12.6			19.0	14.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.3			2.0	1.2
2	DO (mg/L)	6.5				
3	DO_SAT% (%)	78				
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	24		57	53	65
2	HAR_Total (mgCaCO3/L)	48		100	87	124
3	Na% (%)	51			63	46
4	RSC (-)	0.0		0.3	1.7	0.6
5	SAR (-)	1.5			3.6	2.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	19.23	52.33	2.715	34.45	141.8
2	EC_FLD (µmho/cm)			425	499	450
3	EC_GEN (µmho/cm)	446	391	466	508	202
4	pH_FLD (pH units)	7.0	7.0	8.1	7.8	7.6
5	pH_GEN (pH units)	8.1	7.8	7.6	7.9	7.8
6	TDS (mg/L)		208	250	274	113
7	Temp (deg C)	27.8	27.3	28.0	28.0	26.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	3.8	2.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	108	107	101	125	57
3	Ca (mg/L)	22	21	13	26	17
4	Cl (mg/L)	68.7	65.1	94.5	83.4	26.2
5	CO3 (mg/L)	4.6	2.5	0.0	0.0	0.0
6	F (mg/L)	0.36	0.73	0.72	0.55	0.30
7	Fe (mg/L)					
8	HCO3 (mg/L)	122	126	124	153	70
9	K (mg/L)	4.0	3.0	3.7	2.9	1.9
10	Mg (mg/L)	15.9	11.4	12.7	12.3	4.9
11	Na (mg/L)	43.4	47.8	69.9	63.4	19.5
12	NH3-N (mg N/L)					0.04
13	NO2+NO3 (mg N/L)					0.21
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.38	0.70	3.19	3.96	0.21
16	o-PO4-P (mg P/L)					0.005
17	SO4 (mg/L)	11.4	13.2	23.2	21.6	11.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.0	1.6	1.1	2.3	1.6
2	DO (mg/L)			5.6	6.2	6.1
3	DO_SAT% (%)			72	79	75
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	55	52	32	65	42
2	HAR_Total (mgCaCO3/L)	121	100	85	117	62
3	Na% (%)	43	49	63	54	40
4	RSC (-)	0.0	0.2	0.3	0.2	0.0
5	SAR (-)	1.7	2.1	3.3	2.6	1.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	1.218	2.507	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)		265			
3	EC_GEN (µmho/cm)	407	175			
4	pH_FLD (pH units)	6.5	7.4			
5	pH_GEN (pH units)	7.9	7.4			
6	TDS (mg/L)	216	93			
7	Temp (deg C)	25.0	25.0			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			
2	ALK-TOT (mgCaCO3/L)	77	38			
3	Ca (mg/L)	16	13			
4	Cl (mg/L)	66.1	23.5			
5	CO3 (mg/L)	0.0	0.0			
6	F (mg/L)	0.30	0.38			
7	Fe (mg/L)	0.1				
8	HCO3 (mg/L)	94	46			
9	K (mg/L)	2.7	2.1			
10	Mg (mg/L)	9.7	3.9			
11	Na (mg/L)	49.5	17.5			
12	NH3-N (mg N/L)	0.03	0.04			
13	NO2+NO3 (mg N/L)	0.34	0.48			
14	NO2-N (mgN/L)	0.00	0.01			
15	NO3-N (mgN/L)	0.34	0.47			
16	o-PO4-P (mg P/L)	0.009	0.039			
17	SO4 (mg/L)	33.1	9.0			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	2.0			
2	DO (mg/L)		5.0			
3	DO_SAT% (%)		60			
	TRACE & TOXIC					
1	As (µg/L)	2.5				
2	Cd (µg/L)	0.0				
3	Cr (µg/L)	1.1				
4	Cu (µg/L)	2.2				
5	Ni (µg/L)	4.0				
6	Pb (µg/L)	0.5				
7	Zn (µg/L)	1.9				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	40	32			
2	HAR_Total (mgCaCO3/L)	81	48			
3	Na% (%)	56	43			
4	RSC (-)	0.0	0.0			
5	SAR (-)	2.4	1.1			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2008	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	1.348	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)			757	
4	pH_FLD (pH units)			7.0	
5	pH_GEN (pH units)			7.8	
6	TDS (mg/L)			401	
7	Temp (deg C)			28.0	
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)			0.0	
2	ALK-TOT (mgCaCO3/L)			192	
3	Ca (mg/L)			42	
4	Cl (mg/L)			124.4	
5	CO3 (mg/L)			0.0	
6	F (mg/L)			0.84	
7	Fe (mg/L)				
8	HCO3 (mg/L)			234	
9	K (mg/L)			3.3	
10	Mg (mg/L)			13.3	
11	Na (mg/L)			91.2	
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)			0.65	
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)			24.6	
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)			1.3	
2	DO (mg/L)				
3	DO_SAT% (%)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)			106	
2	HAR_Total (mgCaCO3/L)			162	
3	Na% (%)			55	
4	RSC (-)			0.6	
5	SAR (-)			3.1	
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Sulturpet (AB000N5)

Division : Hydrology Division, Chennai

Local River : Kalingi

River Water

Sub-Division : PPSD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2008	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)				
4	pH_FLD (pH units)				
5	pH_GEN (pH units)				
6	TDS (mg/L)				
7	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
2	DO (mg/L)				
3	DO_SAT% (%)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Chengalpet	Code	: CQ000C1
State	: Tamil Nadu	District	Kancheepuram
Basin	: EFR B Pennar-Cauvery	Independent River	: Palar
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Palar
Division	: Hydrology Division, Chennai	Sub-Division	: Palar Ponnaiyar SD, Chennai
Drainage Area	: 16230 Sq. Km.	Bank	: Right
Latitude	: 12°39'00"	Longitude	: 79°56'50"
Zero of Gauge (m)	: 26.000 (m.s.l) 24.000 (m.s.l)	01/09/1977	- 31/05/2006
		01/06/2006	
	Opening Date	Closing Date	
Gauge	: 01/09/1977		
Discharge	: 01/10/1978		
Sediment	:		
Water Quality	: 01/06/1979		

Water Quality Datasheet for the period : 2017-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	08/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	0.791	0.599	10.15
2	Colour_Cod (-)	Dark Green	Light Brown	Clear
3	EC_GEN (µmho/cm)	574	563	580
4	Odour_Code (-)	odour free	odour free	odour free
5	pH_FLD (pH units)	7.0	7.0	7.0
6	pH_GEN (pH units)	7.2	7.5	7.2
7	TDS (mg/L)	306	299	308
8	Temp (deg C)	29.0	30.0	27.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	156	105	135
3	Ca (mg/L)	21	19	34
4	Cl (mg/L)	83.5	95.1	94.1
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.66	0.46	0.12
7	Fe (mg/L)			
8	HCO3 (mg/L)	190	128	164
9	K (mg/L)	8.7	8.1	5.5
10	Mg (mg/L)	25.6	9.7	12.7
11	Na (mg/L)	62.6	74.0	68.0
12	NH3-N (mg N/L)	0.04	0.04	0.04
13	NO2+NO3 (mg N/L)	0.14	0.52	0.11
14	NO2-N (mgN/L)	0.00	0.01	0.01
15	NO3-N (mgN/L)	0.14	0.51	0.10
16	o-PO4-P (mg P/L)	0.162	0.017	0.017
17	SO4 (mg/L)	15.3	11.5	5.8
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.6		0.7
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	53	48	84
2	HAR_Total (mgCaCO3/L)	159	89	137
3	Na% (%)	45	62	51
4	RSC (-)	0.0	0.3	0.0
5	SAR (-)	2.2	3.4	2.5
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	31.91	1.129	Dry Bed
2	Colour_Cod (-)	Clear	Clear	
3	EC_GEN (µmho/cm)	468	623	
4	Odour_Code (-)	odour free	odour free	
5	pH_FLD (pH units)	7.0	7.0	
6	pH_GEN (pH units)	8.3	8.1	
7	TDS (mg/L)	249	330	
8	Temp (deg C)	26.0	26.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	122	173	
3	Ca (mg/L)	24	34	
4	Cl (mg/L)	72.5	86.3	
5	CO3 (mg/L)	0.0	0.0	
6	F (mg/L)	0.22	0.45	
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	149	211	
9	K (mg/L)	5.3	5.4	
10	Mg (mg/L)	17.5	22.4	
11	Na (mg/L)	53.0	62.6	
12	NH3-N (mg N/L)	0.02	0.03	
13	NO2+NO3 (mg N/L)	0.33	0.49	
14	NO2-N (mgN/L)	0.01	0.01	
15	NO3-N (mgN/L)	0.32	0.49	
16	o-PO4-P (mg P/L)	0.007	0.004	
17	SO4 (mg/L)	13.7	17.4	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.1	0.6	
	TRACE & TOXIC			
1	As (µg/L)	2.3		
2	Cd (µg/L)	0.0		
3	Cr (µg/L)	4.1		
4	Cu (µg/L)	6.4		
5	Ni (µg/L)	0.5		
6	Pb (µg/L)	0.7		
7	Zn (µg/L)	16.4		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	60	84	
2	HAR_Total (mgCaCO3/L)	133	177	
3	Na% (%)	45	43	
4	RSC (-)	0.0	0.0	
5	SAR (-)	2.0	2.1	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	172.7	0.000	5.425
2	EC_GEN (μmho/cm)	5	623	468	562
3	pH_FLD (pH units)	5	7.0	7.0	7
4	pH_GEN (pH units)	5	8.3	7.2	7.6
5	TDS (mg/L)	5	330	249	298
6	Temp (deg C)	5	30.0	26.0	27.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	5	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	5	173	105	138
3	Ca (mg/L)	5	34	19	26
4	Cl (mg/L)	5	95.1	72.5	86.3
5	CO3 (mg/L)	5	0.0	0.0	0
6	F (mg/L)	5	0.66	0.12	0.38
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	5	211	128	168
9	K (mg/L)	5	8.7	5.3	6.6
10	Mg (mg/L)	5	25.6	9.7	17.6
11	Na (mg/L)	5	74.0	53.0	64
12	NH3-N (mg N/L)	5	0.04	0.02	0.03
13	NO2+NO3 (mg N/L)	5	0.52	0.11	0.32
14	NO2-N (mgN/L)	5	0.01	0.00	0.01
15	NO3-N (mgN/L)	5	0.51	0.10	0.31
16	o-PO4-P (mg P/L)	5	0.162	0.004	0.041
17	SO4 (mg/L)	5	17.4	5.8	12.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	4	2.6	0.6	1.2
	TRACE & TOXIC				
1	As (μg/L)	1	2.3	2.3	2.3
2	Cd (μg/L)	1	0.0	0.0	0
3	Cr (μg/L)	1	4.1	4.1	4.1
4	Cu (μg/L)	1	6.4	6.4	6.3
5	Ni (μg/L)	1	0.5	0.5	0.5
6	Pb (μg/L)	1	0.7	0.7	0.7
7	Zn (μg/L)	1	16.4	16.4	16.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	5	84	48	66
2	HAR_Total (mgCaCO3/L)	5	177	89	139
3	Na% (%)	5	62	43	49
4	RSC (-)	5	0.3	0.0	0.1
5	SAR (-)	5	3.4	2.0	2.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	5.220	0.241	Dry Bed	0.786	0.157
2	EC_GEN (µmho/cm)	223	468		511	572
3	pH_FLD (pH units)		7.0		7.0	7.0
4	pH_GEN (pH units)	7.4	7.2		7.7	7.6
5	TDS (mg/L)					
6	Temp (deg C)	25.3	26.0		27.0	25.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	85	167		186	194
3	Ca (mg/L)	18	29		28	40
4	Cl (mg/L)	23.8	99.2		73.6	79.4
5	CO3 (mg/L)	0.0	0.0		0.0	0.0
6	F (mg/L)				0.38	0.46
7	Fe (mg/L)					
8	HCO3 (mg/L)	104	203		227	237
9	K (mg/L)				6.1	6.3
10	Mg (mg/L)	10.2	18.0		19.8	23.8
11	Na (mg/L)	21.0			53.8	58.6
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				0.65	0.32
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	7.2			13.0	6.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				0.9	0.9
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	72		71	100
2	HAR_Total (mgCaCO3/L)	87	147		153	199
3	Na% (%)				42	38
4	RSC (-)	0.0	0.4		0.7	0.0
5	SAR (-)	1.0			1.9	1.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.876	1.048	Dry Bed	Dry Bed	2.197
2	EC_GEN (µmho/cm)	519	464			492
3	pH_FLD (pH units)	7.0	7.0			7.0
4	pH_GEN (pH units)	8.1	7.7			7.6
5	TDS (mg/L)	274	248			266
6	Temp (deg C)	30.0	28.0			27.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	143	120			128
3	Ca (mg/L)	31	31			26
4	Cl (mg/L)	91.9	82.2			77.9
5	CO3 (mg/L)	0.0	0.0			0.0
6	F (mg/L)	1.01	0.27			0.40
7	Fe (mg/L)					0.0
8	HCO3 (mg/L)	174	146			157
9	K (mg/L)	4.1	4.1			4.2
10	Mg (mg/L)	12.4	11.6			12.4
11	Na (mg/L)	78.5	52.6			57.0
12	NH3-N (mg N/L)					0.09
13	NO2+NO3 (mg N/L)					0.80
14	NO2-N (mgN/L)					0.06
15	NO3-N (mgN/L)	0.12	3.28			0.75
16	o-PO4-P (mg P/L)					0.038
17	SO4 (mg/L)	25.7	19.7			16.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.0	0.9			3.3
	TRACE & TOXIC					
1	As (µg/L)					0.6
2	Cd (µg/L)					0.1
3	Cr (µg/L)					1.0
4	Cu (µg/L)					1.7
5	Ni (µg/L)					0.0
6	Pb (µg/L)					0.8
7	Zn (µg/L)					3.7
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	78	77			65
2	HAR_Total (mgCaCO3/L)	129	126			117
3	Na% (%)	56	47			49
4	RSC (-)	0.3	0.0			0.4
5	SAR (-)	3.0	2.0			2.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	0.278	5.350	31.51	10.74	12.94
2	EC_GEN (µmho/cm)	569	410	463	467	529
3	pH_FLD (pH units)	7.0		7.0	7.0	7.0
4	pH_GEN (pH units)	7.3	7.8	7.3	7.6	7.8
5	TDS (mg/L)	303				
6	Temp (deg C)	29.5	23.3	24.0	24.8	24.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	131	156	165	213	193
3	Ca (mg/L)	20	29	32	28	29
4	Cl (mg/L)	89.3	42.9	69.6	60.3	81.5
5	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
6	F (mg/L)	0.56			0.31	0.36
7	Fe (mg/L)					
8	HCO3 (mg/L)	159	190	201	260	235
9	K (mg/L)	8.4			7.5	6.3
10	Mg (mg/L)	17.6	17.0	18.0	19.2	20.4
11	Na (mg/L)	68.3	24.9		64.6	58.8
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	0.33				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	0.32				0.60
16	o-PO4-P (mg P/L)	0.090				
17	SO4 (mg/L)	13.4	10.8		14.0	10.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.6			0.5	0.4
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	50	73	80	69	74
2	HAR_Total (mgCaCO3/L)	124	144	154	149	159
3	Na% (%)	53			44	43
4	RSC (-)	0.2	0.3	0.2	1.4	0.7
5	SAR (-)	2.8	0.9		2.3	2.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	16.32	1.418	0.413	0.423	176.8
2	EC_GEN (µmho/cm)	476	571	618	471	403
3	pH_FLD (pH units)	7.0	7.0	7.0	7.0	7.0
4	pH_GEN (pH units)	7.9	7.8	7.7	7.9	8.0
5	TDS (mg/L)		304	330	252	221
6	Temp (deg C)	21.0	23.8	27.5	25.0	25.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	2.9	0.0	0.0	0.0	2.3
2	ALK-TOT (mgCaCO3/L)	140	141	134	85	95
3	Ca (mg/L)	21	31	27	19	24
4	Cl (mg/L)	69.6	95.5	114.0	80.6	66.0
5	CO3 (mg/L)	3.5	0.0	0.0	0.0	2.8
6	F (mg/L)	0.34	0.71	0.39	0.25	0.28
7	Fe (mg/L)				0.0	
8	HCO3 (mg/L)	163	172	164	104	110
9	K (mg/L)	7.4	5.6	4.9	7.8	4.1
10	Mg (mg/L)	19.7	15.2	16.5	12.3	13.7
11	Na (mg/L)	46.2	58.9	68.3	57.5	41.1
12	NH3-N (mg N/L)					0.05
13	NO2+NO3 (mg N/L)					0.34
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.59	0.71	4.38	1.43	0.34
16	o-PO4-P (mg P/L)					0.005
17	SO4 (mg/L)	14.7	12.6	8.5	37.3	19.4
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.9	0.8	1.1	1.5	1.5
	TRACE & TOXIC					
1	As (µg/L)	0.6				
2	Cd (µg/L)	0.0			0.1	
3	Cr (µg/L)	0.3			1.5	
4	Cu (µg/L)	11.4			3.3	
5	Ni (µg/L)	3.5			0.4	
6	Pb (µg/L)	1.3			0.5	
7	Zn (µg/L)	22.2			4.0	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	53	79	69	46	61
2	HAR_Total (mgCaCO3/L)	135	142	138	98	118
3	Na% (%)	41	46	51	54	40
4	RSC (-)	0.2	0.1	0.1	0.0	0.0
5	SAR (-)	1.7	2.2	2.6	2.5	1.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	0.727	10.80	0.563	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	595	557	520		
3	pH_FLD (pH units)	7.0	7.0			
4	pH_GEN (pH units)	7.5	7.8	7.7		
5	TDS (mg/L)	321	296			
6	Temp (deg C)	27.5	26.3	24.0		
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0		
2	ALK-TOT (mgCaCO3/L)	112	143	162		
3	Ca (mg/L)	34	30	36		
4	Cl (mg/L)	114.3	84.3	65.3		
5	CO3 (mg/L)	0.0	0.0	0.0		
6	F (mg/L)	0.40	0.26			
7	Fe (mg/L)	0.1	0.0			
8	HCO3 (mg/L)	136	175	198		
9	K (mg/L)	5.3	5.4			
10	Mg (mg/L)	12.6	17.5	18.2		
11	Na (mg/L)	70.0	61.2			
12	NH3-N (mg N/L)	0.03	0.03			
13	NO2+NO3 (mg N/L)	0.41	0.31			
14	NO2-N (mgN/L)	0.00	0.01			
15	NO3-N (mgN/L)	0.41	0.30			
16	o-PO4-P (mg P/L)	0.010	0.009			
17	SO4 (mg/L)	23.0	12.3	8.3		
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.5	0.8			
	TRACE & TOXIC					
1	As (µg/L)	1.9	2.3			
2	Cd (µg/L)	0.0	0.0			
3	Cr (µg/L)	1.6	4.1			
4	Cu (µg/L)	3.8	6.3			
5	Ni (µg/L)	5.6	0.5			
6	Pb (µg/L)	0.9	0.7			
7	Zn (µg/L)	1.2	16.4			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	84	76	90		
2	HAR_Total (mgCaCO3/L)	137	149	166		
3	Na% (%)	51	46			
4	RSC (-)	0.0	0.0	0.1		
5	SAR (-)	2.6	2.2			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.532	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	553			
3	pH_FLD (pH units)	7.0			
4	pH_GEN (pH units)	7.8			
5	TDS (mg/L)				
6	Temp (deg C)	24.0			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0			
2	ALK-TOT (mgCaCO3/L)	203			
3	Ca (mg/L)	19			
4	Cl (mg/L)	80.3			
5	CO3 (mg/L)	0.0			
6	F (mg/L)	0.47			
7	Fe (mg/L)				
8	HCO3 (mg/L)	247			
9	K (mg/L)	6.3			
10	Mg (mg/L)	29.2			
11	Na (mg/L)	60.1			
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	0.84			
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	21.3			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.3			
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	48			
2	HAR_Total (mgCaCO3/L)	170			
3	Na% (%)	43			
4	RSC (-)	0.7			
5	SAR (-)	2.0			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Chengalpet (CQ000C1)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	0.184	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		420		
3	pH_FLD (pH units)		7.0		
4	pH_GEN (pH units)		7.4		
5	TDS (mg/L)		228		
6	Temp (deg C)		28.0		
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)		0.0		
2	ALK-TOT (mgCaCO3/L)		96		
3	Ca (mg/L)		26		
4	Cl (mg/L)		69.6		
5	CO3 (mg/L)		0.0		
6	F (mg/L)		0.36		
7	Fe (mg/L)				
8	HCO3 (mg/L)		117		
9	K (mg/L)		6.3		
10	Mg (mg/L)		13.6		
11	Na (mg/L)		40.9		
12	NH3-N (mg N/L)		0.06		
13	NO2+NO3 (mg N/L)		0.75		
14	NO2-N (mgN/L)		0.00		
15	NO3-N (mgN/L)		0.75		
16	o-PO4-P (mg P/L)		0.043		
17	SO4 (mg/L)		24.0		
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)		2.4		
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)		64		
2	HAR_Total (mgCaCO3/L)		121		
3	Na% (%)		41		
4	RSC (-)		0.0		
5	SAR (-)		1.6		
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: MAGARAL	Code	: CQB00B4
State	: Tamil Nadu	District	Kancheepuram
Basin	: EFR B Pennar-Cauvery	Independent River	: Palar
Tributary	: Cheyyar	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Cheyyar
Division	: Hydrology Division, Chennai	Sub-Division	: PPSD, CWC, Chennai
Drainage Area	: 1803 Sq. Km.	Bank	: Left
Latitude	: 12°42'34"	Longitude	: 79°44'57"
Zero of Gauge (m)	: 58.000 (m.s.l)	25/11/1971	
	Opening Date	Closing Date	
Gauge	: 25/11/1971		
Discharge	: 25/11/1971		
Sediment	:		
Water Quality	: 01/11/1983		

Water Quality Datasheet for the period : 2017-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water Analysis

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water Analysis

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	01/09/2017	01/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water Analysis

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	04/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	44.86	Dry Bed	Dry Bed
2	Colour_Cod (-)	Light Brown		
3	EC_GEN (µmho/cm)	318		
4	Odour_Code (-)	odour free		
5	pH_FLD (pH units)	7.0		
6	pH_GEN (pH units)	8.1		
7	TDS (mg/L)	169		
8	Temp (deg C)	28.5		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		
2	ALK-TOT (mgCaCO3/L)	88		
3	Ca (mg/L)	18		
4	Cl (mg/L)	38.2		
5	CO3 (mg/L)	0.0		
6	F (mg/L)	0.27		
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	108		
9	K (mg/L)	3.4		
10	Mg (mg/L)	9.7		
11	Na (mg/L)	28.0		
12	NH3-N (mg N/L)	0.02		
13	NO2+NO3 (mg N/L)	0.12		
14	NO2-N (mgN/L)	0.01		
15	NO3-N (mgN/L)	0.11		
16	o-PO4-P (mg P/L)	0.007		
17	SO4 (mg/L)	12.2		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.1		
	TRACE & TOXIC			
1	As (µg/L)	7.6		
2	Cd (µg/L)	0.1		
3	Cr (µg/L)	3.6		
4	Cu (µg/L)	5.3		
5	Ni (µg/L)	14.0		
6	Pb (µg/L)	1.8		
7	Zn (µg/L)	27.0		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	44		
2	HAR_Total (mgCaCO3/L)	85		
3	Na% (%)	41		
4	RSC (-)	0.1		
5	SAR (-)	1.3		
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water Analysis

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

Sub-Division : PPSD, CWC, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	94.15	0.000	0.690
2	EC_GEN (µmho/cm)	1	318	318	318
3	pH_FLD (pH units)	1	7.0	7.0	7
4	pH_GEN (pH units)	1	8.1	8.1	8.1
5	TDS (mg/L)	1	169	169	169
6	Temp (deg C)	1	28.5	28.5	28.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	88	88	88
3	Ca (mg/L)	1	18	18	18
4	Cl (mg/L)	1	38.2	38.2	38.2
5	CO3 (mg/L)	1	0.0	0.0	0
6	F (mg/L)	1	0.27	0.27	0.27
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	1	108	108	108
9	K (mg/L)	1	3.4	3.4	3.4
10	Mg (mg/L)	1	9.7	9.7	9.7
11	Na (mg/L)	1	28.0	28.0	28
12	NH3-N (mg N/L)	1	0.02	0.02	0.02
13	NO2+NO3 (mg N/L)	1	0.12	0.12	0.12
14	NO2-N (mgN/L)	1	0.01	0.01	0.01
15	NO3-N (mgN/L)	1	0.11	0.11	0.11
16	o-PO4-P (mg P/L)	1	0.007	0.007	0.007
17	SO4 (mg/L)	1	12.2	12.2	12.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	1.1	1.1	1.1
	TRACE & TOXIC				
1	As (µg/L)	1	7.6	7.6	7.6
2	Cd (µg/L)	1	0.1	0.1	0.1
3	Cr (µg/L)	1	3.6	3.6	3.5
4	Cu (µg/L)	1	5.3	5.3	5.3
5	Ni (µg/L)	1	14.0	14.0	14
6	Pb (µg/L)	1	1.8	1.8	1.8
7	Zn (µg/L)	1	27.0	27.0	27
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	44	44	44
2	HAR_Total (mgCaCO3/L)	1	85	85	85
3	Na% (%)	1	41	41	41
4	RSC (-)	1	0.1	0.1	0.1
5	SAR (-)	1	1.3	1.3	1.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed		Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	54.61	27.42	Dry Bed	12.84
2	EC_GEN (µmho/cm)		202	321		481
3	pH_FLD (pH units)			7.0		7.0
4	pH_GEN (pH units)		7.7	7.8		7.7
5	TDS (mg/L)					
6	Temp (deg C)		23.5	33.0		26.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0		0.0
2	ALK-TOT (mgCaCO3/L)		100	131		212
3	Ca (mg/L)		22	27		33
4	Cl (mg/L)		24.8	43.8		49.5
5	CO3 (mg/L)		0.0	0.0		0.0
6	F (mg/L)					0.29
7	Fe (mg/L)					
8	HCO3 (mg/L)		122	160		258
9	K (mg/L)					6.4
10	Mg (mg/L)		7.8	17.5		22.4
11	Na (mg/L)		29.7			37.3
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					0.52
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)		5.8			8.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					0.4
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		54	68		82
2	HAR_Total (mgCaCO3/L)		86	141		175
3	Na% (%)					30
4	RSC (-)		0.3	0.0		0.8
5	SAR (-)		1.4			1.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	6.902	5.012	Dry Bed	Dry Bed	52.89
2	EC_GEN (µmho/cm)	499	321			325
3	pH_FLD (pH units)	7.0	7.0			7.0
4	pH_GEN (pH units)	7.6	7.8			8.0
5	TDS (mg/L)		171			174
6	Temp (deg C)	26.8	24.0			26.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			4.7
2	ALK-TOT (mgCaCO3/L)	134	88			99
3	Ca (mg/L)	28	19			24
4	Cl (mg/L)	69.9	44.9			40.7
5	CO3 (mg/L)	0.0	0.0			5.6
6	F (mg/L)	0.27	0.47			0.25
7	Fe (mg/L)					
8	HCO3 (mg/L)	164	107			110
9	K (mg/L)	5.2	3.2			2.8
10	Mg (mg/L)	16.2	11.4			13.2
11	Na (mg/L)	45.1	26.6			23.9
12	NH3-N (mg N/L)					0.05
13	NO2+NO3 (mg N/L)					0.22
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.59	0.26			0.22
16	o-PO4-P (mg P/L)					0.011
17	SO4 (mg/L)	13.7	11.3			14.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.0	1.3			1.6
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	71	47			61
2	HAR_Total (mgCaCO3/L)	138	95			116
3	Na% (%)	41	37			28
4	RSC (-)	0.1	0.0			0.0
5	SAR (-)	1.7	1.2			0.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	11.22	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		318			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		8.1			
5	TDS (mg/L)		169			
6	Temp (deg C)		28.5			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0			
2	ALK-TOT (mgCaCO3/L)		88			
3	Ca (mg/L)		18			
4	Cl (mg/L)		38.2			
5	CO3 (mg/L)		0.0			
6	F (mg/L)		0.27			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		108			
9	K (mg/L)		3.4			
10	Mg (mg/L)		9.7			
11	Na (mg/L)		28.0			
12	NH3-N (mg N/L)		0.02			
13	NO2+NO3 (mg N/L)		0.12			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.11			
16	o-PO4-P (mg P/L)		0.007			
17	SO4 (mg/L)		12.2			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.1			
	TRACE & TOXIC					
1	As (µg/L)		7.6			
2	Cd (µg/L)		0.1			
3	Cr (µg/L)		3.5			
4	Cu (µg/L)		5.3			
5	Ni (µg/L)		14.0			
6	Pb (µg/L)		1.8			
7	Zn (µg/L)		27.0			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		44			
2	HAR_Total (mgCaCO3/L)		85			
3	Na% (%)		41			
4	RSC (-)		0.1			
5	SAR (-)		1.3			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MAGARAL (CQB00B4)

Division : HD, CWC, Chennai

Local River : Cheyyar

River Water

Sub-Division : PPSD, CWC, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

Water Year : 2017-2018

Site : Arcot

Code : CQ00017

State : Tamil Nadu

Basin : EFR B Pennar-Cauvery

Tributary : -

Sub-Sub Tributary :

Division : Hydrology Division, Chennai

Drainage Area : 10174 Sq. Km.

Latitude : 12°54'50"

Zero of Gauge (m) : 159.000 (m.s.l)
156.810 (m.s.l)

Opening Date

Gauge : 20/09/1979

Discharge : 20/09/1979

Sediment :

Water Quality : 01/06/1988

District : Vellore

Independent River : Palar

Sub Tributary :

Local River : Palar

Sub-Division : Palar Ponnaiyar SD, Chennai

Bank : Right

Longitude : 79°20'00"

20/09/1979 - 31/05/2008

01/06/2008

Closing Date

Water Quality Datasheet for the period : 2017-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	11/09/2017	04/10/2017	01/11/2017
		B	A	A
	PHYSICAL			
1	Q (cumec)	0.155	14.58	14.53
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1748	1222	1201
4	Odour_Code (-)	odour free	odour free	odour free
5	pH_FLD (pH units)	7.0	7.0	7.0
6	pH_GEN (pH units)	7.5	7.6	7.1
7	TDS (mg/L)	927	650	639
8	Temp (deg C)	29.5	27.0	24.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	219	215	189
3	Ca (mg/L)	79	42	51
4	Cl (mg/L)	264.0	215.5	217.6
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.96	0.42	0.56
7	Fe (mg/L)			
8	HCO3 (mg/L)	267	262	231
9	K (mg/L)	10.9	10.1	8.7
10	Mg (mg/L)	40.3	22.4	27.2
11	Na (mg/L)	204.0	166.5	169.0
12	NH3-N (mg N/L)	0.04	0.03	0.04
13	NO2+NO3 (mg N/L)	1.06	0.79	2.39
14	NO2-N (mgN/L)	0.00	0.01	0.01
15	NO3-N (mgN/L)	1.06	0.78	2.38
16	o-PO4-P (mg P/L)	0.340	0.225	0.020
17	SO4 (mg/L)	186.5	33.5	60.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	3.8	1.3	1.9
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	198	104	128
2	HAR_Total (mgCaCO3/L)	366	197	242
3	Na% (%)	54	63	59
4	RSC (-)	0.0	0.4	0.0
5	SAR (-)	4.7	5.2	4.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	10.24	5.441	Dry Bed
2	Colour_Cod (-)	Clear	Clear	
3	EC_GEN (µmho/cm)	1375	1429	
4	Odour_Code (-)	odour free	odour free	
5	pH_FLD (pH units)	7.0	7.0	
6	pH_GEN (pH units)	8.5	8.5	
7	TDS (mg/L)	730	758	
8	Temp (deg C)	25.5	23.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	8.4	25.2	
2	ALK-TOT (mgCaCO3/L)	156	105	
3	Ca (mg/L)	37	13	
4	Cl (mg/L)	278.4	311.7	
5	CO3 (mg/L)	10.1	30.3	
6	F (mg/L)	0.48	0.65	
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	170	67	
9	K (mg/L)	8.7	8.5	
10	Mg (mg/L)	36.0	32.1	
11	Na (mg/L)	200.0	239.0	
12	NH3-N (mg N/L)	0.03	0.03	
13	NO2+NO3 (mg N/L)	3.78	0.12	
14	NO2-N (mgN/L)	0.02	0.01	
15	NO3-N (mgN/L)	3.77	0.11	
16	o-PO4-P (mg P/L)	0.129	0.006	
17	SO4 (mg/L)	76.9	108.2	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.9	0.2	
	TRACE & TOXIC			
1	As (µg/L)	0.7		
2	Cd (µg/L)	0.1		
3	Cr (µg/L)	5.9		
4	Cu (µg/L)	3.0		
5	Ni (µg/L)	0.8		
6	Pb (µg/L)	1.3		
7	Zn (µg/L)	9.8		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	92	32	
2	HAR_Total (mgCaCO3/L)	242	166	
3	Na% (%)	63	75	
4	RSC (-)	0.0	0.0	
5	SAR (-)	5.6	8.1	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	147.0	0.000	5.890
2	EC_GEN (μmho/cm)	5	1748	1201	1395
3	pH_FLD (pH units)	5	7.0	7.0	7
4	pH_GEN (pH units)	5	8.5	7.1	7.8
5	TDS (mg/L)	5	927	639	741
6	Temp (deg C)	5	29.5	23.0	25.9
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	5	25.2	0.0	6.7
2	ALK-TOT (mgCaCO3/L)	5	219	105	177
3	Ca (mg/L)	5	79	13	44
4	Cl (mg/L)	5	311.7	215.5	257.4
5	CO3 (mg/L)	5	30.3	0.0	8.1
6	F (mg/L)	5	0.96	0.42	0.61
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	5	267	67	199
9	K (mg/L)	5	10.9	8.5	9.4
10	Mg (mg/L)	5	40.3	22.4	31.6
11	Na (mg/L)	5	239.0	166.5	195.7
12	NH3-N (mg N/L)	5	0.04	0.03	0.03
13	NO2+NO3 (mg N/L)	5	3.78	0.12	1.63
14	NO2-N (mgN/L)	5	0.02	0.00	0.01
15	NO3-N (mgN/L)	5	3.77	0.11	1.62
16	o-PO4-P (mg P/L)	5	0.340	0.006	0.144
17	SO4 (mg/L)	5	186.5	33.5	93.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	5	3.8	0.2	2
	TRACE & TOXIC				
1	As (μg/L)	1	0.7	0.7	0.7
2	Cd (μg/L)	1	0.1	0.1	0.1
3	Cr (μg/L)	1	5.9	5.9	5.9
4	Cu (μg/L)	1	3.0	3.0	3
5	Ni (μg/L)	1	0.8	0.8	0.8
6	Pb (μg/L)	1	1.3	1.3	1.3
7	Zn (μg/L)	1	9.8	9.8	9.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	5	198	32	111
2	HAR_Total (mgCaCO3/L)	5	366	166	243
3	Na% (%)	5	75	54	63
4	RSC (-)	5	0.4	0.0	0.1
5	SAR (-)	5	8.1	4.7	5.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	9.182
2	EC_GEN (µmho/cm)					1467
3	pH_FLD (pH units)					7.0
4	pH_GEN (pH units)					7.8
5	TDS (mg/L)					793
6	Temp (deg C)					27.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					0.0
2	ALK-TOT (mgCaCO3/L)					174
3	Ca (mg/L)					52
4	Cl (mg/L)					333.1
5	CO3 (mg/L)					0.0
6	F (mg/L)					0.54
7	Fe (mg/L)					0.0
8	HCO3 (mg/L)					213
9	K (mg/L)					10.1
10	Mg (mg/L)					28.2
11	Na (mg/L)					197.3
12	NH3-N (mg N/L)					0.26
13	NO2+NO3 (mg N/L)					0.80
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)					0.80
16	o-PO4-P (mg P/L)					0.016
17	SO4 (mg/L)					79.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					2.5
	TRACE & TOXIC					
1	As (µg/L)					0.7
2	Cd (µg/L)					0.1
3	Cr (µg/L)					10.1
4	Cu (µg/L)					2.8
5	Ni (µg/L)					51.5
6	Pb (µg/L)					0.5
7	Zn (µg/L)					4.5
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					130
2	HAR_Total (mgCaCO3/L)					248
3	Na% (%)					62
4	RSC (-)					0.0
5	SAR (-)					5.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	2.946	1.477	0.061	Dry Bed	1.283
2	EC_GEN (µmho/cm)	1485	1555	1160		1993
3	pH_FLD (pH units)	7.0		7.0		7.0
4	pH_GEN (pH units)	7.5	8.2	7.1		7.6
5	TDS (mg/L)	789				
6	Temp (deg C)	28.3	23.5	27.0		26.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	5.2	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	217	109	179		492
3	Ca (mg/L)	61	27	55		75
4	Cl (mg/L)	239.7	307.9	209.7		366.9
5	CO3 (mg/L)	0.0	6.3	0.0		0.0
6	F (mg/L)	0.69				1.07
7	Fe (mg/L)					
8	HCO3 (mg/L)	265	121	219		600
9	K (mg/L)	10.5				14.6
10	Mg (mg/L)	31.3	30.4	26.7		45.4
11	Na (mg/L)	185.3	43.8			337.3
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	0.92				
14	NO2-N (mgN/L)	0.00				
15	NO3-N (mgN/L)	0.92				4.73
16	o-PO4-P (mg P/L)	0.282				
17	SO4 (mg/L)	110.0	132.2			196.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.5				1.1
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	151	68	138		187
2	HAR_Total (mgCaCO3/L)	282	195	249		376
3	Na% (%)	59				65
4	RSC (-)	0.2	0.0	0.0		2.4
5	SAR (-)	4.9	1.6			7.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	28.56
2	EC_GEN (µmho/cm)					1005
3	pH_FLD (pH units)					7.0
4	pH_GEN (pH units)					7.8
5	TDS (mg/L)					537
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					0.0
2	ALK-TOT (mgCaCO3/L)					184
3	Ca (mg/L)					50
4	Cl (mg/L)					181.8
5	CO3 (mg/L)					0.0
6	F (mg/L)					0.39
7	Fe (mg/L)					
8	HCO3 (mg/L)					224
9	K (mg/L)					9.5
10	Mg (mg/L)					18.6
11	Na (mg/L)					123.5
12	NH3-N (mg N/L)					0.05
13	NO2+NO3 (mg N/L)					0.66
14	NO2-N (mgN/L)					0.01
15	NO3-N (mgN/L)					0.65
16	o-PO4-P (mg P/L)					0.009
17	SO4 (mg/L)					65.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					1.8
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					125
2	HAR_Total (mgCaCO3/L)					202
3	Na% (%)					55
4	RSC (-)					0.0
5	SAR (-)					3.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	0.000	7.553	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		1335			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		8.0			
5	TDS (mg/L)		709			
6	Temp (deg C)		24.3			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		11.2			
2	ALK-TOT (mgCaCO3/L)		150			
3	Ca (mg/L)		34			
4	Cl (mg/L)		269.2			
5	CO3 (mg/L)		13.5			
6	F (mg/L)		0.56			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		156			
9	K (mg/L)		8.6			
10	Mg (mg/L)		31.8			
11	Na (mg/L)		202.7			
12	NH3-N (mg N/L)		0.03			
13	NO2+NO3 (mg N/L)		2.10			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		2.09			
16	o-PO4-P (mg P/L)		0.052			
17	SO4 (mg/L)		81.8			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.6			
	TRACE & TOXIC					
1	As (µg/L)		0.7			
2	Cd (µg/L)		0.1			
3	Cr (µg/L)		5.9			
4	Cu (µg/L)		3.0			
5	Ni (µg/L)		0.8			
6	Pb (µg/L)		1.3			
7	Zn (µg/L)		9.8			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		84			
2	HAR_Total (mgCaCO3/L)		217			
3	Na% (%)		66			
4	RSC (-)		0.0			
5	SAR (-)		6.2			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Arcot (CQ00017)

Division : Hydrology Division, Chennai

Local River : Palar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: AVARANKUPPAM	Code	: CQ000S4
State	: Tamil Nadu	District	Vellore
Basin	: EFR B Pennar-Cauvery	Independent River	: Palar
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Palar
Division	: SR Division, Coimbatore	Sub-Division	: Lower Cauvery SD, Trichy
Drainage Area	: 3300 Sq. Km.	Bank	: Right
Latitude	: 12°41'03"	Longitude	: 78°32'22"
Zero of Gauge (m)	: 365.275 (m.s.l)	07/06/1978	
	Opening Date	Closing Date	
Gauge	: 07/06/1978		
Discharge	: 07/06/1978		
Sediment	:		
Water Quality	: 01/08/1979		

Water Quality Datasheet for the period : 2017-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/06/2017	01/07/2017	10/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	5.371
2	Colour_Cod (-)			Light Brown
3	EC_GEN (µmho/cm)			196
4	Odour_Code (-)			odour free
5	pH_GEN (pH units)			7.2
6	TDS (mg/L)			111
7	Temp (deg C)			24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			0.0
2	ALK-TOT (mgCaCO3/L)			61
3	B (mg/L)			0.00
4	Ca (mg/L)			16
5	Cl (mg/L)			13.2
6	CO3 (mg/L)			0.0
7	F (mg/L)			0.26
8	Fe (mg/L)			0.360
9	HCO3 (mg/L)			74
10	K (mg/L)			3.4
11	Mg (mg/L)			5.7
12	Na (mg/L)			17.5
13	NH3-N (mg N/L)			0.12
14	NO2+NO3 (mg N/L)			0.84
15	NO2-N (mgN/L)			0.01
16	NO3-N (mgN/L)			0.83
17	o-PO4-P (mg P/L)			0.120
18	SiO2 (mg/L)			14.7
19	SO4 (mg/L)			18.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	COD (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			39
2	HAR_Total (mgCaCO3/L)			63
3	Na% (%)			36
4	RSC (-)			0.0
5	SAR (-)			1.0
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	06/09/2017	03/10/2017	07/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	21.00	5.150	4.756
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown
3	EC_GEN (μmho/cm)	214	352	633
4	Odour_Code (-)	odour free	odour free	odour free
5	pH_GEN (pH units)	7.4	7.7	8.3
6	TDS (mg/L)	124	200	370
7	Temp (deg C)	22.5	25.0	24.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	33.5
2	ALK-TOT (mgCaCO3/L)	75	131	236
3	B (mg/L)	0.07	0.08	0.08
4	Ca (mg/L)	19	18	38
5	Cl (mg/L)	18.7	27.8	44.9
6	CO3 (mg/L)	0.0	0.0	40.4
7	F (mg/L)	0.33	0.49	0.77
8	Fe (mg/L)	0.150	0.120	0.010
9	HCO3 (mg/L)	92	160	205
10	K (mg/L)	2.3	1.7	2.0
11	Mg (mg/L)	4.7	14.0	14.9
12	Na (mg/L)	20.9	40.1	80.1
13	NH3-N (mg N/L)	0.04	0.21	0.08
14	NO2+NO3 (mg N/L)	0.61	0.45	0.24
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.61	0.45	0.24
17	o-PO4-P (mg P/L)	0.020	0.030	0.020
18	SiO2 (mg/L)	12.4	16.3	18.8
19	SO4 (mg/L)	11.4	17.6	28.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	COD (mg/L)	15.0	13.7	11.9
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	46	46	96
2	HAR_Total (mgCaCO3/L)	66	104	158
3	Na% (%)	40	45	52
4	RSC (-)	0.2	0.5	1.6
5	SAR (-)	1.1	1.7	2.8
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	0.869	0.234
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_GEN (pH units)			
6	TDS (mg/L)			
7	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	COD (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	No Flow	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_GEN (pH units)			
6	TDS (mg/L)			
7	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	COD (mg/L)			
	TRACE & TOXIC			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

Sub-Division : Lower Cauvery SD, Trichy

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	521.9	0.000	7.401
2	EC_GEN (µmho/cm)	4	633	196	349
3	pH_GEN (pH units)	4	8.3	7.2	7.7
4	TDS (mg/L)	4	370	111	201
5	Temp (deg C)	4	25.0	22.5	24
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	4	33.5	0.0	8.4
2	ALK-TOT (mgCaCO3/L)	4	236	61	126
3	B (mg/L)	4	0.08	0.00	0.06
4	Ca (mg/L)	4	38	16	23
5	Cl (mg/L)	4	44.9	13.2	26.1
6	CO3 (mg/L)	4	40.4	0.0	10.1
7	F (mg/L)	4	0.77	0.26	0.46
8	Fe (mg/L)	4	0.360	0.010	0.16
9	HCO3 (mg/L)	4	205	74	133
10	K (mg/L)	4	3.4	1.7	2.4
11	Mg (mg/L)	4	14.9	4.7	9.8
12	Na (mg/L)	4	80.1	17.5	39.6
13	NH3-N (mg N/L)	4	0.21	0.04	0.11
14	NO2+NO3 (mg N/L)	4	0.84	0.24	0.53
15	NO2-N (mgN/L)	4	0.01	0.00	0
16	NO3-N (mgN/L)	4	0.83	0.24	0.53
17	o-PO4-P (mg P/L)	4	0.120	0.020	0.047
18	SiO2 (mg/L)	4	18.8	12.4	15.5
19	SO4 (mg/L)	4	28.9	11.4	19.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	COD (mg/L)	3	15.0	11.9	13.5
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	4	96	39	57
2	HAR_Total (mgCaCO3/L)	4	158	63	98
3	Na% (%)	4	52	36	43
4	RSC (-)	4	1.6	0.0	0.6
5	SAR (-)	4	2.8	1.0	1.6
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	0.077	Dry Bed	0.400	0.006	0.137
2	EC_GEN (µmho/cm)	760		565		604
3	pH_GEN (pH units)	8.5		8.2		7.7
4	TDS (mg/L)					
5	Temp (deg C)	22.5		22.5		25.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	24.0		0.0		0.0
2	ALK-TOT (mgCaCO3/L)	305		271		280
3	B (mg/L)	0.31		0.09		
4	Ca (mg/L)	30		29		30
5	Cl (mg/L)	43.3		36.1		59.8
6	CO3 (mg/L)	28.9		0.0		0.0
7	F (mg/L)	1.26		0.85		0.98
8	Fe (mg/L)	0.065		0.080		
9	HCO3 (mg/L)	313		331		342
10	K (mg/L)	3.0		1.9		2.6
11	Mg (mg/L)	17.5		15.5		19.4
12	Na (mg/L)	114.4		93.8		98.0
13	NH3-N (mg N/L)	0.06		0.12		
14	NO2+NO3 (mg N/L)	5.06				
15	NO2-N (mgN/L)	0.06				
16	NO3-N (mgN/L)	5.00		1.38		2.90
17	o-PO4-P (mg P/L)			0.080		
18	P-Tot (mgP/L)	0.017				
19	SiO2 (mg/L)	32.1		26.3		
20	SO4 (mg/L)	28.4		33.0		19.8
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	74		72		76
2	HAR_Total (mgCaCO3/L)	147		137		157
3	Na% (%)	62		60		57
4	RSC (-)	3.2		2.7		2.5
5	SAR (-)	4.1		3.5		3.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_GEN (pH units)					
4	TDS (mg/L)					
5	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	B (mg/L)					
4	Ca (mg/L)					
5	Cl (mg/L)					
6	CO3 (mg/L)					
7	F (mg/L)					
8	Fe (mg/L)					
9	HCO3 (mg/L)					
10	K (mg/L)					
11	Mg (mg/L)					
12	Na (mg/L)					
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)					
15	NO2-N (mgN/L)					
16	NO3-N (mgN/L)					
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					
20	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	6.304	0.239	1.941	0.118	0.392
2	EC_GEN (μmho/cm)	254	838	688	931	799
3	pH_GEN (pH units)	7.4	8.4	8.3	8.3	8.1
4	TDS (mg/L)	145				
5	Temp (deg C)	23.8	21.8	22.0	23.4	21.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	19.1	10.2	8.0	0.0
2	ALK-TOT (mgCaCO3/L)	89	354	287	419	391
3	B (mg/L)	0.05	0.34	0.12	0.26	0.13
4	Ca (mg/L)	18	35	36	46	47
5	Cl (mg/L)	19.9	50.2	55.1	75.7	87.0
6	CO3 (mg/L)	0.0	23.0	12.3	9.6	0.0
7	F (mg/L)	0.36	1.38	1.20	1.05	1.21
8	Fe (mg/L)	0.210	0.057	0.111	0.133	0.032
9	HCO3 (mg/L)	109	385	325	492	477
10	K (mg/L)	2.5	2.5	1.7	2.9	2.9
11	Mg (mg/L)	8.1	19.9	20.6	24.0	25.3
12	Na (mg/L)	26.2	132.8	101.6	162.7	141.7
13	NH3-N (mg N/L)	0.12	0.06		0.07	0.06
14	NO2+NO3 (mg N/L)	0.63	3.04			
15	NO2-N (mgN/L)	0.00	0.02			
16	NO3-N (mgN/L)	0.63	3.02	0.69	2.52	2.97
17	o-PO4-P (mg P/L)	0.057		0.100	0.025	0.009
18	P-Tot (mgP/L)		0.034			
19	SiO2 (mg/L)	14.5	30.8	3.2	37.6	36.2
20	SO4 (mg/L)	15.9	17.3	47.0	73.8	32.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)	14.3				
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	88	91	114	118
2	HAR_Total (mgCaCO3/L)	78	171	177	214	223
3	Na% (%)	41	63	55	62	58
4	RSC (-)	0.3	3.7	2.2	4.1	3.4
5	SAR (-)	1.3	4.4	3.3	4.9	4.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	0.265	1.121	Dry Bed	Dry Bed	0.522
2	EC_GEN (µmho/cm)	558	626			533
3	pH_GEN (pH units)	8.0	7.9			8.1
4	TDS (mg/L)					306
5	Temp (deg C)	22.5	22.0			23.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	13.1	0.0			15.3
2	ALK-TOT (mgCaCO3/L)	251	255			205
3	B (mg/L)					0.04
4	Ca (mg/L)	24	30			36
5	Cl (mg/L)	58.8	58.0			36.1
6	CO3 (mg/L)	15.8	0.0			18.4
7	F (mg/L)	1.12	0.48			0.73
8	Fe (mg/L)					0.025
9	HCO3 (mg/L)	274	311			212
10	K (mg/L)	1.9	3.6			2.8
11	Mg (mg/L)	14.6	16.0			15.8
12	Na (mg/L)	106.3	95.3			65.8
13	NH3-N (mg N/L)					0.34
14	NO2+NO3 (mg N/L)					3.08
15	NO2-N (mgN/L)					0.00
16	NO3-N (mgN/L)	2.75	0.34			3.08
17	o-PO4-P (mg P/L)					0.065
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					28.3
20	SO4 (mg/L)	17.8	28.6			33.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)		14.7			15.2
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	60	76			89
2	HAR_Total (mgCaCO3/L)	121	143			155
3	Na% (%)	65	59			48
4	RSC (-)	2.6	2.3			1.0
5	SAR (-)	4.2	3.4			2.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	1.465	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)		633			
3	pH_GEN (pH units)		8.3			
4	TDS (mg/L)		370			
5	Temp (deg C)		24.5			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		33.5			
2	ALK-TOT (mgCaCO3/L)		236			
3	B (mg/L)		0.08			
4	Ca (mg/L)		38			
5	Cl (mg/L)		44.9			
6	CO3 (mg/L)		40.4			
7	F (mg/L)		0.76			
8	Fe (mg/L)		0.010			
9	HCO3 (mg/L)		205			
10	K (mg/L)		2.0			
11	Mg (mg/L)		14.9			
12	Na (mg/L)		80.1			
13	NH3-N (mg N/L)		0.08			
14	NO2+NO3 (mg N/L)		0.23			
15	NO2-N (mgN/L)		0.00			
16	NO3-N (mgN/L)		0.23			
17	o-PO4-P (mg P/L)		0.020			
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)		18.8			
20	SO4 (mg/L)		28.9			
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)		11.9			
	TRACE & TOXIC					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		96			
2	HAR_Total (mgCaCO3/L)		158			
3	Na% (%)		52			
4	RSC (-)		1.6			
5	SAR (-)		2.8			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.003	0.357	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		312		
3	pH_GEN (pH units)		7.7		
4	TDS (mg/L)				
5	Temp (deg C)		27.0		
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)		0.0		
2	ALK-TOT (mgCaCO3/L)		127		
3	B (mg/L)				
4	Ca (mg/L)		13		
5	Cl (mg/L)		31.5		
6	CO3 (mg/L)		0.0		
7	F (mg/L)		0.38		
8	Fe (mg/L)				
9	HCO3 (mg/L)		155		
10	K (mg/L)		3.4		
11	Mg (mg/L)		8.8		
12	Na (mg/L)		56.0		
13	NH3-N (mg N/L)				
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)		0.78		
17	o-PO4-P (mg P/L)				
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)				
20	SO4 (mg/L)		26.7		
	BIOLOGICAL/BACTERIOLOGICAL				
1	COD (mg/L)				
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)		32		
2	HAR_Total (mgCaCO3/L)		69		
3	Na% (%)		63		
4	RSC (-)		1.2		
5	SAR (-)		3.0		
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AVARANKUPPAM (CQ000S4)

Division : SR Division, Coimbatore

Local River : Palar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_GEN (pH units)				
4	TDS (mg/L)				
5	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	B (mg/L)				
4	Ca (mg/L)				
5	Cl (mg/L)				
6	CO3 (mg/L)				
7	F (mg/L)				
8	Fe (mg/L)				
9	HCO3 (mg/L)				
10	K (mg/L)				
11	Mg (mg/L)				
12	Na (mg/L)				
13	NH3-N (mg N/L)				
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)				
17	o-PO4-P (mg P/L)				
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)				
20	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	COD (mg/L)				
	TRACE & TOXIC				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

Water Year : 2017-2018

Site : Kumarapalayam

Code : CCR00F3

State : Pondicherry

District : Pondicherry

Basin : EFR B Pennar-Cauvery

Independent River : Varahanadi

Tributary :

Sub Tributary :

Sub-Sub Tributary :

Local River : Varahanadi

Division : Hydrology Division,
Chennai

Sub-Division : Palar Ponnaiyar SD,
Chennai

Drainage Area : 2208 Sq. Km.

Bank : Left

Latitude : 11°59'00"

Longitude : 79°40'50"

Zero of Gauge (m) : 8.500 (m.s.l)
8.825 (m.s.l)

01/02/1998 - 31/05/2009
01/06/2009

Opening Date

Closing Date

Gauge : 01/02/1998

Discharge : 02/11/2004

Sediment :

Water Quality : 12/12/2005

Water Quality Datasheet for the period : 2017-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN ($\mu\text{mho/cm}$)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO ₃ (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH ₃ -N (mg N/L)			
13	NO ₂ +NO ₃ (mg N/L)			
14	NO ₂ -N (mgN/L)			
15	NO ₃ -N (mgN/L)			
16	o-PO ₄ -P (mg P/L)			
17	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
	TRACE & TOXIC			
1	As ($\mu\text{g/L}$)			
2	Cd ($\mu\text{g/L}$)			
3	Cr ($\mu\text{g/L}$)			
4	Cu ($\mu\text{g/L}$)			
5	Ni ($\mu\text{g/L}$)			
6	Pb ($\mu\text{g/L}$)			
7	Zn ($\mu\text{g/L}$)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/09/2017	01/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	04/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	0.586	Dry Bed	Dry Bed
2	Colour_Cod (-)	Clear		
3	EC_GEN (µmho/cm)	342		
4	Odour_Code (-)	odour free		
5	pH_FLD (pH units)	7.0		
6	pH_GEN (pH units)	8.0		
7	TDS (mg/L)	182		
8	Temp (deg C)	27.0		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		
2	ALK-TOT (mgCaCO3/L)	84		
3	Ca (mg/L)	18		
4	Cl (mg/L)	46.1		
5	CO3 (mg/L)	0.0		
6	F (mg/L)	0.20		
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	103		
9	K (mg/L)	3.1		
10	Mg (mg/L)	11.7		
11	Na (mg/L)	35.0		
12	NH3-N (mg N/L)	0.06		
13	NO2+NO3 (mg N/L)	0.21		
14	NO2-N (mgN/L)	0.01		
15	NO3-N (mgN/L)	0.20		
16	o-PO4-P (mg P/L)	0.004		
17	SO4 (mg/L)	12.1		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.2		
	TRACE & TOXIC			
1	As (µg/L)	0.3		
2	Cd (µg/L)	0.1		
3	Cr (µg/L)	4.4		
4	Cu (µg/L)	2.1		
5	Ni (µg/L)	0.1		
6	Pb (µg/L)	0.5		
7	Zn (µg/L)	19.4		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	44		
2	HAR_Total (mgCaCO3/L)	93		
3	Na% (%)	44		
4	RSC (-)	0.0		
5	SAR (-)	1.6		
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN ($\mu\text{mho/cm}$)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO ₃ (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO ₃ (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH ₃ -N (mg N/L)			
13	NO ₂ +NO ₃ (mg N/L)			
14	NO ₂ -N (mgN/L)			
15	NO ₃ -N (mgN/L)			
16	o-PO ₄ -P (mg P/L)			
17	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
	TRACE & TOXIC			
1	As ($\mu\text{g/L}$)			
2	Cd ($\mu\text{g/L}$)			
3	Cr ($\mu\text{g/L}$)			
4	Cu ($\mu\text{g/L}$)			
5	Ni ($\mu\text{g/L}$)			
6	Pb ($\mu\text{g/L}$)			
7	Zn ($\mu\text{g/L}$)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	41.71	0.000	0.131
2	EC_GEN (µmho/cm)	1	342	342	342
3	pH_FLD (pH units)	1	7.0	7.0	7
4	pH_GEN (pH units)	1	8.0	8.0	8
5	TDS (mg/L)	1	182	182	182
6	Temp (deg C)	1	27.0	27.0	27
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	84	84	84
3	Ca (mg/L)	1	18	18	18
4	Cl (mg/L)	1	46.1	46.1	46.1
5	CO3 (mg/L)	1	0.0	0.0	0
6	F (mg/L)	1	0.20	0.20	0.19
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	1	103	103	103
9	K (mg/L)	1	3.1	3.1	3.1
10	Mg (mg/L)	1	11.7	11.7	11.7
11	Na (mg/L)	1	35.0	35.0	35
12	NH3-N (mg N/L)	1	0.06	0.06	0.06
13	NO2+NO3 (mg N/L)	1	0.21	0.21	0.21
14	NO2-N (mgN/L)	1	0.01	0.01	0.01
15	NO3-N (mgN/L)	1	0.20	0.20	0.2
16	o-PO4-P (mg P/L)	1	0.004	0.004	0.004
17	SO4 (mg/L)	1	12.1	12.1	12.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	1.2	1.2	1.2
	TRACE & TOXIC				
1	As (µg/L)	1	0.3	0.3	0.3
2	Cd (µg/L)	1	0.1	0.1	0.1
3	Cr (µg/L)	1	4.4	4.4	4.4
4	Cu (µg/L)	1	2.1	2.1	2.1
5	Ni (µg/L)	1	0.1	0.1	0.1
6	Pb (µg/L)	1	0.5	0.5	0.5
7	Zn (µg/L)	1	19.4	19.4	19.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	44	44	44
2	HAR_Total (mgCaCO3/L)	1	93	93	93
3	Na% (%)	1	44	44	44
4	RSC (-)	1	0.0	0.0	0
5	SAR (-)	1	1.6	1.6	1.6
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	18.49	5.594	15.10
2	EC_GEN (µmho/cm)			215	215	392
3	pH_FLD (pH units)			7.0	7.0	7.1
4	pH_GEN (pH units)			7.0	7.9	7.9
5	TDS (mg/L)					
6	Temp (deg C)			28.5	26.1	26.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			0.0	0.0	7.9
2	ALK-TOT (mgCaCO3/L)			106	108	148
3	Ca (mg/L)			22	16	27
4	Cl (mg/L)			51.5	36.6	49.1
5	CO3 (mg/L)			0.0	0.0	9.5
6	F (mg/L)				0.20	0.27
7	Fe (mg/L)					
8	HCO3 (mg/L)			130	132	161
9	K (mg/L)				4.0	5.0
10	Mg (mg/L)			11.2	11.2	15.6
11	Na (mg/L)				36.1	32.4
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					0.36
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)				10.6	10.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				0.5	1.5
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			56	39	68
2	HAR_Total (mgCaCO3/L)			103	85	133
3	Na% (%)				45	34
4	RSC (-)			0.1	0.5	0.3
5	SAR (-)				1.7	1.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	39.91	24.45	Dry Bed	Dry Bed	26.78
2	EC_GEN (µmho/cm)	466	247			284
3	pH_FLD (pH units)	7.0	7.0			7.0
4	pH_GEN (pH units)	7.9	7.4			7.7
5	TDS (mg/L)		132			158
6	Temp (deg C)	26.0	23.5			25.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	131	78			87
3	Ca (mg/L)	18	17			20
4	Cl (mg/L)	72.2	31.8			39.9
5	CO3 (mg/L)	0.0	0.0			0.0
6	F (mg/L)	0.28	0.40			0.26
7	Fe (mg/L)					
8	HCO3 (mg/L)	159	95			107
9	K (mg/L)	4.6	3.6			2.8
10	Mg (mg/L)	20.1	6.7			10.9
11	Na (mg/L)	50.1	20.4			23.7
12	NH3-N (mg N/L)					0.05
13	NO2+NO3 (mg N/L)					0.70
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.35	0.53			0.70
16	o-PO4-P (mg P/L)					0.067
17	SO4 (mg/L)	6.8	5.8			11.4
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	2.5			1.5
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	43			50
2	HAR_Total (mgCaCO3/L)	128	71			96
3	Na% (%)	45	37			34
4	RSC (-)	0.1	0.1			0.0
5	SAR (-)	1.9	1.1			1.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.147	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		342			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		8.0			
5	TDS (mg/L)		182			
6	Temp (deg C)		27.0			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0			
2	ALK-TOT (mgCaCO3/L)		84			
3	Ca (mg/L)		18			
4	Cl (mg/L)		46.1			
5	CO3 (mg/L)		0.0			
6	F (mg/L)		0.19			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		103			
9	K (mg/L)		3.1			
10	Mg (mg/L)		11.7			
11	Na (mg/L)		35.0			
12	NH3-N (mg N/L)		0.06			
13	NO2+NO3 (mg N/L)		0.21			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.20			
16	o-PO4-P (mg P/L)		0.004			
17	SO4 (mg/L)		12.1			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.2			
	TRACE & TOXIC					
1	As (µg/L)		0.3			
2	Cd (µg/L)		0.1			
3	Cr (µg/L)		4.4			
4	Cu (µg/L)		2.1			
5	Ni (µg/L)		0.1			
6	Pb (µg/L)		0.5			
7	Zn (µg/L)		19.4			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		44			
2	HAR_Total (mgCaCO3/L)		93			
3	Na% (%)		44			
4	RSC (-)		0.0			
5	SAR (-)		1.6			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kumarapalayam (CCR00F3)

Division : Hydrology Division, Chennai

Local River : Varahanadi

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: VILLUPURAM	Code	: CP000C6
State	: Tamil Nadu	District	Villupuram
Basin	: EFR B Pennar-Cauvery	Independent River	: Ponnaiyar
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Ponnaiyar
Division	: Hydrology Division, Chennai	Sub-Division	: Palar Ponnaiyar SD, Chennai
Drainage Area	: 12900 Sq. Km.	Bank	: Right
Latitude	: 11°52'14"	Longitude	: 79°27'34"
Zero of Gauge (m)	: 43.000 (m.s.l) 42.000 (m.s.l)	14/03/1971 01/06/1975	- 31/05/1975
	Opening Date	Closing Date	
Gauge	: 14/03/1971		
Discharge	: 09/10/1972		
Sediment	:		
Water Quality	: 01/01/1987		

Water Quality Datasheet for the period : 2017-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/09/2017	13/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	56.76	Dry Bed
2	Colour_Cod (-)		Clear	
3	EC_GEN (μmho/cm)		913	
4	Odour_Code (-)		odour free	
5	pH_FLD (pH units)		7.0	
6	pH_GEN (pH units)		7.1	
7	TDS (mg/L)		486	
8	Temp (deg C)		26.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	
2	ALK-TOT (mgCaCO3/L)		177	
3	Ca (mg/L)		37	
4	Cl (mg/L)		155.3	
5	CO3 (mg/L)		0.0	
6	F (mg/L)		0.73	
7	Fe (mg/L)			
8	HCO3 (mg/L)		216	
9	K (mg/L)		9.7	
10	Mg (mg/L)		20.4	
11	Na (mg/L)		120.0	
12	NH3-N (mg N/L)		0.06	
13	NO2+NO3 (mg N/L)		1.86	
14	NO2-N (mgN/L)		0.01	
15	NO3-N (mgN/L)		1.85	
16	o-PO4-P (mg P/L)		0.378	
17	SO4 (mg/L)		36.9	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.3	
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		92	
2	HAR_Total (mgCaCO3/L)		177	
3	Na% (%)		58	
4	RSC (-)		0.0	
5	SAR (-)		3.9	
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	31.90	Dry Bed	Dry Bed
2	Colour_Cod (-)	Light Brown		
3	EC_GEN (μmho/cm)	626		
4	Odour_Code (-)	odour free		
5	pH_FLD (pH units)	7.0		
6	pH_GEN (pH units)	8.4		
7	TDS (mg/L)	332		
8	Temp (deg C)	25.0		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	8.4		
2	ALK-TOT (mgCaCO3/L)	105		
3	Ca (mg/L)	18		
4	Cl (mg/L)	117.6		
5	CO3 (mg/L)	10.1		
6	F (mg/L)	0.33		
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	108		
9	K (mg/L)	6.8		
10	Mg (mg/L)	22.4		
11	Na (mg/L)	80.0		
12	NH3-N (mg N/L)	0.02		
13	NO2+NO3 (mg N/L)	0.10		
14	NO2-N (mgN/L)	0.01		
15	NO3-N (mgN/L)	0.10		
16	o-PO4-P (mg P/L)	0.004		
17	SO4 (mg/L)	26.8		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.2		
	TRACE & TOXIC			
1	As (μg/L)	0.1		
2	Cd (μg/L)	0.0		
3	Cr (μg/L)	3.5		
4	Cu (μg/L)	2.9		
5	Ni (μg/L)	0.5		
6	Pb (μg/L)	0.9		
7	Zn (μg/L)	13.9		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	44		
2	HAR_Total (mgCaCO3/L)	137		
3	Na% (%)	55		
4	RSC (-)	0.0		
5	SAR (-)	3.0		
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (μmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	509.5	0.000	6.852
2	EC_GEN (μmho/cm)	2	913	626	770
3	pH_FLD (pH units)	2	7.0	7.0	7
4	pH_GEN (pH units)	2	8.4	7.1	7.7
5	TDS (mg/L)	2	486	332	409
6	Temp (deg C)	2	26.0	25.0	25.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	2	8.4	0.0	4.2
2	ALK-TOT (mgCaCO3/L)	2	177	105	141
3	Ca (mg/L)	2	37	18	27
4	Cl (mg/L)	2	155.3	117.6	136.4
5	CO3 (mg/L)	2	10.1	0.0	5.1
6	F (mg/L)	2	0.73	0.33	0.53
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	2	216	108	162
9	K (mg/L)	2	9.7	6.8	8.3
10	Mg (mg/L)	2	22.4	20.4	21.4
11	Na (mg/L)	2	120.0	80.0	100
12	NH3-N (mg N/L)	2	0.06	0.02	0.04
13	NO2+NO3 (mg N/L)	2	1.86	0.10	0.98
14	NO2-N (mgN/L)	2	0.01	0.01	0.01
15	NO3-N (mgN/L)	2	1.85	0.10	0.97
16	o-PO4-P (mg P/L)	2	0.378	0.004	0.191
17	SO4 (mg/L)	2	36.9	26.8	31.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2	2.2	1.3	1.8
	TRACE & TOXIC				
1	As (μg/L)	1	0.1	0.1	0.1
2	Cd (μg/L)	1	0.0	0.0	0
3	Cr (μg/L)	1	3.5	3.5	3.5
4	Cu (μg/L)	1	2.9	2.9	2.9
5	Ni (μg/L)	1	0.5	0.5	0.5
6	Pb (μg/L)	1	0.9	0.9	0.9
7	Zn (μg/L)	1	13.9	13.9	13.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	2	92	44	68
2	HAR_Total (mgCaCO3/L)	2	177	137	157
3	Na% (%)	2	58	55	56
4	RSC (-)	2	0.0	0.0	0
5	SAR (-)	2	3.9	3.0	3.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	0.379
2	EC_GEN (µmho/cm)					701
3	pH_FLD (pH units)					7.0
4	pH_GEN (pH units)					8.7
5	TDS (mg/L)					
6	Temp (deg C)					23.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					35.9
2	ALK-TOT (mgCaCO3/L)					168
3	Ca (mg/L)					32
4	Cl (mg/L)					129.0
5	CO3 (mg/L)					43.2
6	F (mg/L)					0.47
7	Fe (mg/L)					
8	HCO3 (mg/L)					117
9	K (mg/L)					6.1
10	Mg (mg/L)					34.0
11	Na (mg/L)					77.7
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					0.45
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					24.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					2.0
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					80
2	HAR_Total (mgCaCO3/L)					222
3	Na% (%)					43
4	RSC (-)					0.0
5	SAR (-)					2.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	11.35	2.840	65.41	0.292	50.18
2	EC_GEN (µmho/cm)	913		485	595	660
3	pH_FLD (pH units)	7.0		7.0	7.0	7.1
4	pH_GEN (pH units)	7.1		7.8	8.6	8.2
5	TDS (mg/L)	486				
6	Temp (deg C)	26.0		25.0	26.5	25.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	33.2	19.0
2	ALK-TOT (mgCaCO3/L)	177		175	279	223
3	Ca (mg/L)	37		32	18	36
4	Cl (mg/L)	155.3		76.3	85.6	95.1
5	CO3 (mg/L)	0.0		0.0	40.0	22.8
6	F (mg/L)	0.73			0.39	0.42
7	Fe (mg/L)					
8	HCO3 (mg/L)	216		213	259	226
9	K (mg/L)	9.7			7.0	5.8
10	Mg (mg/L)	20.4		18.5	43.7	26.0
11	Na (mg/L)	120.0			70.1	64.1
12	NH3-N (mg N/L)	0.06				
13	NO2+NO3 (mg N/L)	1.86				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	1.85				0.65
16	o-PO4-P (mg P/L)	0.378				
17	SO4 (mg/L)	36.9			26.4	22.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.3			1.1	0.6
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	92		80	45	91
2	HAR_Total (mgCaCO3/L)	177		157	227	199
3	Na% (%)	58			39	40
4	RSC (-)	0.0		0.4	1.1	0.5
5	SAR (-)	3.9			2.0	2.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	32.56	15.38	Dry Bed	Dry Bed	112.9
2	EC_GEN (µmho/cm)	680	386			506
3	pH_FLD (pH units)	7.0	7.0			7.0
4	pH_GEN (pH units)	8.2	7.7			7.8
5	TDS (mg/L)		206			271
6	Temp (deg C)	25.3	24.0			27.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	9.6	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	132	102			140
3	Ca (mg/L)	18	20			33
4	Cl (mg/L)	104.2	63.7			74.3
5	CO3 (mg/L)	11.5	0.0			0.0
6	F (mg/L)	0.35	0.51			0.35
7	Fe (mg/L)					
8	HCO3 (mg/L)	138	124			171
9	K (mg/L)	5.1	3.4			4.7
10	Mg (mg/L)	25.9	11.4			15.8
11	Na (mg/L)	66.6	38.5			44.2
12	NH3-N (mg N/L)					0.06
13	NO2+NO3 (mg N/L)					0.41
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.51	0.44			0.40
16	o-PO4-P (mg P/L)					0.017
17	SO4 (mg/L)	21.0	10.9			21.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	0.7			2.3
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	51			82
2	HAR_Total (mgCaCO3/L)	152	99			148
3	Na% (%)	48	45			38
4	RSC (-)	0.0	0.1			0.0
5	SAR (-)	2.4	1.7			1.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	7.976	5.797	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		626			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		8.4			
5	TDS (mg/L)		332			
6	Temp (deg C)		25.0			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		8.4			
2	ALK-TOT (mgCaCO3/L)		105			
3	Ca (mg/L)		18			
4	Cl (mg/L)		117.6			
5	CO3 (mg/L)		10.1			
6	F (mg/L)		0.33			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		108			
9	K (mg/L)		6.8			
10	Mg (mg/L)		22.4			
11	Na (mg/L)		80.0			
12	NH3-N (mg N/L)		0.02			
13	NO2+NO3 (mg N/L)		0.10			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.09			
16	o-PO4-P (mg P/L)		0.004			
17	SO4 (mg/L)		26.8			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		2.2			
	TRACE & TOXIC					
1	As (µg/L)		0.1			
2	Cd (µg/L)		0.0			
3	Cr (µg/L)		3.5			
4	Cu (µg/L)		2.9			
5	Ni (µg/L)		0.5			
6	Pb (µg/L)		0.9			
7	Zn (µg/L)		13.9			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		44			
2	HAR_Total (mgCaCO3/L)		137			
3	Na% (%)		55			
4	RSC (-)		0.0			
5	SAR (-)		3.0			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.000	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	799			
3	pH_FLD (pH units)	7.0			
4	pH_GEN (pH units)	8.3			
5	TDS (mg/L)				
6	Temp (deg C)	29.5			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	35.9			
2	ALK-TOT (mgCaCO3/L)	224			
3	Ca (mg/L)	27			
4	Cl (mg/L)	152.2			
5	CO3 (mg/L)	43.2			
6	F (mg/L)	0.55			
7	Fe (mg/L)				
8	HCO3 (mg/L)	185			
9	K (mg/L)	6.6			
10	Mg (mg/L)	34.0			
11	Na (mg/L)	93.9			
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	2.03			
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	20.9			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.2			
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)	1.2			
4	Cu (µg/L)	4.9			
5	Ni (µg/L)				
6	Pb (µg/L)	1.5			
7	Zn (µg/L)	14.3			
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	68			
2	HAR_Total (mgCaCO3/L)	210			
3	Na% (%)	49			
4	RSC (-)	0.3			
5	SAR (-)	2.8			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VILLUPURAM (CP000C6)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: VAZHAVACHANUR	Code	: CP000H2
State	: Tamil Nadu	District	Thiruvannamalai
Basin	: EFR B Pennar-Cauvery	Independent River	: Ponnaiyar
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Ponnaiyar
Division	: Hydrology Division, Chennai	Sub-Division	: Palar Ponnaiyar SD, Chennai
Drainage Area	: 10780 Sq. Km.	Bank	: Left
Latitude	: 12°03'57"	Longitude	: 78°58'41"
Zero of Gauge (m)	: 131.000 (m.s.l) 133.000 (m.s.l)	01/06/1978 01/06/1985	- 31/05/1985
	Opening Date	Closing Date	
Gauge	: 01/06/1978		
Discharge	: 21/07/1978		
Sediment	: 19/10/2001		
Water Quality	: 01/08/1978		

Water Quality Datasheet for the period : 2017-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (µmho/cm)			
4	EC_GEN (µmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	DO (mg/L)			
3	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	04/09/2017	04/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	0.443	1.751	1.885
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1225	920	930
4	EC_GEN (µmho/cm)	1285	1132	1069
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.6	8.0	7.3
7	pH_GEN (pH units)	7.7	7.9	7.4
8	TDS (mg/L)	685	603	567
9	Temp (deg C)	27.0	30.0	29.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	143	168	227
3	Ca (mg/L)	32	46	59
4	Cl (mg/L)	265.9	178.6	147.0
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.81	0.40	0.37
7	Fe (mg/L)			
8	HCO3 (mg/L)	175	205	277
9	K (mg/L)	9.5	10.7	8.0
10	Mg (mg/L)	14.7	23.4	30.2
11	Na (mg/L)	198.0	136.0	112.0
12	NH3-N (mg N/L)	0.08	0.03	0.03
13	NO2+NO3 (mg N/L)	0.17	0.06	2.47
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.16	0.06	2.46
16	o-PO4-P (mg P/L)	0.040	0.373	0.027
17	SO4 (mg/L)	58.4	88.4	46.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.7	1.4	1.4
2	DO (mg/L)	6.7	3.7	6.8
3	DO_SAT% (%)	84	49	88
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	81	116	148
2	HAR_Total (mgCaCO3/L)	142	214	274
3	Na% (%)	74	57	46
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	7.2	4.1	3.0
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	256.3	2.000	0.219
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	742	672	630
4	EC_GEN (µmho/cm)	763	863	1039
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	7.9	7.5
7	pH_GEN (pH units)	8.0	8.2	7.8
8	TDS (mg/L)	404	458	558
9	Temp (deg C)	28.0	26.0	28.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	156	135	213
3	Ca (mg/L)	32	23	53
4	Cl (mg/L)	115.7	164.7	157.2
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.44	0.47	0.53
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	190	164	260
9	K (mg/L)	8.3	5.6	6.2
10	Mg (mg/L)	17.5	33.6	41.8
11	Na (mg/L)	86.0	112.5	94.2
12	NH3-N (mg N/L)	0.03	0.04	0.09
13	NO2+NO3 (mg N/L)	0.15	0.12	0.17
14	NO2-N (mgN/L)	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.15	0.11	0.16
16	o-PO4-P (mg P/L)	0.241	0.004	0.010
17	SO4 (mg/L)	27.0	37.9	50.5
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.7	1.9	2.8
2	DO (mg/L)	5.2	7.6	5.4
3	DO_SAT% (%)	67	94	69
	TRACE & TOXIC			
1	As (µg/L)	2.5		
2	Cd (µg/L)	0.0		
3	Cr (µg/L)	5.7		
4	Cu (µg/L)	4.7		
5	Ni (µg/L)	0.9		
6	Pb (µg/L)	1.0		
7	Zn (µg/L)	21.4		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	80	58	132
2	HAR_Total (mgCaCO3/L)	153	198	307
3	Na% (%)	53	55	40
4	RSC (-)	0.1	0.0	0.0
5	SAR (-)	3.0	3.5	2.3
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	19.58	0.631	0.725
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	960	820	
4	EC_GEN (µmho/cm)	862	1035	1059
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.5	7.5	7.0
7	pH_GEN (pH units)	8.2	8.2	8.0
8	TDS (mg/L)	457	593	564
9	Temp (deg C)	26.5	29.5	31.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	230	200	234
3	Ca (mg/L)	53	63	42
4	Cl (mg/L)	124.2	149.5	188.3
5	CO3 (mg/L)	0.0	0.0	0.0
6	F (mg/L)	0.66	0.82	0.79
7	Fe (mg/L)		0.1	
8	HCO3 (mg/L)	280	244	286
9	K (mg/L)	7.9	5.3	13.0
10	Mg (mg/L)	27.2	32.1	39.9
11	Na (mg/L)	82.6	109.5	116.0
12	NH3-N (mg N/L)	0.05	0.17	0.15
13	NO2+NO3 (mg N/L)	0.22	0.11	0.12
14	NO2-N (mgN/L)	0.01	0.02	0.07
15	NO3-N (mgN/L)	0.21	0.10	0.05
16	o-PO4-P (mg P/L)	0.413	0.041	0.031
17	SO4 (mg/L)	25.0	117.9	31.7
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	1.0	1.4	1.1
2	DO (mg/L)	7.8	4.4	8.0
3	DO_SAT% (%)	97	57	108
	TRACE & TOXIC			
1	As (µg/L)		0.1	
2	Cd (µg/L)		0.1	
3	Cr (µg/L)		0.9	
4	Cu (µg/L)		0.3	
5	Ni (µg/L)		1.4	
6	Pb (µg/L)		1.8	
7	Zn (µg/L)		29.3	
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	132	156	104
2	HAR_Total (mgCaCO3/L)	246	290	270
3	Na% (%)	41	45	47
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.3	2.8	3.1
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	897.8	0.000	13.28
2	EC_FLD (µmho/cm)	8	1225	630	862
3	EC_GEN (µmho/cm)	9	1285	763	1012
4	pH_FLD (pH units)	9	8.0	7.0	7.6
5	pH_GEN (pH units)	9	8.2	7.4	7.9
6	TDS (mg/L)	9	685	404	543
7	Temp (deg C)	9	31.0	26.0	28.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	9	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	9	234	135	190
3	Ca (mg/L)	9	63	23	45
4	Cl (mg/L)	9	265.9	115.7	165.7
5	CO3 (mg/L)	9	0.0	0.0	0
6	F (mg/L)	9	0.82	0.37	0.59
7	Fe (mg/L)	2	0.1	0.0	0
8	HCO3 (mg/L)	9	286	164	231
9	K (mg/L)	9	13.0	5.3	8.3
10	Mg (mg/L)	9	41.8	14.7	28.9
11	Na (mg/L)	9	198.0	82.6	116.3
12	NH3-N (mg N/L)	9	0.17	0.03	0.07
13	NO2+NO3 (mg N/L)	9	2.47	0.06	0.4
14	NO2-N (mgN/L)	9	0.07	0.01	0.02
15	NO3-N (mgN/L)	9	2.46	0.05	0.38
16	o-PO4-P (mg P/L)	9	0.413	0.004	0.131
17	SO4 (mg/L)	9	117.9	25.0	53.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	9	2.8	1.0	1.8
2	DO (mg/L)	9	8.0	3.7	6.2
3	DO_SAT% (%)	9	108	49	79
	TRACE & TOXIC				
1	As (µg/L)	2	2.5	0.1	1.3
2	Cd (µg/L)	2	0.1	0.0	0.1
3	Cr (µg/L)	2	5.7	0.9	3.3
4	Cu (µg/L)	2	4.7	0.3	2.5
5	Ni (µg/L)	2	1.4	0.9	1.2
6	Pb (µg/L)	2	1.8	1.0	1.4
7	Zn (µg/L)	2	29.3	21.4	25.3
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	9	156	58	112
2	HAR_Total (mgCaCO3/L)	9	307	142	233
3	Na% (%)	9	74	40	51
4	RSC (-)	9	0.1	0.0	0
5	SAR (-)	9	7.2	2.3	3.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	0.612	3.778	0.762
2	EC_FLD (µmho/cm)			978	850	948
3	EC_GEN (µmho/cm)			870	1008	955
4	pH_FLD (pH units)			8.0	7.8	7.9
5	pH_GEN (pH units)			7.7	7.7	7.9
6	TDS (mg/L)					
7	Temp (deg C)			30.3	30.3	29.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)			390	427	239
3	Ca (mg/L)			42	58	51
4	Cl (mg/L)			150.5	149.9	153.8
5	CO3 (mg/L)			0.0	0.0	0.0
6	F (mg/L)			0.56	0.49	0.62
7	Fe (mg/L)					
8	HCO3 (mg/L)			476	521	292
9	K (mg/L)			11.6	6.4	7.1
10	Mg (mg/L)			33.4	45.6	33.5
11	Na (mg/L)			158.9	125.5	109.2
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)				2.73	2.87
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)			25.2	26.5	26.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)			1.5	0.5	1.6
2	DO (mg/L)			6.8	5.2	6.1
3	DO_SAT% (%)			90	69	79
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			105	145	127
2	HAR_Total (mgCaCO3/L)			244	335	267
3	Na% (%)			56	45	46
4	RSC (-)			3.0	1.9	0.0
5	SAR (-)			4.4	3.0	2.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	3.149	0.338	0.171	0.399	2.185
2	EC_FLD (µmho/cm)	686	986	982	925	892
3	EC_GEN (µmho/cm)	797	924	878	943	995
4	pH_FLD (pH units)	7.5	7.8	8.4	7.8	7.8
5	pH_GEN (pH units)	8.4	7.7	7.9	7.6	7.5
6	TDS (mg/L)	426	492	471	569	579
7	Temp (deg C)	28.2	28.5	31.0	31.0	28.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	4.6	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	174	122	120	180	184
3	Ca (mg/L)	42	64	30	38	66
4	Cl (mg/L)	145.5	150.5	190.0	208.7	219.1
5	CO3 (mg/L)	5.6	0.0	0.0	0.0	0.0
6	F (mg/L)	0.85	0.38	0.47	0.55	0.47
7	Fe (mg/L)	0.0				
8	HCO3 (mg/L)	200	149	146	220	225
9	K (mg/L)	5.3	7.3	6.9	6.1	6.5
10	Mg (mg/L)	26.8	29.9	19.5	23.8	21.4
11	Na (mg/L)	79.9	92.5	146.0	146.2	126.8
12	NH3-N (mg N/L)				0.08	0.06
13	NO2+NO3 (mg N/L)				0.67	0.50
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	0.26	5.11	1.65	0.67	0.50
16	o-PO4-P (mg P/L)				0.025	0.056
17	SO4 (mg/L)	28.8	146.4	99.9	44.2	41.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.5	1.3	2.7	1.4	1.3
2	DO (mg/L)	6.2	6.0	7.3	4.6	5.9
3	DO_SAT% (%)	80	77	99	62	75
	TRACE & TOXIC					
1	As (µg/L)	2.8				
2	Cd (µg/L)	0.1				
3	Cr (µg/L)	1.4				
4	Cu (µg/L)	28.1				
5	Ni (µg/L)	2.6				
6	Pb (µg/L)	3.7				
7	Zn (µg/L)	1.2				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	105	161	76	96	164
2	HAR_Total (mgCaCO3/L)	217	286	157	195	254
3	Na% (%)	44	41	66	61	51
4	RSC (-)	0.0	0.0	0.0	0.2	0.0
5	SAR (-)	2.4	2.5	5.1	4.6	3.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	0.439	Dry Bed	36.13	4.509	34.25
2	EC_FLD (µmho/cm)	1073		748	937	768
3	EC_GEN (µmho/cm)	1209		714	853	757
4	pH_FLD (pH units)	7.8		7.8	8.4	8.1
5	pH_GEN (pH units)	7.8		7.8	7.9	8.0
6	TDS (mg/L)	644				
7	Temp (deg C)	28.5		25.5	27.6	28.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	156		251	413	286
3	Ca (mg/L)	39		32	33	28
4	Cl (mg/L)	222.3		100.7	126.1	107.3
5	CO3 (mg/L)	0.0		0.0	0.0	0.0
6	F (mg/L)	0.60			0.49	0.52
7	Fe (mg/L)					
8	HCO3 (mg/L)	190		307	504	348
9	K (mg/L)	10.1			8.2	5.8
10	Mg (mg/L)	19.0		31.4	37.2	42.5
11	Na (mg/L)	167.0			160.3	75.3
12	NH3-N (mg N/L)	0.06				
13	NO2+NO3 (mg N/L)	0.11				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	0.11				1.12
16	o-PO4-P (mg P/L)	0.206				
17	SO4 (mg/L)	73.4			29.2	20.8
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.1		1.0	1.4	0.7
2	DO (mg/L)	5.2		6.3	8.4	5.3
3	DO_SAT% (%)	67		76	107	67
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	99		80	84	69
2	HAR_Total (mgCaCO3/L)	178		211	239	247
3	Na% (%)	65			58	39
4	RSC (-)	0.0		0.9	3.5	0.8
5	SAR (-)	5.7			4.6	2.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	19.18	1.672	6.361	0.382	42.37
2	EC_FLD (µmho/cm)	639	874	761	970	613
3	EC_GEN (µmho/cm)	730	902	795	1099	658
4	pH_FLD (pH units)	7.8	7.6	7.4	8.1	8.0
5	pH_GEN (pH units)	7.9	7.7	8.1	7.8	7.9
6	TDS (mg/L)		483	425	588	357
7	Temp (deg C)	26.4	26.7	27.3	27.6	25.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	1.6	0.0	3.5
2	ALK-TOT (mgCaCO3/L)	180	241	144	220	141
3	Ca (mg/L)	26	66	28	59	36
4	Cl (mg/L)	106.5	152.9	120.8	202.1	125.3
5	CO3 (mg/L)	0.0	0.0	1.9	0.0	4.2
6	F (mg/L)	0.43	0.93	0.56	0.48	0.42
7	Fe (mg/L)	0.0			0.0	
8	HCO3 (mg/L)	220	294	171	268	163
9	K (mg/L)	7.6	4.1	5.3	5.1	4.9
10	Mg (mg/L)	25.5	27.3	27.0	34.8	18.1
11	Na (mg/L)	73.7	86.2	81.9	132.0	74.7
12	NH3-N (mg N/L)				0.07	0.05
13	NO2+NO3 (mg N/L)				5.32	0.44
14	NO2-N (mgN/L)				0.00	0.00
15	NO3-N (mgN/L)	0.82	0.73	7.58	4.04	0.44
16	o-PO4-P (mg P/L)				0.010	0.008
17	SO4 (mg/L)	17.3	31.1	56.2	66.6	24.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	1.3	1.8	1.1	1.7
2	DO (mg/L)	4.8	6.3	6.2	6.4	6.8
3	DO_SAT% (%)	59	78	78	81	84
	TRACE & TOXIC					
1	As (µg/L)	0.9				
2	Cd (µg/L)				2.6	
3	Cr (µg/L)	1.6			0.1	
4	Cu (µg/L)	11.5			4.4	
5	Ni (µg/L)	3.8			2.3	
6	Pb (µg/L)	0.9			0.3	
7	Zn (µg/L)	6.7			7.4	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	66	165	70	147	90
2	HAR_Total (mgCaCO3/L)	172	279	182	292	165
3	Na% (%)	46	40	47	49	49
4	RSC (-)	0.3	0.0	0.0	0.0	0.0
5	SAR (-)	2.4	2.2	2.6	3.3	2.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter Nov - Feb		Summer Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	65.10	2.733	8.886	2.930
2	EC_FLD (µmho/cm)		744		886	990
3	EC_GEN (µmho/cm)		934		900	979
4	pH_FLD (pH units)		7.6		8.0	8.0
5	pH_GEN (pH units)		7.8		7.8	8.1
6	TDS (mg/L)		497			
7	Temp (deg C)		27.8		29.5	29.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0		0.0	15.2
2	ALK-TOT (mgCaCO3/L)		183		305	374
3	Ca (mg/L)		42		53	60
4	Cl (mg/L)		146.1		115.5	143.9
5	CO3 (mg/L)		0.0		0.0	18.3
6	F (mg/L)		0.45			0.56
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		223		373	419
9	K (mg/L)		7.0		2.5	7.6
10	Mg (mg/L)		30.8		26.1	30.1
11	Na (mg/L)		101.2		106.5	126.9
12	NH3-N (mg N/L)		0.05			
13	NO2+NO3 (mg N/L)		0.73			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.72			3.74
16	o-PO4-P (mg P/L)		0.070			
17	SO4 (mg/L)		40.4		33.2	36.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		2.2		2.9	1.2
2	DO (mg/L)		6.3		5.7	3.8
3	DO_SAT% (%)		79		74	50
	TRACE & TOXIC					
1	As (µg/L)		2.5		30.7	
2	Cd (µg/L)		0.0			
3	Cr (µg/L)		5.7		1.0	
4	Cu (µg/L)		4.7		9.8	
5	Ni (µg/L)		0.9		9.0	
6	Pb (µg/L)		1.0		0.6	
7	Zn (µg/L)		21.4			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		105		133	150
2	HAR_Total (mgCaCO3/L)		233		242	276
3	Na% (%)		49		48	50
4	RSC (-)		0.0		1.4	2.0
5	SAR (-)		3.0		2.9	3.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	9.623	2.331	Dry Bed	0.082
2	EC_FLD (μmho/cm)	852	797		979
3	EC_GEN (μmho/cm)	883	948		987
4	pH_FLD (pH units)	8.2	7.8		7.6
5	pH_GEN (pH units)	8.0	7.5		7.8
6	TDS (mg/L)				524
7	Temp (deg C)	29.2	29.2		28.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	21.8	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	307	276		195
3	Ca (mg/L)	50	44		37
4	Cl (mg/L)	135.1	148.9		181.5
5	CO3 (mg/L)	26.2	0.0		0.0
6	F (mg/L)	0.62	0.63		0.66
7	Fe (mg/L)		0.0		
8	HCO3 (mg/L)	321	337		238
9	K (mg/L)	5.6	8.2		5.6
10	Mg (mg/L)	40.2	37.6		36.8
11	Na (mg/L)	93.1	109.5		111.0
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.59	6.62		8.48
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	22.3	19.6		55.0
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.7	2.0		2.5
2	DO (mg/L)	3.0	4.5		6.7
3	DO_SAT% (%)	39	58		86
	TRACE & TOXIC				
1	As (μg/L)	1.6	1.2		
2	Cd (μg/L)		0.1		
3	Cr (μg/L)	1.0	9.7		
4	Cu (μg/L)	6.9	22.6		
5	Ni (μg/L)		1.0		
6	Pb (μg/L)	0.9	8.4		
7	Zn (μg/L)	13.1	4.0		
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	126	110		93
2	HAR_Total (mgCaCO3/L)	293	266		246
3	Na% (%)	41	46		49
4	RSC (-)	0.5	0.3		0.0
5	SAR (-)	2.4	2.9		3.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : VAZHAVACHANUR (CP000H2)

Division : Hydrology Division, Chennai

Local River : Ponnaiyar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	4.705	12.38	7.746	6.980
2	EC_FLD (µmho/cm)	983	792	960	890
3	EC_GEN (µmho/cm)	991	938	1486	985
4	pH_FLD (pH units)	8.1	7.9	7.5	7.3
5	pH_GEN (pH units)	8.1	7.8	7.2	8.1
6	TDS (mg/L)	572	504	798	538
7	Temp (deg C)	31.0	29.7	29.0	29.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	3.1	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	182	222	227	221
3	Ca (mg/L)	45	52	82	52
4	Cl (mg/L)	227.1	169.4	269.1	154.0
5	CO3 (mg/L)	3.7	0.0	0.0	0.0
6	F (mg/L)	0.64	0.61	0.64	0.76
7	Fe (mg/L)				0.1
8	HCO3 (mg/L)	215	271	277	270
9	K (mg/L)	7.8	5.8	14.1	8.7
10	Mg (mg/L)	29.1	29.2	34.0	33.1
11	Na (mg/L)	118.7	96.6	151.8	102.7
12	NH3-N (mg N/L)	0.09	0.05	0.04	0.12
13	NO2+NO3 (mg N/L)	1.16	0.64	1.54	0.15
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.03
15	NO3-N (mgN/L)	1.16	0.64	1.53	0.12
16	o-PO4-P (mg P/L)	0.025	0.061	0.113	0.162
17	SO4 (mg/L)	31.3	31.5	84.5	58.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.9	1.6	1.9	1.1
2	DO (mg/L)	5.1	7.4	6.1	6.7
3	DO_SAT% (%)	69	97	79	87
	TRACE & TOXIC				
1	As (µg/L)				0.1
2	Cd (µg/L)				0.1
3	Cr (µg/L)				0.9
4	Cu (µg/L)				0.3
5	Ni (µg/L)				1.4
6	Pb (µg/L)				1.8
7	Zn (µg/L)				29.3
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	114	131	204	131
2	HAR_Total (mgCaCO3/L)	235	253	346	269
3	Na% (%)	52	45	48	44
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	3.4	2.7	3.6	2.7
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: GUMMANUR	Code	: CP000R5
State	: Tamil Nadu	District	Dharmapuri
Basin	: EFR B Pennar-Cauvery	Independent River	: Ponnaiyar
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Ponnaiyar
Division	: SR Division, Coimbatore	Sub-Division	: Lower Cauvery SD, Trichy
Drainage Area	: 4620 Sq. Km.	Bank	: Left
Latitude	: 12°33'18"	Longitude	: 78°08'18"
Zero of Gauge (m)	: 490 (m.s.l)	01/09/1978	
	Opening Date	Closing Date	
Gauge	: 01/09/1978		
Discharge	: 20/09/1978		
Sediment	: 26/08/1981		
Water Quality	: 20/09/1978		

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	13.33	7.773	14.33
2	Colour_Cod (-)	Light Brown	Clear	Light Brown
3	EC_FLD (μmho/cm)	1100	1251	1260
4	EC_GEN (μmho/cm)	1100	1251	1260
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.3	7.7	7.2
7	pH_GEN (pH units)	7.3	7.7	7.2
8	TDS (mg/L)	625	688	688
9	Temp (deg C)	23.5	23.0	23.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	202	232	240
3	B (mg/L)	0.12	0.14	0.12
4	Ca (mg/L)	72	81	75
5	Cl (mg/L)	173.5	198.1	203.7
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.36	0.41	0.41
8	Fe (mg/L)	0.040	0.030	0.040
9	HCO3 (mg/L)	246	284	293
10	K (mg/L)	22.3	22.5	22.5
11	Mg (mg/L)	25.6	26.6	33.2
12	Na (mg/L)	124.0	134.5	138.5
13	NH3-N (mg N/L)	0.92	0.58	0.50
14	NO2+NO3 (mg N/L)	27.60	27.70	20.14
15	NO2-N (mgN/L)	0.00	0.00	0.04
16	NO3-N (mgN/L)	27.60	27.70	20.10
17	o-PO4-P (mg P/L)	2.900	1.650	3.000
18	SiO2 (mg/L)	37.4	35.1	29.1
19	SO4 (mg/L)	22.2	22.7	27.5
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.6	4.2	2.3
2	COD (mg/L)	12.1	19.9	18.5
3	DO (mg/L)	2.8	4.3	4.0
4	DO_SAT% (%)	33	50	47
	TRACE & TOXIC			
1	As (μg/L)			2.00
2	Cd (μg/L)			0.00
3	Cr (μg/L)			2.00
4	Cu (μg/L)			3.00
5	Ni (μg/L)			
6	Pb (μg/L)			2.00
7	Zn (μg/L)			8.00
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	180	203	188
2	HAR_Total (mgCaCO3/L)	287	314	326
3	Na% (%)	46	46	46
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.2	3.3	3.3
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/09/2017	11/09/2017	21/09/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	15.53	71.51	15.06
2	Colour_Cod (-)	Light Brown	Brown	Light Brown
3	EC_FLD (μmho/cm)	863	675	868
4	EC_GEN (μmho/cm)	863	675	868
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.0	7.7	7.1
7	pH_GEN (pH units)	7.7	7.7	7.1
8	TDS (mg/L)	492	384	494
9	Temp (deg C)	24.0	24.0	23.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	174	143	196
3	B (mg/L)	0.14	0.09	0.16
4	Ca (mg/L)	60	25	80
5	Cl (mg/L)	136.5	99.1	130.8
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.35	0.23	0.31
8	Fe (mg/L)	0.020	0.060	0.010
9	HCO3 (mg/L)	212	175	239
10	K (mg/L)	17.2	13.0	14.2
11	Mg (mg/L)	17.8	30.9	8.4
12	Na (mg/L)	100.5	64.1	98.0
13	NH3-N (mg N/L)	0.08	0.31	0.35
14	NO2+NO3 (mg N/L)	13.00	8.44	8.97
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	13.00	8.44	8.97
17	o-PO4-P (mg P/L)	1.700	1.000	1.100
18	SiO2 (mg/L)	17.7	13.4	16.5
19	SO4 (mg/L)	24.8	23.9	30.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	15.3	3.1	2.7
2	COD (mg/L)	20.3	8.8	20.2
3	DO (mg/L)	8.5		5.8
4	DO_SAT% (%)	101		67
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	150	62	200
2	HAR_Total (mgCaCO3/L)	224	190	235
3	Na% (%)	47	40	46
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.9	2.0	2.8
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	03/10/2017	11/10/2017	21/10/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	31.39	124.4	50.12
2	Colour_Cod (-)	Light Brown	Brown	Light Brown
3	EC_FLD (μmho/cm)	692	225	670
4	EC_GEN (μmho/cm)	692	225	670
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.6	8.1	8.1
7	pH_GEN (pH units)	8.0	8.1	8.1
8	TDS (mg/L)	399	127	383
9	Temp (deg C)	23.0	24.0	24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	150	71	179
3	B (mg/L)	0.11	0.05	0.12
4	Ca (mg/L)	55	20	52
5	Cl (mg/L)	107.4	25.9	85.2
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.34	0.26	0.49
8	Fe (mg/L)	0.010	0.040	0.030
9	HCO3 (mg/L)	182	87	219
10	K (mg/L)	12.9	3.2	9.5
11	Mg (mg/L)	14.9	6.5	21.4
12	Na (mg/L)	71.6	18.5	60.2
13	NH3-N (mg N/L)	0.22	0.10	0.15
14	NO2+NO3 (mg N/L)	9.46	0.23	2.72
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	9.46	0.23	2.72
17	o-PO4-P (mg P/L)	0.900	0.450	0.500
18	SiO2 (mg/L)	12.4	10.4	13.6
19	SO4 (mg/L)	27.2	10.5	28.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	14.6	4.4	3.3
2	COD (mg/L)	29.6	11.2	18.4
3	DO (mg/L)	7.1	6.1	4.1
4	DO_SAT% (%)	83	73	48
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	138	50	130
2	HAR_Total (mgCaCO3/L)	200	77	220
3	Na% (%)	42	33	36
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.2	0.9	1.8
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/11/2017	13/11/2017	21/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	14.78	19.20	16.27
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	1050	980	1050
4	EC_GEN (μmho/cm)	959	1095	1126
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.2	7.5	7.4
7	pH_GEN (pH units)	7.6	7.4	8.0
8	TDS (mg/L)	547	633	656
9	Temp (deg C)	24.0	24.0	24.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	224	243	239
3	B (mg/L)	0.16	0.18	0.26
4	Ca (mg/L)	80	86	84
5	Cl (mg/L)	138.3	158.9	155.1
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.31	0.49	0.53
8	Fe (mg/L)	0.000	0.020	0.010
9	HCO3 (mg/L)	274	296	292
10	K (mg/L)	13.9	4.7	16.7
11	Mg (mg/L)	17.7	16.8	22.3
12	Na (mg/L)	100.0	116.0	114.5
13	NH3-N (mg N/L)	0.14	0.17	0.15
14	NO2+NO3 (mg N/L)	7.56	12.20	13.70
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	7.56	12.20	13.70
17	o-PO4-P (mg P/L)	0.800	1.850	1.700
18	SiO2 (mg/L)	15.8	18.6	19.5
19	SO4 (mg/L)	42.4	31.3	36.2
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.2	4.7	4.3
2	COD (mg/L)	11.7	21.0	18.0
3	DO (mg/L)	4.6	5.2	5.8
4	DO_SAT% (%)	55	62	69
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	199	215	211
2	HAR_Total (mgCaCO3/L)	273	285	304
3	Na% (%)	43	47	43
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	2.6	3.0	2.9
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/12/2017	11/12/2017	21/12/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	14.61	21.28	18.32
2	Colour_Cod (-)	Clear	Dark Green	Clear
3	EC_FLD (μmho/cm)	1229	1148	1233
4	EC_GEN (μmho/cm)	1229	1148	1233
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.3	8.1	7.4
7	pH_GEN (pH units)	7.6	8.1	7.9
8	TDS (mg/L)	703	662	705
9	Temp (deg C)	24.5	24.0	22.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	268	268	272
3	B (mg/L)	0.27	0.19	0.22
4	Ca (mg/L)	115	72	77
5	Cl (mg/L)	183.9	176.1	187.9
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.62	0.48	0.50
8	Fe (mg/L)	0.000	0.050	0.000
9	HCO3 (mg/L)	327	327	332
10	K (mg/L)	19.3	19.4	20.5
11	Mg (mg/L)	17.2	37.2	41.0
12	Na (mg/L)	136.0	126.5	137.0
13	NH3-N (mg N/L)	0.14	0.20	0.21
14	NO2+NO3 (mg N/L)	29.20	25.90	30.30
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	29.20	25.90	30.30
17	o-PO4-P (mg P/L)	1.700	1.800	2.000
18	SiO2 (mg/L)	24.8	22.3	22.7
19	SO4 (mg/L)	33.2	24.6	26.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	4.0	3.6	11.8
2	COD (mg/L)	28.0	21.5	29.5
3	DO (mg/L)	4.2	4.4	4.2
4	DO_SAT% (%)	50	53	48
	TRACE & TOXIC			
1	As (μg/L)	4.43		
2	Cd (μg/L)	0.16		
3	Cr (μg/L)	1.48		
4	Cu (μg/L)	4.28		
5	Ni (μg/L)	5.07		
6	Pb (μg/L)	2.50		
7	Zn (μg/L)	5.30		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	287	181	192
2	HAR_Total (mgCaCO3/L)	358	336	363
3	Na% (%)	44	43	44
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.1	3.0	3.1
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/01/2018	11/01/2018	22/01/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	18.38	16.69	10.53
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	1321	1050	1388
4	EC_GEN (μmho/cm)	1321	1378	1388
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.9	8.3
7	pH_GEN (pH units)	7.8	8.1	8.3
8	TDS (mg/L)	728	797	808
9	Temp (deg C)	22.0	23.0	21.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	17.3
2	ALK-TOT (mgCaCO3/L)	259	256	269
3	B (mg/L)	0.17	0.21	0.15
4	Ca (mg/L)	85	99	82
5	Cl (mg/L)	195.7	198.0	203.7
6	CO3 (mg/L)	0.0	0.0	20.8
7	F (mg/L)	0.37	0.55	0.59
8	Fe (mg/L)	0.020	0.040	0.010
9	HCO3 (mg/L)	316	313	286
10	K (mg/L)	22.1	21.0	21.0
11	Mg (mg/L)	40.0	14.6	38.9
12	Na (mg/L)	141.0	152.0	149.0
13	NH3-N (mg N/L)	0.32	0.00	0.04
14	NO2+NO3 (mg N/L)	35.61	23.24	25.47
15	NO2-N (mgN/L)	0.01	0.01	0.00
16	NO3-N (mgN/L)	35.60	23.23	25.47
17	o-PO4-P (mg P/L)	1.900	2.250	2.400
18	SiO2 (mg/L)	22.7	24.5	23.9
19	SO4 (mg/L)	25.3	30.8	34.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	7.6	3.2	4.4
2	COD (mg/L)	28.0	20.5	24.9
3	DO (mg/L)	4.0	4.6	4.8
4	DO_SAT% (%)	46	54	54
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	212	249	204
2	HAR_Total (mgCaCO3/L)	379	309	366
3	Na% (%)	43	50	45
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.2	3.8	3.4
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/02/2018	12/02/2018	21/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	11.52	9.880	7.670
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	1385	1312	1358
4	EC_GEN (μmho/cm)	1385	1312	1358
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.2	7.4
7	pH_GEN (pH units)	7.7	7.5	7.9
8	TDS (mg/L)	782	745	775
9	Temp (deg C)	19.0	23.0	21.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	287	282	291
3	B (mg/L)	0.18	0.21	0.19
4	Ca (mg/L)	82	71	79
5	Cl (mg/L)	205.6	199.9	209.4
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.75	0.72	0.69
8	Fe (mg/L)	0.010	0.040	0.010
9	HCO3 (mg/L)	350	344	355
10	K (mg/L)	20.0	20.7	20.6
11	Mg (mg/L)	38.9	39.9	35.0
12	Na (mg/L)	153.0	150.0	156.0
13	NH3-N (mg N/L)	0.01	0.01	0.05
14	NO2+NO3 (mg N/L)	22.26	21.15	19.24
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	22.26	21.15	19.24
17	o-PO4-P (mg P/L)	2.050	2.250	1.750
18	SiO2 (mg/L)	23.9	20.3	22.5
19	SO4 (mg/L)	34.5	33.4	31.7
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	5.3	16.5	14.1
2	COD (mg/L)	27.3	26.6	23.9
3	DO (mg/L)	4.6	4.8	4.6
4	DO_SAT% (%)	50	56	52
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	204	176	196
2	HAR_Total (mgCaCO3/L)	366	342	342
3	Na% (%)	46	47	48
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.5	3.5	3.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/03/2018	12/03/2018	21/03/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	7.548	6.255	11.23
2	Colour_Cod (-)	Clear	Clear	Light Brown
3	EC_FLD (μmho/cm)	1376	1337	1293
4	EC_GEN (μmho/cm)	1376	1337	1293
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	8.8	8.4
7	pH_GEN (pH units)	7.8	8.8	8.4
8	TDS (mg/L)	787	771	747
9	Temp (deg C)	21.0	22.0	24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	25.9	13.0
2	ALK-TOT (mgCaCO3/L)	295	313	291
3	B (mg/L)	0.24	0.18	0.18
4	Ca (mg/L)	63	55	79
5	Cl (mg/L)	205.3	216.9	211.2
6	CO3 (mg/L)	0.0	31.3	15.6
7	F (mg/L)	0.49	0.90	0.58
8	Fe (mg/L)	0.010	0.030	0.050
9	HCO3 (mg/L)	360	318	323
10	K (mg/L)	20.4	20.0	18.1
11	Mg (mg/L)	50.6	51.5	30.1
12	Na (mg/L)	154.0	166.0	154.0
13	NH3-N (mg N/L)	0.00	0.04	0.04
14	NO2+NO3 (mg N/L)	17.79	17.54	12.90
15	NO2-N (mgN/L)	0.00	0.00	0.01
16	NO3-N (mgN/L)	17.79	17.54	12.89
17	o-PO4-P (mg P/L)	2.000	1.850	2.200
18	SiO2 (mg/L)	22.8	1.9	18.2
19	SO4 (mg/L)	31.7	32.4	37.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	9.8	11.7	7.8
2	COD (mg/L)	22.0	24.5	22.0
3	DO (mg/L)	5.1	4.6	5.1
4	DO_SAT% (%)	57	53	60
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	156	136	196
2	HAR_Total (mgCaCO3/L)	367	351	322
3	Na% (%)	46	49	49
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.5	3.9	3.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	02/04/2018	11/04/2018	21/04/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	13.67	13.51	13.61
2	Colour_Cod (-)	Light Brown	Clear	Clear
3	EC_FLD (µmho/cm)	1157	1212	1200
4	EC_GEN (µmho/cm)	1157	1212	1200
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.4	8.5	8.5
7	pH_GEN (pH units)	8.4	8.5	8.5
8	TDS (mg/L)	657	691	685
9	Temp (deg C)	24.0	24.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	30.3	25.7	38.5
2	ALK-TOT (mgCaCO3/L)	269	254	245
3	B (mg/L)	0.03	0.16	0.21
4	Ca (mg/L)	83	88	103
5	Cl (mg/L)	192.4	206.7	206.7
6	CO3 (mg/L)	36.5	31.0	46.4
7	F (mg/L)	0.67	0.75	0.69
8	Fe (mg/L)	0.080	0.010	0.020
9	HCO3 (mg/L)	254	247	205
10	K (mg/L)	18.2	20.7	20.4
11	Mg (mg/L)	23.3	24.3	13.6
12	Na (mg/L)	142.5	157.5	154.5
13	NH3-N (mg N/L)	0.03	0.03	0.02
14	NO2+NO3 (mg N/L)	14.36	17.98	14.33
15	NO2-N (mgN/L)	0.00	0.01	0.00
16	NO3-N (mgN/L)	14.36	17.97	14.33
17	o-PO4-P (mg P/L)	2.600	2.600	2.200
18	SiO2 (mg/L)	21.1	20.6	20.3
19	SO4 (mg/L)	36.2	33.8	31.2
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	13.7	11.8	5.9
2	COD (mg/L)	28.4	22.3	17.8
3	DO (mg/L)	4.6	5.0	4.8
4	DO_SAT% (%)	55	60	58
	TRACE & TOXIC			
1	As (µg/L)	0.25		
2	Cd (µg/L)	0.14		
3	Cr (µg/L)	0.36		
4	Cu (µg/L)	0.02		
5	Ni (µg/L)	0.81		
6	Pb (µg/L)	2.80		
7	Zn (µg/L)	33.50		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	208	220	257
2	HAR_Total (mgCaCO3/L)	306	322	313
3	Na% (%)	49	50	50
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.6	3.8	3.8
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water Analysis

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	01/05/2018	11/05/2018	21/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	12.88	19.27	22.39
2	Colour_Cod (-)	Clear	Light Brown	Light Brown
3	EC_FLD (μmho/cm)	1298	1204	1110
4	EC_GEN (μmho/cm)	1298	1204	1110
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	8.5	7.3	7.6
7	pH_GEN (pH units)	8.5	7.3	7.6
8	TDS (mg/L)	740	686	633
9	Temp (deg C)	23.0	25.0	24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	28.7	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	276	260	255
3	B (mg/L)	0.25	0.09	0.03
4	Ca (mg/L)	83	53	80
5	Cl (mg/L)	231.4	189.0	183.2
6	CO3 (mg/L)	34.6	0.0	0.0
7	F (mg/L)	0.45	0.47	0.43
8	Fe (mg/L)	0.060	0.010	0.020
9	HCO3 (mg/L)	266	317	312
10	K (mg/L)	19.3	21.0	20.1
11	Mg (mg/L)	29.2	43.8	24.3
12	Na (mg/L)	157.0	142.5	131.5
13	NH3-N (mg N/L)	0.02	0.01	2.46
14	NO2+NO3 (mg N/L)	15.39	20.20	15.03
15	NO2-N (mgN/L)	0.00	1.35	0.60
16	NO3-N (mgN/L)	15.39	18.85	14.43
17	o-PO4-P (mg P/L)	2.550	3.150	2.900
18	SiO2 (mg/L)	23.9	24.6	24.4
19	SO4 (mg/L)	33.5	31.4	29.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	11.9	9.9	11.8
2	COD (mg/L)	29.8	20.5	20.4
3	DO (mg/L)	4.6	5.2	5.6
4	DO_SAT% (%)	54	63	66
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	208	132	200
2	HAR_Total (mgCaCO3/L)	330	315	302
3	Na% (%)	49	48	47
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	3.8	3.5	3.3
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : GUMMANUR (CP000R5)

Local River : Ponnaiyar

Division : SR Division, Coimbatore

Sub-Division : Lower Cauvery SD, Trichy

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	153.7	2.250	21.48
2	EC_FLD (µmho/cm)	30	1388	225	1110
3	EC_GEN (µmho/cm)	30	1388	225	1124
4	pH_FLD (pH units)	30	8.8	7.0	7.7
5	pH_GEN (pH units)	30	8.8	7.1	7.9
6	TDS (mg/L)	30	808	127	641
7	Temp (deg C)	30	25.0	19.0	23.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	30	38.5	0.0	6
2	ALK-TOT (mgCaCO3/L)	30	313	71	240
3	B (mg/L)	30	0.27	0.03	0.16
4	Ca (mg/L)	30	115	20	74
5	Cl (mg/L)	30	231.4	25.9	173.9
6	CO3 (mg/L)	30	46.4	0.0	7.2
7	F (mg/L)	30	0.90	0.23	0.51
8	Fe (mg/L)	30	0.080	0.000	0.026
9	HCO3 (mg/L)	30	360	87	278
10	K (mg/L)	30	22.5	3.2	17.8
11	Mg (mg/L)	30	51.5	6.5	27.8
12	Na (mg/L)	30	166.0	18.5	126.7
13	NH3-N (mg N/L)	30	2.46	0.00	0.24
14	NO2+NO3 (mg N/L)	30	35.61	0.23	17.65
15	NO2-N (mgN/L)	30	1.35	0.00	0.07
16	NO3-N (mgN/L)	30	35.60	0.23	17.59
17	o-PO4-P (mg P/L)	30	3.150	0.450	1.923
18	SiO2 (mg/L)	30	37.4	1.9	20.8
19	SO4 (mg/L)	30	42.4	10.5	30
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	30	16.5	2.2	7.6
2	COD (mg/L)	30	29.8	8.8	21.6
3	DO (mg/L)	29	8.5	2.8	4.9
4	DO_SAT% (%)	29	101	33	58
	TRACE & TOXIC				
1	As (µg/L)	3	4.43	0.25	2.23
2	Cd (µg/L)	3	0.16	0.00	0.1
3	Cr (µg/L)	3	2.00	0.36	1.28
4	Cu (µg/L)	3	4.28	0.02	2.43
5	Ni (µg/L)	2	5.07	0.81	2.94
6	Pb (µg/L)	3	2.80	2.00	2.43
7	Zn (µg/L)	3	33.50	5.30	15.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	30	287	50	185
2	HAR_Total (mgCaCO3/L)	30	379	77	301
3	Na% (%)	30	50	33	45
4	RSC (-)	30	0.0	0.0	0
5	SAR (-)	30	3.9	0.9	3.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	6.876	19.61	3.864	6.998	7.194
2	EC_FLD (µmho/cm)		783	932	850	811
3	EC_GEN (µmho/cm)	973	909	942	873	811
4	pH_FLD (pH units)		8.4	7.6	7.0	7.6
5	pH_GEN (pH units)	8.5	8.4	8.4	8.1	7.8
6	TDS (mg/L)					
7	Temp (deg C)	23.3	24.1	25.6	25.5	25.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	19.2	19.3	12.0	12.0	1.7
2	ALK-TOT (mgCaCO3/L)	247	235	255	246	237
3	B (mg/L)	0.41	0.47	0.18	0.26	
4	Ca (mg/L)	65	63	72	76	65
5	Cl (mg/L)	134.4	129.9	138.1	160.6	156.1
6	CO3 (mg/L)	23.1	23.3	14.4	14.4	2.1
7	F (mg/L)	0.94	0.72	0.58	0.71	0.60
8	Fe (mg/L)	0.090	0.078	0.090	0.061	
9	HCO3 (mg/L)	254	239	281	270	285
10	K (mg/L)	18.0	14.2	16.6	17.9	16.3
11	Mg (mg/L)	20.0	19.6	19.2	23.9	21.8
12	Na (mg/L)	108.3	93.0	100.3	93.8	99.5
13	NH3-N (mg N/L)	0.07	0.13	0.20	0.10	
14	NO2+NO3 (mg N/L)	11.92	10.89			
15	NO2-N (mgN/L)	0.14	0.03			
16	NO3-N (mgN/L)	11.78	10.86	9.08	25.70	7.54
17	o-PO4-P (mg P/L)		1.488	1.138	1.625	
18	P-Tot (mgP/L)	0.721				
19	SiO2 (mg/L)	27.6	32.3	24.1	36.4	
20	SO4 (mg/L)	24.5	29.3	52.2	21.3	20.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.4	2.1	2.9	3.9	3.6
2	COD (mg/L)					
3	DO (mg/L)		5.9	5.7	6.3	6.9
4	DO_SAT% (%)		70	70	77	84
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	163	156	180	191	162
2	HAR_Total (mgCaCO3/L)	246	238	260	290	253
3	Na% (%)	47	44	44	40	44
4	RSC (-)	0.2	0.1	0.1	0.0	0.0
5	SAR (-)	3.0	2.6	2.7	2.4	2.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Local River : Ponnaiyar

River Water

Division : SR Division, Coimbatore

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	3.258	8.114	12.25	17.72	18.64
2	EC_FLD (µmho/cm)	920	1010	1143	1060	1015
3	EC_GEN (µmho/cm)	920	996	1127	1054	1015
4	pH_FLD (pH units)	8.3	8.0	8.1	7.8	7.6
5	pH_GEN (pH units)	8.2	8.1	8.2	8.0	7.6
6	TDS (mg/L)			609	608	587
7	Temp (deg C)	22.8	26.4	27.4	26.2	25.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	30.9	4.0	18.3	3.8	0.0
2	ALK-TOT (mgCaCO3/L)	285	235	255	240	210
3	B (mg/L)				0.15	0.20
4	Ca (mg/L)	90	68	80	73	67
5	Cl (mg/L)	166.5	169.5	183.5	166.7	162.7
6	CO3 (mg/L)	37.3	4.8	22.1	4.6	0.0
7	F (mg/L)	0.31	0.48	0.50	0.49	0.42
8	Fe (mg/L)		0.140		0.024	0.038
9	HCO3 (mg/L)	272	277	266	284	256
10	K (mg/L)	15.5	15.1	20.7	21.3	20.5
11	Mg (mg/L)	17.2	26.0	23.6	30.4	23.1
12	Na (mg/L)	114.2	106.7	139.9	115.3	119.5
13	NH3-N (mg N/L)		0.31	0.20	0.17	0.18
14	NO2+NO3 (mg N/L)				22.52	20.40
15	NO2-N (mgN/L)				0.02	0.00
16	NO3-N (mgN/L)	5.25	5.19	14.49	22.50	20.40
17	o-PO4-P (mg P/L)				2.120	2.020
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				26.0	26.6
20	SO4 (mg/L)	25.9	24.8	26.3	25.1	25.8
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.6	3.1	4.4	3.7	12.1
2	COD (mg/L)		27.1	22.6	23.6	29.8
3	DO (mg/L)	7.2	7.9	8.0	8.0	6.1
4	DO_SAT% (%)	83	98	101	99	74
	TRACE & TOXIC					
1	As (µg/L)	7.35	0.56			
2	Cd (µg/L)	0.23	0.34			
3	Cr (µg/L)	4.14	9.28			
4	Cu (µg/L)		2.58			
5	Hg (µg/L)		0.08			
6	Ni (µg/L)	6.93	13.09			
7	Pb (µg/L)	8.31	4.24			
8	Zn (µg/L)	2.49	16.00			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	226	171	200	183	167
2	HAR_Total (mgCaCO3/L)	297	279	298	310	263
3	Na% (%)	44	44	49	43	48
4	RSC (-)	0.2	0.0	0.0	0.0	0.0
5	SAR (-)	2.9	2.8	3.5	2.9	3.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	38.16	8.347	11.04	3.783	5.724
2	EC_FLD (µmho/cm)	845		855	982	891
3	EC_GEN (µmho/cm)	845	1046	902	1005	903
4	pH_FLD (pH units)	7.5		7.8	7.6	7.8
5	pH_GEN (pH units)	7.6	8.4	8.3	8.4	8.4
6	TDS (mg/L)	476				
7	Temp (deg C)	23.5	22.5	21.1	23.4	22.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	12.1	10.0	23.9	17.9
2	ALK-TOT (mgCaCO3/L)	176	252	262	288	264
3	B (mg/L)	0.12	0.46	0.12	0.25	0.19
4	Ca (mg/L)	58	74	68	76	85
5	Cl (mg/L)	128.9	144.8	127.7	157.5	170.2
6	CO3 (mg/L)	0.0	14.5	12.0	28.8	21.6
7	F (mg/L)	0.35	0.97	0.73	0.67	0.75
8	Fe (mg/L)	0.031	0.093	0.085	0.277	0.000
9	HCO3 (mg/L)	215	278	295	293	278
10	K (mg/L)	15.3	16.1	9.5	14.4	13.8
11	Mg (mg/L)	20.6	19.9	27.0	26.2	21.6
12	Na (mg/L)	90.0	109.4	97.8	115.6	102.3
13	NH3-N (mg N/L)	0.36	0.11		0.12	0.13
14	NO2+NO3 (mg N/L)	13.14	13.09	1.03		
15	NO2-N (mgN/L)	0.00	0.08	0.52		
16	NO3-N (mgN/L)	13.14	13.00	6.35	11.00	16.38
17	o-PO4-P (mg P/L)	1.467		1.138	1.415	0.852
18	P-Tot (mgP/L)		1.375			
19	SiO2 (mg/L)	20.6	28.3	3.4	34.7	34.3
20	SO4 (mg/L)	24.3	26.0	48.3	51.9	20.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	5.8	3.8	3.6	1.7	1.9
2	COD (mg/L)	17.7				
3	DO (mg/L)	5.3		6.3	6.6	6.4
4	DO_SAT% (%)	63		70	77	73
	TRACE & TOXIC					
1	As (µg/L)	2.00				
2	Cd (µg/L)	0.00				
3	Cr (µg/L)	2.00				
4	Cu (µg/L)	3.00				
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)	2.00				
8	Zn (µg/L)	8.00				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	145	184	171	190	211
2	HAR_Total (mgCaCO3/L)	230	267	283	299	302
3	Na% (%)	43	45	42	44	41
4	RSC (-)	0.0	0.0	0.2	0.0	0.0
5	SAR (-)	2.5	2.9	2.6	2.9	2.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	7.464	6.463	12.43	11.24	18.88
2	EC_FLD (μmho/cm)	536	1140	1070	1009	938
3	EC_GEN (μmho/cm)	764	1132	1076	1032	1067
4	pH_FLD (pH units)	8.2	8.3	7.7	7.7	7.4
5	pH_GEN (pH units)	8.3	8.3	7.9	7.7	7.7
6	TDS (mg/L)				588	610
7	Temp (deg C)	24.5	21.9	22.6	23.1	23.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	19.6	16.8	0.0	4.8	0.0
2	ALK-TOT (mgCaCO3/L)	251	290	262	237	248
3	B (mg/L)				0.00	0.13
4	Ca (mg/L)	63	104	84	72	80
5	Cl (mg/L)	136.9	205.2	159.6	166.6	160.1
6	CO3 (mg/L)	23.7	20.3	0.0	5.8	0.0
7	F (mg/L)	0.46	0.34	0.47	0.35	0.53
8	Fe (mg/L)	0.090			0.043	0.015
9	HCO3 (mg/L)	258	312	320	277	302
10	K (mg/L)	11.0	12.8	14.5	18.6	19.8
11	Mg (mg/L)	24.1	23.8	26.5	29.8	29.2
12	Na (mg/L)	93.4	116.8	101.9	118.9	113.1
13	NH3-N (mg N/L)		0.04	0.15	0.20	0.27
14	NO2+NO3 (mg N/L)			16.41	22.57	23.16
15	NO2-N (mgN/L)			0.01	0.02	0.06
16	NO3-N (mgN/L)	5.22	4.57	15.52	21.22	23.10
17	o-PO4-P (mg P/L)				1.570	1.850
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				30.2	37.7
20	SO4 (mg/L)	22.0	25.3	28.7	25.5	29.4
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.5	3.0	3.7	4.8	3.8
2	COD (mg/L)		16.5	18.4	24.0	23.6
3	DO (mg/L)	6.7	6.6	7.6	7.5	8.4
4	DO_SAT% (%)	80	76	87	87	98
	TRACE & TOXIC					
1	As (μg/L)	0.71				
2	Cd (μg/L)				0.61	
3	Cr (μg/L)	3.77			25.51	
4	Cu (μg/L)	15.71			4.55	
5	Hg (μg/L)					
6	Ni (μg/L)				7.10	
7	Pb (μg/L)	3.79			1.84	
8	Zn (μg/L)	23.00			2.25	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	158	260	211	180	200
2	HAR_Total (mgCaCO3/L)	259	359	321	304	322
3	Na% (%)	43	40	40	44	42
4	RSC (-)	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	2.5	2.7	2.5	3.0	2.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Local River : Ponnaiyar

River Water

Division : SR Division, Coimbatore

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	5.408	14.93	8.659	4.408	2.774
2	EC_FLD (µmho/cm)	1270	1209		1062	1091
3	EC_GEN (µmho/cm)	1270	1244	1120	976	1027
4	pH_FLD (pH units)	8.0	7.5		8.1	7.3
5	pH_GEN (pH units)	8.0	7.8	8.6	8.7	8.7
6	TDS (mg/L)	722	712			
7	Temp (deg C)	23.8	22.7	22.8	25.0	25.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	3.0	1.4	30.4	27.8	29.2
2	ALK-TOT (mgCaCO3/L)	275	263	307	318	316
3	B (mg/L)	0.18	0.20	0.43	0.19	0.05
4	Ca (mg/L)	107	84	76	74	79
5	Cl (mg/L)	206.3	184.4	163.7	169.0	191.0
6	CO3 (mg/L)	3.6	1.7	36.6	33.5	35.2
7	F (mg/L)	0.60	0.55	0.81	0.65	0.81
8	Fe (mg/L)	0.035	0.017	0.087	0.050	0.144
9	HCO3 (mg/L)	329	318	300	320	314
10	K (mg/L)	18.9	18.3	16.0	17.7	13.6
11	Mg (mg/L)	19.6	29.9	25.3	25.8	30.5
12	Na (mg/L)	146.4	135.9	120.0	129.2	126.8
13	NH3-N (mg N/L)	0.21	0.12	0.06	0.05	
14	NO2+NO3 (mg N/L)	19.11	22.15	7.62		
15	NO2-N (mgN/L)	0.01	0.00	0.05		
16	NO3-N (mgN/L)	19.10	22.15	7.57	8.41	5.59
17	o-PO4-P (mg P/L)	1.700	1.871		1.343	1.097
18	P-Tot (mgP/L)			1.319		
19	SiO2 (mg/L)	30.9	21.8	28.6	27.1	34.9
20	SO4 (mg/L)	28.9	32.0	27.1	32.1	48.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	3.5	6.8	5.5	3.9	3.7
2	COD (mg/L)	26.4	23.4			
3	DO (mg/L)	5.8	4.7		5.6	6.7
4	DO_SAT% (%)	69	54		68	81
	TRACE & TOXIC					
1	As (µg/L)	2.85	4.43	10.72	31.30	
2	Cd (µg/L)	0.07	0.16	0.84		
3	Cr (µg/L)	0.59	1.48	2.56	4.05	
4	Cu (µg/L)	3.93	4.28	2.22	3.87	
5	Hg (µg/L)					
6	Ni (µg/L)	5.89	5.07		4.87	
7	Pb (µg/L)	1.82	2.50		3.45	
8	Zn (µg/L)	10.10	5.30	10.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	267	211	190	186	196
2	HAR_Total (mgCaCO3/L)	349	335	295	293	323
3	Na% (%)	46	45	45	47	45
4	RSC (-)	0.0	0.0	0.3	0.5	0.2
5	SAR (-)	3.4	3.2	3.1	3.3	3.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Local River : Ponnaiyar

River Water

Division : SR Division, Coimbatore

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	3.480	4.195	3.621	0.640
2	EC_FLD (µmho/cm)	1012	887	1210	1284
3	EC_GEN (µmho/cm)	1048	879	1215	1302
4	pH_FLD (pH units)	7.3	8.5	8.4	8.1
5	pH_GEN (pH units)	8.3	8.5	8.4	8.1
6	TDS (mg/L)				691
7	Temp (deg C)	24.7	25.8	24.5	22.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15.9	33.5	37.7	0.0
2	ALK-TOT (mgCaCO3/L)	324	294	334	351
3	B (mg/L)	0.26			
4	Ca (mg/L)	93	68	91	93
5	Cl (mg/L)	197.9	167.9	210.5	217.2
6	CO3 (mg/L)	19.2	40.3	45.4	0.0
7	F (mg/L)	0.63	0.47	0.80	0.63
8	Fe (mg/L)	0.000	0.030	0.030	0.056
9	HCO3 (mg/L)	356	277	316	429
10	K (mg/L)	13.2	14.9	15.4	15.1
11	Mg (mg/L)	22.0	28.8	32.6	38.9
12	Na (mg/L)	124.8	120.7	136.5	150.2
13	NH3-N (mg N/L)	0.04		0.28	0.17
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	11.10	2.31	1.79	8.11
17	o-PO4-P (mg P/L)	1.552			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	28.6			
20	SO4 (mg/L)	25.5	18.2	24.7	29.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2.9	3.4	2.9	3.5
2	COD (mg/L)			23.1	20.6
3	DO (mg/L)	6.1	6.6	6.9	7.3
4	DO_SAT% (%)	74	81	82	85
	TRACE & TOXIC				
1	As (µg/L)	1.80	1.78	0.46	4.31
2	Cd (µg/L)	0.02	0.04	0.38	0.08
3	Cr (µg/L)	3.02	3.68	0.75	1.11
4	Cu (µg/L)	3.62	1.87	3.03	2.20
5	Hg (µg/L)			0.23	
6	Ni (µg/L)		0.46	11.43	10.05
7	Pb (µg/L)	0.00	5.44	7.55	1.59
8	Zn (µg/L)	13.56	20.00	0.36	8.00
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	232	170	228	233
2	HAR_Total (mgCaCO3/L)	324	290	364	395
3	Na% (%)	44	46	44	44
4	RSC (-)	0.1	0.3	0.0	0.0
5	SAR (-)	3.0	3.1	3.1	3.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : GUMMANUR (CP000R5)

Division : SR Division, Coimbatore

Local River : Ponnaiyar

River Water

Sub-Division : Lower Cauvery SD, Trichy

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	6.992	6.566	2.215	13.37
2	EC_FLD (µmho/cm)	1144	1273	1368	1243
3	EC_GEN (µmho/cm)	1144	1273	1368	1243
4	pH_FLD (pH units)	7.9	8.2	7.7	8.2
5	pH_GEN (pH units)	8.0	8.1	7.7	8.2
6	TDS (mg/L)	658	726	793	711
7	Temp (deg C)	27.0	26.3	22.2	23.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	12.8	14.9	0.0	18.0
2	ALK-TOT (mgCaCO3/L)	281	298	288	273
3	B (mg/L)	0.15	0.23	0.18	0.15
4	Ca (mg/L)	72	104	94	76
5	Cl (mg/L)	176.6	196.5	217.0	204.8
6	CO3 (mg/L)	15.4	17.9	0.0	21.7
7	F (mg/L)	0.55	0.54	0.48	0.60
8	Fe (mg/L)	0.023	0.007	0.013	0.032
9	HCO3 (mg/L)	311	327	351	289
10	K (mg/L)	17.6	22.1	21.2	19.8
11	Mg (mg/L)	34.5	25.7	28.5	32.3
12	Na (mg/L)	129.8	145.0	158.2	151.1
13	NH3-N (mg N/L)	0.11	0.06	0.23	0.29
14	NO2+NO3 (mg N/L)	14.04	30.00	19.78	16.17
15	NO2-N (mgN/L)	0.00	0.00	0.02	0.22
16	NO3-N (mgN/L)	14.04	30.00	19.77	15.95
17	o-PO4-P (mg P/L)	1.677	1.367	1.967	2.450
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	29.1	29.3	30.2	19.7
20	SO4 (mg/L)	26.1	29.7	28.7	33.0
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	3.2	3.5	2.7	10.5
2	COD (mg/L)	27.0	27.6	19.8	23.1
3	DO (mg/L)	7.6	8.6	5.5	5.0
4	DO_SAT% (%)	95	106	63	58
	TRACE & TOXIC				
1	As (µg/L)				0.25
2	Cd (µg/L)				0.14
3	Cr (µg/L)				0.36
4	Cu (µg/L)				0.02
5	Hg (µg/L)				
6	Ni (µg/L)				0.81
7	Pb (µg/L)				2.80
8	Zn (µg/L)				33.50
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	180	261	236	191
2	HAR_Total (mgCaCO3/L)	324	368	354	325
3	Na% (%)	45	44	48	49
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	3.2	3.3	3.7	3.7
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: Kudalaiyathur	Code	: CE000F6
State	: Tamil Nadu	District	Cuddalore
Basin	: EFR B Pennar-Cauvery	Independent River	: Vellar
Tributary	: -	Sub Tributary	:
Sub-Sub Tributary	:	Local River	: Vellar
Division	: Hydrology Division, Chennai	Sub-Division	: Palar Ponnaiyar SD, Chennai
Drainage Area	: 7890 Sq. Km.	Bank	: Right
Latitude	: 11°25'20"	Longitude	: 79°28'20"
Zero of Gauge (m)	: 41.000 (m.s.l) 11.000 (m.s.l)	14/11/1989	- 31/05/2005
	Opening Date	Closing Date	
Gauge	: 14/11/1989		
Discharge	: 15/11/1989		
Sediment	:		
Water Quality	: 01/06/1993		

Water Quality Datasheet for the period : 2017-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/09/2017	13/10/2017	06/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	5.160	10.49
2	Colour_Cod (-)		Brown	Brown
3	EC_GEN (µmho/cm)		277	255
4	Odour_Code (-)		odour free	odour free
5	pH_FLD (pH units)		7.0	7.0
6	pH_GEN (pH units)		6.9	7.3
7	TDS (mg/L)		147	127
8	Temp (deg C)		25.0	26.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	0.0
2	ALK-TOT (mgCaCO3/L)		59	59
3	Ca (mg/L)		19	13
4	Cl (mg/L)		33.0	35.3
5	CO3 (mg/L)		0.0	0.0
6	F (mg/L)		0.57	0.38
7	Fe (mg/L)			
8	HCO3 (mg/L)		72	72
9	K (mg/L)		3.5	3.3
10	Mg (mg/L)		7.8	5.8
11	Na (mg/L)		25.0	27.0
12	NH3-N (mg N/L)		0.04	0.02
13	NO2+NO3 (mg N/L)		1.31	0.53
14	NO2-N (mgN/L)		0.01	0.01
15	NO3-N (mgN/L)		1.30	0.53
16	o-PO4-P (mg P/L)		0.017	0.105
17	SO4 (mg/L)		19.8	6.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		0.5	1.9
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		48	32
2	HAR_Total (mgCaCO3/L)		81	56
3	Na% (%)		39	49
4	RSC (-)		0.0	0.1
5	SAR (-)		1.2	1.6
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	02/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	52.78	Dry Bed	Dry Bed
2	Colour_Cod (-)	Brown		
3	EC_GEN (µmho/cm)	206		
4	Odour_Code (-)	odour free		
5	pH_FLD (pH units)	7.0		
6	pH_GEN (pH units)	8.1		
7	TDS (mg/L)	109		
8	Temp (deg C)	25.0		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		
2	ALK-TOT (mgCaCO3/L)	46		
3	Ca (mg/L)	13		
4	Cl (mg/L)	27.4		
5	CO3 (mg/L)	0.0		
6	F (mg/L)	0.16		
7	Fe (mg/L)	0.0		
8	HCO3 (mg/L)	57		
9	K (mg/L)	1.8		
10	Mg (mg/L)	5.8		
11	Na (mg/L)	20.0		
12	NH3-N (mg N/L)	0.03		
13	NO2+NO3 (mg N/L)	0.22		
14	NO2-N (mgN/L)	0.01		
15	NO3-N (mgN/L)	0.21		
16	o-PO4-P (mg P/L)	0.013		
17	SO4 (mg/L)	10.7		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.6		
	TRACE & TOXIC			
1	As (µg/L)	1.5		
2	Cd (µg/L)	0.1		
3	Cr (µg/L)	5.5		
4	Cu (µg/L)	1.5		
5	Ni (µg/L)	29.2		
6	Pb (µg/L)	0.5		
7	Zn (µg/L)	13.4		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	32		
2	HAR_Total (mgCaCO3/L)	56		
3	Na% (%)	43		
4	RSC (-)	0.0		
5	SAR (-)	1.2		
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water Analysis

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	Ca (mg/L)			
4	Cl (mg/L)			
5	CO3 (mg/L)			
6	F (mg/L)			
7	Fe (mg/L)			
8	HCO3 (mg/L)			
9	K (mg/L)			
10	Mg (mg/L)			
11	Na (mg/L)			
12	NH3-N (mg N/L)			
13	NO2+NO3 (mg N/L)			
14	NO2-N (mgN/L)			
15	NO3-N (mgN/L)			
16	o-PO4-P (mg P/L)			
17	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

Sub-Division : Palar Ponnaiyar SD, Chennai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	241.0	0.000	1.438
2	EC_GEN (µmho/cm)	3	277	206	246
3	pH_FLD (pH units)	3	7.0	7.0	7
4	pH_GEN (pH units)	3	8.1	6.9	7.4
5	TDS (mg/L)	3	147	109	128
6	Temp (deg C)	3	26.0	25.0	25.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	3	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	3	59	46	55
3	Ca (mg/L)	3	19	13	15
4	Cl (mg/L)	3	35.3	27.4	31.9
5	CO3 (mg/L)	3	0.0	0.0	0
6	F (mg/L)	3	0.57	0.16	0.37
7	Fe (mg/L)	1	0.0	0.0	0
8	HCO3 (mg/L)	3	72	57	67
9	K (mg/L)	3	3.5	1.8	2.9
10	Mg (mg/L)	3	7.8	5.8	6.5
11	Na (mg/L)	3	27.0	20.0	24
12	NH3-N (mg N/L)	3	0.04	0.02	0.03
13	NO2+NO3 (mg N/L)	3	1.31	0.22	0.68
14	NO2-N (mgN/L)	3	0.01	0.01	0.01
15	NO3-N (mgN/L)	3	1.30	0.21	0.68
16	o-PO4-P (mg P/L)	3	0.105	0.013	0.045
17	SO4 (mg/L)	3	19.8	6.1	12.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	3	1.9	0.5	1
	TRACE & TOXIC				
1	As (µg/L)	1	1.5	1.5	1.5
2	Cd (µg/L)	1	0.1	0.1	0.1
3	Cr (µg/L)	1	5.5	5.5	5.5
4	Cu (µg/L)	1	1.5	1.5	1.5
5	Ni (µg/L)	1	29.2	29.2	29.2
6	Pb (µg/L)	1	0.5	0.5	0.5
7	Zn (µg/L)	1	13.4	13.4	13.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	3	48	32	37
2	HAR_Total (mgCaCO3/L)	3	81	56	64
3	Na% (%)	3	49	39	44
4	RSC (-)	3	0.1	0.0	0
5	SAR (-)	3	1.6	1.2	1.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)					
3	pH_FLD (pH units)					
4	pH_GEN (pH units)					
5	TDS (mg/L)					
6	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	Ca (mg/L)					
4	Cl (mg/L)					
5	CO3 (mg/L)					
6	F (mg/L)					
7	Fe (mg/L)					
8	HCO3 (mg/L)					
9	K (mg/L)					
10	Mg (mg/L)					
11	Na (mg/L)					
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)					
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	4.930	0.000	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)	231	242			
3	pH_FLD (pH units)	7.0	7.0			
4	pH_GEN (pH units)	7.9	8.7			
5	TDS (mg/L)	122	128			
6	Temp (deg C)	26.0	28.5			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	8.1			
2	ALK-TOT (mgCaCO3/L)	78	49			
3	Ca (mg/L)	20	17			
4	Cl (mg/L)	103.8	39.7			
5	CO3 (mg/L)	0.0	9.8			
6	F (mg/L)	0.72	0.23			
7	Fe (mg/L)					
8	HCO3 (mg/L)	95	40			
9	K (mg/L)	7.6	2.1			
10	Mg (mg/L)	10.5	7.1			
11	Na (mg/L)	61.0	29.1			
12	NH3-N (mg N/L)					
13	NO2+NO3 (mg N/L)					
14	NO2-N (mgN/L)					
15	NO3-N (mgN/L)	0.11	2.11			
16	o-PO4-P (mg P/L)					
17	SO4 (mg/L)	30.8	21.9			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.6	1.5			
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Ni (μg/L)					
6	Pb (μg/L)					
7	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	51	42			
2	HAR_Total (mgCaCO3/L)	95	71			
3	Na% (%)	56	46			
4	RSC (-)	0.0	0.0			
5	SAR (-)	2.7	1.5			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	1.032	2.033	153.8	14.12	47.94
2	EC_GEN (μmho/cm)	277		486	573	533
3	pH_FLD (pH units)	7.0		7.0	7.0	7.0
4	pH_GEN (pH units)	6.8		7.8	8.1	8.3
5	TDS (mg/L)	147				
6	Temp (deg C)	25.0		24.5	28.5	27.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		10.4	0.0	17.2
2	ALK-TOT (mgCaCO3/L)	59		165	267	179
3	Ca (mg/L)	19		32	34	28
4	Cl (mg/L)	33.0		62.9	68.8	70.5
5	CO3 (mg/L)	0.0		12.5	0.0	20.7
6	F (mg/L)	0.57			0.38	0.37
7	Fe (mg/L)					
8	HCO3 (mg/L)	72		175	326	176
9	K (mg/L)	3.5			7.8	4.9
10	Mg (mg/L)	7.8		15.8	17.5	21.7
11	Na (mg/L)	25.0			94.5	54.5
12	NH3-N (mg N/L)	0.04				
13	NO2+NO3 (mg N/L)	1.30				
14	NO2-N (mgN/L)	0.01				
15	NO3-N (mgN/L)	1.30				1.25
16	o-PO4-P (mg P/L)	0.017				
17	SO4 (mg/L)	19.8			36.9	33.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.4			0.6	1.3
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Ni (μg/L)					
6	Pb (μg/L)					
7	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	48		80	86	69
2	HAR_Total (mgCaCO3/L)	81		146	159	160
3	Na% (%)	39			55	40
4	RSC (-)	0.0		0.4	2.2	0.4
5	SAR (-)	1.2			3.3	1.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	78.35	7.339	Dry Bed	2.155	54.78
2	EC_GEN (μmho/cm)	537	304		406	320
3	pH_FLD (pH units)	7.0	7.0		7.0	7.0
4	pH_GEN (pH units)	8.0	7.3		7.8	7.8
5	TDS (mg/L)		162		216	173
6	Temp (deg C)	25.7	24.0			24.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	1.9	0.0		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	138	78		105	97
3	Ca (mg/L)	19	20		22	21
4	Cl (mg/L)	75.6	36.2		72.3	38.5
5	CO3 (mg/L)	2.3	0.0		0.0	0.0
6	F (mg/L)	0.33	0.64		0.44	0.31
7	Fe (mg/L)					
8	HCO3 (mg/L)	164	95		128	118
9	K (mg/L)	5.2	3.4		2.9	2.8
10	Mg (mg/L)	24.3	7.6		12.3	8.9
11	Na (mg/L)	55.0	23.5		50.2	28.5
12	NH3-N (mg N/L)					0.04
13	NO2+NO3 (mg N/L)					0.26
14	NO2-N (mgN/L)					0.00
15	NO3-N (mgN/L)	0.52	0.52		1.50	0.26
16	o-PO4-P (mg P/L)					0.013
17	SO4 (mg/L)	45.1	16.9		15.5	17.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	2.9		1.8	1.7
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Ni (μg/L)					
6	Pb (μg/L)					
7	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	48	51		55	53
2	HAR_Total (mgCaCO3/L)	149	83		106	91
3	Na% (%)	44	37		50	40
4	RSC (-)	0.0	0.0		0.0	0.1
5	SAR (-)	2.0	1.1		2.1	1.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	15.82	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		231			
3	pH_FLD (pH units)		7.0			
4	pH_GEN (pH units)		7.7			
5	TDS (mg/L)		118			
6	Temp (deg C)		25.5			
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0			
2	ALK-TOT (mgCaCO3/L)		53			
3	Ca (mg/L)		13			
4	Cl (mg/L)		31.4			
5	CO3 (mg/L)		0.0			
6	F (mg/L)		0.27			
7	Fe (mg/L)		0.0			
8	HCO3 (mg/L)		64			
9	K (mg/L)		2.5			
10	Mg (mg/L)		5.8			
11	Na (mg/L)		23.5			
12	NH3-N (mg N/L)		0.02			
13	NO2+NO3 (mg N/L)		0.37			
14	NO2-N (mgN/L)		0.01			
15	NO3-N (mgN/L)		0.37			
16	o-PO4-P (mg P/L)		0.059			
17	SO4 (mg/L)		8.4			
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		1.3			
	TRACE & TOXIC					
1	As (µg/L)		1.5			
2	Cd (µg/L)		0.1			
3	Cr (µg/L)		5.5			
4	Cu (µg/L)		1.5			
5	Ni (µg/L)		29.2			
6	Pb (µg/L)		0.5			
7	Zn (µg/L)		13.4			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		32			
2	HAR_Total (mgCaCO3/L)		56			
3	Na% (%)		46			
4	RSC (-)		0.0			
5	SAR (-)		1.4			
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.000	Dry Bed	Dry Bed	0.000
2	EC_GEN (µmho/cm)	499			694
3	pH_FLD (pH units)	7.0			7.0
4	pH_GEN (pH units)	8.0			7.6
5	TDS (mg/L)				369
6	Temp (deg C)	27.0			28.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0			0.0
2	ALK-TOT (mgCaCO3/L)	88			107
3	Ca (mg/L)	16			41
4	Cl (mg/L)	115.8			113.4
5	CO3 (mg/L)	0.0			0.0
6	F (mg/L)	0.40			0.61
7	Fe (mg/L)				0.0
8	HCO3 (mg/L)	107			131
9	K (mg/L)	6.5			4.2
10	Mg (mg/L)	21.4			16.4
11	Na (mg/L)	61.9			68.3
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)	1.30			6.85
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)	41.3			58.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2.7			2.9
	TRACE & TOXIC				
1	As (µg/L)				3.6
2	Cd (µg/L)				0.1
3	Cr (µg/L)				0.2
4	Cu (µg/L)				5.6
5	Ni (µg/L)				5.8
6	Pb (µg/L)				3.1
7	Zn (µg/L)				11.0
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	40			101
2	HAR_Total (mgCaCO3/L)	129			169
3	Na% (%)	50			46
4	RSC (-)	0.0			0.0
5	SAR (-)	2.4			2.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : Kudalaiyathur (CE000F6)

Division : Hydrology Division, Chennai

Local River : Vellar

River Water

Sub-Division : Palar Ponnaiyar SD, Chennai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)				
3	pH_FLD (pH units)				
4	pH_GEN (pH units)				
5	TDS (mg/L)				
6	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	Ca (mg/L)				
4	Cl (mg/L)				
5	CO3 (mg/L)				
6	F (mg/L)				
7	Fe (mg/L)				
8	HCO3 (mg/L)				
9	K (mg/L)				
10	Mg (mg/L)				
11	Na (mg/L)				
12	NH3-N (mg N/L)				
13	NO2+NO3 (mg N/L)				
14	NO2-N (mgN/L)				
15	NO3-N (mgN/L)				
16	o-PO4-P (mg P/L)				
17	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: PARAMAKUDI	Code	: CV000F3
State	: Tamil Nadu	District	Ramanathapuram
Basin	: EFR South of Cauvery	Independent River	: Vaigai
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Vaigai
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 6796 Sq. Km.	Bank	: Right
Latitude	: 09°33'12"	Longitude	: 78°35'11"
Zero of Gauge (m)	: 38 (m.s.l)	25/10/1971	
	Opening Date	Closing Date	
Gauge	: 25/10/1971		
Discharge	: 03/11/1971		
Sediment	:		
Water Quality	: 05/11/1989		

Water Quality Datasheet for the period : 2017-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μ mho/cm)			
4	EC_GEN (μ mho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO ₃ /L)			
2	ALK-TOT (mgCaCO ₃ /L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO ₃ (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO ₃ (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH ₃ -N (mg N/L)			
14	NO ₂ +NO ₃ (mg N/L)			
15	NO ₂ -N (mgN/L)			
16	NO ₃ -N (mgN/L)			
17	o-PO ₄ -P (mg P/L)			
18	SiO ₂ (mg/L)			
19	SO ₄ (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD ₃₋₂₇ (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μ g/L)			
2	Cd (μ g/L)			
3	Cr (μ g/L)			
4	Cu (μ g/L)			
5	Ni (μ g/L)			
6	Pb (μ g/L)			
7	Zn (μ g/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO ₃ /L)			
2	HAR_Total (mgCaCO ₃ /L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	12/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	No Flow	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.672	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)					
4	pH_FLD (pH units)					
5	pH_GEN (pH units)					
6	TDS (mg/L)					
7	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	B (mg/L)					
4	Ca (mg/L)					
5	Cl (mg/L)					
6	CO3 (mg/L)					
7	F (mg/L)					
8	Fe (mg/L)					
9	HCO3 (mg/L)					
10	K (mg/L)					
11	Mg (mg/L)					
12	Na (mg/L)					
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)					
15	NO2-N (mgN/L)					
16	NO3-N (mgN/L)					
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					
20	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
3	DO (mg/L)					
4	DO_SAT% (%)					
	TRACE & TOXIC					
1	Cd (µg/L)					
2	Cr (µg/L)					
3	Cu (µg/L)					
4	Pb (µg/L)					
5	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)					
4	pH_FLD (pH units)					
5	pH_GEN (pH units)					
6	TDS (mg/L)					
7	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					
2	ALK-TOT (mgCaCO3/L)					
3	B (mg/L)					
4	Ca (mg/L)					
5	Cl (mg/L)					
6	CO3 (mg/L)					
7	F (mg/L)					
8	Fe (mg/L)					
9	HCO3 (mg/L)					
10	K (mg/L)					
11	Mg (mg/L)					
12	Na (mg/L)					
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)					
15	NO2-N (mgN/L)					
16	NO3-N (mgN/L)					
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					
20	SO4 (mg/L)					
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
3	DO (mg/L)					
4	DO_SAT% (%)					
	TRACE & TOXIC					
1	Cd (µg/L)					
2	Cr (µg/L)					
3	Cu (µg/L)					
4	Pb (µg/L)					
5	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)					
3	Na% (%)					
4	RSC (-)					
5	SAR (-)					
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.323	0.721	8.034	19.10
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		490	414	278	333
4	pH_FLD (pH units)					
5	pH_GEN (pH units)		8.7	8.5	7.6	8.0
6	TDS (mg/L)					
7	Temp (deg C)		28.5	27.5	26.5	25.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		12.1		0.0	6.6
2	ALK-TOT (mgCaCO3/L)		175		107	148
3	B (mg/L)		0.29	0.00		0.20
4	Ca (mg/L)		32	32	24	34
5	Cl (mg/L)		50.0	33.7	19.5	42.9
6	CO3 (mg/L)		14.6	19.8	0.0	8.0
7	F (mg/L)		0.43	0.55	0.31	0.45
8	Fe (mg/L)		0.050		0.310	0.000
9	HCO3 (mg/L)		183	127	130	164
10	K (mg/L)		5.2	4.5	4.0	5.1
11	Mg (mg/L)		18.5	17.5	15.6	14.6
12	Na (mg/L)		41.3	25.3	13.6	28.2
13	NH3-N (mg N/L)		0.05			0.08
14	NO2+NO3 (mg N/L)		1.26			
15	NO2-N (mgN/L)		0.03			
16	NO3-N (mgN/L)		1.23		1.78	3.11
17	o-PO4-P (mg P/L)				0.130	0.070
18	P-Tot (mgP/L)		0.021			
19	SiO2 (mg/L)		24.4		22.4	15.8
20	SO4 (mg/L)		17.5	27.3	23.5	14.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
3	DO (mg/L)					
4	DO_SAT% (%)					
	TRACE & TOXIC					
1	Cd (µg/L)					
2	Cr (µg/L)					
3	Cu (µg/L)					
4	Pb (µg/L)					
5	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		80	79	60	84
2	HAR_Total (mgCaCO3/L)		157	127	125	145
3	Na% (%)		36	26	19	28
4	RSC (-)		0.4	0.0	0.0	0.1
5	SAR (-)		1.4	0.9	0.5	1.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2007-2008	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	5.867	Dry Bed	Dry Bed	12.72	9.053
2	EC_FLD (µmho/cm)				279	346
3	EC_GEN (µmho/cm)	299			279	346
4	pH_FLD (pH units)				7.6	7.9
5	pH_GEN (pH units)	7.8			7.5	7.9
6	TDS (mg/L)				161	202
7	Temp (deg C)	25.5			26.0	25.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0			0.0	0.0
2	ALK-TOT (mgCaCO3/L)	103			102	119
3	B (mg/L)					0.07
4	Ca (mg/L)	22			20	30
5	Cl (mg/L)	47.2			27.2	36.5
6	CO3 (mg/L)	0.0			0.0	0.0
7	F (mg/L)	0.28			0.27	0.36
8	Fe (mg/L)					0.020
9	HCO3 (mg/L)	126			124	145
10	K (mg/L)	5.0			7.4	6.9
11	Mg (mg/L)	9.2			13.6	13.4
12	Na (mg/L)	32.7			19.4	26.6
13	NH3-N (mg N/L)				0.12	0.09
14	NO2+NO3 (mg N/L)					3.61
15	NO2-N (mgN/L)					0.00
16	NO3-N (mgN/L)	0.42			2.66	3.61
17	o-PO4-P (mg P/L)					0.220
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					17.3
20	SO4 (mg/L)	11.4			8.9	15.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)				3.9	
2	COD (mg/L)				14.5	11.7
3	DO (mg/L)				6.3	
4	DO_SAT% (%)				78	
	TRACE & TOXIC					
1	Cd (µg/L)					
2	Cr (µg/L)					
3	Cu (µg/L)					
4	Pb (µg/L)					
5	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	56			50	75
2	HAR_Total (mgCaCO3/L)	95			107	131
3	Na% (%)	42			27	29
4	RSC (-)	0.2			0.0	0.0
5	SAR (-)	1.5			0.8	1.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2007-2008	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	8.817	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)			554		
4	pH_FLD (pH units)					
5	pH_GEN (pH units)			8.7		
6	TDS (mg/L)					
7	Temp (deg C)			26.0		
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			17.3		
2	ALK-TOT (mgCaCO3/L)			187		
3	B (mg/L)			0.26		
4	Ca (mg/L)			37		
5	Cl (mg/L)			61.4		
6	CO3 (mg/L)			20.9		
7	F (mg/L)			0.58		
8	Fe (mg/L)			0.060		
9	HCO3 (mg/L)			186		
10	K (mg/L)			6.1		
11	Mg (mg/L)			21.4		
12	Na (mg/L)			45.8		
13	NH3-N (mg N/L)			0.05		
14	NO2+NO3 (mg N/L)			1.14		
15	NO2-N (mgN/L)			0.09		
16	NO3-N (mgN/L)			1.05		
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)			0.083		
19	SiO2 (mg/L)			25.6		
20	SO4 (mg/L)			21.9		
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
3	DO (mg/L)					
4	DO_SAT% (%)					
	TRACE & TOXIC					
1	Cd (µg/L)					
2	Cr (µg/L)					
3	Cu (µg/L)					
4	Pb (µg/L)					
5	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			92		
2	HAR_Total (mgCaCO3/L)			181		
3	Na% (%)			35		
4	RSC (-)			0.1		
5	SAR (-)			1.5		
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.957	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)	535			
4	pH_FLD (pH units)				
5	pH_GEN (pH units)	8.4			
6	TDS (mg/L)				
7	Temp (deg C)	26.5			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	17.9			
2	ALK-TOT (mgCaCO3/L)	168			
3	B (mg/L)	0.00			
4	Ca (mg/L)	36			
5	Cl (mg/L)	89.7			
6	CO3 (mg/L)	21.6			
7	F (mg/L)	0.44			
8	Fe (mg/L)	0.000			
9	HCO3 (mg/L)	161			
10	K (mg/L)	6.0			
11	Mg (mg/L)	20.4			
12	Na (mg/L)	59.6			
13	NH3-N (mg N/L)	0.01			
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	0.95			
17	o-PO4-P (mg P/L)	0.000			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	23.7			
20	SO4 (mg/L)	18.3			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
2	COD (mg/L)				
3	DO (mg/L)				
4	DO_SAT% (%)				
	TRACE & TOXIC				
1	Cd (µg/L)	0.02			
2	Cr (µg/L)	4.52			
3	Cu (µg/L)	3.52			
4	Pb (µg/L)	0.69			
5	Zn (µg/L)	17.45			
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	90			
2	HAR_Total (mgCaCO3/L)	175			
3	Na% (%)	40			
4	RSC (-)	0.2			
5	SAR (-)	2.0			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : PARAMAKUDI (CV000F3)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)				
4	pH_FLD (pH units)				
5	pH_GEN (pH units)				
6	TDS (mg/L)				
7	Temp (deg C)				
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)				
2	ALK-TOT (mgCaCO3/L)				
3	B (mg/L)				
4	Ca (mg/L)				
5	Cl (mg/L)				
6	CO3 (mg/L)				
7	F (mg/L)				
8	Fe (mg/L)				
9	HCO3 (mg/L)				
10	K (mg/L)				
11	Mg (mg/L)				
12	Na (mg/L)				
13	NH3-N (mg N/L)				
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)				
17	o-PO4-P (mg P/L)				
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)				
20	SO4 (mg/L)				
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
2	COD (mg/L)				
3	DO (mg/L)				
4	DO_SAT% (%)				
	TRACE & TOXIC				
1	Cd (µg/L)				
2	Cr (µg/L)				
3	Cu (µg/L)				
4	Pb (µg/L)				
5	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)				
2	HAR_Total (mgCaCO3/L)				
3	Na% (%)				
4	RSC (-)				
5	SAR (-)				
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: THENI	Code	: CVA00D4
State	: Tamil Nadu	District	Theni
Basin	: EFR South of Cauvery	Independent River	: Vaigai
Tributary	: Suruliar	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Suruliar
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 1200 Sq. Km.	Bank	: Right
Latitude	: 10°00'04"	Longitude	: 77°29'06"
Zero of Gauge (m)	: 281.65 (m.s.l) 278 (m.s.l)	01/06/1978	- 31/05/1982
		01/06/1982	
	Opening Date	Closing Date	
Gauge	: 01/06/1978		
Discharge	: 01/06/1978		
Sediment	: 29/01/1979		
Water Quality	: 15/07/1978		

Water Quality Datasheet for the period : 2017-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	10.34	7.069
2	Colour_Cod (-)		Clear	Clear
3	EC_FLD (µmho/cm)		92	92
4	EC_GEN (µmho/cm)		92	92
5	Odour_Code (-)		odour free	odour free
6	pH_FLD (pH units)		7.0	6.9
7	pH_GEN (pH units)		7.0	7.0
8	TDS (mg/L)		52	52
9	Temp (deg C)		27.5	27.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	0.0
2	ALK-TOT (mgCaCO3/L)		27	26
3	B (mg/L)		0.04	0.02
4	Ca (mg/L)		6	8
5	Cl (mg/L)		11.3	13.2
6	CO3 (mg/L)		0.0	0.0
7	F (mg/L)		0.11	0.10
8	Fe (mg/L)		0.020	0.020
9	HCO3 (mg/L)		33	32
10	K (mg/L)		2.4	2.0
11	Mg (mg/L)		3.8	2.9
12	Na (mg/L)		7.4	7.4
13	NH3-N (mg N/L)		0.11	0.03
14	NO2+NO3 (mg N/L)		0.40	0.35
15	NO2-N (mgN/L)		0.08	0.00
16	NO3-N (mgN/L)		0.32	0.35
17	o-PO4-P (mg P/L)		0.030	0.000
18	SiO2 (mg/L)		8.9	10.1
19	SO4 (mg/L)		4.8	2.6
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.1	1.3
2	COD (mg/L)		4.7	12.5
3	DO (mg/L)		6.2	6.0
4	DO_SAT% (%)		78	75
	TRACE & TOXIC			
1	As (µg/L)			7.00
2	Cd (µg/L)			0.00
3	Cr (µg/L)			3.00
4	Cu (µg/L)			1.00
5	Ni (µg/L)			
6	Pb (µg/L)			2.00
7	Zn (µg/L)			15.00
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		16	20
2	HAR_Total (mgCaCO3/L)		31	31
3	Na% (%)		32	32
4	RSC (-)		0.0	0.0
5	SAR (-)		0.6	0.6
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	5.405	22.71	23.58
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	186	114	107
4	EC_GEN (μmho/cm)	110	76	107
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.1	7.2	7.0
7	pH_GEN (pH units)	7.1	7.0	7.0
8	TDS (mg/L)	63	43	62
9	Temp (deg C)	27.0	25.0	27.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	38	26	41
3	B (mg/L)	0.01	0.03	0.04
4	Ca (mg/L)	12	6	9
5	Cl (mg/L)	9.4	9.3	9.4
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.11	0.10	0.24
8	Fe (mg/L)	0.000	0.030	0.090
9	HCO3 (mg/L)	46	32	50
10	K (mg/L)	2.5	1.6	2.0
11	Mg (mg/L)	1.9	2.8	3.7
12	Na (mg/L)	7.1	5.5	7.2
13	NH3-N (mg N/L)	0.00	0.13	0.29
14	NO2+NO3 (mg N/L)	0.49	0.14	0.10
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.49	0.14	0.10
17	o-PO4-P (mg P/L)	0.020	0.020	0.040
18	SiO2 (mg/L)	6.2	5.5	6.1
19	SO4 (mg/L)	4.1	1.4	3.3
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.8	1.0	1.0
2	COD (mg/L)	5.6	8.3	5.5
3	DO (mg/L)	7.4	6.5	6.9
4	DO_SAT% (%)	92	79	87
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	31	15	23
2	HAR_Total (mgCaCO3/L)	39	27	39
3	Na% (%)	27	29	28
4	RSC (-)	0.0	0.0	0.1
5	SAR (-)	0.5	0.5	0.5
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	175.0	12.63	10.48
2	Colour_Cod (-)		Clear	Clear
3	EC_FLD (µmho/cm)	156	195	164
4	EC_GEN (µmho/cm)	105	195	172
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.1	7.8	7.5
7	pH_GEN (pH units)	7.0	8.1	7.9
8	TDS (mg/L)	60	111	98
9	Temp (deg C)	24.0	23.0	23.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	39	78	61
3	B (mg/L)	0.21	0.06	0.02
4	Ca (mg/L)	8	22	18
5	Cl (mg/L)	9.8	15.7	18.9
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.18	0.24	0.17
8	Fe (mg/L)	0.000	0.020	0.000
9	HCO3 (mg/L)	47	95	74
10	K (mg/L)	3.3	1.9	2.0
11	Mg (mg/L)	4.8	6.7	5.8
12	Na (mg/L)	6.7	11.2	11.1
13	NH3-N (mg N/L)	0.14	0.08	0.00
14	NO2+NO3 (mg N/L)	0.34	0.42	0.54
15	NO2-N (mgN/L)	0.00	0.01	0.02
16	NO3-N (mgN/L)	0.34	0.41	0.52
17	o-PO4-P (mg P/L)	0.040	0.040	0.010
18	SiO2 (mg/L)	6.6	12.1	10.3
19	SO4 (mg/L)	4.6	5.6	4.7
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	3.2	0.8	1.4
2	COD (mg/L)	11.3	6.1	6.4
3	DO (mg/L)	12.7	6.8	8.7
4	DO_SAT% (%)	151	80	102
	TRACE & TOXIC			
1	As (µg/L)	3.04		
2	Cd (µg/L)	0.01		
3	Cr (µg/L)	1.49		
4	Cu (µg/L)	5.56		
5	Ni (µg/L)	2.89		
6	Pb (µg/L)	1.93		
7	Zn (µg/L)	5.30		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	20	55	44
2	HAR_Total (mgCaCO3/L)	39	83	68
3	Na% (%)	25	22	25
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	0.5	0.5	0.6
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	3.608	No Flow
2	Colour_Cod (-)		Clear	
3	EC_FLD (µmho/cm)		188	
4	EC_GEN (µmho/cm)		168	
5	Odour_Code (-)		odour free	
6	pH_FLD (pH units)		7.5	
7	pH_GEN (pH units)		7.3	
8	TDS (mg/L)		96	
9	Temp (deg C)		24.0	
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	
2	ALK-TOT (mgCaCO3/L)		56	
3	B (mg/L)		0.01	
4	Ca (mg/L)		19	
5	Cl (mg/L)		18.9	
6	CO3 (mg/L)		0.0	
7	F (mg/L)		0.26	
8	Fe (mg/L)		0.010	
9	HCO3 (mg/L)		69	
10	K (mg/L)		2.4	
11	Mg (mg/L)		2.9	
12	Na (mg/L)		12.1	
13	NH3-N (mg N/L)		0.03	
14	NO2+NO3 (mg N/L)		0.29	
15	NO2-N (mgN/L)		0.00	
16	NO3-N (mgN/L)		0.29	
17	o-PO4-P (mg P/L)		0.000	
18	SiO2 (mg/L)		10.6	
19	SO4 (mg/L)		4.7	
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		1.4	
2	COD (mg/L)		8.2	
3	DO (mg/L)		6.7	
4	DO_SAT% (%)		79	
	TRACE & TOXIC			
1	As (µg/L)		0.46	
2	Cd (µg/L)		0.19	
3	Cr (µg/L)		0.82	
4	Cu (µg/L)		1.16	
5	Ni (µg/L)		0.44	
6	Pb (µg/L)		1.61	
7	Zn (µg/L)		28.20	
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		48	
2	HAR_Total (mgCaCO3/L)		60	
3	Na% (%)		29	
4	RSC (-)		0.0	
5	SAR (-)		0.7	
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliari

Sub-Division : Vaigai SD, Madurai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	175.0	0.000	11.37
2	EC_FLD (µmho/cm)	9	195	92	144
3	EC_GEN (µmho/cm)	9	195	76	124
4	pH_FLD (pH units)	9	7.8	6.9	7.2
5	pH_GEN (pH units)	9	8.1	7.0	7.3
6	TDS (mg/L)	9	111	43	71
7	Temp (deg C)	9	27.5	23.0	25.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	9	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	9	78	26	44
3	B (mg/L)	9	0.21	0.01	0.05
4	Ca (mg/L)	9	22	6	12
5	Cl (mg/L)	9	18.9	9.3	12.8
6	CO3 (mg/L)	9	0.0	0.0	0
7	F (mg/L)	9	0.26	0.10	0.17
8	Fe (mg/L)	9	0.090	0.000	0.021
9	HCO3 (mg/L)	9	95	32	53
10	K (mg/L)	9	3.3	1.6	2.2
11	Mg (mg/L)	9	6.7	1.9	3.9
12	Na (mg/L)	9	12.1	5.5	8.4
13	NH3-N (mg N/L)	9	0.29	0.00	0.09
14	NO2+NO3 (mg N/L)	9	0.54	0.10	0.34
15	NO2-N (mgN/L)	9	0.08	0.00	0.01
16	NO3-N (mgN/L)	9	0.52	0.10	0.33
17	o-PO4-P (mg P/L)	9	0.040	0.000	0.022
18	SiO2 (mg/L)	9	12.1	5.5	8.5
19	SO4 (mg/L)	9	5.6	1.4	4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	9	3.2	0.8	1.3
2	COD (mg/L)	9	12.5	4.7	7.6
3	DO (mg/L)	9	12.7	6.0	7.6
4	DO_SAT% (%)	9	151	75	91
	TRACE & TOXIC				
1	As (µg/L)	3	7.00	0.46	3.5
2	Cd (µg/L)	3	0.19	0.00	0.07
3	Cr (µg/L)	3	3.00	0.82	1.77
4	Cu (µg/L)	3	5.56	1.00	2.57
5	Ni (µg/L)	2	2.89	0.44	1.67
6	Pb (µg/L)	3	2.00	1.61	1.85
7	Zn (µg/L)	3	28.20	5.30	16.17
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	9	55	15	30
2	HAR_Total (mgCaCO3/L)	9	83	27	46
3	Na% (%)	9	32	22	28
4	RSC (-)	9	0.1	0.0	0
5	SAR (-)	9	0.7	0.5	0.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Local River : Suruliar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	26.97	20.38	10.24	17.23	22.39
2	EC_FLD (µmho/cm)	107	141	274	232	108
3	EC_GEN (µmho/cm)	112	163	234	239	101
4	pH_FLD (pH units)	7.6	7.9	7.8	7.3	7.7
5	pH_GEN (pH units)	7.6	7.9	7.9	7.8	7.6
6	TDS (mg/L)					
7	Temp (deg C)	23.9	24.8	25.4	25.0	24.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	37	40	104	113	42
3	B (mg/L)	0.15	0.14	0.20	0.10	
4	Ca (mg/L)	9	14	23	25	11
5	Cl (mg/L)	9.0	12.5	14.8	32.4	11.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.21	0.22	0.34	0.53	0.22
8	Fe (mg/L)	0.070	0.071	0.170	0.157	
9	HCO3 (mg/L)	45	69	123	138	51
10	K (mg/L)	1.7	1.8	2.7	3.5	1.9
11	Mg (mg/L)	4.9	6.3	11.6	13.4	3.4
12	Na (mg/L)	6.1	7.9	10.2	18.3	6.9
13	NH3-N (mg N/L)	0.03	0.05	0.14	0.05	
14	NO2+NO3 (mg N/L)	2.11	1.32			
15	NO2-N (mgN/L)	0.33	0.02			
16	NO3-N (mgN/L)	1.78	1.30	0.80	3.90	0.25
17	o-PO4-P (mg P/L)		0.010	0.052	0.169	
18	P-Tot (mgP/L)	0.011				
19	SiO2 (mg/L)	9.2	11.6	17.6	31.6	
20	SO4 (mg/L)	4.7	5.2	5.2	8.1	3.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.3	1.0	1.2	1.9	1.5
2	COD (mg/L)					
3	DO (mg/L)	6.9	6.1	6.2	6.9	8.3
4	DO_SAT% (%)	81	72	75	83	99
	TRACE & TOXIC					
1	Ag (µg/L)					
2	As (µg/L)					
3	Cd (µg/L)					
4	Cr (µg/L)					
5	Cu (µg/L)					
6	Hg (µg/L)					
7	Ni (µg/L)					
8	Pb (µg/L)					
9	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	23	35	58	63	28
2	HAR_Total (mgCaCO3/L)	43	61	106	118	42
3	Na% (%)	23	21	18	21	25
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.4	0.4	0.6	0.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Local River : Suruliar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.497	33.17	15.39	26.15	6.118
2	EC_FLD (µmho/cm)	291	95	143	199	220
3	EC_GEN (µmho/cm)	291	96	143	201	220
4	pH_FLD (pH units)	7.6	7.6	7.3	7.6	7.6
5	pH_GEN (pH units)	7.8	7.6	7.6	7.7	7.7
6	TDS (mg/L)			78	116	126
7	Temp (deg C)	27.0	24.8	24.8	26.1	26.6
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	112	36	54	70	78
3	B (mg/L)				0.09	0.04
4	Ca (mg/L)	29	10	14	14	18
5	Cl (mg/L)	32.4	9.5	14.9	21.0	21.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.33	0.14	0.21	0.39	0.33
8	Fe (mg/L)		0.141		0.056	0.004
9	HCO3 (mg/L)	136	43	66	86	95
10	K (mg/L)	3.2	1.3	2.2	3.0	3.1
11	Mg (mg/L)	8.7	3.6	6.0	11.0	8.8
12	Na (mg/L)	21.8	5.0	9.2	13.8	15.0
13	NH3-N (mg N/L)		0.25	0.17	0.12	0.11
14	NO2+NO3 (mg N/L)				1.71	0.66
15	NO2-N (mgN/L)				0.03	0.01
16	NO3-N (mgN/L)	0.30	0.31	0.67	1.68	0.66
17	o-PO4-P (mg P/L)				0.042	0.032
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				15.5	13.6
20	SO4 (mg/L)	8.1	3.5	4.1	7.9	7.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.2	1.8	1.3	1.2	1.4
2	COD (mg/L)		8.3	7.5	7.5	9.2
3	DO (mg/L)	7.0	7.9	8.1	6.0	7.3
4	DO_SAT% (%)	87	95	97	73	91
	TRACE & TOXIC					
1	Ag (µg/L)					
2	As (µg/L)		0.98			
3	Cd (µg/L)		0.07			
4	Cr (µg/L)		10.77			
5	Cu (µg/L)		3.12			
6	Hg (µg/L)		0.28			
7	Ni (µg/L)		12.22			
8	Pb (µg/L)		5.99			
9	Zn (µg/L)		9.00			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	72	26	34	36	46
2	HAR_Total (mgCaCO3/L)	109	41	59	81	82
3	Na% (%)	30	20	25	26	28
4	RSC (-)	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.9	0.3	0.5	0.6	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	9.104	29.65	18.30	18.66	24.11
2	EC_FLD (µmho/cm)	121	296	251	169	181
3	EC_GEN (µmho/cm)	93	251	253	160	162
4	pH_FLD (pH units)	7.1	7.5	7.8	7.5	8.0
5	pH_GEN (pH units)	7.0	7.9	7.8	7.9	8.0
6	TDS (mg/L)	53				
7	Temp (deg C)	26.8	22.6	21.7	23.8	22.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	29	89	216	79	75
3	B (mg/L)	0.02	0.15	0.11	0.10	0.18
4	Ca (mg/L)	8	20	26	17	20
5	Cl (mg/L)	10.8	20.0	21.9	11.8	17.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.25	0.57	0.47	0.22
8	Fe (mg/L)	0.017	0.067	0.133	0.270	0.119
9	HCO3 (mg/L)	36	109	137	96	92
10	K (mg/L)	2.1	2.4	3.4	1.7	3.0
11	Mg (mg/L)	2.8	9.5	11.8	9.5	8.0
12	Na (mg/L)	6.9	16.8	15.5	7.6	10.1
13	NH3-N (mg N/L)	0.07	0.04		0.07	0.02
14	NO2+NO3 (mg N/L)	0.34	2.17			
15	NO2-N (mgN/L)	0.02	0.02			
16	NO3-N (mgN/L)	0.32	2.15	0.23	0.90	2.61
17	o-PO4-P (mg P/L)	0.017		0.010	0.040	0.097
18	P-Tot (mgP/L)		0.028			
19	SiO2 (mg/L)	7.7	13.3	3.0	16.0	15.4
20	SO4 (mg/L)	3.2	8.1	14.1	2.3	6.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.0	1.4	1.5	0.9	0.9
2	COD (mg/L)	7.8				
3	DO (mg/L)	6.5	6.0	7.1	7.2	7.6
4	DO_SAT% (%)	81	69	82	85	88
	TRACE & TOXIC					
1	Ag (µg/L)					
2	As (µg/L)	7.00				
3	Cd (µg/L)	0.00				
4	Cr (µg/L)	3.00				
5	Cu (µg/L)	1.00				
6	Hg (µg/L)					
7	Ni (µg/L)					
8	Pb (µg/L)	2.00				
9	Zn (µg/L)	15.00				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	20	49	66	42	50
2	HAR_Total (mgCaCO3/L)	32	89	115	81	84
3	Na% (%)	30	24	22	17	20
4	RSC (-)	0.0	0.0	0.1	0.0	0.0
5	SAR (-)	0.5	0.7	0.6	0.4	0.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Division : SR Division, Coimbatore

Local River : Suruliar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	51.63	10.54	7.852	29.81	30.45
2	EC_FLD (µmho/cm)	168	293	213	140	157
3	EC_GEN (µmho/cm)	178	293	217	140	170
4	pH_FLD (pH units)	7.9	7.7	7.7	7.8	7.6
5	pH_GEN (pH units)	7.9	7.7	7.7	7.6	7.5
6	TDS (mg/L)				78	98
7	Temp (deg C)	23.4	24.0	25.2	23.8	24.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	3.8	0.0
2	ALK-TOT (mgCaCO3/L)	69	115	92	47	56
3	B (mg/L)					0.03
4	Ca (mg/L)	20	30	23	11	19
5	Cl (mg/L)	19.7	27.2	18.7	16.0	17.9
6	CO3 (mg/L)	0.0	0.0	0.0	4.6	0.0
7	F (mg/L)	0.26	0.28	0.33	0.16	0.24
8	Fe (mg/L)	0.050			0.019	0.093
9	HCO3 (mg/L)	84	141	113	48	68
10	K (mg/L)	2.5	3.2	3.5	2.5	3.6
11	Mg (mg/L)	7.5	12.6	10.3	6.3	4.3
12	Na (mg/L)	11.8	15.7	10.8	10.0	11.4
13	NH3-N (mg N/L)			0.23	0.14	0.19
14	NO2+NO3 (mg N/L)				1.02	1.80
15	NO2-N (mgN/L)				0.00	0.01
16	NO3-N (mgN/L)	1.44	0.48	0.72	1.19	1.78
17	o-PO4-P (mg P/L)				0.005	0.040
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				11.1	13.7
20	SO4 (mg/L)	6.7	8.3	7.9	3.0	7.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	1.6	1.3	1.1	1.9
2	COD (mg/L)		8.4	10.6	5.7	8.8
3	DO (mg/L)	8.6	6.6	6.3	7.0	8.8
4	DO_SAT% (%)	101	79	76	83	105
	TRACE & TOXIC					
1	Ag (µg/L)					
2	As (µg/L)	0.29				
3	Cd (µg/L)	0.03			0.69	
4	Cr (µg/L)	4.83			4.86	
5	Cu (µg/L)	31.49			3.48	
6	Hg (µg/L)					
7	Ni (µg/L)				2.18	
8	Pb (µg/L)	1.79			1.86	
9	Zn (µg/L)	21.70			2.25	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	49	75	57	28	48
2	HAR_Total (mgCaCO3/L)	80	127	100	54	66
3	Na% (%)	23	20	19	28	26
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.6	0.5	0.6	0.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Local River : Suruliar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	2.798	55.42	12.73	2.059	6.822
2	EC_FLD (µmho/cm)	269	156	393	314	281
3	EC_GEN (µmho/cm)	269	145	438	314	264
4	pH_FLD (pH units)	7.7	7.3	7.8	7.3	7.8
5	pH_GEN (pH units)	7.5	7.5	8.1	7.9	7.8
6	TDS (mg/L)	156	83			
7	Temp (deg C)	24.3	24.3	23.0	25.3	23.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	103	55	156		56
3	B (mg/L)	0.04	0.08	0.19	0.20	0.00
4	Ca (mg/L)	30	14	33	35	27
5	Cl (mg/L)	22.7	13.4	35.4	30.5	21.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.39	0.21	0.34	0.44	0.57
8	Fe (mg/L)	0.088	0.028	0.060	0.046	0.622
9	HCO3 (mg/L)	126	67	190	195	156
10	K (mg/L)	4.1	2.3	5.2	3.3	3.0
11	Mg (mg/L)	7.7	5.2	16.2	13.8	15.4
12	Na (mg/L)	15.5	9.0	32.5	21.1	14.8
13	NH3-N (mg N/L)	0.13	0.13	0.03	0.05	
14	NO2+NO3 (mg N/L)	0.76	0.35	2.87		
15	NO2-N (mgN/L)	0.00	0.01	0.01		
16	NO3-N (mgN/L)	0.76	0.34	2.87	0.16	1.40
17	o-PO4-P (mg P/L)	0.045	0.032		0.010	0.034
18	P-Tot (mgP/L)			0.019		
19	SiO2 (mg/L)	17.5	8.7	20.8	19.0	24.7
20	SO4 (mg/L)	7.4	4.5	21.5	8.7	4.4
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	1.6	1.5	3.7	1.8
2	COD (mg/L)	10.8	7.3			
3	DO (mg/L)	6.2	8.8	7.8	5.8	5.8
4	DO_SAT% (%)	75	105	90	71	69
	TRACE & TOXIC					
1	Ag (µg/L)					
2	As (µg/L)	2.11	3.04	6.67		
3	Cd (µg/L)	0.09	0.01	0.61		
4	Cr (µg/L)	6.03	1.49			
5	Cu (µg/L)	4.73	5.56	1.41	1.56	
6	Hg (µg/L)					
7	Ni (µg/L)	3.81	2.89		11.67	
8	Pb (µg/L)	2.16	1.93	1.56		
9	Zn (µg/L)	17.70	5.30	9.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	75	35	83	88	68
2	HAR_Total (mgCaCO3/L)	107	57	150	163	132
3	Na% (%)	23	25	30	23	21
4	RSC (-)	0.0	0.0	0.2	0.3	0.0
5	SAR (-)	0.7	0.5	1.1	0.7	0.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Local River : Suruliar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	5.342	1.233	2.055	0.537
2	EC_FLD (µmho/cm)	433	341	478	363
3	EC_GEN (µmho/cm)	433	341	478	363
4	pH_FLD (pH units)	8.0	8.1	7.5	7.6
5	pH_GEN (pH units)	7.9	8.0	7.5	7.6
6	TDS (mg/L)				205
7	Temp (deg C)	25.0	25.8	25.8	26.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	9.3	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	177	138	206	151
3	B (mg/L)	0.00			
4	Ca (mg/L)	43	28	42	35
5	Cl (mg/L)	49.7	42.5	45.8	32.1
6	CO3 (mg/L)	11.2	0.0	0.0	0.0
7	F (mg/L)	0.56	0.70	0.71	0.41
8	Fe (mg/L)	0.000	0.030	0.012	0.056
9	HCO3 (mg/L)	194	168	251	184
10	K (mg/L)	4.6	3.3	5.8	5.6
11	Mg (mg/L)	17.8	17.5	24.9	15.3
12	Na (mg/L)	34.7	29.3	29.8	23.0
13	NH3-N (mg N/L)	0.00		0.22	0.11
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	1.88	1.16	0.15	0.92
17	o-PO4-P (mg P/L)	0.000			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	23.5			
20	SO4 (mg/L)	13.3	13.9	11.2	6.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2.4	1.7	1.7	1.9
2	COD (mg/L)			9.7	3.6
3	DO (mg/L)	8.4	6.5	7.4	8.1
4	DO_SAT% (%)	102	79	91	100
	TRACE & TOXIC				
1	Ag (µg/L)			0.61	
2	As (µg/L)	0.59	0.09	0.38	4.84
3	Cd (µg/L)	0.24	0.02	0.10	0.05
4	Cr (µg/L)	5.95	3.53	0.45	0.74
5	Cu (µg/L)	3.96	3.92	1.16	3.07
6	Hg (µg/L)			0.32	
7	Ni (µg/L)		4.80	4.82	10.27
8	Pb (µg/L)	1.22	4.39	3.64	0.76
9	Zn (µg/L)	23.44	30.00	0.31	7.00
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	107	70	106	86
2	HAR_Total (mgCaCO3/L)	181	143	210	150
3	Na% (%)	27	30	22	24
4	RSC (-)	0.1	0.0	0.0	0.0
5	SAR (-)	1.1	1.1	0.9	0.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : THENI (CVA00D4)

Local River : Suruliar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	4.277	8.666	3.785	1.203
2	EC_FLD (µmho/cm)	238	222	139	188
3	EC_GEN (µmho/cm)	238	222	139	168
4	pH_FLD (pH units)	7.8	7.6	7.4	7.4
5	pH_GEN (pH units)	7.9	7.8	7.4	7.3
6	TDS (mg/L)	138	125	81	96
7	Temp (deg C)	26.8	26.2	26.8	24.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	98	81	48	56
3	B (mg/L)	0.03	0.07	0.03	0.01
4	Ca (mg/L)	16	25	14	19
5	Cl (mg/L)	18.5	20.6	15.2	18.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0
7	F (mg/L)	0.35	0.26	0.16	0.26
8	Fe (mg/L)	0.000	0.020	0.020	0.010
9	HCO3 (mg/L)	120	99	59	69
10	K (mg/L)	3.6	3.4	2.5	2.4
11	Mg (mg/L)	14.7	6.7	3.2	2.9
12	Na (mg/L)	13.4	14.0	10.9	12.1
13	NH3-N (mg N/L)	0.11	0.05	0.20	0.03
14	NO2+NO3 (mg N/L)	1.51	1.76	0.33	0.29
15	NO2-N (mgN/L)	0.00	0.01	0.06	0.00
16	NO3-N (mgN/L)	1.51	1.75	0.28	0.29
17	o-PO4-P (mg P/L)	0.025	0.037	0.023	0.000
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	22.9	15.8	9.8	10.6
20	SO4 (mg/L)	5.4	5.6	3.3	4.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.7	1.2	1.5	1.4
2	COD (mg/L)	6.0	8.3	9.2	8.2
3	DO (mg/L)	6.4	6.1	5.8	6.7
4	DO_SAT% (%)	80	74	72	79
	TRACE & TOXIC				
1	Ag (µg/L)				
2	As (µg/L)			2.00	0.46
3	Cd (µg/L)			0.00	0.19
4	Cr (µg/L)			3.00	0.82
5	Cu (µg/L)			7.00	1.16
6	Hg (µg/L)				
7	Ni (µg/L)				0.44
8	Pb (µg/L)			1.00	1.61
9	Zn (µg/L)			18.00	28.20
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	40	62	35	48
2	HAR_Total (mgCaCO3/L)	101	89	48	60
3	Na% (%)	22	25	31	29
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.6	0.7	0.7
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: AMBASAMUDRAM	Code	: CV000U2
State	: Tamil Nadu	District	Theni
Basin	: EFR South of Cauvery	Independent River	: Vaigai
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Vaigai
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 850 Sq. Km.	Bank	: Left
Latitude	: 09°55'32"	Longitude	: 77°30'42"
Zero of Gauge (m)	: 296.5 (m.s.l)	01/08/1998	
	Opening Date	Closing Date	
Gauge	: 01/08/1998		
Discharge	: 05/01/1999		
Sediment	: 09/10/2002		
Water Quality	: 01/08/1999		

Water Quality Datasheet for the period : 2017-2018

Station Name : AMBASAMUDRAM (CV000U2)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AMBASAMUDRAM (CV000U2)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AMBASAMUDRAM (CV000U2)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	83.94	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)	117		
3	EC_GEN (µmho/cm)	120		
4	Odour_Code (-)	odour free		
5	pH_FLD (pH units)	6.9		
6	pH_GEN (pH units)	7.3		
7	TDS (mg/L)	69		
8	Temp (deg C)	25.0		
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0		
2	ALK-TOT (mgCaCO3/L)	48		
3	B (mg/L)	0.13		
4	Ca (mg/L)	16		
5	Cl (mg/L)	7.8		
6	CO3 (mg/L)	0.0		
7	F (mg/L)	0.20		
8	Fe (mg/L)	0.000		
9	HCO3 (mg/L)	58		
10	K (mg/L)	3.9		
11	Mg (mg/L)	1.9		
12	Na (mg/L)	5.4		
13	NH3-N (mg N/L)	0.12		
14	NO2+NO3 (mg N/L)	0.50		
15	NO2-N (mgN/L)	0.00		
16	NO3-N (mgN/L)	0.50		
17	o-PO4-P (mg P/L)	0.010		
18	SiO2 (mg/L)	8.9		
19	SO4 (mg/L)	5.9		
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.6		
2	COD (mg/L)	9.8		
3	DO (mg/L)	13.3		
4	DO_SAT% (%)	161		
	TRACE & TOXIC			
1	As (µg/L)	3.85		
2	Cd (µg/L)	0.03		
3	Cr (µg/L)	1.93		
4	Cu (µg/L)	5.65		
5	Ni (µg/L)	6.35		
6	Pb (µg/L)	1.43		
7	Zn (µg/L)	2.40		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	39		
2	HAR_Total (mgCaCO3/L)	47		
3	Na% (%)	18		
4	RSC (-)	0.0		
5	SAR (-)	0.3		
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : AMBASAMUDRAM (CV000U2)

Division : SR Division, Coimbatore

Local River : Vaigai

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)			
3	EC_GEN (µmho/cm)			
4	Odour_Code (-)			
5	pH_FLD (pH units)			
6	pH_GEN (pH units)			
7	TDS (mg/L)			
8	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (µg/L)			
2	Cd (µg/L)			
3	Cr (µg/L)			
4	Cu (µg/L)			
5	Ni (µg/L)			
6	Pb (µg/L)			
7	Zn (µg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : AMBASAMUDRAM (CV000U2)

Division : SR Division, Coimbatore

Local River : Vaigai

Sub-Division : Vaigai SD, Madurai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	83.94	0.000	0.378
2	EC_FLD (µmho/cm)	1	117	117	117
3	EC_GEN (µmho/cm)	1	120	120	120
4	pH_FLD (pH units)	1	6.9	6.9	6.9
5	pH_GEN (pH units)	1	7.3	7.3	7.3
6	TDS (mg/L)	1	69	69	69
7	Temp (deg C)	1	25.0	25.0	25
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	1	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	1	48	48	48
3	B (mg/L)	1	0.13	0.13	0.13
4	Ca (mg/L)	1	16	16	16
5	Cl (mg/L)	1	7.8	7.8	7.8
6	CO3 (mg/L)	1	0.0	0.0	0
7	F (mg/L)	1	0.20	0.20	0.19
8	Fe (mg/L)	1	0.000	0.000	0
9	HCO3 (mg/L)	1	58	58	58
10	K (mg/L)	1	3.9	3.9	3.9
11	Mg (mg/L)	1	1.9	1.9	1.9
12	Na (mg/L)	1	5.4	5.4	5.4
13	NH3-N (mg N/L)	1	0.12	0.12	0.12
14	NO2+NO3 (mg N/L)	1	0.50	0.50	0.5
15	NO2-N (mgN/L)	1	0.00	0.00	0
16	NO3-N (mgN/L)	1	0.50	0.50	0.5
17	o-PO4-P (mg P/L)	1	0.010	0.010	0.01
18	SiO2 (mg/L)	1	8.9	8.9	8.9
19	SO4 (mg/L)	1	5.9	5.9	5.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1	2.6	2.6	2.6
2	COD (mg/L)	1	9.8	9.8	9.8
3	DO (mg/L)	1	13.3	13.3	13.3
4	DO_SAT% (%)	1	161	161	161
	TRACE & TOXIC				
1	As (µg/L)	1	3.85	3.85	3.85
2	Cd (µg/L)	1	0.03	0.03	0.03
3	Cr (µg/L)	1	1.93	1.93	1.93
4	Cu (µg/L)	1	5.65	5.65	5.65
5	Ni (µg/L)	1	6.35	6.35	6.35
6	Pb (µg/L)	1	1.43	1.43	1.43
7	Zn (µg/L)	1	2.40	2.40	2.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	1	39	39	39
2	HAR_Total (mgCaCO3/L)	1	47	47	47
3	Na% (%)	1	18	18	18
4	RSC (-)	1	0.0	0.0	0
5	SAR (-)	1	0.3	0.3	0.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	2.563	3.407	Dry Bed	0.143	1.425
2	EC_FLD (µmho/cm)	194	419		162	129
3	EC_GEN (µmho/cm)	224	452		162	129
4	pH_FLD (pH units)	8.1	8.5		7.8	7.2
5	pH_GEN (pH units)	8.2	8.4		7.8	7.2
6	TDS (mg/L)					
7	Temp (deg C)	22.3	22.5		23.5	23.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	14.6		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	82	154		68	31
3	B (mg/L)	0.23	0.23		0.00	
4	Ca (mg/L)	18	28		18	8
5	Cl (mg/L)	15.0	35.8		16.5	18.9
6	CO3 (mg/L)	0.0	17.2		0.0	0.0
7	F (mg/L)	0.54	0.58		0.19	0.25
8	Fe (mg/L)	0.070	0.065		0.000	
9	HCO3 (mg/L)	101	149		83	37
10	K (mg/L)	4.0	5.0		3.9	4.2
11	Mg (mg/L)	7.3	16.4		6.8	4.9
12	Na (mg/L)	16.2	43.4		9.4	9.9
13	NH3-N (mg N/L)	0.04	0.11		0.02	
14	NO2+NO3 (mg N/L)	2.60	3.67			
15	NO2-N (mgN/L)	0.02	0.04			
16	NO3-N (mgN/L)	2.58	3.63		4.04	0.31
17	o-PO4-P (mg P/L)		0.010		0.664	
18	P-Tot (mgP/L)	0.016				
19	SiO2 (mg/L)	12.8	23.9		21.3	
20	SO4 (mg/L)	8.3	29.3		7.1	6.7
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.9	1.2		1.4	2.5
2	COD (mg/L)					
3	DO (mg/L)	6.4	6.3		7.5	7.8
4	DO_SAT% (%)	73	72		88	91
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	46	70		44	20
2	HAR_Total (mgCaCO3/L)	76	138		72	40
3	Na% (%)	30	38		21	32
4	RSC (-)	0.1	0.3		0.0	0.0
5	SAR (-)	0.8	1.5		0.5	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.329	Dry Bed	2.068	0.000	Dry Bed
2	EC_FLD (µmho/cm)	169		111	132	
3	EC_GEN (µmho/cm)	169		111	132	
4	pH_FLD (pH units)	7.8		8.0	7.5	
5	pH_GEN (pH units)	7.8		8.4	7.4	
6	TDS (mg/L)			59	77	
7	Temp (deg C)	27.0		25.0	24.0	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		15.3	0.0	
2	ALK-TOT (mgCaCO3/L)	56		42	38	
3	B (mg/L)				0.01	
4	Ca (mg/L)	14		15	16	
5	Cl (mg/L)	12.9		9.4	15.4	
6	CO3 (mg/L)	0.0		18.5	0.0	
7	F (mg/L)	0.10		0.17		
8	Fe (mg/L)				0.080	
9	HCO3 (mg/L)	68		14	47	
10	K (mg/L)	3.5		2.9	4.4	
11	Mg (mg/L)	6.8		1.9	1.9	
12	Na (mg/L)	9.2		6.6	10.5	
13	NH3-N (mg N/L)			0.05	0.17	
14	NO2+NO3 (mg N/L)				2.04	
15	NO2-N (mgN/L)				0.02	
16	NO3-N (mgN/L)	0.70		0.75	2.02	
17	o-PO4-P (mg P/L)				0.070	
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				17.2	
20	SO4 (mg/L)	15.2		5.6	9.6	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.0		0.8	2.0	
2	COD (mg/L)			2.2	16.3	
3	DO (mg/L)	8.0		7.6	7.0	
4	DO_SAT% (%)	100		92	83	
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	36		39	40	
2	HAR_Total (mgCaCO3/L)	64		46	48	
3	Na% (%)	23		22	30	
4	RSC (-)	0.0		0.0	0.0	
5	SAR (-)	0.5		0.4	0.7	
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	5.244	3.913	6.412	6.217
2	EC_FLD (µmho/cm)		473	420	235	236
3	EC_GEN (µmho/cm)		498	489	243	216
4	pH_FLD (pH units)		7.9	8.3	7.5	8.0
5	pH_GEN (pH units)		8.5	8.4	8.2	8.0
6	TDS (mg/L)					
7	Temp (deg C)		21.4	21.2	21.7	21.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		19.1	12.9	2.7	0.0
2	ALK-TOT (mgCaCO3/L)		183	200	85	100
3	B (mg/L)		0.24	0.30	0.46	0.11
4	Ca (mg/L)		32	38	20	26
5	Cl (mg/L)		36.1	42.9	17.3	28.6
6	CO3 (mg/L)		23.0	16.2	3.2	0.0
7	F (mg/L)		0.55	0.75	0.48	0.36
8	Fe (mg/L)		0.062	0.079	0.327	0.000
9	HCO3 (mg/L)		176	183	98	122
10	K (mg/L)		4.3	6.2	3.4	3.6
11	Mg (mg/L)		20.2	18.9	10.4	8.1
12	Na (mg/L)		43.9	45.9	12.6	20.0
13	NH3-N (mg N/L)		0.04		0.09	0.04
14	NO2+NO3 (mg N/L)		3.75			
15	NO2-N (mgN/L)		0.01			
16	NO3-N (mgN/L)		3.74	1.75	1.39	3.55
17	o-PO4-P (mg P/L)			0.010	0.080	0.406
18	P-Tot (mgP/L)		0.046			
19	SiO2 (mg/L)		28.1	4.2	28.3	28.3
20	SO4 (mg/L)		26.7	42.0	16.3	15.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		0.9	1.3	0.3	0.9
2	COD (mg/L)					
3	DO (mg/L)		6.5	6.9	6.2	7.2
4	DO_SAT% (%)		74	79	71	81
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		80	96	49	65
2	HAR_Total (mgCaCO3/L)		164	175	93	99
3	Na% (%)		36	35	21	28
4	RSC (-)		0.4	0.1	0.0	0.0
5	SAR (-)		1.5	1.5	0.5	0.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	29.80	0.439	0.809	2.210	7.998
2	EC_FLD (µmho/cm)	396	301	206	156	114
3	EC_GEN (µmho/cm)	396	301	186	156	160
4	pH_FLD (pH units)	8.2	7.9	8.1	7.9	7.6
5	pH_GEN (pH units)	8.2	7.9	8.0	8.0	8.2
6	TDS (mg/L)				90	93
7	Temp (deg C)	23.1	24.5	26.3	25.2	24.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	9.8	0.0	0.0	5.1	3.8
2	ALK-TOT (mgCaCO3/L)	150	111	68	49	45
3	B (mg/L)					0.06
4	Ca (mg/L)	34	30	19	13	15
5	Cl (mg/L)	44.1	27.9	11.6	20.1	17.2
6	CO3 (mg/L)	11.8	0.0	0.0	6.2	4.6
7	F (mg/L)	0.55	0.29	0.27	0.14	0.28
8	Fe (mg/L)	0.070			0.004	0.043
9	HCO3 (mg/L)	159	136	83	47	45
10	K (mg/L)	5.1	5.4	2.0	3.0	3.0
11	Mg (mg/L)	18.2	9.7	6.0	5.3	4.8
12	Na (mg/L)	33.6	19.9	6.5	13.8	12.0
13	NH3-N (mg N/L)			0.35	0.24	0.37
14	NO2+NO3 (mg N/L)				1.81	2.33
15	NO2-N (mgN/L)				0.00	0.00
16	NO3-N (mgN/L)	2.24	0.57	0.39	1.53	2.32
17	o-PO4-P (mg P/L)				0.000	0.100
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				10.1	19.9
20	SO4 (mg/L)	24.4	18.8	7.9	5.6	11.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.7	1.0	1.7	0.6	1.5
2	COD (mg/L)		4.9	3.9	3.5	5.0
3	DO (mg/L)	7.4	7.3	10.0	6.9	10.7
4	DO_SAT% (%)	86	87	123	83	129
	TRACE & TOXIC					
1	As (µg/L)	0.36				
2	Cd (µg/L)	0.63			0.53	
3	Cr (µg/L)	4.48			1.24	
4	Cu (µg/L)	10.41			2.42	
5	Ni (µg/L)				0.28	
6	Pb (µg/L)	2.17			1.01	
7	Zn (µg/L)	19.20			0.01	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	85	74	47	33	38
2	HAR_Total (mgCaCO3/L)	161	115	72	55	58
3	Na% (%)	31	26	16	34	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	0.8	0.3	0.8	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	20.98	11.53	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)		117	563		
3	EC_GEN (µmho/cm)		120	586		
4	pH_FLD (pH units)		6.9	8.3		
5	pH_GEN (pH units)		7.3	8.5		
6	TDS (mg/L)		69			
7	Temp (deg C)		25.0	22.5		
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	26.1		
2	ALK-TOT (mgCaCO3/L)		48	218		
3	B (mg/L)		0.13	0.26		
4	Ca (mg/L)		16	47		
5	Cl (mg/L)		7.8	40.6		
6	CO3 (mg/L)		0.0	31.5		
7	F (mg/L)		0.19	0.67		
8	Fe (mg/L)		0.000	0.067		
9	HCO3 (mg/L)		58	202		
10	K (mg/L)		3.9	5.1		
11	Mg (mg/L)		1.9	23.0		
12	Na (mg/L)		5.4	54.1		
13	NH3-N (mg N/L)		0.12	0.05		
14	NO2+NO3 (mg N/L)		0.50	3.76		
15	NO2-N (mgN/L)		0.00	0.01		
16	NO3-N (mgN/L)		0.50	3.75		
17	o-PO4-P (mg P/L)		0.010			
18	P-Tot (mgP/L)			0.036		
19	SiO2 (mg/L)		8.9	27.3		
20	SO4 (mg/L)		5.9	46.3		
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)		2.6	1.2		
2	COD (mg/L)		9.8			
3	DO (mg/L)		13.3	7.4		
4	DO_SAT% (%)		161	85		
	TRACE & TOXIC					
1	As (µg/L)		3.85	9.40		
2	Cd (µg/L)		0.03	0.68		
3	Cr (µg/L)		1.93			
4	Cu (µg/L)		5.65	1.07		
5	Ni (µg/L)		6.35			
6	Pb (µg/L)		1.43	2.26		
7	Zn (µg/L)		2.40	8.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		39	117		
2	HAR_Total (mgCaCO3/L)		47	213		
3	Na% (%)		18	34		
4	RSC (-)		0.0	0.5		
5	SAR (-)		0.3	1.6		
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.134	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)	731			
3	EC_GEN (µmho/cm)	731			
4	pH_FLD (pH units)	8.5			
5	pH_GEN (pH units)	8.5			
6	TDS (mg/L)				
7	Temp (deg C)	23.0			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	19.9			
2	ALK-TOT (mgCaCO3/L)	228			
3	B (mg/L)	0.00			
4	Ca (mg/L)	71			
5	Cl (mg/L)	95.9			
6	CO3 (mg/L)	24.0			
7	F (mg/L)	0.51			
8	Fe (mg/L)	0.000			
9	HCO3 (mg/L)	229			
10	K (mg/L)	6.7			
11	Mg (mg/L)	12.6			
12	Na (mg/L)	73.0			
13	NH3-N (mg N/L)	0.06			
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	4.82			
17	o-PO4-P (mg P/L)	0.000			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	36.2			
20	SO4 (mg/L)	41.5			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.0			
2	COD (mg/L)				
3	DO (mg/L)	6.8			
4	DO_SAT% (%)	79			
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	176			
2	HAR_Total (mgCaCO3/L)	229			
3	Na% (%)	40			
4	RSC (-)	0.0			
5	SAR (-)	2.1			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : AMBASAMUDRAM (CV000U2)

Local River : Vaigai

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	4.534	Dry Bed	Dry Bed	Dry Bed
2	EC_FLD (μmho/cm)	190			
3	EC_GEN (μmho/cm)	141			
4	pH_FLD (pH units)	7.5			
5	pH_GEN (pH units)	7.6			
6	TDS (mg/L)	81			
7	Temp (deg C)	25.0			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0			
2	ALK-TOT (mgCaCO3/L)	42			
3	B (mg/L)	0.08			
4	Ca (mg/L)	15			
5	Cl (mg/L)	16.3			
6	CO3 (mg/L)	0.0			
7	F (mg/L)	0.24			
8	Fe (mg/L)	0.320			
9	HCO3 (mg/L)	52			
10	K (mg/L)	2.9			
11	Mg (mg/L)	1.8			
12	Na (mg/L)	11.7			
13	NH3-N (mg N/L)	0.13			
14	NO2+NO3 (mg N/L)	1.33			
15	NO2-N (mgN/L)	0.00			
16	NO3-N (mgN/L)	1.33			
17	o-PO4-P (mg P/L)	0.090			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	30.5			
20	SO4 (mg/L)	10.9			
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2.9			
2	COD (mg/L)	15.6			
3	DO (mg/L)	6.2			
4	DO_SAT% (%)	75			
	TRACE & TOXIC				
1	As (μg/L)				
2	Cd (μg/L)				
3	Cr (μg/L)				
4	Cu (μg/L)				
5	Ni (μg/L)				
6	Pb (μg/L)				
7	Zn (μg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	38			
2	HAR_Total (mgCaCO3/L)	45			
3	Na% (%)	34			
4	RSC (-)	0.0			
5	SAR (-)	0.8			
	PESTICIDES				

HISTORY SHEET

Water Year : 2017-2018

Site	: IRUKKANKUDI	Code	: CY000K7
State	: Tamil Nadu	District	Virudhunagar
Basin	: EFR South of Cauvery	Independent Riv:	Vaippar
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Vaippar
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 3721 Sq. Km.	Bank	: Left
Latitude	: 09°19'27"	Longitude	: 77°59'26"
Zero of Gauge (m)	: 46 (m.s.l)		25/09/1989
	Opening Date	Closing Date	
Gauge	: 25/09/1989		
Discharge	: 25/11/1989		
Sediment	:		
Water Quality	: 01/06/1993		

Water Quality Datasheet for the period : 2017-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017	01/09/2017
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
	CHEMICAL				
	BIOLOGICAL/BACTERIOLOGICAL				
	TRACE & TOXIC				
	CHEMICAL INDICES				
	PESTICIDES				

Water Quality Datasheet for the period : 2017-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	03/10/2017	01/11/2017	01/12/2017	01/01/2018
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
	CHEMICAL				
	BIOLOGICAL/BACTERIOLOGICAL				
	TRACE & TOXIC				
	CHEMICAL INDICES				
	PESTICIDES				

Water Quality Datasheet for the period : 2017-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/02/2018	01/03/2018	02/04/2018	01/05/2018
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed
	CHEMICAL				
	BIOLOGICAL/BACTERIOLOGICAL				
	TRACE & TOXIC				
	CHEMICAL INDICES				
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	0.000	Dry Bed	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)	576				
3	pH_GEN (pH units)	9.1				
4	TDS (mg/L)					
5	Temp (deg C)	22.5				
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	11.9				
2	ALK-TOT (mgCaCO3/L)	92				
3	B (mg/L)	0.31				
4	Ca (mg/L)	22				
5	Cl (mg/L)	73.1				
6	CO3 (mg/L)	14.3				
7	F (mg/L)	0.46				
8	Fe (mg/L)	0.060				
9	HCO3 (mg/L)	83				
10	K (mg/L)	6.7				
11	Mg (mg/L)	13.6				
12	Na (mg/L)	83.6				
13	NH3-N (mg N/L)	0.10				
14	NO2+NO3 (mg N/L)	5.78				
15	NO2-N (mgN/L)	2.36				
16	NO3-N (mgN/L)	3.42				
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)	0.013				
19	SiO2 (mg/L)	12.6				
20	SO4 (mg/L)	75.7				
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Pb (μg/L)					
6	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	56				
2	HAR_Total (mgCaCO3/L)	113				
3	Na% (%)	60				
4	RSC (-)	0.0				
5	SAR (-)	3.4				
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed	Dry Bed	0.068
2	EC_GEN (µmho/cm)					452
3	pH_GEN (pH units)					8.0
4	TDS (mg/L)					262
5	Temp (deg C)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)					0.0
2	ALK-TOT (mgCaCO3/L)					153
3	B (mg/L)					0.14
4	Ca (mg/L)					25
5	Cl (mg/L)					47.3
6	CO3 (mg/L)					0.0
7	F (mg/L)					0.38
8	Fe (mg/L)					0.010
9	HCO3 (mg/L)					187
10	K (mg/L)					11.1
11	Mg (mg/L)					15.7
12	Na (mg/L)					47.6
13	NH3-N (mg N/L)					0.26
14	NO2+NO3 (mg N/L)					0.34
15	NO2-N (mgN/L)					0.00
16	NO3-N (mgN/L)					0.34
17	o-PO4-P (mg P/L)					0.025
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					16.5
20	SO4 (mg/L)					19.2
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					15.4
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Pb (µg/L)					
6	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)					63
2	HAR_Total (mgCaCO3/L)					128
3	Na% (%)					42
4	RSC (-)					0.5
5	SAR (-)					1.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.123	0.594	Dry Bed	0.831
2	EC_GEN (µmho/cm)		660	958		263
3	pH_GEN (pH units)		8.5	8.2		8.5
4	TDS (mg/L)					
5	Temp (deg C)		17.0	17.6		23.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0			9.3
2	ALK-TOT (mgCaCO3/L)		150			100
3	B (mg/L)		0.27	0.35		0.19
4	Ca (mg/L)		29	43		30
5	Cl (mg/L)		63.0	174.3		44.1
6	CO3 (mg/L)		0.0	11.2		11.2
7	F (mg/L)		0.58	0.64		0.49
8	Fe (mg/L)		0.060			0.000
9	HCO3 (mg/L)		182	174		99
10	K (mg/L)		6.4	6.1		5.2
11	Mg (mg/L)		14.9	30.0		5.8
12	Na (mg/L)		86.2	128.8		28.4
13	NH3-N (mg N/L)		0.08			0.04
14	NO2+NO3 (mg N/L)		1.53			
15	NO2-N (mgN/L)		0.05			
16	NO3-N (mgN/L)		1.48	0.66		1.37
17	o-PO4-P (mg P/L)					0.022
18	P-Tot (mgP/L)		0.031			
19	SiO2 (mg/L)		20.8			5.9
20	SO4 (mg/L)		87.3	132.7		18.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Pb (µg/L)					
6	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		72	107		76
2	HAR_Total (mgCaCO3/L)		134	249		100
3	Na% (%)		55	54		36
4	RSC (-)		0.3	0.0		0.1
5	SAR (-)		3.1	3.7		1.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	0.694	Dry Bed	Dry Bed	Dry Bed	7.681
2	EC_GEN (μmho/cm)	425				355
3	pH_GEN (pH units)	8.1				7.8
4	TDS (mg/L)					202
5	Temp (deg C)	22.5				25.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	4.4				6.4
2	ALK-TOT (mgCaCO3/L)	129				119
3	B (mg/L)					0.11
4	Ca (mg/L)	29				29
5	Cl (mg/L)	69.3				31.7
6	CO3 (mg/L)	5.3				7.7
7	F (mg/L)	0.32				0.28
8	Fe (mg/L)					0.017
9	HCO3 (mg/L)	147				129
10	K (mg/L)	6.5				8.2
11	Mg (mg/L)	16.0				10.2
12	Na (mg/L)	53.0				29.1
13	NH3-N (mg N/L)					0.40
14	NO2+NO3 (mg N/L)					2.50
15	NO2-N (mgN/L)					0.02
16	NO3-N (mgN/L)	0.69				2.48
17	o-PO4-P (mg P/L)					0.110
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)					13.4
20	SO4 (mg/L)	34.9				17.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					13.7
	TRACE & TOXIC					
1	As (μg/L)					
2	Cd (μg/L)					
3	Cr (μg/L)					
4	Cu (μg/L)					
5	Pb (μg/L)					
6	Zn (μg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	72				74
2	HAR_Total (mgCaCO3/L)	139				116
3	Na% (%)	44				34
4	RSC (-)	0.0				0.1
5	SAR (-)	2.0				1.2
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	1.261	Dry Bed	Dry Bed
2	EC_GEN (μmho/cm)			697		
3	pH_GEN (pH units)			8.0		
4	TDS (mg/L)					
5	Temp (deg C)			19.5		
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			0.0		
2	ALK-TOT (mgCaCO3/L)			160		
3	B (mg/L)			0.27		
4	Ca (mg/L)			34		
5	Cl (mg/L)			76.9		
6	CO3 (mg/L)			0.0		
7	F (mg/L)			0.39		
8	Fe (mg/L)			0.060		
9	HCO3 (mg/L)			195		
10	K (mg/L)			6.9		
11	Mg (mg/L)			17.5		
12	Na (mg/L)			81.6		
13	NH3-N (mg N/L)			0.05		
14	NO2+NO3 (mg N/L)			1.20		
15	NO2-N (mgN/L)			0.02		
16	NO3-N (mgN/L)			1.18		
17	o-PO4-P (mg P/L)					
18	P-Tot (mgP/L)			0.032		
19	SiO2 (mg/L)			25.5		
20	SO4 (mg/L)			74.8		
	BIOLOGICAL/BACTERIOLOGICAL					
1	COD (mg/L)					
	TRACE & TOXIC					
1	As (μg/L)			9.28		
2	Cd (μg/L)			0.79		
3	Cr (μg/L)					
4	Cu (μg/L)			1.90		
5	Pb (μg/L)			1.76		
6	Zn (μg/L)			9.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			84		
2	HAR_Total (mgCaCO3/L)			157		
3	Na% (%)			50		
4	RSC (-)			0.1		
5	SAR (-)			2.8		
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.480	Dry Bed	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)	384			
3	pH_GEN (pH units)	8.4			
4	TDS (mg/L)				
5	Temp (deg C)	26.7			
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	10.6			
2	ALK-TOT (mgCaCO3/L)	129			
3	B (mg/L)	0.00			
4	Ca (mg/L)	30			
5	Cl (mg/L)	57.4			
6	CO3 (mg/L)	12.8			
7	F (mg/L)	0.25			
8	Fe (mg/L)	0.000			
9	HCO3 (mg/L)	132			
10	K (mg/L)	6.9			
11	Mg (mg/L)	10.0			
12	Na (mg/L)	44.2			
13	NH3-N (mg N/L)	0.06			
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	2.22			
17	o-PO4-P (mg P/L)	0.000			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	10.1			
20	SO4 (mg/L)	25.2			
	BIOLOGICAL/BACTERIOLOGICAL				
1	COD (mg/L)				
	TRACE & TOXIC				
1	As (µg/L)	1.39			
2	Cd (µg/L)	0.03			
3	Cr (µg/L)	1.67			
4	Cu (µg/L)	3.34			
5	Pb (µg/L)	2.17			
6	Zn (µg/L)	19.75			
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	76			
2	HAR_Total (mgCaCO3/L)	118			
3	Na% (%)	43			
4	RSC (-)	0.2			
5	SAR (-)	1.8			
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : IRUKKANKUDI (CY000K7)

Division : SR Division, Coimbatore

Local River : Vaippar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	Dry Bed	0.156	Dry Bed	Dry Bed
2	EC_GEN (µmho/cm)		424		
3	pH_GEN (pH units)		7.8		
4	TDS (mg/L)		242		
5	Temp (deg C)		28.7		
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)		0.0		
2	ALK-TOT (mgCaCO3/L)		148		
3	B (mg/L)		0.16		
4	Ca (mg/L)		35		
5	Cl (mg/L)		35.8		
6	CO3 (mg/L)		0.0		
7	F (mg/L)		0.30		
8	Fe (mg/L)		0.000		
9	HCO3 (mg/L)		181		
10	K (mg/L)		9.5		
11	Mg (mg/L)		14.3		
12	Na (mg/L)		34.1		
13	NH3-N (mg N/L)		0.06		
14	NO2+NO3 (mg N/L)		4.45		
15	NO2-N (mgN/L)		0.00		
16	NO3-N (mgN/L)		4.45		
17	o-PO4-P (mg P/L)		0.060		
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)		15.4		
20	SO4 (mg/L)		18.9		
	BIOLOGICAL/BACTERIOLOGICAL				
1	COD (mg/L)		12.8		
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Pb (µg/L)				
6	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)		88		
2	HAR_Total (mgCaCO3/L)		147		
3	Na% (%)		32		
4	RSC (-)		0.1		
5	SAR (-)		1.2		
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: MURAPPANADU	Code	: CT000H9
State	: Tamil Nadu	District	Tuticorin
Basin	: EFR South of Cauvery	Independent River	: Thambraparani
Tributary	: -	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Thambraparani
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 4380 Sq. Km.	Bank	: Right
Latitude	: 08°42'52"	Longitude	: 77°50'06"
Zero of Gauge (m)	: 14 (m.s.l) 14.025 (m.s.l)	29/08/1977 01/06/1980	- 31/05/1980
	Opening Date	Closing Date	
Gauge	: 29/08/1977		
Discharge	: 23/11/1977		
Sediment	: 15/02/1979		
Water Quality	: 15/08/1978		

Water Quality Datasheet for the period : 2017-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	17.20	3.132
2	Colour_Cod (-)		Clear	Clear
3	EC_FLD (μmho/cm)		127	17
4	EC_GEN (μmho/cm)		83	107
5	Odour_Code (-)		odour free	odour free
6	pH_FLD (pH units)		7.6	6.9
7	pH_GEN (pH units)		7.2	6.9
8	TDS (mg/L)		48	61
9	Temp (deg C)		29.5	24.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)		0.0	0.0
2	ALK-TOT (mgCaCO3/L)		19	23
3	B (mg/L)		0.02	0.01
4	Ca (mg/L)		5	8
5	Cl (mg/L)		9.4	17.0
6	CO3 (mg/L)		0.0	0.0
7	F (mg/L)		0.10	0.08
8	Fe (mg/L)		0.020	0.020
9	HCO3 (mg/L)		23	28
10	K (mg/L)		3.6	2.8
11	Mg (mg/L)		2.9	1.9
12	Na (mg/L)		7.2	11.1
13	NH3-N (mg N/L)		0.31	0.31
14	NO2+NO3 (mg N/L)		0.42	0.77
15	NO2-N (mgN/L)		0.00	0.24
16	NO3-N (mgN/L)		0.42	0.53
17	o-PO4-P (mg P/L)		0.050	0.170
18	SiO2 (mg/L)		8.4	11.9
19	SO4 (mg/L)		9.0	4.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)		2.7	1.3
2	COD (mg/L)		7.3	11.9
3	DO (mg/L)		5.3	1.5
4	DO_SAT% (%)		69	18
	TRACE & TOXIC			
1	As (μg/L)			8.00
2	Cd (μg/L)			0.00
3	Cr (μg/L)			9.00
4	Cu (μg/L)			3.00
5	Ni (μg/L)			
6	Pb (μg/L)			2.00
7	Zn (μg/L)			12.00
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)		12	20
2	HAR_Total (mgCaCO3/L)		24	27
3	Na% (%)		36	44
4	RSC (-)		0.0	0.0
5	SAR (-)		0.6	0.9
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	10.63	15.43	12.58
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	63	126	229
4	EC_GEN (μmho/cm)	63	96	229
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	7.3	8.0
7	pH_GEN (pH units)	7.2	7.3	8.0
8	TDS (mg/L)	37	55	132
9	Temp (deg C)	28.5	28.5	27.5
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	23	34	67
3	B (mg/L)	0.01	0.05	0.06
4	Ca (mg/L)	6	8	25
5	Cl (mg/L)	5.6	9.3	26.2
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.12	0.13	0.31
8	Fe (mg/L)	0.000	0.030	0.020
9	HCO3 (mg/L)	28	41	82
10	K (mg/L)	1.2	1.6	5.1
11	Mg (mg/L)	1.9	3.7	4.7
12	Na (mg/L)	4.3	6.7	14.9
13	NH3-N (mg N/L)	0.03	0.17	0.09
14	NO2+NO3 (mg N/L)	0.01	0.30	0.21
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	0.30	0.21
17	o-PO4-P (mg P/L)	0.030	0.030	0.060
18	SiO2 (mg/L)	4.3	5.8	6.9
19	SO4 (mg/L)	3.6	3.3	12.9
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.8	1.5	0.6
2	COD (mg/L)	2.2	6.3	5.1
3	DO (mg/L)	6.2	5.5	5.7
4	DO_SAT% (%)	79	71	72
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	15	19	61
2	HAR_Total (mgCaCO3/L)	23	35	81
3	Na% (%)	28	29	27
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	0.4	0.5	0.7
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	138.6	25.17	18.66
2	Colour_Cod (-)	Light Brown	Clear	Clear
3	EC_FLD (μmho/cm)	234	114	132
4	EC_GEN (μmho/cm)	219	169	150
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	7.5	7.7
7	pH_GEN (pH units)	7.9	7.9	8.1
8	TDS (mg/L)	126	97	85
9	Temp (deg C)	25.0	25.0	25.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	65	52	48
3	B (mg/L)	0.13	0.07	0.00
4	Ca (mg/L)	22	16	8
5	Cl (mg/L)	25.4	19.6	18.9
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.28	0.20	0.05
8	Fe (mg/L)	0.000	0.000	0.000
9	HCO3 (mg/L)	79	63	58
10	K (mg/L)	5.2	2.5	1.5
11	Mg (mg/L)	3.8	4.8	7.8
12	Na (mg/L)	17.4	13.9	13.1
13	NH3-N (mg N/L)	0.09	0.09	0.05
14	NO2+NO3 (mg N/L)	0.83	0.78	0.41
15	NO2-N (mgN/L)	0.00	0.00	0.02
16	NO3-N (mgN/L)	0.83	0.78	0.39
17	o-PO4-P (mg P/L)	0.050	0.060	0.040
18	SiO2 (mg/L)	7.7	8.1	6.4
19	SO4 (mg/L)	12.5	7.5	6.6
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	2.6	2.1	3.5
2	COD (mg/L)	10.6	7.5	5.0
3	DO (mg/L)	5.6	5.5	5.9
4	DO_SAT% (%)	68	67	72
	TRACE & TOXIC			
1	As (μg/L)	2.65		
2	Cd (μg/L)	0.05		
3	Cr (μg/L)	1.21		
4	Cu (μg/L)	8.77		
5	Ni (μg/L)	4.78		
6	Pb (μg/L)	2.93		
7	Zn (μg/L)	2.80		
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	55	39	20
2	HAR_Total (mgCaCO3/L)	71	59	52
3	Na% (%)	33	33	35
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	0.9	0.8	0.8
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	16.38	5.390	3.338
2	Colour_Cod (-)	Clear	Clear	Clear
3	EC_FLD (μmho/cm)	124	198	274
4	EC_GEN (μmho/cm)	139	213	274
5	Odour_Code (-)	odour free	odour free	odour free
6	pH_FLD (pH units)	7.5	7.5	8.0
7	pH_GEN (pH units)	7.1	7.3	8.0
8	TDS (mg/L)	79	122	156
9	Temp (deg C)	27.0	28.0	29.0
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	48	65	91
3	B (mg/L)	0.20	0.08	0.06
4	Ca (mg/L)	10	14	24
5	Cl (mg/L)	17.0	28.3	38.6
6	CO3 (mg/L)	0.0	0.0	0.0
7	F (mg/L)	0.05	0.09	0.18
8	Fe (mg/L)	0.300	0.050	0.000
9	HCO3 (mg/L)	58	79	111
10	K (mg/L)	1.1	3.4	4.0
11	Mg (mg/L)	6.8	6.8	8.8
12	Na (mg/L)	10.9	20.7	20.3
13	NH3-N (mg N/L)	0.00	0.00	0.02
14	NO2+NO3 (mg N/L)	0.31	0.20	0.04
15	NO2-N (mgN/L)	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.31	0.20	0.04
17	o-PO4-P (mg P/L)	0.040	0.020	0.020
18	SiO2 (mg/L)	6.8	10.3	12.8
19	SO4 (mg/L)	4.6	9.4	5.1
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)	0.4	1.2	0.4
2	COD (mg/L)	2.5	7.6	3.2
3	DO (mg/L)	5.6	6.0	6.8
4	DO_SAT% (%)	70	77	88
	TRACE & TOXIC			
1	As (μg/L)		0.01	
2	Cd (μg/L)		0.31	
3	Cr (μg/L)		0.86	
4	Cu (μg/L)		0.22	
5	Ni (μg/L)		0.02	
6	Pb (μg/L)		1.61	
7	Zn (μg/L)		30.60	
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)	24	36	60
2	HAR_Total (mgCaCO3/L)	52	64	97
3	Na% (%)	31	40	30
4	RSC (-)	0.0	0.0	0.0
5	SAR (-)	0.7	1.1	0.9
	PESTICIDES			

Water Quality Summary for the period : 2017-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

Sub-Division : Vaigai SD, Madurai

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	390.2	0.000	12.74
2	EC_FLD (µmho/cm)	11	274	17	149
3	EC_GEN (µmho/cm)	11	274	63	158
4	pH_FLD (pH units)	11	8.0	6.9	7.6
5	pH_GEN (pH units)	11	8.1	6.9	7.5
6	TDS (mg/L)	11	156	37	91
7	Temp (deg C)	11	29.5	24.0	27
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	11	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	11	91	19	48
3	B (mg/L)	11	0.20	0.00	0.06
4	Ca (mg/L)	11	25	5	13
5	Cl (mg/L)	11	38.6	5.6	19.6
6	CO3 (mg/L)	11	0.0	0.0	0
7	F (mg/L)	11	0.31	0.05	0.14
8	Fe (mg/L)	11	0.300	0.000	0.04
9	HCO3 (mg/L)	11	111	23	59
10	K (mg/L)	11	5.2	1.1	2.9
11	Mg (mg/L)	11	8.8	1.9	4.9
12	Na (mg/L)	11	20.7	4.3	12.8
13	NH3-N (mg N/L)	11	0.31	0.00	0.1
14	NO2+NO3 (mg N/L)	11	0.83	0.01	0.39
15	NO2-N (mgN/L)	11	0.24	0.00	0.02
16	NO3-N (mgN/L)	11	0.83	0.01	0.37
17	o-PO4-P (mg P/L)	11	0.170	0.020	0.052
18	SiO2 (mg/L)	11	12.8	4.3	8.1
19	SO4 (mg/L)	11	12.9	3.3	7.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	11	3.5	0.4	1.5
2	COD (mg/L)	11	11.9	2.2	6.3
3	DO (mg/L)	11	6.8	1.5	5.4
4	DO_SAT% (%)	11	88	18	68
	TRACE & TOXIC				
1	As (µg/L)	3	8.00	0.01	3.55
2	Cd (µg/L)	3	0.31	0.00	0.12
3	Cr (µg/L)	3	9.00	0.86	3.69
4	Cu (µg/L)	3	8.77	0.22	4
5	Ni (µg/L)	2	4.78	0.02	2.4
6	Pb (µg/L)	3	2.93	1.61	2.18
7	Zn (µg/L)	3	30.60	2.80	15.13
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	11	61	12	33
2	HAR_Total (mgCaCO3/L)	11	97	23	53
3	Na% (%)	11	44	27	33
4	RSC (-)	11	0.0	0.0	0
5	SAR (-)	11	1.1	0.4	0.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	9.166	10.89	8.243	7.620	5.452
2	EC_FLD (µmho/cm)	131	146	119	115	125
3	EC_GEN (µmho/cm)	136	151	124	101	105
4	pH_FLD (pH units)	7.4	7.3	7.4	7.4	7.4
5	pH_GEN (pH units)	7.5	7.5	7.4	7.3	7.6
6	TDS (mg/L)					
7	Temp (deg C)	27.6	27.4	27.1	26.6	27.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	42	46	43	35	36
3	B (mg/L)	0.21	0.16	0.12	0.16	
4	Ca (mg/L)	12	12	11	12	10
5	Cl (mg/L)	13.4	17.0	16.0	10.6	13.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.18	0.18	0.16	0.29	0.18
8	Fe (mg/L)	0.070	0.078	0.153	0.089	
9	HCO3 (mg/L)	51	56	52	43	44
10	K (mg/L)	1.7	2.2	1.8	1.8	1.7
11	Mg (mg/L)	4.1	4.3	4.5	2.9	3.9
12	Na (mg/L)	9.8	11.2	9.4	6.2	7.4
13	NH3-N (mg N/L)	0.05	0.05	0.13	0.05	
14	NO2+NO3 (mg N/L)	1.54	1.01			
15	NO2-N (mgN/L)	0.02	0.02			
16	NO3-N (mgN/L)	1.52	0.99	0.37	2.22	0.18
17	o-PO4-P (mg P/L)		0.013	0.061	0.132	
18	P-Tot (mgP/L)	0.011				
19	SiO2 (mg/L)	9.6	9.2	10.1	8.9	
20	SO4 (mg/L)	5.7	6.7	2.3	4.5	4.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.1	1.0	1.1	1.5	1.7
2	COD (mg/L)					
3	DO (mg/L)	5.9	6.0	6.2	6.5	6.2
4	DO_SAT% (%)	74	75	78	81	79
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	30	31	26	30	26
2	HAR_Total (mgCaCO3/L)	47	49	45	42	42
3	Na% (%)	33	32	31	23	27
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.7	0.6	0.4	0.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	3.083	12.70	7.876	12.14	8.822
2	EC_FLD (µmho/cm)	124	114	146	166	149
3	EC_GEN (µmho/cm)	97	127	146	173	160
4	pH_FLD (pH units)	7.4	7.5	7.3	7.4	7.6
5	pH_GEN (pH units)	7.2	7.3	7.3	7.6	7.4
6	TDS (mg/L)			79	100	91
7	Temp (deg C)	26.8	26.1	26.9	28.9	28.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	32	42	51	51	48
3	B (mg/L)				0.05	0.06
4	Ca (mg/L)	10	12	14	16	13
5	Cl (mg/L)	13.3	14.8	19.8	24.4	20.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.18	0.13	0.14	0.14	0.19
8	Fe (mg/L)		0.280		0.030	0.007
9	HCO3 (mg/L)	38	51	62	63	58
10	K (mg/L)	1.6	1.9	3.1	3.6	3.0
11	Mg (mg/L)	1.9	4.3	4.0	4.8	4.5
12	Na (mg/L)	8.8	8.2	13.4	15.6	13.8
13	NH3-N (mg N/L)		0.17	0.13	0.14	0.22
14	NO2+NO3 (mg N/L)				1.08	0.48
15	NO2-N (mgN/L)				0.00	0.00
16	NO3-N (mgN/L)	0.10	0.15	0.28	1.08	0.48
17	o-PO4-P (mg P/L)				0.034	0.032
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				9.6	8.1
20	SO4 (mg/L)	3.6	4.4	5.1	7.8	7.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.2	0.9	1.4	1.7	1.5
2	COD (mg/L)		6.5	13.6	10.4	8.3
3	DO (mg/L)	5.9	5.6	5.8	5.6	5.5
4	DO_SAT% (%)	74	69	73	72	71
	TRACE & TOXIC					
1	As (µg/L)	12.67	0.49			
2	Cd (µg/L)	0.14	0.01			
3	Cr (µg/L)	2.90	22.01			
4	Cu (µg/L)	7.77	3.96			
5	Hg (µg/L)		0.19			
6	Ni (µg/L)	3.69	16.16			
7	Pb (µg/L)	2.93	7.73			
8	Zn (µg/L)	1.06	12.00			
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	25	30	35	39	33
2	HAR_Total (mgCaCO3/L)	33	48	51	59	52
3	Na% (%)	37	26	35	36	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.5	0.8	0.9	0.8
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood Jun - Oct	Winter			
			Nov - Feb			
			2007	2007-2008	2008-2009	2009-2010
	PHYSICAL					
1	Q (cumec)	9.278	11.55	15.72	13.17	14.66
2	EC_FLD (µmho/cm)	83	215	304	196	195
3	EC_GEN (µmho/cm)	87	238	315	203	181
4	pH_FLD (pH units)	7.4	7.5	7.4	7.5	7.5
5	pH_GEN (pH units)	7.1	7.7	7.6	7.5	7.7
6	TDS (mg/L)	50				
7	Temp (deg C)	27.6	26.4	26.3	26.1	25.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	25	71	105	71	67
3	B (mg/L)	0.02	0.18	0.08	0.38	0.14
4	Ca (mg/L)	7	19	26	19	20
5	Cl (mg/L)	10.3	25.8	42.8	26.3	26.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.21	0.38	0.35	0.22
8	Fe (mg/L)	0.017	0.070	0.117	0.243	0.000
9	HCO3 (mg/L)	30	86	128	87	82
10	K (mg/L)	2.3	3.0	4.1	2.9	3.9
11	Mg (mg/L)	2.6	8.0	13.0	7.8	6.1
12	Na (mg/L)	7.3	17.2	26.5	15.4	14.4
13	NH3-N (mg N/L)	0.20	0.04		0.07	0.04
14	NO2+NO3 (mg N/L)	0.37	1.41			
15	NO2-N (mgN/L)	0.06	0.01			
16	NO3-N (mgN/L)	0.31	1.40	0.24	0.82	2.07
17	o-PO4-P (mg P/L)	0.070		0.010	0.060	0.094
18	P-Tot (mgP/L)		0.024			
19	SiO2 (mg/L)	7.6	12.6	1.3	16.7	14.6
20	SO4 (mg/L)	5.0	8.0	15.4	3.4	8.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.6	1.1	1.1	1.3	0.8
2	COD (mg/L)	6.9				
3	DO (mg/L)	4.6	6.0	6.3	5.9	6.2
4	DO_SAT% (%)	59	74	77	73	75
	TRACE & TOXIC					
1	As (µg/L)	8.00				
2	Cd (µg/L)	0.00				
3	Cr (µg/L)	9.00				
4	Cu (µg/L)	3.00				
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)	2.00				
8	Zn (µg/L)	12.00				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	16	47	65	48	50
2	HAR_Total (mgCaCO3/L)	27	81	119	80	75
3	Na% (%)	34	31	32	28	28
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.8	1.1	0.7	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	36.05	11.27	11.19	38.72	75.50
2	EC_FLD (µmho/cm)	171	218	199	265	282
3	EC_GEN (µmho/cm)	155	241	199	265	282
4	pH_FLD (pH units)	7.7	7.6	7.4	7.5	7.5
5	pH_GEN (pH units)	7.6	7.4	7.4	7.6	7.5
6	TDS (mg/L)				149	168
7	Temp (deg C)	25.4	24.5	25.4	26.1	26.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	55	75	67	88	84
3	B (mg/L)					0.10
4	Ca (mg/L)	14	23	18	21	27
5	Cl (mg/L)	20.5	27.9	22.0	35.3	40.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.29	0.23	0.21	0.31	0.29
8	Fe (mg/L)	0.050			0.023	0.020
9	HCO3 (mg/L)	67	91	82	107	103
10	K (mg/L)	3.7	4.1	2.6	5.1	5.6
11	Mg (mg/L)	6.1	7.8	7.5	10.0	9.1
12	Na (mg/L)	12.1	16.2	12.4	22.8	24.5
13	NH3-N (mg N/L)			0.15	0.20	0.14
14	NO2+NO3 (mg N/L)				1.25	2.36
15	NO2-N (mgN/L)				0.04	0.02
16	NO3-N (mgN/L)	0.24	0.51	0.15	1.31	2.34
17	o-PO4-P (mg P/L)				0.010	0.103
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				11.6	16.0
20	SO4 (mg/L)	7.5	14.1	7.7	8.4	12.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.4	1.0	0.7	1.1	1.6
2	COD (mg/L)		8.2	5.6	7.5	9.9
3	DO (mg/L)	6.2	5.7	5.6	5.8	5.9
4	DO_SAT% (%)	75	68	69	71	72
	TRACE & TOXIC					
1	As (µg/L)	0.30				
2	Cd (µg/L)	1.81			0.62	
3	Cr (µg/L)	2.43			3.75	
4	Cu (µg/L)	17.90			4.96	
5	Hg (µg/L)					
6	Ni (µg/L)	1.92			2.21	
7	Pb (µg/L)	1.65			6.63	
8	Zn (µg/L)	18.00			3.75	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	34	57	46	54	67
2	HAR_Total (mgCaCO3/L)	59	90	77	95	105
3	Na% (%)	29	27	25	33	33
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.7	0.6	1.0	1.0
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	3.211	48.75	11.27	8.594	9.625
2	EC_FLD (µmho/cm)	160	177	299	200	135
3	EC_GEN (µmho/cm)	197	192	309	173	156
4	pH_FLD (pH units)	7.7	7.8	7.8	7.4	7.4
5	pH_GEN (pH units)	7.6	8.0	7.7	7.5	7.5
6	TDS (mg/L)	115	110			
7	Temp (deg C)	26.6	25.6	28.2	29.7	28.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	58	58	89	66	54
3	B (mg/L)	0.03	0.06	0.31	0.29	0.33
4	Ca (mg/L)	20	18	21	15	12
5	Cl (mg/L)	26.1	22.5	39.4	29.0	22.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.18	0.21	0.26	0.20	0.32
8	Fe (mg/L)	0.020	0.005	0.067	0.012	0.245
9	HCO3 (mg/L)	71	71	108	80	66
10	K (mg/L)	3.6	3.6	3.6	2.3	1.6
11	Mg (mg/L)	2.9	5.3	9.1	8.1	5.8
12	Na (mg/L)	18.0	14.8	26.4	19.0	12.9
13	NH3-N (mg N/L)	0.27	0.08	0.04	0.11	
14	NO2+NO3 (mg N/L)	0.50	0.56	0.89		
15	NO2-N (mgN/L)	0.02	0.00	0.00		
16	NO3-N (mgN/L)	0.48	0.55	0.89	0.12	0.48
17	o-PO4-P (mg P/L)	0.095	0.052		0.021	0.062
18	P-Tot (mgP/L)			0.032		
19	SiO2 (mg/L)	8.2	7.2	13.4	14.3	13.2
20	SO4 (mg/L)	8.7	9.9	16.2	5.9	1.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	2.2	1.0	1.6	2.3
2	COD (mg/L)	9.5	7.1			
3	DO (mg/L)	5.4	5.7	5.9	6.1	5.7
4	DO_SAT% (%)	67	70	75	80	73
	TRACE & TOXIC					
1	As (µg/L)	2.21	2.65	4.22	1.71	
2	Cd (µg/L)	0.04	0.05	0.55		
3	Cr (µg/L)	0.40	1.21			
4	Cu (µg/L)	2.72	8.77	1.19	1.73	
5	Hg (µg/L)					
6	Ni (µg/L)	2.18	4.78		10.32	
7	Pb (µg/L)	0.16	2.93			
8	Zn (µg/L)	8.00	2.80	7.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	49	44	53	39	31
2	HAR_Total (mgCaCO3/L)	61	66	91	72	55
3	Na% (%)	37	32	38	35	33
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.0	0.8	1.2	1.0	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	6.455	6.833	6.348	7.213
2	EC_FLD (µmho/cm)	150	162	181	173
3	EC_GEN (µmho/cm)	152	134	200	173
4	pH_FLD (pH units)	7.5	7.6	7.5	7.7
5	pH_GEN (pH units)	7.5	7.5	7.3	7.7
6	TDS (mg/L)				78
7	Temp (deg C)	29.0	25.2	27.8	26.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	53	48	73	57
3	B (mg/L)	0.00			
4	Ca (mg/L)	15	12	20	15
5	Cl (mg/L)	21.8	18.9	22.9	20.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0
7	F (mg/L)	0.12	0.33	0.45	0.13
8	Fe (mg/L)	0.073	0.010	0.002	0.051
9	HCO3 (mg/L)	65	59	89	70
10	K (mg/L)	2.4	2.3	2.5	2.9
11	Mg (mg/L)	4.5	4.5	7.1	5.8
12	Na (mg/L)	12.1	12.3	14.0	12.9
13	NH3-N (mg N/L)	0.00		0.23	0.13
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	0.50	0.12	0.10	0.23
17	o-PO4-P (mg P/L)	0.000			
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	17.6			
20	SO4 (mg/L)	5.6	4.1	5.6	3.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.5	1.3	0.7	1.2
2	COD (mg/L)			3.7	6.0
3	DO (mg/L)	5.8	5.8	5.8	6.1
4	DO_SAT% (%)	75	71	74	75
	TRACE & TOXIC				
1	As (µg/L)	0.54	1.03	0.70	3.14
2	Cd (µg/L)	0.02	0.03	0.19	0.05
3	Cr (µg/L)	0.82	15.44	0.75	1.12
4	Cu (µg/L)	3.52	0.13	1.42	2.19
5	Hg (µg/L)			0.24	
6	Ni (µg/L)		1.14	8.49	10.19
7	Pb (µg/L)	0.13	3.83	1.65	0.85
8	Zn (µg/L)	17.66	20.00	1.11	8.00
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	37	29	49	38
2	HAR_Total (mgCaCO3/L)	56	48	79	63
3	Na% (%)	32	34	27	30
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.8	0.7	0.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : MURAPPANADU (CT000H9)

Division : SR Division, Coimbatore

Local River : Thambraparani

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	10.14	13.23	2.206	8.370
2	EC_FLD (µmho/cm)	170	166	144	199
3	EC_GEN (µmho/cm)	183	167	155	209
4	pH_FLD (pH units)	7.9	7.2	7.7	7.7
5	pH_GEN (pH units)	8.0	7.4	7.7	7.4
6	TDS (mg/L)	105	95	90	119
7	Temp (deg C)	28.7	28.0	27.8	28.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	2.6	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	50	44	42	68
3	B (mg/L)	0.00	0.10	0.04	0.11
4	Ca (mg/L)	15	15	11	16
5	Cl (mg/L)	28.3	23.0	23.8	27.9
6	CO3 (mg/L)	3.1	0.0	0.0	0.0
7	F (mg/L)	0.23	0.14	0.10	0.11
8	Fe (mg/L)	0.020	0.000	0.025	0.117
9	HCO3 (mg/L)	55	53	52	83
10	K (mg/L)	3.3	3.0	3.1	2.8
11	Mg (mg/L)	5.8	3.8	4.3	7.5
12	Na (mg/L)	17.5	15.4	16.8	17.3
13	NH3-N (mg N/L)	0.12	0.05	0.17	0.00
14	NO2+NO3 (mg N/L)	1.14	2.18	0.37	0.18
15	NO2-N (mgN/L)	0.00	0.00	0.10	0.00
16	NO3-N (mgN/L)	1.14	2.18	0.27	0.18
17	o-PO4-P (mg P/L)	0.023	0.043	0.030	0.027
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	17.1	12.0	7.4	9.9
20	SO4 (mg/L)	6.5	6.9	5.5	6.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	1.6	1.9	1.4	0.7
2	COD (mg/L)	11.8	13.8	11.3	4.4
3	DO (mg/L)	6.1	5.5	5.0	6.1
4	DO_SAT% (%)	78	70	63	78
	TRACE & TOXIC				
1	As (µg/L)				0.01
2	Cd (µg/L)				0.31
3	Cr (µg/L)				0.86
4	Cu (µg/L)				0.22
5	Hg (µg/L)				
6	Ni (µg/L)				0.02
7	Pb (µg/L)				1.61
8	Zn (µg/L)				30.60
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	37	38	27	40
2	HAR_Total (mgCaCO3/L)	61	54	45	71
3	Na% (%)	37	37	43	34
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	1.0	0.9	1.1	0.9
	PESTICIDES				

HISTORY SHEET

		Water Year	: 2017-2018
Site	: A.P.PURAM	Code	: CTA00J1
State	: Tamil Nadu	District	Tirunelveli
Basin	: EFR South of Cauvery	Independent River	: Thambraparani
Tributary	: Chittar	Sub Tributary	: -
Sub-Sub Tributary	: -	Local River	: Chittar
Division	: SR Division, Coimbatore	Sub-Division	: Vaigai SD, Madurai
Drainage Area	: 1095 Sq. Km.	Bank	: Right
Latitude	: 08°54'05"	Longitude	: 77°38'55"
Zero of Gauge (m)	: 63 (m.s.l) 61 (m.s.l)	11/06/1978 01/06/1980	- 31/05/1980
	Opening Date	Closing Date	
Gauge	: 11/06/1978		
Discharge	: 01/12/1979		
Sediment	:		
Water Quality	: 01/06/1993		

Water Quality Datasheet for the period : 2017-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/06/2017	01/07/2017	01/08/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/09/2017	03/10/2017	01/11/2017
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	Dry Bed	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/12/2017	01/01/2018	01/02/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	No Flow	No Flow	No Flow
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Datasheet for the period : 2017-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water Analysis

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	01/03/2018	02/04/2018	01/05/2018
		A	A	A
	PHYSICAL			
1	Q (cumec)	Dry Bed	No Flow	Dry Bed
2	Colour_Cod (-)			
3	EC_FLD (μmho/cm)			
4	EC_GEN (μmho/cm)			
5	Odour_Code (-)			
6	pH_FLD (pH units)			
7	pH_GEN (pH units)			
8	TDS (mg/L)			
9	Temp (deg C)			
	CHEMICAL			
1	Alk-Phen (mgCaCO3/L)			
2	ALK-TOT (mgCaCO3/L)			
3	B (mg/L)			
4	Ca (mg/L)			
5	Cl (mg/L)			
6	CO3 (mg/L)			
7	F (mg/L)			
8	Fe (mg/L)			
9	HCO3 (mg/L)			
10	K (mg/L)			
11	Mg (mg/L)			
12	Na (mg/L)			
13	NH3-N (mg N/L)			
14	NO2+NO3 (mg N/L)			
15	NO2-N (mgN/L)			
16	NO3-N (mgN/L)			
17	o-PO4-P (mg P/L)			
18	SiO2 (mg/L)			
19	SO4 (mg/L)			
	BIOLOGICAL/BACTERIOLOGICAL			
1	BOD3-27 (mg/L)			
2	COD (mg/L)			
3	DO (mg/L)			
4	DO_SAT% (%)			
	TRACE & TOXIC			
1	As (μg/L)			
2	Cd (μg/L)			
3	Cr (μg/L)			
4	Cu (μg/L)			
5	Ni (μg/L)			
6	Pb (μg/L)			
7	Zn (μg/L)			
	CHEMICAL INDICES			
1	HAR_Ca (mgCaCO3/L)			
2	HAR_Total (mgCaCO3/L)			
3	Na% (%)			
4	RSC (-)			
5	SAR (-)			
	PESTICIDES			

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2007	2008	2009	2010	2011
	PHYSICAL					
1	Q (cumec)	0.023	0.033	0.012	0.004	Dry Bed
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	2583	2508	2620	1620	
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	8.2	8.5	8.2	8.1	
6	TDS (mg/L)					
7	Temp (deg C)	24.1	24.3	24.3	27.5	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	4.0	19.2	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	188	222	251	248	
3	B (mg/L)	0.38	0.47	0.54	0.58	
4	Ca (mg/L)	82	67	82	93	
5	Cl (mg/L)	624.7	614.5	648.1	280.8	
6	CO3 (mg/L)	4.8	27.9	0.0	0.0	
7	F (mg/L)	1.03	1.38	1.58	1.33	
8	Fe (mg/L)	0.082	0.093	0.040	0.114	
9	HCO3 (mg/L)	219	219	306	303	
10	K (mg/L)	8.8	9.0	9.5	8.1	
11	Mg (mg/L)	97.8	85.1	105.6	91.4	
12	Na (mg/L)	325.1	332.3	366.5	186.0	
13	NH3-N (mg N/L)	0.07	0.07	0.14	0.01	
14	NO2+NO3 (mg N/L)	7.69	3.94			
15	NO2-N (mgN/L)	0.05	0.01	2.11		
16	NO3-N (mgN/L)	7.64	3.93	2.10	2.28	
17	o-PO4-P (mg P/L)		0.023	0.039	0.000	
18	P-Tot (mgP/L)	0.071				
19	SiO2 (mg/L)	32.4	42.8	32.6	108.7	
20	SO4 (mg/L)	154.8	156.7	189.7	287.8	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	204	168	205	232	
2	HAR_Total (mgCaCO3/L)	612	522	645	613	
3	Na% (%)	53	58	55	40	
4	SAR (-)	5.7	6.3	6.3	3.3	
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood				
		Jun - Oct				
		2012	2013	2014	2015	2016
	PHYSICAL					
1	Q (cumec)	0.007	0.007	0.007	0.036	0.025
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	3080	344	457	3218	3052
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	7.7	7.9	7.9	8.0	7.6
6	TDS (mg/L)			244	1856	1773
7	Temp (deg C)	27.5	24.5	25.5	27.0	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	346	63	100	269	323
3	B (mg/L)				0.25	0.56
4	Ca (mg/L)	199	32	26	126	126
5	Cl (mg/L)	683.1	64.5	76.8	782.3	694.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.72	0.29	0.39	1.50	1.52
8	Fe (mg/L)				0.023	0.020
9	HCO3 (mg/L)	422	77	122	328	395
10	K (mg/L)	9.1	5.5	5.2	11.6	10.8
11	Mg (mg/L)	63.2	9.6	23.4	119.0	106.8
12	Na (mg/L)	360.5	33.6	39.9	413.7	370.5
13	NH3-N (mg N/L)		0.12	0.02	0.09	0.14
14	NO2+NO3 (mg N/L)				4.53	2.97
15	NO2-N (mgN/L)				0.00	0.00
16	NO3-N (mgN/L)	1.29	1.09	2.23	4.53	2.97
17	o-PO4-P (mg P/L)				0.023	0.150
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				56.8	44.0
20	SO4 (mg/L)	212.2	29.4	36.3	212.4	205.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)		20.0	11.1	20.2	21.3
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	497	79	66	316	314
2	HAR_Total (mgCaCO3/L)	760	119	163	812	759
3	Na% (%)	51	37	34	52	51
4	SAR (-)	5.7	1.3	1.4	6.4	5.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Flood	Winter			
		Jun - Oct	Nov - Feb			
		2017	2007-2008	2008-2009	2009-2010	2010-2011
	PHYSICAL					
1	Q (cumec)	Dry Bed	0.128	0.115	0.092	0.036
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		1819	1537	1633	1917
4	pH_FLD (pH units)					
5	pH_GEN (pH units)		8.1	7.9	7.8	7.7
6	TDS (mg/L)					
7	Temp (deg C)		22.5	22.4	22.8	21.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	4.0	0.0
2	ALK-TOT (mgCaCO3/L)		237	287	283	211
3	B (mg/L)		0.37	0.27	0.71	0.40
4	Ca (mg/L)		74	73	77	99
5	Cl (mg/L)		388.0	331.9	372.1	470.3
6	CO3 (mg/L)		0.0	6.0	4.8	0.0
7	F (mg/L)		1.05	1.20	1.14	1.64
8	Fe (mg/L)		0.080	0.079	0.110	0.000
9	HCO3 (mg/L)		289	334	336	257
10	K (mg/L)		6.8	8.1	7.0	8.4
11	Mg (mg/L)		64.4	63.1	63.8	84.0
12	Na (mg/L)		196.6	194.1	217.5	246.5
13	NH3-N (mg N/L)		0.06		0.09	0.05
14	NO2+NO3 (mg N/L)		3.26			
15	NO2-N (mgN/L)		0.05		3.83	
16	NO3-N (mgN/L)		3.21	1.69	3.05	4.72
17	o-PO4-P (mg P/L)			0.010	0.077	0.000
18	P-Tot (mgP/L)		0.030			
19	SiO2 (mg/L)		35.2	5.0	35.9	44.2
20	SO4 (mg/L)		122.8	83.8	94.8	171.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Ni (µg/L)					
6	Pb (µg/L)					
7	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		184	181	193	247
2	HAR_Total (mgCaCO3/L)		452	444	459	597
3	Na% (%)		48	48	50	46
4	SAR (-)		4.0	4.0	4.4	4.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter				
		Nov - Feb				
		2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
	PHYSICAL					
1	Q (cumec)	0.067	0.031	0.008	0.449	4.077
2	EC_FLD (µmho/cm)				2382	
3	EC_GEN (µmho/cm)	1390	2347	475	1510	1653
4	pH_FLD (pH units)				8.4	
5	pH_GEN (pH units)	7.5	7.4	7.3	7.9	7.9
6	TDS (mg/L)				850	952
7	Temp (deg C)	21.6	25.0	24.0	25.3	24.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	4.8	0.0
2	ALK-TOT (mgCaCO3/L)	233	252	122	195	194
3	B (mg/L)				0.08	0.32
4	Ca (mg/L)	81	143	41	63	71
5	Cl (mg/L)	338.4	557.1	72.7	329.9	368.2
6	CO3 (mg/L)	0.0	0.0	0.0	5.8	0.0
7	F (mg/L)	1.00	0.49	0.54	0.72	0.86
8	Fe (mg/L)	0.080			0.012	0.027
9	HCO3 (mg/L)	285	308	148	226	237
10	K (mg/L)	6.4	8.7	6.4	9.0	9.2
11	Mg (mg/L)	51.5	63.5	17.2	59.6	57.2
12	Na (mg/L)	186.4	293.8	37.8	174.5	200.5
13	NH3-N (mg N/L)			0.05	0.23	0.34
14	NO2+NO3 (mg N/L)				4.19	4.59
15	NO2-N (mgN/L)				0.01	0.05
16	NO3-N (mgN/L)	3.27	0.97	0.02	3.42	4.54
17	o-PO4-P (mg P/L)				0.020	0.190
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)				31.3	40.0
20	SO4 (mg/L)	108.5	155.9	36.4	88.4	112.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)		35.6	30.0	24.4	13.7
	TRACE & TOXIC					
1	As (µg/L)	0.47				
2	Cd (µg/L)	0.21			7.78	
3	Cr (µg/L)	3.32			8.20	
4	Cu (µg/L)	18.55			5.10	
5	Ni (µg/L)	3.15			1.33	
6	Pb (µg/L)	11.77			5.09	
7	Zn (µg/L)	23.10			2.45	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	203	358	103	156	179
2	HAR_Total (mgCaCO3/L)	418	623	174	405	417
3	Na% (%)	49	50	31	47	46
4	SAR (-)	3.9	5.1	1.2	3.7	3.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2016-2017	2017-2018	2008	2009	2010
	PHYSICAL					
1	Q (cumec)	Dry Bed	Dry Bed	0.982	0.075	0.060
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)			1540	1953	2010
4	pH_FLD (pH units)					
5	pH_GEN (pH units)			8.3	7.9	7.8
6	TDS (mg/L)					
7	Temp (deg C)			24.3	22.7	24.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)			8.7		0.0
2	ALK-TOT (mgCaCO3/L)			262		296
3	B (mg/L)			0.35	0.78	0.79
4	Ca (mg/L)			55	54	77
5	Cl (mg/L)			282.4	498.7	503.7
6	CO3 (mg/L)			10.4	0.0	0.0
7	F (mg/L)			1.06	1.32	1.18
8	Fe (mg/L)			0.080	0.046	0.098
9	HCO3 (mg/L)			298	315	361
10	K (mg/L)			7.5	7.7	7.6
11	Mg (mg/L)			53.1	73.9	86.8
12	Na (mg/L)			174.8	291.4	273.8
13	NH3-N (mg N/L)			0.06	0.14	
14	NO2+NO3 (mg N/L)			2.50		
15	NO2-N (mgN/L)			0.01		
16	NO3-N (mgN/L)			2.49	2.06	2.42
17	o-PO4-P (mg P/L)				0.034	0.069
18	P-Tot (mgP/L)			1.227		
19	SiO2 (mg/L)			32.2	27.7	53.7
20	SO4 (mg/L)			87.7	134.6	162.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)					
2	COD (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)			17.73	50.61	
2	Cd (µg/L)			1.08		
3	Cr (µg/L)				4.78	
4	Cu (µg/L)			2.30	5.53	
5	Ni (µg/L)				34.61	
6	Pb (µg/L)			4.82	1.21	
7	Zn (µg/L)			13.00		
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)			136	136	192
2	HAR_Total (mgCaCO3/L)			358	477	554
3	Na% (%)			51	58	52
4	SAR (-)			4.0	6.1	5.1
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Division : SR Division, Coimbatore

Local River : Chittar

River Water

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2011	2012	2013	2014
	PHYSICAL				
1	Q (cumec)	0.008	0.054	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)	1380	1880		311
4	pH_FLD (pH units)				
5	pH_GEN (pH units)	7.4	7.9		7.1
6	TDS (mg/L)				165
7	Temp (deg C)	26.5	25.2		24.0
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0
2	ALK-TOT (mgCaCO3/L)	176	324		81
3	B (mg/L)				
4	Ca (mg/L)	85	78		31
5	Cl (mg/L)	305.4	471.1		45.4
6	CO3 (mg/L)	0.0	0.0		0.0
7	F (mg/L)	0.81	0.95		0.27
8	Fe (mg/L)		0.010		0.053
9	HCO3 (mg/L)	215	395		99
10	K (mg/L)	7.6	7.9		5.3
11	Mg (mg/L)	46.7	73.2		11.4
12	Na (mg/L)	158.5	301.0		24.4
13	NH3-N (mg N/L)				0.09
14	NO2+NO3 (mg N/L)				
15	NO2-N (mgN/L)				
16	NO3-N (mgN/L)	2.62	1.21		1.45
17	o-PO4-P (mg P/L)				
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)				
20	SO4 (mg/L)	101.7	157.5		30.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)				
2	COD (mg/L)				27.4
	TRACE & TOXIC				
1	As (µg/L)	1.12	1.26		0.02
2	Cd (µg/L)	0.03	0.19		0.04
3	Cr (µg/L)	5.93	17.12		1.03
4	Cu (µg/L)	3.35	5.98		0.27
5	Ni (µg/L)		5.80		10.48
6	Pb (µg/L)	0.51	13.24		0.27
7	Zn (µg/L)	65.29	352.00		8.00
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	212	195		79
2	HAR_Total (mgCaCO3/L)	407	500		126
3	Na% (%)	45	56		29
4	SAR (-)	3.4	5.9		0.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2018

Station Name : A.P.PURAM (CTA00J1)

Local River : Chittar

River Water

Division : SR Division, Coimbatore

Sub-Division : Vaigai SD, Madurai

S.No	Parameters	Summer			
		Mar - May			
		2015	2016	2017	2018
	PHYSICAL				
1	Q (cumec)	0.051	0.072	Dry Bed	Dry Bed
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)	2856	2805		
4	pH_FLD (pH units)				
5	pH_GEN (pH units)	8.0	7.7		
6	TDS (mg/L)	1641	1595		
7	Temp (deg C)	26.2	26.2		
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		
2	ALK-TOT (mgCaCO3/L)	279	262		
3	B (mg/L)	0.45	0.51		
4	Ca (mg/L)	100	111		
5	Cl (mg/L)	668.4	662.3		
6	CO3 (mg/L)	0.0	0.0		
7	F (mg/L)	1.35	1.41		
8	Fe (mg/L)	0.003	0.000		
9	HCO3 (mg/L)	341	319		
10	K (mg/L)	11.1	11.1		
11	Mg (mg/L)	99.1	98.8		
12	Na (mg/L)	365.0	351.7		
13	NH3-N (mg N/L)	0.21	0.20		
14	NO2+NO3 (mg N/L)	4.78	8.29		
15	NO2-N (mgN/L)	0.01	0.00		
16	NO3-N (mgN/L)	4.77	8.29		
17	o-PO4-P (mg P/L)	0.007	0.083		
18	P-Tot (mgP/L)				
19	SiO2 (mg/L)	53.8	48.9		
20	SO4 (mg/L)	179.1	180.7		
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.8			
2	COD (mg/L)	18.3	22.5		
	TRACE & TOXIC				
1	As (µg/L)				
2	Cd (µg/L)				
3	Cr (µg/L)				
4	Cu (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	251	276		
2	HAR_Total (mgCaCO3/L)	664	688		
3	Na% (%)	54	52		
4	SAR (-)	6.2	5.9		
	PESTICIDES				

(केवल कार्यालय उपयोग हेतु)
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वार्षिक जल पुस्तिका

जल गुणवत्ता परिदृश्य

WATER YEAR BOOK

WATER QUALITY SCENARIO

जून 2017 – मई 2018
JUNE 2017 – MAY 2018

पूरब प्रवाही नदियाँ बेसिन
EAST FLOWING RIVERS BASIN



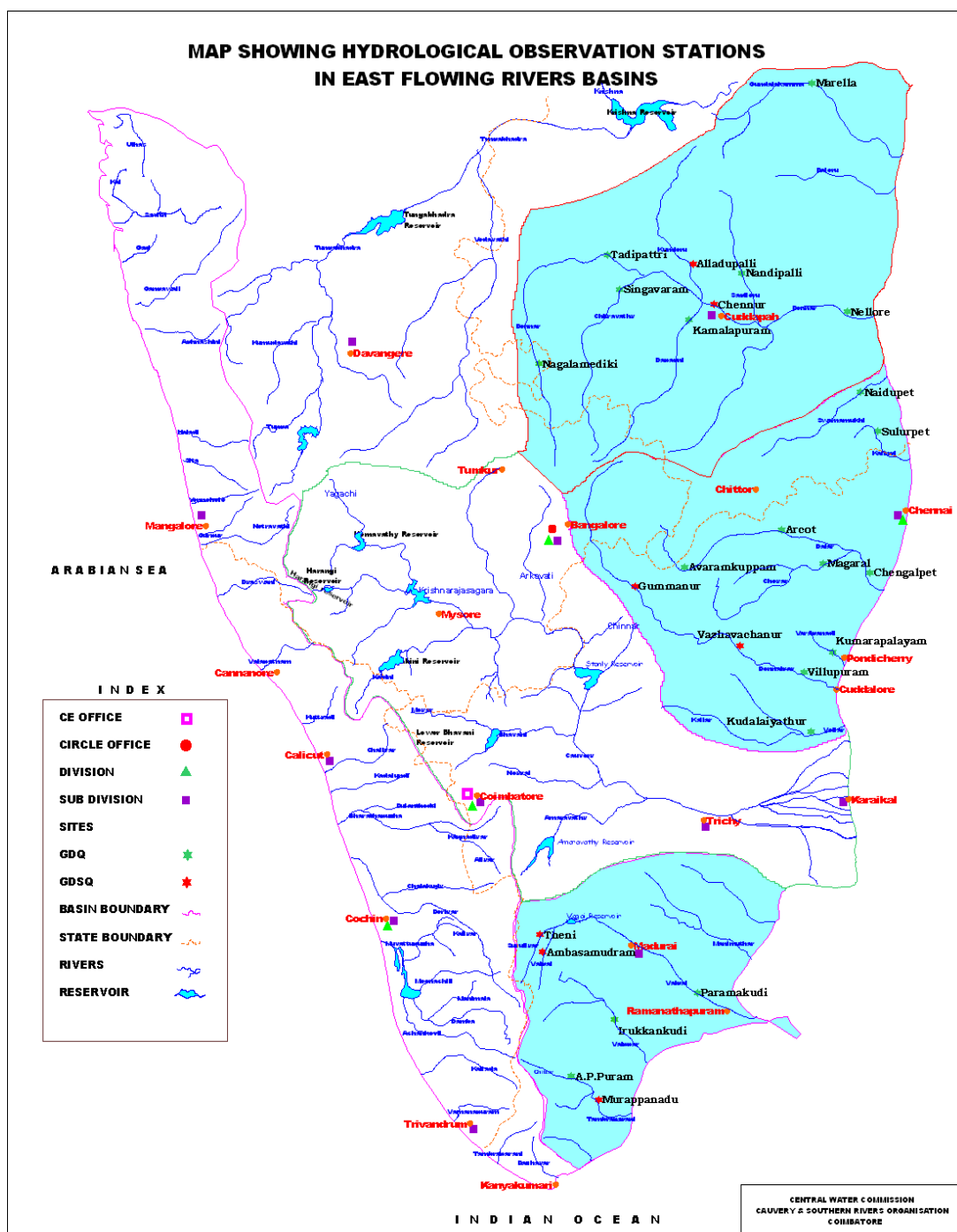
कावेरी एवं दक्षिणी नदियाँ परिमण्डल, बंगलुरु
CAUVERY & SOUTHERN RIVERS CIRCLE, BENGALURU

कावेरी एवं दक्षिणी नदियाँ संगठन, कोयम्बतूर
CAUVERY & SOUTHERN RIVERS ORGANISATION, COIMBATORE

मार्च- 2019
MARCH - 2019

1. INTRODUCTION:

The East Flowing Rivers (South of river Krishna excluding Cauvery Basin) cover large areas in the states of Andhra Pradesh, Tamilnadu and some parts of Karnataka and Union territory of Puducherry.



2. MAJOR RIVERS:

2.1. PENNAR RIVER BASIN

The Pennar River is one of the major East flowing rivers in Southern India. It rises in the Chennakesava hill of the Nandidurg range in Karnataka. The Pennar drains an area of 55,213 Sq.Kms in the states of Karnataka and Andhra Pradesh. The total length of Pennar River is 597 Km of which 61 Km runs in Karnataka and the rest in Andhra Pradesh. This river has six major tributaries viz., the Jayamangali, the Kunderu and the Sagileru joining from the left, the Chitravathi, the Papagini and the Cheyyeru joining on the right. There are eight water quality stations on Pennar river Basin i.e. the sites at **Nagalamadike, Tadipatri, Chennur and Nellore** in the main river, rest on the tributaries viz., Chitravathi at **Singavaram**, Kunderu at **Alladupalli**, Papagni at **Kamalapuram** and Sagileru at **Nandipalli**.

The tree structure of Pennar River Basin is at **Plate – 1**.

2.2. PALAR RIVER BASIN

River Palar rises in the Kolar District of Karnataka State. It has two tributaries viz., Poini and Cheyyar. The total length of the river is 348 Kms. Three out of four stations in Palar Basin are on the main river. They are **Chengalpet, Arcot and Avarankuppam**. The fourth station i.e. **Magaral** is on the tributary Cheyyar. The tree structure of Palar River is at **Plate – 2**.

2.3. PONNAIYAR RIVER BASIN

The Ponnaiyar or the Dakshina Pinakini River rises near Hongashenhalli village at an elevation of the about 900 m. above m.s.l. in the Kolar district of Karnataka. From its origin, the river Ponnaiyar generally flows in the Southern direction for a length of 79 Kms. through Kolar and Bangalore districts of Karnataka before entering the Dharmapuri district of Tamil Nadu. The total length of the river is 326 Kms. The Ponnaiyar drains an area of 16,019 Sq.Kms. There are three water quality stations on this river at **Villupuram, Vazhavachanur and Gummanur**. The tree structure of Ponnaiyar River is at **Plate – 3**.

2.4. VAIGAI RIVER BASIN

River Vaigai originates in Theni district of Tamilnadu and traverses through the state draining in its course a total area of 7741 Sq.Kms. There are three water quality stations on Vaigai basin. Two are on the main river at **Paramakudi** and **Ambasamudram** and the third is on its tributary Suruliar at **Theni**. The river Vaigai remained practically dry throughout the year and had flow only during the North East monsoon. The tributary Suruliar had flow throughout the year. The tree structure of Vaigai River is at **Plate – 4**.

2.5. SWARNAMUKHI RIVER BASIN

The Swarnamukhi is an East Flowing river basin having a small catchment area of 3,225 Sq.Km. It rises at an elevation of 300 m. in the Eastern Ghat ranges near Pakala village in Chittur district of Andhra Pradesh. Its total length is 130 Km. This is an independent river and has no major tributaries and therefore its flow depends only on rainfall in its upper catchment.

The only site on this basin at **Naidupeta**.

2.6. VAIPPAR RIVER BASIN

Vaippar River originates from the Western Ghats near Sivagiri in Thirunelveli district in Tamilnadu. It drains an area of 5069 Sq.Kms and lies entirely in Tamilnadu. The river covers a distance of 125 Kms from its origin to its out-falling into the Gulf of Mannar near Kalattur. The water quality station on this river is located at **Irrukkankudi**.

2.7. THAMBRAPARANI RIVER BASIN

The Thambraparani River originating in the Thirunelveli district of Tamilnadu, traverses through the state and joins the Gulf of Mannar, covering a total length of 130 Km. and draining an area of 5482 Sq.Kms. Its two important tributaries are Chittar and Manimuthar. There are two water quality stations in this basin, one on the main river at **Murappanadu** and another on its tributary Chittar at **A.P.Puram**.

2.8. GUNDLAKAMMA RIVER BASIN

Gundlakamma River originates in the Kurnool district of Andhra Pradesh. The river has a total length of 220 Kms. from its origin to its out fall into the Bay of Bengal.

This perennial river drains an area of 8494 Sq.Kms. The water quality station on this river is located presently at **Marella** and has been shifted from the earlier station 'Thammavaram' and the hydrological observations started at the present site with effect from 28/06/2007.

2.9. KALINGI RIVER BASIN

The river Kalingi is one of the East flowing rivers in Andhra Pradesh. It originates near Kalahasti in Andhra Pradesh and drains completely in Andhra Pradesh and joins Pulicat Lake after Sullurpet. The catchment area of Kalingi river is 5,927 Sq.Km and the length is 76 Km. The important tributary is Kalleru river which joins Kalingi river after Sullurpet town.

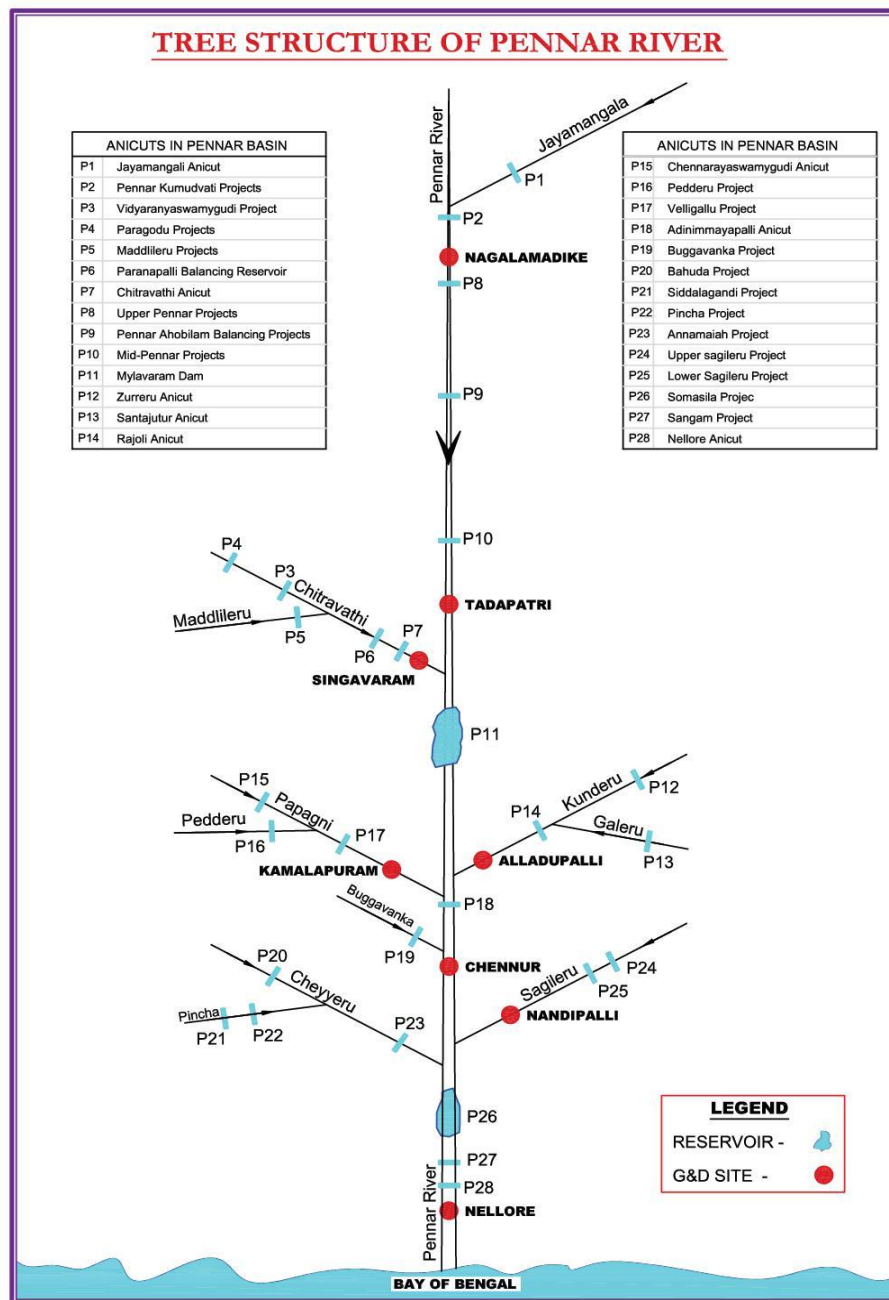
The only site on this basin at **Sullurpet**.

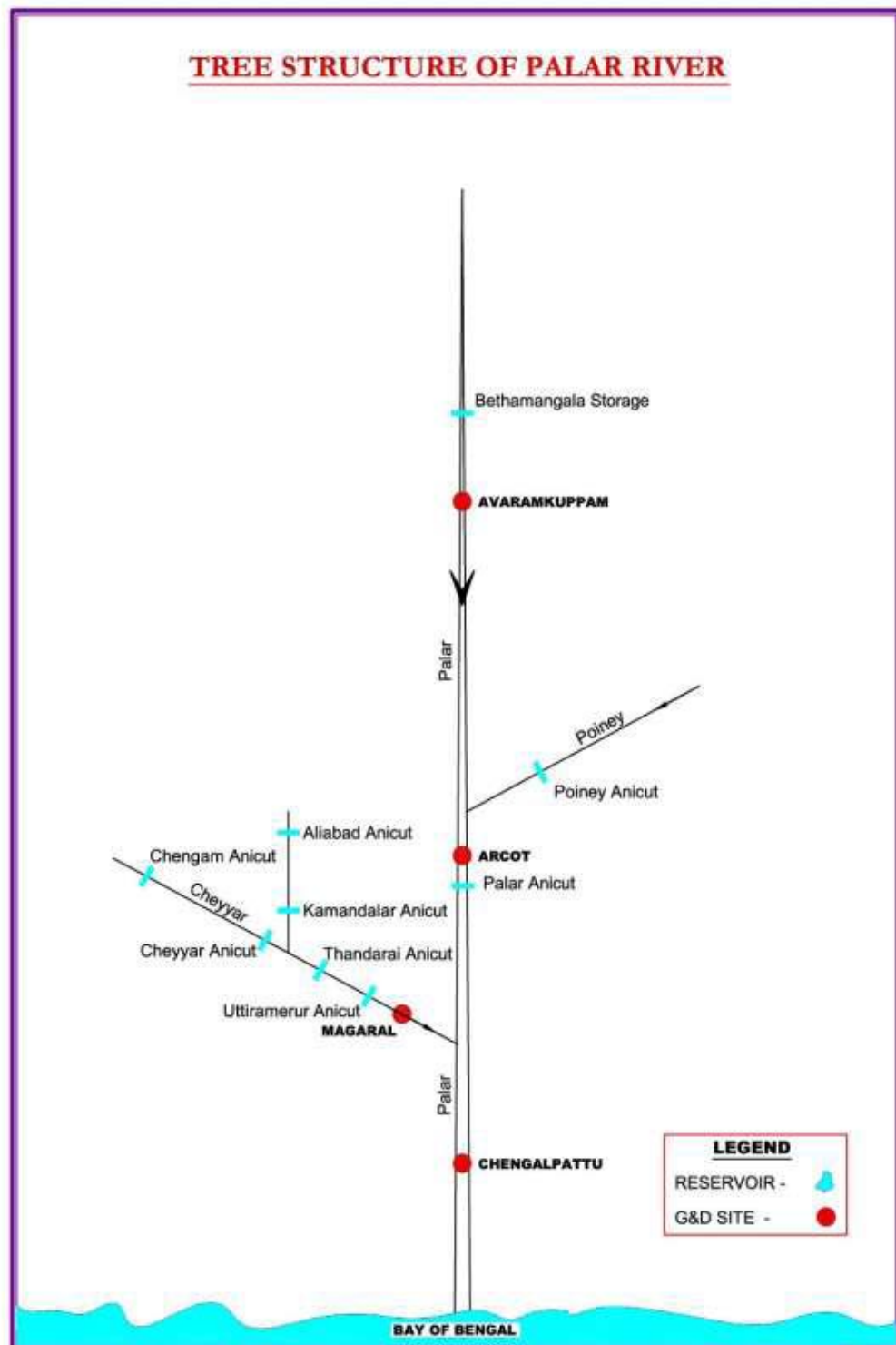
2.10. VELLAR RIVER BASIN

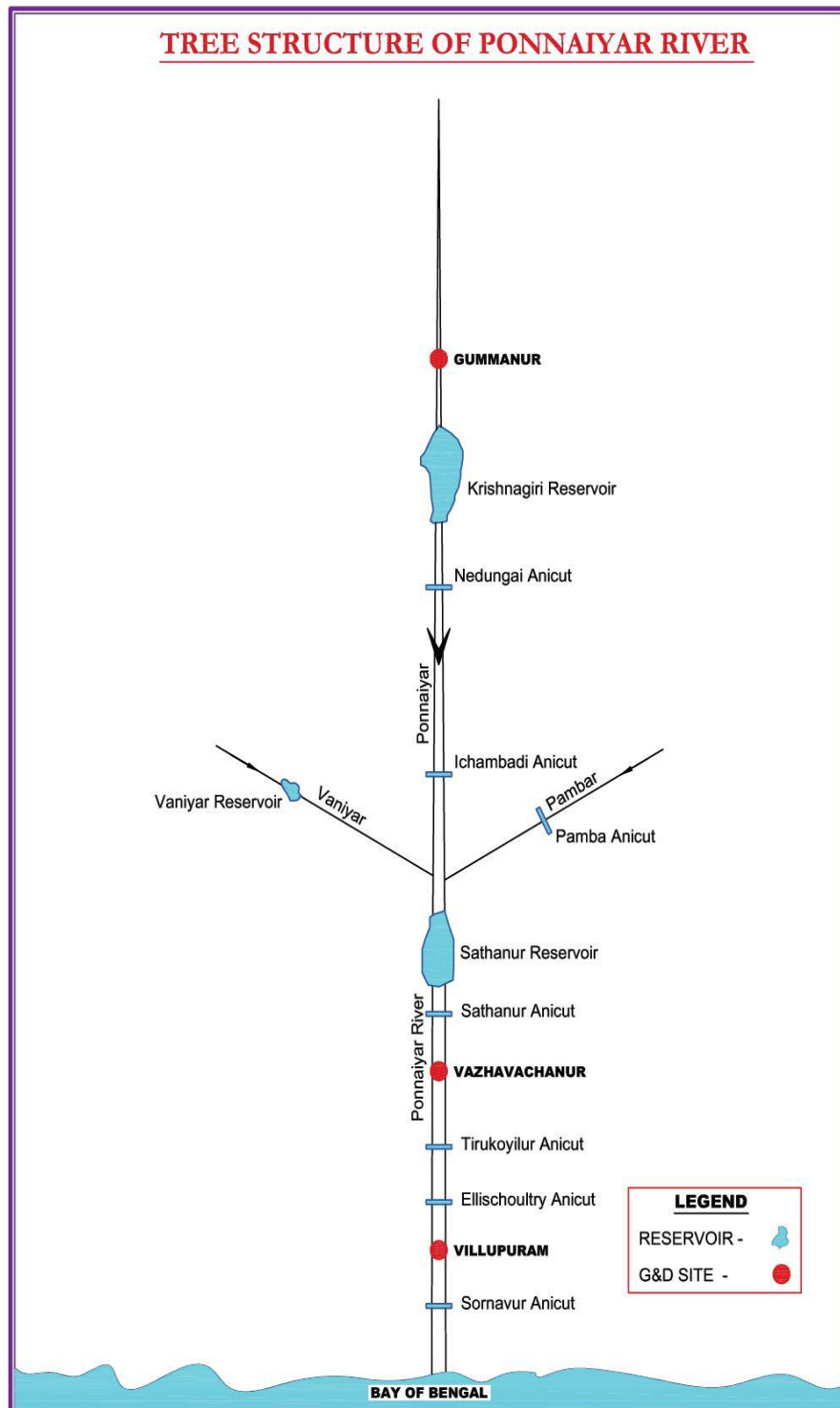
The basin is located between Ponnaiyar and Cauvery basins. The Vellar River rises at an elevation of 900 m near the village of Tumba in the Chittori hills, of the Eastern Ghats in the Salem district of Tamil Nadu. It flows generally in an Easterly direction for a total length of 210 Km in the Salem and Cuddalore districts in Tamil Nadu and finally out falls in to the Bay of Bengal near Porto Nova in Cuddalore district. The Gomukinadhi and Manimukthanadhi are the important left tributaries and Swetanadhi and Chinnar are the right tributaries of the Vellar. The Vellar drains an area of 8,922 Sq.Km. The only site on this basin at **Kudalaiyathur**

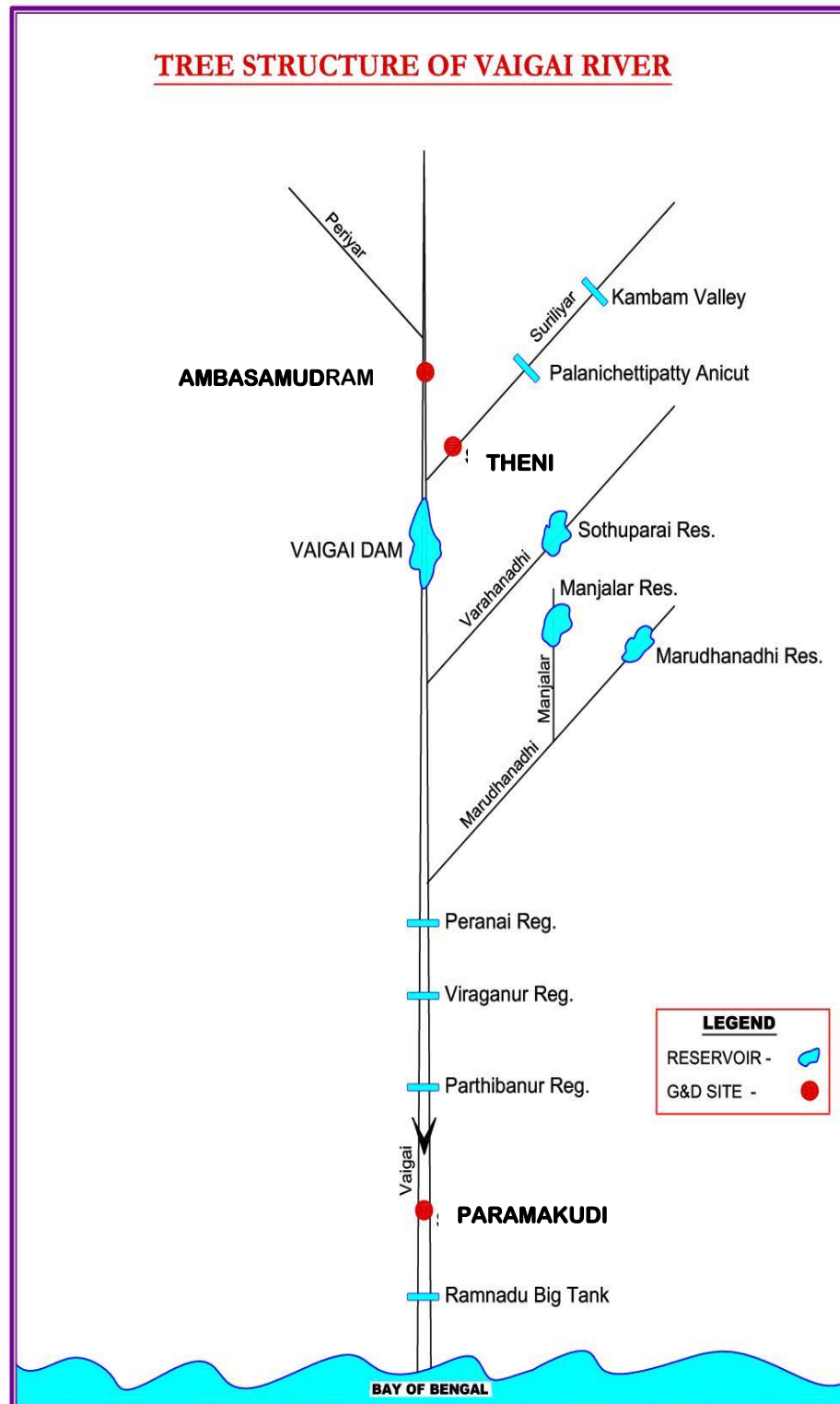
2.11. VARAHANADHI RIVER BASIN

The main river Varahanadhi originates from the Northern part of Pakkammalai hills at an elevation of 566 m above m.s.l. The total drainage area of the basin is 2564 Sq.Kms. The river runs in Easterly direction up to Kodukkur and South-Easterly direction alternately in Tami Nadu and Puduchery states. The total length of Varahanadhi up to its outfall into Bay of Bengal, a little South of Union territory Puduchery, is about 78.50 kms. The only site on this basin is at **Kumarapalayam**.









3. Water Quality Network:

River wise network details in East Flowing Rivers Basin

River	River Type	WQ Sites	Date of Opening	Drainage Area (Sq.Km)	State
Pennar	Main River	Nagalamadike	01/06/1980	5050	Karnataka
		Tadipatri	01/09/1979	12482	Andhra Pradesh
		Chennur	01/09/1989	37981	
		Nellore	01/09/1988	50800	
Chitravathi	Tributary	Singavaram	15/09/1981	6262	Andhra Pradesh
Kunderu	Tributary	Alladupalli	01/07/1987	8758	Andhra Pradesh
Papagni	Tributary	Kamalapuram	01/06/1994	7187	Andhra Pradesh
Sagileru	Tributary	Nandipalli	01/06/1994	2486	Andhra Pradesh
Palar	Main River	Avarankuppam	01/08/1979	3300	Tamil Nadu
		Arcot	01/06/1988	10174	
		Chengalpet	01/06/1979	16230	
Cheyar	Tributary	Magaral	01/11/1983	1803	Tamil Nadu
Ponnaiyar	Main River	Gummanur	20/09/1978	4620	Tamil Nadu
		Vazhavachanur	01/08/1978	10780	
		Villupuram	01/01/1987	12900	
Vaigai	Main River	Ambasamudram	01/08/1999	850	Tamil Nadu
		Paramakudi	05/11/1989	6796	
Suruliyar	Tributary	Theni	15/07/1978	1200	Tamil Nadu
Swarnamukhi	Main River	Naidupeta	01/12/1980	2650	Andhra Pradesh
Vaippar	Main River	Irrukkankudi	01/06/1993	3721	Tamil Nadu
Tambraparani	Main River	Murappanadu	15/08/1978	4380	Tamil Nadu
Chittar	Tributary	A.P. Puram	01/06/1993	1095	Tamil Nadu
Gundlakamma	Main River	Marella	01/09/2007	7681	Andhra Pradesh
Kalingi	Main River	Sulurpet	01/12/1988	5927	Andhra Pradesh
Vellar	Main River	Kudalaiyathur	01/06/1993	7890	Tamil Nadu
Varahanadi	Main River	Kumarapalayam	12/12/2005	2208	Pondicherry

4. Analysis:

Water Quality monitoring provides information on the physical, chemical and biological status of water resources. The river water quality monitoring is a part of hydrological observation of Central Water Commission. The objectives of the river water quality monitoring is to assess the suitability of river water for various designated uses viz, irrigation, drinking purposes, out- door bathing and propagation of wildlife and fisheries, water quality improving or degrading etc.

River Water Quality Data of sites on the main river for the period given in Table – 1 has been taken into consideration for studying the WQ Scenario of the Rivers. Average of yearly Maximum, Average of yearly Minimum and Annual Average for the period of Since Inception, Last 10 years i.e. 2007 – 2008 to 2016 – 2017 and One year (2017 – 2018) for the major parameters like Electrical conductivity, pH, Fluoride, Biochemical Oxygen Demand and Dissolved Oxygen are taken into consideration for concluding the WQ Scenario of Pennar, Palar and Ponnaiyar and Vaigai Rivers.

Table-1

River	WQ Site Name	Year of Inception	Last 10 years	Last One Year
Pennar	Nagalandike	1995 - 1996	2007-08 to 2016-17	2017 - 2018
	Tadipatri	1995 - 1996	2007-08 to 2016-17	2017 - 2018
	Chennur	1995 - 1996	2007-08 to 2016-17	2017 - 2018
	Nellore	1995 - 1996	2007-08 to 2016-17	2017 - 2018
Palar	Avarankuppam	1980 - 1981	2007-08 to 2016-17	2017 - 2018
	Arcot	1995 - 1996	2007-08 to 2016-17	2017 - 2018
	Chengalpet	1995 - 1996	2007-08 to 2016-17	2017 - 2018
Ponnaiyar	Gummanur	1978 - 1979	2007-08 to 2016-17	2017 - 2018
	Vazhavachanur	1995 - 1996	2007-08 to 2016-17	2017 - 2018
	Villupuram	1995 - 1996	2007-08 to 2016-17	2017 - 2018
Vaigai	Ambasamudram	1999 - 2000	2007-08 to 2016-17	2017 - 2018
	Paramakudi	1987 - 1988	2007-08 to 2016-17	2017 - 2018

WQ Scenario of these Rivers is concluded with relation to the Tolerance limits of selected pollution indicating parameters for inland surface waters designated for different

uses as prescribed by the Bureau of Indian Standards (BIS IS: 2296-1982) which is shown in Annexure - IV and Drinking Water Specification as prescribed by Bureau of Indian Standards (IS 10500: 2012) which is shown in Annexure - V.

4.1 Pennar River:

The water quality scenario is being presented in pictorial graph among the sites **Nagalamadike, Tadipatri, Chennur** and **Nellore** on river Pennar under East Flowing Rivers Basin. The data details considered for water quality trend study from upstream to downstream of Pennar River is given below.

4.1.1 Electrical Conductivity (EC) ($\mu\text{mhos/cm}$)

EC values for the period considered is given in Table - 2 and their graphical representation is given in Figure - 1.1, Figure - 1.2 & Figure - 1.3.

Table – 2

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Nagalamadike	477	153	127	299	153	127	364	153	127
Tadipatri	689	497	231	368	289	231	535	403	231
Chennur	1461	1373	1615	440	457	351	890	905	1012
Nellore	874	719	725	456	484	725	616	601	725

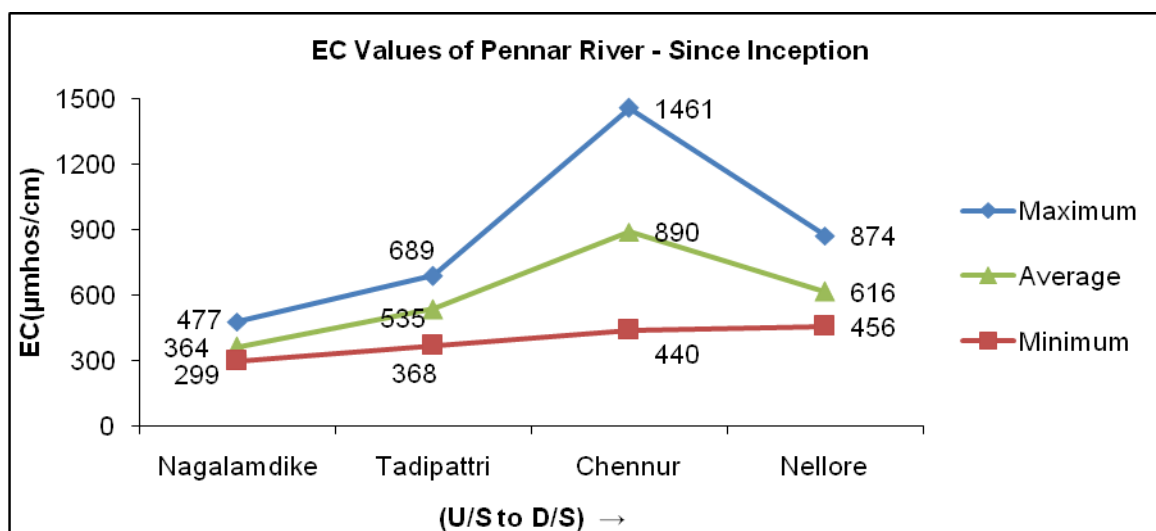


Figure - 1.1

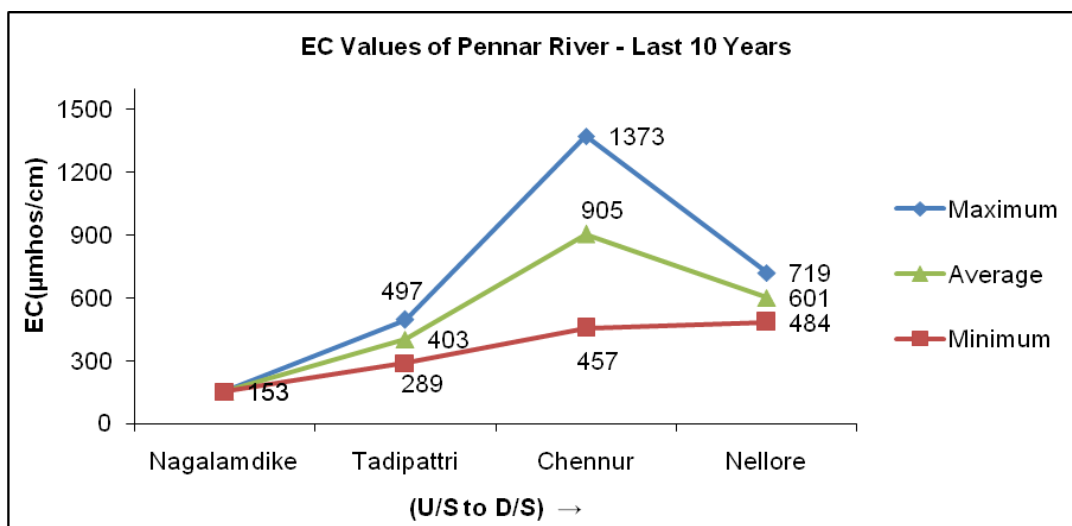


Figure - 1.2

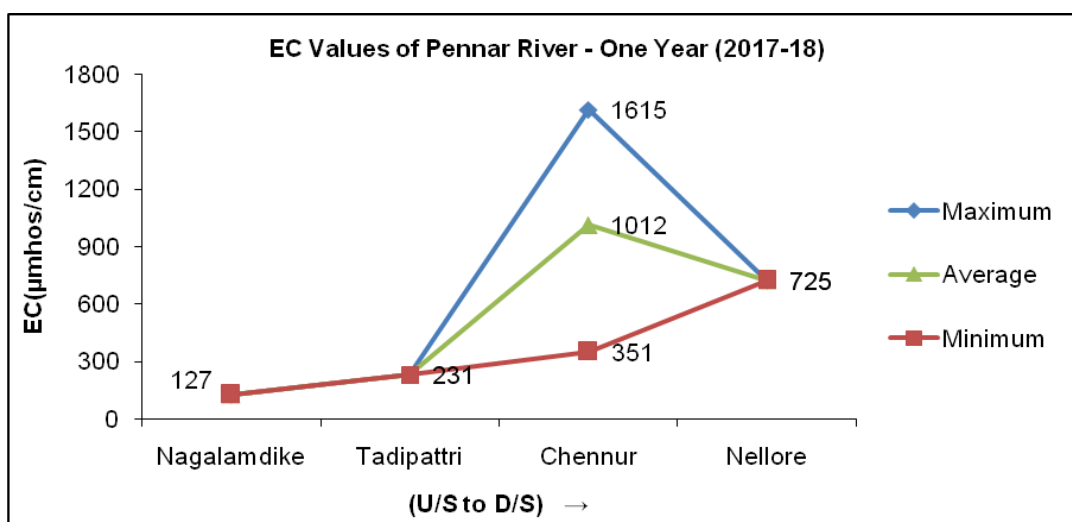


Figure - 1.3

4.1.2 pH

pH values for the period considered is given in Table - 3 and their graphical representation is given in Figure - 2.1, Figure - 2.2 & Figure - 2.3.

Table - 3

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Nagalamadike	7.65	7.50	6.85	7.50	7.50	6.85	7.56	7.50	6.85
Tadipatri	8.31	8.58	7.50	8.01	8.27	7.50	8.16	8.44	7.50
Chennur	8.37	8.38	8.30	7.46	7.39	7.30	7.94	7.91	7.90
Nellore	8.26	8.31	7.80	7.52	7.55	7.80	7.92	7.90	7.80

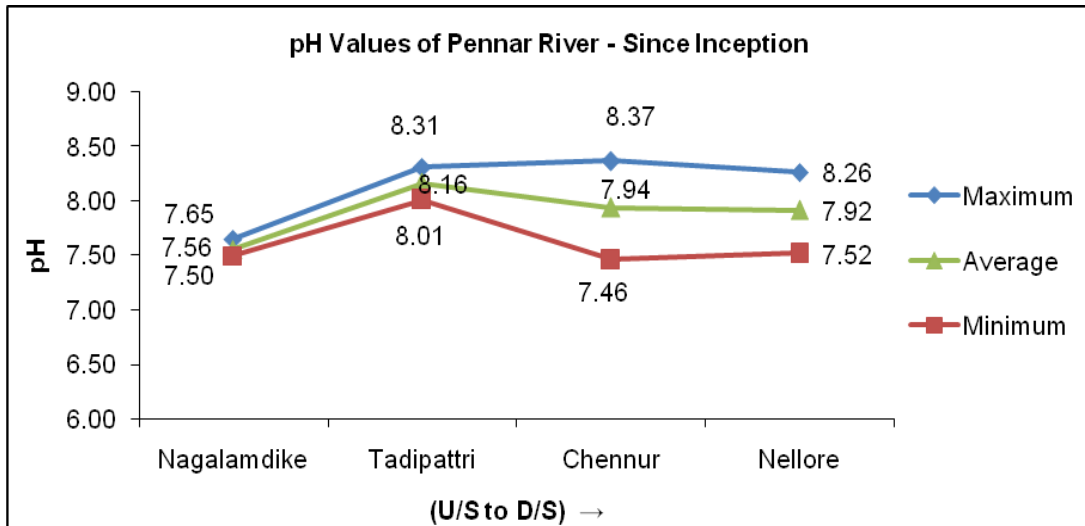


Figure - 2.1

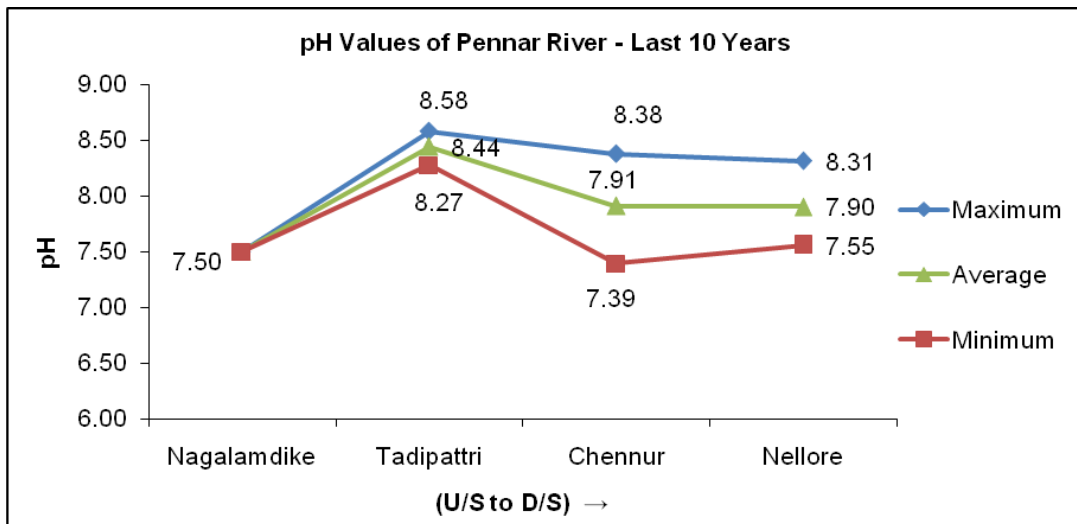


Figure - 2.2

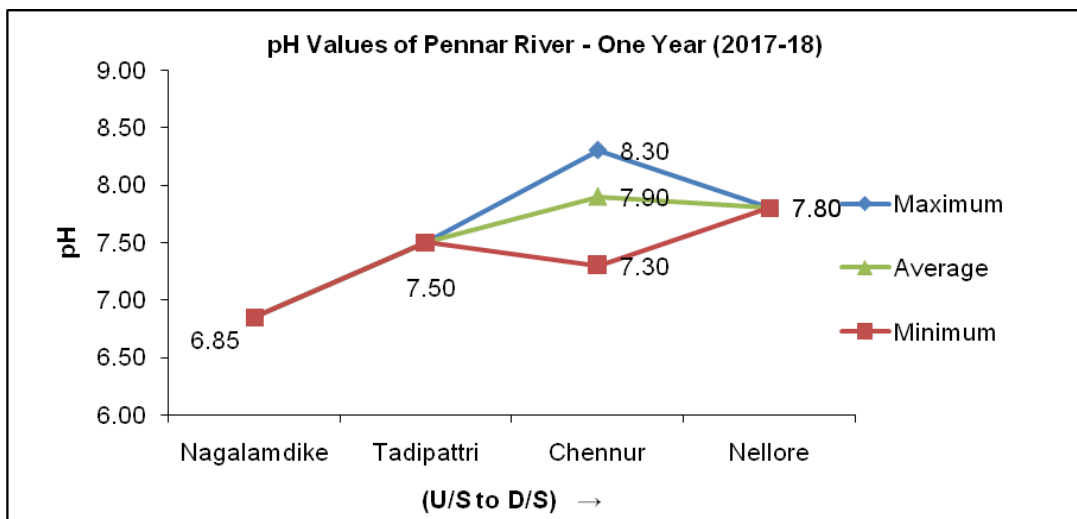


Figure - 2.3

4.1.3 Fluoride, mg/L

Fluoride values for the period considered is given in Table - 4 and their graphical representation is given in Figure - 3.1, Figure - 3.2 & Figure - 3.3.

Table – 4

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Nagalamadike	0.56	0.17	0.14	0.44	0.17	0.14	0.50	0.17	0.14
Tadipatri	1.00	0.86	0.55	0.56	0.68	0.55	0.76	0.78	0.55
Chennur	2.27	1.03	0.95	0.42	0.49	0.12	0.83	0.73	0.68
Nellore	1.05	1.27	0.38	0.40	0.42	0.38	0.64	0.67	0.38

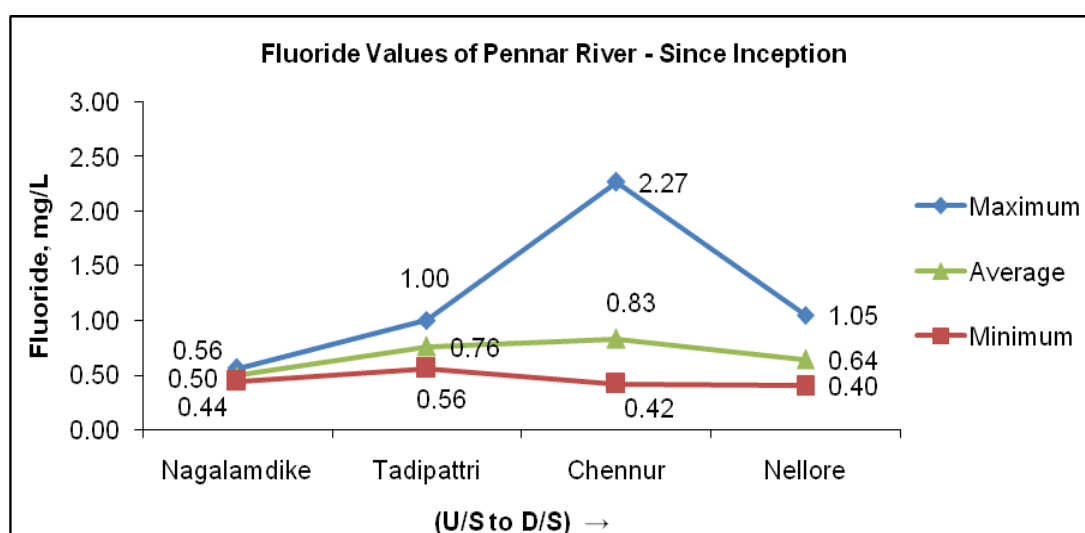


Figure - 3.1

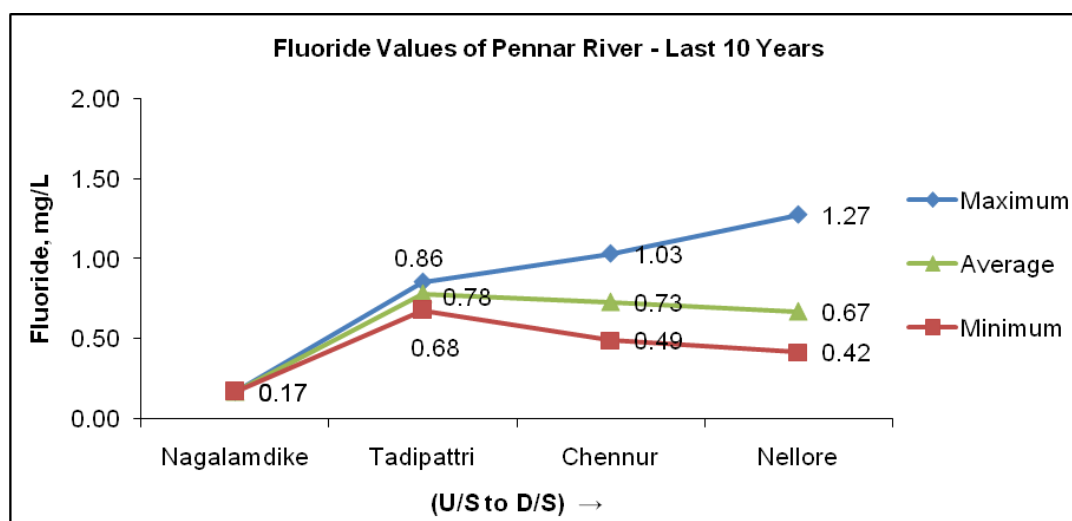


Figure - 3.2

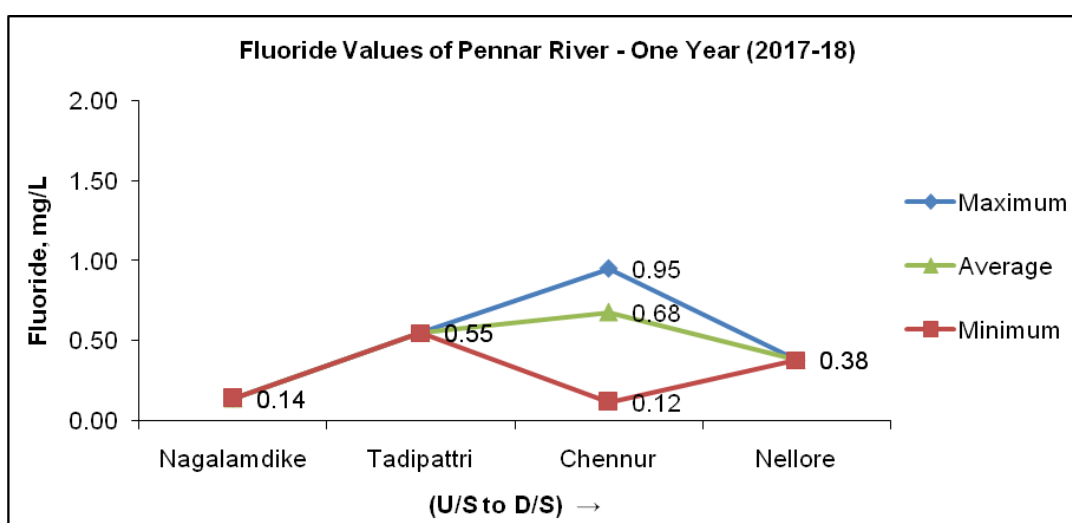


Figure - 3.3

4.1.4 BOD, mg/L

Biochemical Oxygen Demand (BOD) values for the period considered is given in Table - 5 and their graphical representation is given in Figure - 4.1, Figure - 4.2 & Figure - 4.3.

Table – 5

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Nagalamadike	1.71	0.72	2.70	1.71	0.72	2.70	1.71	0.72	2.70
Tadipatri	1.78	1.78	1.80	1.49	1.43	1.80	1.66	1.63	1.80
Chennur	2.91	2.85	2.30	0.55	0.53	0.40	1.64	1.57	1.40
Nellore	2.55	2.60	2.20	0.94	0.79	2.20	1.69	1.63	2.20

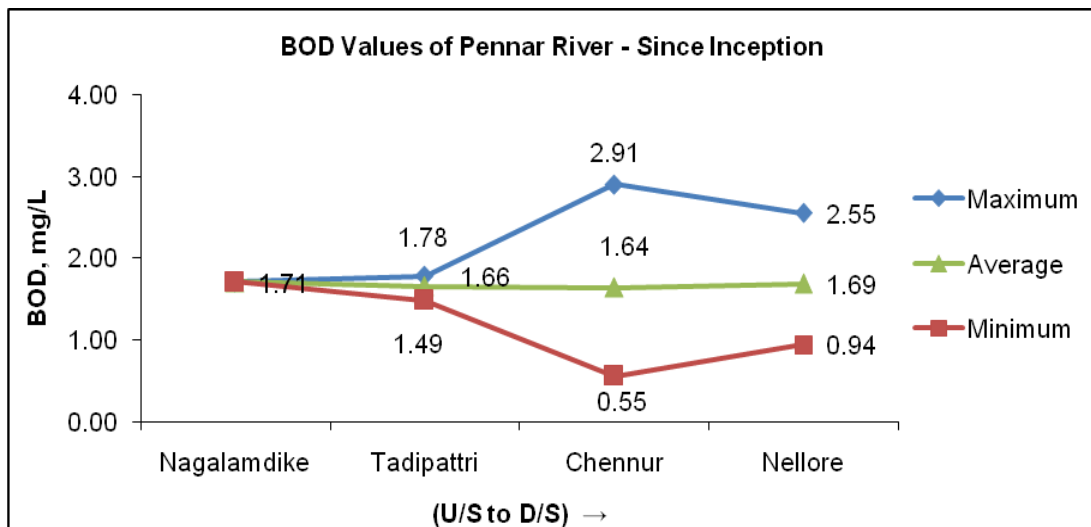


Figure - 4.1

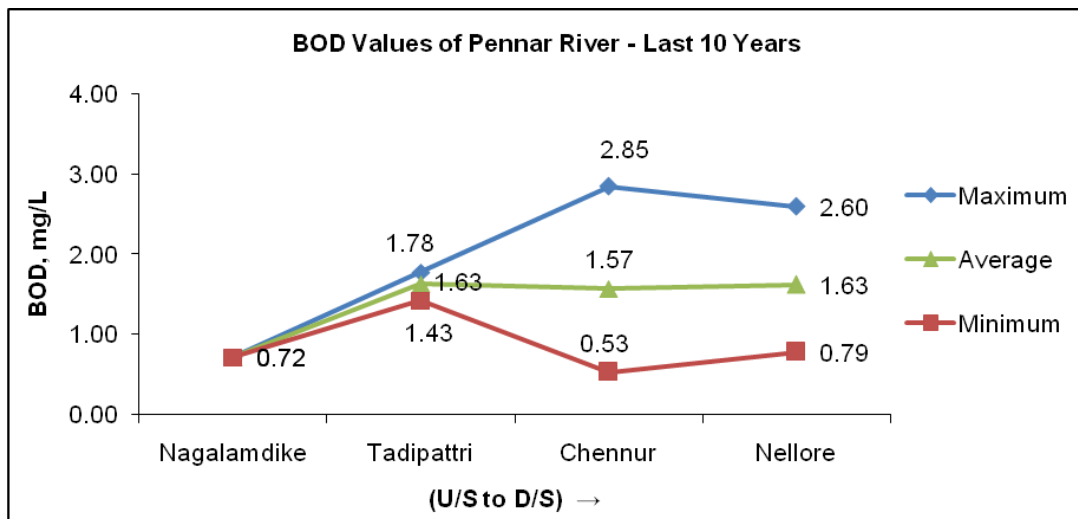


Figure - 4.2

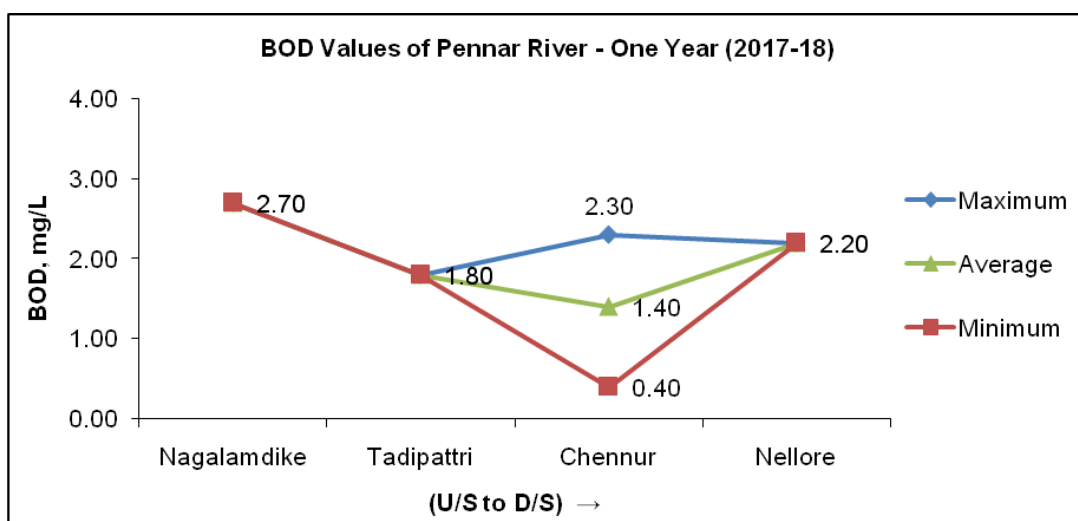


Figure - 4.3

4.1.5 DO, mg/L

Dissolved Oxygen (DO) values for the period considered is given in Table - 6 and their graphical representation is given in Figure - 5.1, Figure - 5.2 & Figure - 5.3.

Table – 6

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Nagalamadike	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tadipatri	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chennur	7.12	7.28	6.50	5.63	5.94	5.00	6.41	6.66	5.70
Nellore	7.49	7.02	8.90	6.31	5.44	8.90	6.85	6.17	8.90

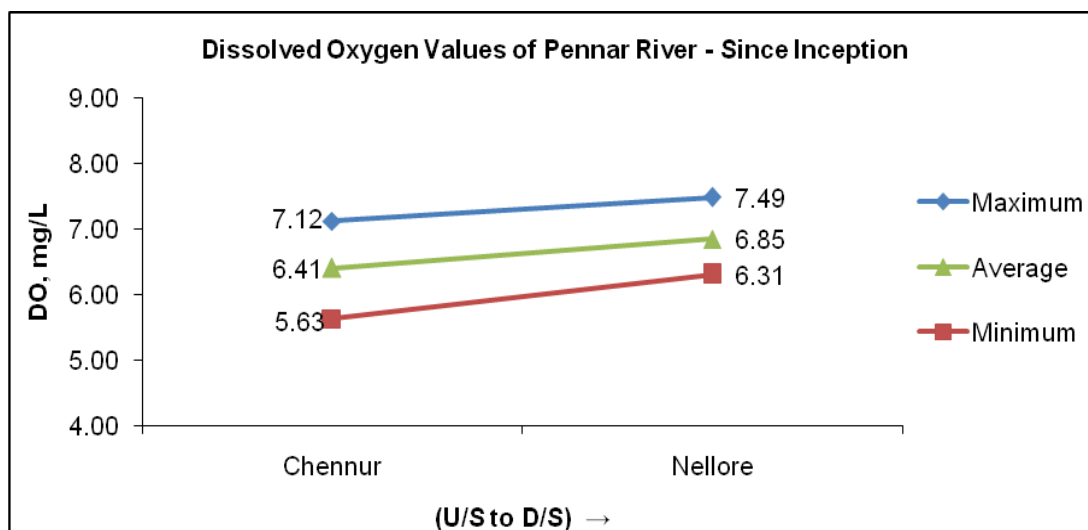


Figure - 5.1

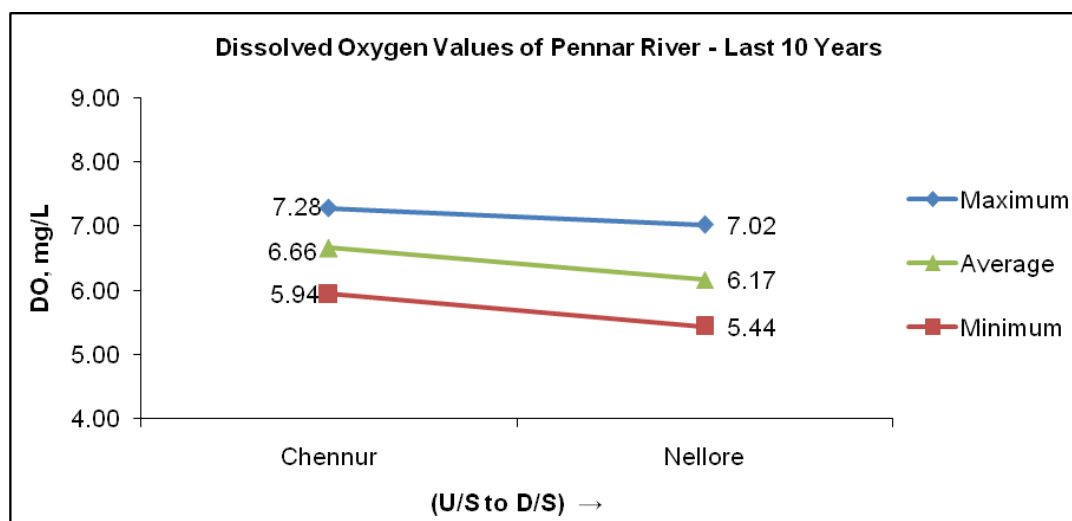


Figure - 5.2

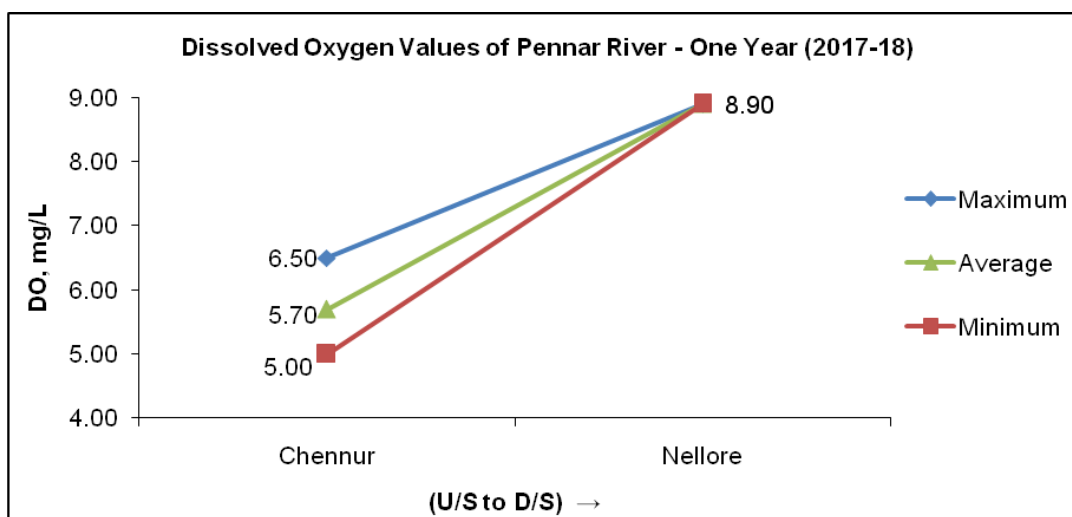


Figure - 5.3

5.1 General Remarks / Conclusion about Water Quality Trend:

Trends of the river Pennar with its tributaries are as follows:

In Pennar river basin the ionic concentration is gradually increasing from upstream to downstream. From Origin to site Tadipatri, the Electrical Conductivity is low and within the tolerance limit. The water of Pennar Basin is generally alkaline in nature but within the tolerance limit of BIS. The Fluoride concentration of Pennar basin is mostly within the tolerance limit. BOD and DO values of Pennar basin are mostly within the tolerance limit of BIS.

As far as the Water Quality is concerned, it is found that the water quality of River Pennar shows deteriorating trend from site Nagalandike to Site Chennur due to direct human activities which can be seen from the above graphs and then improves gradually up to site Nellore the downstream site which may be due to self purification of the river in its own course before its confluence into the sea.

4.2 Palar River:

The water quality scenario is being presented in pictorial graph among the sites **Avarankuppam**, **Arcot** and **Chengalpet** on river Palar under East Flowing Rivers Basin. The data details considered for water quality trend study from upstream to downstream of Palar River is given below.

4.2.1 Electrical Conductivity (EC) ($\mu\text{mhos/cm}$)

EC values for the period considered is given in Table - 7 and their graphical representation is given in Figure - 6.1, Figure - 6.2 & Figure - 6.3.

Table – 7

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Avarankuppam	878	869	633	434	519	196	659	691	349
Arcot	1670	1689	1748	1064	1209	1201	1355	1436	1395
Chengalpet	613	609	623	367	336	468	498	485	562

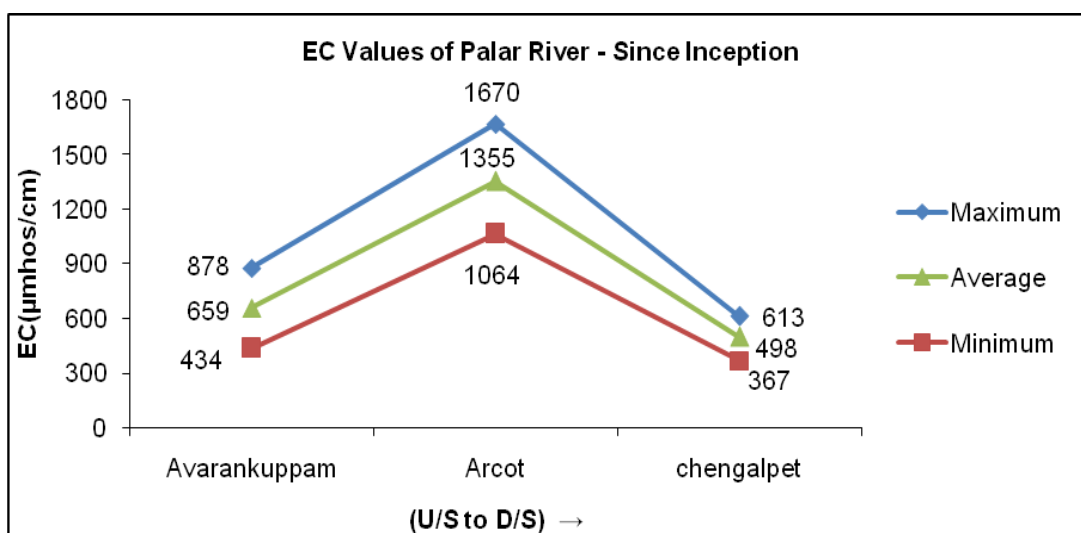


Figure - 6.1

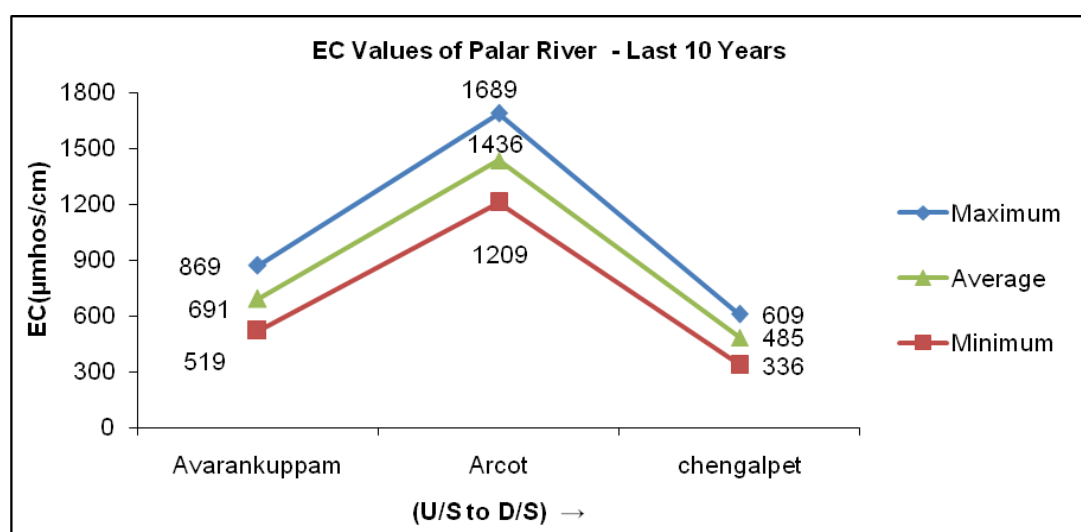


Figure - 6.2

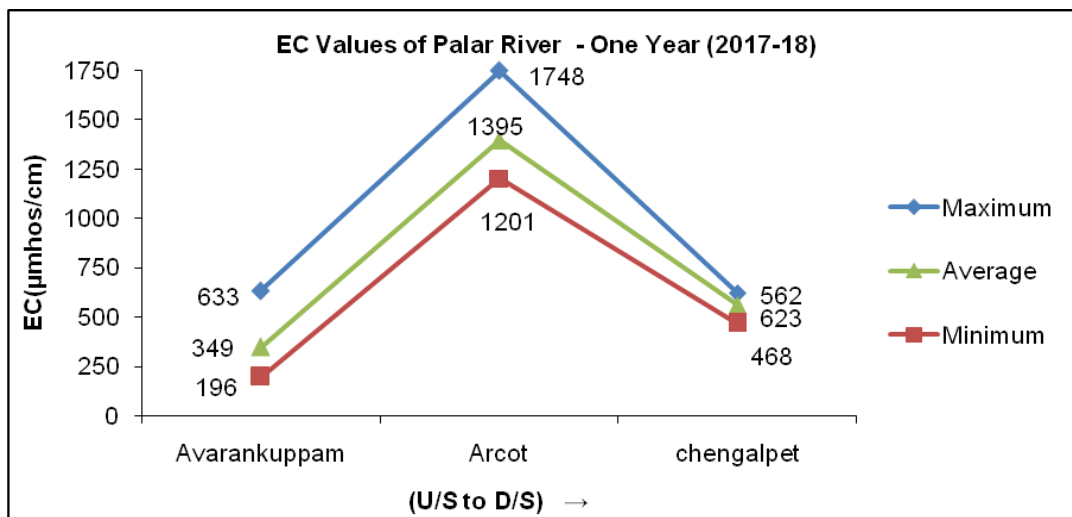


Figure - 6.3

4.2.2 pH

pH values for the period considered is given in Table - 8 and their graphical representation is given in Figure - 7.1, Figure - 7.2 & Figure - 7.3.

Table - 8

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Avarankuppam	8.47	8.40	8.30	7.76	7.92	7.20	8.14	8.13	7.70
Arcot	8.19	7.82	8.50	7.67	7.57	7.10	7.94	7.70	7.80
Chengalpet	8.17	8.04	8.30	7.51	7.38	7.20	7.84	7.72	7.60

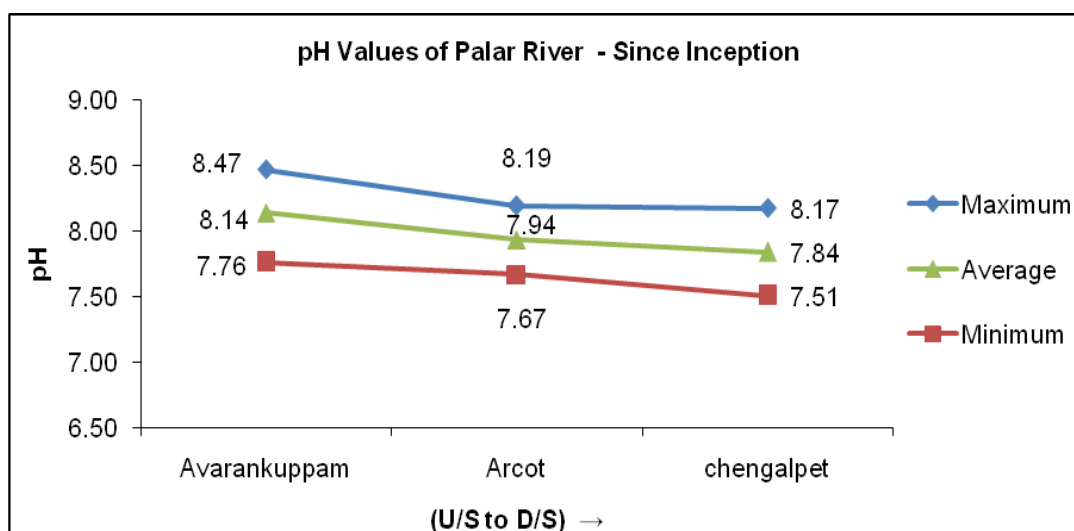


Figure - 7.1

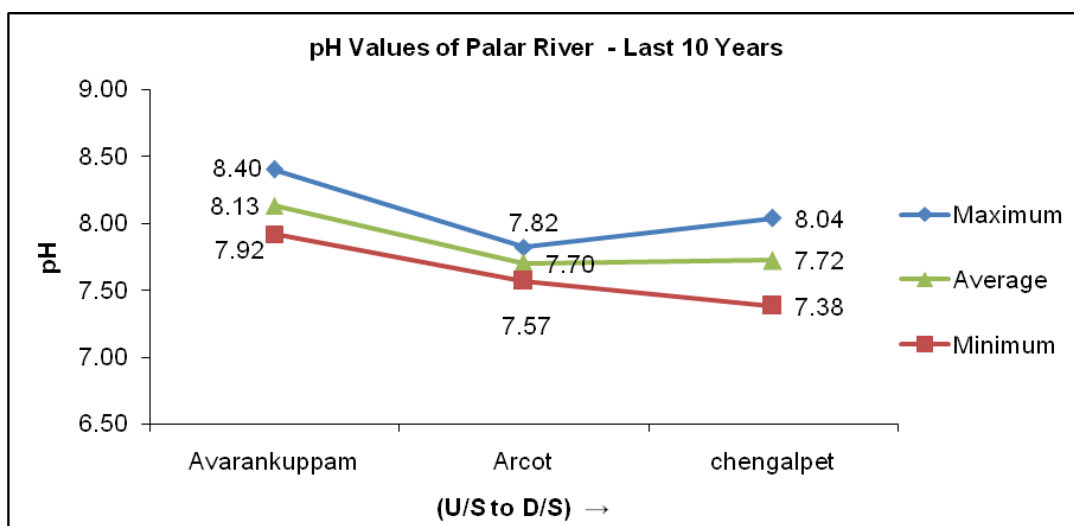


Figure - 7.2

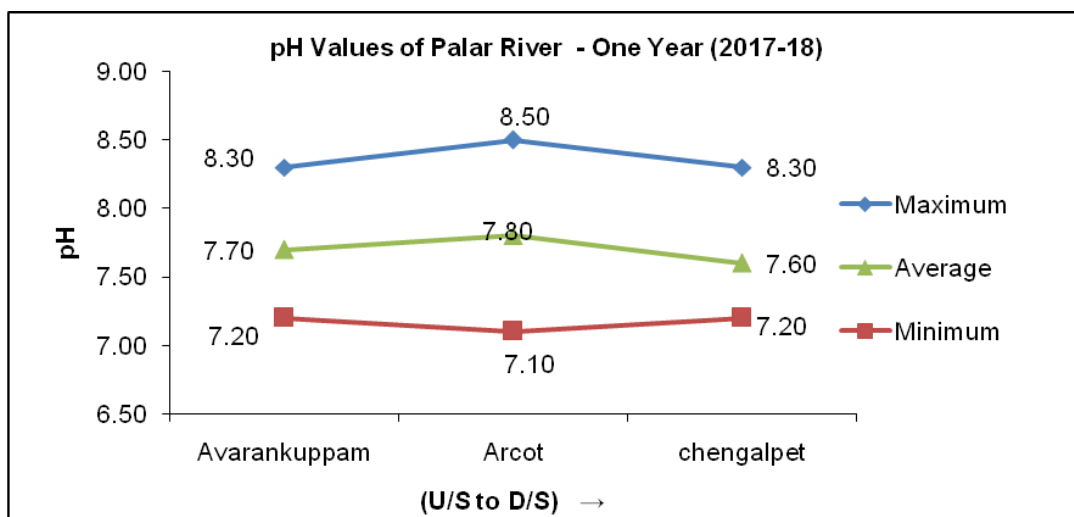


Figure - 7.3

4.2.3 Fluoride, mg/L

Fluoride values for the period considered is given in Table - 9 and their graphical representation is given in Figure - 8.1, Figure - 8.2 & Figure - 8.3.

Table – 9

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Avarankuppam	1.58	1.18	0.77	0.70	0.77	0.26	1.10	0.98	0.46
Arcot	0.91	0.77	0.96	0.54	0.58	0.42	0.70	0.67	0.61
Chengalpet	0.73	0.50	0.66	0.31	0.28	0.12	0.50	0.39	0.38

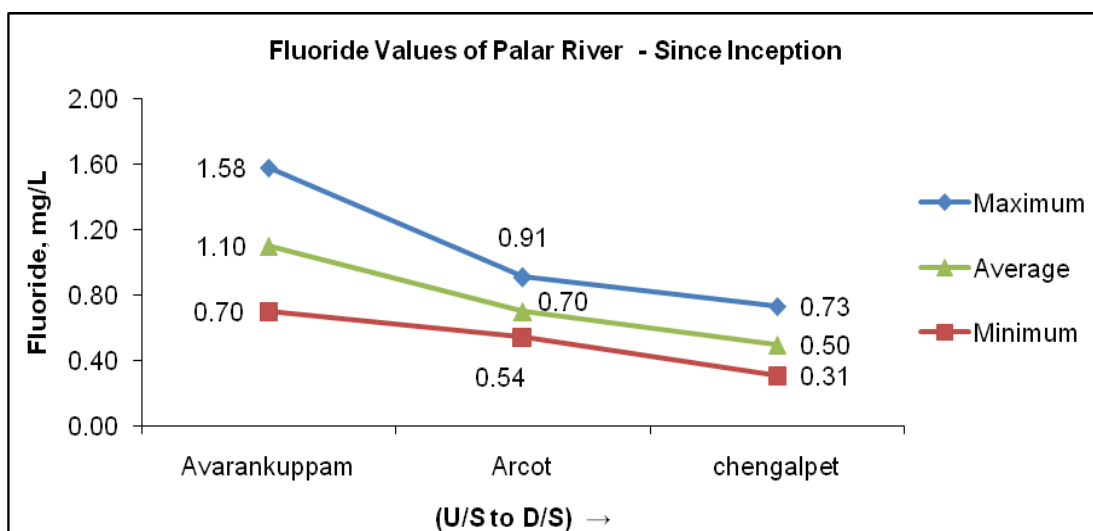


Figure - 8.1

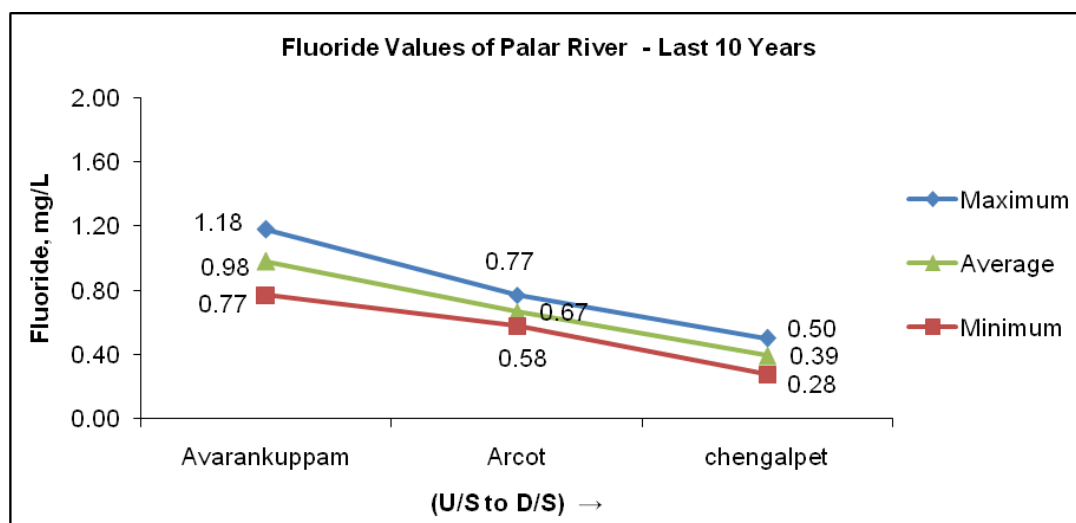


Figure - 8.2

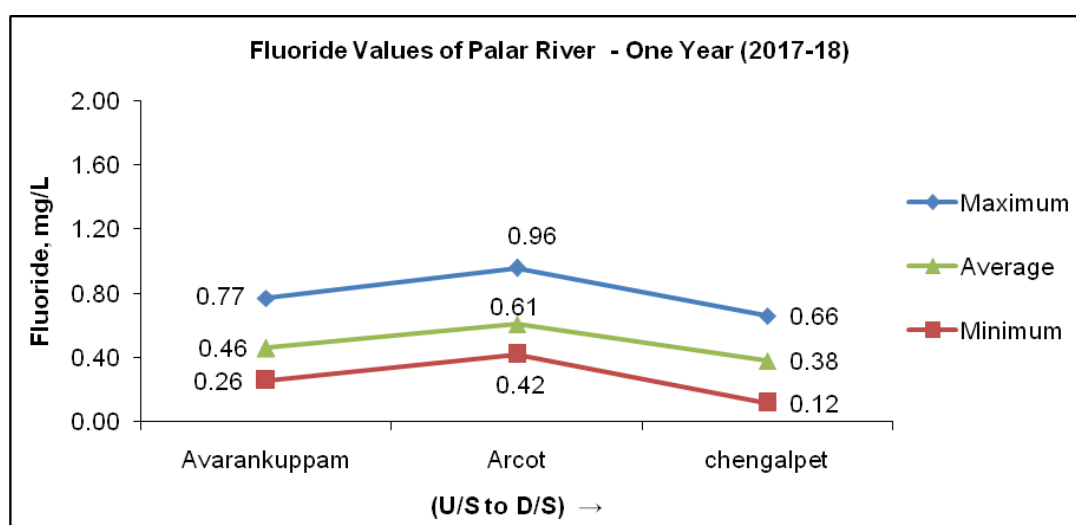


Figure - 8.3

4.2.4 BOD, mg/L

Biochemical Oxygen Demand (BOD) values for the period considered is given in Table - 10 and their graphical representation is given in Figure - 9.1, Figure - 9.2 & Figure - 9.3.

Table – 10

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Avarankuppam	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arcot	2.8	2.4	3.8	0.8	1.0	0.2	1.9	1.8	2.0
Chengalpet	2.3	2.2	2.6	0.6	0.6	0.6	1.3	1.3	1.2

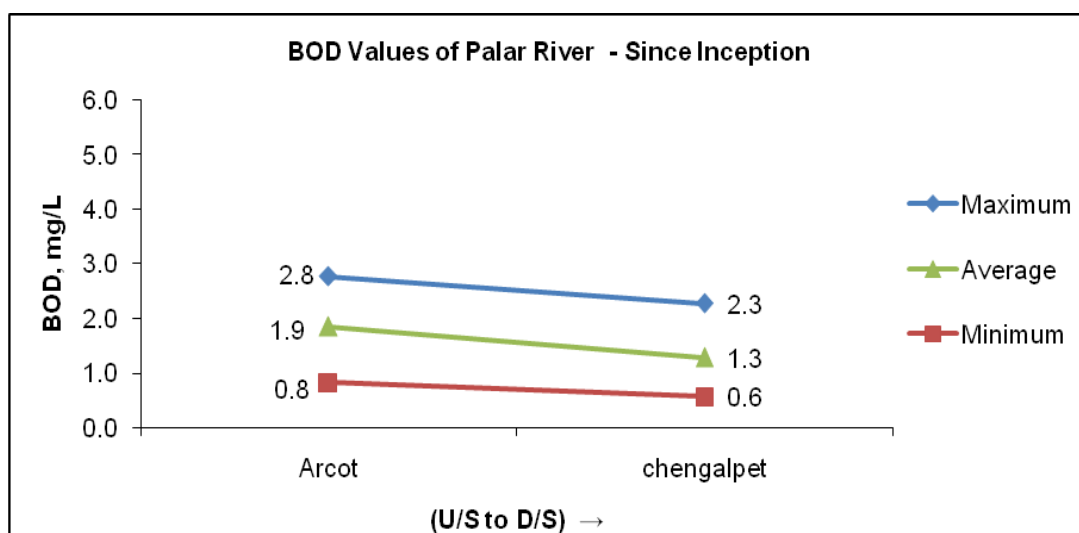


Figure - 9.1

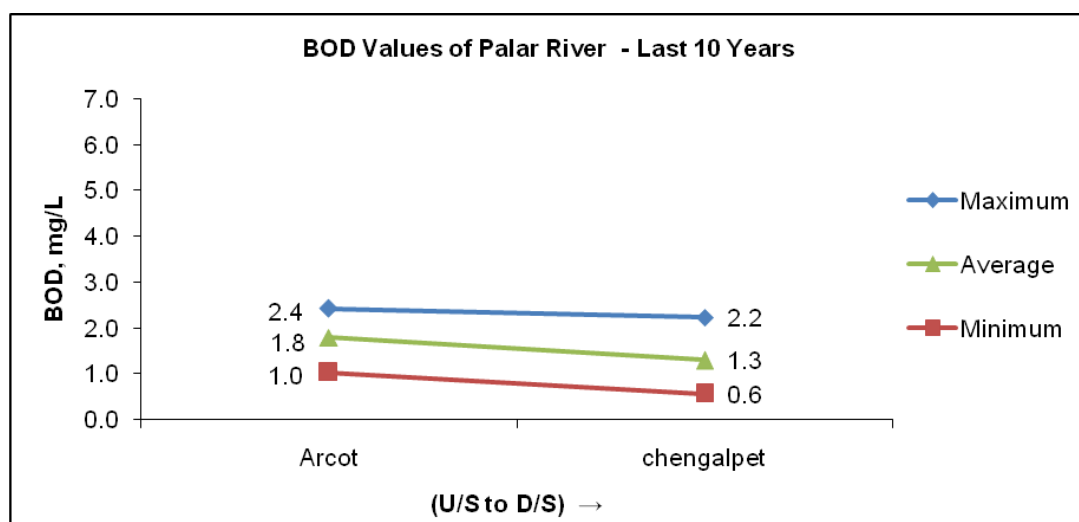


Figure - 9.2

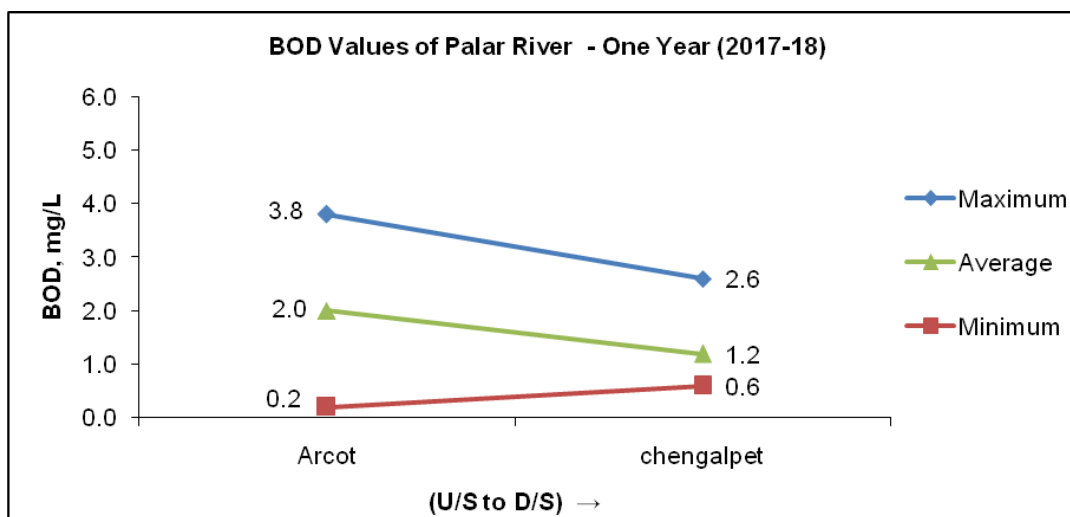


Figure - 9.3

5.2 General Remarks / Conclusion about Water Quality Trend:

Trends of the river Palar with its tributaries are as follows:

In Palar river basin the ionic concentration is first gradually increasing then decreasing from upstream to downstream. The Electrical Conductivity is moderate and within the tolerance limit up to site Avarankuppam. The EC values are maximum at the Site Arcot where the values were mostly found to be above the Tolerance limit. From Arcot to Chengalpet the values were gradually decreasing and found to be within the Tolerance Limit. Palar Basin is generally alkaline in nature but within the tolerance limit of BIS. The Fluoride concentration of Palar basin is gradually decreasing from upstream to downstream.

As far as the Water Quality is concerned, it is found that the water quality of River Palar shows deteriorating trend due to direct human activities which can be seen from the above graphs.

4.3 Ponnaiyar River:

The water quality scenario is being presented in pictorial graph among the sites **Gummanur, Vazhavachanur and Villupuram** on river Ponnaiyar under East Flowing Rivers Basin. The data details considered for water quality trend study from upstream to downstream of Ponnaiyar River is given below.

4.3.1 Electrical Conductivity (EC) ($\mu\text{mhos/cm}$)

EC values for the period considered is given in Table - 11 and their graphical representation is given in Figure - 10.1, Figure - 10.2 & Figure - 10.3.

Table – 11

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Gummanur	1091	1219	1388	600	759	225	880	1026	1124
Vazhavachanur	992	1137	1285	546	626	763	792	911	1012
Villupuram	650	611	913	526	491	626	593	558	770

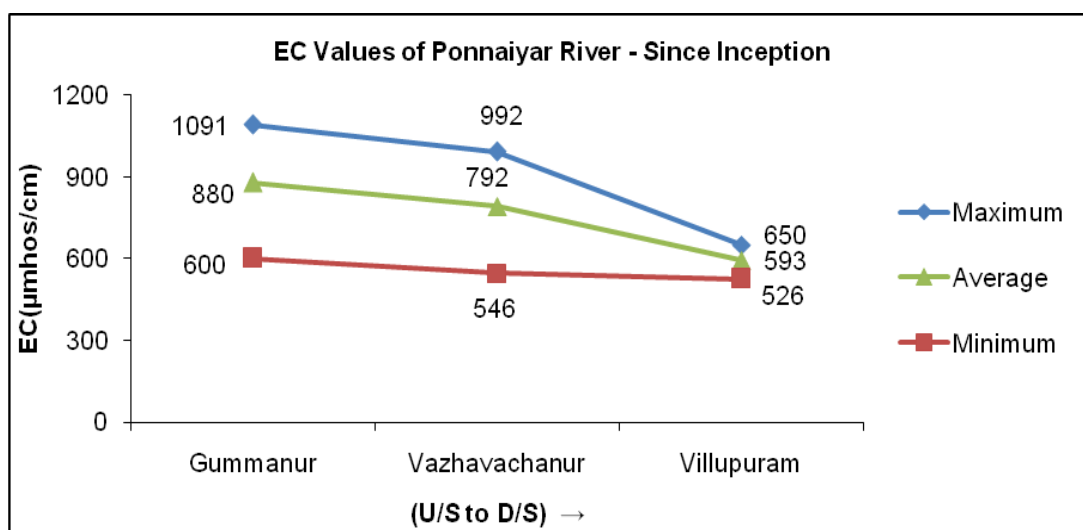


Figure - 10.1

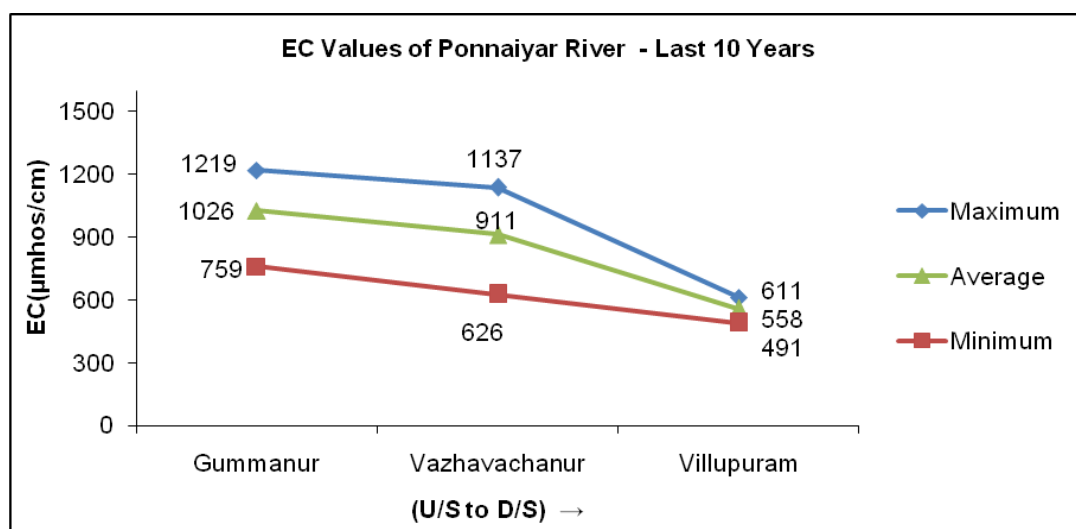


Figure - 10.2

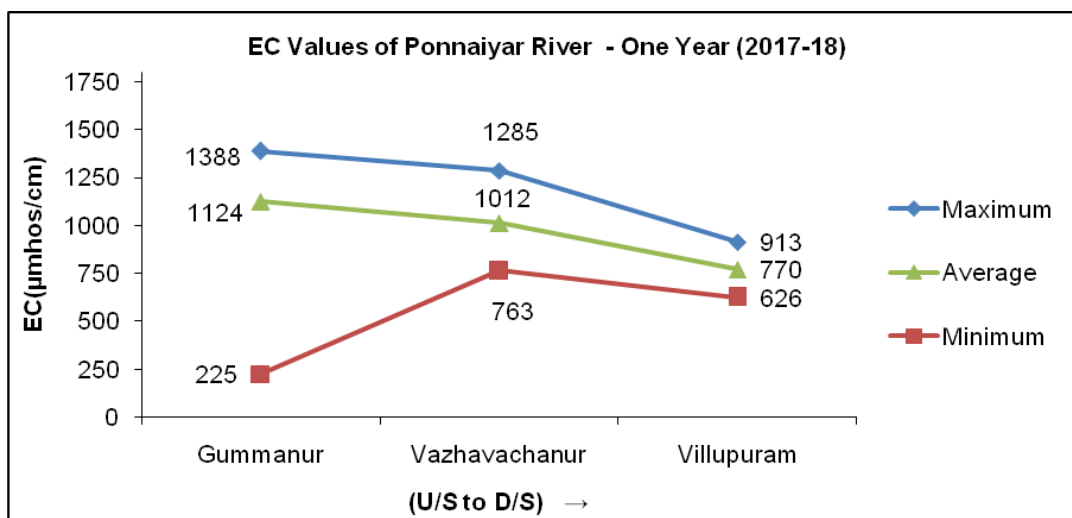


Figure - 10.3

4.3.2 pH

pH values for the period considered is given in Table - 12 and their graphical representation is given in Figure - 11.1, Figure - 11.2 & Figure - 11.3.

Table - 12

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Gummanur	8.40	8.60	8.80	7.50	7.60	7.10	8.20	8.20	7.90
Vazhavachanur	8.32	8.38	8.20	7.50	7.45	7.40	7.90	7.82	7.90
Villupuram	8.40	8.16	8.40	7.99	7.93	7.10	8.20	8.05	7.70

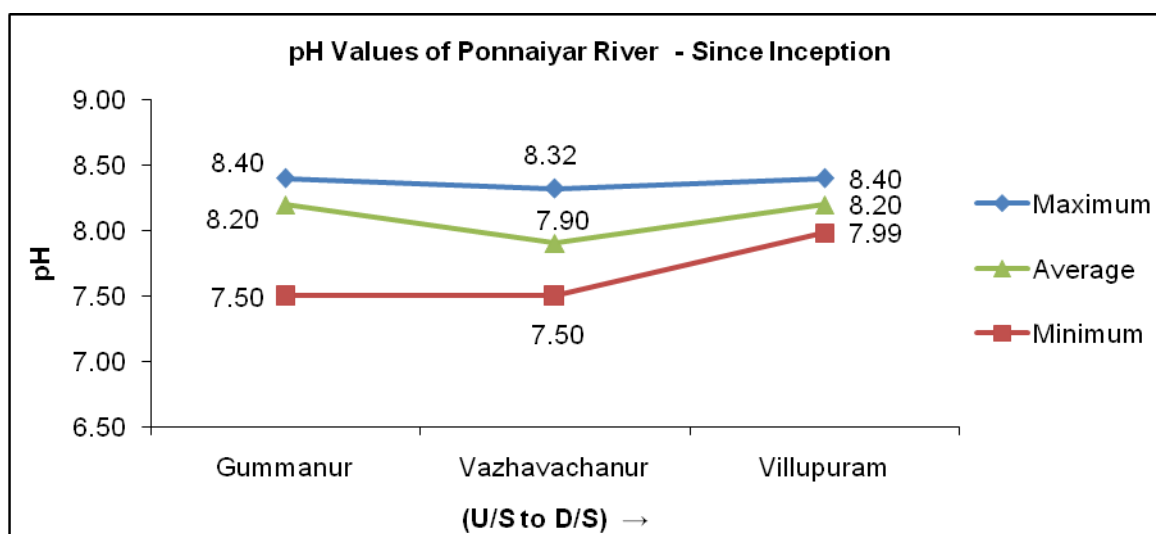


Figure - 11.1

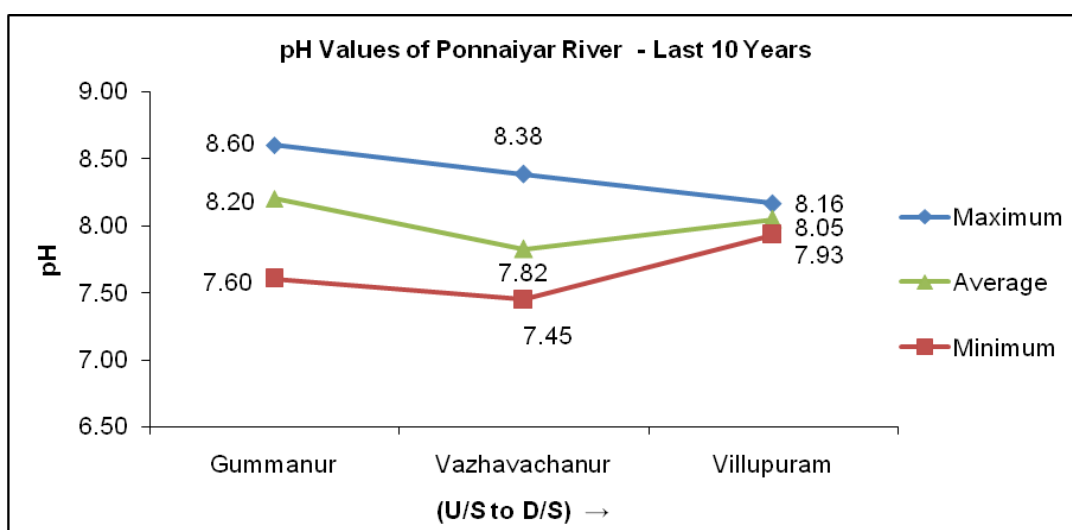


Figure - 11.2

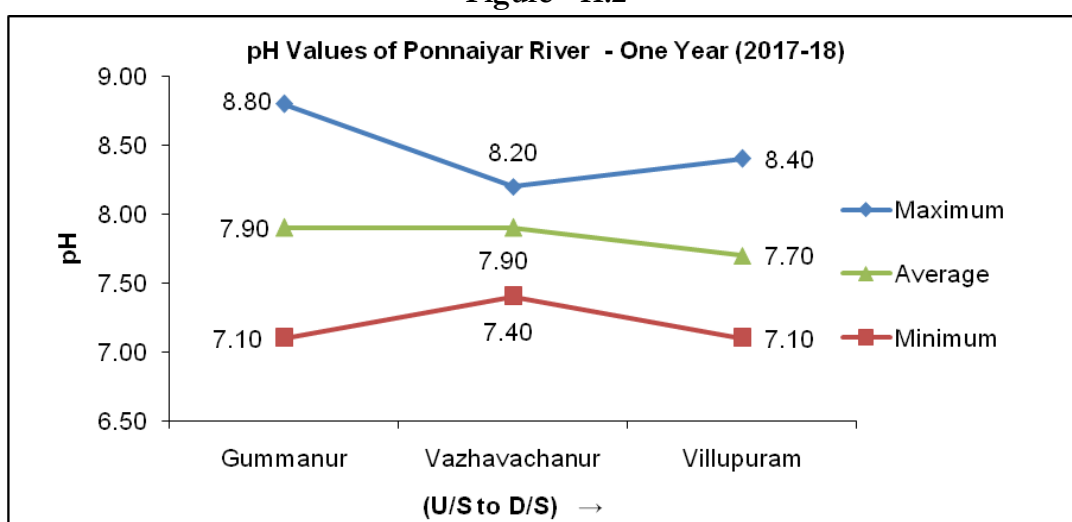


Figure - 11.3

4.3.3 Fluoride, mg/L

Fluoride values for the period considered is given in Table - 13 and their graphical representation is given in Figure - 12.1, Figure - 12.2 & Figure - 12.3.

Table – 13

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Gummanur	1.20	0.80	0.90	0.50	0.40	0.23	0.82	0.60	0.51
Vazhavachanur	0.88	0.74	0.82	0.37	0.34	0.37	0.60	0.58	0.59
Villupuram	0.79	0.46	0.73	0.50	0.36	0.33	0.62	0.41	0.53

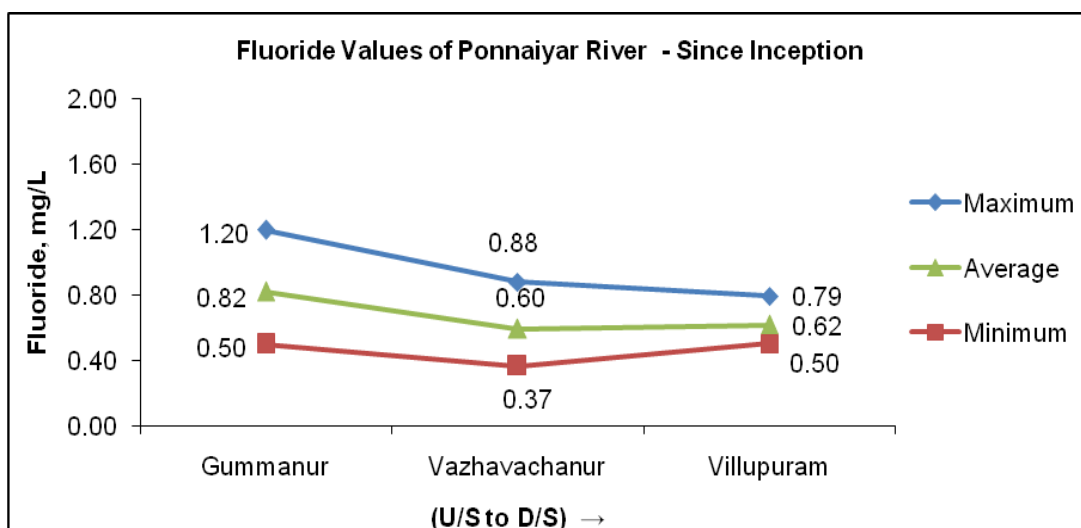


Figure - 12.1

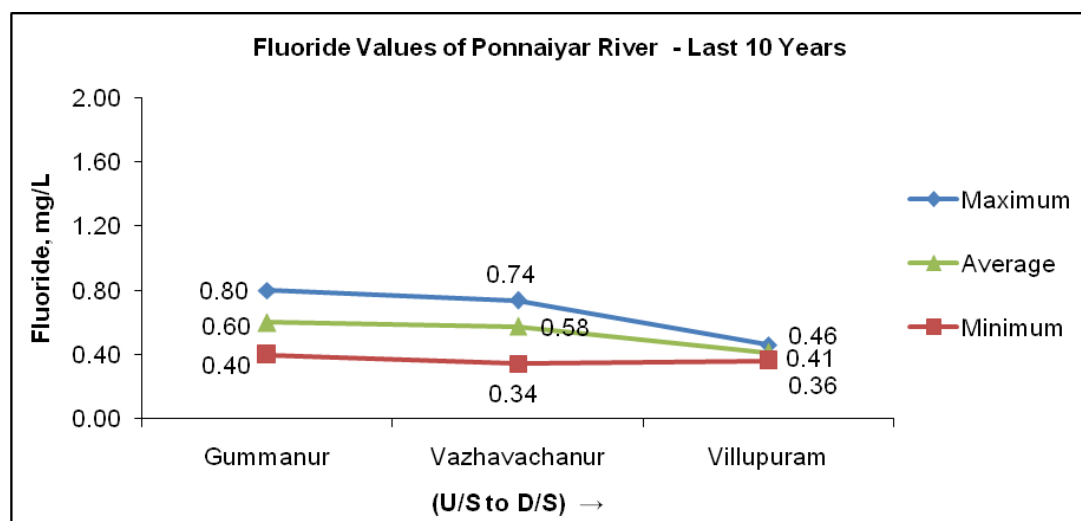


Figure - 12.2

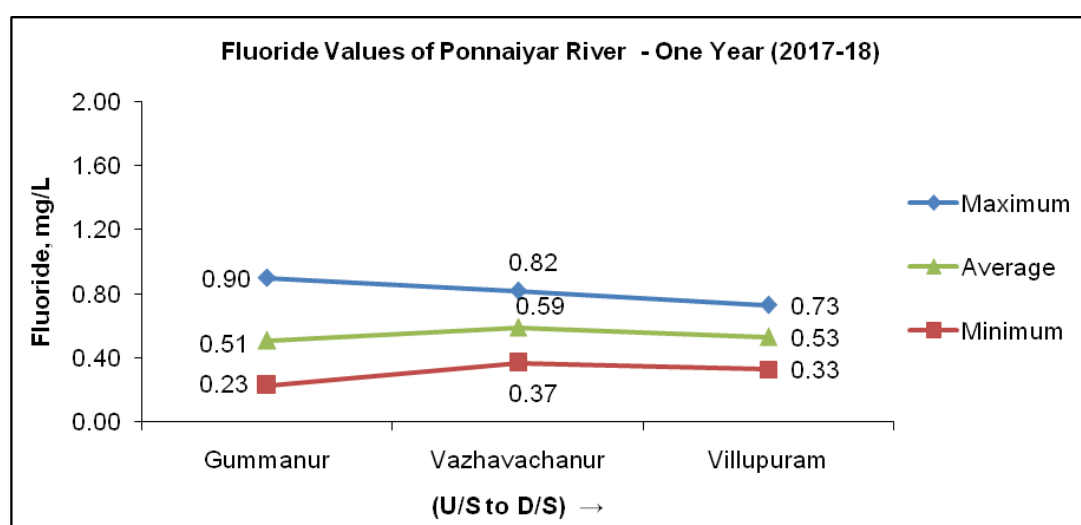


Figure - 12.3

4.3.4 BOD, mg/L

Biochemical Oxygen Demand (BOD) values for the period considered is given in Table - 14 and their graphical representation is given in Figure - 13.1, Figure - 13.2 & Figure - 13.3.

Table – 14

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Gummanur	7.10	7.10	16.50	1.60	1.60	2.20	3.60	3.60	7.60
Vazhavachanur	2.25	2.54	2.80	0.62	0.55	1.00	1.38	1.49	1.80
Villupuram	1.66	1.56	2.20	1.14	1.11	1.30	1.41	1.34	1.80

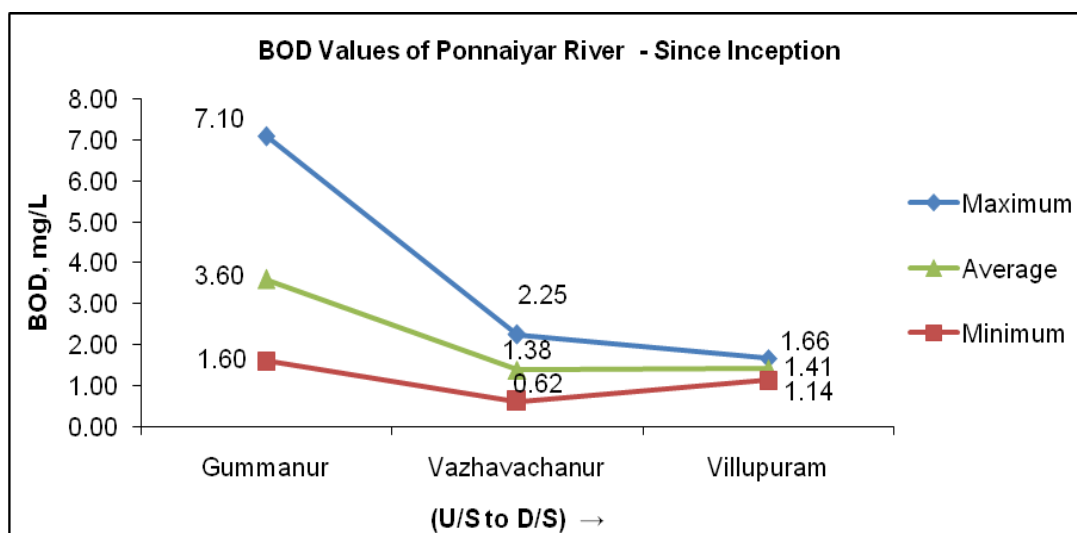


Figure - 13.1

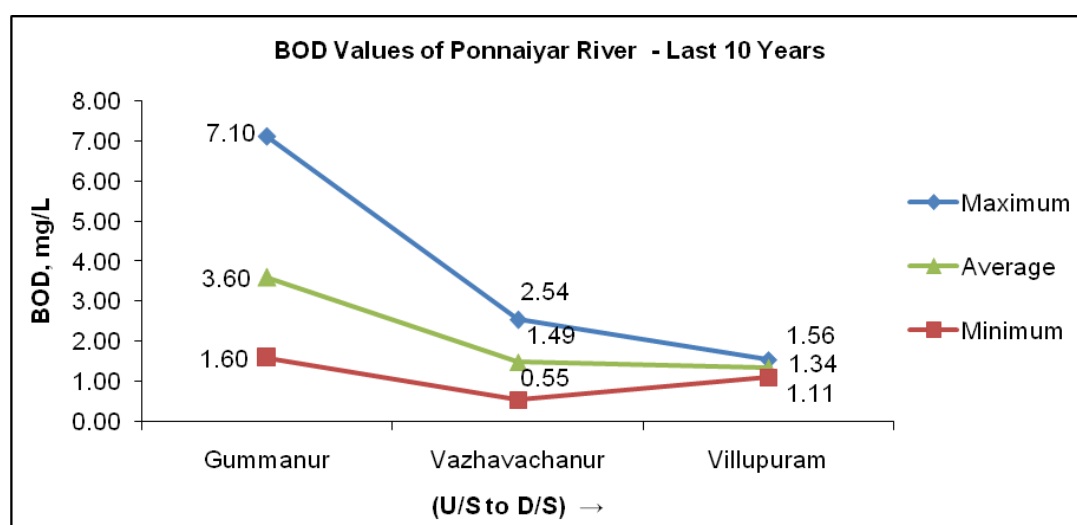


Figure - 13.2

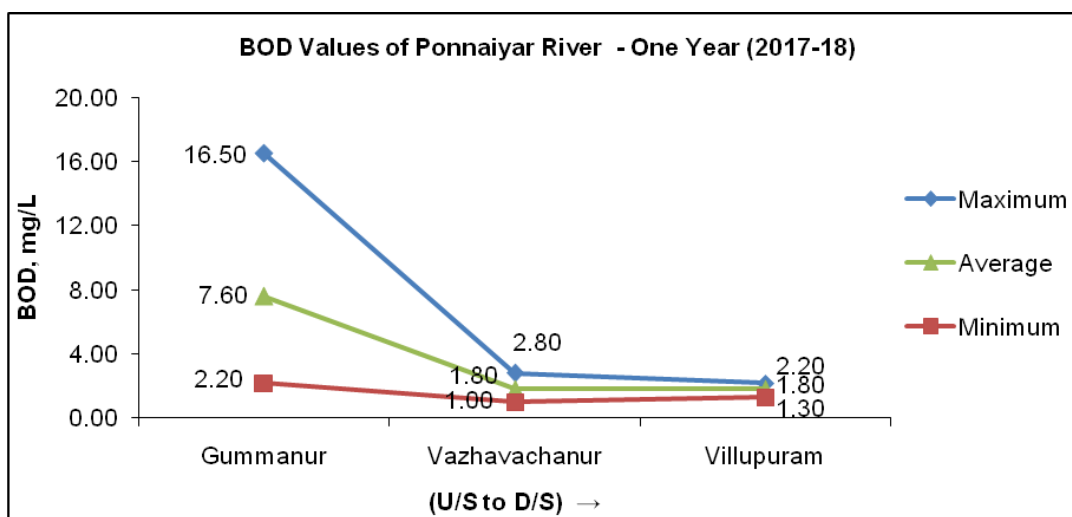


Figure - 13.3

4.3.5 DO, mg/L

Dissolved Oxygen (DO) values for the period considered is given in Table - 15 and their graphical representation is given in Figure - 14.1, Figure - 14.2 & Figure - 14.3.

Table - 15

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Gummanur	7.90	8.00	8.50	5.50	5.40	2.80	6.70	6.90	4.90
Vazhavachanur	7.11	7.42	8.00	3.91	3.99	3.70	5.62	5.92	6.20
Villupuram	NA	NA	NA	NA	NA	NA	NA	NA	NA

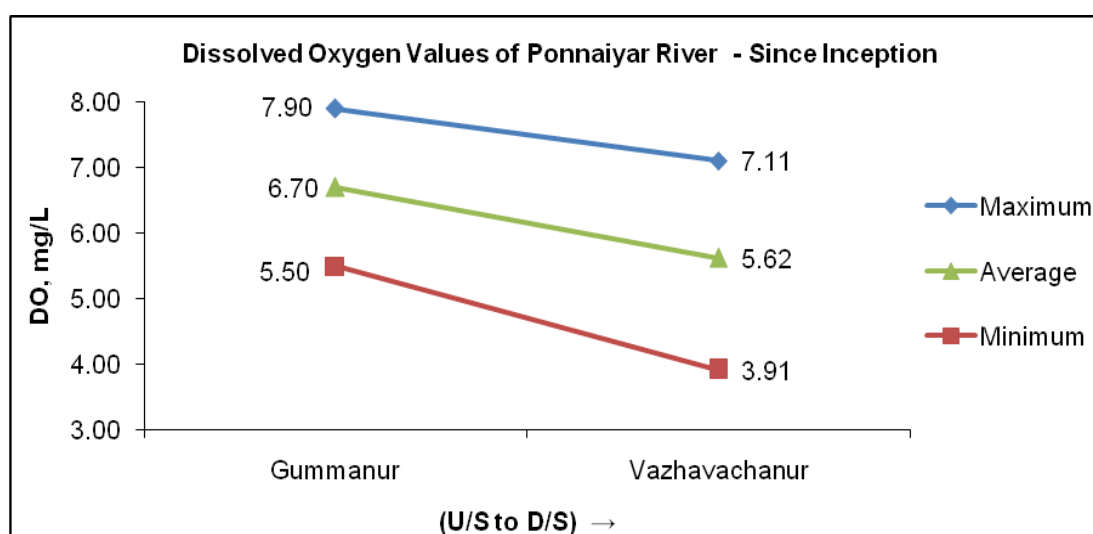


Figure - 14.1

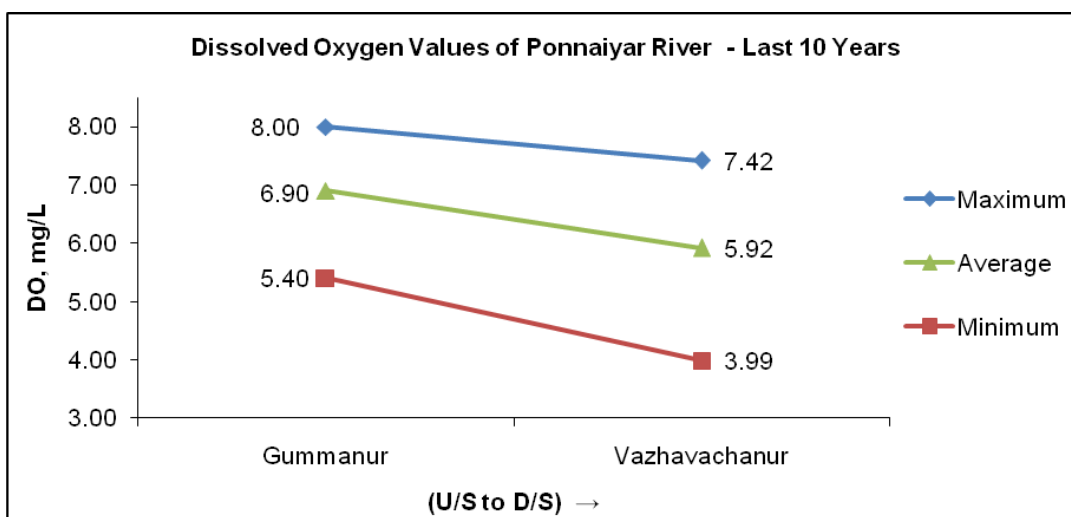


Figure - 14.2

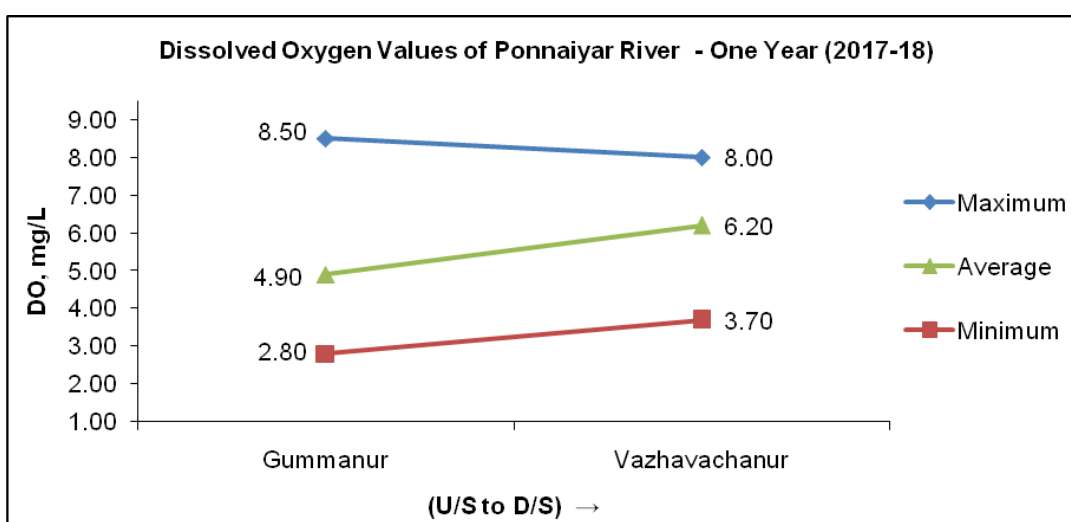


Figure - 14.3

5.3 General Remarks / Conclusion about Water Quality Trend:

Trends of the river Ponnaiyar with its tributaries are as follows:

In Ponnaiyar river basin the ionic concentration is gradually decreasing from upstream to downstream. The water of Ponnaiyar Basin is generally alkaline in nature. At the upstream site Gummanur the concentration of the maximum water quality parameters are beyond the tolerance limit of BIS. But at the downstream site the maximum water quality parameters are within the tolerance limit of BIS.

As far as the water quality is concerned, in general the water quality of river Ponnaiyar is not good. It is found that the water quality of river Ponnaiyar showing

improving trends from upstream to downstream which can be seen from the above graphs, which may be due to self purification of the river in its own course.

4.4 Vaigai River:

The water quality scenario is being presented in pictorial graph among the sites **Ambasamudram** and **Paramakudi** on river Vaigai under East Flowing Rivers Basin. The data details considered for water quality trend study from upstream to downstream of Ponnaiyar River is given below.

4.4.1 Electrical Conductivity (EC) ($\mu\text{mhos/cm}$)

EC values for the period considered is given in Table - 16 and their graphical representation is given in Figure - 15.1, Figure - 15.2 and Figure - 15.3.

Table – 16

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Ambasamudram	466	469	120	166	149	120	297	286	120
Paramakudi	447	404	NA	327	332	NA	380	365	NA

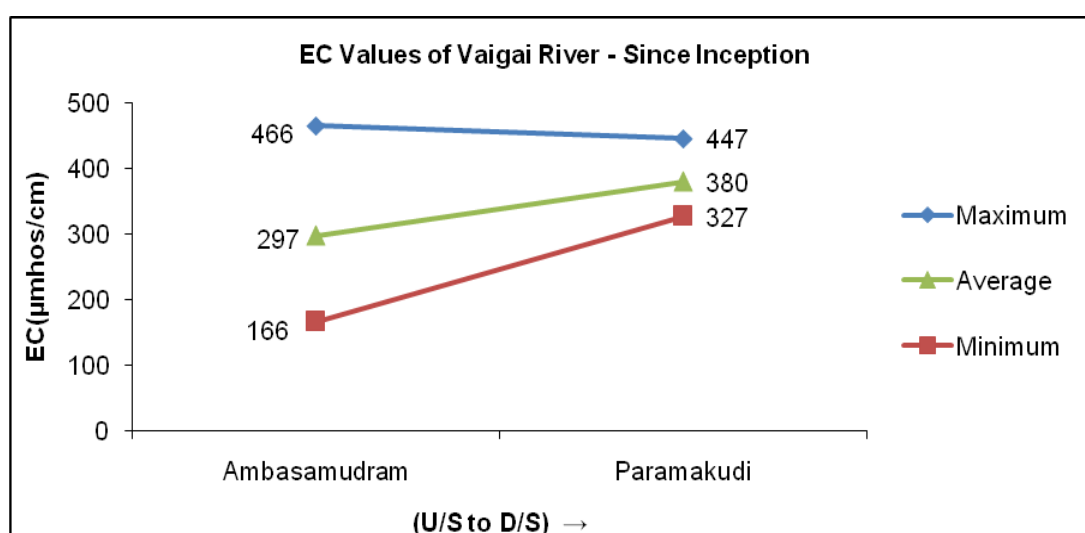


Figure - 15.1

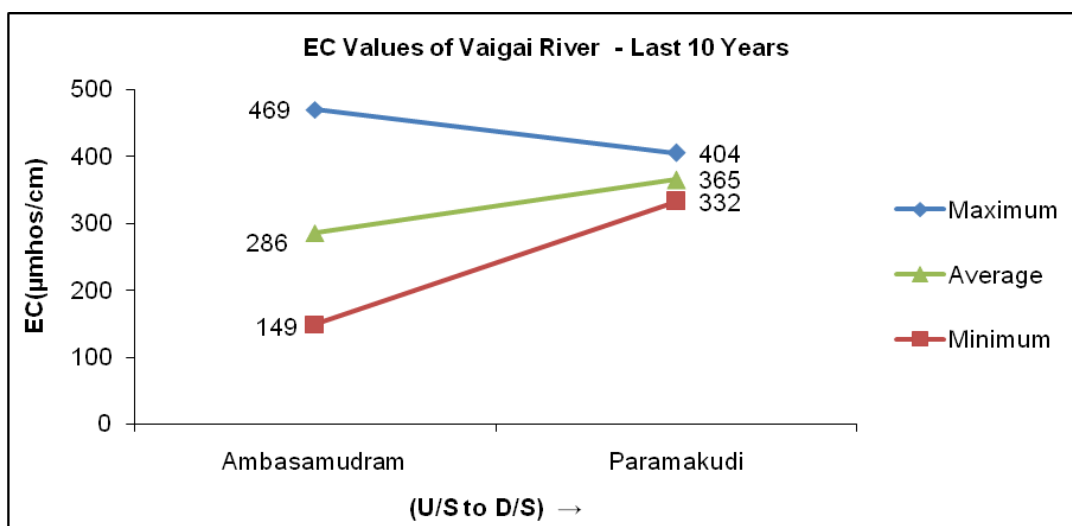


Figure - 15.2

4.4.2 pH

pH values for the period considered is given in Table - 17 and their graphical representation is given in Figure - 16.1, Figure - 16.2 and Figure - 16.3.

Table – 17

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Ambasamudram	8.34	8.44	7.30	7.72	7.74	7.30	8.12	8.11	7.30
Paramakudi	8.25	8.15	NA	7.88	7.90	NA	8.07	8.03	NA

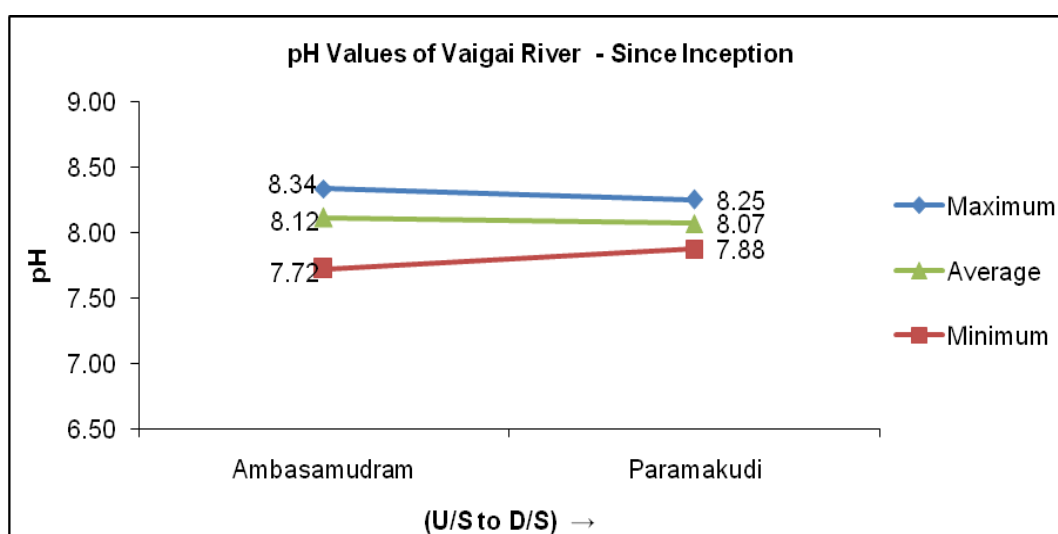


Figure - 16.1

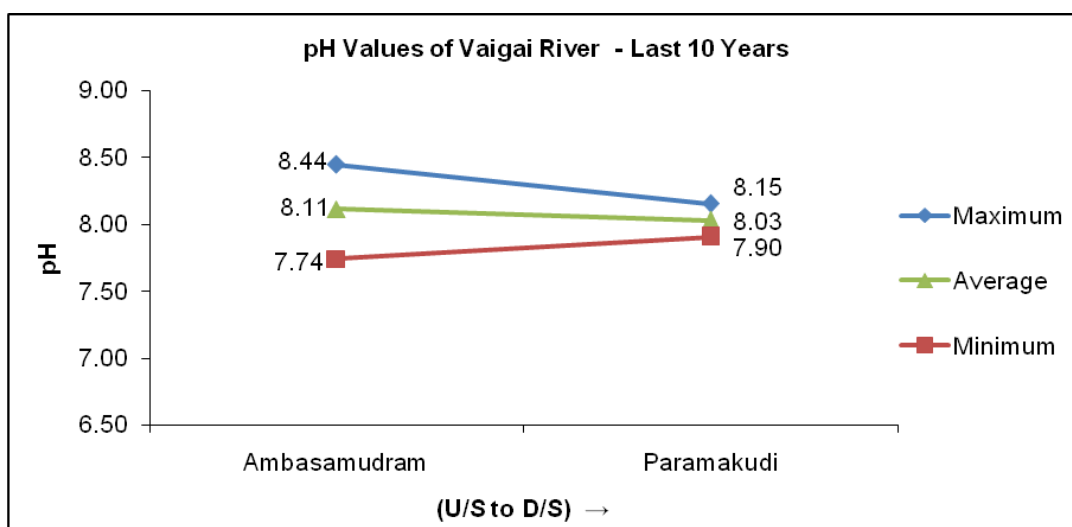


Figure - 16.2

4.4.3 Fluoride, mg/L

Fluoride values for the period considered is given in Table - 18 and their graphical representation is given in Figure - 17.1, Figure - 17.2 and Figure - 17.3.

Table – 18

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Ambasamudram	0.64	0.60	0.20	0.28	0.21	0.20	0.44	0.39	0.19
Paramakudi	0.50	0.42	NA	0.34	0.36	NA	0.41	0.39	NA

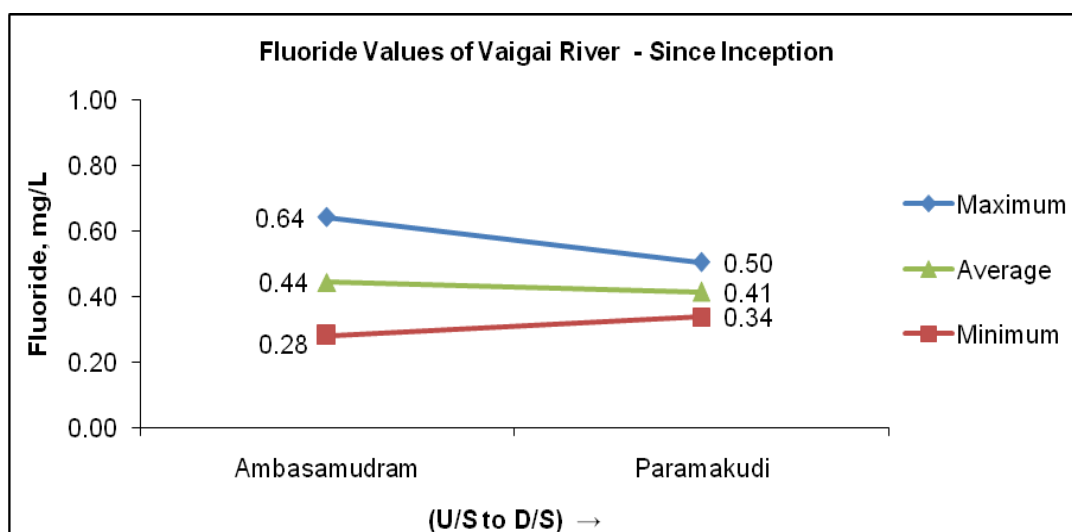


Figure - 17.1

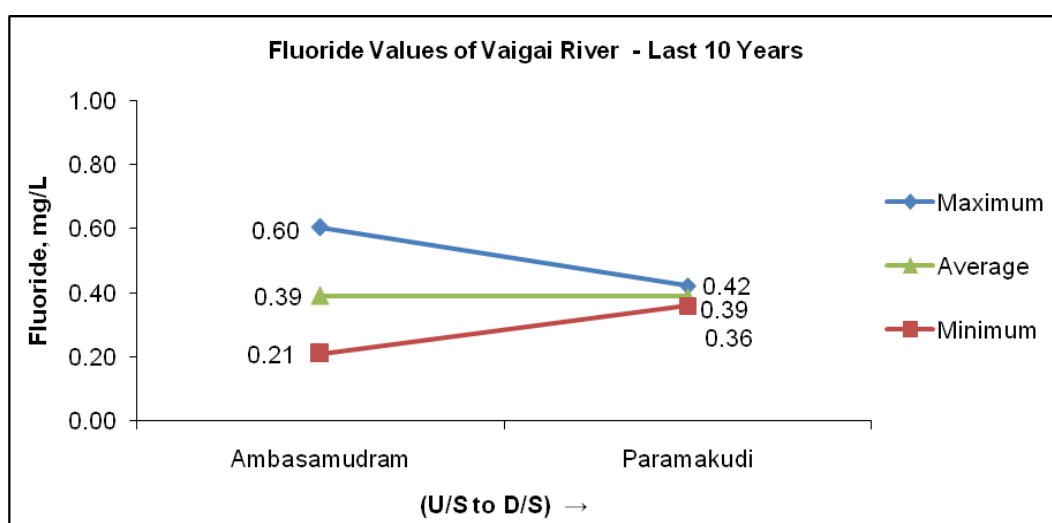


Figure - 17.2

4.4.4 BOD, mg/L

Biochemical Oxygen Demand (BOD) values for the period considered is given in Table - 14 and their graphical representation is given in Figure – 18.1, Figure – 18.2 and Figure – 18.3.

Table – 19

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Ambasamudram	2.31	2.15	2.60	0.85	0.64	2.60	1.35	1.23	2.60
Paramakudi	3.89	3.89	NA	3.89	3.89	NA	3.90	3.90	NA

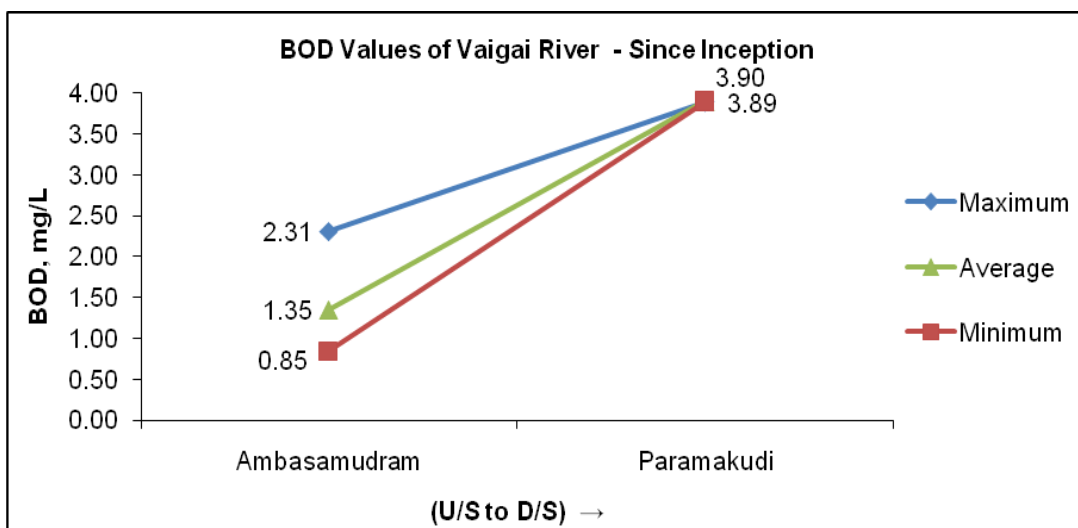


Figure – 18.1

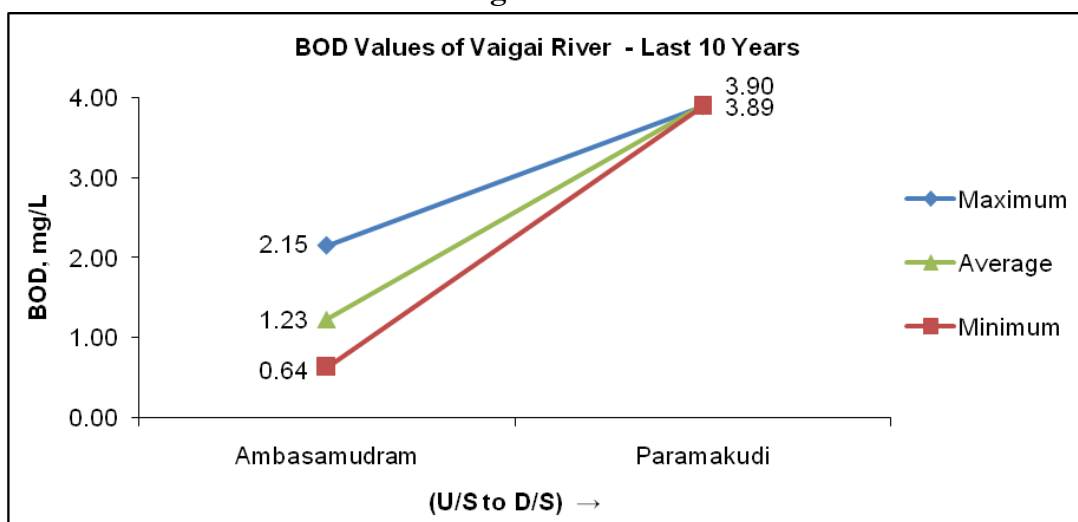


Figure – 18.2

4.3.5 DO, mg/L

Dissolved Oxygen (DO) values for the period considered is given in Table - 15 and their graphical representation is given in Figure – 19.1, Figure - 19.2 and Figure - 19.3.

Table – 20

Site Name	Average of Yearly Maximum			Average of Yearly Minimum			Annual Average		
	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year	Since Inception	Last 10 Years	One Year
Ambasamudrm	8.86	9.63	13.30	6.53	5.87	13.30	7.09	7.41	13.30
Paramakudi	7.57	7.57	NA	5.10	5.10	NA	6.30	6.30	NA

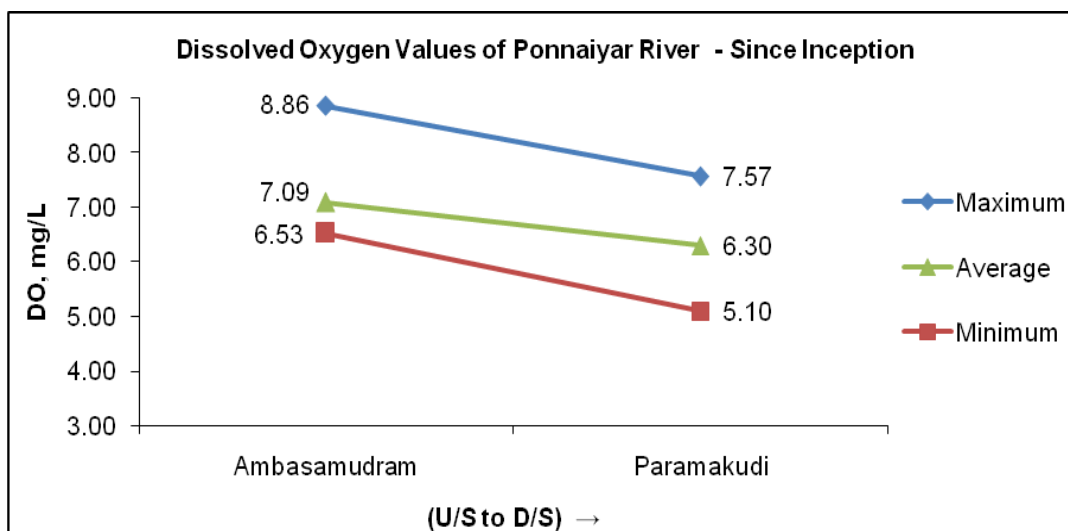


Figure – 19.1

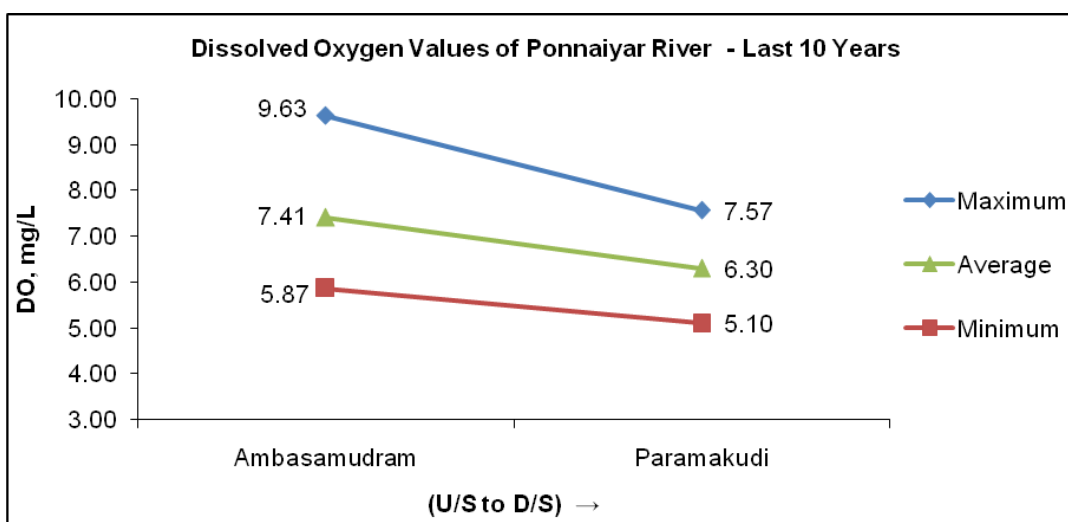
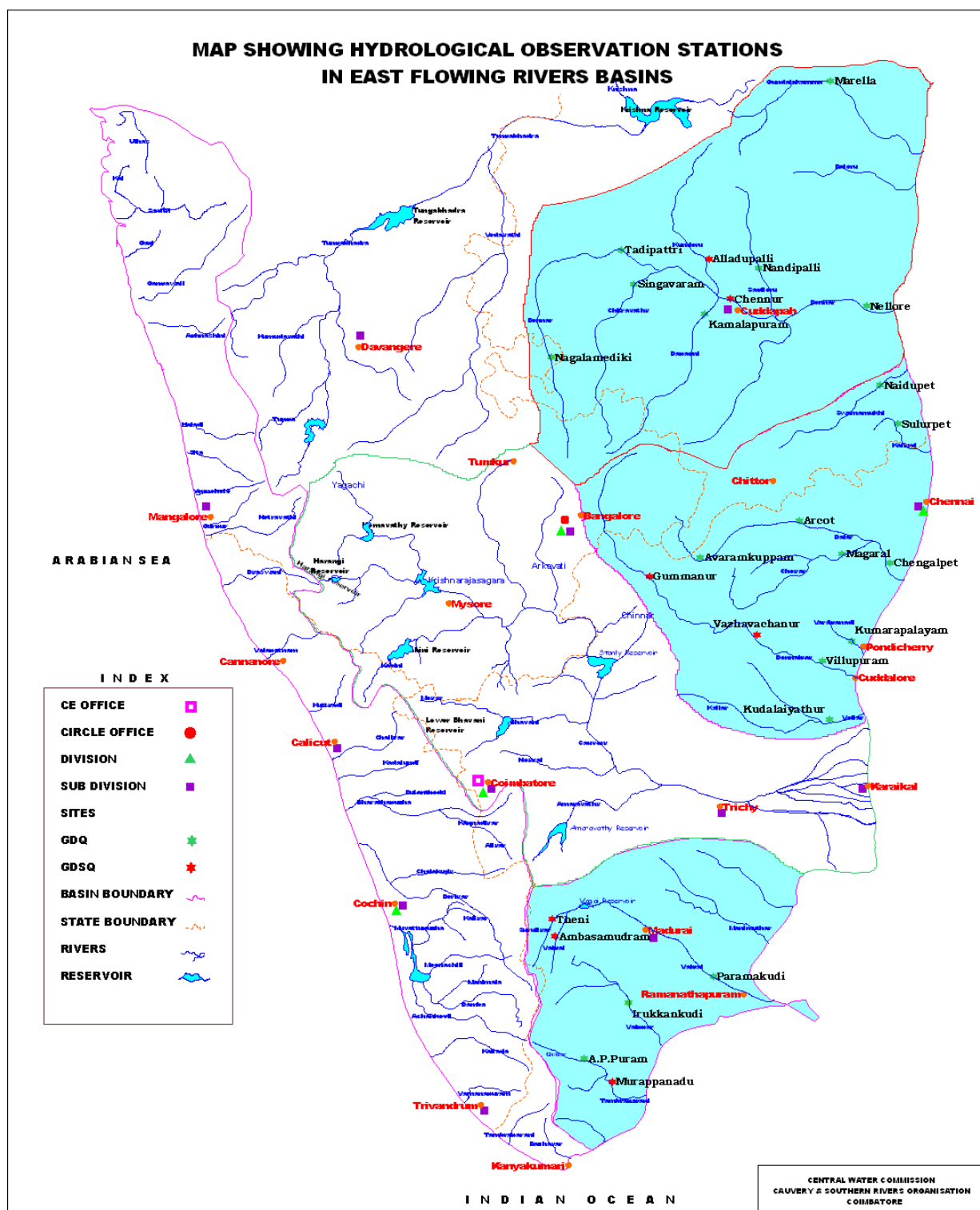


Figure – 19.2

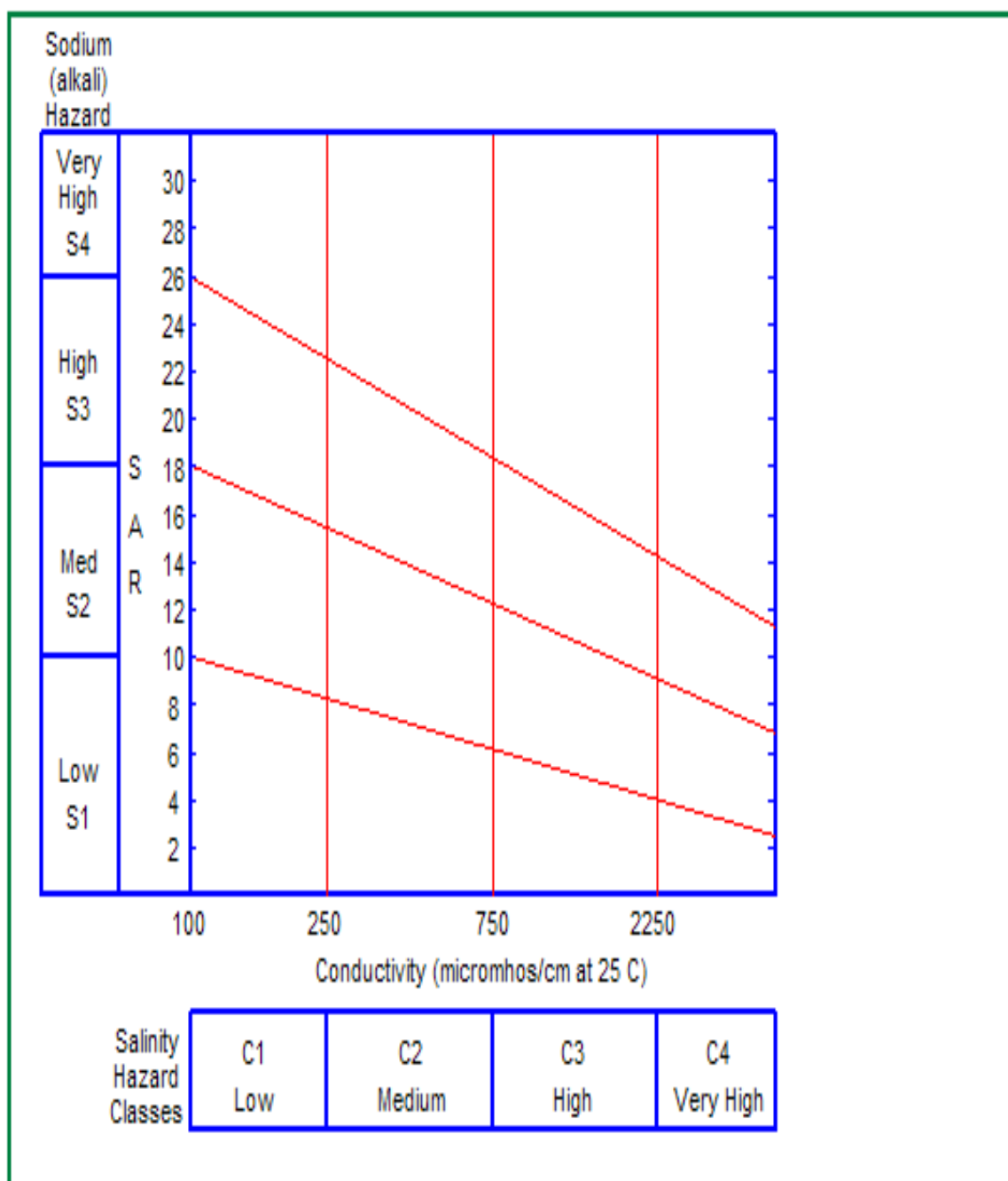
5.4 General Remarks / Conclusion about Water Quality Trend:

Trends of the river Vaigai with its tributaries are as follows:

The water quality of river Vaigai is almost same and good in nature from upstream to downstream. It is found that the maximum water quality parameters are within the tolerance limit of BIS.



Wilcox Diagram



ABBREVIATIONS AND SYMBOLS

Q (Cumec)	: Discharge in Cubic meter per second
EC_FLD	: Electrical Conductivity Field
EC_GEN	: Electrical Conductivity General
pH_FLD	: Negative logarithm of hydrogen ion concentration - Field
pH_GEN	: Negative logarithm of hydrogen ion concentration - General
Temp (°C)	: Temperature in degree celsius
Alk-Phen	: Phenolphthalein Alkalinity
ALK-TOT	: Total Alkalinity
B	: Boron
Ca	: Calcium
Cl	: Chloride
CO ₃	: Carbonate
F	: Fluoride
Fe	: Iron
HCO ₃	: Bicarbonate
K	: Potassium
Mg	: Magnesium
Na	: Sodium
NH ₃ -N	: Ammonia Nitrogen
NO ₂ -N	: Nitrite Nitrogen
NO ₃ -N	: Nitrate Nitrogen
o-PO ₄ -P	: Ortho Phosphate Phosphorus
SiO ₂	: Silica
SO ₄	: Sulphate
BOD	: Biochemical Oxygen Demand (3 days incubation at 27°C)
COD	: Chemical Oxygen Demand
DO	: Dissolved Oxygen
As	: Arsenic
Cd	: Cadmium
Cr	: Chromium
Cu	: Copper
Hg	: Mercury
Ni	: Nickel
Pb	: Lead
Zn	: Zinc
HAR_Ca	: Calcium Hardness
HAR_Total	: Total Hardness
Na%	: Sodium Percentage
RSC	: Residual Sodium Carbonate
SAR	: Sodium Adsorption Ratio
SRD	: Southern Rivers Division, Coimbatore
CD	: Cauvery Division, Bengaluru

TOLERANCE LIMITS OF THE WATER QUALITY PARAMETERS FOR USE IN
IRRIGATION, INDUSTRIAL, COOLING AND CONTROLLED WASTE DISPOSAL

(According to ISI publication IS: 2296 - 1982)

Sl.No.	Characteristics	Tolerance limits
1	pH	6.0 to 8.5
2	Electrical Conductance at 25°C, mhos/cm, max.	2250×10^{-6}
3	Total Dissolved Solids (inorganic)	2100
4	Sodium Adsorption Ratio, max.	26
5	Percent Sodium, max.	60
6	Boron (as B), mg/L, max.	2
7	Chlorides (as Cl) mg/L, max.	600
8	Sulphates (as SO ₄) mg/L, max.	1000

TOLERANCE LIMITS OF SELECTED WATER QUALITY
PARAMETERS FOR OTHER PURPOSES

(According to ISI publication IS: 2296 - 1982)

Sl. No.	Characteristics	Tolerance limits *			
		Class-A	Class-B	Class-C	Class-D
1	pH value	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5	6.5 to 8.5
2	Dissolved Oxygen mg/L, min.	6	5	4	4
3	Bio-chemical Oxygen Demand (5 days at 20°C) mg/L, max	2	3	3	-
4	Total Coliform Organisms MPN/100 ml, max.	50	500	5000	-
5	Total Dissolved Solids, mg/L, max.	500	-	1500	-
6	Chlorides (as Cl) mg/L, max.	250	-	600	-
7	Sulphates (as SO ₄) mg/L max.	400	-	400	-
8	Electrical Conductance at 25°C, mhos/cm, max.	-	-	-	1000 x 10 ⁻⁶

* Class-A : Refers drinking water without conventional treatment but after disinfection.

Class-B : Refers outdoor bathing.

Class-C : Refers drinking water with conventional treatment followed by disinfection.

Class-D : Refers fish culture and wild life propagation.