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वार्षिक जल पुस्तिका
WATER YEAR BOOK
(जून 2015 – मई 2016)
(JUNE 2015– MAY 2016)
पश्चिम प्रवाही नदियाँ बेसिन
WEST FLOWING RIVERS BASIN
खंड– I, नदी प्रवाह एवं निलंबित गाद आँकड़ा
Volume-I, Stream Flow & Suspended Sediment Data



कावेरी एवं दक्षिणी नदियाँ परिमण्डल, बेंगलूरु
CAUVERY & SOUTHERN RIVERS CIRCLE, BENGALURU
कावेरी एवं दक्षिणी नदियाँ संगठन, कोयंबतूर
CAUVERY & SOUTHERN RIVERS ORGANISATION, COIMBATORE
मार्च – 2017
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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 the whole world. It's planning and optimal utilization calls for a well developed Data Bank and maintenance of the Data Bank by regular updation. The Central Water Commission under the Union Ministry of Water Resources, River Development and Ganga Rejuvenation besides being an apex body on Water Resources Sector, has been maintaining a vast system of hydrological data collection Network in different River Basins in India. The collected Hydrological data is being published every water year on basin wise for the benefit of users. This book pertains to the data of West Flowing Rivers Basin under the states of Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu.

With the advent of computerisation 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 is being published in Two Volumes, Volume-I Containing the Stream Flow and Suspended Sediment Data and the Volume-II containing the Water Quality Data. The Book presented here contains the Stream Flow and the Suspended Sediment data in Volume-I for the Water Year 2015-16.

The efforts made by the South Western Rivers Division, Kochi, Cauvery Division, Bangalore, Southern Rivers Division, Coimbatore, under this Circle and Upper Krishna Division, Pune under Krishna & Godavari Basin Organization, Hyderabad in bringing out this Book deserves appreciation.

Bengaluru
March, 2017

(V. Mohan Murali)
Superintending Engineer
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प्रस्तावना

जल लगभग तय मात्रा में उपलब्धता के साथ एक कीमती प्राकृतिक संसाधन है। ताजा पानी पूरी दुनिया में दिन–ब–दिन एक दुलर्भ वस्तु बन गया है। यह योजना है कि जल संसाधनों का इष्टतम उपयोग के लिए एक अच्छी तरह से विकसित डाटा बैंक हो और नियमित रूप से डाटा बैंक का अद्यतन किया जाना चाहिए। जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय के अंतर्गत केन्द्रीय जल आयोग जल संसाधन क्षेत्र के शीर्ष मंत्रालय के निकाय होने के अलावा भारत के विभिन्न नदी घाटियों का हाइड्रोलॉजिक डाटा संग्रह का एक विशाल नेटवर्क प्रणाली बनाये रखा है। एकत्रित हाइड्रोलॉजिक डाटा का प्रकाशन प्रत्येक जल वर्ष पुस्तक में बेसिन क्रम में उपयोगकर्त्ताओं के लाभ के लिए किया जाता है। इस पुस्तक में महाराष्ट्र, गोवा, कर्नाटक, केरल, तथा तमिलनाडु राज्यों के अंतर्गत पश्चिम प्रवाही बेसिन का डाटा है।

डाटा के कम्प्यूटरीकरण के आगमन से जल वर्ष पुस्तक के प्रकाशन प्रारूप में बहुत परिवर्त्तन आया है। संशोधित प्रारूप के अनुसार जल वर्ष पुस्तक दो संस्करणों में प्रकाशन हो रहा है। प्रथम संस्करण में धारा प्रवाह तथा निलंबित तलछट डाटा और द्वितीय संस्करण में जल गुणवत्ता डाटा के साथ प्रकाशित किया जा रहा है। 2015–16 के जल वर्ष पुस्तक के प्रथम संस्करण में धारा प्रवाह तथा निलंबित तलछट डाटा शामिल है।

इस परिमंडल के अंतगर्त दक्षिण पश्चिमी नदियॉ मंडल कोच्ची, कावेरी मंडल बेंगलुरू, दक्षिणी नदियॉ मंडल कोयंबत्तूर, तथा कृष्णा एवं गोदावरी बेसिन संगठन के अंतगर्त ऊपरी कृष्णा मंडल, पूने के प्रयासों से इस पुस्तक का प्रकाशन हुआ सभी प्रशंसा के हकदार है।

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अधीक्षण अभियंता
कावेरी एवं दक्षिणी नदियाँ परिमण्डल

बेंगलुरू
मार्च, 2017

C O N T E N T S

l.No.		CHAPTER	PAGE No.
1.0		Geographical Description of The Basin	
	1.1	Description of The River System	1
	1.2	Climatic Characteristics	1
	1.3	Geology	10
	1.4	Description of The Water Storage/ Diversion Structures	13
	1.5	**STREAM FLOW DATA**	14
2.0		Methodology	
	2.1	Data Availability	16
	2.2	Explanatory Notes	16
	2.3	Geographical Description of The Basin	17
3.0		**HYDROLOGICAL DATA**	
	3.1	History Sheet	18
	3.2	Data Sheet	18
	3.3	Charts/Maps	18
4.0		**SEDIMENT DATA**	19
	4.1	Source of Information	
	4.2	Method of Presentation	20
5.0		**BED MATERIAL DATA**	20
	5.1	Observation Techniques	21
	5.2	The Analysis	21
		Annexure I	23
		PLATES	
		Basin Maps of West Flowing Rivers Basins Plates I-III	24-26
		CWC G & D and Rain Gauge Stations Plate-IV	27
		G&D Sites maintained by Kerala state Govt.- INDEX	28
		Kerala State Govt. G&D Sites Plate-V	29
		Rain gauge stations maintained by IMD- INDEX	30
		Rain gauge stations maintained by Kerala state- INDEX	31-32
		Rain gauge stations maintained by Kerala state & IMD Plate-VI	33
		Tree Structures of West Flowing Rivers Basin Plate-VII to XXVIII	34-60
		SITE WISE HYDROLOGICAL DATA	
	1	Ulhas at Badlapur	61-72
	2	Bhogeshwari at Pen	73-83

	3	Amba at Nagothane	84-94
	4	Kal at Mangaon	95-105
	5	Kajavi at Anjanari	106-117
	6	Gad at Belne Bridge	118-128
	7	Mandovi at Ganjim	129-140
	8	Khandepar at Collem	141-152
	9	Aghanashini at Santeguli	153-164
	10	Haladi at Haladi	165-176
	11	Sita at Avershe	177-187
	12	Yennehole at Yennehole	188-196
	13	Gurpur at Addoor	198-207
	14	Nethravathi at Bantwal	208-219
	15	Payaswani at Erinjipuzha	220-231
	16	Valapatanam at Perumannu	232-243
	17	Kuttyadi at Kuttyadi	244-254
	18	Chaliyar at Kuniyil	255-266
	19	Kadalundi at Karathodu	267-278
	20	Bharathapuzha at Kumbidi	279-290
	21	Pulanthodu at Pulamanthole	291-302
	22	Bharathapuzha at Mankara	303-314
	23	Bharathapuzha at Pudur	315-326
	24	Aliyar at Ambarampalayam	327-335
	25	Chalakudi at Arangaly	336-347
	26	Periyar at Neeleswaram	348-359
	27	Periyar at Vandiperiyar	360-370
	28	Muvattupuzha at Ramamangalam	371-382
	29	Kaliyar at Kalampur	383-394
	30	Meenachil at Kidangoor	395-406
	31	Manimala at Kallooppara	407-418
	32	Pamba at Malakkara	419-430
	33	Achankovil at Thumpamon	431-439
	34	Kallada at Pattazhy	440-451
	35	Vamanapuram at Ayilam	452-463
	36	Tambraparni at Kuzhithurai	464-474
	37	Pazhayar at Ashramam	475-485
		DETAILS OF PROJECTS (Annexure II to V **)**	486-487
		Irrigation Projects In Kerala Plate-XXXIV	488
		Bharathapuzha Basin Plate-XXXV	489
		Periyar Basin Plate-XXXVI	490
		Pamba Basin Plate-XXXVII	491
		Suspended Sediment Data	492-691
		ABBREVIATION AND SYMBOLS	692

1.0 BASIN DESCRIPTION

1.1 GEOGRAPHICAL DESCRIPTION OF THE BASIN

The West Flowing Rivers Basin consists of all the small independent river basins of peninsular India lying to the South of Krishna Basin (except Cauvery Basin) draining into the Arabian Sea. The basin is located in the South West corner of the peninsular India and covers the areas in the States of Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala. There are as many as 31 Nos of medium and minor river basins in this region viz., Ulhas, Bhogeshwari, Amba, Kal, Kajavi, Gad, Mandovi/Madei, Aghanashini, Haladi, Sita, Swarna, Gurupur, Netravathi, Payaswani, Valatapatnam, Kuttyadi, Chaliyar, Kadalundi, Bharathapuzha, Chalakudi, Periyar, Muvattupuzha, Meenachil, Pamba, Achankovil, Manimala, Kallada, Vamanapuram, Tambraparani and Pazhayar. Maps showing these basins are presented as **Plates - I to III.**

All the rivers originate from the high mountains of the Western Ghats and exhibit similar characteristics. They have steep high banks which rarely overflow or cause floods.

There are **37** Gauge & Discharge stations and 17 Rain Gauge Stations operated by the Central Water Commission on these rivers during **2015-16**. Apart from these stations, there are 78 Gauge & Discharge Stations and 159 Nos of Rain Gauge Stations operated by State Government. Besides, there are another 45 No. of rain gauge stations operated by IMD. A map showing all these stations is presented as **Plates – IV to VI**. The details of Rain Gauge Station operated by CWC is enclosed as Annexure I. The Tree diagrams of Rivers showing the locations of the G&D Stations being operated by CWC are shown as **Plate No VII to XXXIII.**

1.2 DESCRIPTION OF THE RIVER SYSTEM

THE ULHAS

The Ulhas River is one of the West Flowing Rivers in Maharashtra falling into the Arabian Sea. The boundary of the basin consists of the main Sahyadri hills on the East, Westerly off shoots on the North and South and on the West, a narrow opening at the end leading to the sea. The Ulhas basin lies between North latitudes of 18º 44’ to 19º 42’ and East longitudes of 72º 45' to 73º 48’. The CWC Hydrological Observation Station is located at **Badlapur**.

The Ulhas drains an area of 4,637 Sq. km which lies completely in Maharashtra. The Thane, Raigad and Pune districts fall in the basin. The Ulhas rises from Sahyadri hill ranges in the Raigad district of Maharashtra at an elevation of 600m above M.S.L. The total length of this West flowing river from its origin to its outfall in to the Arabian Sea is 122 km.

The important tributaries of the Ulhas River are Pej, Barvi, Bhivapuri, Murbari, Kalu, Shari, Bhasta, Salpe, Poshir and Shilar. The Kalu and Bhasta are the major right bank tributaries which together accounts for 55.7% of the total catchment area of Ulhas.

BHOGESHWARI

The river Bhogeshwari rises in the Western ghats near village Bhogeshwari, District- Raighad of Maharashtra at an altitude of about 228.6 m above the sea level. The river flows in the West direction through the Taluka-Pen and merges in the Dharmtar creek near village Antora. The total length of the river is about 40 km. before joining the sea.

The tidal effect of the sea (backwater effect is felt up to 14 km. up-stream of confluence with the sea i.e, up to road bridge on NH-17 connecting Goa and Mumbai. The CWC Hydrological Observation site is located at **Pen** about 3 km. up-stream of the back water affected area. The catchment area of basin up to the site from the origin is 125 Sq.km.

The site covers the releases of Hetwane medium Irrigation project on Bhogeshwari river and Ambaghar project existing on the tributary of Bhogeswari river. The length of the river from it's origin to the site is 22 km.

AMBA

The river Amba originates in the Borghat hill of the Sahyadri ranges near Khopoli-khandala road at an altitude of about 554 m. Initially, the river flows in the South direction and then turns further into the North West direction till it joins the Arabian Sea in Dharmatar creek near village Revas. The total length of the river is about 76 km before joining the sea.

The river is affected by tidal effect of the Arabian Sea (backwater effect) up to Chikan village located at about 31 km from Arabian Sea. The CWC Hydrological Observation site is located at **Nagothane** about 2 km up-stream of backwater-affected area. Also due to the existence of K.T. weir at about 1.5 km down-stream of the site, the backwater effect of sea has no influence on the site.

The catchment of the river up to site from its origin is 420 Sq.km. and is free from backwater. The length of the river up to the site is 41 km. There is no structure in the up-stream of the river and the flow is seasonal.

THE KAL

The Kal River is one of the West Flowing Rivers in Maharashtra. This is a major tributary of the river Savitri. The Kal basin lies between North latitudes of 18^0 05' to 18^0 25' and East longitudes of 73^0 10' to 73^0 13' approximately. The CWC Hydrological Observation Station is located at **Mangaon**.

The Kal rises from Sahyadri hill ranges in the Raigad district of Maharashtra at an elevation of 652 m above M.S.L. The total length of this West Flowing River from its origin to its confluence with the Savitri River is 40 km.

The Kal River drains a total area of 670 Sq.km., in Raigad district of Maharashtra. This is an important tributary of the Savitri river on the right and accounts for 23% of the total catchment area of the Savitri Basin.

KAJAVI RIVER

The Kajavi River rises in the Vishalghat region of Sahyadri hills and flows West ward and joins the Arabian Sea near Ratnagiri port where a 10 km. long creak named Bhatya Creak has been formed.

During monsoon, tidal effect is felt up to village Hercheri that is about 25 km. from the mouth of river. The nature of Bed is sandy mixed with gravels.

The Hydrological Observation site is at **Anjanari** village in Lanja Taluk of Ratnagiri District of Maharashtra State.

THE GAD

The Gad River is one of the West Flowing Rivers in Maharashtra falling into Arabian Sea. The Gad Basin lies between North latitude 16^{o} to 16^{o} 20' and East longitude 73º 30' to 74º approximately. The CWC Hydrological Observation Station is located at **Belne Bridge.**

The Gad drains an area of 890 Sq.km which lies completely in Sindhudurg district of Maharashtra.

The Gad rises from the Sahyadri hill ranges in the Sindhudurg district of Maharashtra at an elevation of 600 m above M.S.L. The total length of the River from its origin to its outfall into the Arabian Sea is 66 km.

The important major tributary of the Gad River is Kasal. The Kasal River joins river Gad near the village Chunavara. During monsoon, tidal effect reaches up to this village. The Kasal River accounts for 20.8% of the total catchment area of the Gad. At present there is no existing project on this river.

MANDOVI / MADEI

The Mandovi River is one of the main West Flowing Rivers of Goa State. The river runs in the North-East direction for about 5 km and then follows in the West ward direction. The Mandovi Basin lies between North latitudes of 15º 15' to 15º 40' and East longitudes of 73º 15' to 73º 45' approximately. There are two CWC Hydrological Observation Stations located at **Ganjim & Collem.**

The Mandovi River drains an area of 1,550 Sq.km., which lies in Tiswadi, Berdez, Bicholim, Sanguem and Ponda Talukas of Goa State.

The Mandovi River rises in the Jamboti Ghats in Karnataka State. At the origin, near the village Mabulyesheir, it is known as Bhaburnal, which is at an elevation of 600m above M.S.L. The total length of this West Flowing River from its origin to its out fall into the Arabian Sea is 62 km.

The important tributaries of Mandovi River are Sarang, Mahainada, Udel, Lohi, Velvota Bicholim, Mapuce, Nanoda and Khandepar.

THE AGHANASHINI

The River Aghanashini originates from Gadihalli (Sirsi) at an altitude of 676 m above M.S.L in the Western Ghats of Karnataka State. The river has a catchment area of 1350 Sq.km and its length up to the confluence to the Arabian Sea is 117 km. The river flows mostly through forest areas and has intermittent structures of rocky bed (with rock out crops), deep stagnant pools and channelled flow with island formation. No major or medium projects exist on the river. The CWC Hydrological Observation Station is located at **Santeguli** on this river.

THE HALADI

This river originates at an altitude of 870 m above M.S.L in the Western Ghats near Someswara in the reserved forests of Karnataka. The river is called as Varahi in the upper reaches and takes the name Haladi after confluence with Munda Koduhole near Haladi village. The river has a catchment area of 781 Sq.km and a total length of 70 km. The CWC Hydrological Observation Station is located at **Haladi.** The Haladi hydro-electric project, which is on the upstream of this Station, has been commissioned in 1990.

THE SITA

The River Sita rises in the Western Ghats beyond Someswar to the North- East of the Udupi Taluk, while the River Swarna flows from the hills situated at the South-Eastern boundary of the same Taluk. Both these Rivers are perennial and join the Sea at Barakur, about 13 km to the North of Udupi Town. The junction of these two rivers forms a large pool. The River Sita is navigable for about 18 km only. There is one CWC Hydrological Observation Station at **Avershe** on this river, which is located at 9.2 km from its outfall into Sea.

THE SWARNA

The river Swarna is one of the major West Flowing Rivers in Dakshina Kannada District of Karnataka State taking its origin in Western Ghats and joining Arabian Sea near Kameshwara village in Udupi taluk. The river flows for a length of 61.05 km. up to its confluence with the sea. The river Swarna is called "Yennehole" in the initial reaches and Swarna River after confluence with `Kaud-hole' its tributary. There is one CWC Hydrological Observation Station at **Yennehole** on this river

The River Swarna is perennial. Though the flow in the river is meagre in summer months, an abundant quantity of flow is experienced during monsoon. The catchment area of the river is under the influence of South West monsoon between June and September.

THE GURPUR

The River Gurpur is one of the streams joining the Arabian sea in the Dakshina Kannada District. The drainage area of the stream is 870.40 Sq.km.

There is one CWC Hydrological Observation Station at **Addoor** on this River. The Site is located at 35.0 km of its outfall into Arabian sea.

THE NETRAVATHI

The Netravathi rises between Kudrermukh and Ballalaryan Durga in the Dakshina Kannada district of Karnataka at an elevation of about 1000 m at 75^0 20' East longitude and 30^0 10' North latitude and flows generally in a North-South direction for 40 km up to Gohattu, where it takes a turn towards the West and there after flows in East-West direction up to its out fall into the Arabian Sea near Mangalore. There is one CWC Hydrological Observation Station at **Bantwa**l on this river. The Kumaradhara, a major left-bank tributary joins near the village Uppinangadi. The total length of the Netravathi is 103 km from its source to the outfall. The river drains an area of 3,657 Sq.km. No major project is in existence in this basin. However, the investigations for a project called "Multi-purpose Netravathi Anicut Scheme" has reported to be completed.

THE PAYASWANI

This river is a tributary to the Chandragiri. The Payaswani River originates from Patti Ghat reserve forest in Coorg district of Karnataka at an altitude of about 1,350 m above M.S.L. The river has a length of 105 km. The catchment area of the river is 1,538 Sq.km. There is one CWC Hydrological Observation Station at **Erinjipuzha** on this river.

THE VALAPATANAM

The Valapatanam River rises South of Ammatti village in the district of Coorg in Karnataka State at 75^0 52' East longitude and 12^0 13' North latitude at an elevation of 900m above MSL. The river has a total length of 101 km from its source to its outfall into the Arabian Sea. The river drains an area of 1,867 Sq.km. of which 546 Sq.km lies in Karnataka and the rest in Kerala. There is one CWC Hydrological Observation Station at **Perumannu** on this river.

THE KUTTYADI

The river Kuttyadi also known by the name Murat River in the lower reaches is one of the important rivers in the Southern part of India, which has great water potential. The river Kuttyadi originates from South Wayanad, flows towards North-West and joins the Arabian Sea near Badayana town. The Kuttyadi river basin is bounded by the Chaliyar basin on the South, Kabini basin in the East and Mahe basin in the North. The basin lies approximately between latitudes 11^o 30' to 11^o 40' North and longitudes 75^o 40' to 76^o 00' East. The catchment area of the river is 583 Sq.Km. The total length of the river is 90 Km. There is one CWC Hydrological Observation Station at **Kuttyadi** on this river.

THE CHALIYAR

The Chaliyar, known in the lower reaches, as the Beypore is one of the major rivers of Kerala. The main river starts from the Elambalari hills at an altitude of 2,067 m above MSL. It is formed by the confluence of numerous

streams and rivers. Its important tributaries are the Cherupuzha, the Iringipuzha, the Kurumbanpuzha, the Kanhirapuzha, the Punnapuzha, the Karimpuzha, the Vadapuram-puzha and the Chaliyarpuzha. The Chaliyar, flowing for a total length of about 169 km finally joins the Arabian Sea at Beypore. The river drains a total area of about 2,933 Sq.km. of which 388 Sq.km. lies in Tamil Nadu. There is one CWC Hydrological Observation Station at **Kuniyil** on this river.

THE KADALUNDI

The Kadalundi River rising East of Karuvarakkundu village in the district of Calicut in Kerala state at 76^0 15' East longitude and 11^0 18' North latitude at an elevation of 900 m has a total length of 130 km from its source to its out fall and a drainage area is 1,112 Sq.km. The two major tributaries are the Olupuzha and the Veliyar. No major irrigation project is in existence in the basin. The basin has no Hydel potential also. There is one CWC Hydrological Observation Station at **Karathode** on this river.

THE BHARATHAPUZHA

The Bharathapuzha River is the second longest West Flowing River that drains into the Arabian Sea in Kerala State. This basin is bounded in the East by the Cauvery basin, in the West by the Arabian Sea. The basin lies approximately between 10^0 26' and 11^0 13' North latitudes and 75^0 53' to 77^0 13' East longitudes. Its drainage area is 6,186 Sq.km spread over the two states namely Tamil Nadu and Kerala. The basin is elongated in shape and finds its outlet into the Arabian Sea. There are five Hydrological Observation Stations on this river maintained by CWC i.e at **Kumbidi, Pulamanthole, Mankara, Pudur & Ambarampalayam.**

The Total drainage area of the basin is 6,186 sq. km out of which nearly 71% lies in the Kerala State. The State wise distribution of the drainage area is given below:

Name of State	Drainage Area (Sq.km)	Percentage of Total Drainage Area
1. Tamil Nadu	1,786	29
2. Kerala	4,400	71
Total	6,186	100

The Bharathapuzha or Ponnani river as it is called in the lower reaches, rises in the Eastern slopes of Anamalai hills of the Western Ghats at an elevation of 2,250 m above MSL and flows in the North-Westerly direction in Pollachi taluk of Coimbatore district in Tamil Nadu State. On its 45^{th} km. run from its origin, it is joined by a tributary namely, the Palar on its right bank. Traversing another 15 km Westward, it enters the Palghat district of Kerala State through the Palghat gap. At its 100^{th} km run, it is jointed by the Kalpathipuzha on the right bank. Traversing another 109 km. in the Westward direction through Palghat and Malapuram districts, it finally discharges into the Arabian Sea near Ponnani town. The total length of the river from its origin to out fall is about 209 km and drains a total area

of 6,186 Sq.km. The upper reaches of the river is called as the Aliyar. When it enters Kerala, it is called as the Kannadipuzha till it meets the Kalpathipuzha. After confluence with the Kalpathipuzha, it is known as Bharathapuzha or Ponnani River. It is joined by the Gayathripuzha on the left bank and the Pulanthode on the right bank as it flows down to the Arabian Sea. It also receives a large number of small streams and rivulets.

The Gayathripuzha, the Kalpathipuzha and the Pulanthode, are the three major tributaries. All the three tributaries rise in the Western slopes of the different ranges of the Western Ghats and drains a major parts of the Palghat, Trichur and Malapuram districts.

THE CHALAKUDI

The Chalakudi river has its origin from the Anamalai hills of Western Ghats. It is formed by the confluence of five streams namely, the Parambikulam, the Kuriarkutty, the Sholayar, the Karappara and the Anakayam. The river has a length of 130 km. The total drainage area of the river is 1,704 Sq.km. of which 300 Sq.km lies in Tamil Nadu and the rest is in Kerala. There is one CWC Hydrological Observation Station at **Arangaly** on this river.

THE PERIYAR

The Periyar 244 km in length is the longest river of Kerala. The Total drainage area of the basin is 5,389 sq. km out of which nearly 98 % lies in the Kerala State. The State wise distribution of the drainage area is given below:

Name of State	Drainage Area (Sq.km)	Percentage of Total Drainage Area
1. Tamil Nadu	114	2
2. Kerala	5,284	98
Total	5,398	100

It rises at the forest land Sivagiri peak 80 km South of Devikulam at an elevation of 2,438 m above MSL and traverses the steep mountainous terrain before it is joined by the Mullayar, 16 km downstream. The river then turns West and continues to flow in the direction for about 16 km in a sandy bed. After a winding course of about 13 km, the river reaches Vandiperiyar and passes through a second narrow gorge below which it is joined by the Perumthura. Further down, it is joined by six tributaries after which the important tributary Edamala joins the Periyar. Passing Malayattur and there after taking a meandering course, the river reaches Alwaye where it divides itself into two branches. The upper branch joins the Chalakudi River at Punthenvelikara and then expands into a broad sheet of water at Munambham. The other branch taking a Southernly course is broken up into a number of small channels which fall into the Vembanad lake (as Varapuzha). There are two Hydrological Observation Stations maintained by CWC on this river i.e. at **Neeleswaram & Vandiperiyar**.

THE MUVATTUPUZHA

The Muvattupuzha River has its origin at East of Erattupetta village in the district of Kottayam in Kerala state at 76^0 53' East longitude and 9^0 43' North latitude at an elevation of 1,200 m. The river has a length of 121 km and a drainage area of 1,554 Sq.km. The three major tributaries of the river are the Thodupuzha Aar, the Kaliyar and the Kothamangalam Aar. There are two Hydrological Observation Stations maintained by CWC on this river/Tributory i.e. at **Ramamangalam & Kalampur.**

THE MEENACHIL

The river originates at East of Erattupeta in the district of Kottayam in Kerala State at 76^0 52' East longitude and 9^0 40' North latitude at an elevation of 900 m above MSL. The river has a number of tributaries namely, Kadapuzha Aar, Karipad thodu, Trikovil Aar, Poonjan Aar, Chit Aar, Payappara Thodu etc. This river has a length of 78 km from its origin to the confluence with the Vembanad lake. It drains a total area of 1,272 Sq.km. There is no major irrigation project in the basin at present. The basin has no power potential. There is one CWC Hydrological Observation Station at **Kidangoor** on this river.

THE PAMBA

The Pamba, 176 km in length is the third longest river in Kerala. It is formed by the confluence of the Pamba Aar, Kaki Aar, Arudhai Aar, Kakkad Aar and Kall Aar. The Pamba Aar rises in the Peerumedu Plateau at an elevation of 1,670m. The Kaki Aar, which forms the major tributary of the Pamba River, is a much larger stream at the beginning than the main river. The Pamba River, after receiving the Kaki Aar flows in a Westerly direction till it is joined by the Arudhai Aar. At Narayanamuzhi, it turns and follows a South-Easternly direction until the Kakkad Aar Joins it. Beyond the confluence, the river flows in a Southerly direction up to Vadasserikkara where it is joined by the Kall Aar which has its origin in the Valanjakkatti Malai. The catchment area of the river is 2,235 Sq.km. There are two Hydrological Observation Stations maintained by CWC on this river/Tributary ie at **Kalloppara & Malakkara.**Sacred due to its proximity to Sabarimalai

At Pandanad the river bifurcates, one branch taking a Westerly course. The Manimala joins the Pamba in its Neeretupuram branch. The river thereafter flows Northwards and falls into the Vembanad lake through several branches.

THE ACHANKOVIL

The river Achankovil is formed by several streams originating from the Pasukidamettu, Ramakkal Teri and Rishi Malai at altitudes ranging between 700 m and 160 m above MSL joined together to form the Achankovil river. This river originates South of Devermalai in the Quilon district of Kerala State at 77^0 15' East longitude and 9^0 10' North latitude at an elevation of 1,500m above MSL. The river has a length of 128 km and drains an area of 1,484 Sq.km. There are no major irrigation projects in the basin at present. There is a possibility of constructing a dam near Neduvathumazhi forest rest house with a

capacity to irrigate 5,000 hectares of land. No Hydel scheme is in existence in the basin at present. This river is a tributary of river Pamba. There is one CWC Hydrological Observation Station at **Thumpamon** on this river. Achankovil – Vaipar Link studied by NWDA.

THE KALLADA

The River is formed by the three rivers i.e. Kulathupuzha, Chendurni and Kalthuruthy joining together near Parappar. The river has its origin in Papanasam range South of Kulathupuzha in Quilon district of Kerala State at an altitude of 900m above MSL. The river has a length of 121 km. and drains an area of 1,699 sq.km before confluencing with the Ashtamudi Lake. There is one CWC Hydrological Observation Station at **Pattazhy** on this river.

THE VAMANAPURAM

The Vamanapuram river has its origin in the Chemunji Motai at about 1,860m, above MSL. The river has length of 88 km and drains an area of 687 sq.km. before joining the Anjengo lake at Chirayinkil. There is one CWC Hydrological Observation Station at **Ayilam** on this river.

THE PAZHAYAR

The river Pazhayar originating from the slopes of Mahendragiri hills at an altitude of 800 m above M.S.L, flows towards South-Western direction through Mahendragiri Estate, Palkulam, Bhuttapandi, Thazhikudi, Nagercoil town, Suchindram, etc. and joins the Arabian Sea near Manakudi . The basin contains number of water storage tanks/bunds. The catchment area of the river is 397 Sq.Km. The total length of the river is 40 Km. There is one CWC Hydrological Observation Station at **Ashramam** on this river.

The Tambraparni and Valliyar river basins lie Northern side of Pazhayar River. There exists one inter basin canal connecting Tambraparni basin and Pazhayar basins, so as to feed water for irrigation, etc in Pazhayar basin, as this basin is experiencing scarcity of water. There is no major project in Pazhayar basin.

TAMBRAPARNI BASIN

The River Tambraparni bounded by Neyyar river basin on the North and Pazhayar river basin on the South originates from the Western slopes of Western Ghats. It flows through hilly terrain in the initial stretch and continues its course through planes of Kanyakumari District of Tamil Nadu. The catchment area of the river is about 906 sq.km. The total length of the river is 55 km. Its drainage area is spread over Kanyakumari Districts of Tamil Nadu. After traversing over this district, it finally reaches the Arabian Sea.

Tambraparni River has two major tributories viz. Kodayar River and Paralayar River. The Kodayar River originates from Turuvattavaladam Malai at an elevation of 1500 m above M.S.L. The Paralayar River originates from Vanamutti Malai near Muthuzhi palace at an elevation of 1500 m about M.S.L.

The Kodayar River and Paralayar river confluence at Muvathumugam and the river course below this confluence is known as Tambraparni River.

Central Water Commission has at present one Hydrological Observation Station across river Tambraparni at **Kuzhithurai.**

1.3 CLIMATIC CHARACTERISTICS

There are two distinct rainfall seasons in this region, the South-West (June to September) and the North-East (October to January) monsoons. During these two seasons, about 90% of the annual rainfall is precipitated. The South-West coast of has fairly salubrious climate. Bracing cold climate exists in the high land region. Temperate climate exists in the plain with high humidity.

A brief description of the climatic characteristics of some of the basins is given below:

ULHAS

The average rainfall in the Ulhas basin is 2,943mm. The basin receives most of the rainfall from the South-West monsoon during June to October. Almost 99% of the total rainfall in the basin is received during this period. The average maximum and minimum temperatures are 38.90 C and 12.4^{0}C respectively. May is the hottest month of the year and January is the coldest month of the year.

KAL & GAD

These basins receive most of the rainfall from the South-West Monsoon during June to October. The average rainfall in the Kal basin is 2,795 mm where as the average rainfall in the Gad basin is 2,600 mm.

MANDOVI /MADEI

The average rainfall in the Mandovi Basin is 3,484mm. The lowest and highest temperatures recorded are 9.30º C during January 1937 and 42.6º C during March 1959 respectively. March to May are the hottest months of the year and December to January are the coldest months of the year.

AGHANASHINI

The basin experiences winter season from December to February. During this period clear weather prevails and it is followed by summer season up to May and there after the South West monsoon starts and ends by September. October and November constitute the Northeast monsoon. The annual rain fall of the basin varies from 2028 mm to 5465 mm. The temperature varies from 20.0°c to 32.7°c. The monthly average wind speed varies from 4.2 km/hr to 7.2 km/hr.

HALADI

This basin experiences its winter season from December to February and during this period clear weather prevails. It is then followed by summer season up to May. There after South West monsoon prevails up to September. October and November constitute the North East monsoon. The temperature varies from 32.4°c to 21.7°c. This basin experiences high humidity, especially during South-West monsoon season. The wind speed is fairly strong during monsoon period, and varies from 6.8 to 9.6 km/hr. The basin experiences an average annual rainfall of 5516 mm.

SWARNA

Three distinct seasons prevail in this basin, summer season from March to May, monsoon from June to November and winter from December to February. Due to proximity to sea, the region is generally humid with a further rise in humidity during monsoon season. The maximum, minimum and average annual rainfall of the basin are 7751 mm, 3465 mm and 4436 mm respectively. The monthly average Maximum & Minimum temperatures recorded are 32.4^{o} C in April and 21.7^{o} C in January respectively. The maximum monthly average wind speed varies from 7.2 to 9.6 km/hr.

NETRAVATHI

The climate of the basin is characterised by heavy rainfall, high humidity, and oppressive weather in the hot season. The hot season from March to May is followed by the South West monsoon from June to September. October and November constitute the retreating monsoon or post monsoon season. The annual rainfall varies from 2002 mm to 5277 mm. The temperature varies from 16.0°c Minimum to 42.0°c Maximum and the wind speed from 7.2 to 9.6 km/hr.

VALAPATANAM

The climate of this basin is characterised by heavy rainfall, high humidity and oppressive weather in hot season. The maximum rainfall observed is 4268 mm and minimum 2369 mm. The temperature varies from 22.0°c to 32.9°c.The velocity of wind varies from 8 km/hr. to 12.6 km/hr.

CHALIYAR AND KADALUNDI

Good rainfall and humid temperature through out the year are the characteristic features of these basins. The climate along the coastal area of the basin is generally hot with high humidity. These basins experience both South West and North East monsoons. The annual rainfall is 5042 mm maximum to a minimum of 1289 mm. The mean daily temperature of this basin varies from 25.8°c to 29.4°c as observed at IMD observatory. The wind speed varies from 12.6 km/hr to 8.1 km/hr.

BHARATHAPUZHA

The Bharathapuzha basin receives copious rainfall during the South West monsoon and it lies in the rain shed region of the Western Ghats. The rainfall varies from 2,000 to 2,800 mm in the hilly region to 3,000 mm in the coastal region. Since, the basin is located in tropical region, the temperature varies with season.

CHALAKUDI

Good rainfall and humid atmosphere are felt through out the year. The climate along the coastal area of this basin is generally hot with high humidity. This basin gets rainfall in both South West monsoon and North East monsoon. The rainfall varies from 1494 mm to 4588 mm. The normal daily mean temperature varies from 25.9°c to 28.7°c observed at Cochin. The mean monthly wind velocity varies from 6.7 to 10.9 km/hr observed at I.M.D. observatory.

MEENACHIL

This Basin is in receipt of good rainfall and humid atmosphere through out the year. The basin experiences both South West and North East monsoons. The annual rainfall varies from 2420 mm minimum to a maximum of 4686 mm. The monthly mean temperature varies from 26.2°c to 29.4°c observed at I.M.D. observatory. The wind speed observed is 6.55 to 10.55 km/hr

PAMBA

The Pamba basin experiences good rain fall, moderate temperature and humid atmosphere. The South West and North East monsoon have great influence over the climatic condition of the basin. Even though the coastal regions of the basin experience hot with high humidity, the hilly region is generally cold. As per the I.M.D observations, the normal mean daily temperature varies from 22.6°c to 32.7°c. The average annual rainfall varies from 2276 mm to 4275 mm. The wind speed varies from 8.5 to 13.6 km/hr.

ACHANKOVIL

Good rainfall and a humid atmosphere are through out the year in this basin and in receipt of both South West monsoon and North East monsoon. The annual average rainfall in this basin is 2520 mm. This basin experiences a tropical climate with out much variation in temperature. The mean daily temperature varies from 26.1°c to 29.1°c. The velocity of wind varies from 8.5 to 13.6 km/hr as observed at I.M.D. Observatory.

KALLADA

The Kallada basin experiences good rain fall and humid atmosphere throughout the year. The climate along the coastal region of this basin is generally hot with high humidity. The normal daily mean temperature of the basin

varies from 26.1°c to 29.1°c. Even-though the monsoon period of the basin is considered from June to November, the basin gets most of the rainfall during June to August. The annual rainfall varies from 2225 mm to 4038 mm. The basin experiences moderate and uniform wind velocity through out the year. Generally it varies from 8.5 to 13.6 km/hour as per the I.M.D. data.

VAMANAPURAM

The climate is generally hot with humidity through out the coastal belt and in mid land, where as in hilly region of the basin it is very cool, for most of the period in the year. As per the I.M.D observations, the normal mean daily temperature of the basin varies from 26.2°c to 28.8°c. The basin experiences annual rainfall between 1836 mm and 4651 mm. The mean monthly wind velocity as per the I.M.D. observation varies from 4.8 to 11.2 km/hour.

MUVATTUPUZHA KALIYAR BASIN

This basin experiences good rainfall and humid atmosphere through out the year. The normal daily mean temperature of this basin varies from 25.9°c to 28.7°c as observed at I. M. D Observatory. The Muvattupuzha basin is getting both South-West monsoon and North-East monsoon. The South- West monsoon begins in June and ends in September and North-East monsoon begins in October and ends in November. The average annual rainfall of this basin varies from minimum of 2779 mm to maximum of 4526 mm. The mean monthly wind velocity varies from 6.7 to 10.9 km/hr.

1.4 GEOLOGY

Physiographically the State is divided into three major units viz. the coastal plain, the midlands and the hill ranges. The coastal plains have an elevation of less than six meters whereas the elevation of midlands ranges from 6 to 80 m and that of hill ranges is more than 80 m above mean sea level. Two plateau regions are seen in the hill ranges, the important being the Wynad plateau covering major part of Wynad district, the elevation of which is about 700 m. above msl. The other plateau is Munnar plateau in Idukki district, the elevation of which is about 1000 m. Above msl.

Geologically 88% of the State is underlain by crystalline rocks of Archaean age which is part of the peninsular shield of India. The crystalline complex of Kerala is composed of charnockites, gneisses, schists, migmatites and rocks of the Wynad supra-crustals. Along the Western portion of the State the crystalline rocks are overlain by the sedimentary formations of Tertiary age and recent alluvial formation. The Tertiary sequence of formation have been divided into four beds viz. Alleppey, Vaikom, Quilon and Warkali, the age of which ranges from Eocene to Lower Miocene. Laterites of subrecent age are derived from the crystalline as well as sedimentary formations and are seen all along the midlands. Along the coastal plain, the sedimentaris and laterites are overlain by alluvium of recent age.

Laterites are the most widely distributed lithological unit in the State and the thickness of this formation varies from few metres to about 30m.

GEOLOGICAL SUCCESSION IN KERALA

Era	Age	Formation	Lithology
Quarternary	Recent	Alluvium	Sands, clays, riverine Alluvium and flood plain deposits of Kuttanad area.
	Sub-recent	Laterite	Laterite derived from crystalline and sedimentary formation.
Tertiary	Lower Miocene	Warkali beds	Sandstone and clay with lignite seams
	Lower Miocene	Quilon beds	Limestone, clay and marl.
	Eocene to Oligocene	Vaikom beds	Sandstone with pebbles and gravel beds, clays and lignite.
	Alleppey beds		Carbonaceous clay and sand
	Intrussives		Granite, granophyres, dolerite and gabbro.
Archean	Wyanad group		Foliated granite gneiss with bands of schist and ultramafics, Quartz mica schists .
	Migamtite group		Granite gneiss, bornblende biotite gneiss, Garnet biotite gneiss and quartzofeldspathic gneiss
	Charnockite group		Cordierite gneiss, Charnockite gneiss and pyroxene granulite
	Khondalite group		Garnet sillimanite gneiss, graphite gneiss, Quartzite and calc granulite.

1.5 DESCRIPTION OF THE WATER STORAGE/DIVERSION STRUCTURES

There are 25 Nos of on-going/completed projects in the basin of Mandovi, Bharathapuzha, Periyar and Pamba. The details of these projects is given in the **Annexures- II to V.** Maps showing these projects are enclosed as **Plates - XXXIV to XXXVII**

A brief feature of some of the projects is given below.

MANDOVI / MADEI

Anjunem project constructed across Nanoda, a tributary of Mandovi River is the main project of the basin. In addition to this, Mandovi project is also planned to be constructed, across Costinadi (Tributary of Velvota). This project consists of a straight gravity masonry dam of length 180 m. There are no direct canals from the dam. A pickup wier is constructed at 1.5 km downstream and two canals are taking off from this pickup wier. The right bank canal is of 15 km length.

The construction of the dam has been completed in May 1987.

SWARNA

A dam is proposed on this river at location consisting of East longitude 75^0 02` 30" and North latitude 13^0 15' 30" and the place is approachable from Karkala. The gross storage capacity of the reservoir is 370.95 M.Cum. and the dead storage is 108.65 M.Cum. The Total irrigatable area is about 44,000 ha.

PAYASWANI

There is no major irrigation project presently in the basin. However, Pallangode project on Payaswani River to irrigate an area of 10,930 hectares and the Moonam Kadavu project on the Chandragiri river to irrigate an area of 4,800 hectares are under investigation. The river basin has no Hydro-electric power potential.

VALAPATANAM

The multipurpose Kattampally project at Kattampally, and Pazhassi project at Valiambra are the main irrigation Projects in this basin. The Kattampally has been planned in two stages. The stage I will not only prevent saline water intrusion and reduction of flood, but also provide irrigation benefit to an area of 1280 ha. The stage II of the project is expected to irrigate an addition area of 1650 ha. The Pazhassi project is proposed to irrigate 16,110 ha. of land. Further, one more project viz., Avalam Irrigation Project is under investigation.

There is no Hydel project in existence in the basin. However, there is a proposal for the construction of upper Barapole Hydro-Electric Scheme in Makut forest Range in Karnataka. The tail race of this scheme is also planned to utilise for the Lower Barapole Hydro-Electric Scheme Kerala with an installed capacity of 140 MW.

BHARATHAPUZHA

At present there are 13 completed structures either reservoirs or weirs in the Bharathapuzha catchment out of which there are three important structures namely the Aliyar reservoir, Tirumurthi reservoir and Malampuzha reservoir. Brief particulars of Malampuzha reservoir are given below.

MALAMPUZHA RESERVOIR

This project consists of 1,849 m long straight gravity masonry dam and 222 m long earthen dam with a maximum height of 38.1 m, constructed across the Malampuzha River in the Palghat district. Two canals off taking from either side of the river, irrigate an area of 21,045 ha. This reservoir has a live capacity of 226.96 M.Cum. The project was commissioned in the year 1966.

2.0 STREAM FLOW DATA

2.1 METHODOLOGY

The standard method being adopted at all the sites for collecting the data is explained briefly as under:

Three lines of staff gauges are maintained at all the sites for observing water levels and surface slope. All these levels are connected to GTSBM value. The Water Level at Central Gauge line is used for arriving at a Stage-Discharge relationship at each site.

Velocities are recorded by using current meters as per IS:3918-1966 (reaffirmed-2001) by boat with cable way or with outboard engine at higher stages and by wading at lower stages. Where the facility of boats is not available, Discharge measurements are carried out from the near by bridges / Floats.

Observed data at the field station is entered / computed in different formats prescribed for the purpose and later processed at various levels using SWDES and HYMOS Softwares before publishing in the Water Year Book.

On the days when the discharge observations are not conducted due to holidays or any other reasons, the same have been estimated from the established Stage-Discharge curve of the site of the current year against 0800 Hrs stage. Some of the observations, which do not fall within the established curve due to some errors in observation or wind effect etc., are discarded and discharges are again estimated from the established Stage-Discharge curve against 0800 Hrs stage.

2.2 DATA AVAILABILITY

As already mentioned, Central Water Commission is conducting Hydrological Observations at **37** stations spread over five states of Karnataka, Kerala, Maharashtra, Tamil Nadu & Goa and daily discharge data collected at all these sites for the year **2015-16** has been finalized and presented in this volume in the form of Water Year Book.

The Data presented in this book has been collected by the four Divisions viz., Cauvery Division, Bangalore; South Western Rivers Division, Kochi ; Southern Rivers Division, Coimbatore and Upper Krishna Division, Pune.

2.3 EXPLANATORY NOTES

The explanatory notes described here under are designed to assist in the interpretation of hydrological parameters contained in the data presented subsequently. The notes are, therefore, valid in so far as data presented in this book is concerned.

i) Water year ranges from June 1st of one calendar year to May 31st of the next calendar year and covers one complete hydrological cycle.

ii) Discharge is given in Cubic meters per second.

iii) Discharges given are daily observed discharges commencing at 08.00 Hrs.

iv) Discharge indicated with asterisk (*) mark is estimated discharge Corresponding to stage at 08.00 Hrs.

v) The ZERO R.L. of a gauge is a datum level fixed for a given site, which is generally kept 1 m or 2 m lower than the lowest water level recorded in a perennial stream. In a non-perennial stream, it is kept 1 m or 2 m lower than the lowest bed level of the stream.

vi) Discharges are rounded to :
   a) nearest full integer when more than 1000
   b) nearest first decimal figure when between 100- 999
   c) nearest two decimal figure when between 10-99.
   d) nearest three decimal figure when less than 10.

vii) Maximum and Minimum discharge are taken from daily observed/estimated discharge.

viii) Run off in mm is the notional depth of water in millimeters over the catchments, equivalent to annual runoff calculated at the discharge measurement station. It is computed using the relation

$$\text{Run off (mm)} = \frac{\text{Annual runoff (M Cum)}}{\text{Catchment area (Km}^2\text{)}} \times 1000$$

iX) Peak and lowest flow correspond to the highest and lowest water levels recorded during the period of record.

X) Measuring Authority refers to the field division responsible for the operation of the Gauging Stations.

ix) The Gauging Station Code Number is a unique seven-column alphanumeric reference number, which facilitates storage and retrieval of flow data in data bank. The first column is identifier of either an integral river basin or for convenience a region having several continuous river catchments. This is followed by a column that identifies an independent river system, which either have one or more outlets to the sea or crosses international border to enter another country. The third, fourth and fifth column spaces 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 225 slots earmarked on the river. The blank column spaces are filled by zero.

3 HYDROLOGICAL DATA

3.1 HISTORY SHEET

The History sheets enclosed give the description of the Hydrological Observation Stations such as Site name, State, District, River basin, Catchment Area, Latitude/Longitude Etc., Peak and Minimum Discharges and the corresponding water levels right from the inception of the site up to the current year are also shown.

3.2 DATA SHEET

In this sheet the observed/estimated daily Stage-Discharge tables are shown month-wise together with Ten-Daily, Monthly and Annual summaries. Dates of occurrences of Graphs showing three highest flood peaks-water Level v/s Time that occurred during the current water year are also generated and included in the Year Book.

3.3 CHARTS / MAPS

The year wise total Annual Run-Offs of the site from the year of inception up to the current year is reflected in the bar charts. The Histogram/Hydrograph of monthly average discharge values are depicted in two separate pie charts one for the current year and the other for all the years from year of inception up to the previous year. The Pre-monsoon and Post-monsoon Cross Sections of each Site are also inserted wherever available.

4 SEDIMENT DATA

There are 23 Sediment observations Stations under West Flowing Rivers Basin.

4.1 SOURCE OF INFORMATION

Suspended Sediment observation stations for which data for 2015-16 is presented in this volume are maintained by the South Western Rivers Division, Kochi, Southern Rivers Division, Coimbatore and Cauvery Division, Bangalore, the names of the stations are given below:

4.1.1 (A) UPPER KRISHNA DIVISION, PUNE

1. Ulhas at Badlapur
2. Kal at Mangaon

4.1.1 (B) SOUTH WESTERN RIVERS DIVISION, KOCHI

1. Payaswani at Erinjipuzha
2. Kuttyadi at Kuttyadi
3. Valapatanam at Perumanu
4. Chaliyar at Kuniyil
5. Kadalundi at Karathodu
6. Bharathapuzha at Kumbidi
7. Pulanthodu at Pulamanthole
8. Bharathapuzha at Mankara
9. Bharathapuzha at Pudur
10. Chalakudi at Arangaly
11. Periyar at Neeleeswaram
12. Muvattupuzha at Ramamangalam
13. Kaliyar at Kalampur
14. Meenachil at Kidangoor
15. Manimala at Kallooppara
16. Pamba at Malakkara
17. Achankovil at Thumpamon
18. Kallada at Pattazhy
19. Vamanapuram at Ayilam

4.1.1 (C) SOUTHERN RIVERS DIVISION, COIMBATORE

Aliyar at Ambarampalayam

4.1.1 (D) CAUVERY DIVISION, BANGALORE

1. Nethravathi at Bantwal

4.1.2 OBSERVATION TECHNIQUE

Suspended sediment observations are conducted daily along with the discharge observations

Sampling is done from boat or by wading. The Punjab type bottle sampler is used for collecting sediment samples. The sediment samples collected from flowing channels are analysed for the three grades of sediment viz. Coarse, Medium and Fine. Coarse and Medium grades are separated by sieving using standard sieves of 212 microns and 75 microns respectively and Fine grade sediment by filtration. Grade wise concentration is determined by gravimetric method.

Samples are generally collected at 0.6 depth from various verticals along the cross section of the river. These verticals are grouped into three or

more composite sections for the purpose of analysis of Coarse and Medium grades of sediment. For fine grade, the sediment samples, after removing the Coarse and Medium grade are combined into a single group and analysed. Selection of the composite sections is done in such a way so as to ensure that the discharges through each of the composite sections are nearly equal.

4.1.3 CLASSIFICATION OF SEDIMENT

Sediment is classified as Coarse, Medium and Fine according to the diameter as indicated below:

Coarse : Sediment above 0.20 mm diameter

Medium : Sediment between 0.20 and 0.075 mm diameter

Fine : Sediment below 0.075 mm diameter

The values given in the daily sediment data sheets are observed values. For non-observed days the values are either taken from Discharge–Sediment Curves or from neighborhood values.

4.2 METHOD OF PRESENTATION

The various data tables presented are generated from the validated SWDES Data base through SWDES software. Some of the features of the tables generated are briefly explained as below:

4.2.1 When the sediment samples analyzed give non-measurable sediment, it is presumed to be of “nil” value and recorded accordingly. The Table of Annual Sediment Load along with the season-wise Sediment Loads for the period from the Date of inception up to the Last Year is generated. A bar Chart for the same but including the Sediment load for current year is also generated separately. Separate tables showing Daily Observed Sediment Data & Pie Charts are also generated.

5.0 BED MATERIAL DATA

The Bed Material Survey and Analysis data used to be published separately as Bed material analysis data book till the year 1990. Since Bed material survey and analysis work also form a part of the sediment observation work, it was decided to publish the Sediment data and the Bed material survey and analysis data in a single volume from the year 1990-91 onwards. With the revision of format of Water Year Book, the Sediment and Bed Material data is included in the Water Year Book itself from 2007-08.

5.1 OBSERVATION TECHNIQUES

Bed material survey is conducted at the station gauge line three times in a Water Year i.e during Monsoon, Post monsoon and Pre-monsoon seasons. Samples at the required intervals from the dry as well as the flowing part of the river bed are collected and the river cross section on the date of survey is also taken. Sampling segments are fixed as per the standard requirements, subject to a minimum of three samples. Samples from the flowing channel are collected by means of a scoop type bed material sampler. For the dry part, the bed is cleared off the vegetation etc. by removing about 10 to 15 cm of the top layer with a scraper and a suitable pit of about 30 to 40 cm is dug out and representative samples are collected. These samples are reduced to the required quantity by the cone and quartering process. The samples thus reduced are put into polythene covers and packed into thick cloth bags. The cloth bags are then labeled with the relevant particulars of the river and the samples are sent to the divisional laboratory for analysis.

5.2 THE ANALYSIS

The bed material samples are analyzed at the divisional laboratory for the particles size distribution in two stages. First, the sample is weighed and then placed in the top 40.0 mm dia sieve of a set of Sieves having diameter ranging from 0.6 mm to 40 mm. Shaking the sieve is done with the help of a mechanical sieve shaker. After 10 to 15 minutes of shaking, the material retained in each sieve is collected and weighed. The total weight of various fractions must be equal to the initial weight of the sample used for analysis. The material passing through the last 0.6 mm dia sieve is again analyzed by means of the Puri's Siltometer. From the result of the above analysis, Summation Curves are drawn as per the standard procedure and the mean diameter of each example is worked out. From this the Silt Factor can be calculated using the formula $f = 1.76 \sqrt{m}$ where 'm' is the mean diameter of the sample in mm. The mean diameter of the sample, maximum diameter of the sample, details of the sample collected and the general data of the river are furnished in this publication.

5.2.1 DATA OF THE SAMPLE COLLECTED

In the data of the sample collected, the RD from which the sample is collected, RL of dry bed (in case sample is collected from dry bed), RL of bed level (in case sample is collected from flowing channel), Water level, Depth of water, Segment width, Velocity at the RD and the Segment discharge on the date of sampling are furnished.

5.2.2 GENERAL DATA OF RIVER

In the general data of the river the Hydraulic mean depth, Mean velocity, Surface water slope and the discharge on the date of sampling etc. are shown.

5.2.3 BED MATERIAL COMPOSITION

Under bed material composition, the maximum size and mean size of each sample and also the maximum size and the mean size for the entire cross section for each season are recorded. The minimum size for each sample has been assumed as 0.06 mm. since this has been observed uniformly in every sample.

Annexure - I

STATEMENT SHOWING HO SITES IN WEST FLOWING RIVERS BASIN			
Sl No.	**Name of the site**	**River Name**	**Type**
1	BADLAPUR	Ulhas	GDSQ
2	PEN	Bhogeshwari	GD
3	NAGAOTHANE	Amba	GD
4	MANGAON	Kal	GDSQ
5	ANJANARI	Kajavi	GD
6	BELNE BRIDGE	Gad	GDQ
7	GANJIM	Mandovi	GD
8	COLLEM	Khandepar	GD
9	SANTEGULI	Aghanashini	GDQ
10	HALADI	Haladi	GDQ & RF
11	AVERSHE	Sita	GDQ & RF
12	YENNEHOLE	Yennehole	GDQ & RF
13	ADDOOR	Gurpur	GDQ & RF
14	BANTWAL	Netravathi	GDSQ & RF
15	ERINJIPUZHA	Payaswani	GDSQ
16	PERUMANNU	Valapatnam	GDSQ & RF
17	KUTTYADI	Kuttyadi	GDSQ
18	KUNIYIL	Chaliyar	GDSQ
19	KARATHODU	Kadalundi	GDSQ
20	KUMBIDI	Bharathapuzha	GDSQ
21	PULAMANTHOLE	Pulanthodu	GDSQ
22	MANKARA	Bharathapuzha	GDSQ & RF
23	PUDUR	Kannadipuzha	GDSQ
24	AMBARAMPALAYAM	Aliyar	GDSQ & RF
25	ARANGALY	Chalakudi	GDSQ & RF
26	NEELESWARAM	Periyar	GDSQ & RF
27	VANDIPERIYAR	Periyar	GDQ & RF
28	RAMAMANGALAM	Muvattupuzha	GDSQ
29	KALAMPUR	Kaliyar	GDSQ
30	KIDANGOOR	Meenachil	GDSQ
31	KALLOOPPARA	Manimala	GDSQ & RF
32	MALAKKARA	Pamba	GDSQ & RF
33	THUMPAMON	Achankovil	GDSQ & RF
34	PATTAZHY	Kallada	GDSQ & RF
35	AYILAM	Vamanapuram	GDSQ
36	KUZHITHURAI	Thambraparani	GDQ & RF
37	ASHRAMAM	Pazhayar	GDQ & RF
Index:	G= Gauge sites, GD= Gauge & Discharge, RF=Rainfall Station GDQ= Gauge, Discharge & Water Quality, GDSQ= Gauge, Discharge, Sediment & Water Quality		

PLATE-I

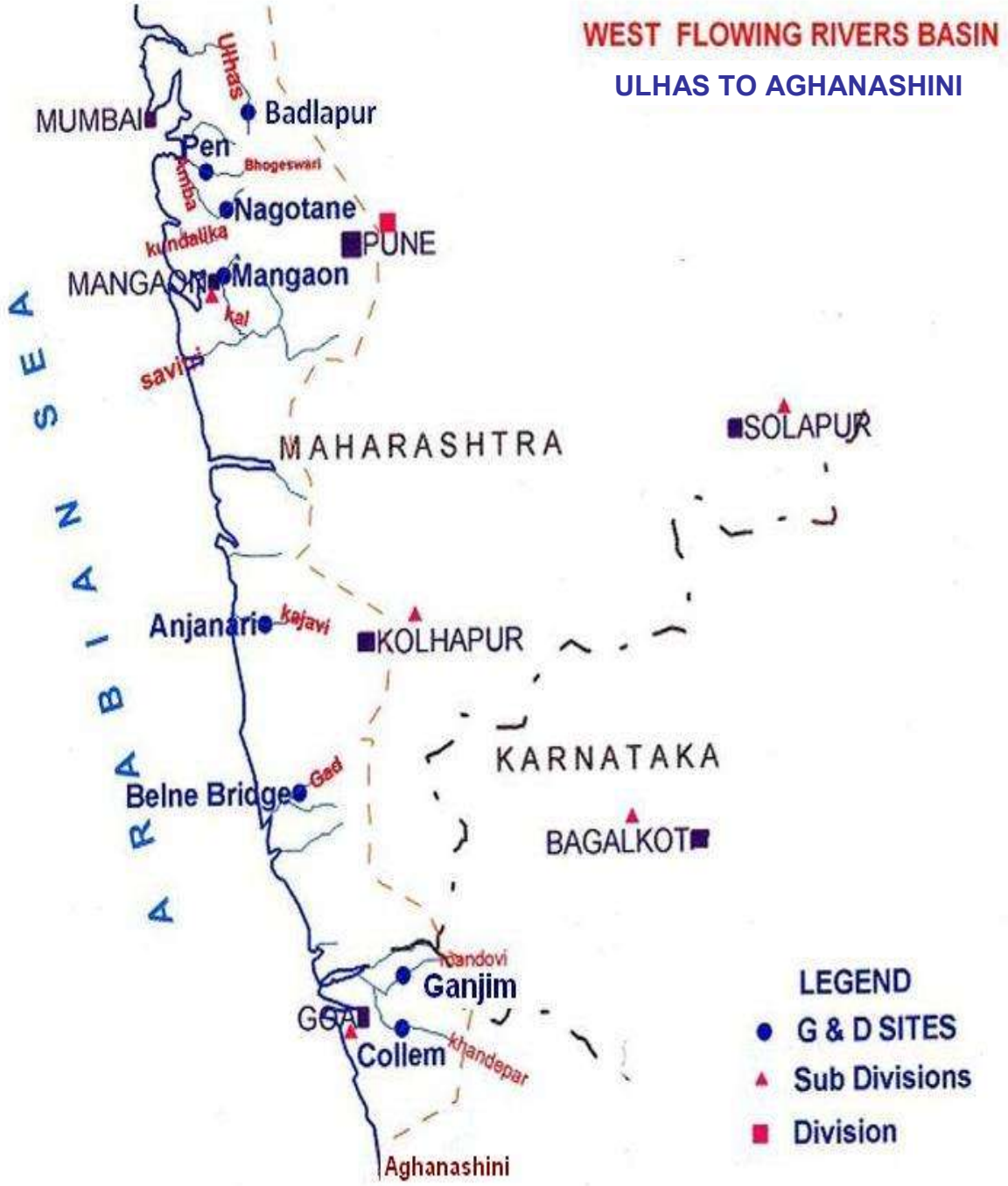
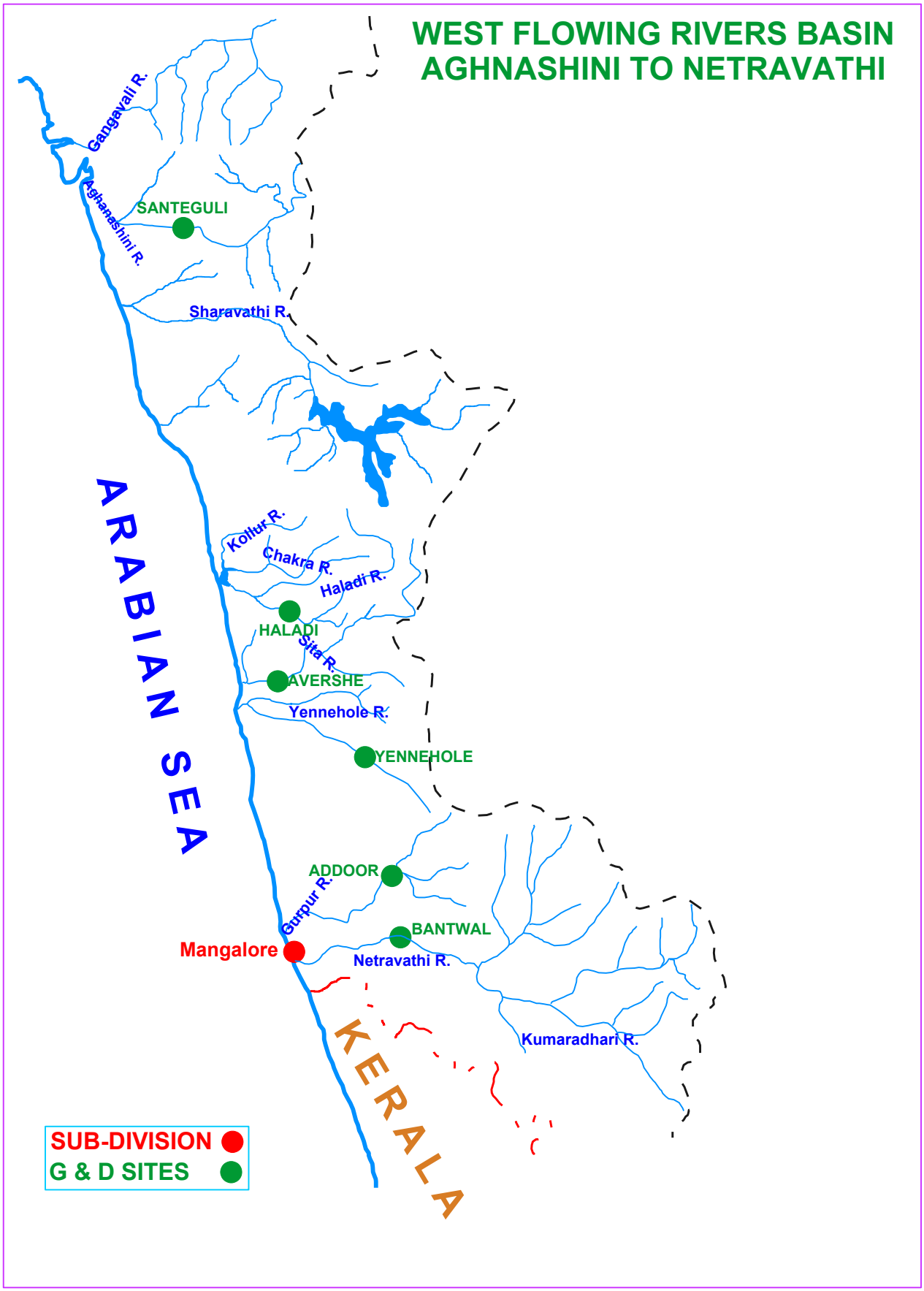
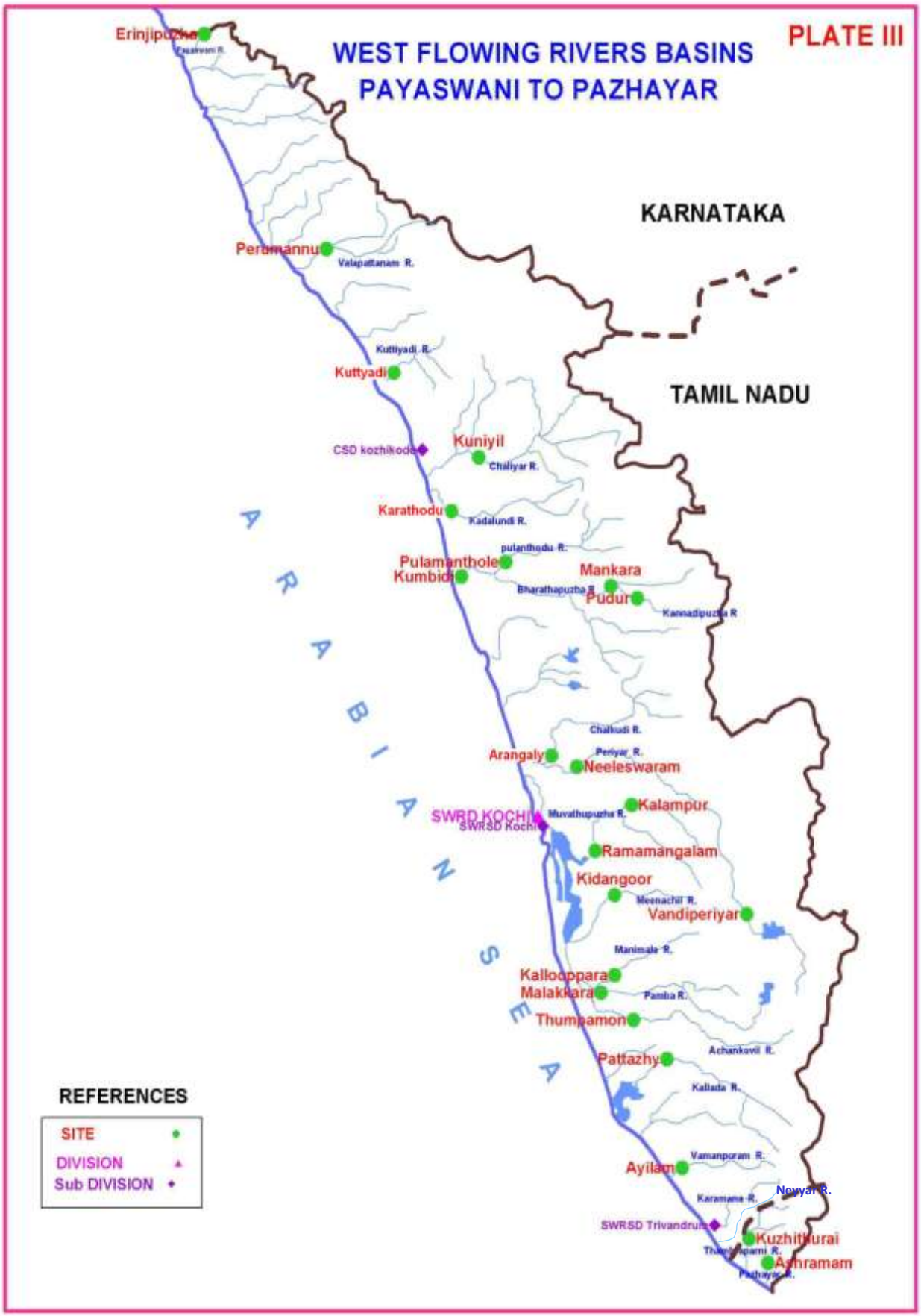
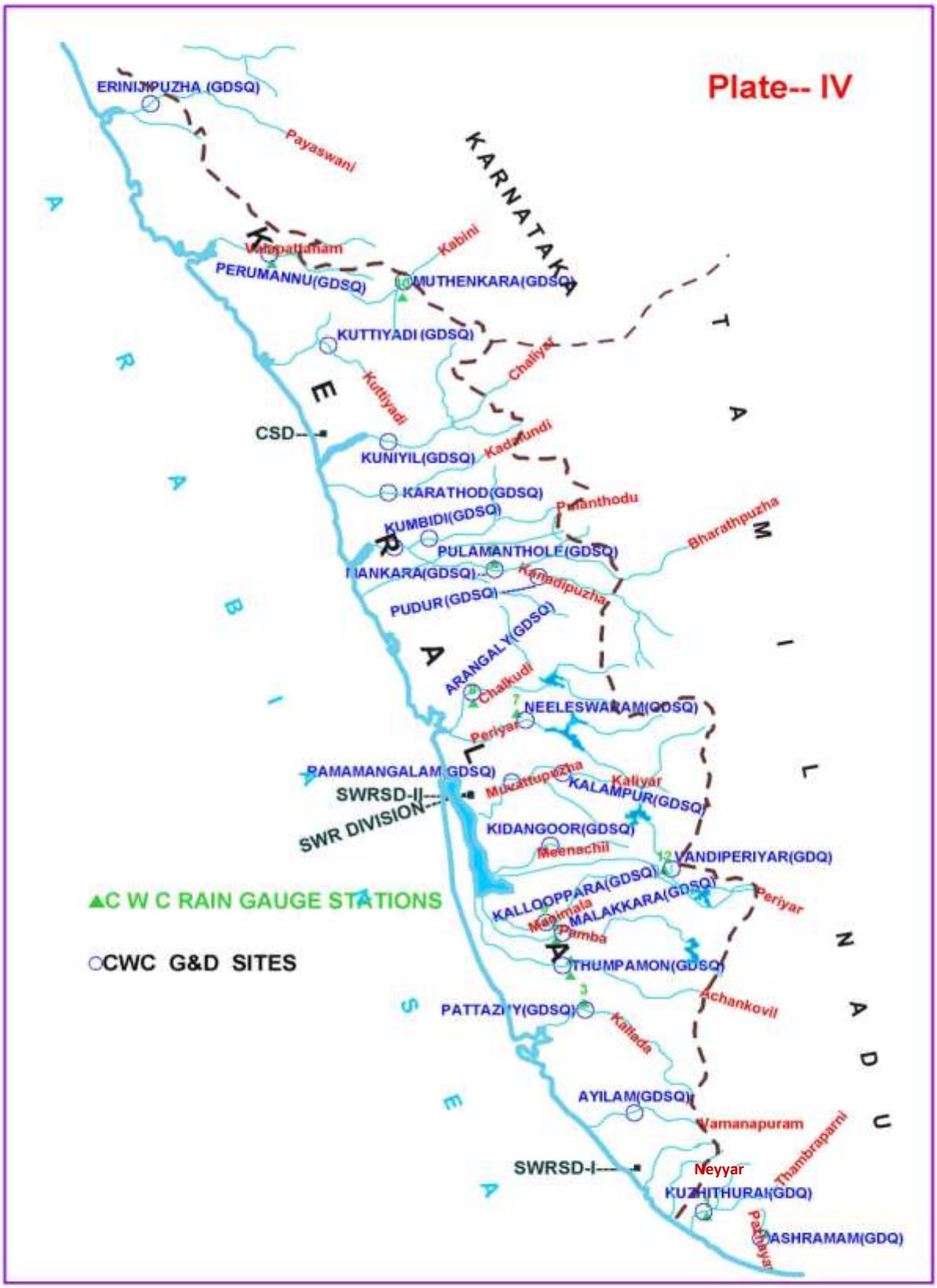

WEST FLOWING RIVERS BASIN
ULHAS TO AGHANASHINI
ARABIAN SEA
MUMBAI
Ulhas
Badlapur
Pen
Bhogeswari
Amba
Nagotane
Kundalika
PUNE
MANGAON
Mangaon
Kal
Savitri
MAHARASHTRA
SOLAPUR
Anjanari
Kajavi
KOLHAPUR
KARNATAKA
Belne Bridge
Gad
BAGALKOT
Tiracol
Ganjim
GOA
Collem
Khandepar
Aghanashini
LEGEND
G & D SITES
Sub Divisions
Division

PLATE-II

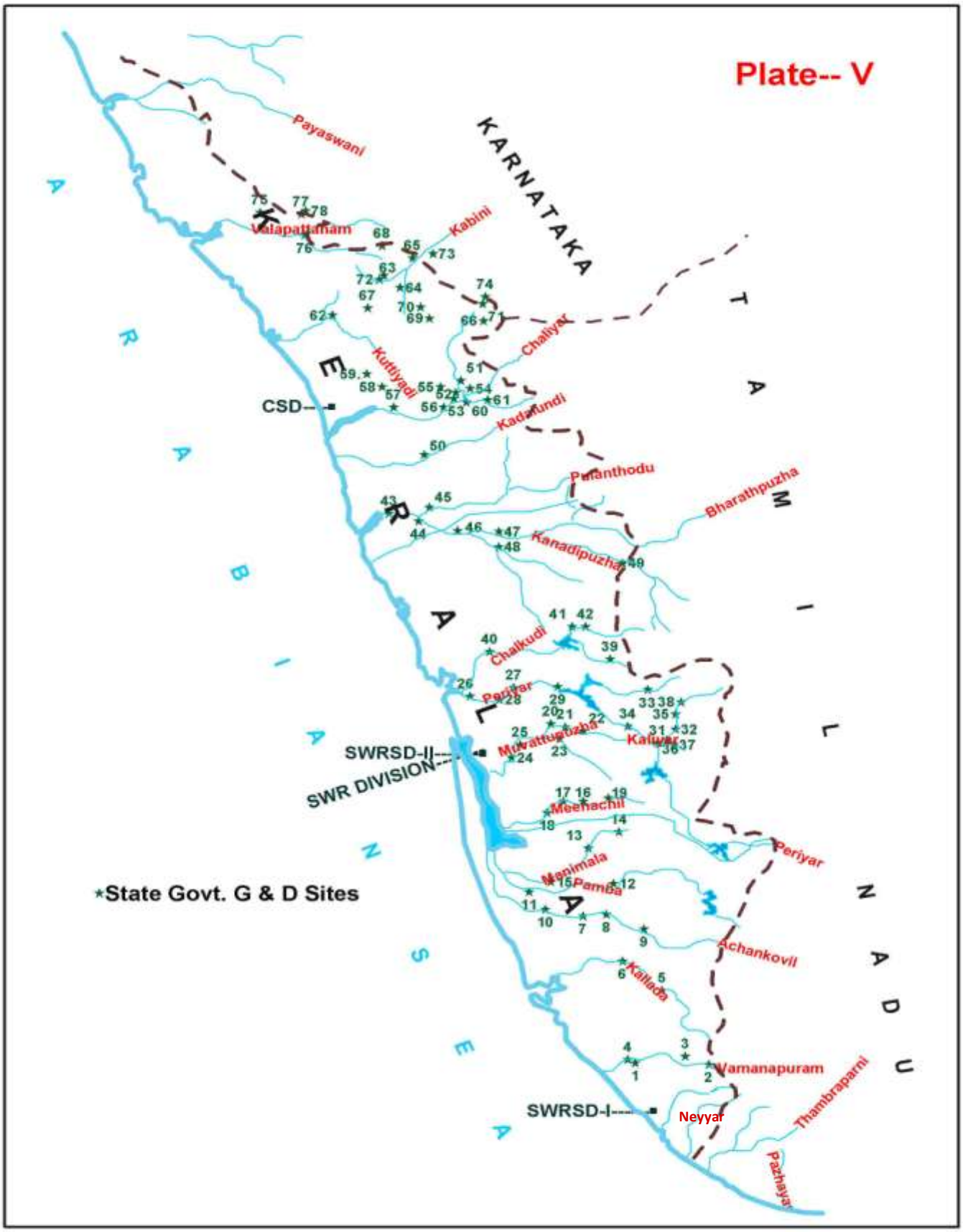

WEST FLOWING RIVERS BASIN
AGHNASHINI TO NETRAVATHI
Gangavali R.
Aghanashini R.
SANTEGULI
Sharavathi R.
Kollur R.
Chakra R.
Haladi R.
HALADI
Sita R.
AVERSHE
Yennehole R.
YENNEHOLE
ADDOOR
Gurpur R.
BANTWAL
Mangalore
Netravathi R.
Kumaradhari R.
ARABIAN SEA
KERALA
SUB-DIVISION
G & D SITES


PLATE III
WEST FLOWING RIVERS BASINS
PAYASWANI TO PAZHAYAR
KARNATAKA
TAMIL NADU
ARABIAN SEA
Erinjipuzha
Payaswani R.
Peramannu
Valapattanam R.
Kuttiyadi R.
Kuttyadi
CSD kozhikode
Kuniyil
Chaliyar R.
Karathodu
Kadalundi R.
pulanthodu R.
Pulamanthole
Kumbidi
Bharathapuzha R.
Mankara
Pudur
Kannadipuzha R
Chalkudi R.
Periyar R.
Arangaly
Neeleswaram
SWRD KOCHI
SWRSD Kochi
Muvattupuzha R.
Kalampur
Ramamangalam
Kidangoor
Meenachil R.
Vandiperiyar
Manimala R.
Kallooppara
Malakkara
Pamba R.
Thumpamon
Achankovil R.
Pattazhy
Kallada R.
Vamanpuram R.
Ayilam
Karamana R.
Neyyar R.
SWRSD Trivandrum
Kuzhithurai
Thamirabarani R.
Ashramam
Pazhayar R.
REFERENCES
SITE
DIVISION
Sub DIVISION


Plate-- IV
ERINJIPUZHA (GDSQ)
Payaswani
KARNATAKA
Kabini
PERUMANNU(GDSQ)
MUTHENKARA(GDSQ)
KUTTIYADI (GDSQ)
Chaliyar
Kuttiyadi
CSD
KUNIYIL(GDSQ)
Kadalundi
KARATHOD(GDSQ)
KUMBIDI(GDSQ)
Puranthodu
PULAMANTHOLE(GDSQ)
Bharathpuzha
Kanadipuzha
PUDUR(GDSQ)
ARANGALY(GDSQ)
Chalkudi
NEELESWARAM(GDSQ)
Periyar
PAMAMANGALAM (GDSQ)
SWRSD-II
SWR DIVISION
Kaliyar
KALAMPUR(GDSQ)
KIDANGOOR(GDSQ)
Meenachil
VANDIPERIYAR(GDQ)
KALLOOPPARA(GDSQ)
MALAKKARA(GDSQ)
Periyar
Manimala
Pamba
THUMPAMON(GDSQ)
Achankovil
PATTAZHY(GDSQ)
Kallada
AYILAM(GDSQ)
Vamanapuram
Thambraparni
SWRSD-I
Neyyar
KUZHITHURAI(GDQ)
ASHRAMAM(GDQ)
Paralayar
▲C W C RAIN GAUGE STATIONS
○CWC G&D SITES

INDEX-G& D STATIONS UNDER KERALA STATE GOVT.

SL.No.	Name of Gauging Station	SL.No.	Name of Gauging Station
	BASIN: VAMANAPURAM		**BASIN: CHALAKUDY**
1	Kollampuzha	40	Chalakudy(Ambalakadavu)
2	Valayankil	41	Kuriarkutty (KSEB)
3	Mylamoodu	42	Karappara (KSEB)
4	Anachil		**BASIN: BHARATHAPUZHA**
	BASIN: KALLADA	43	Kuttipuram
5	Punaloor	44	Thrithala
6	Enathu	45	Thiruvegapura
	BASIN: ACHANKOVIL	46	Cheruthuruthy
7	Pandalam	47	Pampady
8	Konni Bridge	48	Cheerakuzhi
9	Kalleli	49	Manakadavu
10	Kollakkadavu		**BASIN: KADULANDI**
	BASIN: PAMBA	50	Anakayam
11	Erapuzha		**BASIN: CHALIYAR**
12	Kurudamannil	51	Maruthapuzha
	BASIN: MANIMALA	52	Punnapuzha
13	Manimala	53	Karimpuzha
14	Mundakayam	54	Chaliyar
15	Thondra	55	Kanjirapuzha
	BASIN: MEENACHIL	56	Kuthirapuzha
16	Cheripad	57	Areacode
17	Palai	58	Mukkom
18	Peroor	59	Koodathaui
19	Teekoy	60	Cherupuzha
	BASIN: MUVATTUPUZHA	61	Nedumkayam
20	Muvattupuzha		**BASIN: KUTTIYADI**
21	Thodupuzha	62	Kadanthrapuzha
22	Kalampur		**BASIN: KABINI**
23	Kakkadasserry	63	Manathody
24	Malankara	64	Panamaram
25	Ramamangalam	65	Baveli
	BASIN: PERIYAR	66	Muthanga
26	Mangalapuzha	67	Choorani
27	Kalady	68	Thiruneli
28	Marthandavarma	69	Vzhavatta
29	Boothathankettu Barrage	70	Kakkavagal
30	Neeleswaram	71	Manjat
31	Perinjan Kutty Dam	72	Thondar
32	Chemmannur	73	Marakkadavu
33	Panniyoor	74	Ponkuzhi
34	Mudirapuzha		**BASIN: VALAPATANAM**
35	Kunjithani	75	Irude
36	Rajakkadu	76	Pala
37	Thuvallur	77	Vallithodu
38	Irythukanam	78	Koothupuzha
39	Upper Idamalayar		


Plate-- V
KARNATAKA
TAMIL NADU
ARABIAN SEA
Payaswani
Kabini
Chaliyar
Kuttiyadi
Kadalundi
Bharathpuzha
Kanadipuzha
Chalkudi
Periyar
Kallar
Meenachil
Manimala
Pamba
Achankovil
Kallada
Vamanapuram
Thambraparni
Neyyar
Pazhayar
CSD
SWRSD-II
SWR DIVISION
SWRSD-I
*State Govt. G & D Sites

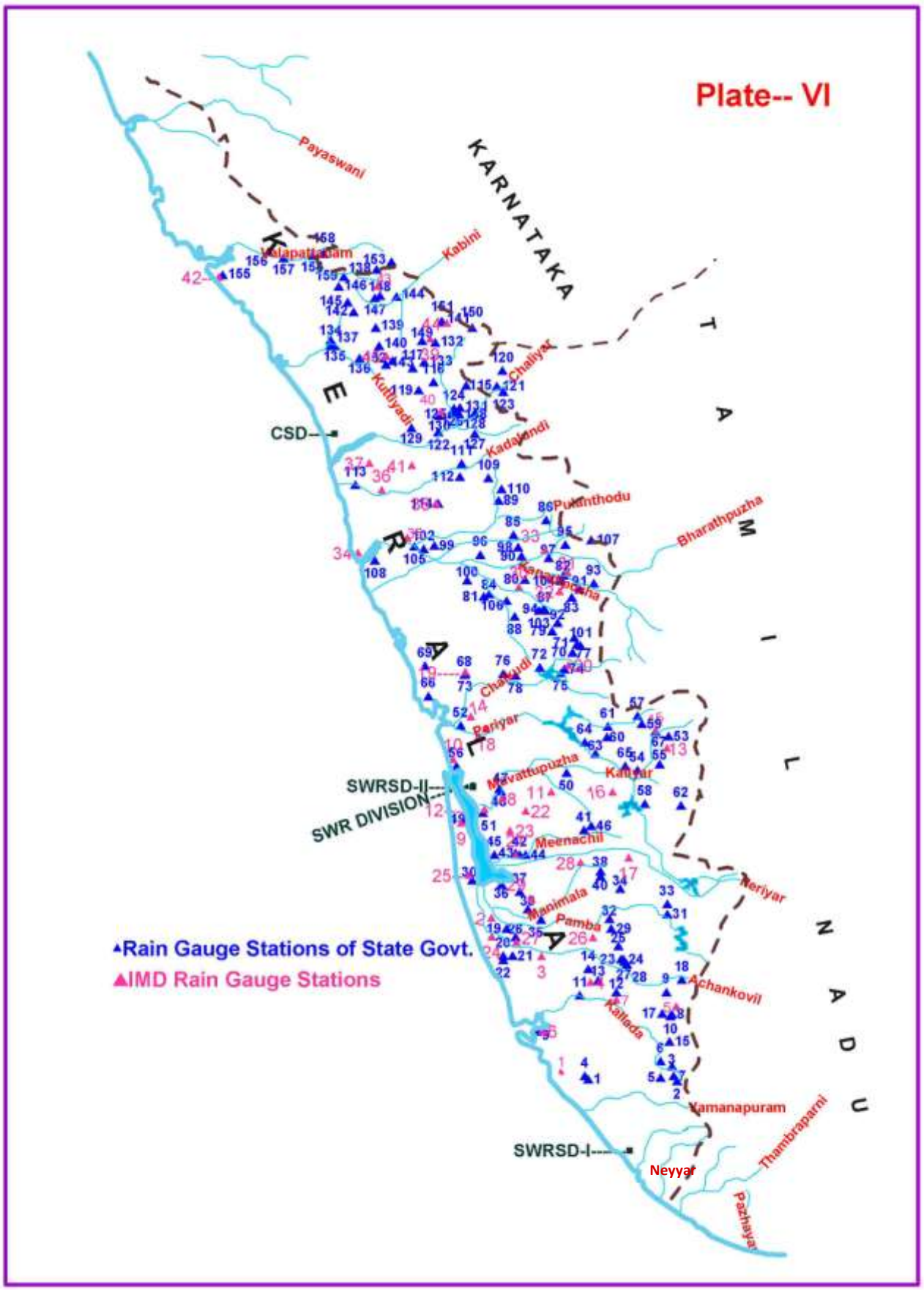
INDEX-RAIN GAUGE STATIONS UNDER I. M. D.

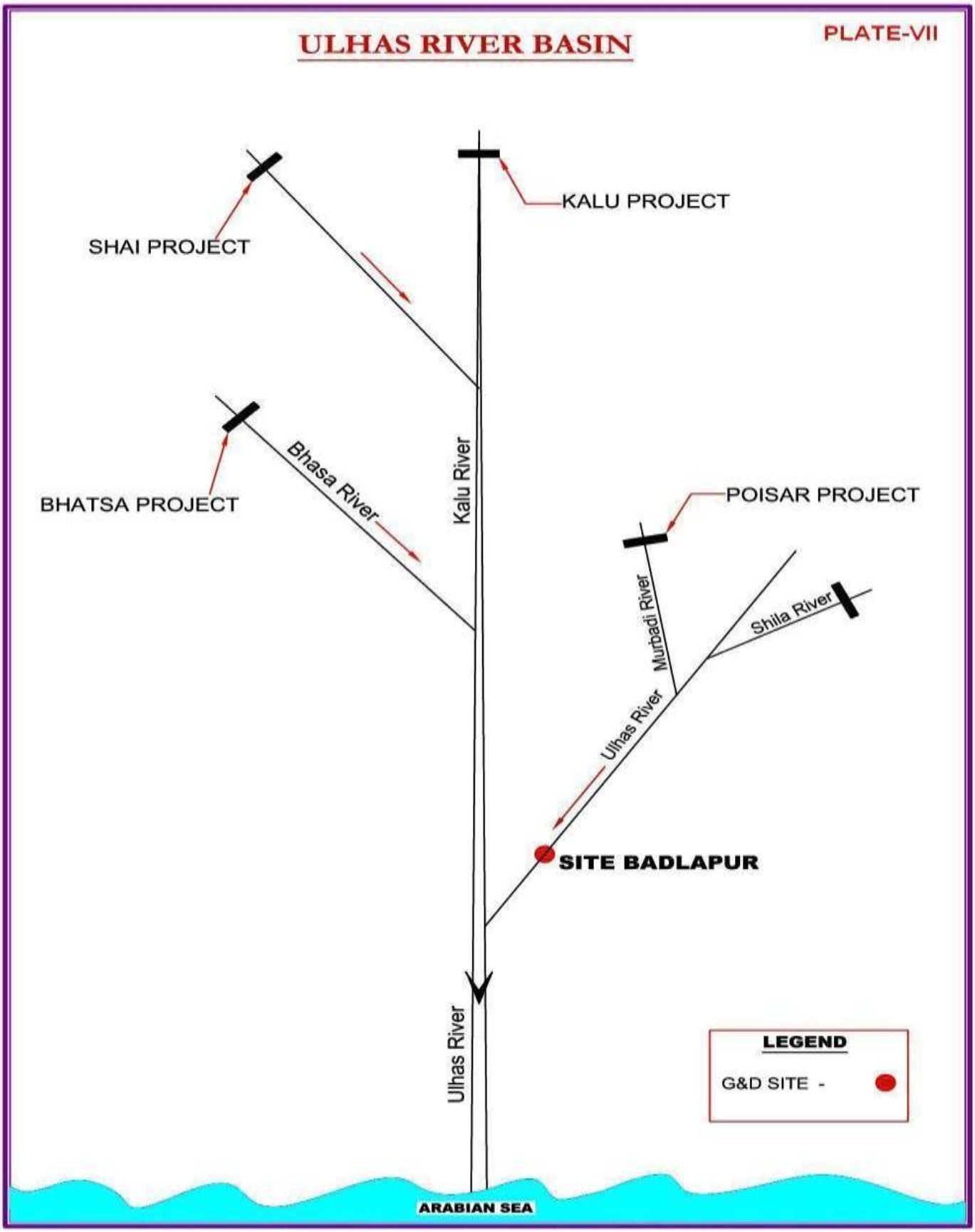
SL.No.	Name of Station	L.No.	Name of Station
	BASIN: VAMANAPURAM		**BASIN: PAMBA (ACHANKOVIL)**
1	Varkala	**24**	Haripad
	BASIN: PAMBA	**25**	Kayamkulam
2	Alappuzha	**26**	Konni
3	Chengannur	**27**	Mavelikara
4	Mancompu		**BASIN: PAMBA (MANIMALA)**
	BASIN: KALLADA	**28**	Kanjirapally
5	Aryankavu	**29**	Thiruvalla
6	Kollam		**BASIN: BHARATHAPUZHA**
7	Punalur (P/T)	**30**	Alathur
	BASIN: MUVATTUPUZHA	**31**	Chittur
8	Piravom	**32**	Kollengode Rly
9	Cherthala	**33**	Palakkad
10	Kochi AP (Navel)	**34**	Ponnani
11	Thodupuzha	**35**	Thrithala
12	Vaikkom		**BASIN: KADALUNDI**
	BASIN: PERIYAR	**36**	Angadipuram Rly
13	Munnar KSEB	**37**	Karipur AP
14	Aluva Rly	**38**	Perinthalmanna
15	Devikulam		**BASIN: CHALIYAR**
16	Idukki	**39**	Ambalavayal
17	Peermade	**40**	Nilambur
18	Perumbavur	**41**	Manjeri
	BASIN: CHALAKUDI		**BASIN: VALAPATANAM**
19	Chalakudy	**42**	Kannu**r**
20	Parambikulam		**BASIN: KABINI**
	BASIN: MEENACHIL	**43**	Mananthavadi
21	Kottayam	**44**	Kuppady
22	Kozha	**45**	Vythiri
23	Kumarakom		

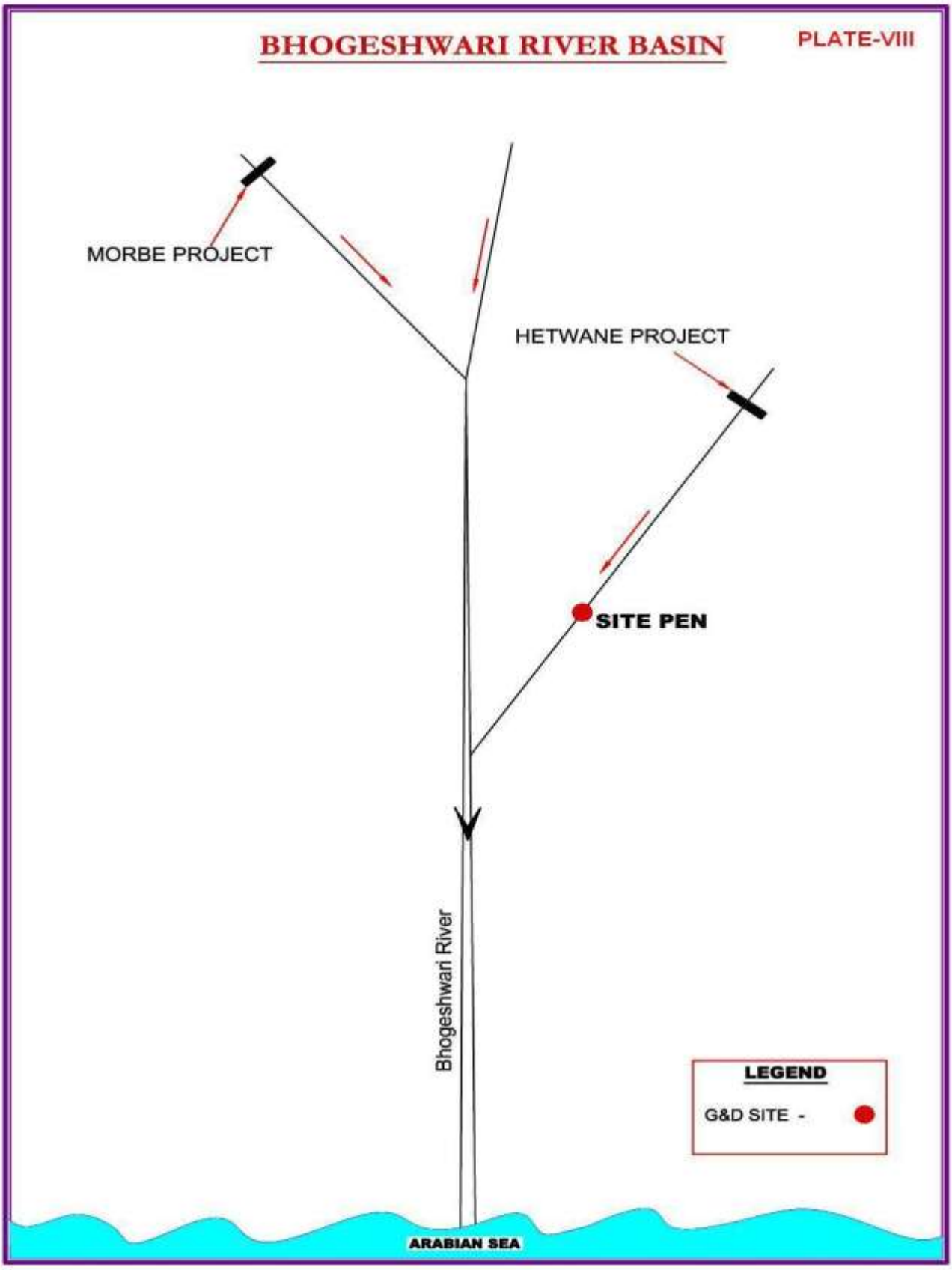
INDEX- RAIN GAUGE STATIONS UNDER KERALA STATE GOVT.

SL.No.	Name of Station	SL.No.	Name of Station
	BASIN: VAMANAPURAM		**BASIN: MUVATTUPUZHA**
1	Attingal	47	Malankara
2	Bonacord Estate	48	Piravom
3	Marchistan Estate	49	Sherthalai
4	Varkala	50	Thodupuzha
5	Valayankil	51	Vaikom T.B
6	Brymore Estate		**BASIN: PERIYAR**
7	Ponmudi	52	Alwaye
	BASIN: KALLADA	53	Anayirangal Estate
8	Ambanad Estate	54	Chembakappara
9	Arinkavu	55	Chemmannur
10	Isfield Estate	56	Cochin NAS
11	Kottarakkara	57	Devikulam Estate
12	Punaloor T.O	58	Erattayar
13	Punaloor KIP Colony	59	Grahamsland
14	Rajagiri Estate	60	Iruttukanam
15	Venture Estate	61	Kallaravalley Estate
16	Quilon	62	Kamakshy Estate
17	Nagamala Estate	63	Kanjikuzhy
	BASIN: ACHANKOVIL	64	Karimanal
18	Achencoil	65	Keerithodu
19	Haripad	66	Kodungallur T.O
20	Kayamkulam R.R.S	67	Korandakkadu
21	Kayamkulam C.P.C.R.I		**BASIN: CHALAKUDI**
22	Kayamkulam K.R.S	68	Chalakudy
23	Konni D.F.O	69	Mattatur
24	Konni Estate	70	Parambikulam
25	Kumbazha	71	Peruvariipallam
26	Mavelikara	72	Perinjalkuthu
27	Konni S.C.R.S	73	Potta
28	Kalleli	74	Sholayar Dam
29	Pathanamthitta	75	Sholayar P.H
	BASIN: PAMBA	76	Thumburmuzhi
30	Alleppey	77	Thunakadavu
31	Anathodu	78	Vettilapara
32	Maniyur	79	Karappara
33	Pamba		**BASIN: BHARATHAPUZHA**
34	Perunthanaruvi	80	Alathur
35	Chengannur	81	Cheerakuzhi
36	Mancombu	82	Chittoor
	BASIN: MANIMALA	83	Chulliyar Dam
37	Chenganacherry	84	Elanad
38	Mundakayam R.H	85	Kanjirapuzha
39	Thiruvalla	86	Malampuzha
40	Boyee Estate	87	Manularoo Estate
	BASIN: MEENACHIL	88	Mangalam Dam
41	Erattupetta	89	Mannarghat
42	Kottayam R.H	90	Mathur
43	Kottayam R.R.I	91	Meenkara Dam
44	Kozha	92	Meerafloores Estate
45	Kumarakom	93	Moolathara Anicut
46	Teekoy	94	Nelliampathy

SL.No.	Name of Station	SL.No.	Name of Station
95	Olavakode	128	Vellikkatta
96	Ottapalam	129	Manjeri T.O
97	Palaghat Taluk Office	130	Nilambur Deptl.
98	Parali	131	Edakkara
99	Pattambi	132	Ambalavayal
100	Pazhayannur S.F	133	Rippen Estate
101	Pokkunni		**BASIN: KUTTIYADI**
102	Shorannur R.S	134	Koothali D.A.F
103	Pothundy Dam	135	Kuttiyadi Dam
104	Thembaramadaku	136	Kuttiyadi P.H
105	Thrithala	137	Peruvannamuzhy
106	Wadakkancherry		**BASIN: KABINI**
107	Walayar	138	Thiruneli
108	Ponmani T.O	139	Padinjarathara
109	Silent Vally	140	Achoor Estate
110	Pulikkal	141	Chedallath
	BASIN: KADULANDI	142	Makkiyad Monastry
111	Kalikavu	143	Lakkidi
112	Karuvarakundu	144	Mananthoddy T.O
113	Thirurangadi	145	Makki
114	Perunthalmanna	146	Periyar
	BASIN: CHALIYAR	147	Valat
115	Anamari	148	Mananthoddy KSEB
116	Aranapuzha	149	Vazhavatta
117	Choorelmala	150	Muthanga
118	Chungathra	151	Kuppadi
119	Kalladi	152	Vythiri
120	Thevanthappara	153	Vyakkatti
121	Nellikutha		**BASIN: VALAPATANAM**
122	Nilambur (F.R.O)	154	Aralam
123	Olikkathodu	155	Cannanore
124	Palunda	156	Irikkur
125	Punnapuzha K.S.E.B	157	Valiambra
126	Punnapuzha Agri.	158	Paripputhodu
127	Pullangode Rubber Estate	159	Kottiyoor

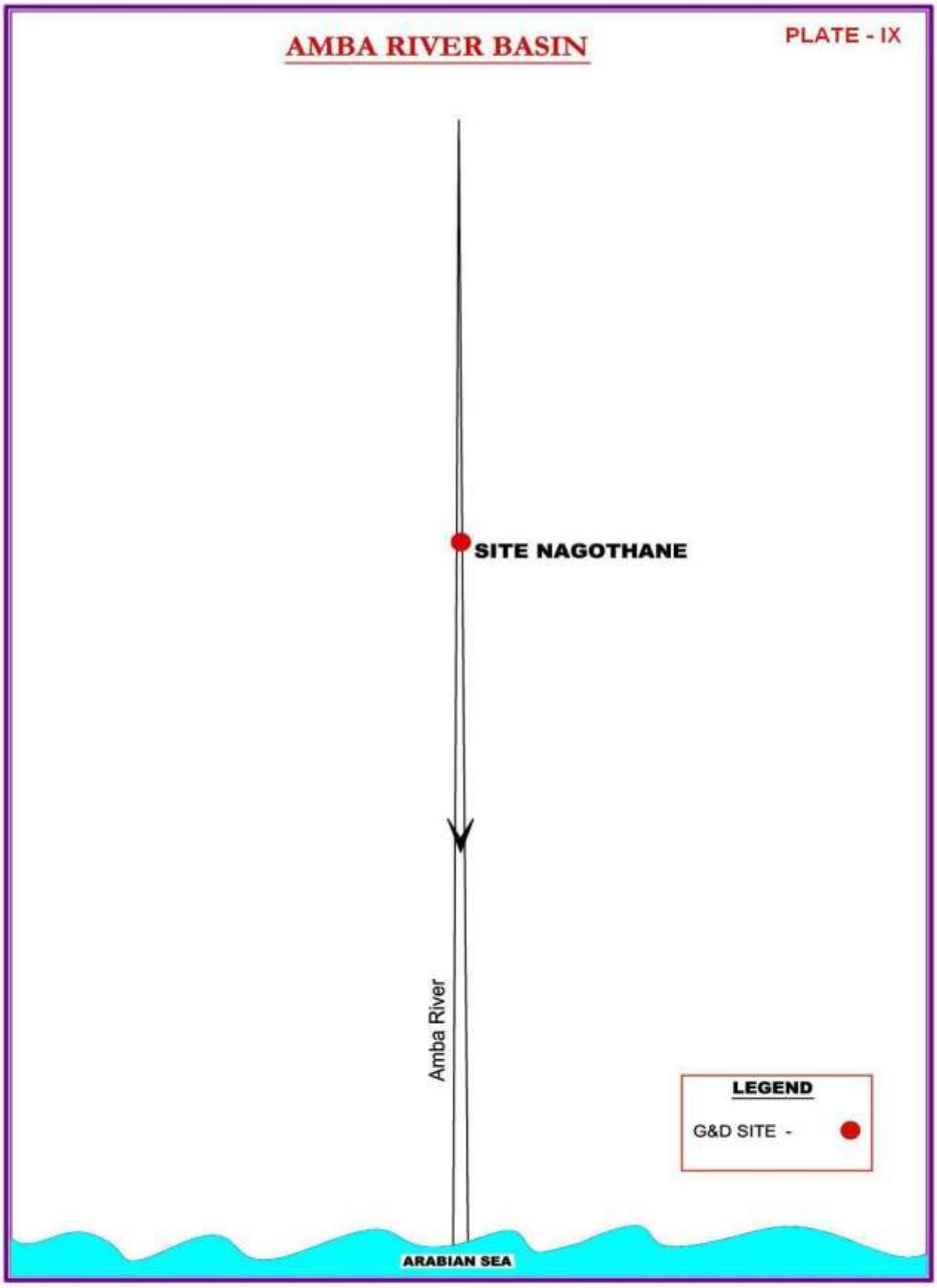

Plate-- VI
KARNATAKA
TAMILNADU
KERALA
Payaswani
Kabini
Kuttiyadi
Chaliyar
Kadalundi
Bharathpuzha
Chaliyar
Pariyar
Kallada
Pamba
Meenachil
Manimala
Neriyar
Achankovil
Thambraparni
Pazhayar
Neyyar
CSD
SWRSD-II
SWR DIVISION
SWRSD-I
Rain Gauge Stations of State Govt.
IMD Rain Gauge Stations

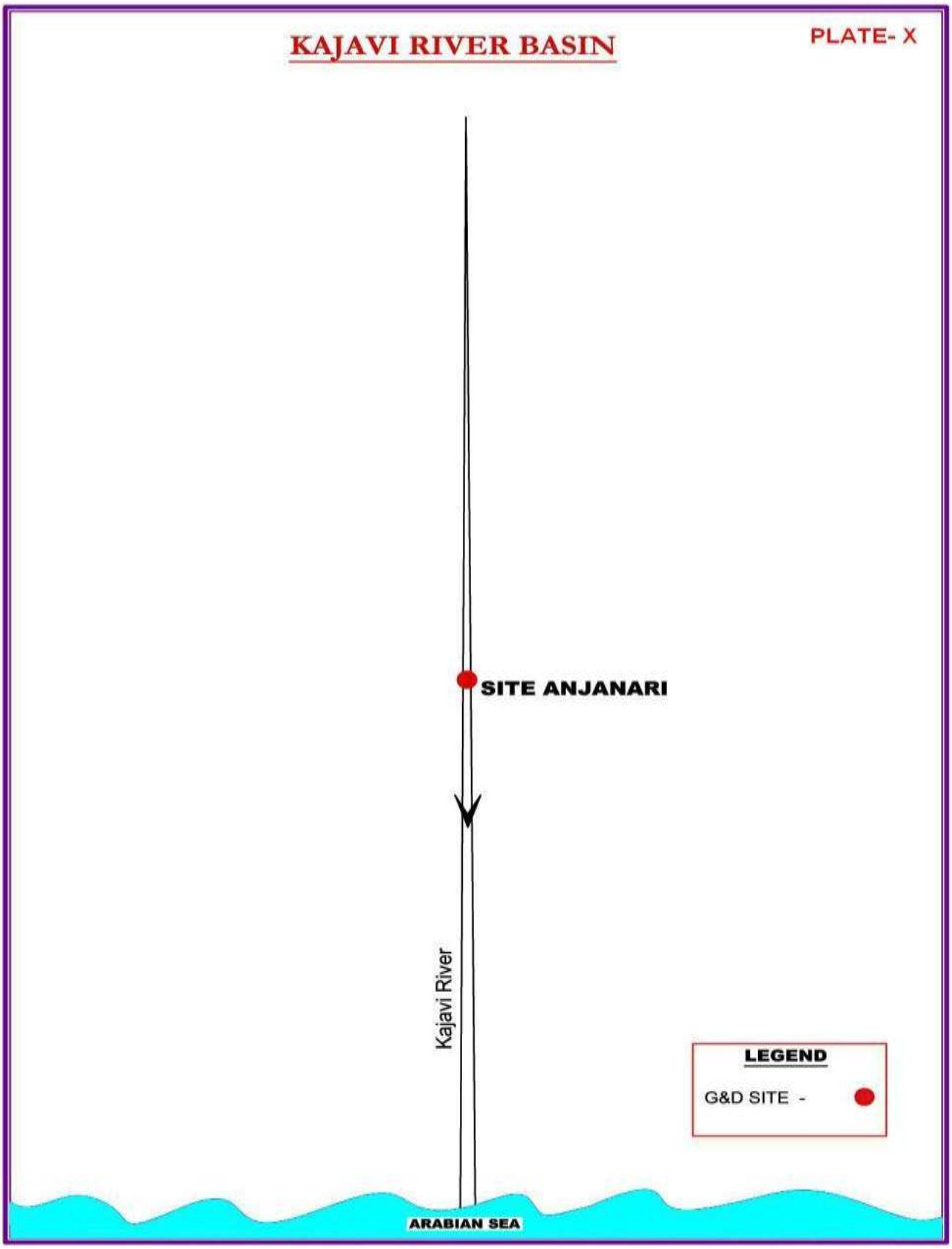

ULHAS RIVER BASIN
PLATE-VII
KALU PROJECT
SHAI PROJECT
Kalu River
BHATSA PROJECT
Bhasa River
POISAR PROJECT
Murbadi River
Shila River
Ulhas River
SITE BADLAPUR
Ulhas River
LEGEND
G&D SITE -
ARABIAN SEA


BHOGESHWARI RIVER BASIN
PLATE-VIII
MORBE PROJECT
HETWANE PROJECT
SITE PEN
Bhogeshwari River
LEGEND
G&D SITE -
ARABIAN SEA

AMBA RIVER BASIN

PLATE - IX




KAJAVI RIVER BASIN
PLATE- X
SITE ANJANARI
Kajavi River
LEGEND
G&D SITE -
ARABIAN SEA

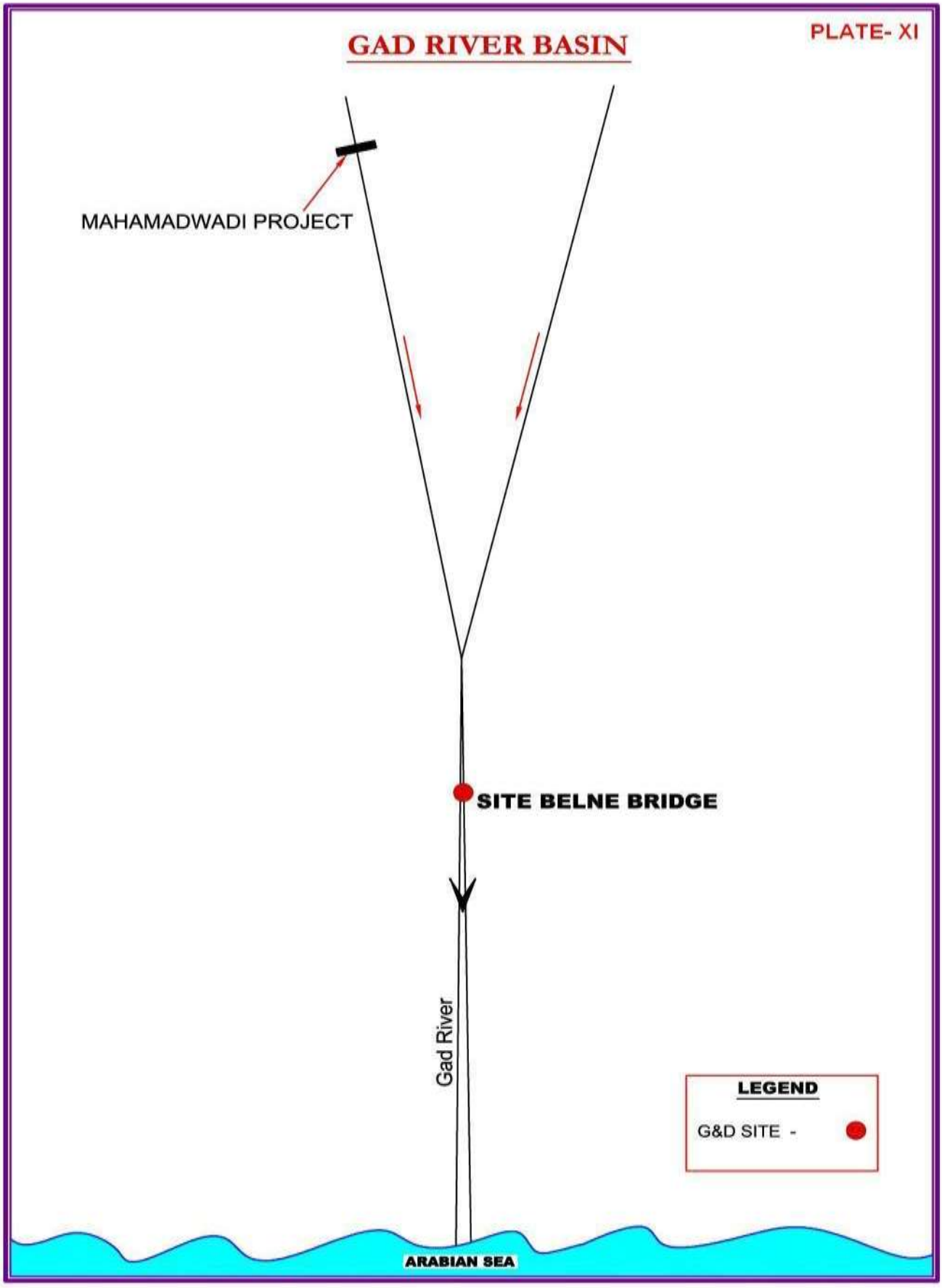

GAD RIVER BASIN
PLATE- XI
MAHAMADWADI PROJECT
SITE BELNE BRIDGE
Gad River
LEGEND
G&D SITE -
ARABIAN SEA

PLATE-XII

MADAI AND KHANDEPAR RIVER BASIN

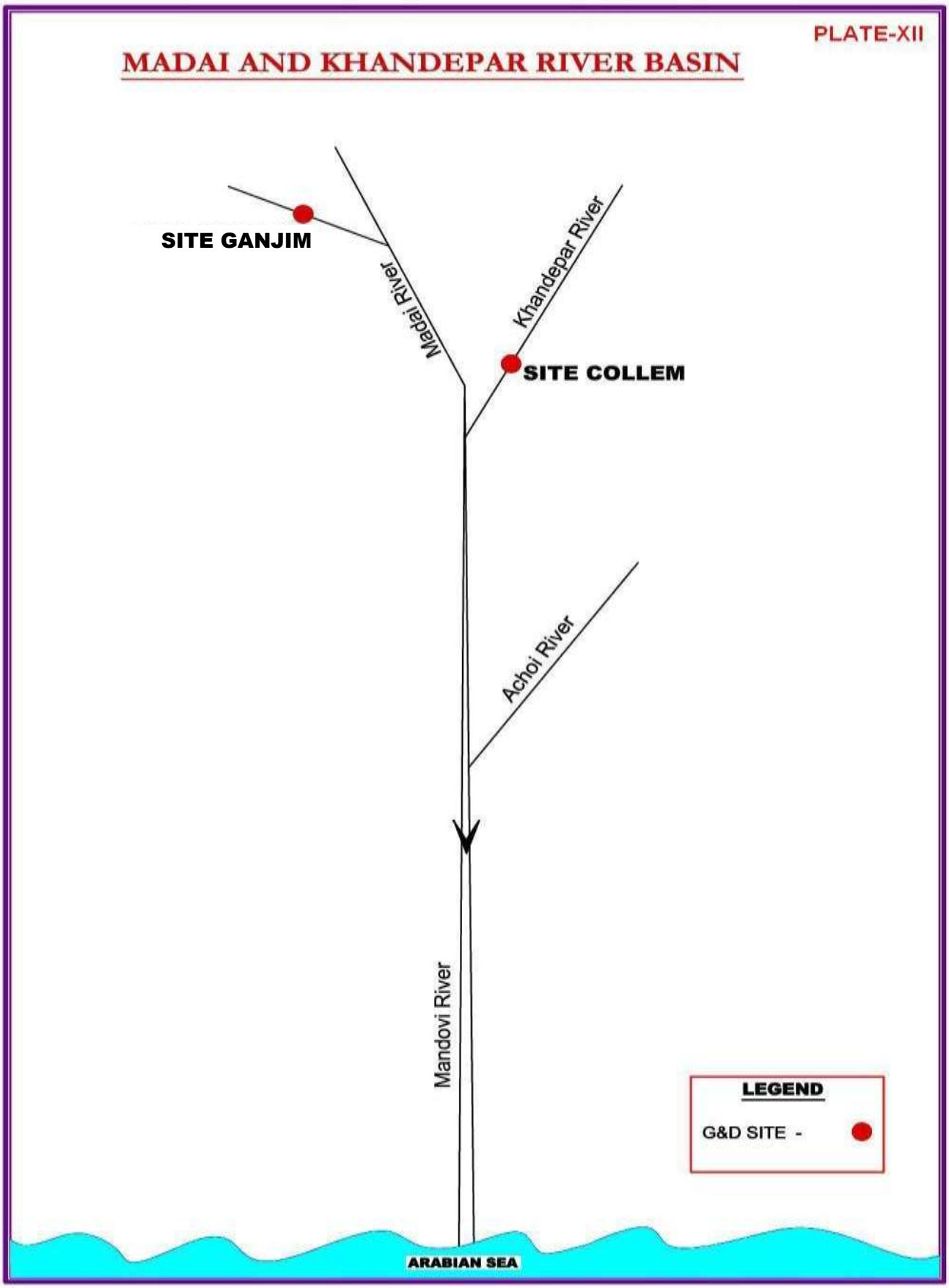


PLATE-XIII

AGHANASHINI RIVER BASIN

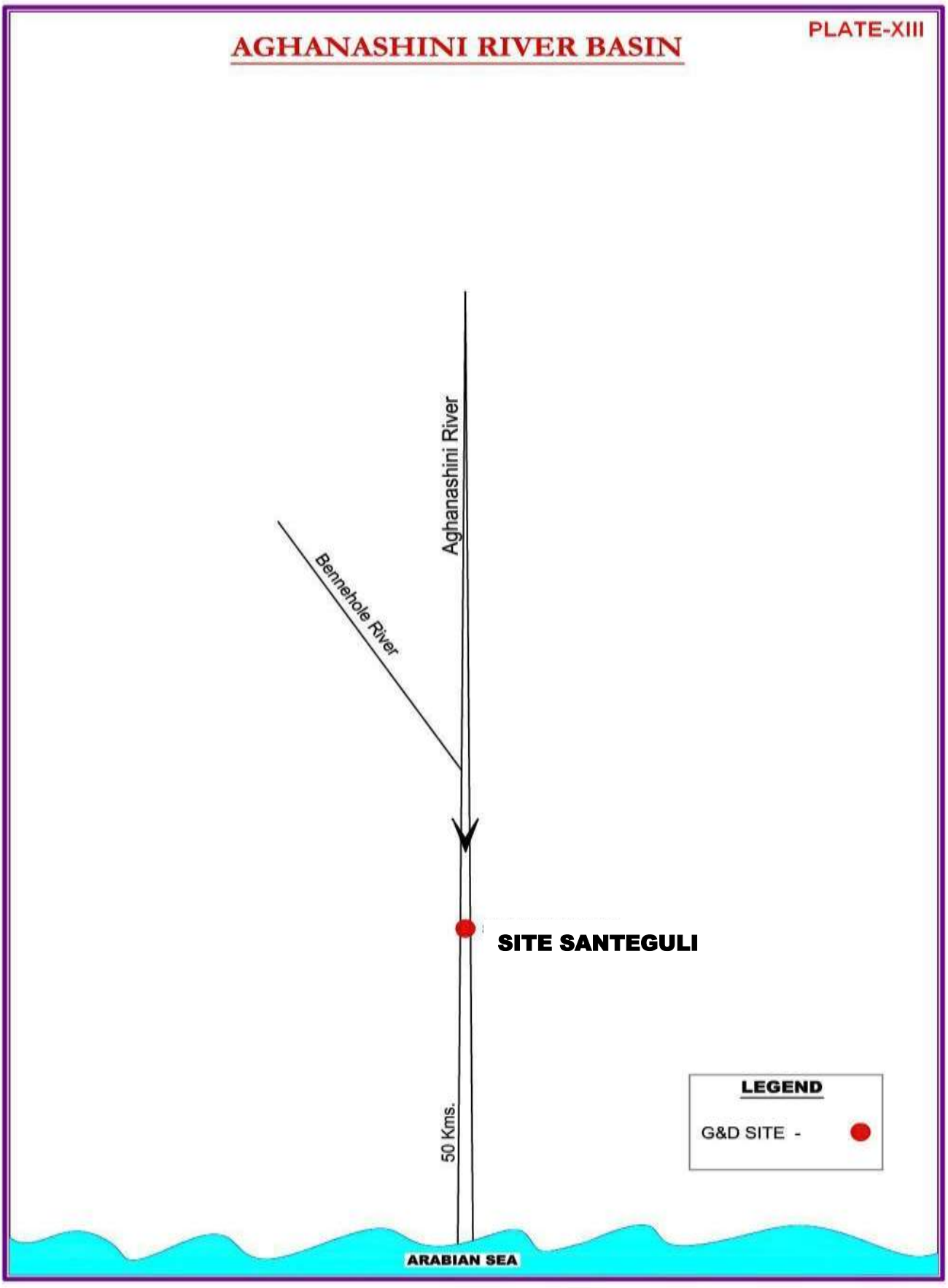


PLATE- XIV

HALADI RIVER BASIN

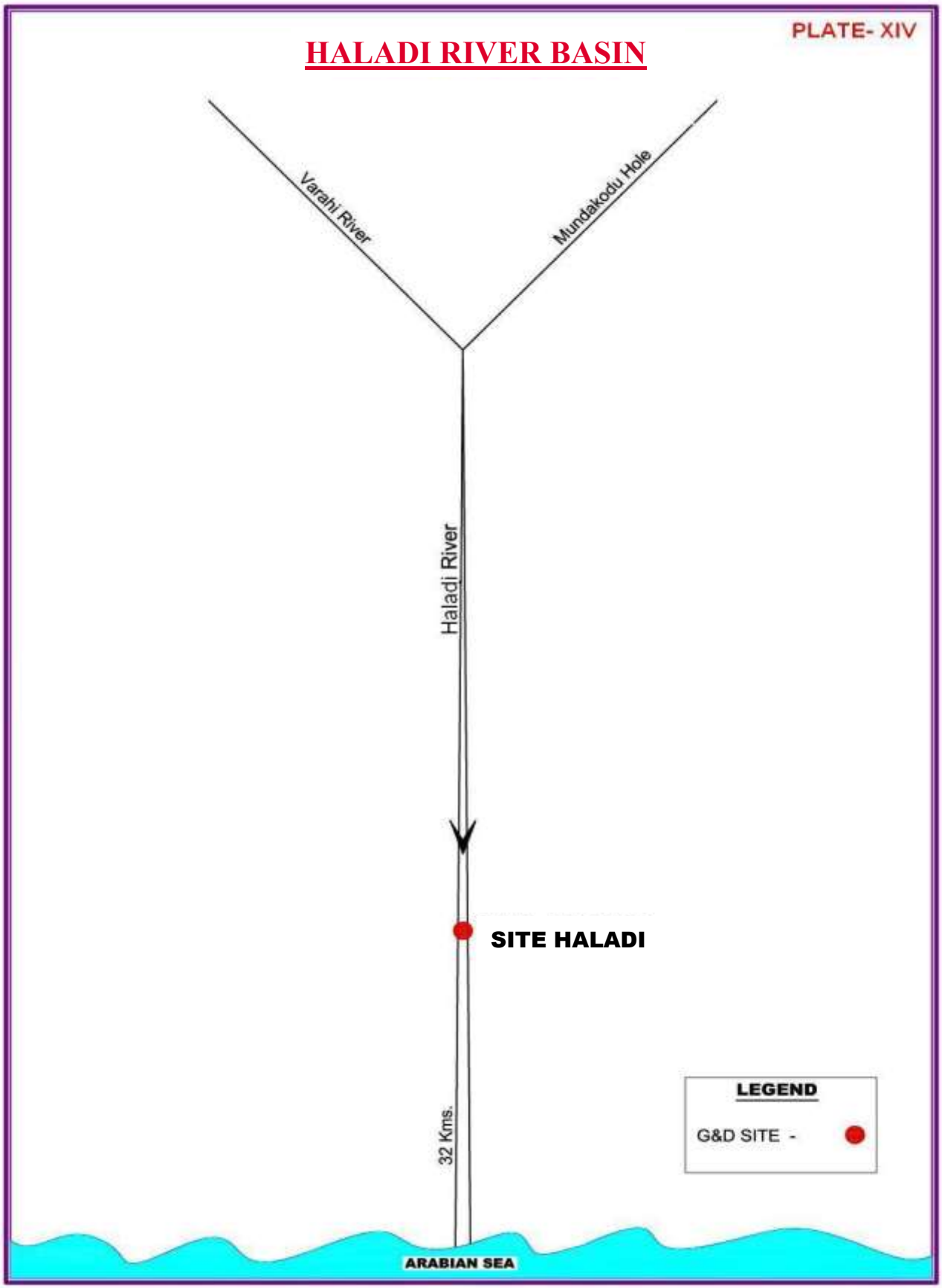


PLATE- XI

SITA RIVER BASIN

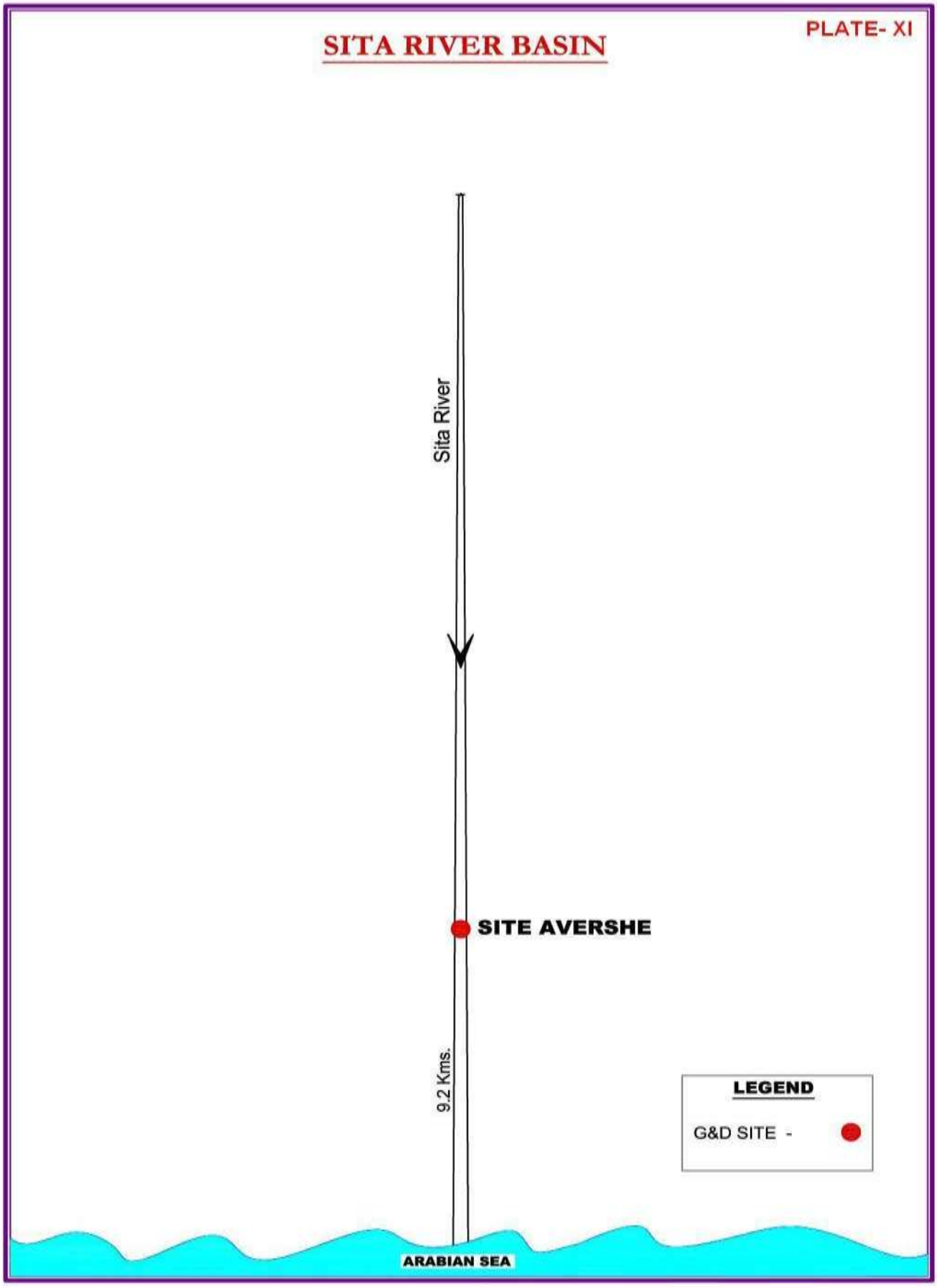


PLATE-XVI

SWARNA RIVER BASIN

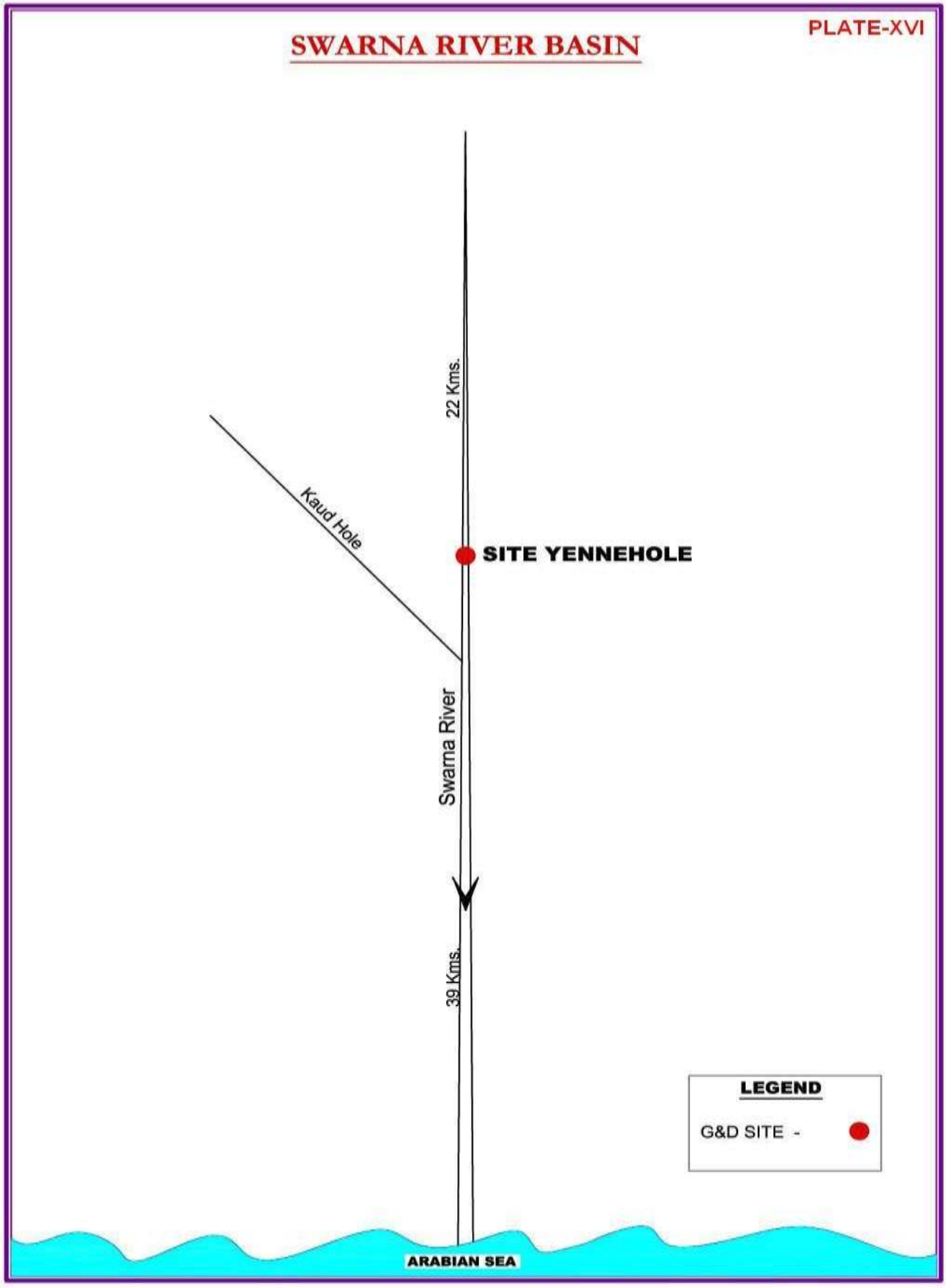


PLATE-XVII

GURPUR RIVER BASIN

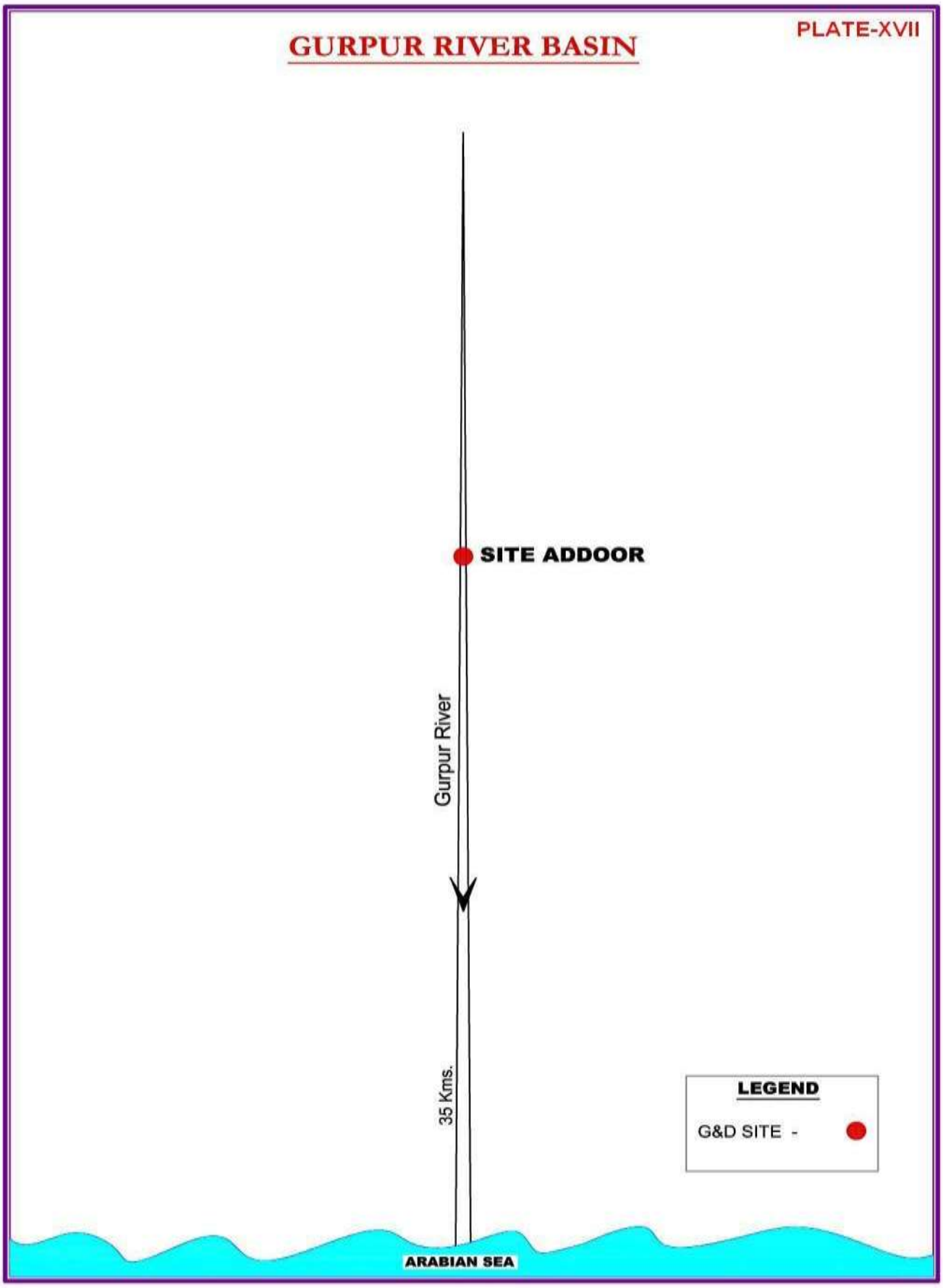


PLATE-XVIII

NETRAVATI RIVER BASIN

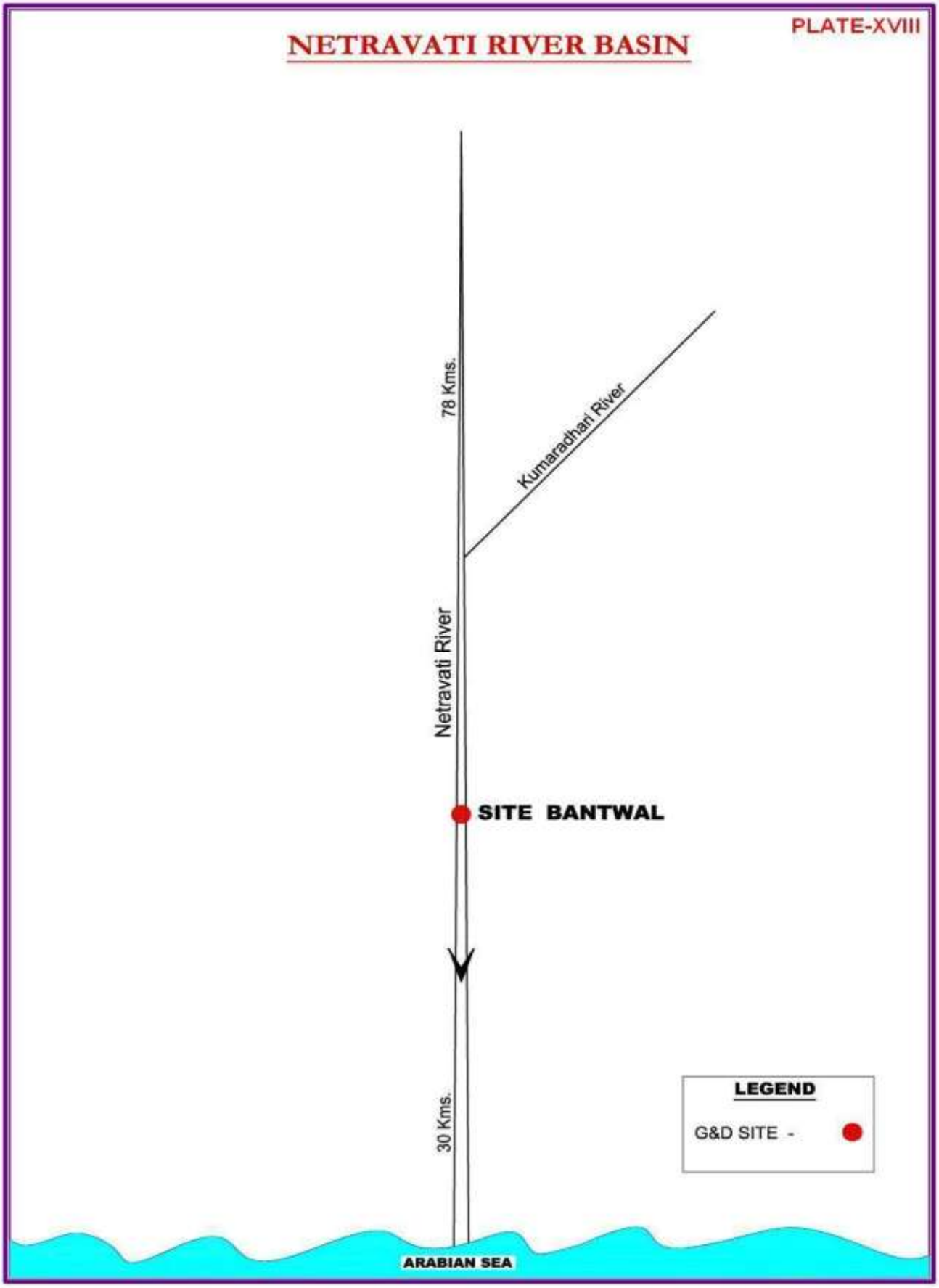


PLATE- XIX

PAYASWANI RIVER BASIN

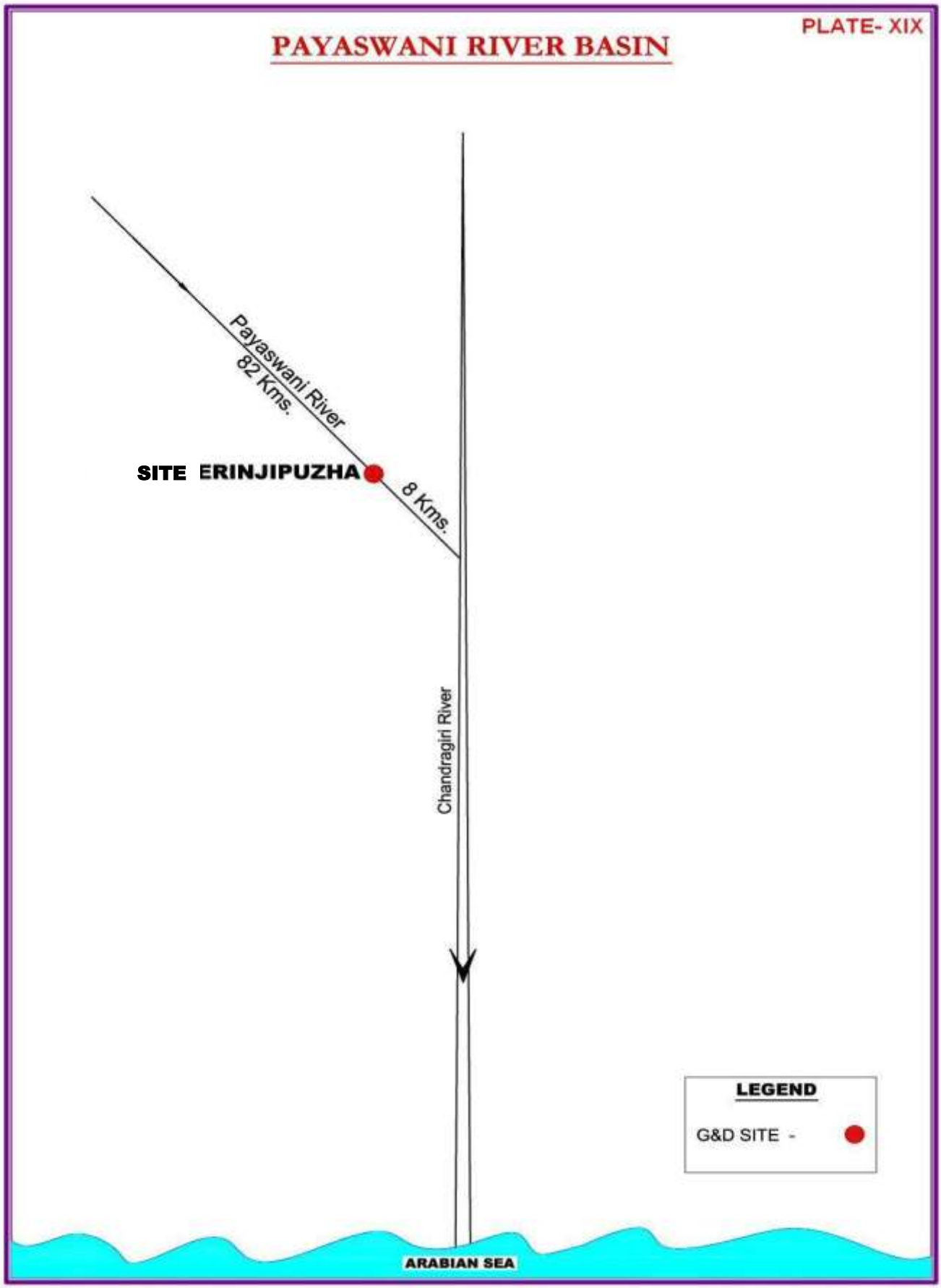


PLATE- XX

VALAPATTANAM RIVER BASIN

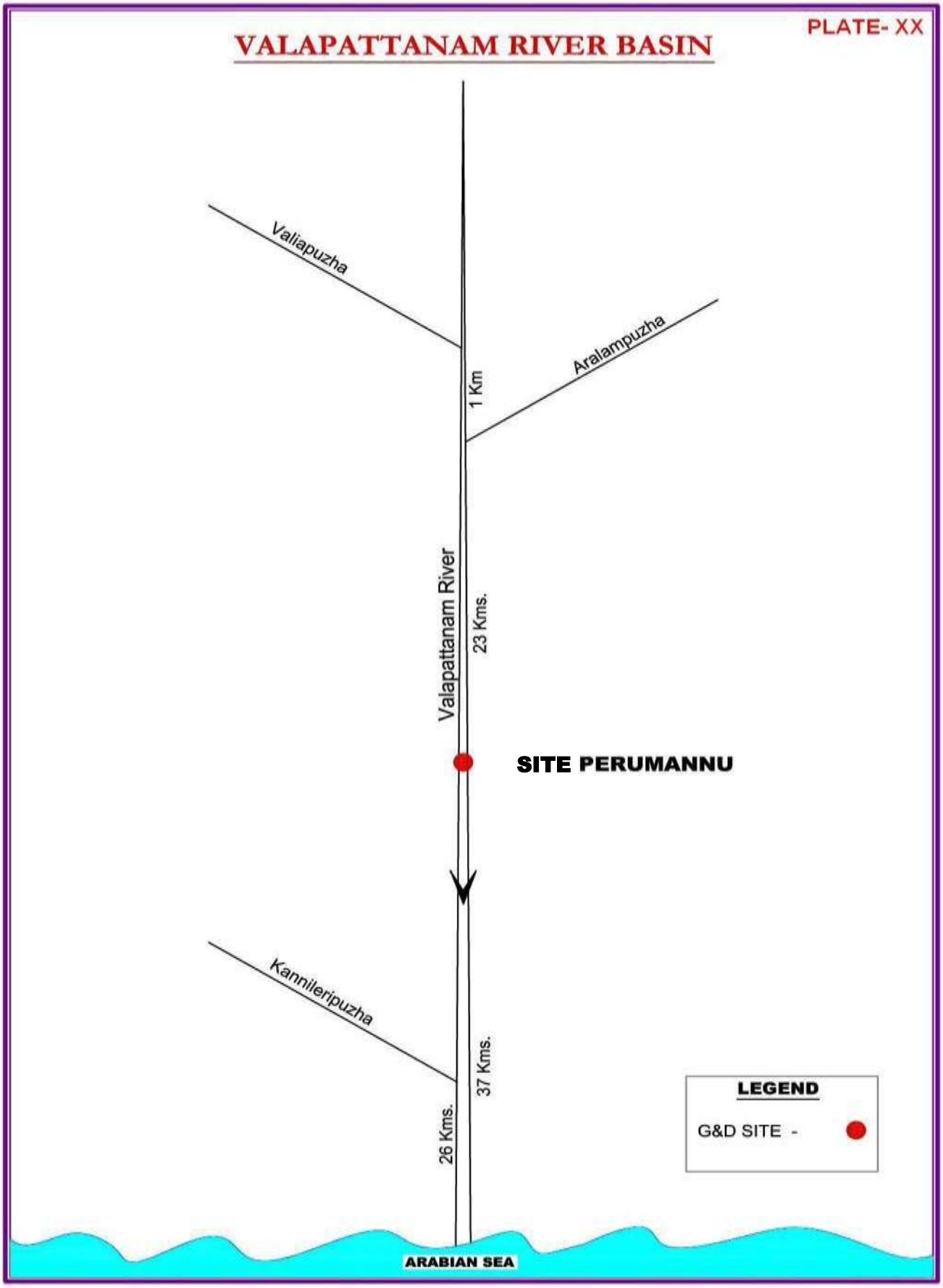


PLATE- XXI

KUTTYADI RIVER BASIN

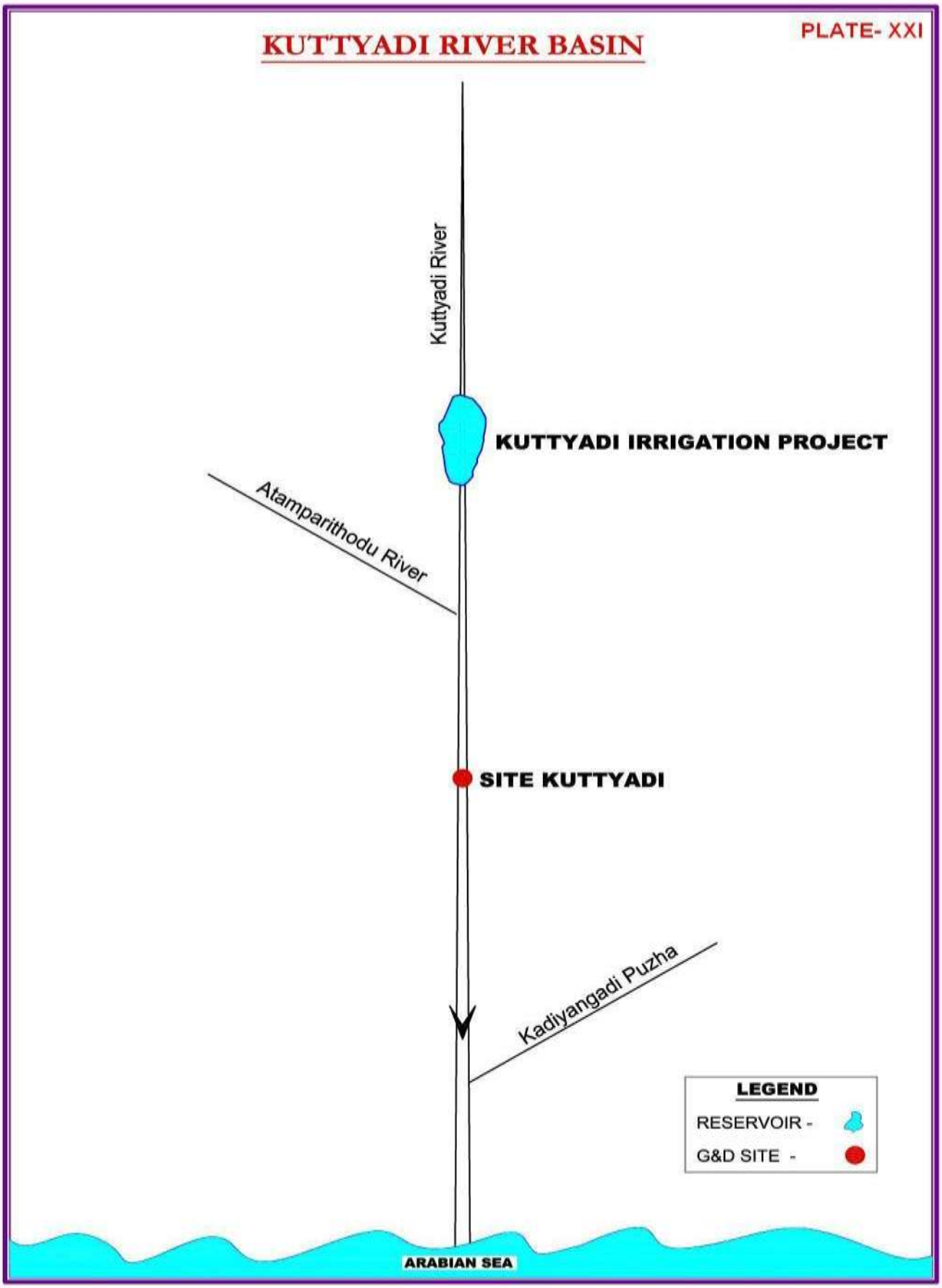


PLATE- XXII

CHALIYAR RIVER BASIN

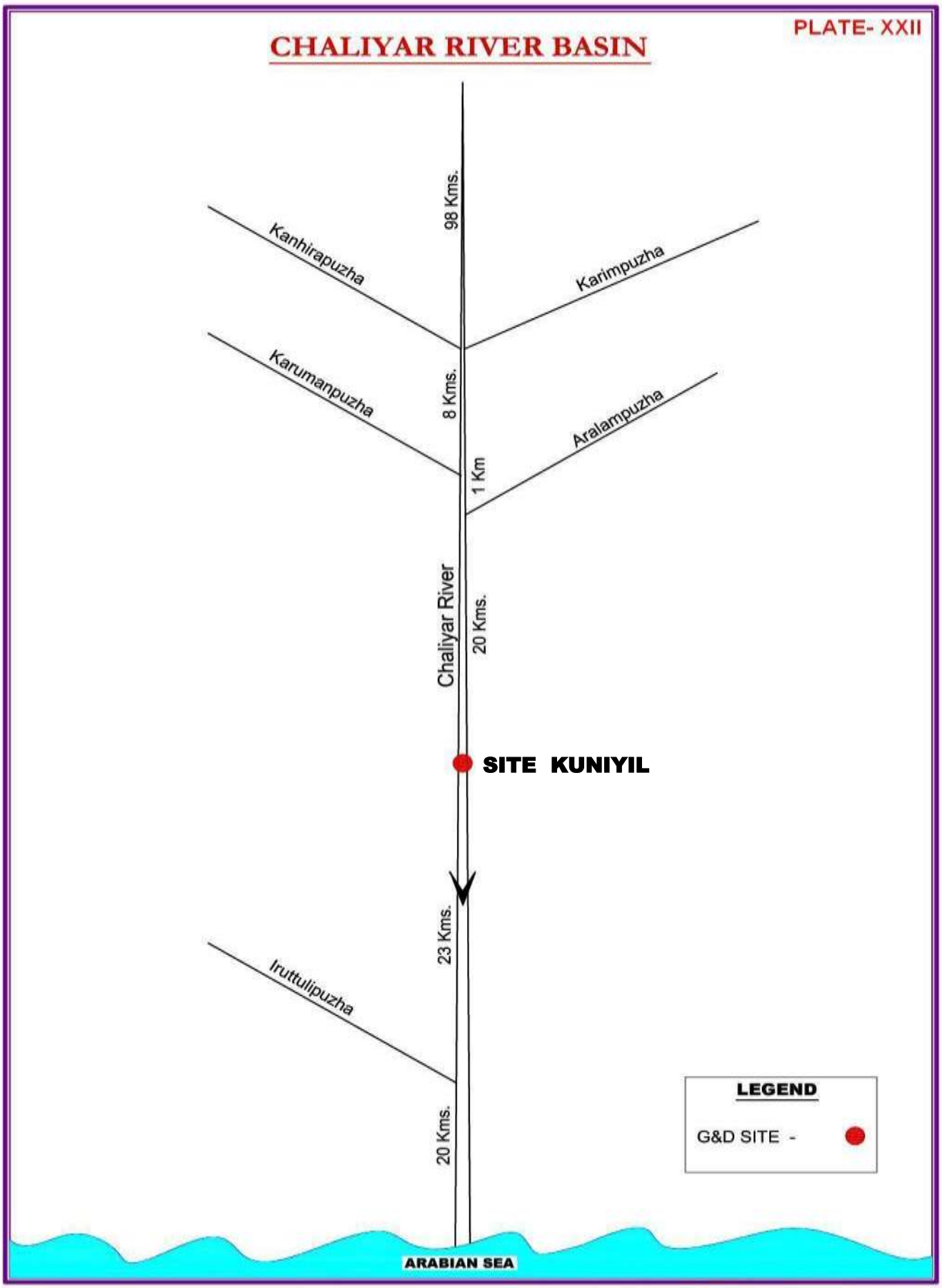


PLATE- XXIII

KADALUNDI RIVER BASIN

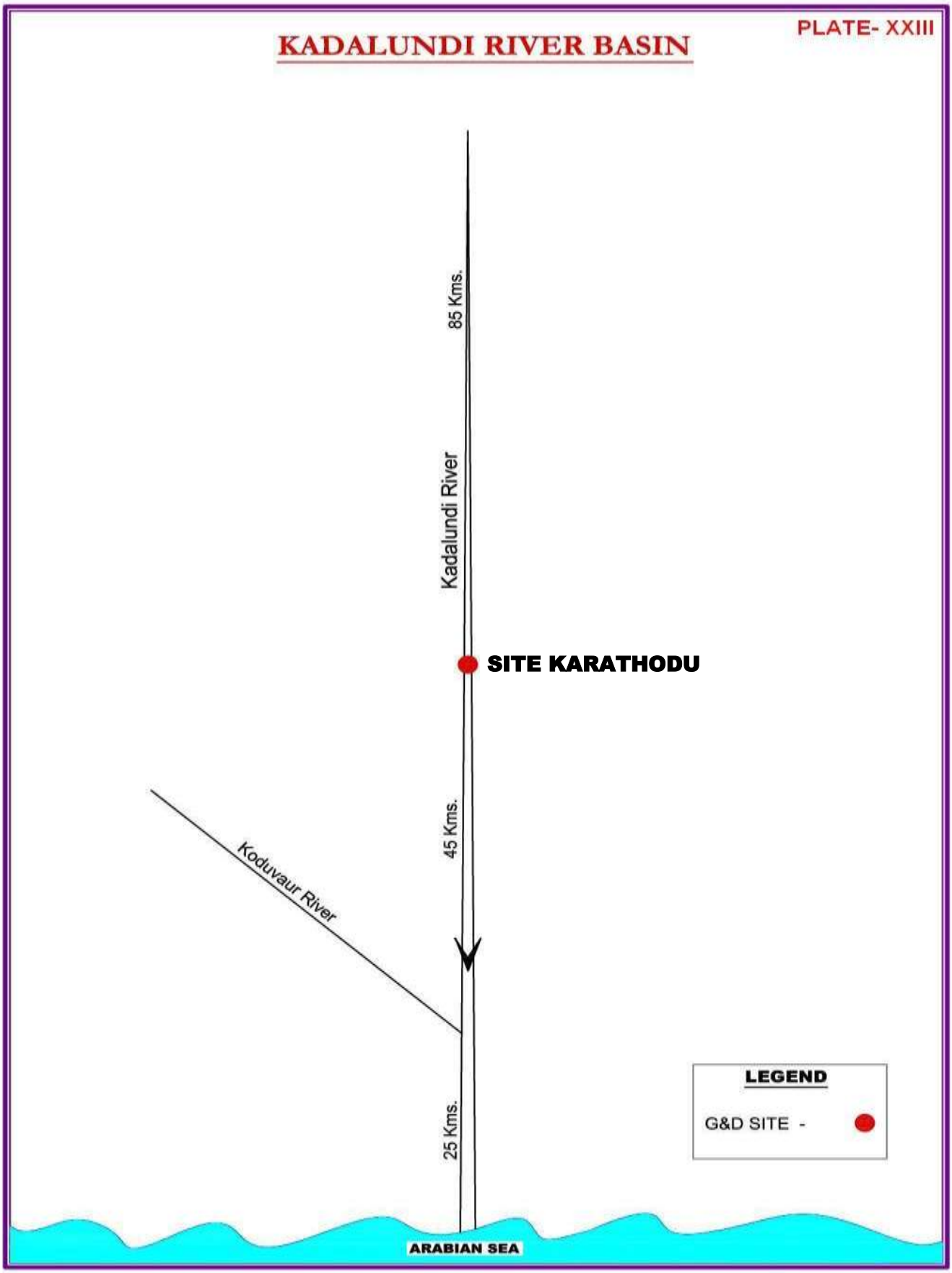


PLATE- XXIV

BHARATHAPUZHA RIVER BASIN

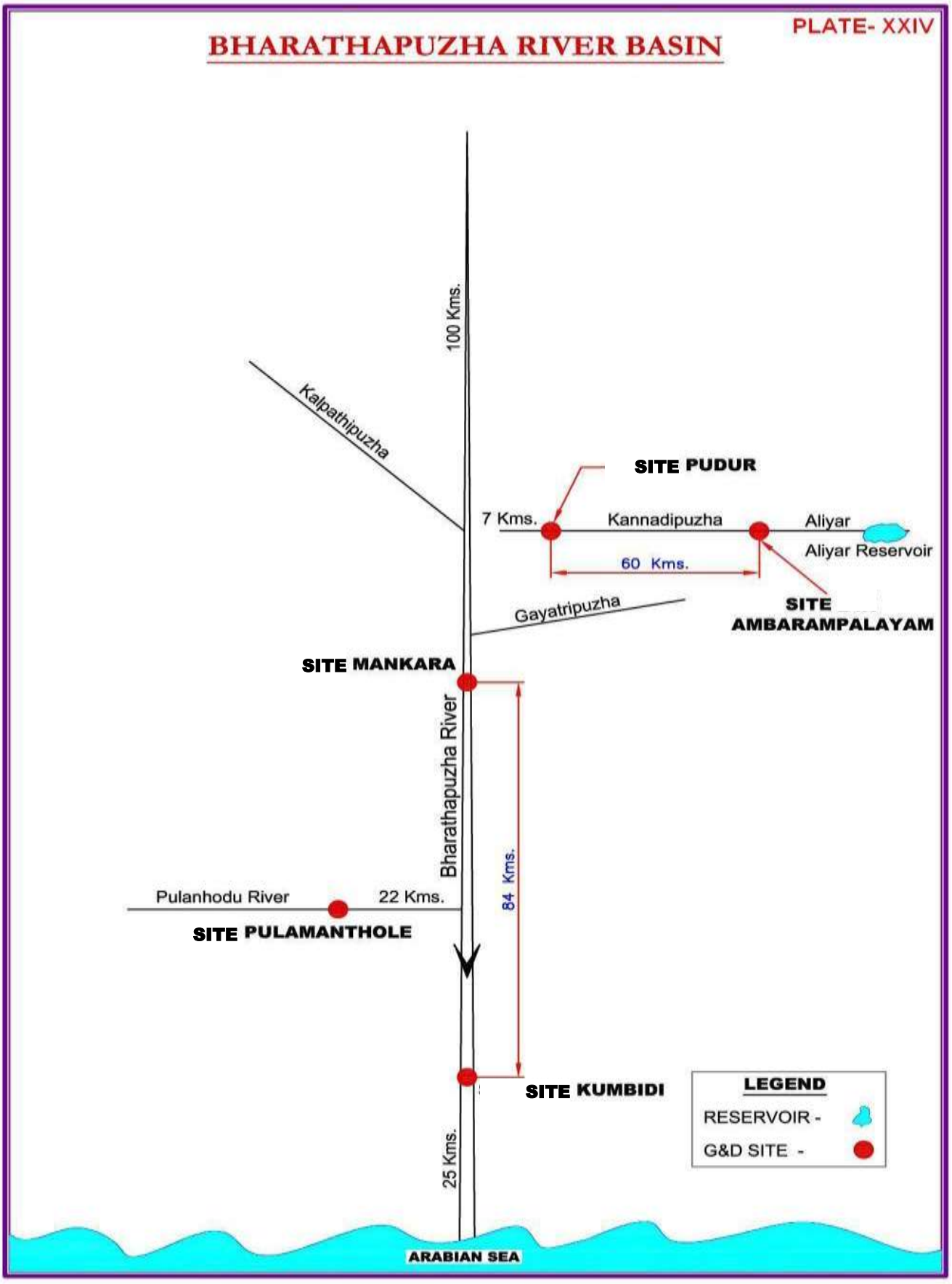


PLATE- XXV

CHALAKUDI RIVER BASIN

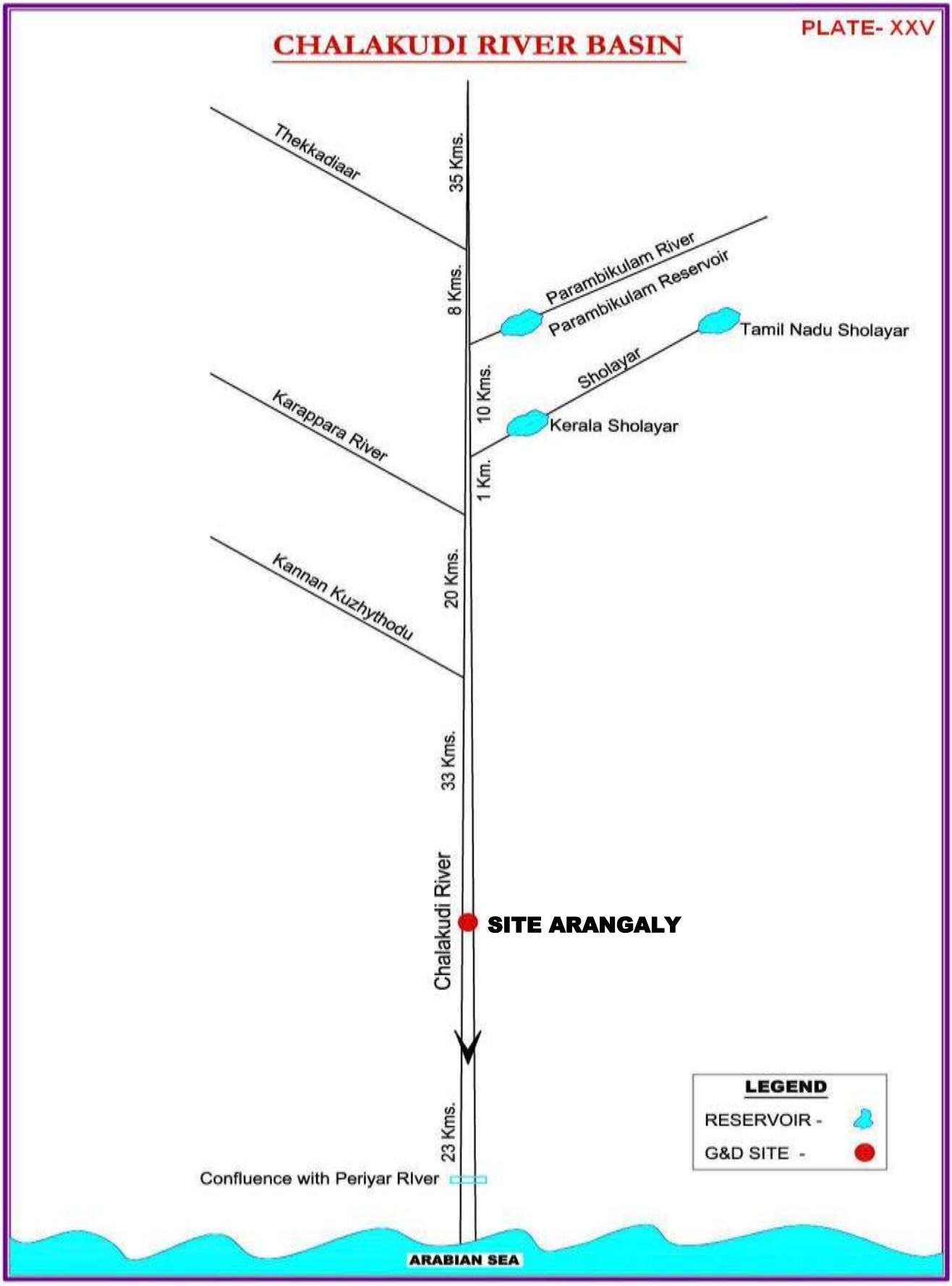


PLATE- XXVI

PERIYAR RIVER BASIN

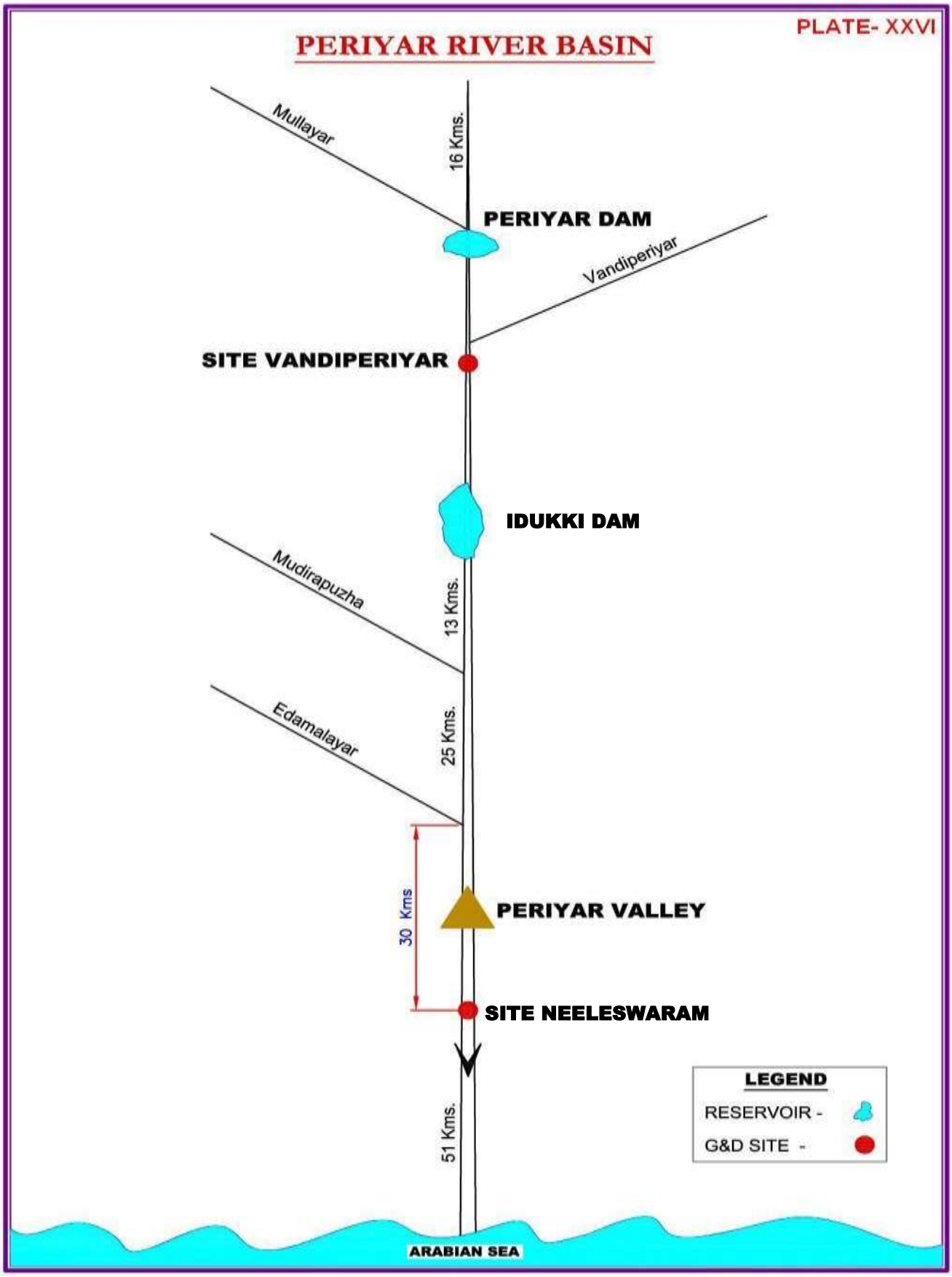


PLATE- XXVII

MUVATTUPUZHA RIVER BASIN

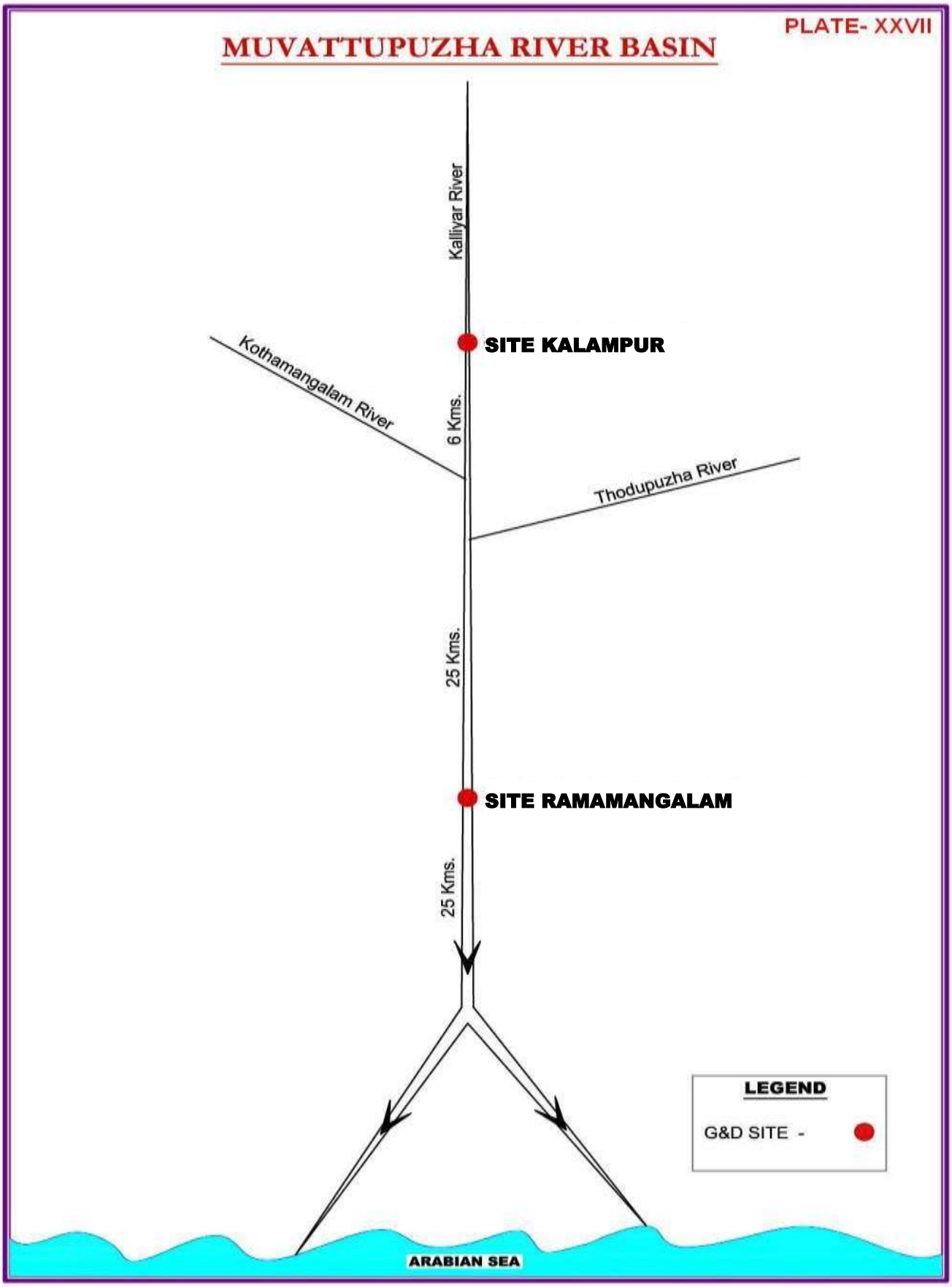


PLATE- XXVIII

MEENACHIL RIVER BASIN

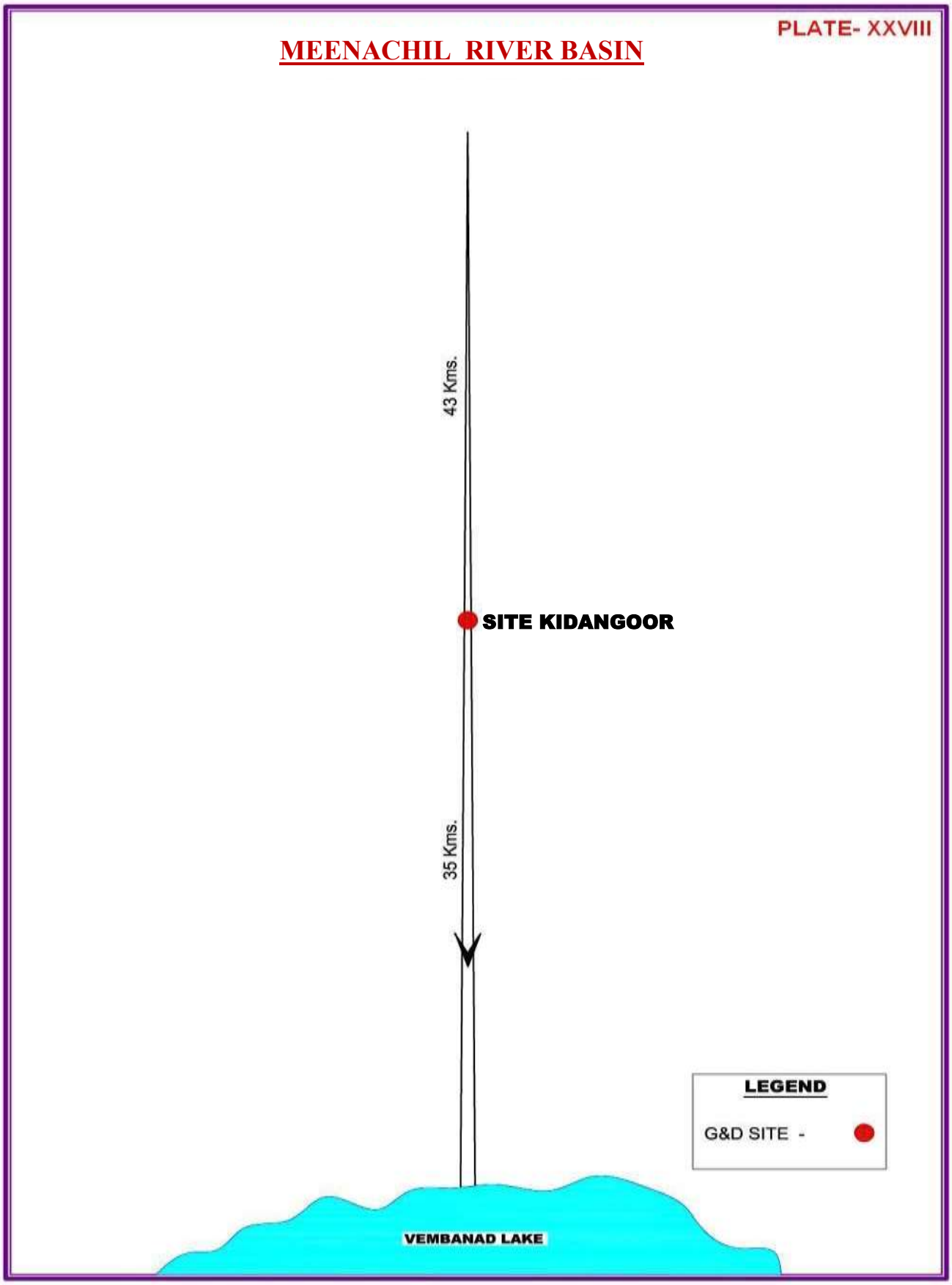


PLATE- XXIX

PAMBA - MANIMALA, ACHANKOVIL RIVER BASIN

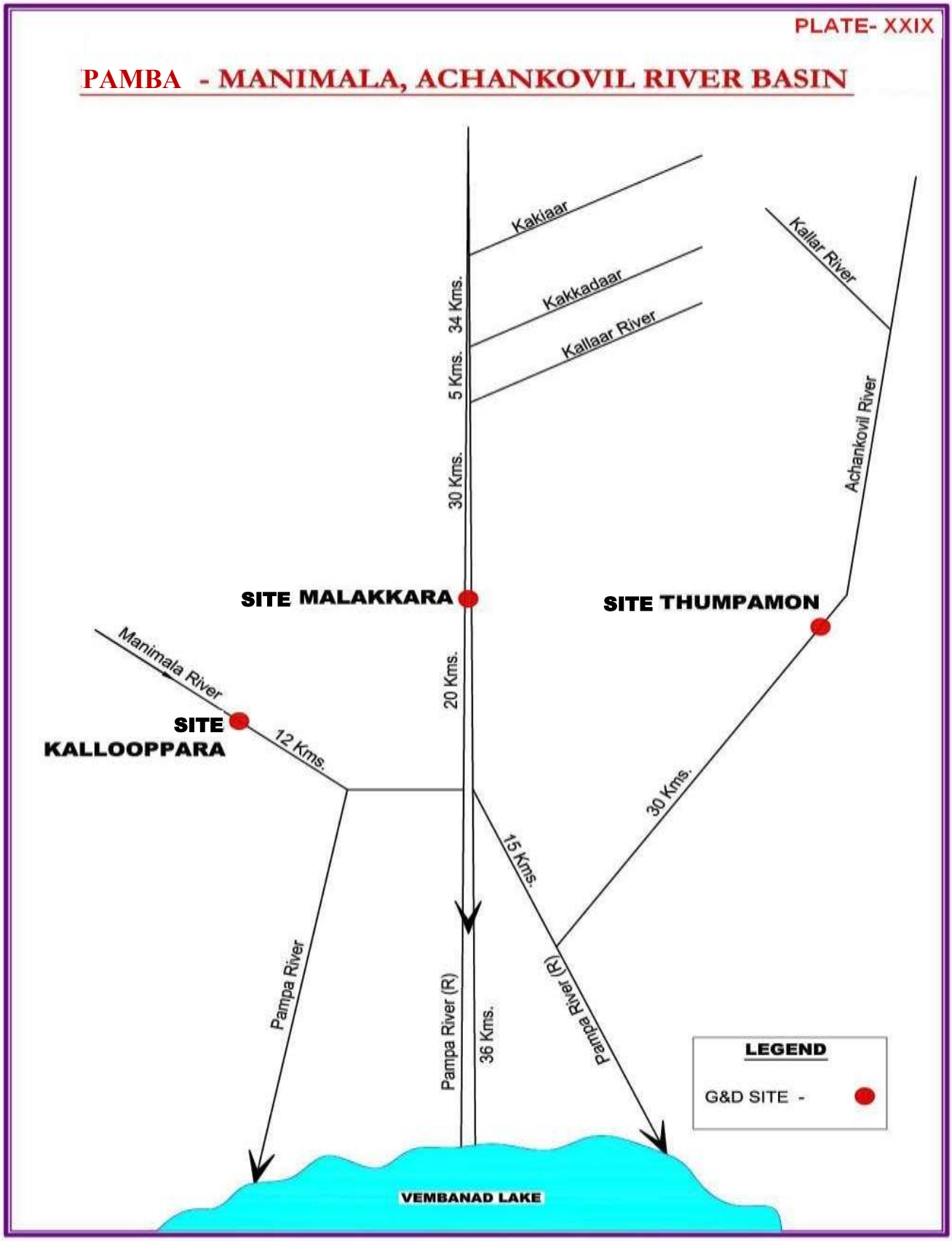


PLATE- XXX

KALLADA RIVER BASIN

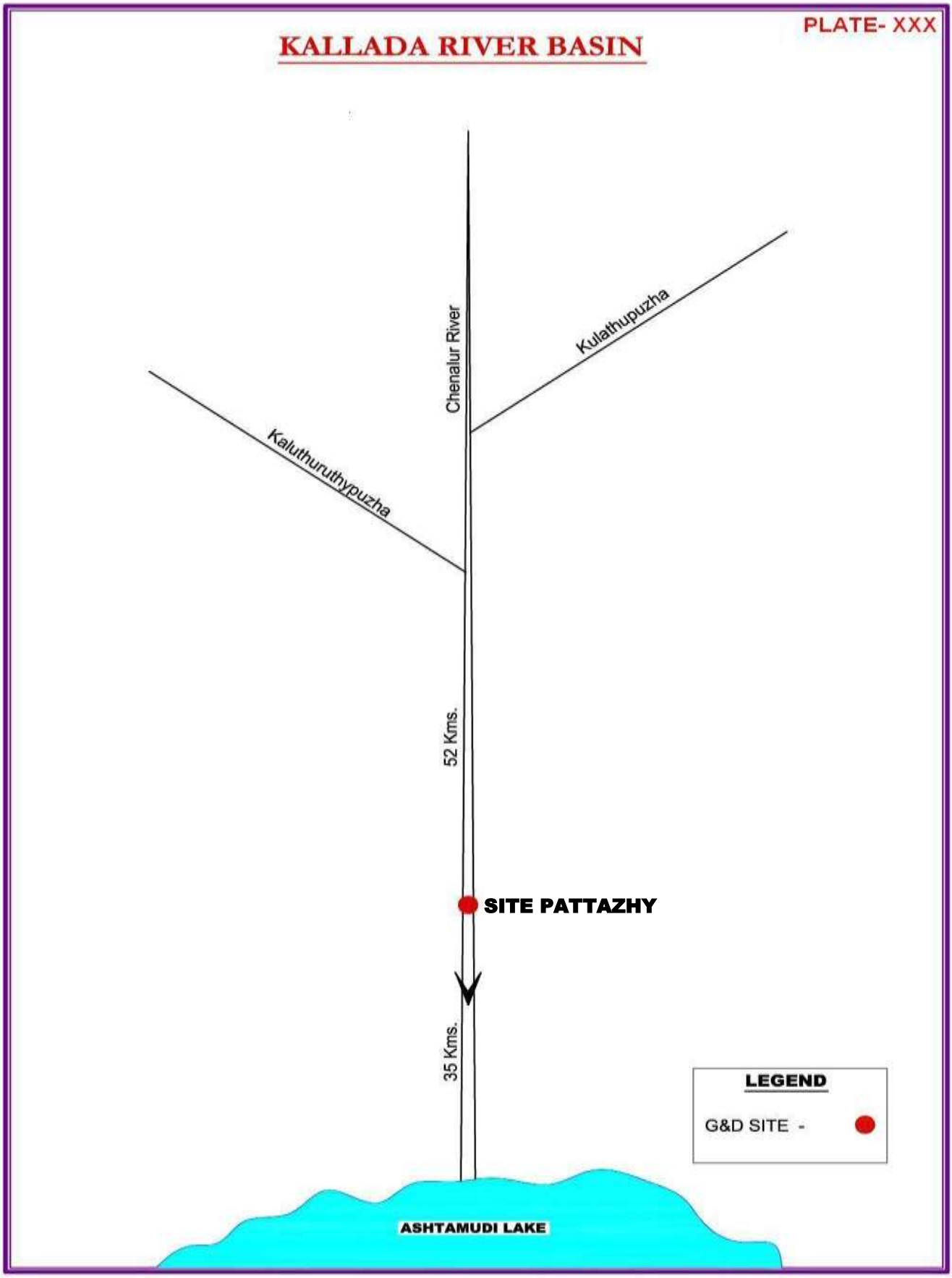


PLATE- XXXI

VAMANAPURAM RIVER BASIN

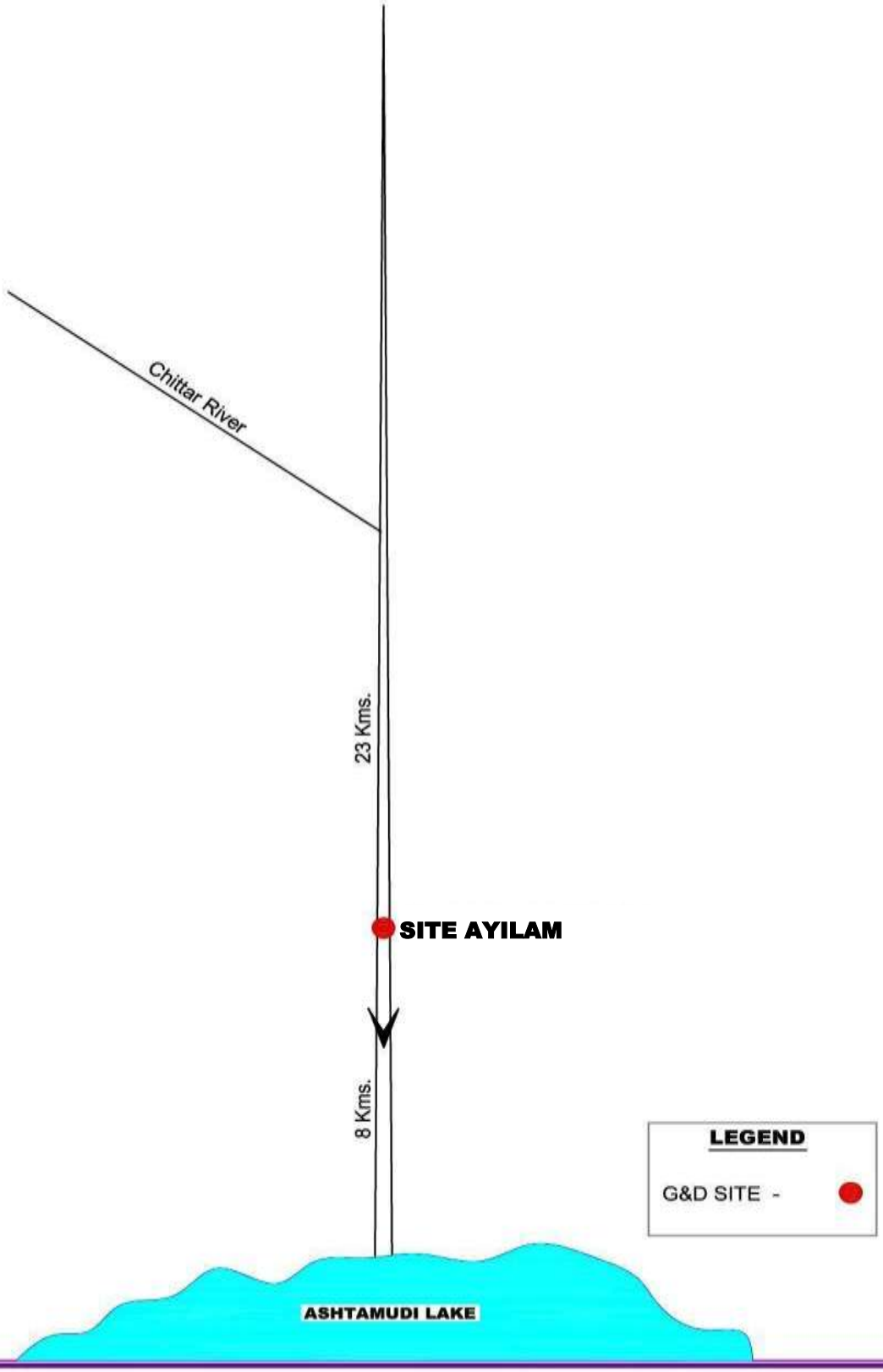
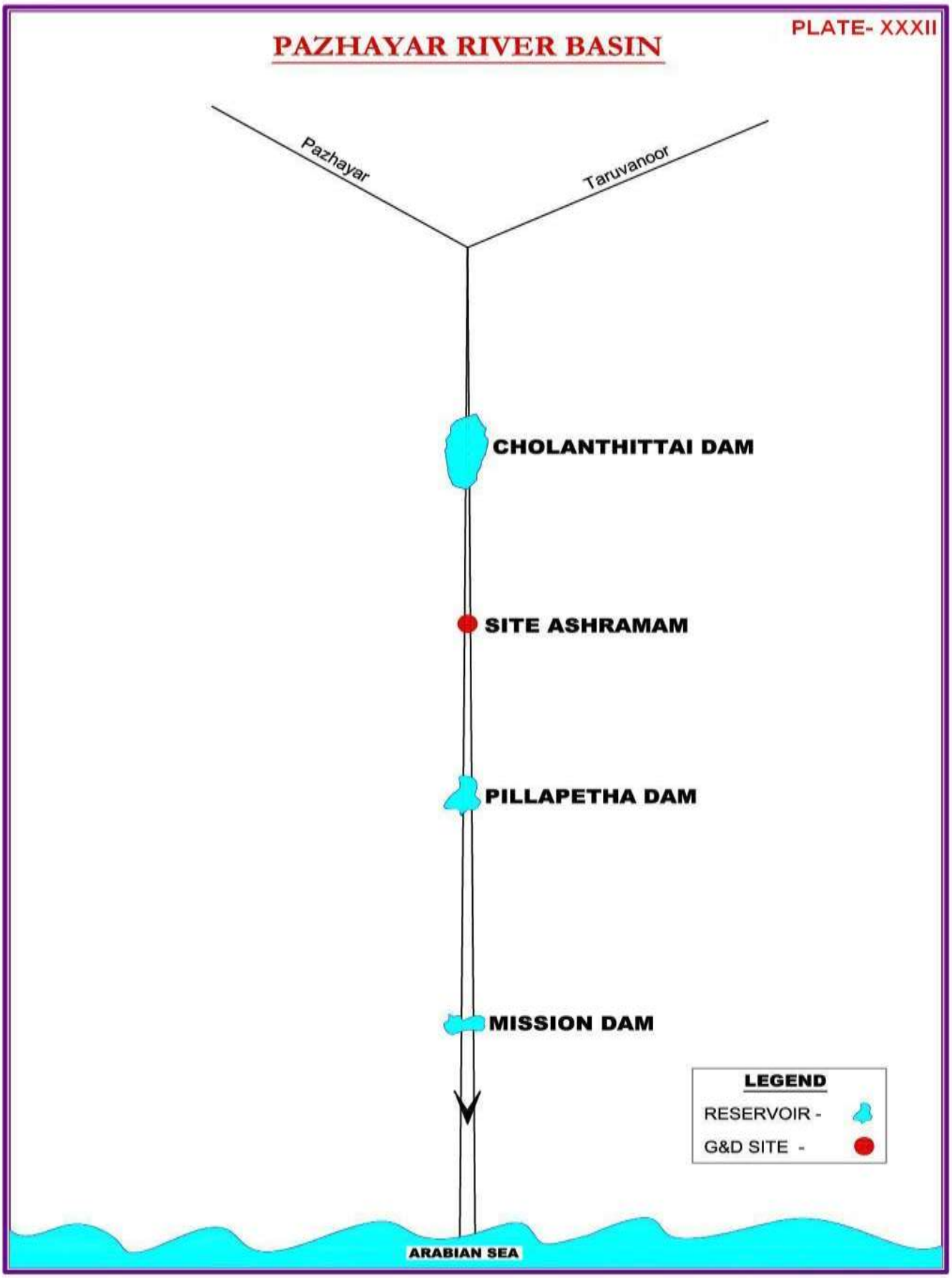


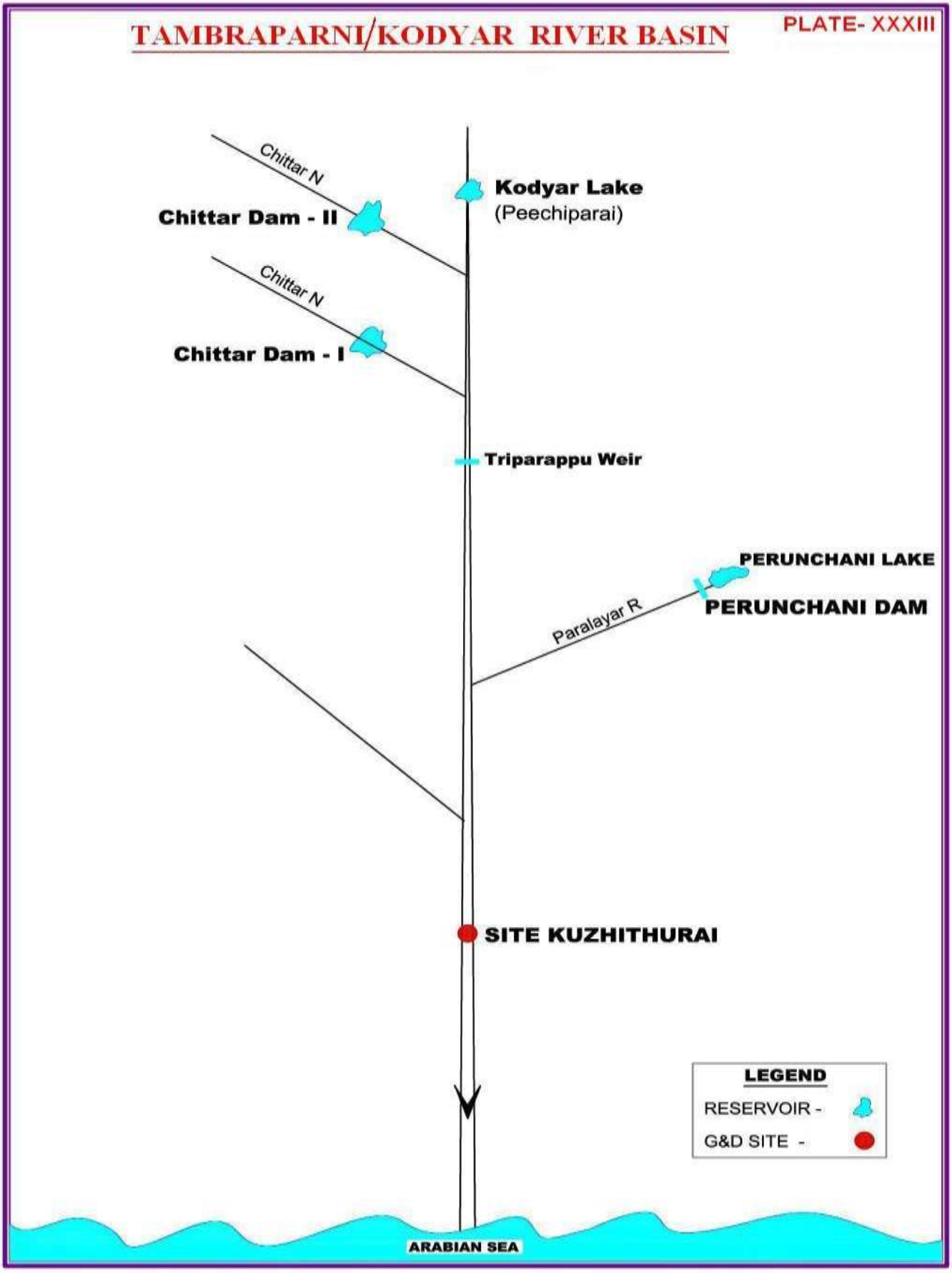
PLATE- XXXII

PAZHAYAR RIVER BASIN



TAMBRAPARNI/KODYAR RIVER BASIN

PLATE- XXXIII



HISTORY SHEET

Water Year : 2015-2016

Site	**: Badlapur**		**Code**	**: WU000P8**	
State	: Maharashtra		District	Thane	
Basin	: WFR South of Tapi		Independent River	: Ulhas	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Ulhas	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Upper Krishna SD 3, Managaon	
Drainage Area	: 785 Sq. Km.		Bank	: Left	
Latitude	: 19°09'44"		Longitude	: 73°15'16"	
Zero of Gauge (m)	: 9.017 (m.s.l)		24/06/1981		
	Opening Date		Closing Date		
Gauge	: 24/06/1981				
Discharge	: 27/06/1981				
Sediment	: 22/12/2014				
Water Quality	: 02/07/1993				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1982-1983	1785	14.027	22/08/1982	0.000	9.207	19/11/1982
1983-1984	2600	16.217	16/08/1983	0.000		18/06/1983
1984-1985	1631	14.962	04/07/1984	1.000	10.037	05/06/1984
1985-1986	1517	13.867	17/07/1985	4.000	10.087	07/11/1985
1986-1987	3427	16.427	08/08/1986	0.000	10.257	13/06/1986
1987-1988	1503	14.177	20/08/1987	0.000	9.947	18/04/1988
1988-1989	4440	16.997	16/07/1988	1.897	10.027	24/04/1989
1989-1990	1603	14.417	24/07/1989	1.749	9.987	22/11/1989
1990-1991	2707	15.597	24/07/1990	4.025	10.107	08/03/1991
1991-1992	1875	13.867	13/07/1991	0.000	10.237	29/11/1991
1992-1993	3335	17.317	13/08/1992	0.000	9.917	11/04/1993
1993-1994	1500	13.527	19/06/1993	1.400	10.047	23/03/1994
1994-1995	3542	17.757	14/07/1994	1.481	9.957	07/01/1995
1995-1996	1500	14.567	03/09/1995	0.000		31/03/1996
1996-1997	2405	16.142	23/07/1996	0.000		11/03/1997
1997-1998	3075	16.967	23/08/1997	3.594	10.027	24/01/1998
1998-1999	1978	14.997	17/09/1998	3.151	10.017	29/01/1999
1999-2000	1240	13.817	23/06/1999	1.511	9.967	08/12/1999
2000-2001	2450	16.172	13/07/2000	0.000		22/01/2001

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2001-2002	1103	13.707	10/07/2001	0.000	10.197	20/01/2002
2002-2003	3635	17.147	07/08/2002	2.730	10.077	18/04/2003
2003-2004	2645	15.757	27/07/2003	1.230	9.957	31/12/2003
2004-2005	3615	17.492	04/08/2004	2.366	10.072	08/06/2004
2005-2006	4483	21.097	27/07/2005	1.102	9.917	10/01/2006
2006-2007	2856	16.557	07/08/2006	0.710	9.887	02/01/2007
2007-2008	1575	14.077	03/07/2007	0.153	9.827	23/12/2007
2008-2009	2209	15.417	09/08/2008	0.472	10.127	25/05/2009
2009-2010	2597	15.457	15/07/2009	0.007	10.022	18/05/2010
2010-2011	1708	14.690	30/08/2010	0.661	10.037	01/06/2010
2011-2012	1956	15.127	29/08/2011	0.510	9.897	03/01/2012
2012-2013	1701	14.517	01/08/2012	0.427	9.957	29/03/2013
2013-2014	1680	14.637	12/07/2013	0.253	10.017	06/01/2014
2014-2015	4056	17.517	30/07/2014	0.905	10.017	07/04/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	10.092	1.520 #	10.527	32.19 *	11.787	265.1 *	11.137	117.2 *	10.552	29.10 #	10.427	23.28 *
2	10.302	10.85 #	10.497	29.37 *	11.587	213.3 *	11.037	99.63 *	10.512	30.76 *	10.187	7.738 *
3	10.342	13.35 #	10.477	27.56 *	11.147	119.0 *	10.907	63.60 #	11.085	99.13	10.297	13.84 *
4	10.392	16.98 #	10.532	32.67 *	11.197	128.3 *	10.670	48.63	11.667	233.3 *	10.487	28.46 *
5	10.327	11.51 #	10.497	29.37 *	11.167	122.7 *	10.640	46.05	11.307	150.1 *	10.387	20.12 *
6	10.397	17.80 #	10.232	10.02 *	11.227	134.1 *	10.557	35.14 *	11.007	94.65 *	10.447	24.95 *
7	10.307	14.48 *	10.402	21.28 *	11.117	113.5 *	10.467	26.68 *	10.595	43.67	10.427	23.28 *
8	10.087	1.450 #	10.457	25.81 *	11.182	120.8	10.547	34.14 *	10.547	25.70 #	10.317	15.13 *
9	10.317	15.13 *	10.527	32.19 *	11.197	128.3 *	10.477	27.56 *	10.497	17.40 #	10.187	7.738 *
10	10.357	17.90 *	10.517	31.24 *	10.967	88.21 *	10.932	65.50 #	10.457	23.96	10.247	10.85 *
11	10.387	20.12 *	10.557	35.14 *	10.877	74.53 *	11.100	105.2	10.437	24.11 *	10.437	24.11 *
12	10.357	17.90 *	10.577	37.18 *	11.017	96.30 *	10.972	78.50 #	10.537	33.16 *	10.335	15.72
13	10.327	15.80 *	10.257	11.42 *	10.967	88.21 *	11.287	146.1 *	10.632	43.07 *	10.272	10.50 #
14	10.347	17.18 *	10.357	17.90 *	10.837	68.81 *	11.187	126.4 *	10.587	38.22 *	10.322	11.71
15	10.077	3.385 *	10.537	33.16 *	11.167	122.7 *	11.517	196.5 *	10.545	31.17	10.277	12.60 *
16	10.417	22.47 *	10.557	35.14 *	11.197	128.3 *	11.347	158.5 *	10.612	48.03	10.157	6.377 *
17	10.487	28.46 *	10.527	32.19 *	11.047	101.3 *	11.857	284.5 *	10.565	35.35	10.067	3.076 *
18	10.527	32.19 *	10.697	50.59 *	11.207	130.2 *	12.392	413.0 #	10.527	32.19 *	10.267	12.00 *
19	10.667	47.05 *	10.837	68.81 *	11.117	113.5 *	13.257	814.5	10.337	16.49 *	10.357	15.71
20	10.907	78.96 *	11.067	104.7 *	10.952	65.50 #	12.777	602.9 *	10.567	36.15 *	10.350	13.42
21	10.597	39.27 *	13.517	860.2 *	10.887	61.00 #	11.947	310.5 *	10.487	28.46 *	10.297	9.910 #
22	11.497	191.8 *	13.267	820.1 *	11.002	84.76	11.667	233.3 *	10.292	13.52 *	10.232	10.02 *
23	11.567	208.4 *	12.267	412.0 *	10.807	64.68 *	11.757	256.9 *	10.215	9.220	10.937	83.52 *
24	13.137	759.2 *	12.367	446.6 *	10.797	63.33 *	11.565	258.3	10.387	20.12 *	10.557	35.14 *
25	11.967	316.4 *	11.997	325.4 *	11.057	103.0 *	11.127	115.3 *	10.482	28.01 *	10.297	13.84 *
26	11.337	156.4 *	12.317	429.1 *	11.917	301.7 *	10.967	80.77	10.267	12.00 *	10.132	4.265
27	11.017	96.30 *	11.867	287.3 *	11.812	264.4	10.867	73.08 *	10.337	16.49 *	10.307	10.77
28	10.667	47.05 *	11.667	233.3 *	11.512	193.9	10.777	60.67 *	10.437	24.11 *	10.332	13.97
29	10.557	35.14 *	12.517	501.1 *	11.917	305.0 #	10.672	47.63 *	10.572	30.50 #	10.357	17.90 *
30	10.487	28.46 *	12.867	640.3 *	11.457	182.6 *	10.607	40.34 *	10.462	22.10 #	10.177	7.270 *
31			11.827	276.1 *	11.237	136.1 *			10.437	20.00 #		
Ten-Daily Mean												
I Ten-Daily	10.292	12.10	10.467	27.17	11.257	143.3	10.737	56.41	10.823	74.78	10.341	17.54
II Ten-Daily	10.450	28.35	10.597	42.63	11.038	98.95	11.769	292.6	10.535	33.79	10.284	12.52
III Ten-Daily	11.283	187.8	12.407	475.6	11.309	160.0	11.195	147.7	10.398	20.41	10.363	20.66
Monthly												
Min.	10.077	1.450	10.232	10.02	10.797	61.00	10.467	26.68	10.215	9.220	10.067	3.076
Max.	13.137	759.2	13.517	860.2	11.917	305.0	13.257	814.5	11.667	233.3	10.937	83.52
Mean	10.675	76.1	11.197	191.3	11.205	134.9	11.234	165.6	10.579	42.27	10.329	16.91

Annual Runoff in MCM = 1723 Annual Runoff in mm = 2194

Peak Observed Discharge = 814.5 cumecs on 19/09/2015 Corres. Water Level :13.257 m

Lowest Observed Discharge = 0.000 cumecs on 29/03/2016 Corres. Water Level :9.937 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Dec			Jan			Feb			Mar			Apr			May		
	W.L	Q		WL	Q		WL	Q		WL	Q		WL	Q		WL	Q	
1	10.067	3.076	*	10.247	6.200	#	10.047	2.503	*	10.102	4.220	*	10.217	8.115		10.197	0.000	
2	10.317	15.13	*	10.107	1.850	#	10.027	1.988	*	10.227	9.754	*	10.167	4.300	#	10.167	0.000	
3	10.347	12.71		10.017	1.753	*	10.187	7.738	*	10.257	9.211		10.227	9.754	*	9.937	0.000	
4	10.367	14.72		10.087	3.708	*	10.207	6.600	#	10.137	4.531		10.147	5.952	*	10.187	0.000	
5	10.347	11.95	#	10.207	8.717	*	10.217	6.800	#	10.027	0.900	#	9.997	1.326	*	10.127	0.000	
6	10.337	16.49	*	10.117	4.765	*	10.277	9.855		10.047	2.503	*	10.157	6.377	*	10.207	0.000	
7	10.137	5.542	*	10.067	1.440	#	10.247	10.85	*	10.007	1.532	*	10.097	1.410	#	10.187	0.000	
8	10.107	4.398	*	10.137	4.813		10.037	2.238	*	10.017	1.753	*	10.197	8.220	*	10.197	0.000	
9	10.327	15.80	*	10.167	7.211		10.017	1.753	*	10.167	6.816	*	10.187	6.529		10.127	0.000	
10	10.337	10.30	#	10.027	1.988	*	10.167	6.816	*	10.227	8.468		10.167	6.816	*	9.967	0.000	
11	10.312	9.100	#	10.017	1.753	*	10.207	6.844		10.197	8.328		10.147	5.952	*	9.937	0.000	
12	10.387	20.12	*	10.067	3.076	*	10.227	7.747		10.257	9.885		9.987	1.135	*	10.167	0.000	
13	10.227	9.754	*	10.097	4.046	*	10.287	10.83		10.167	6.816	*	10.137	5.542	*	9.947	0.000	
14	10.117	4.765	*	10.207	9.046		10.257	11.42	*	10.057	2.783	*	10.152	6.163	*	10.137	0.000	
15	10.057	2.783	*	10.067	1.450	#	10.127	5.146	*	10.007	1.532	*	10.227	7.000	#	10.157	0.000	
16	10.217	9.229	*	10.087	1.600	#	10.067	3.076	*	10.107	4.398	*	10.307	11.34		10.247	0.000	
17	10.237	5.570	#	10.127	5.146	*	10.227	9.754	*	10.137	4.562		10.287	0.000		10.127	0.000	
18	10.222	6.100	#	10.027	1.988	*	10.147	4.518		10.117	1.800	#	10.282	0.000		10.067	0.000	
19	10.257	9.132		9.997	1.326	*	10.217	8.233		10.177	5.991		10.117	0.000		10.177	0.000	
20	10.157	6.377	*	10.137	5.542	*	10.157	4.673		10.027	1.988	*	10.027	0.000		10.147	0.000	
21	10.087	3.708	*	10.197	8.102		10.197	8.220	*	9.977	0.958	*	10.007	0.000		10.017	0.000	
22	10.022	1.869	*	10.187	6.822		10.097	4.046	*	9.917	0.210	*	10.017	0.000		10.167	0.000	
23	10.187	7.738	*	10.087	1.620	#	9.967	0.796	*	10.067	3.076	*	10.022	0.000		10.127	0.000	
24	10.167	6.816	*	10.117	4.765	*	10.117	4.765	*	9.967	0.796	*	10.127	0.000		10.177	0.000	
25	10.197	8.220	*	10.017	1.753	*	10.137	4.169		10.117	4.765	*	9.997	0.000		10.197	0.000	
26	10.077	1.550	#	10.007	1.532	*	10.117	1.950	#	10.147	4.782		9.867	0.000		10.217	0.000	
27	10.107	4.398	*	10.047	2.503	*	10.257	9.074		10.057	2.783	*	10.017	0.000		10.227	0.000	
28	10.117	4.765	*	10.037	2.238	*	10.147	5.952	*	10.137	5.542	*	10.012	0.000		10.197	0.000	
29	10.007	1.532	*	10.067	1.430	#	10.027	1.988	*	9.937	0.000		10.137	0.000		10.237	0.000	
30	10.177	7.270	*	10.167	7.358					9.997	1.326	*	10.097	0.000		10.167	0.000	
31	10.097	1.750	#	10.157	6.377	*				10.157	4.907					10.017	0.000	
Ten-Daily Mean																		
I Ten-Daily	10.269	11.01		10.118	4.245		10.143	5.714		10.122	4.969		10.156	5.880		10.130	0.000	
II Ten-Daily	10.219	8.293		10.083	3.497		10.192	7.224		10.125	4.808		10.167	3.713		10.111	0.000	
III Ten-Daily	10.113	4.510		10.099	4.045		10.118	4.551		10.043	2.649		10.030	0.000		10.159	0.000	
Monthly																		
Min.	10.007	1.532		9.997	1.326		9.967	0.796		9.917	0.000		9.867	0.000		9.937	0.000	
Max.	10.387	20.12		10.247	9.046		10.287	11.42		10.257	9.885		10.307	11.34		10.247	0.000	
Mean	10.197	7.828		10.100	3.933		10.152	5.874		10.095	4.094		10.118	3.198		10.134	0	

Peak Computed Discharge = 860.2 cumecs on 21/07/2015 **Corres. Water Level :13.517 m**

Lowest Computed Discharge = 0.210 cumecs on 22/03/2016 **Corres. Water Level :9.917 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

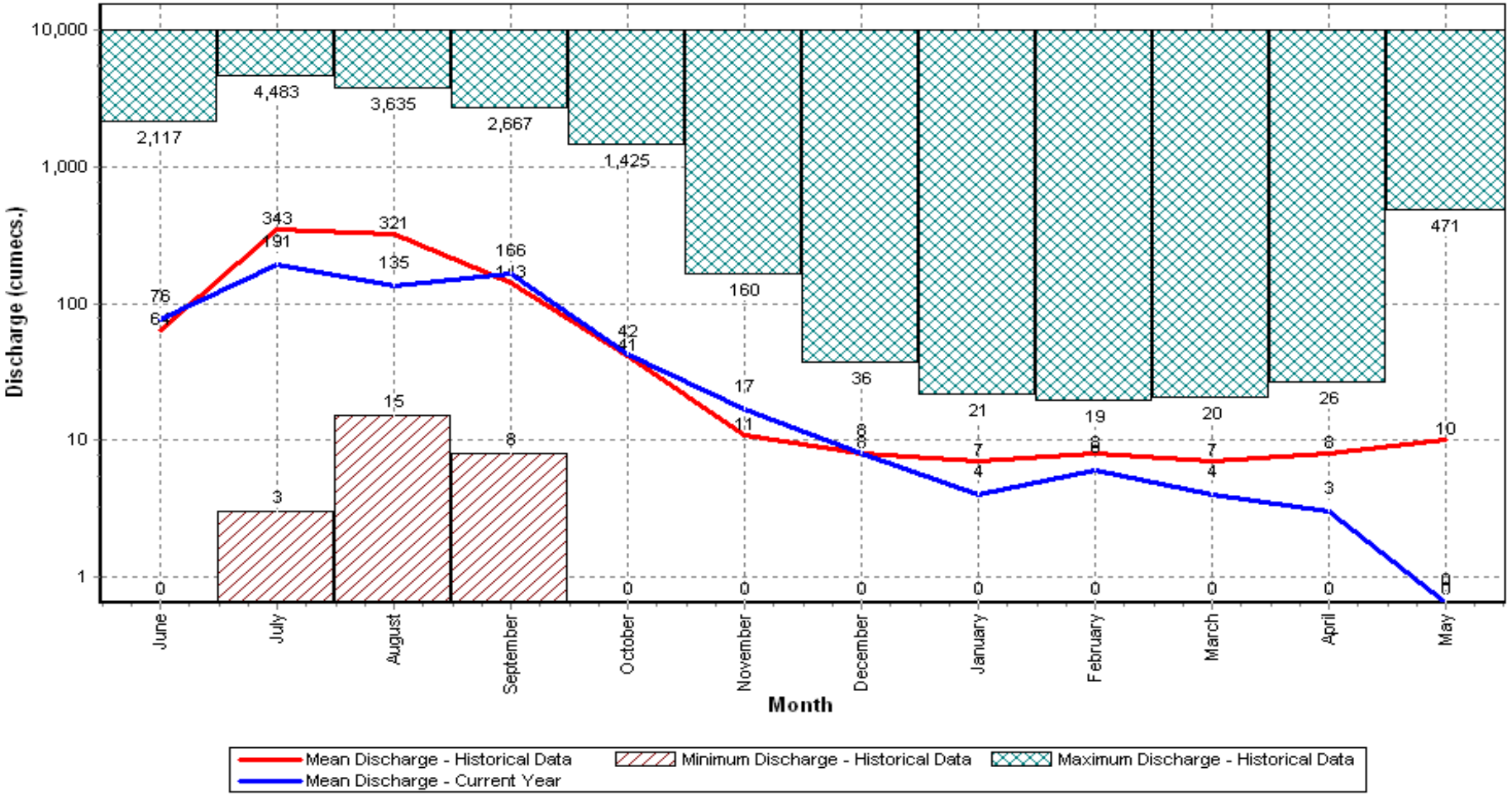
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Badlapur (WU000P8) | **Data considered : 1982-2016** | **Division : Upper Krishna Divn, Pune**

Local River : Ulhas | **Sub-Division : Upper Krishna SD 3, Managaon**



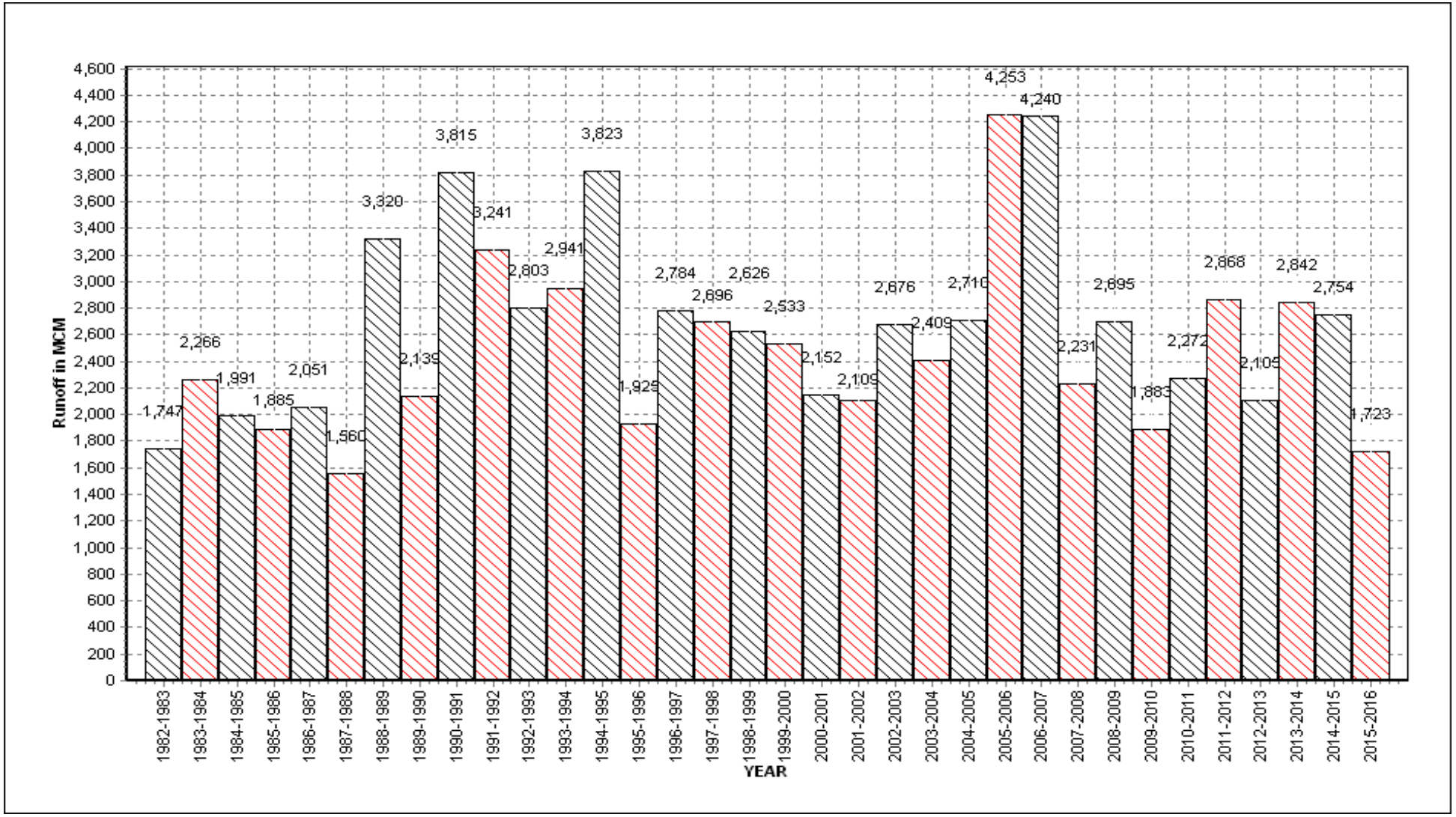
Annual Runoff Values for the period: 1982 - 2016

Station Name : Badlapur (WU000P8)

Local River : Ulhas

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 3, Managaon

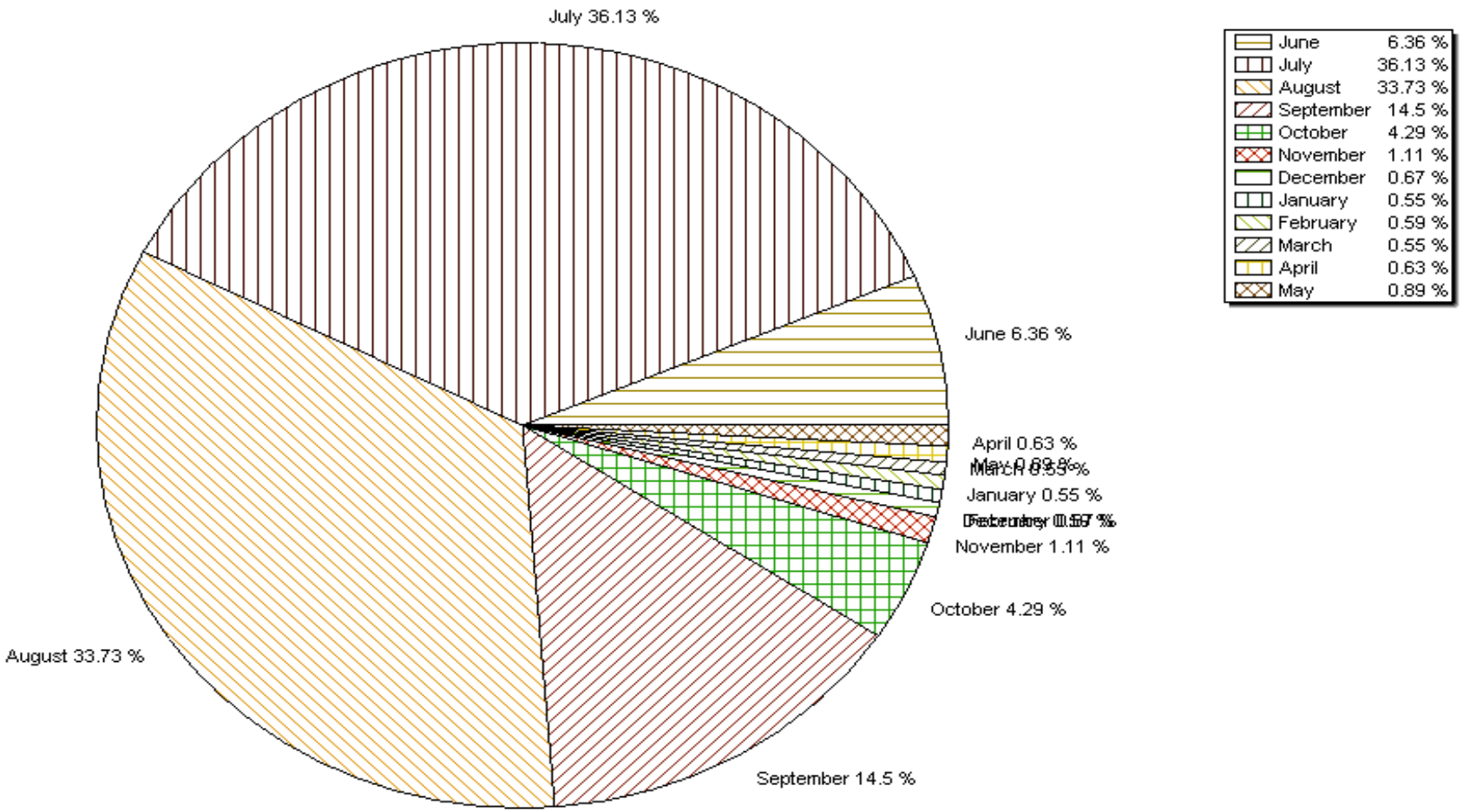


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1982-2015

Station Name : Badlapur (WU000P8)
Local River : Ulhas

Division : Upper Krishna Divn, Pune
Sub-Division : Upper Krishna SD 3, Managaon



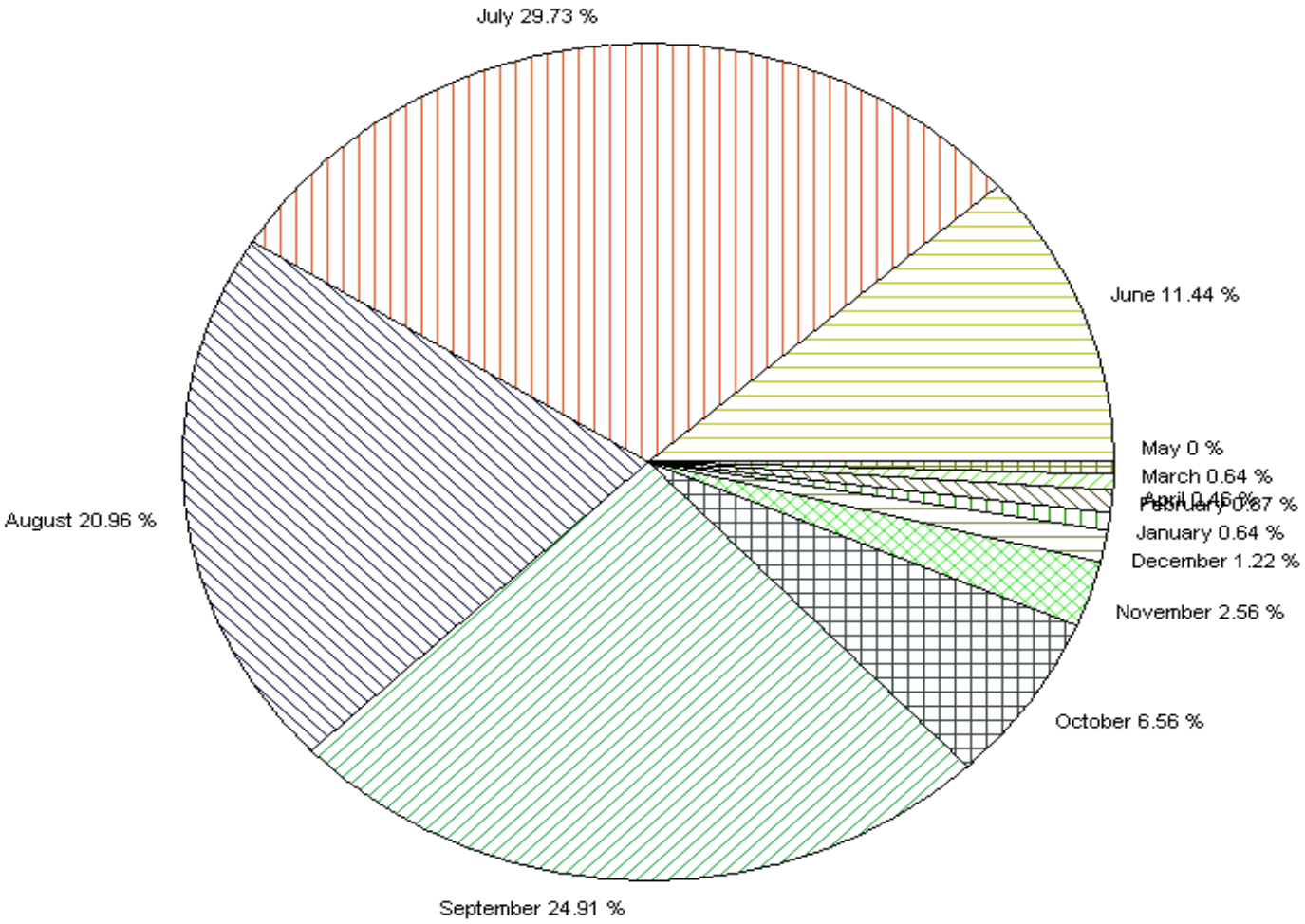
Monthly Runoff for the Year : 2015-2016

Station Name : Badlapur (WU000P8)

Local River : Ulhas

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 3, Managaon

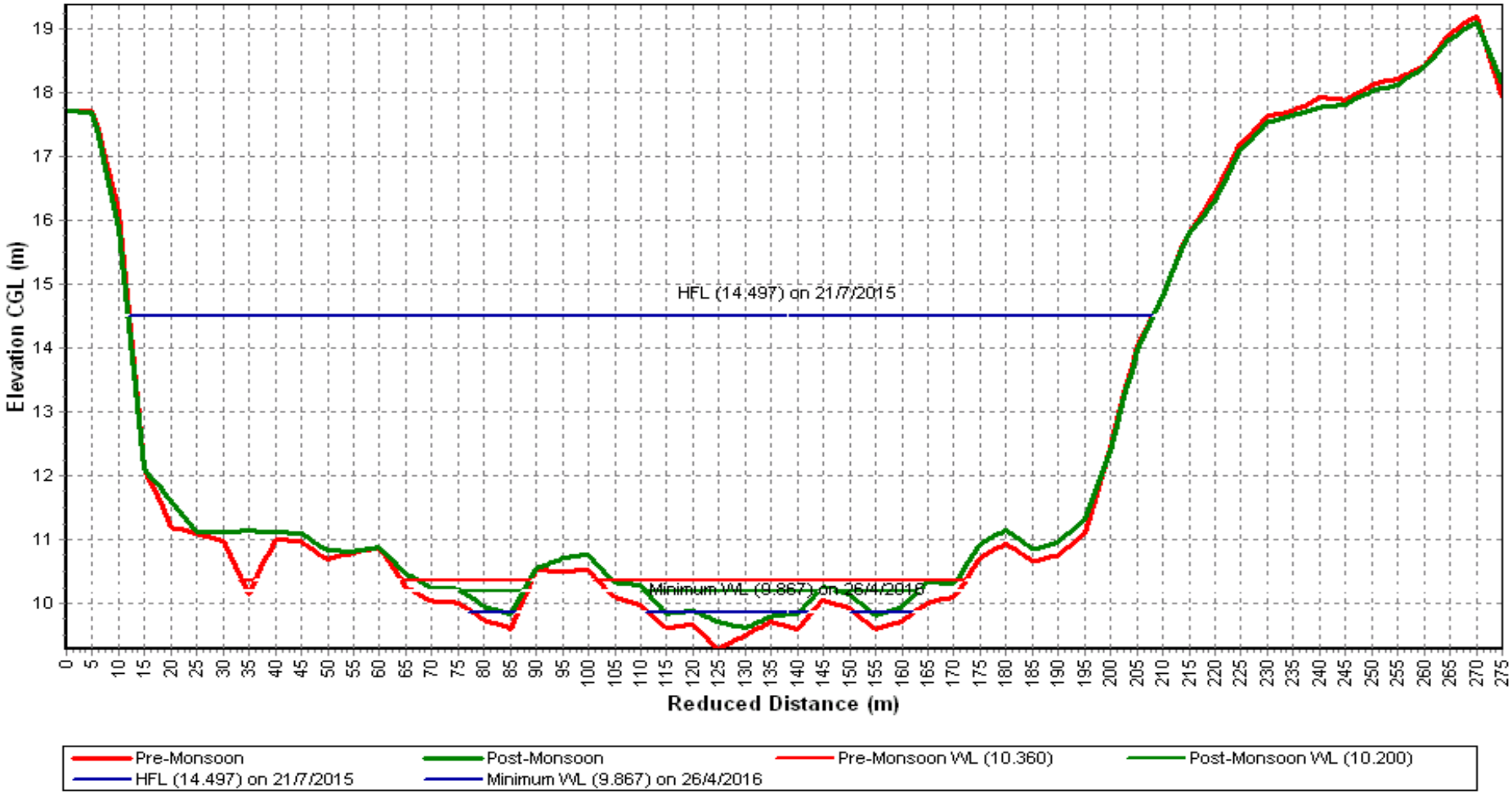


June	11.44 %
July	29.73 %
August	20.96 %
September	24.91 %
October	6.56 %
November	2.56 %
December	1.22 %
January	0.64 %
February	0.87 %
March	0.64 %
April	0.46 %
May	0 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

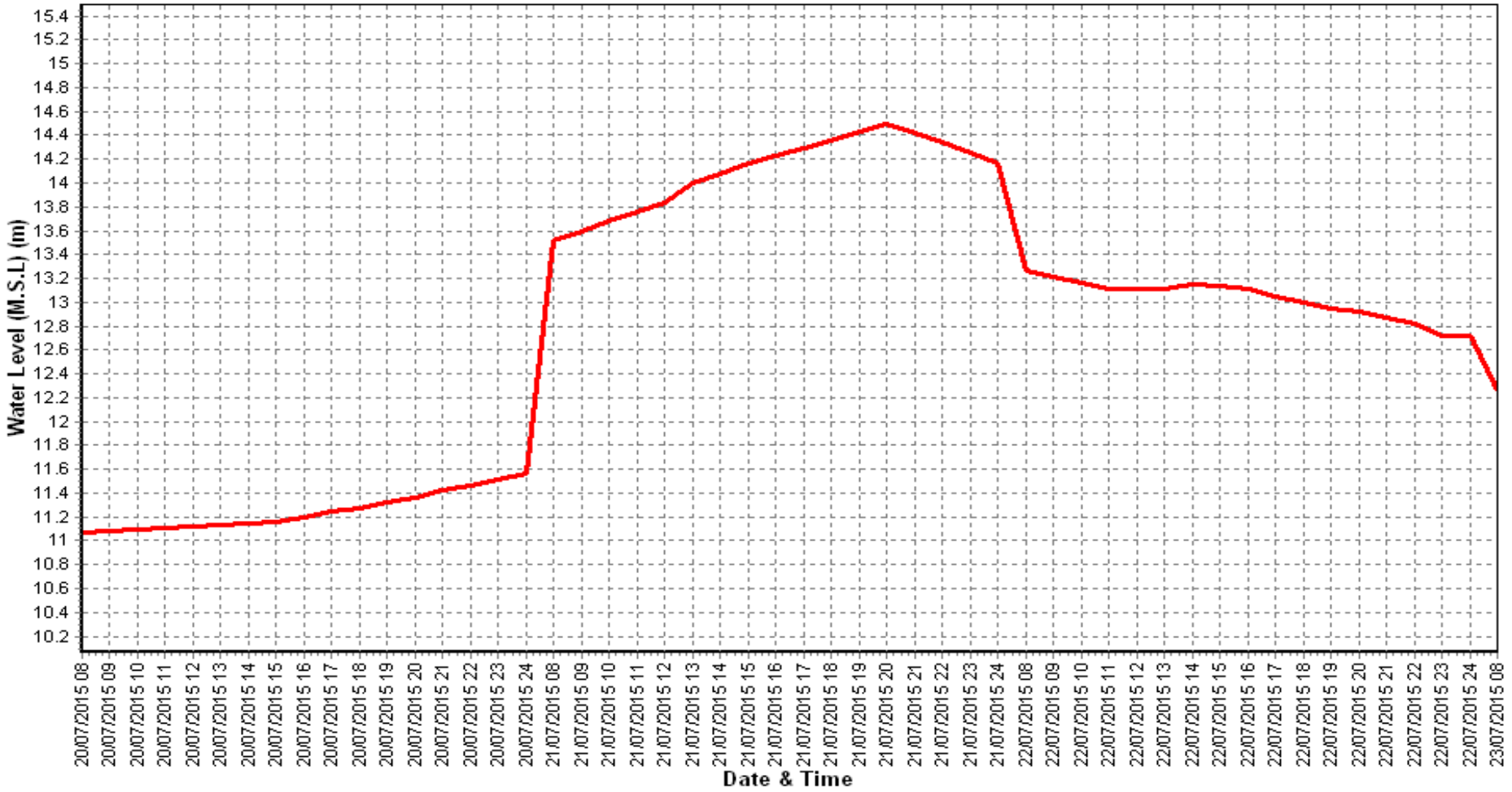
Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

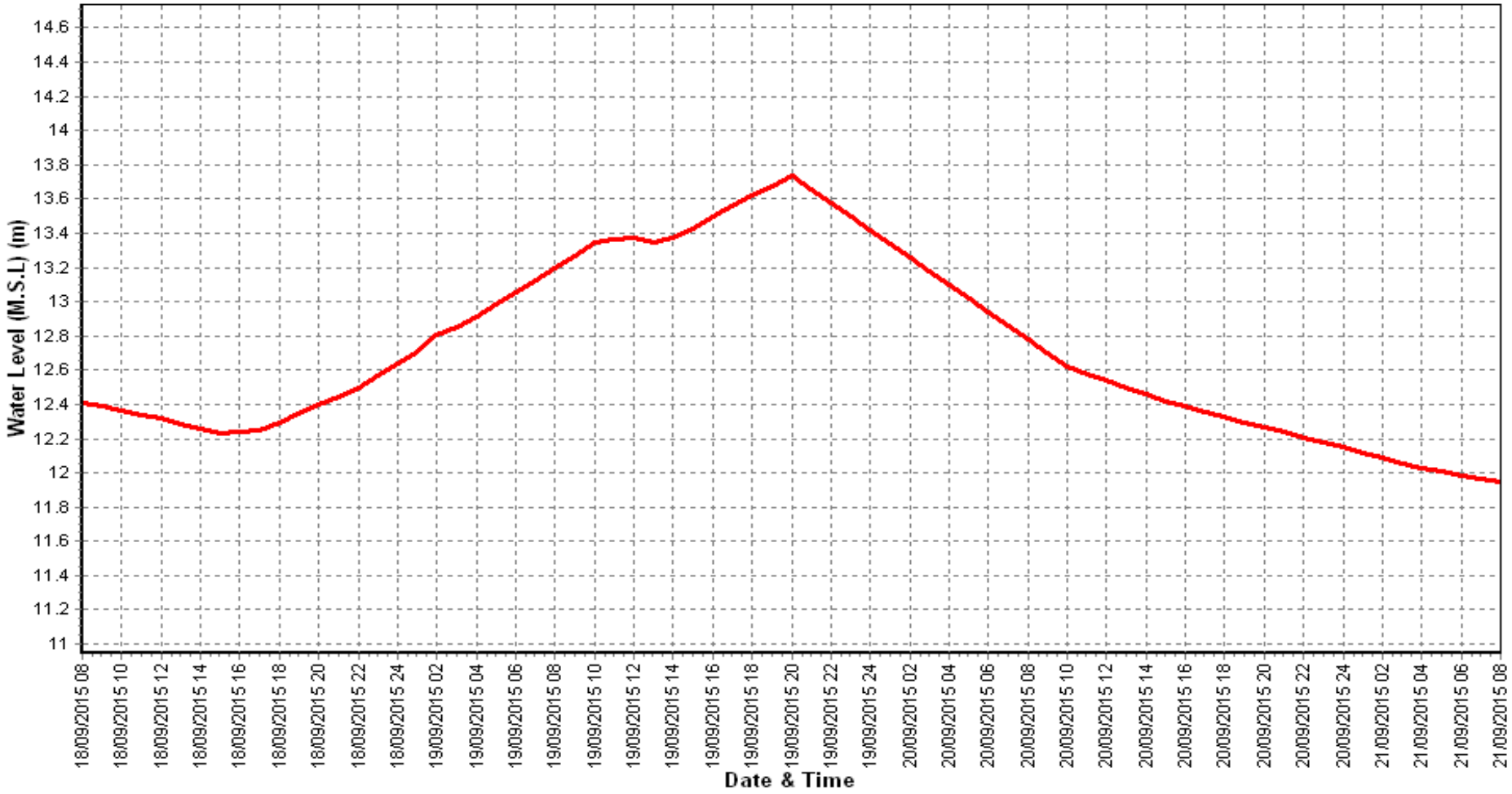


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

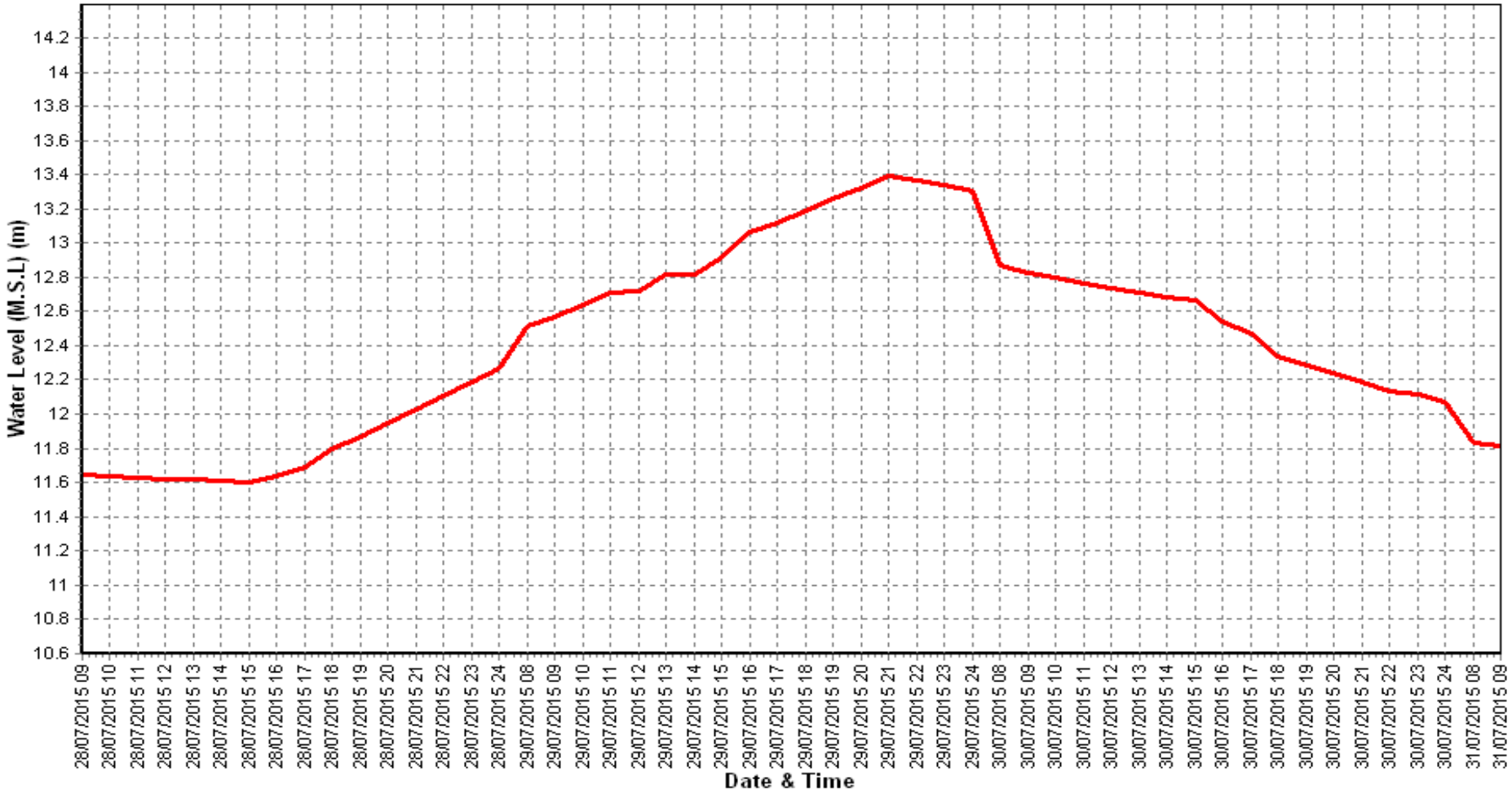


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**Pen**	**Code**	:	**PEN**
State	:	Maharashtra	District		Raigad
Basin	:	WFR South of Tapi	Independent River	:	Bhogeshwari
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Bhogeshwari
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 3, Managaon
Drainage Area	:	125 Sq. Km.	Bank	:	Left
Latitude	:	18°44'12"	Longitude	:	73°06'39"
Zero of Gauge (m)	:	7.000(m.s.l)	22/07/1996		
		Opening Date	Closing Date		
Gauge	:	22/07/1996			
Discharge	:	17/09/1996			
Sediment	:				
Water Quality	:				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1997-1998	366.0	12.550	23/08/1997	0.000	8.800	25/02/1998
1998-1999	285.0	12.200	08/07/1998	0.000	8.730	06/02/1999
1999-2000	344.0	12.295	16/07/1999	0.000	9.400	31/01/2000
2000-2001	212.0	11.900	08/07/2000	0.000	9.410	02/01/2001
2001-2002	223.0	12.000	08/07/2001	0.000	9.430	26/01/2002
2002-2003	242.4	11.375	08/08/2002	0.000	8.620	09/02/2003
2003-2004	89.11	10.720	17/07/2003	0.000	8.880	22/01/2004
2004-2005	280.5	12.010	04/08/2004	0.000	9.460	18/01/2005
2005-2006	732.0	14.730	25/07/2005	0.000	9.430	23/01/2006
2006-2007	204.3	11.480	17/08/2006	0.000	9.470	07/11/2006
2007-2008	117.6	11.000	30/06/2007	0.000	9.460	29/01/2008
2008-2009	222.0	11.830	11/08/2008	0.000		25/01/2009
2009-2010	86.87	10.690	14/07/2009	0.000	9.500	18/03/2010
2010-2011	229.0	11.550	22/07/2010	0.000	9.550	06/05/2011
2011-2012	262.9	11.950	29/08/2011	0.000	9.550	01/06/2011
2012-2013	147.3	11.320	05/09/2012	0.000	9.465	01/06/2012
2013-2014	346.9	12.460	12/07/2013	0.000	9.510	01/06/2013
2014-2015	188.8	11.485	31/07/2014	0.000	9.580	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	9.520	0.000	9.695	8.391 *	9.960	26.63 *	9.745	9.550 #	9.705	8.833 *	9.535	0.000
2	9.500	0.000	9.645	6.414 *	9.885	19.93 *	9.720	9.520 #	9.700	8.610 *	9.530	0.000
3	9.580	0.000	9.575	4.235 *	9.820	15.60	9.740	10.51 *	9.720	9.527 *	9.525	0.000
4	9.515	0.000	9.495	2.456 *	9.750	10.10 #	9.720	9.527 *	9.820	15.18 *	9.520	0.000
5	9.440	0.000	9.400	1.123 *	9.745	10.05 #	9.700	8.610 *	9.860	17.34	9.510	0.000
6	9.620	0.000	9.560	3.848 *	9.755	9.905	9.675	7.555 *	9.810	16.15	9.485	0.000
7	9.650	0.000	9.650	6.595 *	9.740	10.01 #	9.665	7.452	9.795	13.59 *	9.460	0.000
8	9.705	0.000	9.645	6.414 *	9.735	10.26 *	9.640	0.000	9.750	11.03 *	9.465	0.000
9	9.670	0.000	9.710	9.060 *	9.740	10.51 *	9.625	0.000	9.675	7.555 *	9.500	0.000
10	9.655	0.000	9.675	7.555 *	9.750	10.05 #	9.635	0.000	9.670	7.355 *	9.525	0.000
11	9.660	0.000	9.705	8.833 *	9.750	10.05 #	9.700	8.610 *	9.660	6.968 *	9.520	0.000
12	9.390	0.000	9.680	7.758 *	9.740	10.01 #	9.745	10.77 *	9.710	8.650 #	9.475	0.000
13	9.120	0.000	9.660	6.968 *	9.750	10.05 #	9.785	12.99 *	9.680	6.495	9.420	0.000
14	9.055	0.000	9.670	7.355 *	9.735	10.05 #	9.888	21.67	9.670	7.529	9.400	0.000
15	9.565	0.000	9.650	6.595 *	9.785	12.99 *	9.895	20.02	9.670	7.355 *	9.390	0.000
16	9.635	6.062 *	9.665	7.159 *	9.760	11.57 *	9.830	15.48	9.645	0.000	9.365	0.000
17	9.570	4.103 *	9.760	11.57 *	9.745	10.01 #	9.970	27.63 *	9.640	0.000	9.390	0.000
18	9.575	4.235 *	9.750	11.03 *	9.750	10.01 #	9.975	28.14 *	9.625	0.000	9.450	0.000
19	10.120	46.03 *	9.770	12.12 *	9.730	10.00 #	9.925	23.33 *	9.615	0.000	9.505	0.000
20	9.885	19.93 *	9.765	11.84 *	9.710	9.060 *	9.885	19.93 *	9.595	0.000	9.510	0.000
21	10.570	151.7 *	9.905	21.58 *	9.690	8.176 *	9.880	18.50	9.590	0.000	9.505	0.000
22	10.190	57.05 *	10.085	41.13 *	9.680	7.758 *	9.840	17.54	9.600	0.000	9.510	0.000
23	9.965	27.12 *	9.960	26.63 *	9.675	7.555 *	9.830	15.67	9.585	0.000	9.515	0.000
24	10.225	63.22 *	10.000	30.79 *	9.670	7.727	9.800	13.90 *	9.565	0.000	9.505	0.000
25	9.975	28.14 *	10.125	46.76 *	9.680	8.766	9.765	11.84 *	9.550	0.000	9.495	0.000
26	9.825	15.51 *	9.945	25.18 *	9.825	16.17	9.735	10.26 *	9.540	0.000	9.510	0.000
27	9.750	11.03 *	10.195	57.91 *	9.740	10.51 *	9.765	11.84 *	9.565	0.000	9.505	0.000
28	9.680	7.758 *	10.140	49.01 *	9.760	11.57 *	9.745	9.550 #	9.580	0.000	9.515	0.000
29	9.620	0.000	10.155	51.33 *	9.790	13.28 *	9.730	9.500 #	9.575	0.000	9.510	0.000
30	9.750	0.000	10.390	98.79 *	9.775	12.40 *	9.725	9.500 #	9.560	0.000	9.460	0.000
31			10.100	43.18 *	9.768	11.08			9.555	0.000		
Ten-Daily Mean												
I Ten-Daily	9.585	0.000	9.605	5.609	9.788	13.30	9.686	6.272	9.750	11.52	9.505	0.000
II Ten-Daily	9.557	8.036	9.707	9.122	9.745	10.38	9.860	18.86	9.651	3.700	9.442	0.000
III Ten-Daily	9.955	36.16	10.091	44.75	9.732	10.45	9.782	12.81	9.570	0.000	9.503	0.000
Monthly												
Min.	9.055	0.000	9.400	1.123	9.670	7.555	9.625	0.000	9.540	0.000	9.365	0.000
Max.	10.570	151.7	10.390	98.79	9.960	26.63	9.975	28.14	9.860	17.34	9.535	0.000
Mean	9.699	14.73	9.810	20.63	9.754	11.35	9.776	12.65	9.654	4.908	9.484	0

Annual Runoff in MCM = 170 Annual Runoff in mm = 1358

Peak Observed Discharge = 21.67 cumecs on 14/09/2015 Corres. Water Level :9.8875 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :9.52 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	9.455	0.000	9.410	0.000	9.655	0.000	9.625	0.000	9.695	0.000	9.710	0.000
2	9.470	0.000	9.420	0.000	9.660	0.000	9.630	0.000	9.700	0.000	9.750	0.000
3	9.450	0.000	9.470	0.000	9.655	0.000	9.615	0.000	9.685	0.000	9.775	0.000
4	9.425	0.000	9.480	0.000	9.600	0.000	9.630	0.000	9.670	0.000	9.760	0.000
5	9.410	0.000	9.660	0.000	9.630	0.000	9.635	0.000	9.680	0.000	9.720	0.000
6	9.380	0.000	9.665	0.000	9.650	0.000	9.655	0.000	9.670	0.000	9.690	0.000
7	9.400	0.000	9.660	0.000	9.620	0.000	9.665	0.000	9.690	0.000	9.665	0.000
8	9.405	0.000	9.650	0.000	9.650	0.000	9.650	0.000	9.685	0.000	9.690	0.000
9	9.415	0.000	9.660	0.000	9.660	0.000	9.655	0.000	9.675	0.000	9.715	0.000
10	9.410	0.000	9.610	0.000	9.630	0.000	9.620	0.000	9.670	0.000	9.740	0.000
11	9.450	0.000	9.540	0.000	9.650	0.000	9.570	0.000	9.680	0.000	9.720	0.000
12	9.460	0.000	9.545	0.000	9.660	0.000	9.535	0.000	9.690	0.000	9.690	0.000
13	9.475	0.000	9.670	0.000	9.620	0.000	9.660	0.000	9.685	0.000	9.680	0.000
14	9.470	0.000	9.675	0.000	9.600	0.000	9.690	0.000	9.695	0.000	9.650	0.000
15	9.520	0.000	9.670	0.000	9.650	0.000	9.685	0.000	9.685	0.000	9.660	0.000
16	9.510	0.000	9.680	0.000	9.640	0.000	9.695	0.000	9.690	0.000	9.690	0.000
17	9.500	0.000	9.625	0.000	9.650	0.000	9.670	0.000	9.675	0.000	9.715	0.000
18	9.390	0.000	9.580	0.000	9.660	0.000	9.650	0.000	9.680	0.000	9.730	0.000
19	9.405	0.000	9.540	0.000	9.650	0.000	9.640	0.000	9.680	0.000	9.755	0.000
20	9.415	0.000	9.600	0.000	9.660	0.000	9.640	0.000	9.695	0.000	9.800	0.000
21	9.405	0.000	9.580	0.000	9.655	0.000	9.635	0.000	9.645	0.000	9.830	0.000
22	9.400	0.000	9.590	0.000	9.645	0.000	9.645	0.000	9.650	0.000	9.805	0.000
23	9.420	0.000	9.600	0.000	9.650	0.000	9.665	0.000	9.655	0.000	9.795	0.000
24	9.400	0.000	9.575	0.000	9.590	0.000	9.670	0.000	9.650	0.000	9.780	0.000
25	9.380	0.000	9.600	0.000	9.535	0.000	9.680	0.000	9.640	0.000	9.850	0.000
26	9.420	0.000	9.630	0.000	9.565	0.000	9.670	0.000	9.655	0.000	9.790	0.000
27	9.430	0.000	9.685	0.000	9.675	0.000	9.665	0.000	9.645	0.000	9.765	0.000
28	9.420	0.000	9.660	0.000	9.680	0.000	9.660	0.000	9.650	0.000	9.795	0.000
29	9.410	0.000	9.655	0.000	9.660	0.000	9.690	0.000	9.670	0.000	9.790	0.000
30	9.395	0.000	9.660	0.000			9.675	0.000	9.685	0.000	9.795	0.000
31	9.400	0.000	9.665	0.000			9.675	0.000			9.780	0.000
Ten-Daily Mean												
I Ten-Daily	9.422	0.000	9.568	0.000	9.641	0.000	9.638	0.000	9.682	0.000	9.722	0.000
II Ten-Daily	9.460	0.000	9.613	0.000	9.644	0.000	9.643	0.000	9.686	0.000	9.709	0.000
III Ten-Daily	9.407	0.000	9.627	0.000	9.628	0.000	9.666	0.000	9.654	0.000	9.798	0.000
Monthly												
Min.	9.380	0.000	9.410	0.000	9.535	0.000	9.535	0.000	9.640	0.000	9.650	0.000
Max.	9.520	0.000	9.685	0.000	9.680	0.000	9.695	0.000	9.700	0.000	9.850	0.000
Mean	9.429	0	9.604	0	9.638	0	9.650	0	9.674	0	9.745	0

Peak Computed Discharge = 151.7 cumecs on 21/06/2015 **Corres. Water Level :10.57 m**

Lowest Computed Discharge = 1.123 cumecs on 05/07/2015 **Corres. Water Level :9.4 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

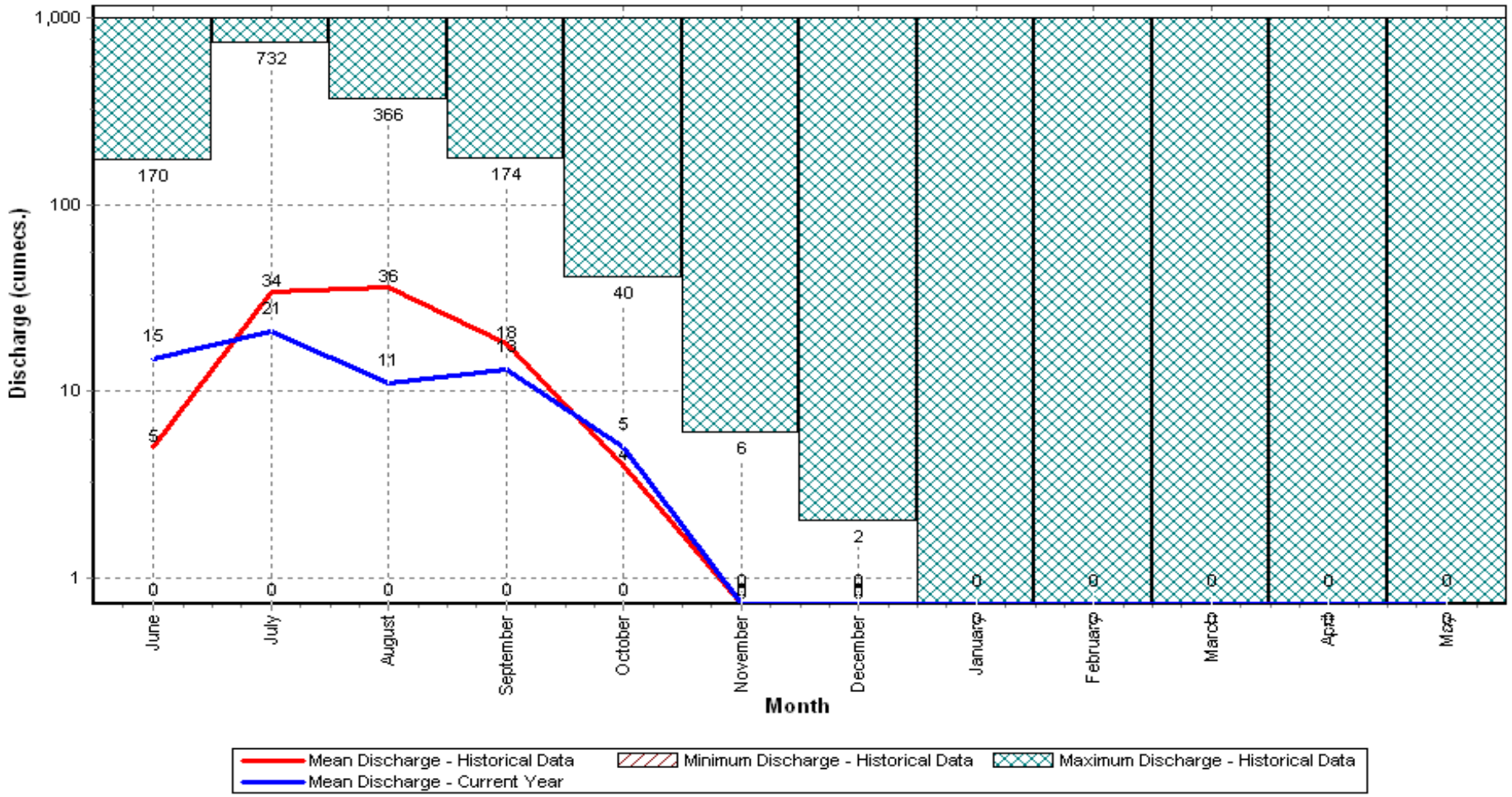
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Pen (PEN) | **Data considered : 1997-2016** | **Division : Upper Krishna Divn, Pune**

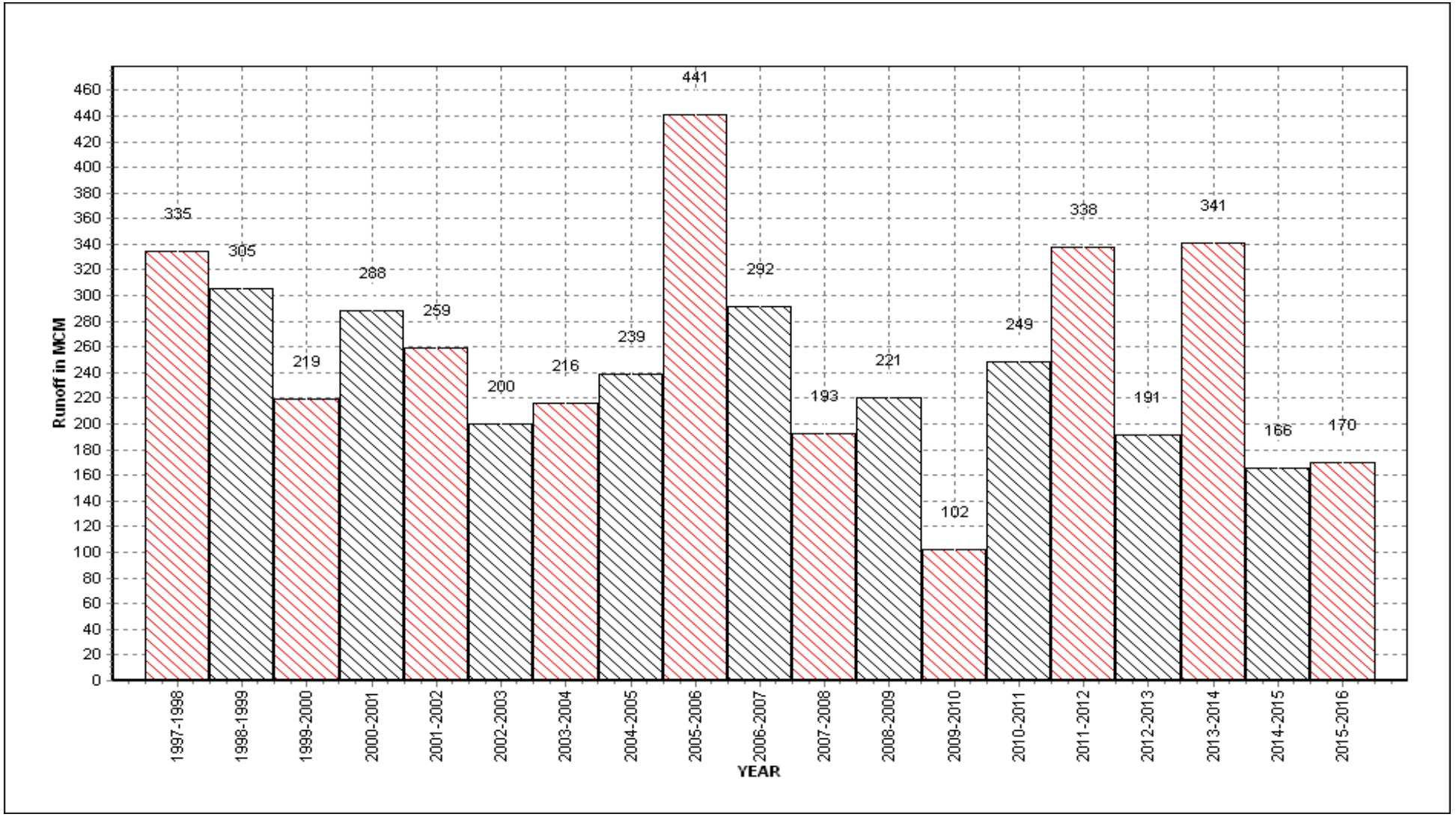
Local River : Bhogeshwari | **Sub-Division : Upper Krishna SD 3, Managaon**



Annual Runoff Values for the period: 1997 - 2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**

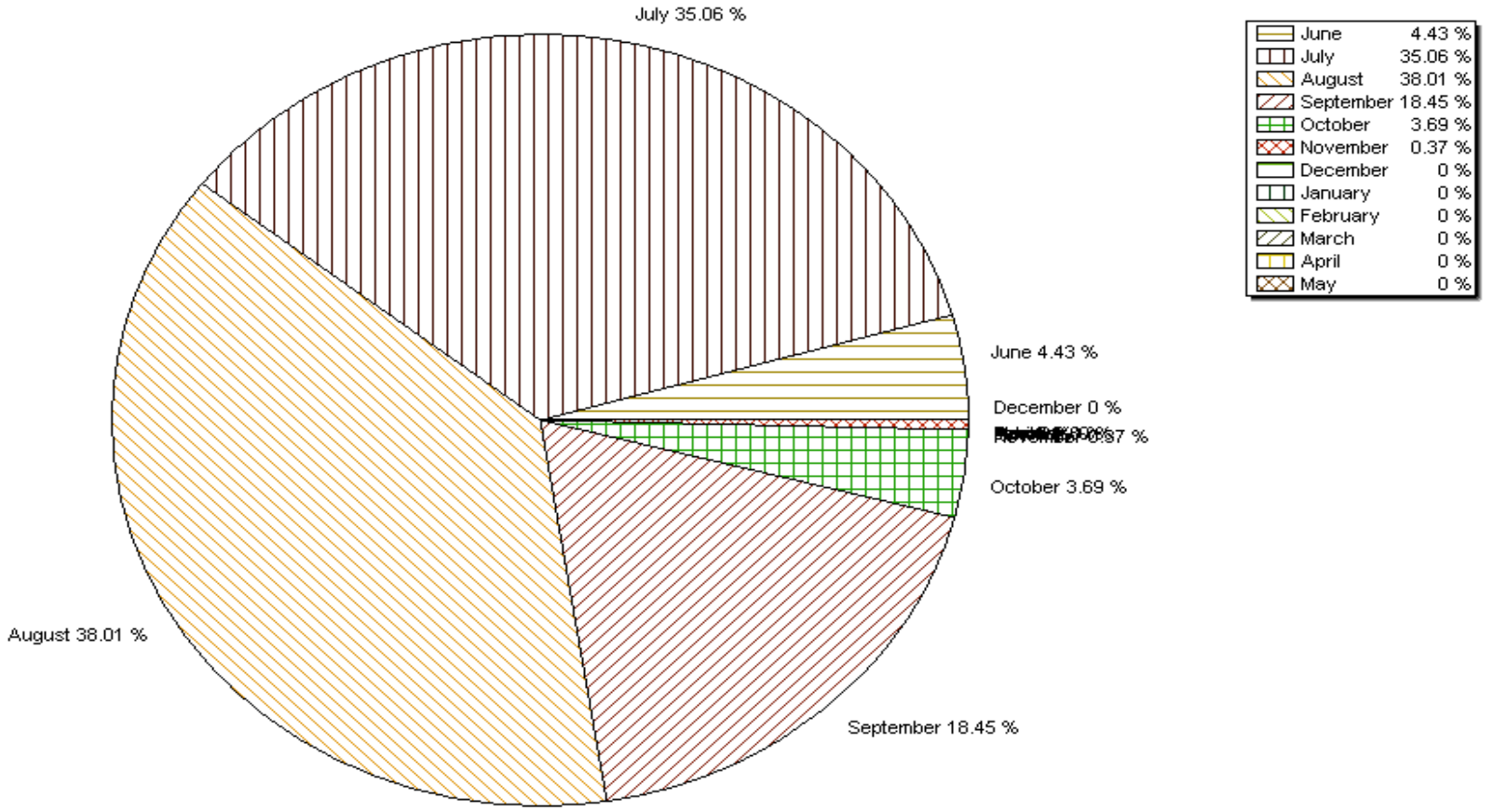


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1997-2015

Station Name : Pen (PEN)
Local River : Bhogeshwari

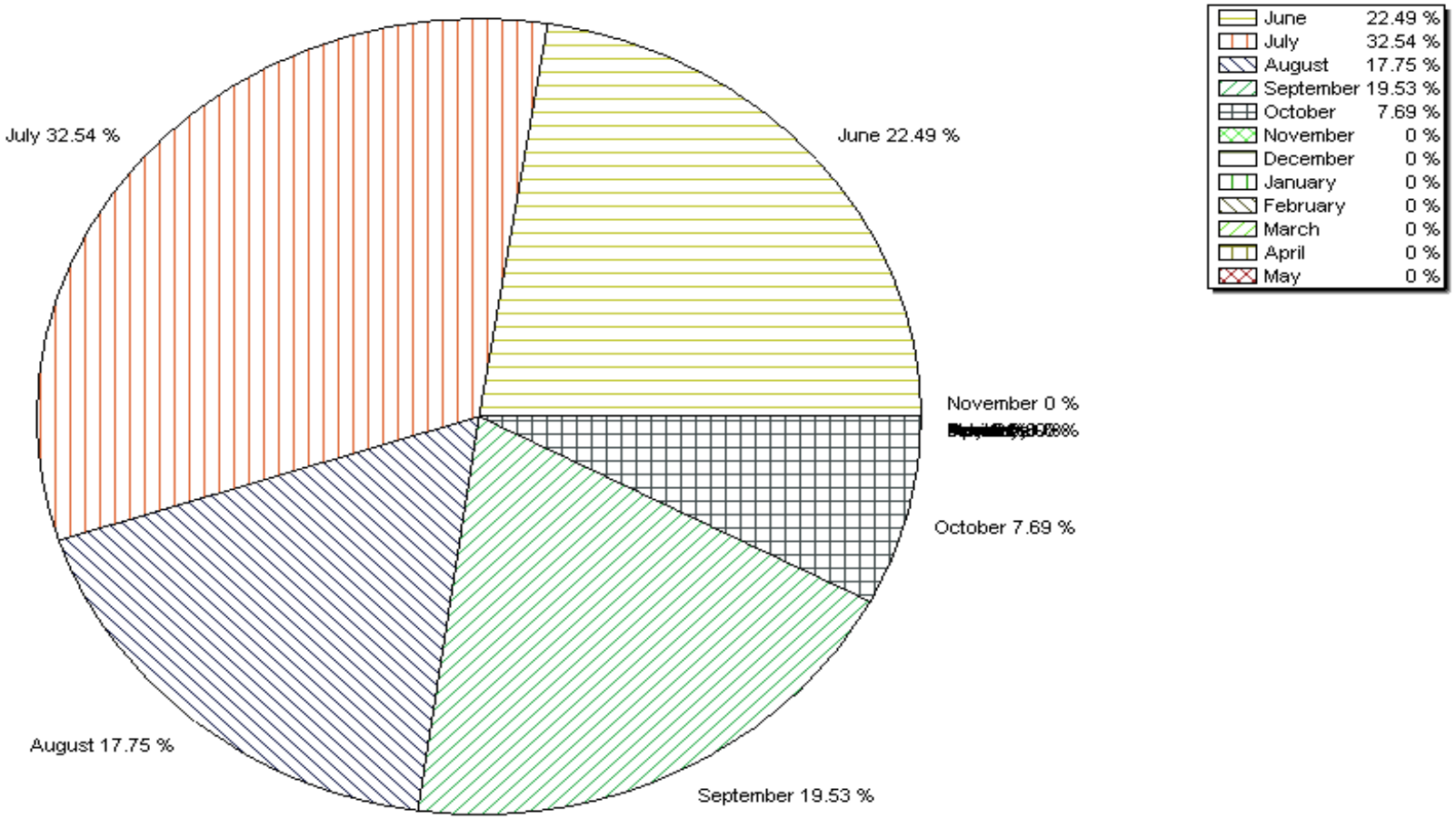
Division : Upper Krishna Divn, Pune
Sub-Division : Upper Krishna SD 3, Managaon



Monthly Runoff for the Year : 2015-2016

Station Name : Pen (PEN)
Local River : Bhogeshwari

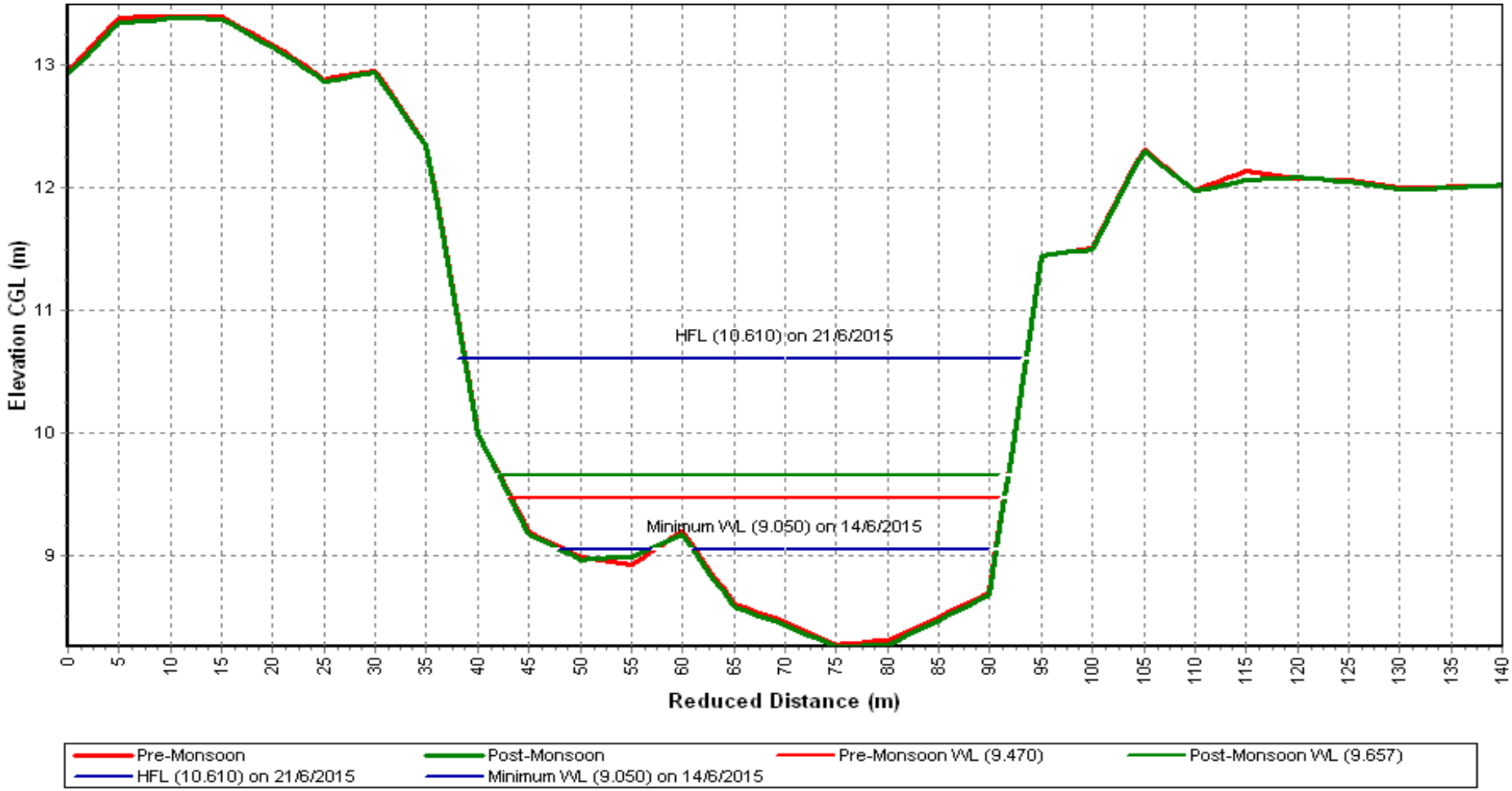
Division : Upper Krishna Divn, Pune
Sub-Division : Upper Krishna SD 3, Managaon



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

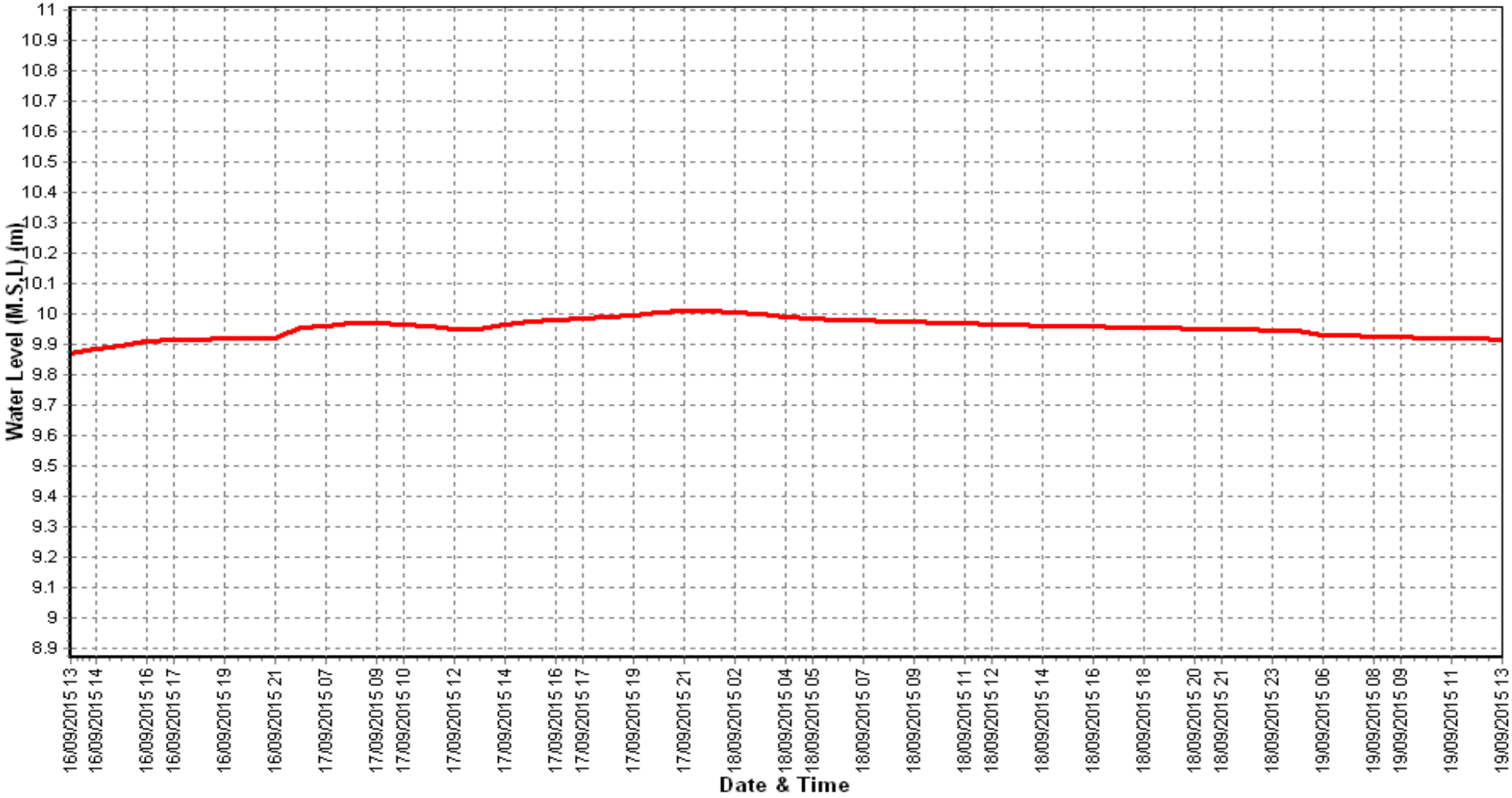
Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**

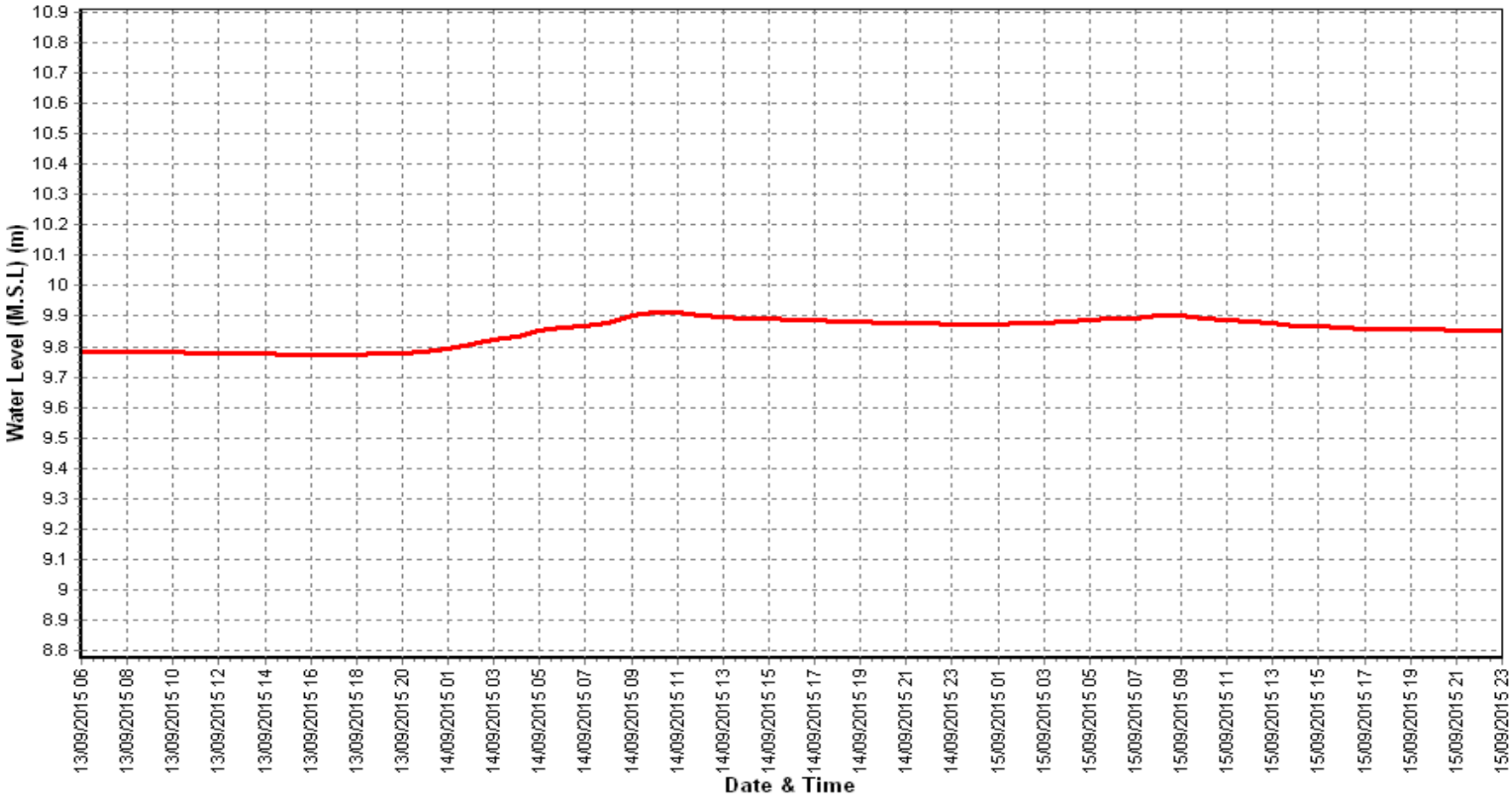


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**

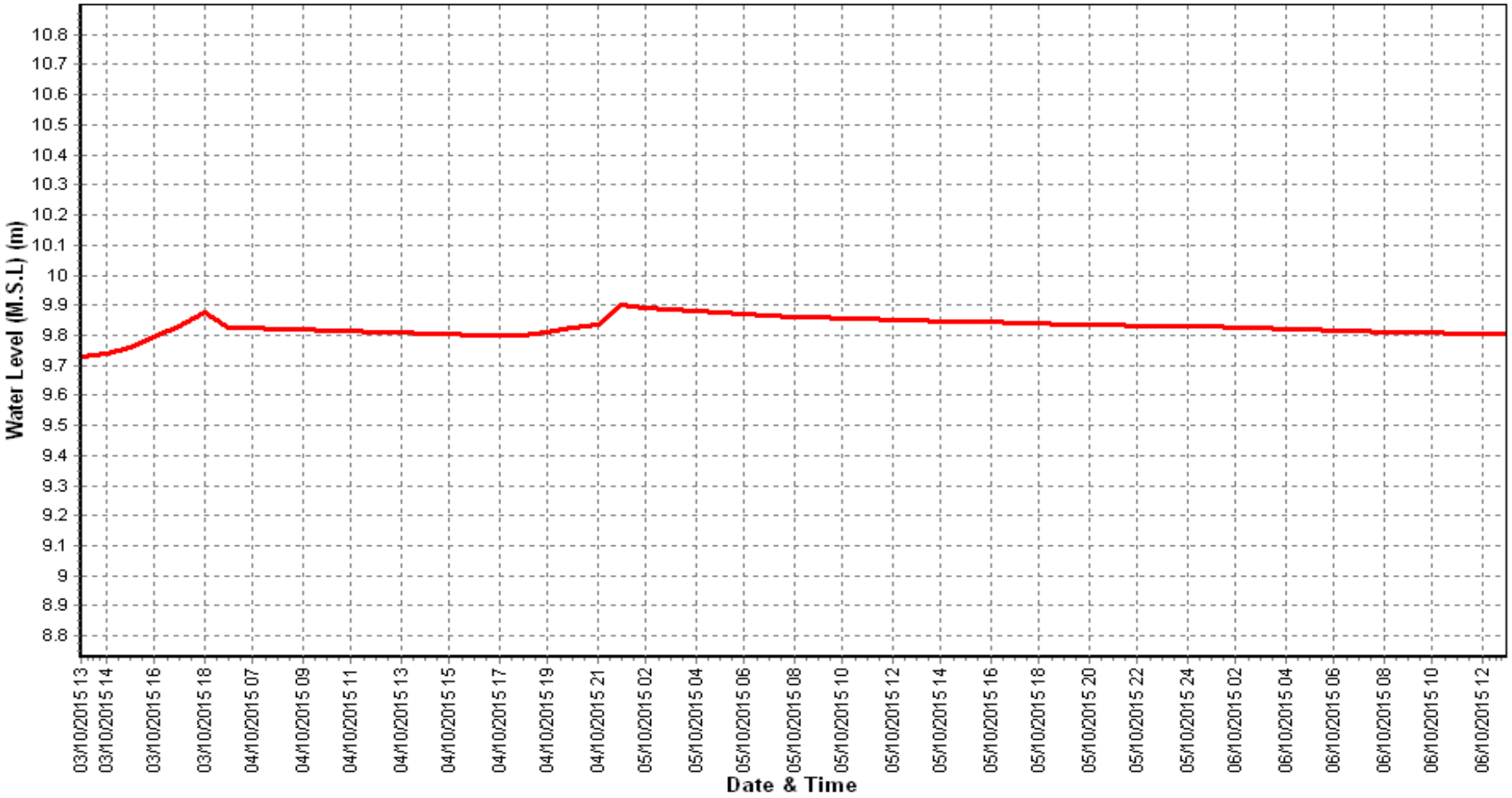


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Pen (PEN) **Division : Upper Krishna Divn, Pune**

Local River : Bhogeshwari **Sub-Division : Upper Krishna SD 3, Managaon**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Nagothane**		**Code**	**: NAGOTHANE**	
State	: Maharashtra		District	Raigad	
Basin	: WFR South of Tapi		Independent River	: Amba	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Amba	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Upper Krishna SD 3, Managaon	
Drainage Area	: 420 Sq. Km.		Bank	: Left	
Latitude	: 18°31'09"		Longitude	: 73°09'23"	
Zero of Gauge (m)	: 2.000 (m.s.l)		06/07/1996		
	Opening Date		Closing Date		
Gauge	: 06/07/1996				
Discharge	: 25/09/1996				
Sediment	:				
Water Quality	:				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1998-1999	750.0	10.670	08/07/1998	0.000	3.600	09/01/1999
1999-2000	1100	12.420	16/07/1999	0.000	7.480	10/01/2000
2000-2001	507.8	9.300	11/08/2000	0.000	3.700	03/01/2001
2001-2002	370.0	8.300	08/07/2001	0.000	5.900	24/01/2002
2002-2003	686.9	8.050	27/06/2002	0.000	4.810	17/01/2003
2003-2004	640.2	8.580	13/09/2003	0.000	5.350	12/01/2004
2004-2005	902.0	9.450	02/08/2004	0.000	6.860	14/01/2005
2005-2006	1290	11.210	25/07/2005	0.000	4.400	17/01/2006
2006-2007	909.5	8.980	17/08/2006	0.000	6.990	16/01/2007
2007-2008	1021	9.050	30/06/2007	0.000	6.100	08/03/2008
2008-2009	1588	9.950	10/08/2008	0.000	6.020	28/04/2009
2009-2010	1063	9.850	15/07/2009	0.000	5.835	26/05/2010
2010-2011	852.7	8.860	22/07/2010	0.000	6.410	03/03/2011
2011-2012	768.4	8.700	18/07/2011	0.000	4.630	01/06/2011
2012-2013	1008	9.140	10/08/2012	0.000	5.430	01/06/2012
2013-2014	1009	9.080	24/07/2013	0.000	5.290	01/06/2013
2014-2015	750.5	10.170	30/07/2014	0.000	6.160	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	3.900	0.000	4.590	60.23 *	6.530	293.8 *	4.820	59.91	7.020	373.7 *	Obs. Not done	
2	3.850	0.000	4.410	30.72	6.180	241.6 *	4.500	53.04 *	8.420	642.8 *	5.950	0.000
3	3.830	0.000	4.300	38.40 *	5.500	152.2 *	4.540	32.72	5.580	161.8 *	5.900	0.000
4	3.860	0.000	4.180	30.55 *	5.170	115.0 *	4.410	46.21 *	6.800	336.9 *	5.030	0.000
5	3.885	0.000	4.120	26.90 *	4.930	90.62 *	4.400	45.48 *	8.000	556.0 *	4.630	0.000
6	3.780	0.000	4.075	24.29 *	5.010	77.37	4.470	50.72 *	5.850	196.1 *	4.190	0.000
7	3.750	0.000	4.050	10.59	5.100	107.6 *	4.320	39.78 *	5.020	99.49	4.340	0.000
8	3.750	0.000	4.485	51.87 *	5.260	124.7 *	5.870	198.8 *	7.090	385.8 #	4.470	0.000
9	3.800	0.000	5.960	210.8 *	5.210	119.3 *	6.025	219.7 *	7.950	546.0 *	5.900	0.000
10	3.765	0.000	6.120	233.0 *	5.020	99.49 *	6.200	244.4 #	8.300	617.5 *	6.220	0.000
11	3.615	0.000	6.220	247.3 *	4.895	66.80	6.600	304.8 #	6.650	312.7 *	Obs. Not done	
12	3.645	0.000	6.115	232.3 *	4.760	74.80 *	6.260	253.1 *	8.600	681.5 *	6.710	0.000
13	3.685	0.000	6.090	228.8 *	4.690	57.35	6.520	292.3 *	8.390	636.4 #	6.810	0.000
14	3.730	0.000	6.190	242.0 #	4.840	82.10 *	6.525	293.0 *	8.290	615.4 *	6.950	0.000
15	3.765	0.000	6.145	236.6 *	5.240	122.5 *	6.680	317.5 *	7.430	446.4 #	Obs. Not done	
16	3.815	0.000	6.065	225.3 #	5.190	117.1 *	6.570	300.1 *	6.880	350.1 *	7.300	0.000
17	3.765	0.000	6.250	251.7 *	4.970	94.52 *	6.775	332.8 *	6.580	301.6 *	7.450	0.000
18	3.805	0.000	6.300	259.0 *	4.930	63.15	6.780	333.6 *	6.340	264.9 *	7.600	0.000
19	6.750	266.8	6.335	264.2 *	4.750	58.80	6.790	335.3 #	6.210	245.9 *	7.680	0.000
20	6.655	313.5 *	6.420	277.0 *	4.540	56.19 *	6.900	353.5 *	6.410	275.4 *	7.520	0.000
21	7.250	413.9 *	6.820	340.2 *	4.380	44.03 *	6.500	289.2 *	6.370	269.4 *	7.880	0.000
22	7.005	371.2 *	8.050	566.0 *	4.420	46.95 *	6.900	353.5 *	6.220	247.3 *	8.005	0.000
23	6.310	275.0 #	6.860	346.8 *	4.420	46.95 *	6.770	332.0 *	6.030	220.4 #	8.220	0.000
24	7.995	555.0 *	6.650	312.7 #	4.540	56.19 *	6.520	292.3 *	5.800	0.000	8.350	0.000
25	6.680	325.0 #	7.150	396.2 #	4.420	46.95 *	6.350	266.4 *	5.610	0.000	8.190	0.000
26	6.000	216.3 *	6.500	289.2 *	5.300	129.1 *	6.350	266.4 #	5.350	0.000	8.135	0.000
27	4.910	88.70 *	6.750	328.7 *	4.830	81.17 *	6.270	254.6 *	5.350	0.000	8.045	0.000
28	4.460	49.96 *	6.770	332.0 #	5.050	102.5 *	6.200	244.4 *	5.520	0.000	7.940	0.000
29	4.380	44.03 *	6.780	333.6 *	5.130	110.8 *	6.150	237.3	5.860	0.000	7.750	0.000
30	5.090	106.6 *	7.800	478.2	5.040	101.5 *	6.205	245.2 *	5.900	0.000	7.590	0.000
31			7.320	426.4 *	5.050	102.5 *			5.850	0.000		
Ten-Daily Mean												
I Ten-Daily	3.817	0.000	4.629	71.74	5.391	142.2	4.956	99.08	7.003	391.6	5.181	0.000
II Ten-Daily	4.323	58.03	6.213	246.4	4.881	79.34	6.640	311.6	7.178	413.0	7.253	0.000
III Ten-Daily	6.008	244.6	7.041	377.3	4.780	78.97	6.422	278.1	5.805	67.02	8.010	0.000
Monthly												
Min.	3.615	0.000	4.050	10.59	4.380	44.03	4.320	32.72	5.020	0.000	4.190	0.000
Max.	7.995	555.0	8.050	566.0	6.530	293.8	6.900	353.5	8.600	681.5	8.350	0.000
Mean	4.716	100.9	5.996	236.5	5.010	99.48	6.006	229.6	6.635	283.3	6.843	0

Annual Runoff in MCM = 2515 **Annual Runoff in mm = 5989**

Peak Observed Discharge = 636.4 cumecs on 13/10/2015 **Corres. Water Level :8.39 m**

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 **Corres. Water Level :3.9 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	7.535	0.000	8.170	0.000	7.980	0.000	6.780	0.000	5.640	0.000	6.150	0.000
2	7.640	0.000	8.170	0.000	7.880	0.000	6.730	0.000	5.620	0.000	6.145	0.000
3	7.700	0.000	8.190	0.000	7.850	0.000	6.700	0.000	5.610	0.000	6.130	0.000
4	7.740	0.000	8.160	0.000	7.820	0.000	6.680	0.000	5.650	0.000	4.450	0.000
5	7.760	0.000	8.140	0.000	7.840	0.000	6.650	0.000	5.700	0.000	4.375	0.000
6	7.790	0.000	8.150	0.000	7.820	0.000	6.600	0.000	5.760	0.000	4.300	0.000
7	7.880	0.000	8.150	0.000	7.850	0.000	6.350	0.000	5.740	0.000	4.390	0.000
8	7.850	0.000	8.160	0.000	7.780	0.000	6.200	0.000	5.700	0.000	4.870	0.000
9	7.820	0.000	8.165	0.000	7.670	0.000	6.150	0.000	5.670	0.000	4.870	0.000
10	7.840	0.000	8.160	0.000	7.600	0.000	6.120	0.000	5.740	0.000	4.750	0.000
11	7.860	0.000	8.150	0.000	7.670	0.000	6.140	0.000	5.870	0.000	4.650	0.000
12	7.890	0.000	8.160	0.000	7.650	0.000	6.160	0.000	5.970	0.000	4.600	0.000
13	7.900	0.000	8.005	0.000	7.620	0.000	6.150	0.000	5.990	0.000	4.550	0.000
14	7.980	0.000	7.820	0.000	7.550	0.000	6.120	0.000	6.050	0.000	4.500	0.000
15	8.000	0.000	7.700	0.000	7.510	0.000	6.080	0.000	6.070	0.000	4.480	0.000
16	7.920	0.000	7.860	0.000	7.420	0.000	6.055	0.000	6.090	0.000	4.490	0.000
17	7.810	0.000	7.950	0.000	7.320	0.000	6.020	0.000	6.110	0.000	4.450	0.000
18	7.700	0.000	8.020	0.000	7.220	0.000	6.000	0.000	6.160	0.000	4.350	0.000
19	7.750	0.000	8.050	0.000	7.200	0.000	5.980	0.000	6.200	0.000	4.310	0.000
20	7.590	0.000	8.040	0.000	7.070	0.000	5.920	0.000	6.260	0.000	4.280	0.000
21	7.545	0.000	8.070	0.000	7.010	0.000	5.880	0.000	6.310	0.000	4.270	0.000
22	7.440	0.000	8.140	0.000	7.020	0.000	5.990	0.000	6.350	0.000	4.250	0.000
23	7.480	0.000	8.160	0.000	7.020	0.000	5.910	0.000	6.430	0.000	4.200	0.000
24	7.610	0.000	8.140	0.000	7.040	0.000	5.880	0.000	6.460	0.000	4.100	0.000
25	7.840	0.000	8.040	0.000	7.070	0.000	5.840	0.000	6.600	0.000	3.750	0.000
26	8.140	0.000	8.010	0.000	7.150	0.000	5.820	0.000	6.550	0.000	3.980	0.000
27	8.190	0.000	8.020	0.000	7.120	0.000	5.730	0.000	6.450	0.000	4.110	0.000
28	8.170	0.000	8.060	0.000	7.030	0.000	5.720	0.000	6.270	0.000	4.260	0.000
29	8.130	0.000	8.140	0.000	6.880	0.000	5.690	0.000	6.200	0.000	4.350	0.000
30	8.180	0.000	8.160	0.000			5.710	0.000	6.170	0.000	4.300	0.000
31	8.150	0.000	7.970	0.000			5.680	0.000			4.260	0.000
Ten-Daily Mean												
I Ten-Daily	7.756	0.000	8.161	0.000	7.809	0.000	6.496	0.000	5.683	0.000	5.043	0.000
II Ten-Daily	7.840	0.000	7.976	0.000	7.423	0.000	6.063	0.000	6.077	0.000	4.466	0.000
III Ten-Daily	7.898	0.000	8.083	0.000	7.038	0.000	5.805	0.000	6.379	0.000	4.166	0.000
Monthly												
Min.	7.440	0.000	7.700	0.000	6.880	0.000	5.680	0.000	5.610	0.000	3.750	0.000
Max.	8.190	0.000	8.190	0.000	7.980	0.000	6.780	0.000	6.600	0.000	6.150	0.000
Mean	7.833	0	8.074	0	7.437	0	6.111	0	6.046	0	4.546	0

Peak Computed Discharge = 681.5 cumecs on 12/10/2015 **Corres. Water Level :8.6 m**

Lowest Computed Discharge = 24.29 cumecs on 06/07/2015 **Corres. Water Level :4.075 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

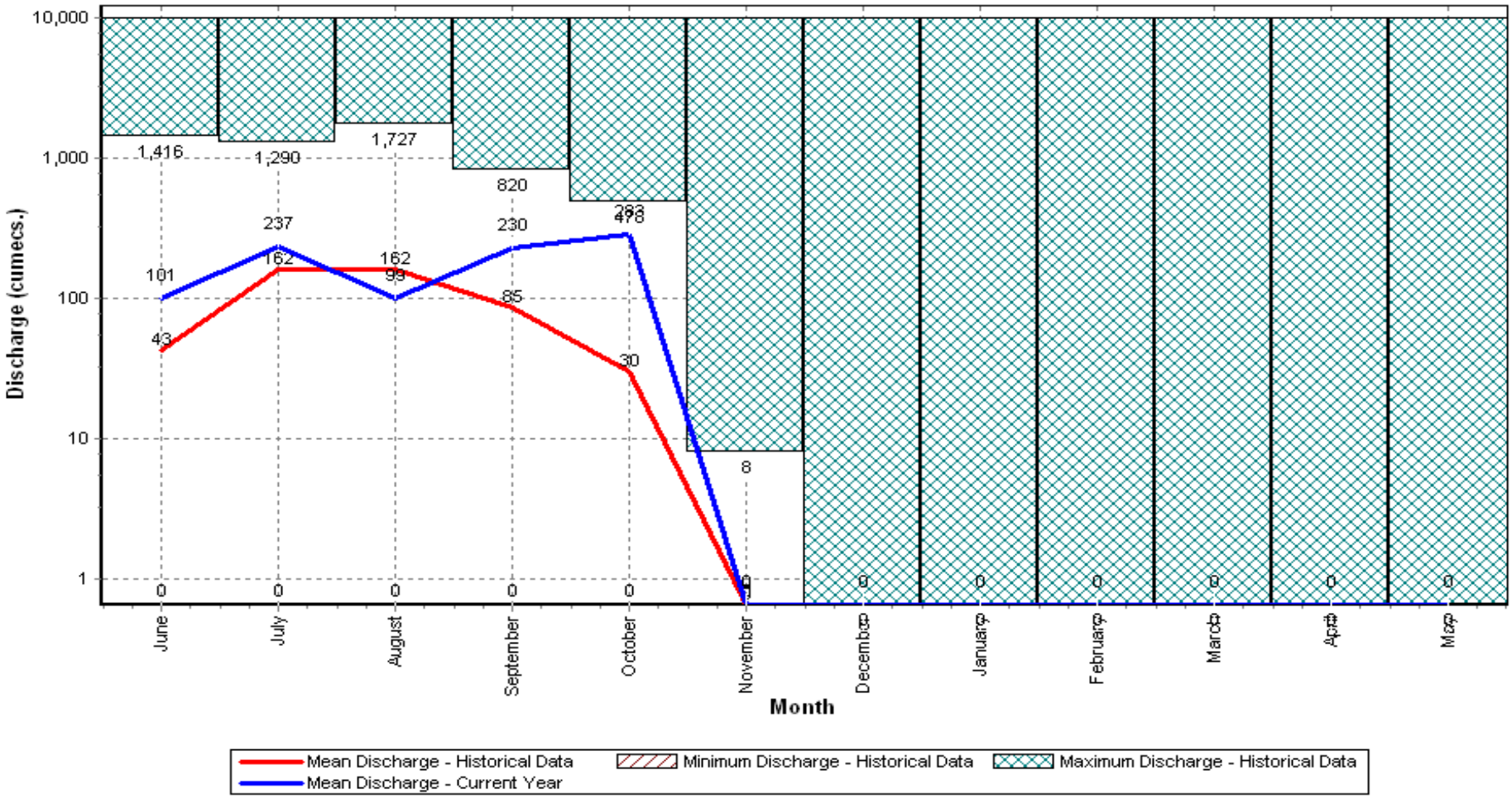
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Nagothane (NAGOTHANE) | **Data considered : 1998-2016** | **Division : Upper Krishna Divn, Pune**

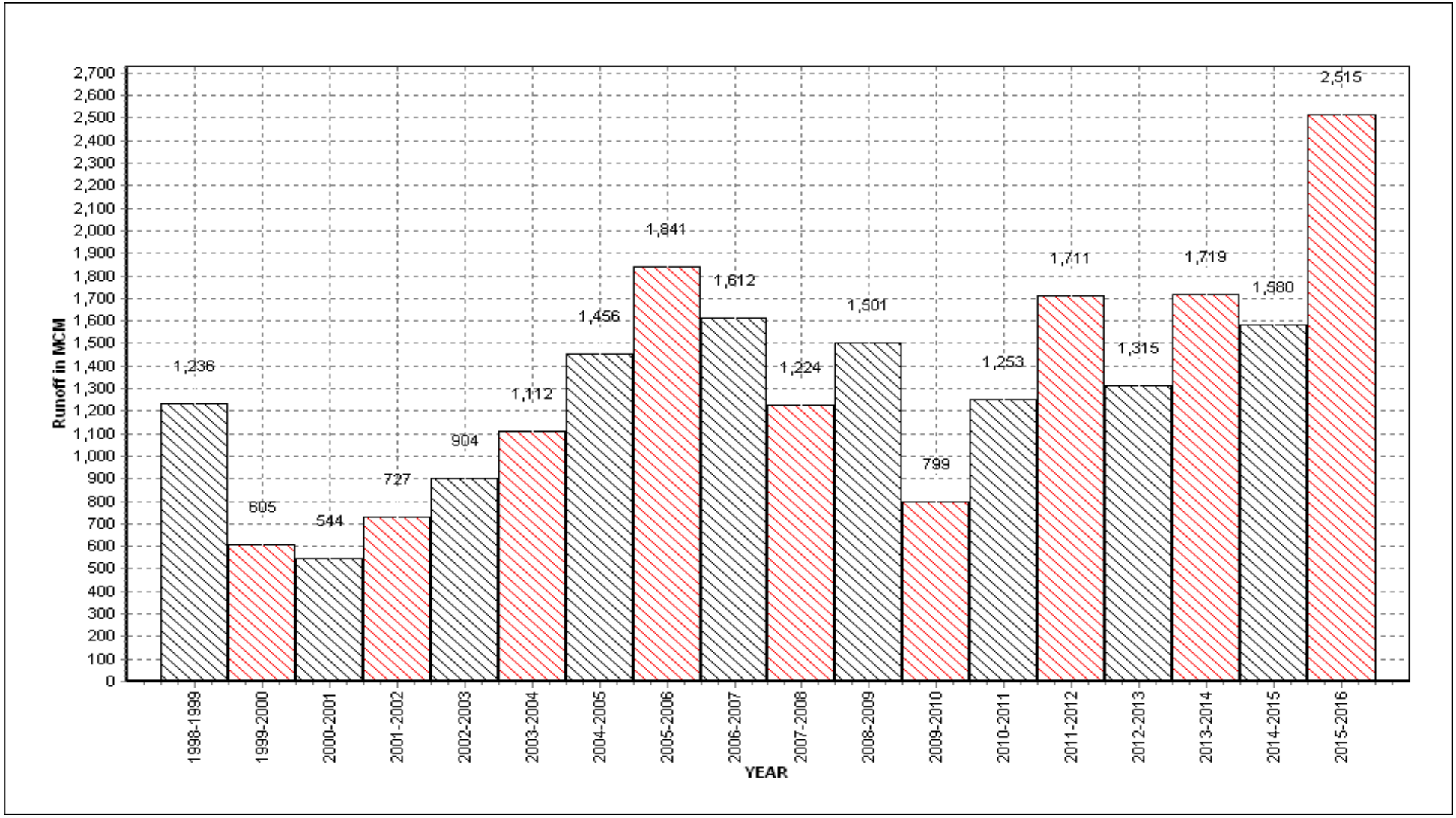
Local River : Amba | **Sub-Division : Upper Krishna SD 3, Managaon**



Annual Runoff Values for the period: 1998 - 2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**



Note: Missing values have not been considered while arriving at Annual Runoff

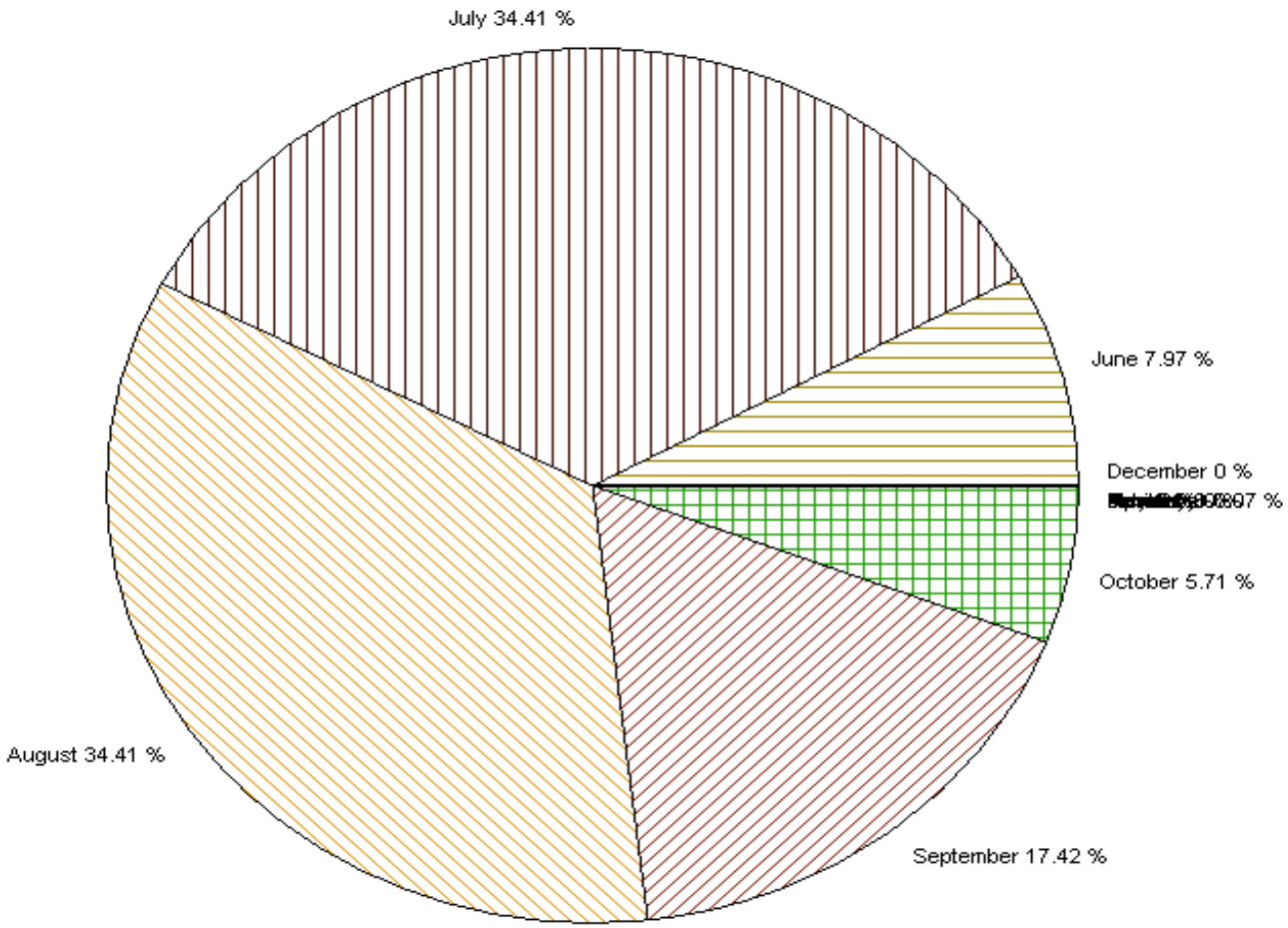
Monthly Average Runoff based on period : 1998-2015

Station Name : Nagothane (NAGOTHANE)

Local River : Amba

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 3, Managaon



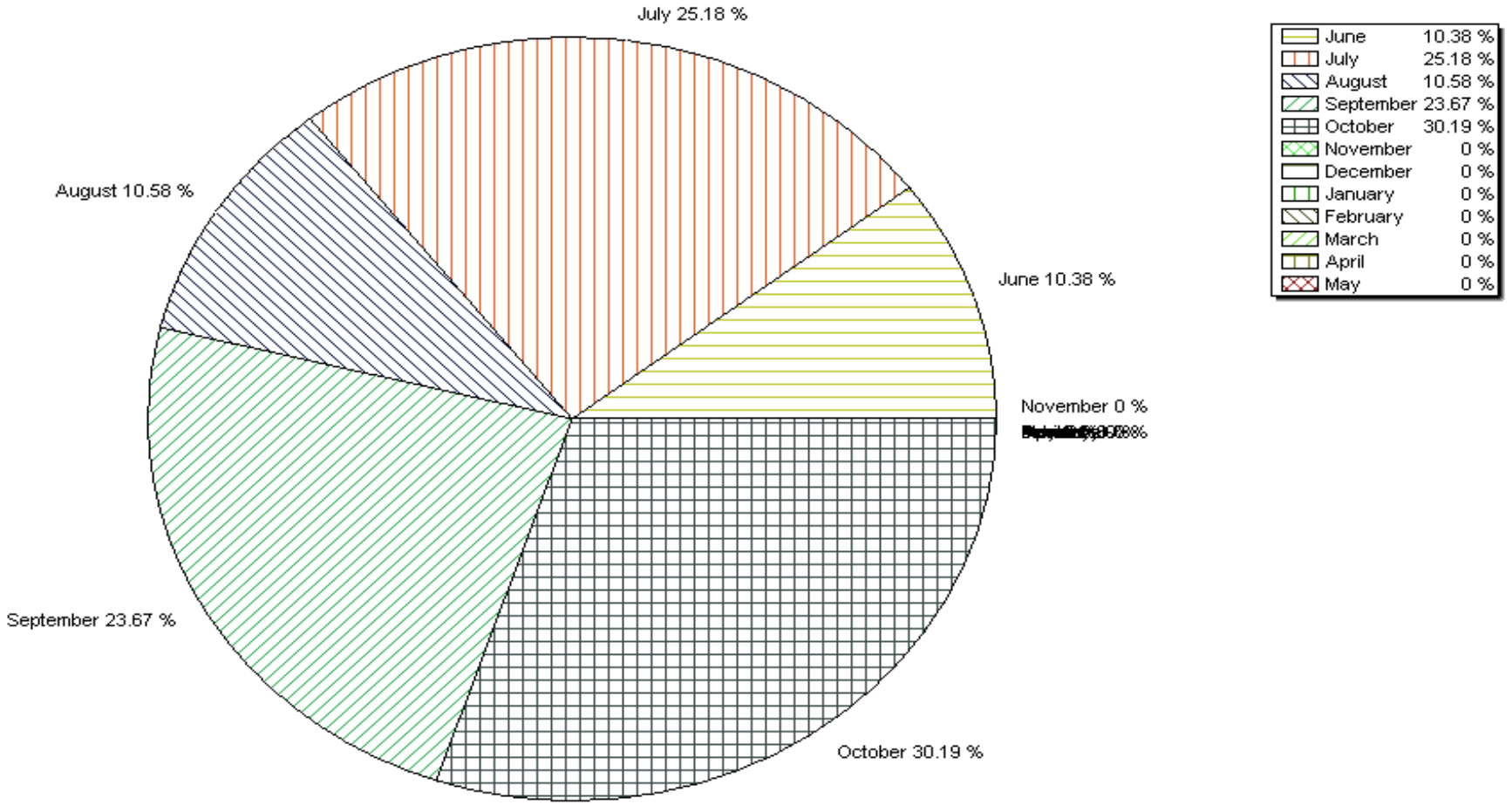
Monthly Runoff for the Year : 2015-2016

Station Name : Nagothane (NAGOTHANE)

Local River : Amba

Division : Upper Krishna Divn, Pune

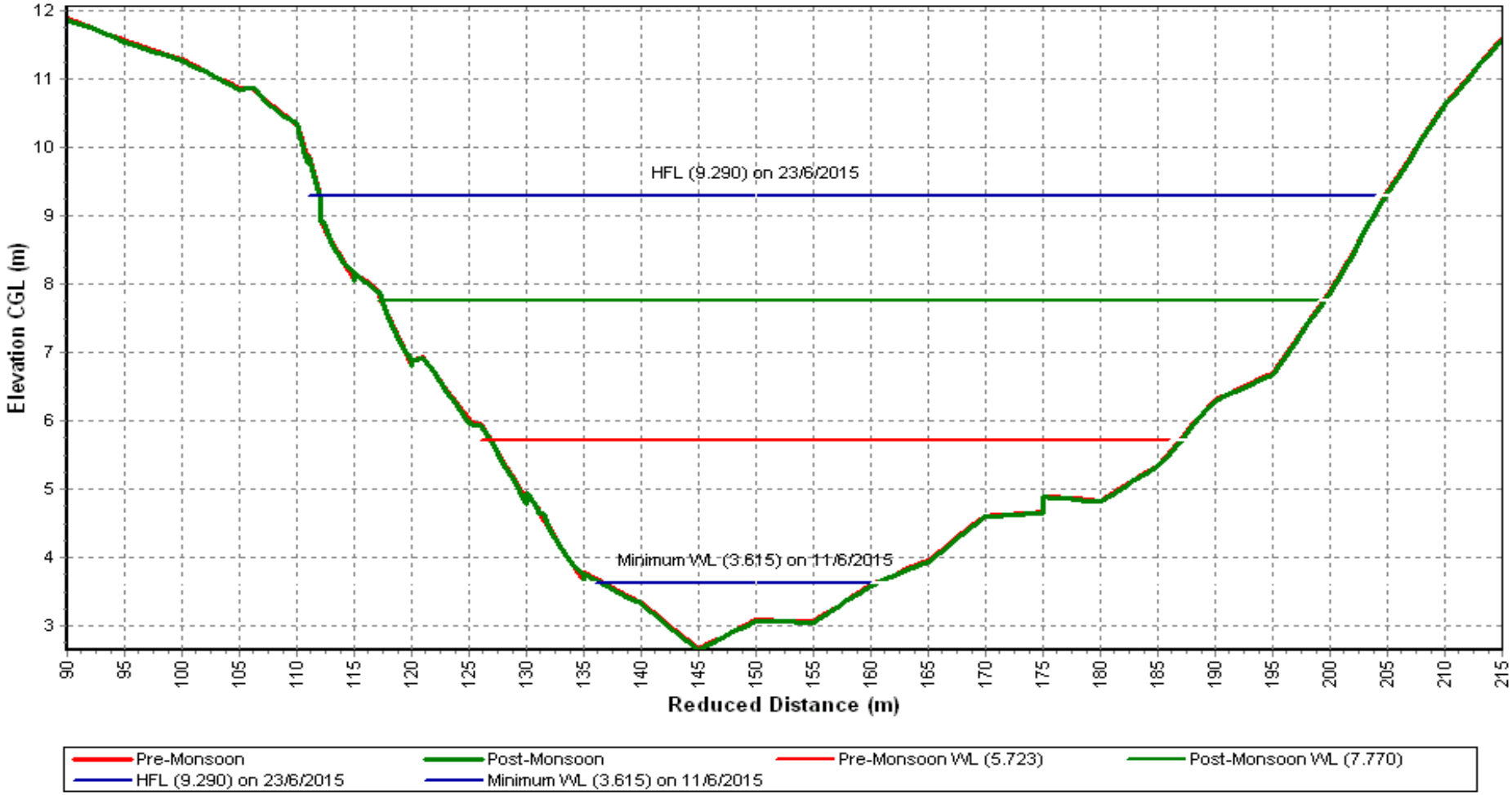
Sub-Division : Upper Krishna SD 3, Managaon



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

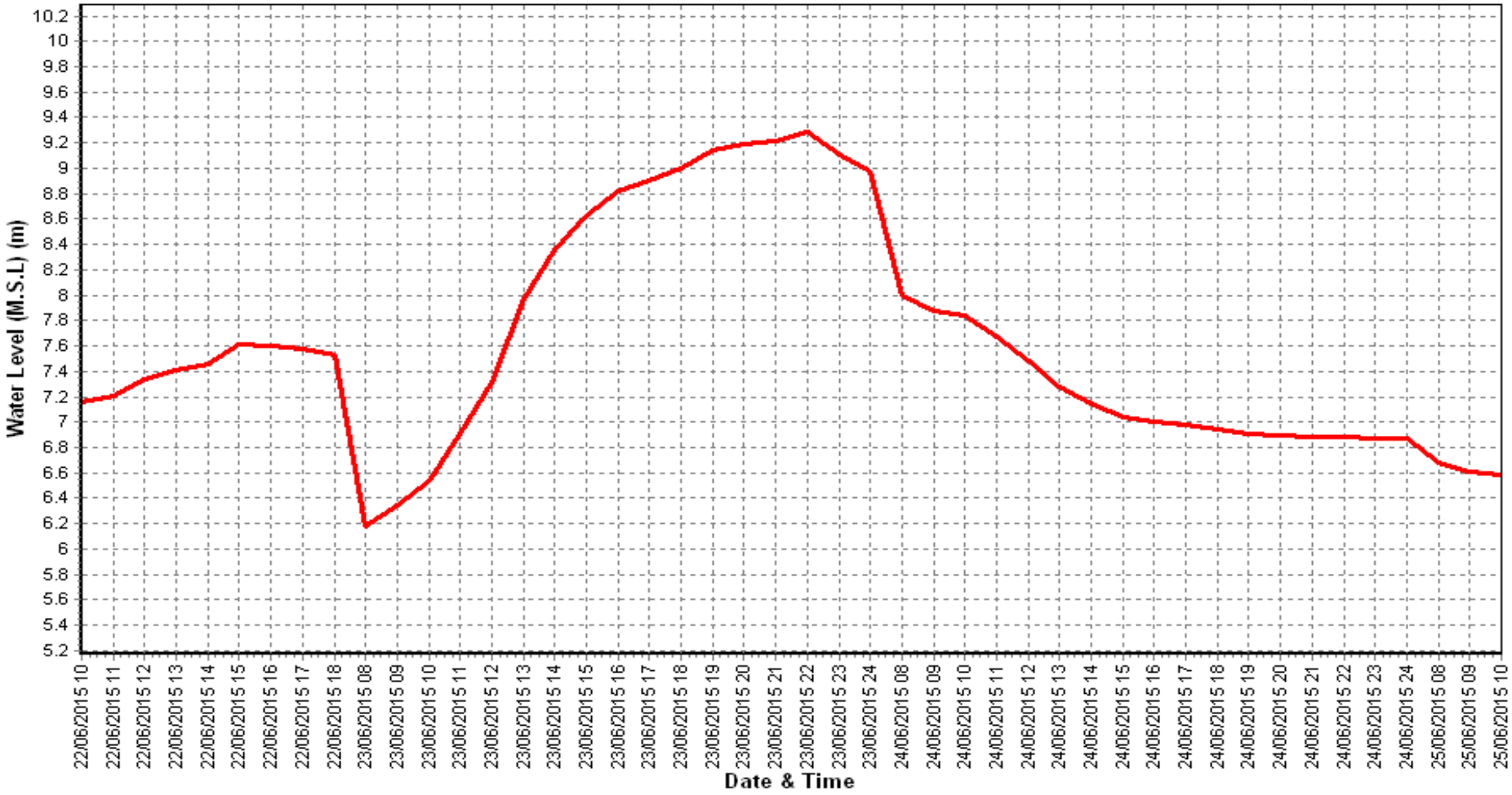
Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**

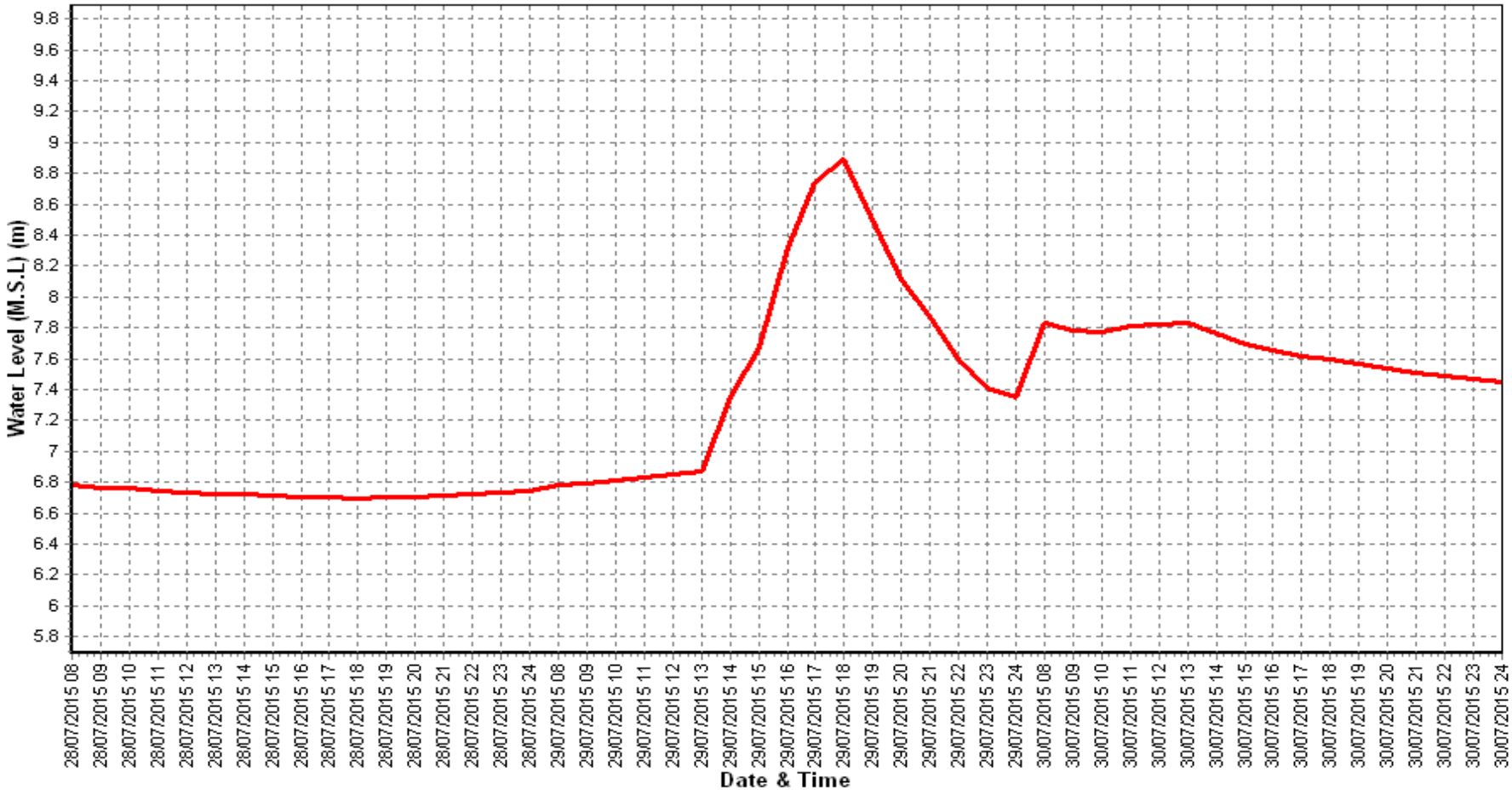


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**

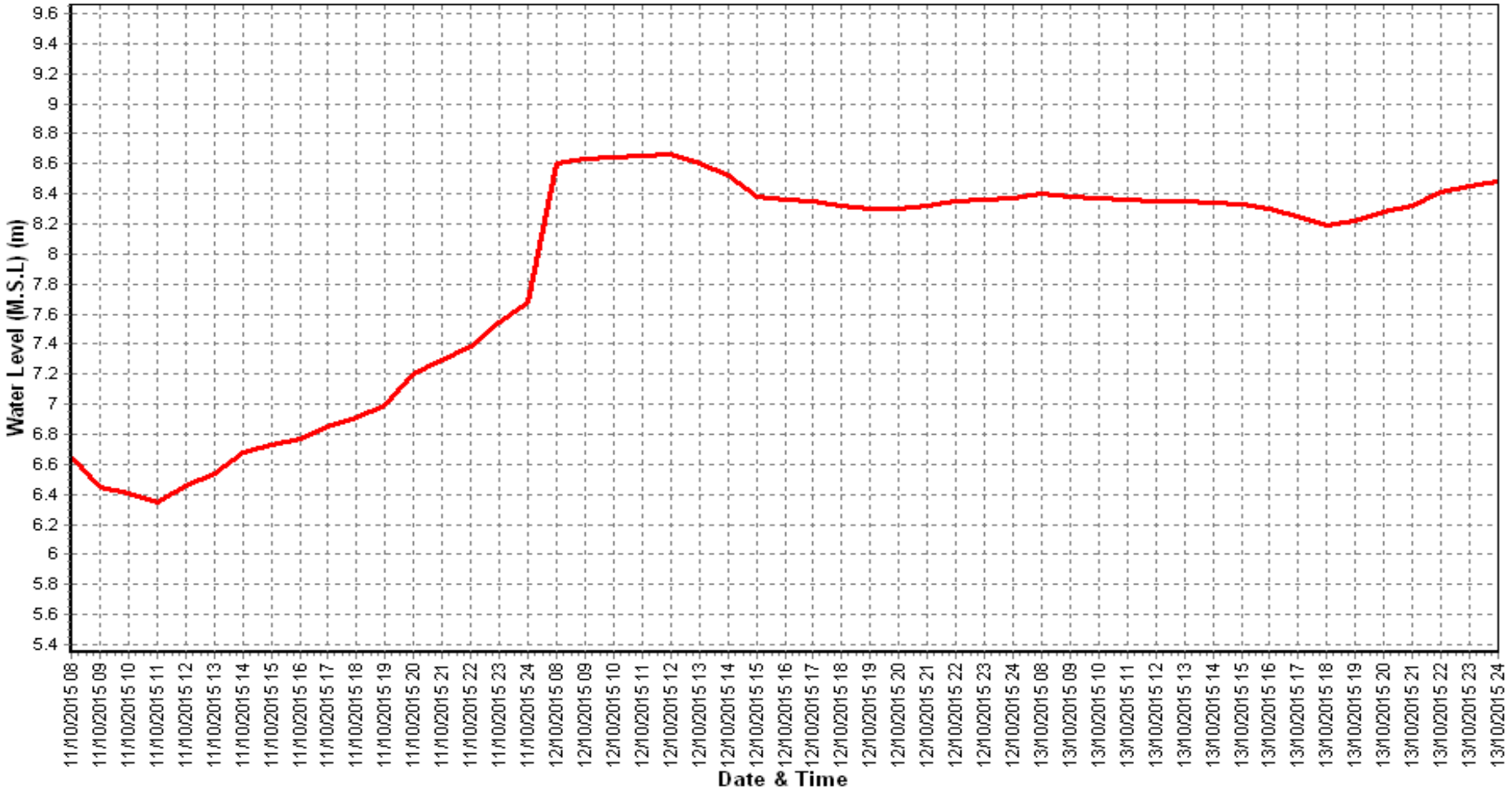


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Nagothane (NAGOTHANE) **Division : Upper Krishna Divn, Pune**

Local River : Amba **Sub-Division : Upper Krishna SD 3, Managaon**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Mangaon (Seasonal)**		**Code**	**: WMA00I8**	
State	: Maharashtra		District	Raigad	
Basin	: WFR South of Tapi		Independent River	: Savitri	
Tributary	: Kal		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kal	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Upper Krishna SD 3, Managaon	
Drainage Area	: 259 Sq. Km.		Bank	: Left	
Latitude	: 18°13'53"		Longitude	: 73°17'01"	
Zero of Gauge (m)	: 3.905 (m.s.l)		01/06/1980		
	Opening Date		Closing Date		
Gauge	: 01/06/1980				
Discharge	: 27/06/1980				
Sediment	:				
Water Quality	: 02/07/1993				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1981-1982	652.0	8.529	24/07/1981	0.000	4.625	05/01/1982
1982-1983	481.4	8.315	21/07/1982	0.000	4.875	21/10/1982
1983-1984	1466	9.855	15/08/1983	0.000	4.855	27/10/1983
1984-1985	975.9	9.235	18/07/1984	0.000	4.920	06/10/1984
1985-1986	1190	9.755	02/08/1985	0.000	4.855	20/10/1985
1986-1987	581.6	8.130	06/08/1986	0.000	4.645	18/02/1987
1987-1988	737.2	8.685	07/07/1987	0.000	4.710	23/01/1988
1988-1989	564.3	8.005	16/07/1988	0.000	4.590	25/01/1989
1989-1990	1340	10.255	24/07/1989	0.000	4.590	24/01/1990
1990-1991	645.0	8.725	17/07/1990	0.000	4.535	25/01/1991
1991-1992	625.0	8.880	15/07/1991	0.000	4.525	26/01/1992
1992-1993	909.8	8.643	13/08/1992	0.000	4.685	25/01/1993
1993-1994	698.1	8.030	26/07/1993	0.000	4.650	25/01/1994
1994-1995	1096	8.730	20/07/1994	0.000	4.605	17/02/1995
1995-1996	1116	8.935	03/08/1995	0.000	4.535	07/02/1996
1996-1997	760.0	8.205	22/07/1996	0.000	4.590	11/02/1997
1997-1998	1320	9.155	23/08/1997	0.000	4.625	09/01/1998
1998-1999	1047	8.620	08/07/1998	0.000	4.425	29/01/1999
1999-2000	1256	9.245	16/07/1999	0.000	4.420	27/01/2000

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2000-2001	994.9	8.880	13/07/2000	0.000	4.670	20/01/2001
2001-2002	801.6	8.505	09/07/2001	0.000	4.570	10/01/2002
2002-2003	533.9	7.985	12/08/2002	0.000	4.935	24/10/2002
2003-2004	584.1	8.475	15/07/2003	0.000	4.575	26/01/2004
2004-2005	846.0	8.765	03/08/2004	0.000	4.385	23/12/2004
2005-2006	870.0	8.825	26/07/2005	0.000	4.605	24/02/2006
2006-2007	1036	8.780	03/07/2006	0.000	4.645	25/01/2007
2007-2008	2028	9.425	30/06/2007	0.000	4.580	31/10/2007
2008-2009	663.9	8.568	28/07/2008	0.000	4.565	30/10/2008
2009-2010	1119	8.820	15/07/2009	0.000	4.425	26/06/2009
2010-2011	782.4	8.595	30/08/2010	0.000	4.545	13/06/2010
2011-2012	764.3	8.725	17/07/2011	0.000	4.380	01/06/2011
2012-2013	430.8	7.725	19/07/2012	0.000	4.595	22/11/2012
2013-2014	762.2	8.405	02/08/2013	0.000	4.390	01/06/2013
2014-2015	503.7	8.085	31/07/2014	0.000	4.625	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	4.545	0.000	5.463	41.96	5.925	84.90	5.490	39.98 *	5.045	8.675	4.745	0.000
2	4.535	0.000	5.390	31.41 *	5.690	59.47 *	5.355	23.80	5.415	33.47 *	4.730	0.000
3	4.515	0.000	5.235	15.37	5.465	37.80	5.275	22.59 *	5.325	22.40	4.715	0.000
4	4.615	0.000	5.155	14.65 *	5.403	31.12	5.200	17.47 *	5.795	70.88 *	4.695	0.000
5	4.635	0.000	5.095	11.41	5.420	33.69	5.140	13.75 *	5.470	37.97	4.680	0.000
6	4.620	0.000	5.055	10.01	5.640	54.31 *	5.095	11.20 *	5.455	36.10	4.670	0.000
7	4.635	0.000	5.035	8.133 *	5.510	41.79 *	5.065	9.501	5.260	18.57	4.665	0.000
8	4.625	0.000	5.035	9.003	5.665	56.87 *	5.025	8.636	5.195	17.14 *	4.655	0.000
9	4.625	0.000	5.055	9.817	5.625	52.80 *	5.150	14.09	5.145	14.05 *	4.645	0.000
10	4.615	0.000	5.045	8.618 *	5.575	50.80	5.335	27.04 *	5.110	12.03 *	4.635	0.000
11	4.625	0.000	5.125	12.88 *	5.545	45.03 *	6.045	101.1 *	5.120	12.60 *	4.625	0.000
12	4.685	0.000	5.110	12.03 *	5.520	44.10	5.795	70.88 *	5.405	31.31	4.615	0.000
13	4.665	0.000	5.090	11.34	5.450	36.45 *	5.685	58.94 *	5.155	14.65 *	4.605	0.000
14	4.685	0.000	5.170	15.57 *	5.540	45.24	5.630	55.49	5.085	11.15	4.605	0.000
15	4.675	0.000	5.123	13.02	5.685	58.94 *	5.605	52.16	5.025	7.659 *	4.600	0.000
16	4.675	0.000	5.095	11.20 *	5.530	43.63 *	5.630	55.41	5.000	6.710	4.595	0.000
17	4.705	0.000	5.250	16.30	5.485	42.21	5.615	51.80 *	4.985	6.286	4.585	0.000
18	5.285	0.000	5.295	24.04 *	5.470	38.20 *	5.500	43.02	4.960	4.862 *	4.575	0.000
19	5.890	81.88 *	5.345	27.82 *	5.335	27.04 *	5.490	39.98 *	4.935	3.828	4.565	0.000
20	6.510	168.1 *	5.545	48.58	5.245	15.59	6.040	100.5 *	4.915	3.487	4.555	0.000
21	6.705	200.0 *	5.540	50.14	5.185	16.51 *	5.575	46.93	4.895	2.838	4.550	0.000
22	7.685	390.2	6.828	216.3	5.285	19.46	6.560	177.5	4.865	1.741 *	4.550	0.000
23	6.005	96.01 *	6.185	119.9 *	5.295	24.04 *	5.915	81.50	4.855	1.487 *	4.545	0.000
24	7.255	240.0 #	6.115	110.3 *	5.405	32.64 *	5.560	46.45 *	4.835	1.029 *	4.800	0.000
25	5.955	89.76 *	6.425	154.9 *	5.355	28.60 *	5.395	31.81 *	4.825	0.826 *	4.740	0.000
26	5.678	60.25	5.975	92.24 *	5.805	72.01 *	5.285	23.31 *	4.815	0.640 *	4.835	0.000
27	5.470	37.10	5.690	57.72	5.540	44.56 *	5.210	18.12 *	4.800	0.398 *	4.760	0.000
28	5.345	27.82 *	5.915	84.88 *	5.770	67.86	5.155	14.20	4.785	0.204 *	4.745	0.000
29	5.220	14.35	5.755	69.87	5.633	55.95	5.105	11.75 *	4.770	0.065 *	4.730	0.000
30	5.640	66.96	6.010	96.65 *	5.570	47.41 *	5.065	9.735	4.755	0.000	4.720	0.000
31			6.370	163.3	5.583	46.78			4.765	0.033 *		
Ten-Daily Mean												
I Ten-Daily	4.596	0.000	5.156	16.04	5.592	50.35	5.213	18.81	5.321	27.13	4.683	0.000
II Ten-Daily	5.040	24.99	5.215	19.28	5.481	39.64	5.703	62.93	5.058	10.25	4.592	0.000
III Ten-Daily	6.096	122.2	6.073	110.6	5.493	41.44	5.482	46.14	4.815	0.842	4.697	0.000
Monthly												
Min.	4.515	0.000	5.035	8.133	5.185	15.59	5.025	8.636	4.755	0.000	4.545	0.000
Max.	7.685	390.2	6.827	216.3	5.925	84.90	6.560	177.5	5.795	70.88	4.835	0.000
Mean	5.244	49.08	5.501	50.62	5.521	43.74	5.466	42.62	5.057	12.36	4.658	0

Annual Runoff in MCM = 524 Annual Runoff in mm = 2021

Peak Observed Discharge = 390.2 cumecs on 22/06/2015 Corres. Water Level :7.685 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :4.545 m

Peak Computed Discharge = 200.0 cumecs on 21/06/2015 Corres. Water Level :6.705 m

Lowest Computed Discharge = 0.033 cumecs on 31/10/2015 Corres. Water Level :4.765 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

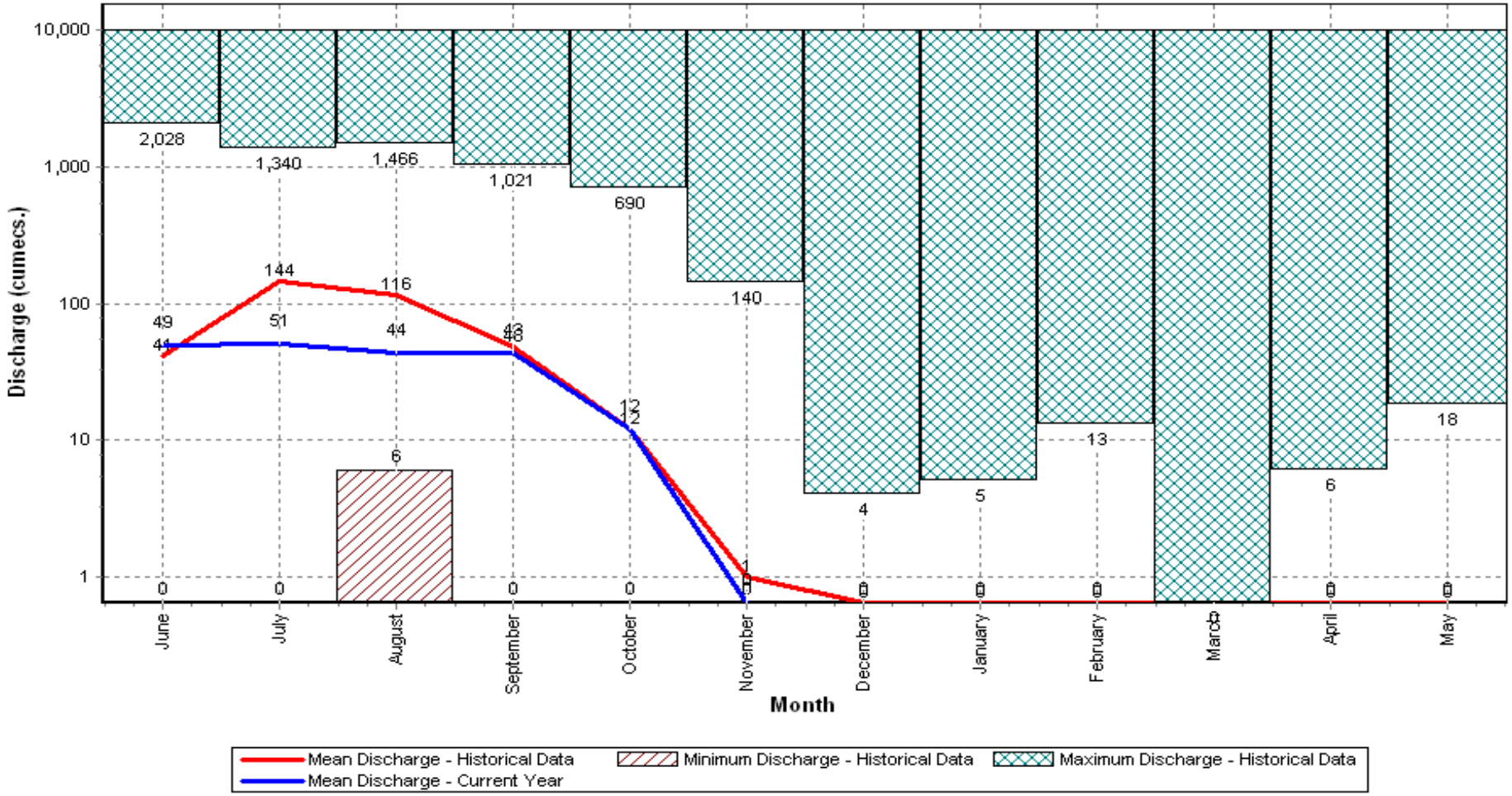
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Data considered : 1981-2016** **Division : Upper Krishna Divn, Pune**

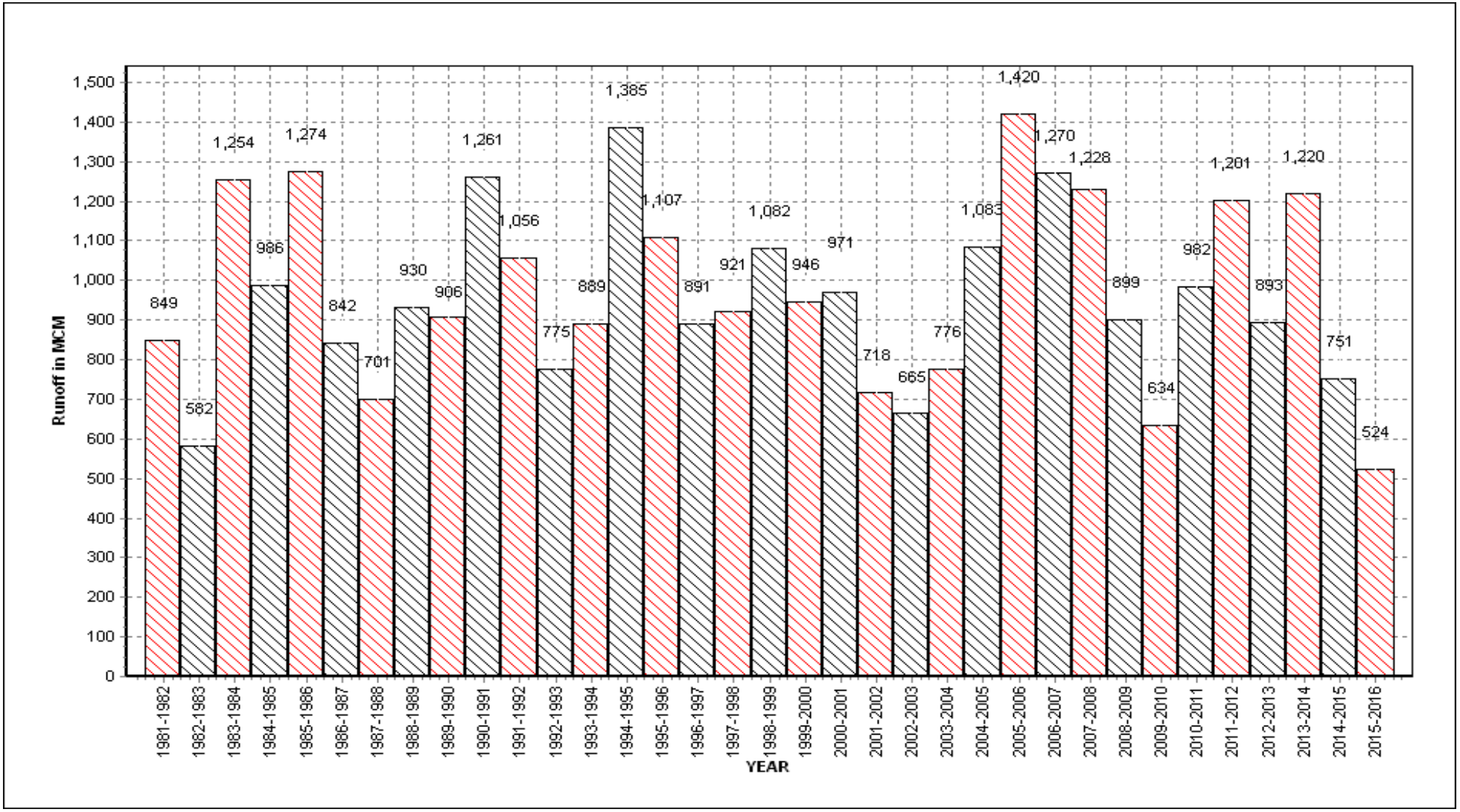
Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**



Annual Runoff Values for the period: 1981 - 2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**



Note: Missing values have not been considered while arriving at Annual Runoff

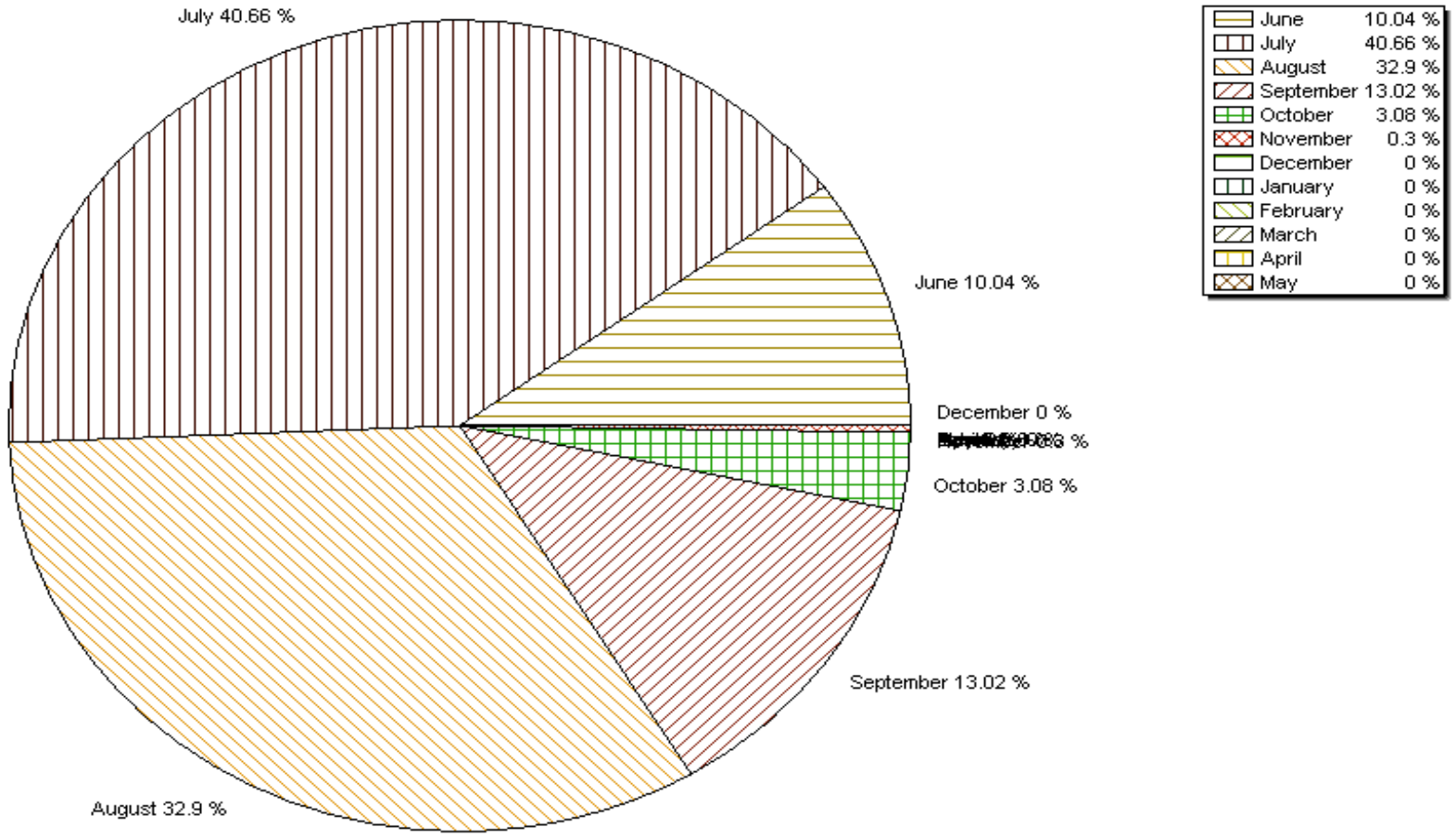
Monthly Average Runoff based on period : 1981-2015

Station Name : Mangaon (Seasonal) (WMA00I8)

Local River : Kal

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 3, Managaon



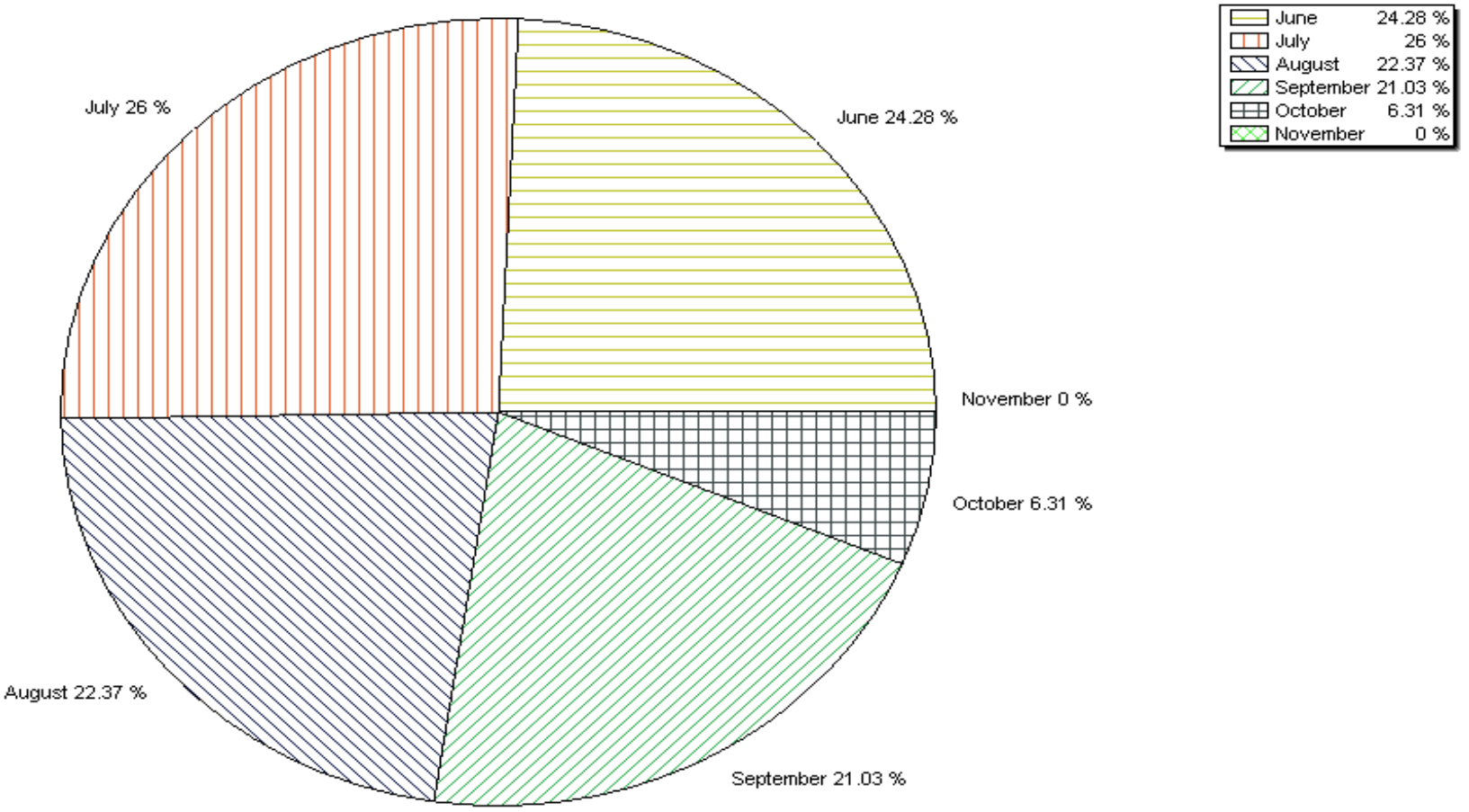
Monthly Runoff for the Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8)

Division : Upper Krishna Divn, Pune

Local River : Kal

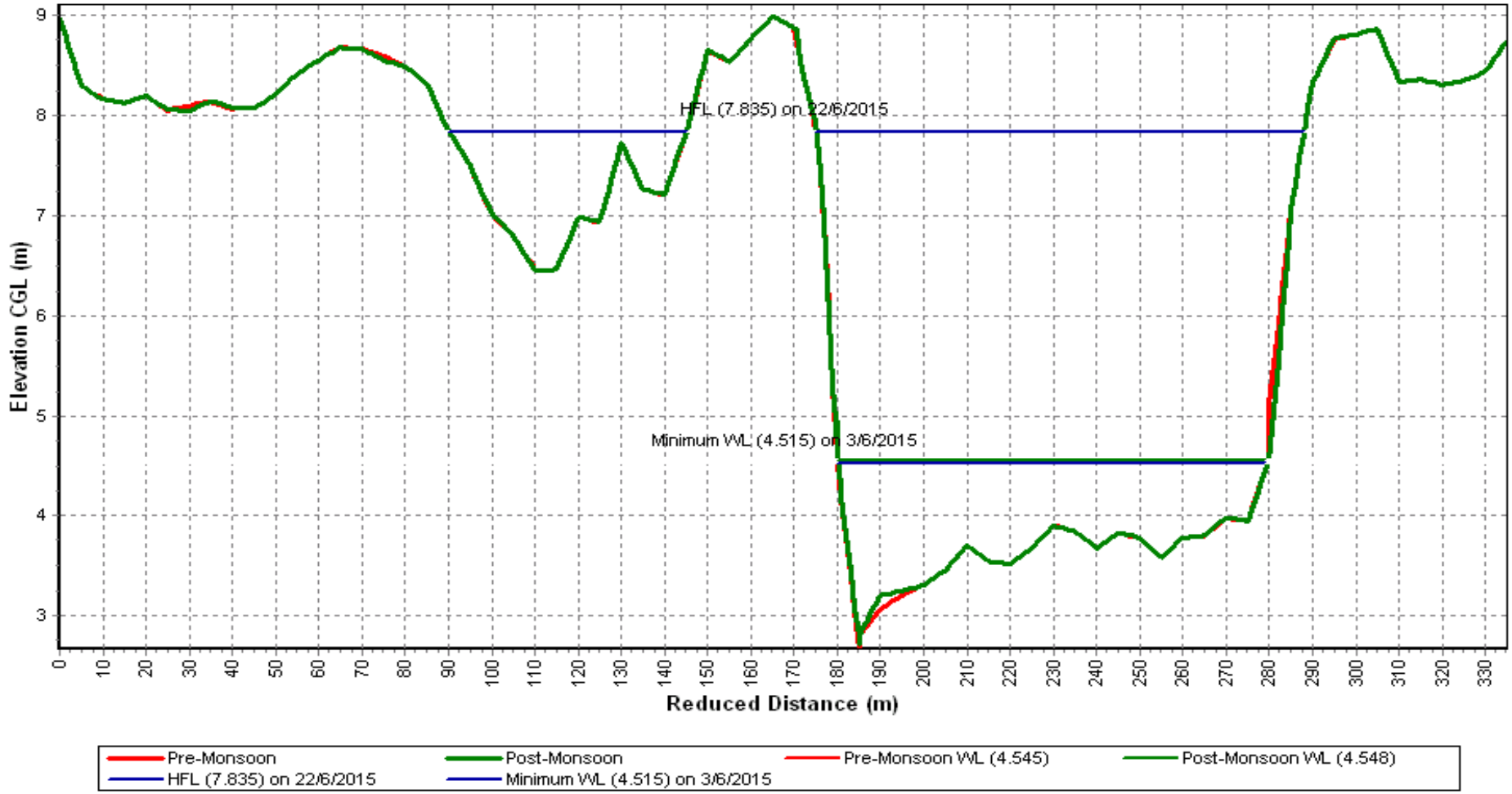
Sub-Division : Upper Krishna SD 3, Managaon



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

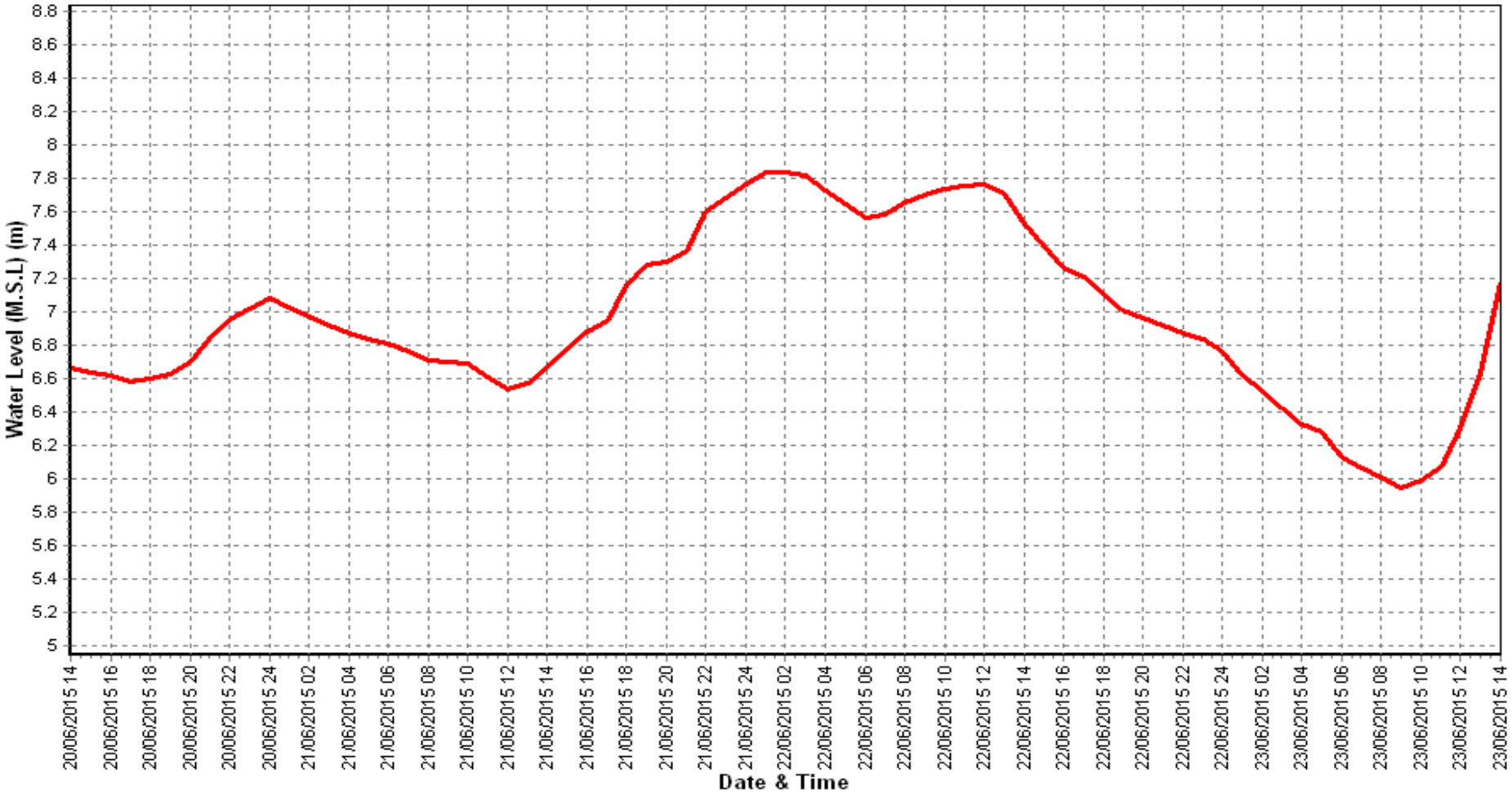
Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

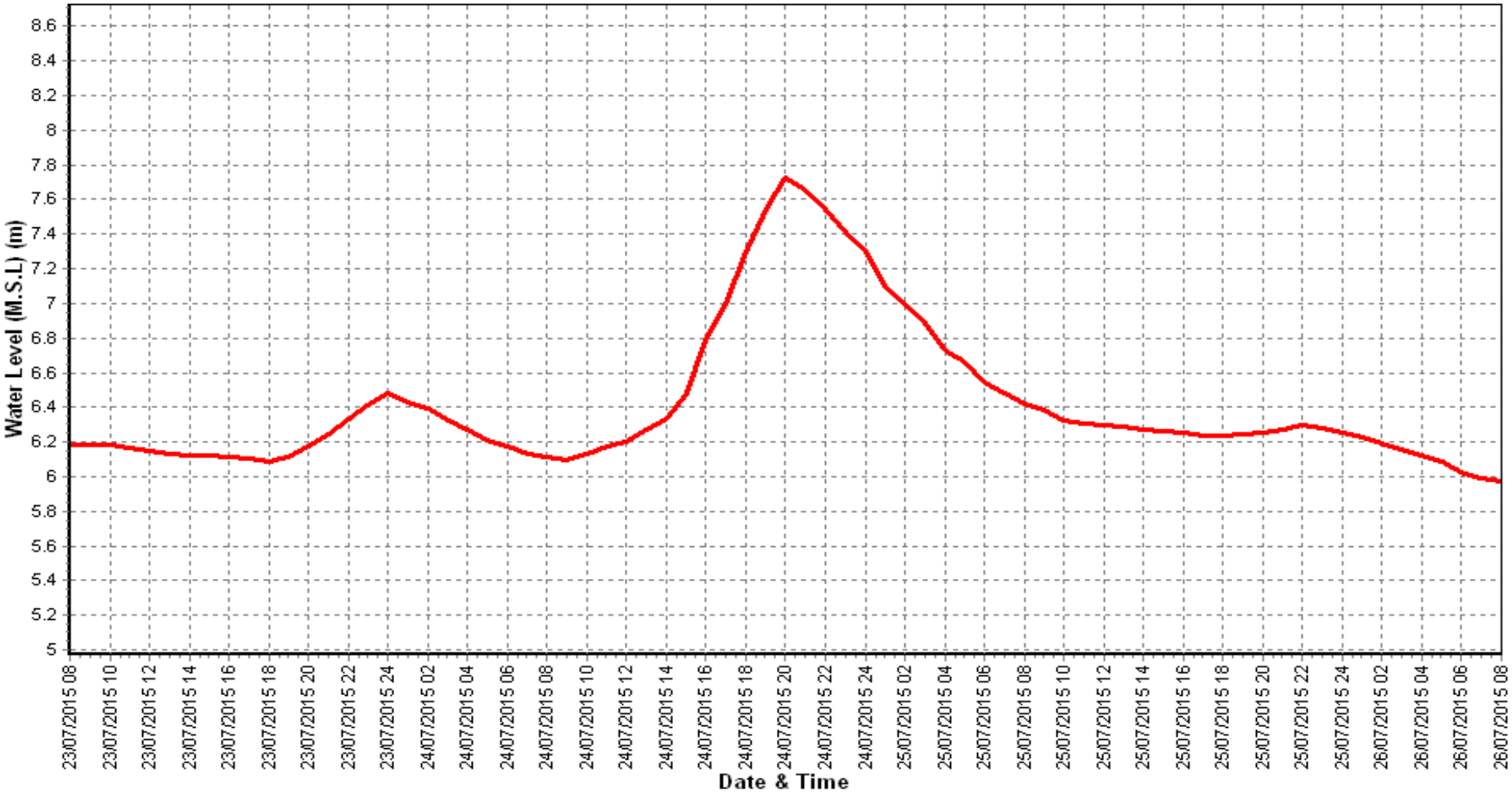


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

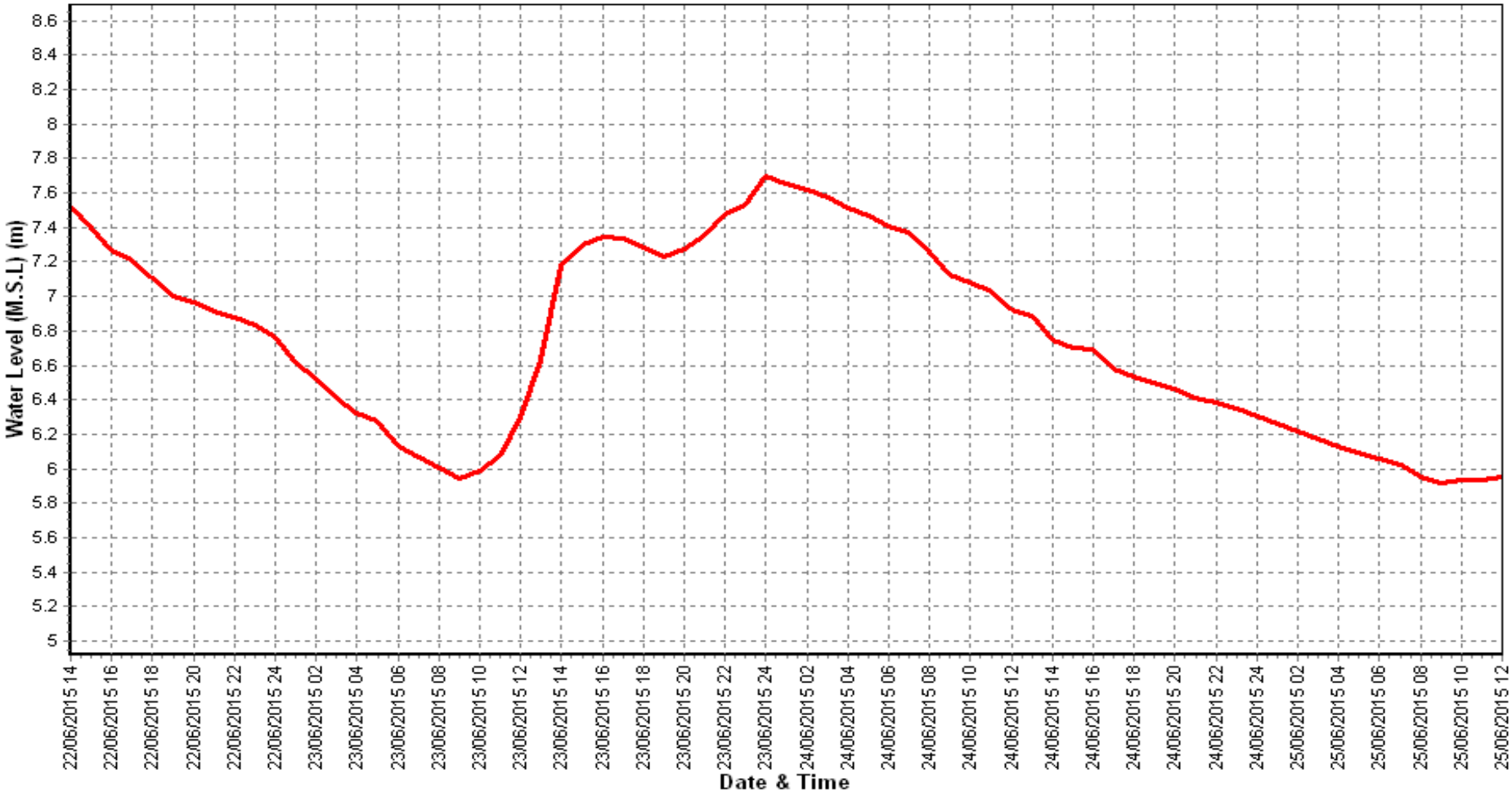


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Anjanari**		**Code**	**: WL000M3**	
State	: Maharashtra		District	Ratnagiri	
Basin	: WFR South of Tapi		Independent River	: Kajvi	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kajvi	
Division	: Upper Krishna Divn, Pune		Sub-Division	: South Western Rivers SD 4,Goa	
Drainage Area	: 315 Sq. Km.		Bank	: Left	
Latitude	: 16°56'04"		Longitude	: 73°30'50"	
Zero of Gauge (m)	: 11.000 (m.s.l)		26/05/1985		
	Opening Date		Closing Date		
Gauge	: 01/06/1987				
Discharge	: 08/08/1991				
Sediment	:				
Water Quality	:				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1992-1993	522.4	16.690	19/07/1992	0.000	11.700	24/11/1992
1993-1994	276.4	16.660	03/08/1993	0.217	11.665	26/12/1993
1994-1995	470.0	16.800	30/06/1994	0.000	11.610	22/11/1994
1995-1996	290.1	14.930	02/09/1995	0.000	12.280	24/01/1996
1996-1997	315.0	15.140	04/10/1996	0.000	11.480	21/11/1996
1997-1998	412.3	14.780	31/07/1997	0.000	11.530	25/11/1997
1998-1999	516.0	13.900	01/07/1998	0.000	11.620	15/06/1998
1999-2000	948.0	17.713	16/07/1999	0.000	11.440	01/05/2000
2000-2001	647.2	15.715	28/08/2000	0.000	11.000	05/05/2001
2001-2002	787.1	16.985	08/07/2001	0.000	11.000	26/05/2002
2002-2003	534.1	15.580	09/08/2002	0.000	11.440	28/01/2003
2003-2004	241.5	14.910	05/08/2003	0.000	Dry	10/06/2003
2004-2005	317.0	15.320	12/08/2004	0.000	11.455	04/05/2005
2005-2006	839.0	18.245	26/07/2005	0.000	11.000	13/06/2005
2006-2007	644.5	16.980	11/08/2006	0.000	11.470	02/03/2007
2007-2008	423.7	15.490	29/06/2007	0.000	11.700	27/01/2008
2008-2009	701.5	17.200	10/08/2008	0.000	11.185	25/01/2009
2009-2010	661.4	17.000	01/10/2009	0.000	11.605	12/02/2010
2010-2011	1008	18.650	24/07/2010	0.000	11.610	02/06/2010

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2011-2012	627.7	16.637	17/07/2011	0.000	Dry	01/06/2011
2012-2013	337.3	15.130	04/07/2012	0.000	Dry	01/06/2012
2013-2014	1542	18.810	03/07/2013	0.000	Dry	01/06/2013
2014-2015	635.4	15.670	31/08/2014	0.000	11.700	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Anjanari (WL000M3) **Division : Upper Krishna Divn, Pune**

Local River : Kajvi **Sub-Division : South Western Rivers SD 4,Goa**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1		0.000	12.730	37.16 *	14.450	299.1 *	12.795	41.63 *	12.150	10.31 *	11.865	4.069 *
2		0.000	12.595	27.04	13.710	145.4 *	12.610	33.73	12.280	14.50 *	11.850	3.839 *
3		0.000	12.510	24.37 *	13.490	112.7 *	12.545	26.18 *	12.680	33.94 *	11.840	3.690 #
4		0.000	12.450	21.47 *	13.080	62.90	12.430	20.56 *	12.655	32.40 *	11.835	3.617 *
5		0.000	12.390	18.81 *	13.000	57.98 *	12.380	18.39 *	12.770	39.87 *	11.830	3.544 *
6		0.000	12.340	16.76 *	13.100	67.28 *	12.360	17.56 *	12.600	30.28	11.825	0.000
7		0.000	12.250	13.45 *	13.420	103.4 *	12.340	16.76 *	12.545	26.18 *	11.825	0.000
8	11.150	0.000	12.150	11.44	13.080	65.35 *	12.250	13.45 *	12.450	21.47 *	11.825	0.000
9	11.180	0.000	12.170	10.90 *	12.960	54.51 *	12.220	12.45 *	12.385	18.60 *	11.820	0.000
10	11.200	0.000	12.210	12.13 *	13.100	67.28 *	12.840	44.92 *	12.340	16.76 *	11.820	0.000
11	11.220	0.000	12.170	10.90 *	13.020	59.77 *	13.400	100.9 *	12.280	14.50 *	11.820	0.000
12	11.280	0.000	12.200	11.81 *	13.140	71.25 *	13.210	78.57 *	12.255	13.62 *	11.820	0.000
13	11.330	0.000	12.140	10.03 *	13.050	62.52 *	12.770	39.87 *	12.265	13.97 *	11.820	0.000
14	11.420	0.000	12.450	21.47 *	12.780	40.57 *	12.660	32.71 *	12.190	11.50 *	11.820	0.000
15	11.460	0.000	12.300	15.23 #	12.830	44.17 *	12.975	55.79 *	12.155	10.45 *	11.815	0.000
16	11.510	0.000	12.250	13.45 *	12.950	53.66 *	13.480	111.4 *	12.115	9.337 *	11.815	0.000
17	11.540	0.000	12.220	12.45 *	12.840	44.92 *	13.600	128.4 *	12.090	8.679 *	11.815	0.000
18	11.830	0.000	12.190	11.50 *	12.740	37.82 *	13.370	97.10 *	12.060	7.931 *	11.815	0.000
19	12.270	0.000	12.290	14.86 *	12.640	31.50	13.020	59.77 *	12.040	7.456 *	11.815	0.000
20	13.850	169.1 *	12.550	26.44 *	12.505	24.12 #	12.900	49.56 *	12.018	6.934 #	11.810	0.000
21	14.800	398.5 *	12.450	21.47 *	12.440	21.01 *	12.700	35.20 *	12.040	7.456 *	11.810	0.000
22	14.530	320.2 *	12.390	18.81 *	12.380	18.39 *	12.600	29.18 *	12.020	7.000 *	11.805	0.000
23	13.590	126.9 *	12.950	53.66 *	12.480	22.89 *	12.500	23.87 *	12.010	6.779 *	11.805	0.000
24	14.120	221.6	13.460	100.9 #	12.430	20.56 *	12.420	18.60	11.990	6.351 *	11.805	0.000
25	13.950	187.5 *	13.560	122.5 *	12.470	22.41 *	12.370	17.97 *	11.975	6.042 *	11.800	0.000
26	13.690	142.2 *	13.600	128.4 *	12.540	25.91 *	12.325	16.18 *	11.955	5.645 *	11.800	0.000
27	13.340	93.43 *	13.500	114.1 *	12.595	29.62	12.275	14.32 *	11.940	5.359 *	11.795	0.000
28	12.930	52.00 *	13.350	94.64 *	12.645	31.80 *	12.245	13.28 *	11.925	5.082 *	11.795	0.000
29	12.790	41.27 *	12.970	55.36 *	12.750	38.50 *	12.220	12.45 *	11.910	4.815 *	11.790	0.000
30	12.600	29.18 *	12.860	46.43 *	12.800	41.98 *	12.170	9.756	11.895	4.558 *	11.790	0.000
31			13.100	67.28 #	12.850	45.67 *			11.880	4.309 *		
Ten-Daily Mean												
I Ten-Daily	11.177	0.000	12.379	19.35	13.339	103.6	12.477	24.56	12.485	24.43	11.833	1.876
II Ten-Daily	11.771	16.91	12.276	14.81	12.849	47.03	13.138	75.40	12.147	10.44	11.816	0.000
III Ten-Daily	13.634	161.3	13.108	74.87	12.580	28.98	12.383	19.08	11.958	5.763	11.800	0.000
Monthly												
Min.	11.150	0.000	12.140	10.03	12.380	18.39	12.170	9.756	11.880	4.309	11.790	0.000
Max.	14.800	398.5	13.600	128.4	14.450	299.1	13.600	128.4	12.770	39.87	11.865	4.069
Mean	12.503	59.4	12.605	37.59	12.912	58.87	12.666	39.68	12.189	13.29	11.816	0.625

Annual Runoff in MCM = 552 Annual Runoff in mm = 1754

Peak Observed Discharge = 221.6 cumecs on 24/06/2015 Corres. Water Level :14.12 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Anjanari (WL000M3) **Division : Upper Krishna Divn, Pune**

Local River : Kajvi **Sub-Division : South Western Rivers SD 4,Goa**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	11.790	0.000	11.750	0.000		0.000		0.000		0.000		0.000
2	11.785	0.000	11.745	0.000		0.000		0.000		0.000		0.000
3	11.785	0.000	11.745	0.000		0.000		0.000		0.000		0.000
4	11.785	0.000	11.745	0.000		0.000		0.000		0.000		0.000
5	11.785	0.000	11.740	0.000		0.000		0.000		0.000		0.000
6	11.780	0.000	11.740	0.000		0.000		0.000		0.000		0.000
7	11.780	0.000	11.740	0.000		0.000		0.000		0.000		0.000
8	11.780	0.000	11.735	0.000		0.000		0.000		0.000		0.000
9	11.780	0.000	11.735	0.000		0.000		0.000		0.000		0.000
10	11.775	0.000	11.735	0.000		0.000		0.000		0.000		0.000
11	11.775	0.000	11.735	0.000		0.000		0.000		0.000		0.000
12	11.775	0.000	11.735	0.000		0.000		0.000		0.000		0.000
13	11.775	0.000	11.730	0.000		0.000		0.000		0.000		0.000
14	11.770	0.000	11.730	0.000		0.000		0.000		0.000		0.000
15	11.770	0.000	11.730	0.000		0.000		0.000		0.000		0.000
16	11.770	0.000	11.730	0.000		0.000		0.000		0.000		0.000
17	11.770	0.000	11.725	0.000		0.000		0.000		0.000		0.000
18	11.765	0.000	11.725	0.000		0.000		0.000		0.000		0.000
19	11.765	0.000	11.725	0.000		0.000		0.000		0.000		0.000
20	11.765	0.000	11.720	0.000		0.000		0.000		0.000		0.000
21	11.765	0.000	11.720	0.000		0.000		0.000		0.000		0.000
22	11.765	0.000	11.720	0.000		0.000		0.000		0.000		0.000
23	11.760	0.000	11.720	0.000		0.000		0.000		0.000		0.000
24	11.760	0.000	11.720	0.000		0.000		0.000		0.000		0.000
25	11.760	0.000	11.720	0.000		0.000		0.000		0.000		0.000
26	11.760	0.000	11.715	0.000		0.000		0.000		0.000		0.000
27	11.755	0.000	11.715	0.000		0.000		0.000		0.000		0.000
28	11.755	0.000	11.715	0.000		0.000		0.000		0.000		0.000
29	11.750	0.000	11.715	0.000		0.000		0.000		0.000		0.000
30	11.750	0.000	11.715	0.000				0.000		0.000		0.000
31	11.750	0.000	11.715	0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	11.782	0.000	11.741	0.000		0.000		0.000		0.000		0.000
II Ten-Daily	11.770	0.000	11.728	0.000		0.000		0.000		0.000		0.000
III Ten-Daily	11.757	0.000	11.717	0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	11.750	0.000	11.715	0.000		0.000		0.000		0.000		0.000
Max.	11.790	0.000	11.750	0.000		0.000		0.000		0.000		0.000
Mean	11.770	0	11.729	0		0		0		0		0

Peak Computed Discharge = 398.5 cumecs on 21/06/2015 **Corres. Water Level :14.8 m**

Lowest Computed Discharge = 3.544 cumecs on 05/11/2015 **Corres. Water Level :11.83 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

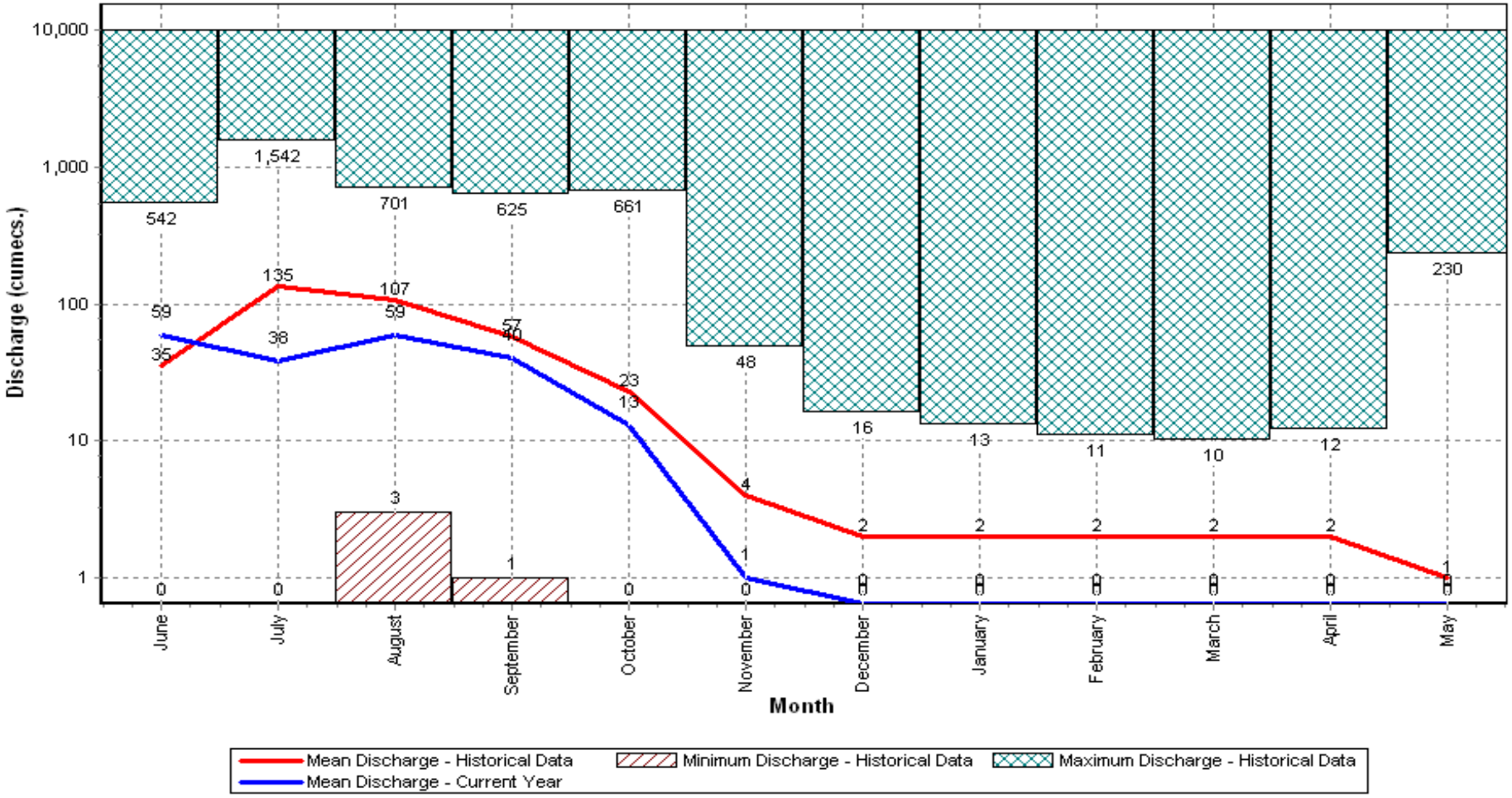
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Anjanari (WL000M3) | **Data considered : 1992-2016** | **Division : Upper Krishna Divn, Pune**

Local River : Kajvi | **Sub-Division : South Western Rivers SD 4,Goa**



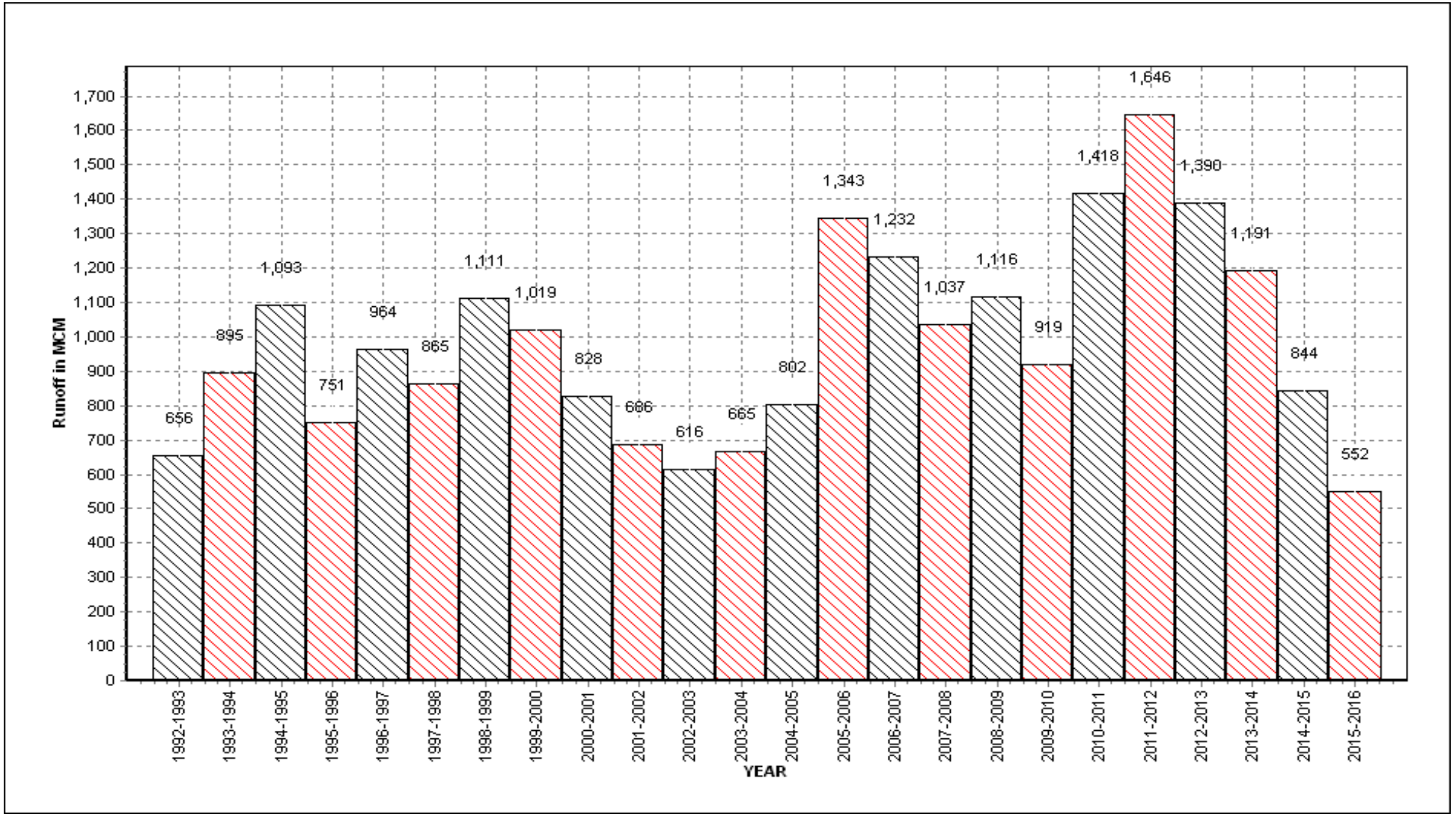
Annual Runoff Values for the period: 1992 - 2016

Station Name : Anjanari (WL000M3)

Division : Upper Krishna Divn, Pune

Local River : Kajvi

Sub-Division : South Western Rivers SD 4,Goa

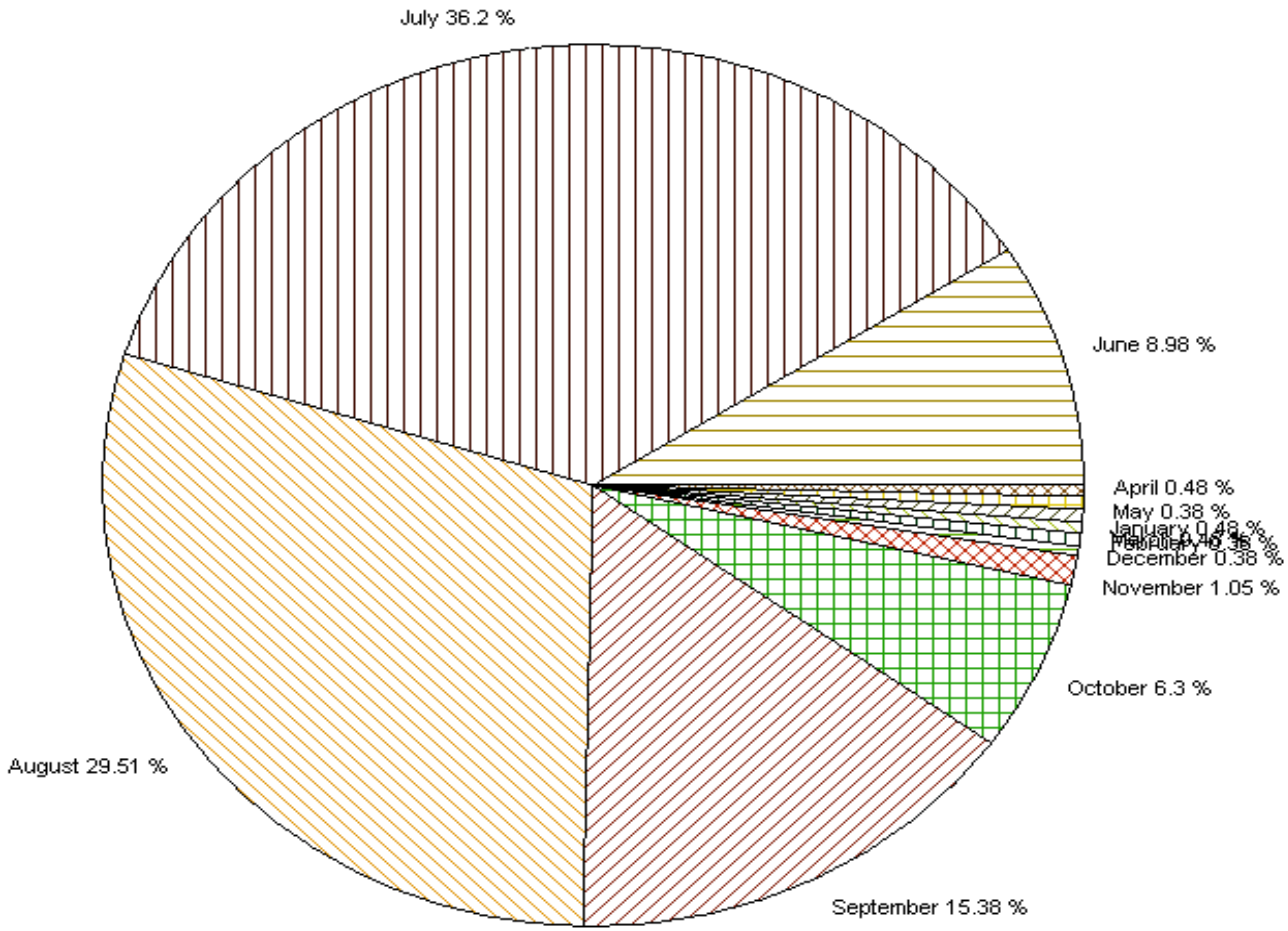


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1992-2015

Station Name : Anjanari (WL000M3)
Local River : Kajvi

Division : Upper Krishna Divn, Pune
Sub-Division : South Western Rivers SD 4,Goa



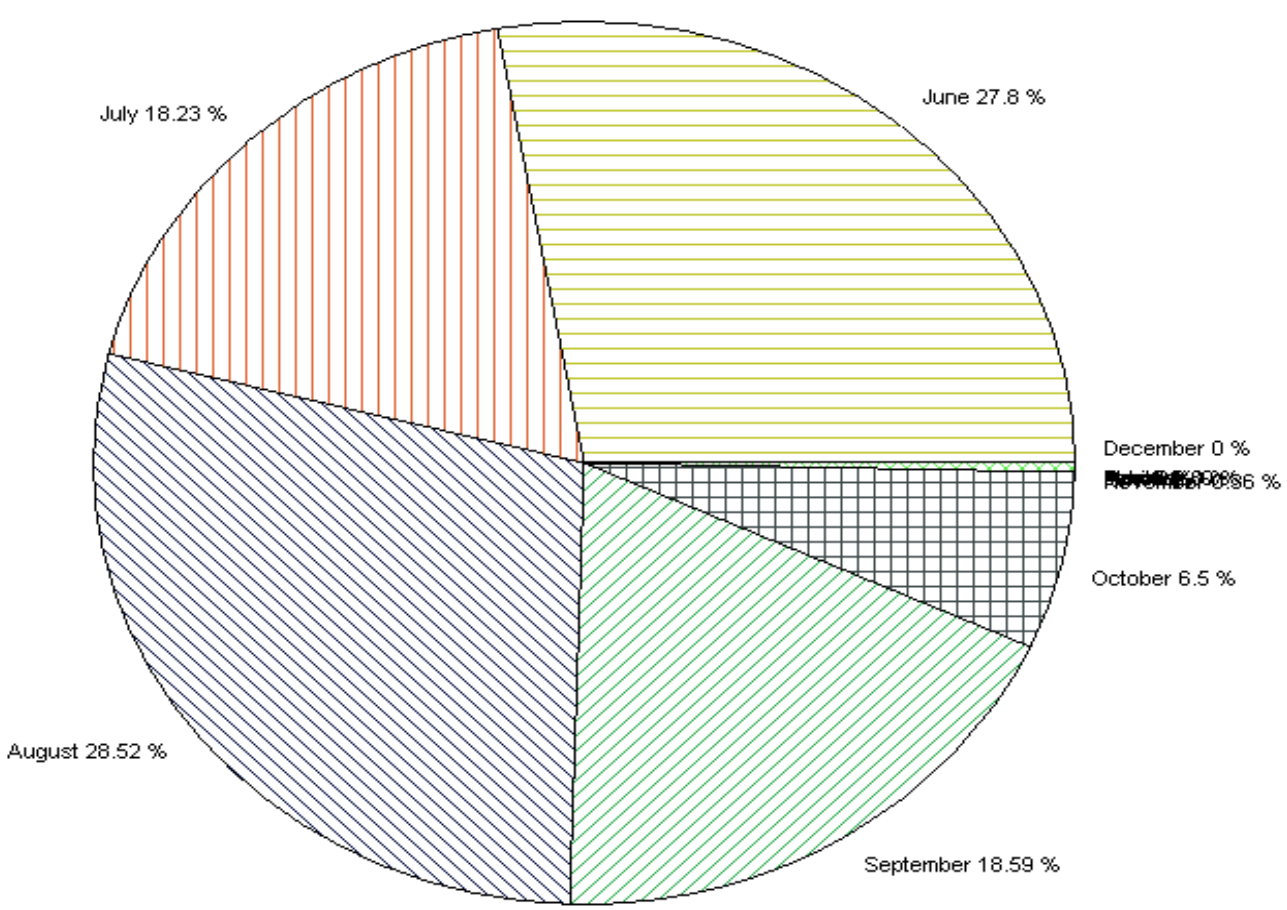
Monthly Runoff for the Year : 2015-2016

Station Name : Anjanari (WL000M3)

Local River : Kajvi

Division : Upper Krishna Divn, Pune

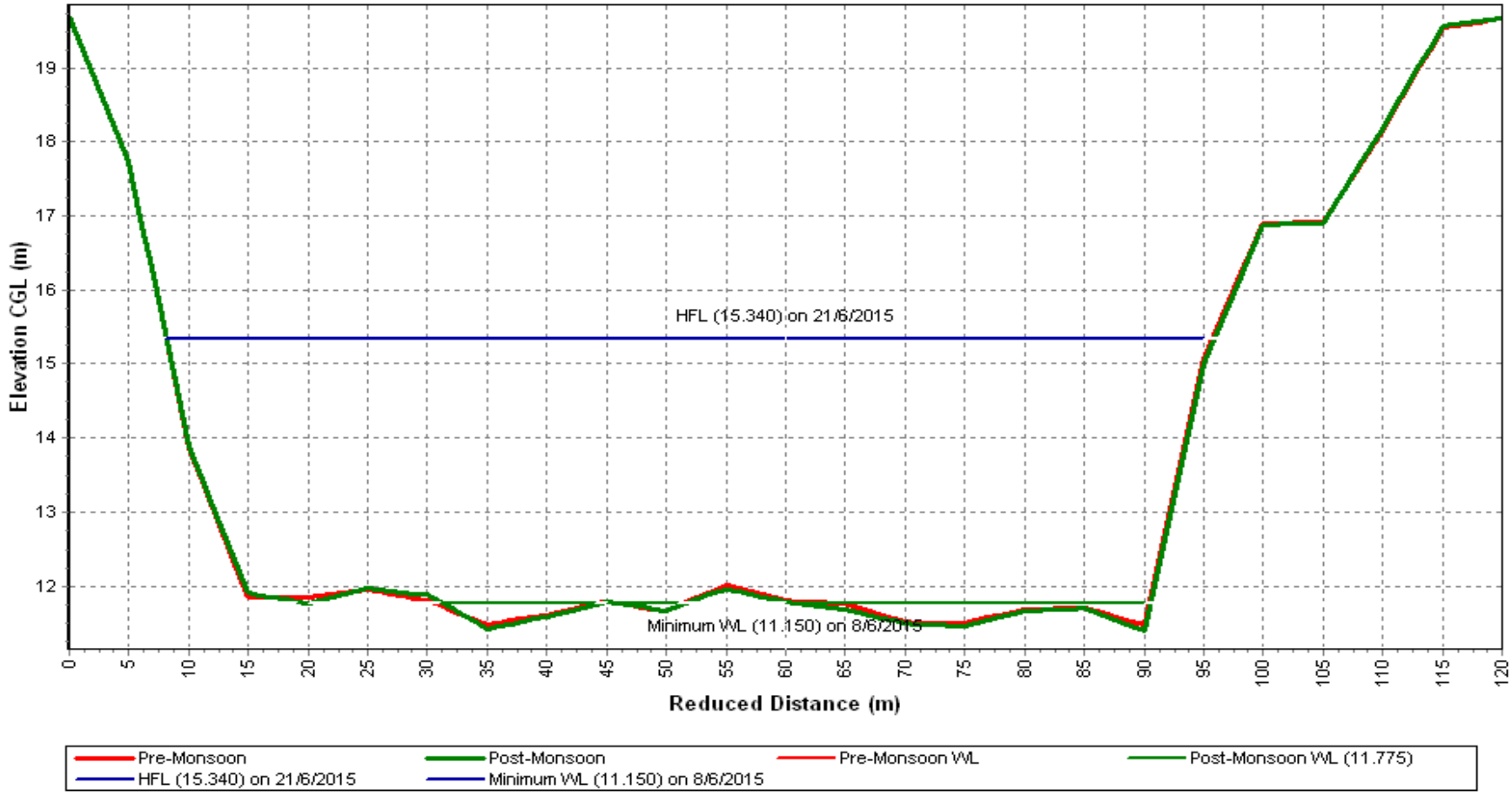
Sub-Division : South Western Rivers SD 4,Goa



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Anjanari (WL000M3) **Division : Upper Krishna Divn, Pune**

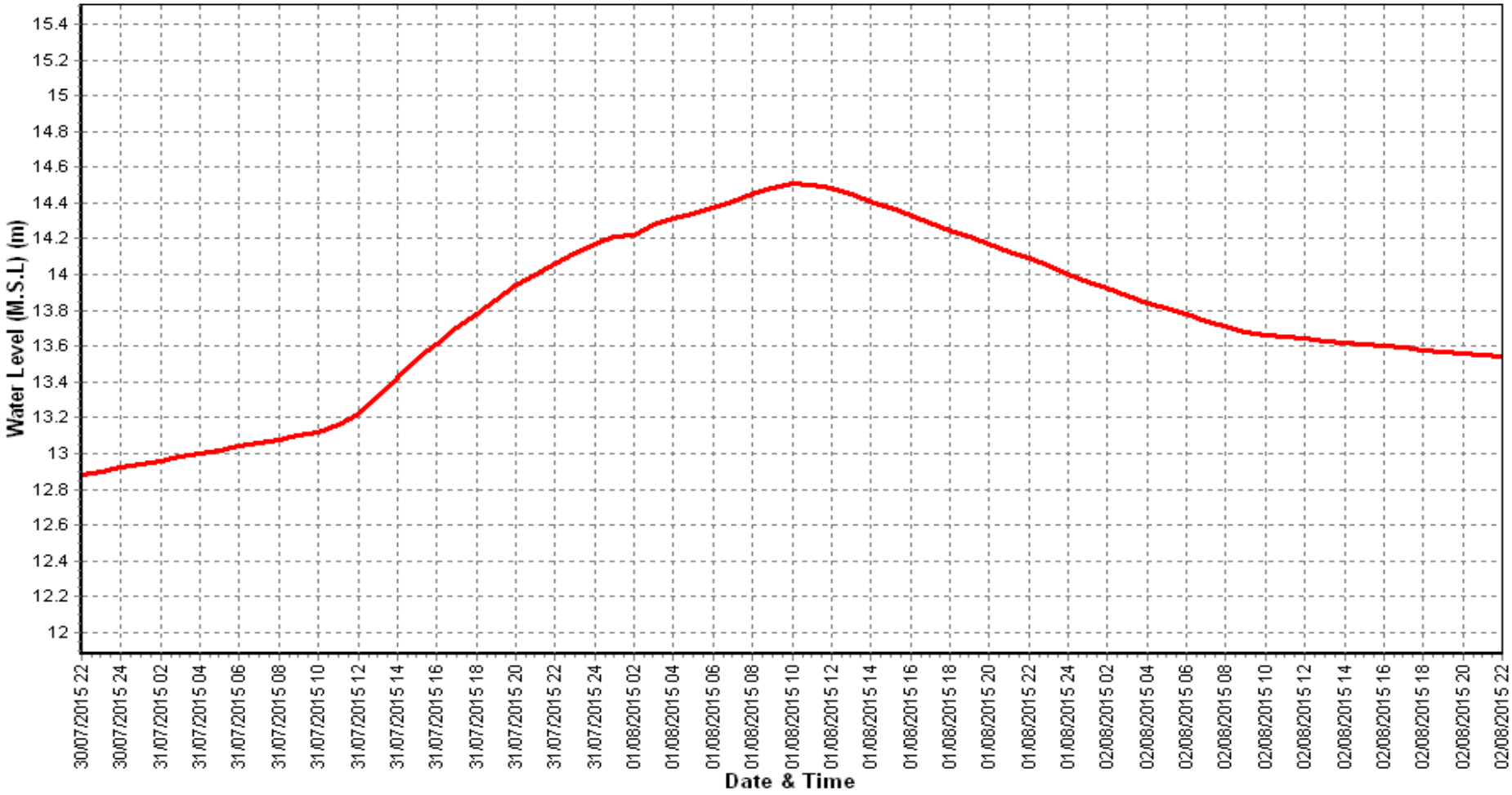
Local River : Kajvi **Sub-Division : South Western Rivers SD 4,Goa**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Anjanari (WL000M3) **Division : Upper Krishna Divn, Pune**

Local River : Kajvi **Sub-Division : South Western Rivers SD 4,Goa**



Time Span: 72 Hrs

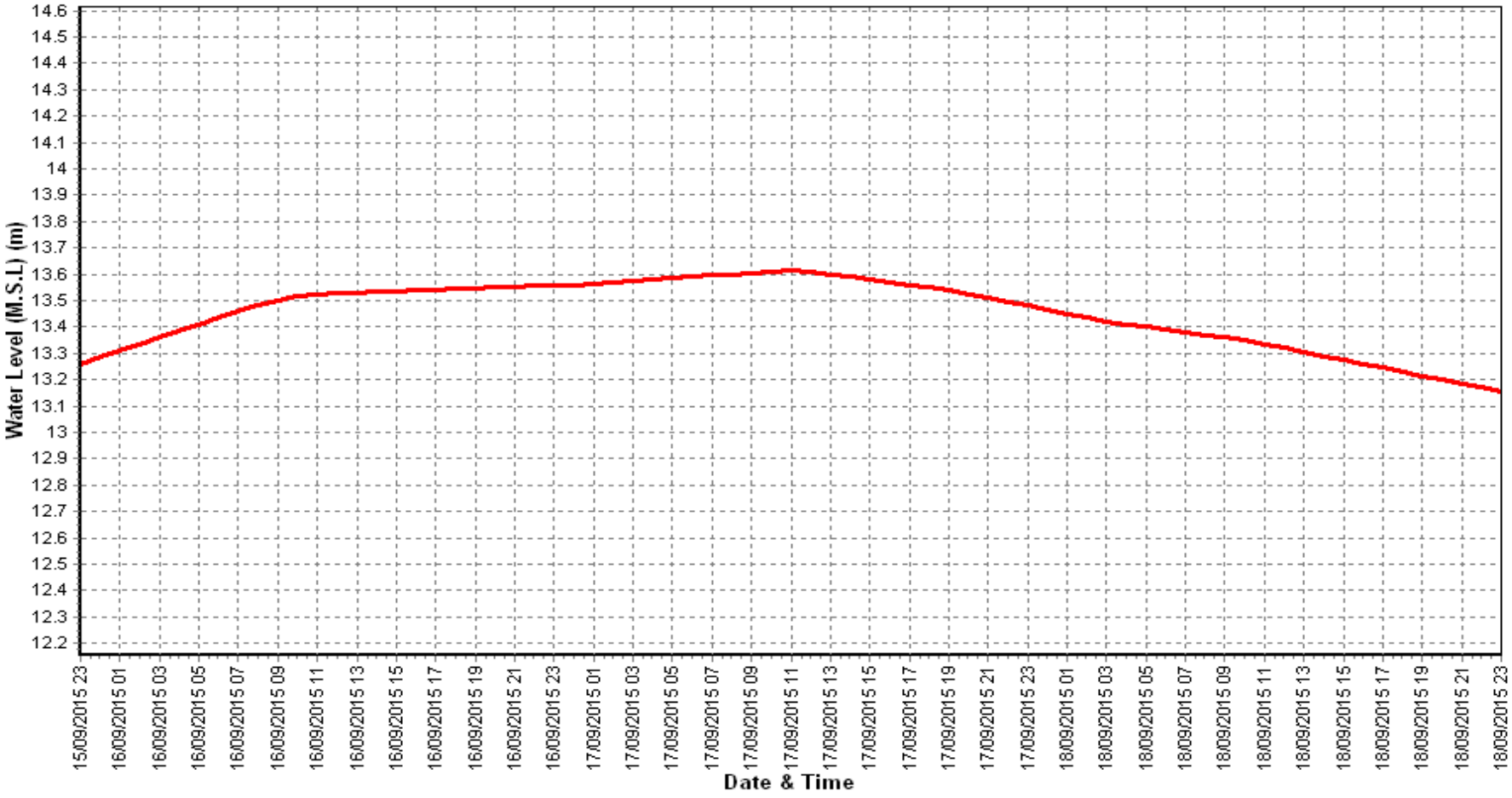
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Anjanari (WL000M3)

Division : Upper Krishna Divn, Pune

Local River : Kajvi

Sub-Division : South Western Rivers SD 4,Goa

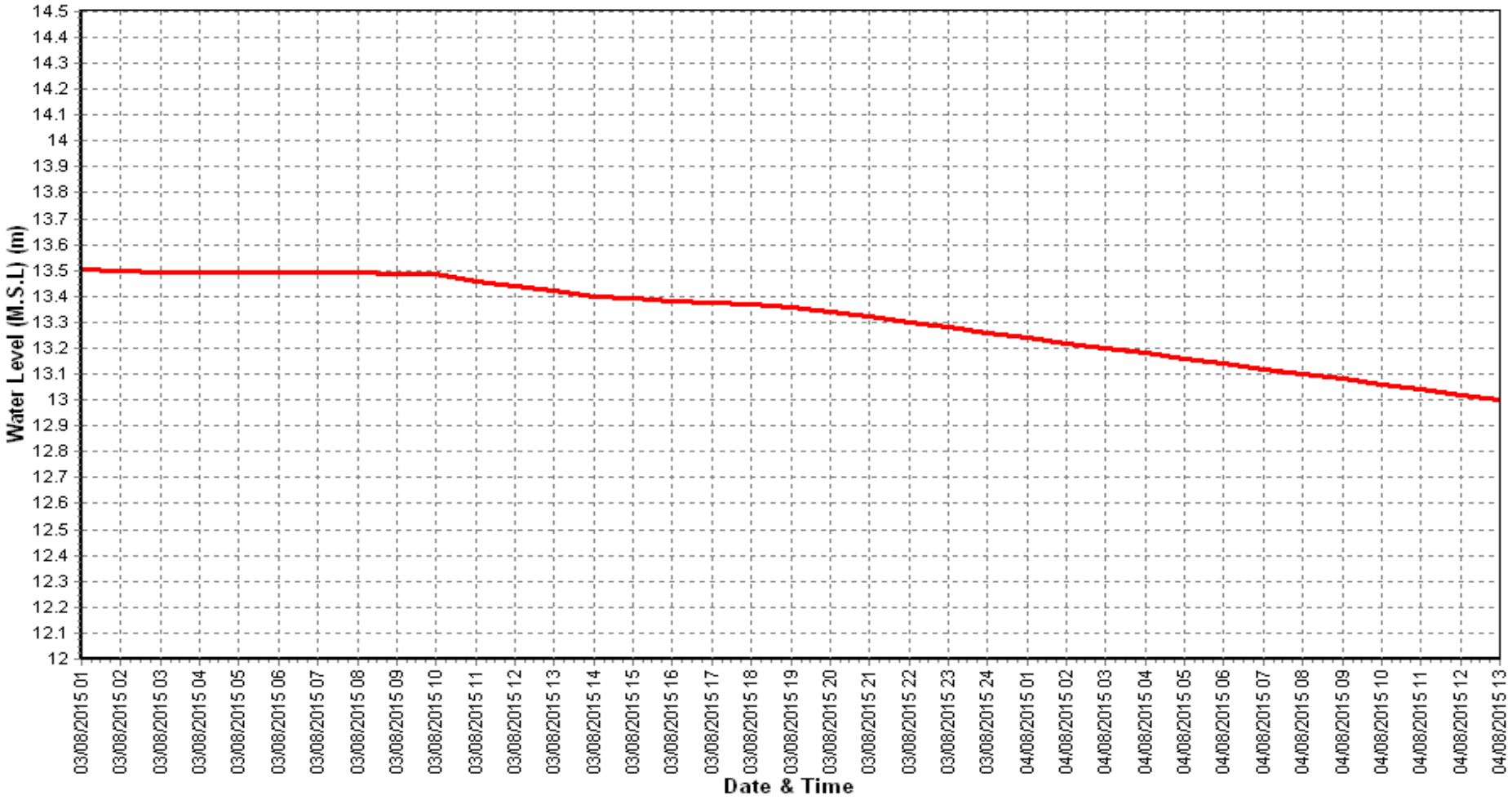


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Anjanari (WL000M3) **Division : Upper Krishna Divn, Pune**

Local River : Kajvi **Sub-Division : South Western Rivers SD 4,Goa**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**Belne Bridge**	**Code**	:	**BELNE BRIDGE**
State	:	Maharashtra	District		Sindudurg
Basin	:	WFR South of Tapi	Independent River	:	Gad
Tributary	:	-	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Gad
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	South Western Rivers SD 4,Goa
Drainage Area	:	605 Sq. Km.	Bank	:	Right
Latitude	:	16°13'18"	Longitude	:	73°36'40"
Zero of Gauge (m)	:	8.500 (m.s.l)	01/06/2000		
		Opening Date	Closing Date		
Gauge	:	16/06/2000			
Discharge	:	16/06/2000			
Sediment	:				
Water Quality	:	03/07/2000			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2001-2002	775.6	15.070	04/08/2001	0.000	9.530	27/04/2002
2002-2003	767.8	15.400	09/08/2002	0.000	9.660	19/03/2003
2003-2004	439.5	13.820	16/07/2003	0.000	Dry	13/03/2004
2004-2005	738.9	15.090	04/08/2004	0.000	Dry	14/02/2005
2005-2006	1135	16.275	26/07/2005	0.000	Dry	11/04/2006
2006-2007	1145	16.330	08/08/2006	0.000	9.745	30/03/2007
2007-2008	1005	15.980	30/06/2007	0.000	Dry	13/03/2008
2008-2009	1022	17.660	12/08/2008	0.000	9.890	25/01/2009
2009-2010	1261	16.230	09/07/2009	0.000	9.800	21/03/2010
2010-2011	1334	18.380	29/07/2010	0.000	10.020	28/01/2011
2011-2012	1041	16.400	18/07/2011	0.000	10.330	08/11/2011
2012-2013	766.0	17.125	28/08/2012	0.000	9.900	26/01/2013
2013-2014	885.2	15.900	03/07/2013	0.000	Dry	01/06/2013
2014-2015	773.7	15.250	31/07/2014	0.000	10.120	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	9.880	0.000	12.495	153.5	13.520	343.2 *	11.720	66.39	10.880	27.43 *	10.395	13.09 *
2	9.890	0.000	12.280	129.4 *	12.940	224.5 *	11.640	68.98 *	11.920	92.05 *	10.380	13.09 #
3	9.890	0.000	11.840	84.96 *	12.260	136.7	11.440	55.31 *	11.340	49.26 *	10.360	0.000
4	9.880	0.000	11.560	63.25 *	12.190	119.2 *	11.250	44.25 *	11.230	43.19 *	10.380	0.000
5	9.870	0.000	11.390	52.22 *	11.900	90.24 *	11.150	39.12 *	11.305	41.61	10.380	0.000
6	9.850	0.000	11.010	32.69 *	12.350	137.7 *	11.030	33.55 *	11.300	46.99 *	10.470	0.000
7	9.850	0.000	10.895	31.55	12.890	216.0 *	10.960	30.59 *	11.340	49.26 *	10.420	0.000
8	9.980	0.000	10.795	24.35 *	13.020	238.8 *	10.930	29.37 *	11.100	36.73 *	10.350	0.000
9	10.200	0.000	10.910	28.59 *	12.540	162.4 *	10.980	31.41 *	10.990	31.83 *	10.360	0.000
10	10.300	0.000	11.050	34.44 *	12.790	199.5 *	11.520	60.52 *	10.910	28.59 *	10.330	0.000
11	10.260	0.000	11.000	32.26 *	12.970	229.8 *	11.850	85.83 *	10.835	25.77 *	10.290	0.000
12	10.440	0.000	10.950	30.18 *	12.700	185.5 *	11.600	66.07 *	10.780	23.83 *	10.260	0.000
13	10.400	0.000	10.950	30.18 *	12.300	131.7 *	11.530	61.19 *	10.800	24.52 *	10.230	0.000
14	10.450	0.000	11.780	79.61	12.110	110.6 *	11.700	73.53 *	11.170	40.11 *	10.200	0.000
15	10.440	0.000	11.180	40.61 *	12.250	125.9 *	11.980	97.64 *	10.850	26.31 *	10.175	0.000
16	10.410	0.000	11.070	35.34 *	12.360	138.9 *	11.890	89.35 *	10.730	22.16 *	10.150	0.000
17	10.390	0.000	11.430	54.68 *	12.150	114.8 *	11.990	98.60 *	10.710	21.52 *	10.130	0.000
18	10.600	0.000	11.480	57.87 *	11.780	79.92 *	12.380	141.4 *	10.710	21.52 *	10.120	0.000
19	11.200	41.63 *	12.450	150.3 *	11.455	53.88	11.960	95.75 *	10.660	19.98 *	10.095	0.000
20	12.400	143.9 *	12.390	142.7 *	11.330	48.69 *	11.840	84.96 *	10.660	19.98 #	10.080	0.000
21	14.100	501.8 *	12.360	138.9 *	11.450	55.94 *	11.520	60.52 *	10.605	18.37 *	10.050	0.000
22	12.970	229.8 *	12.260	127.0 *	11.320	48.11 *	11.310	47.55 *	10.540	16.60 *	10.060	0.000
23	12.250	125.9 #	12.010	107.8	11.410	53.44 *	11.430	53.09	10.540	16.60 *	10.110	0.000
24	13.710	390.4 *	12.260	127.0 *	11.450	55.94 *	11.170	40.11 *	10.480	15.07 *	10.210	0.000
25	14.000	471.3 *	13.480	333.8 *	11.325	48.40 *	11.070	35.34 *	10.430	13.88 *	10.240	0.000
26	12.490	155.6 *	13.280	289.6 *	11.580	73.79	10.980	31.41 *	10.460	14.59 *	10.220	0.000
27	11.880	88.46 *	12.890	216.0 *	12.760	194.8 *	10.900	28.20 *	10.350	0.000	10.195	0.000
28	11.550	62.56 *	12.670	181.0 *	12.320	134.1 *	10.860	26.68 *	10.300	0.000	10.180	0.000
29	10.980	31.41 *	12.290	130.5 *	12.450	150.3 *	10.790	23.70	10.340	0.000	10.160	0.000
30	11.050	34.44 *	12.120	108.4	12.500	156.9 *	10.740	22.49 *	10.370	0.000	10.140	0.000
31			12.370	140.2 *	12.120	111.6 *			10.380	0.000		
Ten-Daily Mean												
I Ten-Daily	9.959	0.000	11.423	63.49	12.640	186.8	11.262	45.95	11.232	44.69	10.383	2.618
II Ten-Daily	10.699	18.55	11.468	65.37	12.141	122.0	11.872	89.43	10.790	24.57	10.173	0.000
III Ten-Daily	12.498	209.2	12.545	172.8	11.880	98.49	11.077	36.91	10.436	8.646	10.156	0.000
Monthly												
Min.	9.850	0.000	10.795	24.35	11.320	48.11	10.740	22.49	10.300	0.000	10.050	0.000
Max.	14.100	501.8	13.480	333.8	13.520	343.2	12.380	141.4	11.920	92.05	10.470	13.09
Mean	11.052	75.9	11.835	102.9	12.209	134.6	11.404	57.43	10.807	25.41	10.237	0.873

Annual Runoff in MCM = 1052 Annual Runoff in mm = 1739

Peak Observed Discharge = 153.5 cumecs on 01/07/2015 Corres. Water Level :12.495 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :9.88 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	10.130	0.000	10.000	0.000	9.940	0.000	9.900	0.000	9.840	0.000	9.790	0.000
2	10.120	0.000	10.000	0.000	9.940	0.000	9.900	0.000	9.840	0.000	9.790	0.000
3	10.110	0.000	10.000	0.000	9.940	0.000	9.900	0.000	9.840	0.000	9.780	0.000
4	10.100	0.000	9.990	0.000	9.940	0.000	9.900	0.000	9.830	0.000	9.780	0.000
5	10.090	0.000	9.990	0.000	9.940	0.000	9.900	0.000	9.830	0.000	9.780	0.000
6	10.090	0.000	9.990	0.000	9.935	0.000	9.900	0.000	9.830	0.000	9.780	0.000
7	10.080	0.000	9.980	0.000	9.930	0.000	9.895	0.000	9.825	0.000	9.780	0.000
8	10.070	0.000	9.980	0.000	9.930	0.000	9.895	0.000	9.825	0.000	9.780	0.000
9	10.070	0.000	9.980	0.000	9.930	0.000	9.890	0.000	9.820	0.000	9.780	0.000
10	10.060	0.000	9.980	0.000	9.930	0.000	9.890	0.000	9.820	0.000	9.780	0.000
11	10.060	0.000	9.970	0.000	9.925	0.000	9.890	0.000	9.820	0.000	9.780	0.000
12	10.060	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.770	0.000
13	10.050	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.770	0.000
14	10.050	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.760	0.000
15	10.050	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.750	0.000
16	10.040	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.740	0.000
17	10.040	0.000	9.970	0.000	9.920	0.000	9.890	0.000	9.810	0.000	9.730	0.000
18	10.040	0.000	9.970	0.000	9.910	0.000	9.890	0.000	9.810	0.000	9.720	0.000
19	10.030	0.000	9.960	0.000	9.910	0.000	9.880	0.000	9.805	0.000	9.710	0.000
20	10.030	0.000	9.960	0.000	9.910	0.000	9.875	0.000	9.805	0.000	9.700	0.000
21	10.030	0.000	9.960	0.000	9.910	0.000	9.870	0.000	9.805	0.000	9.690	0.000
22	10.020	0.000	9.960	0.000	9.910	0.000	9.865	0.000	9.800	0.000	9.680	0.000
23	10.020	0.000	9.960	0.000	9.910	0.000	9.860	0.000	9.800	0.000	9.680	0.000
24	10.010	0.000	9.950	0.000	9.910	0.000	9.860	0.000	9.800	0.000	9.680	0.000
25	10.010	0.000	9.950	0.000	9.910	0.000	9.860	0.000	9.795	0.000	9.680	0.000
26	10.010	0.000	9.950	0.000	9.905	0.000	9.860	0.000	9.795	0.000	9.690	0.000
27	10.010	0.000	9.950	0.000	9.905	0.000	9.860	0.000	9.795	0.000	9.690	0.000
28	10.010	0.000	9.950	0.000	9.900	0.000	9.860	0.000	9.795	0.000	9.680	0.000
29	10.010	0.000	9.950	0.000	9.900	0.000	9.850	0.000	9.795	0.000	9.680	0.000
30	10.000	0.000	9.950	0.000			9.850	0.000	9.790	0.000	9.670	0.000
31	10.000	0.000	9.950	0.000			9.850	0.000			9.670	0.000
Ten-Daily Mean												
I Ten-Daily	10.092	0.000	9.989	0.000	9.936	0.000	9.897	0.000	9.830	0.000	9.782	0.000
II Ten-Daily	10.045	0.000	9.968	0.000	9.918	0.000	9.887	0.000	9.810	0.000	9.743	0.000
III Ten-Daily	10.012	0.000	9.953	0.000	9.907	0.000	9.859	0.000	9.797	0.000	9.681	0.000
Monthly												
Min.	10.000	0.000	9.950	0.000	9.900	0.000	9.850	0.000	9.790	0.000	9.670	0.000
Max.	10.130	0.000	10.000	0.000	9.940	0.000	9.900	0.000	9.840	0.000	9.790	0.000
Mean	10.048	0	9.969	0	9.920	0	9.880	0	9.812	0	9.734	0

Peak Computed Discharge = 501.8 cumecs on 21/06/2015 **Corres. Water Level :14.1 m**

Lowest Computed Discharge = 13.09 cumecs on 01/11/2015 **Corres. Water Level :10.395 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

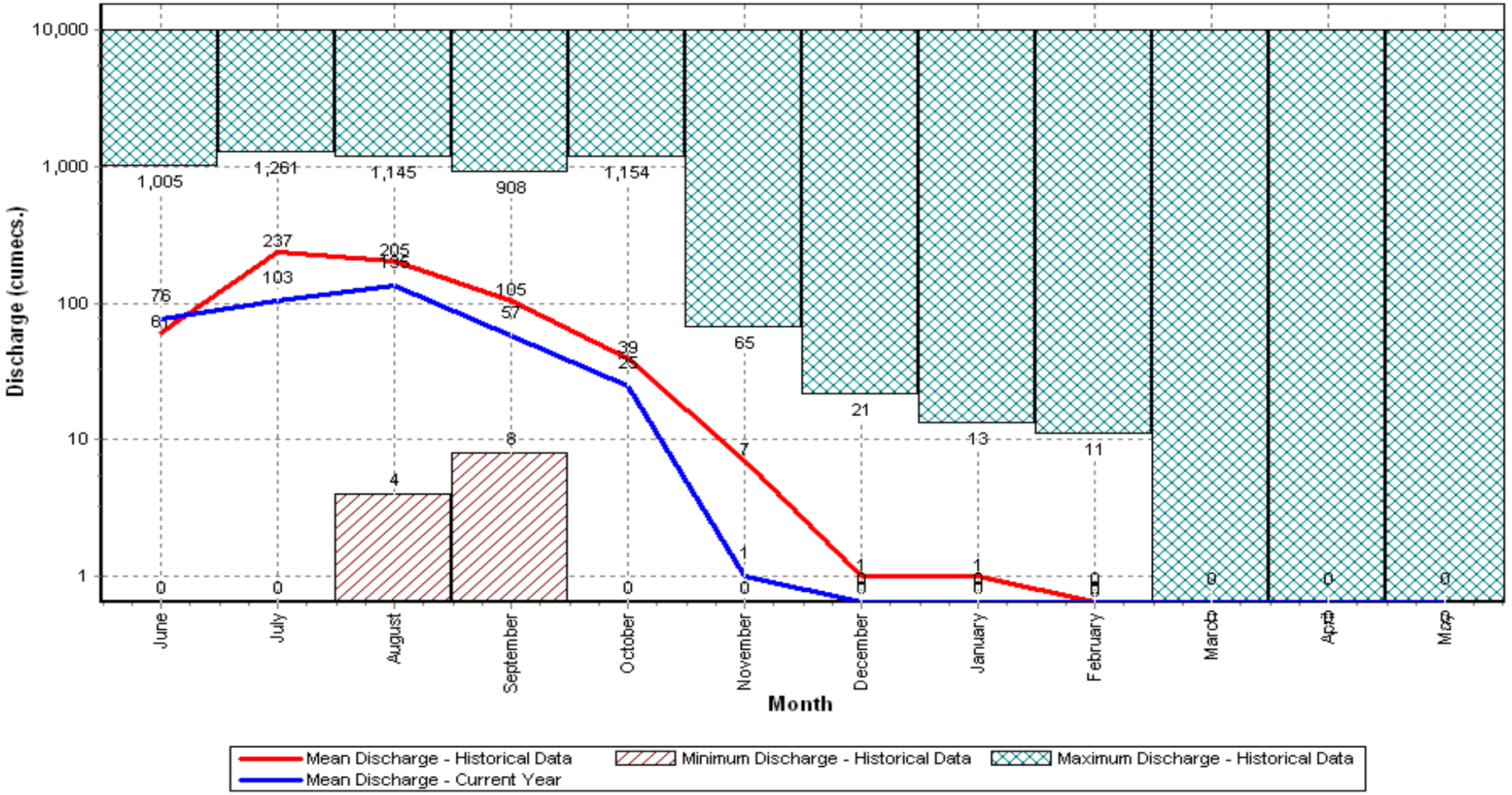
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE) **Data considered : 2001-2016** **Division : Upper Krishna Divn, Pune**

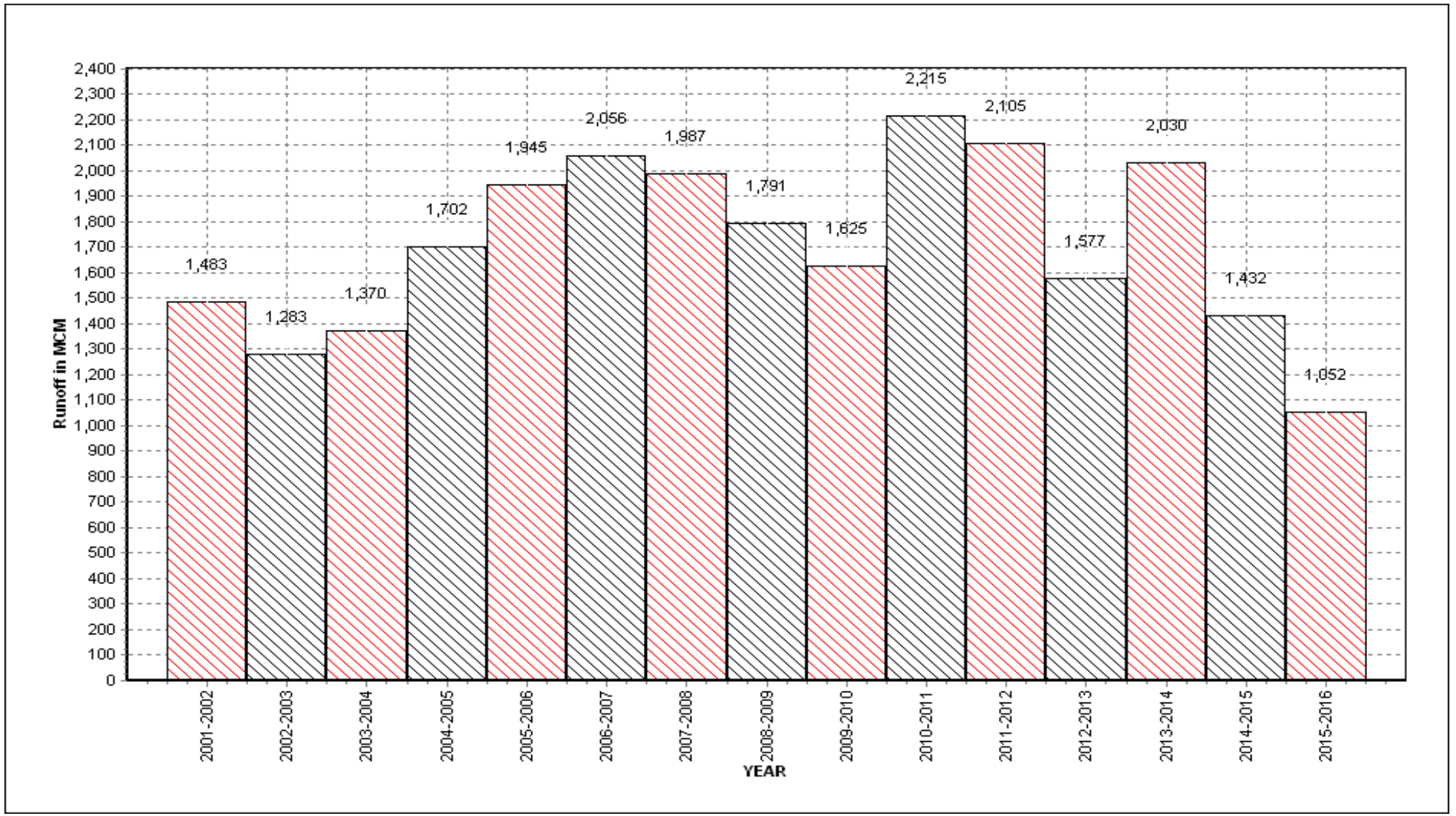
Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**



Annual Runoff Values for the period: 2001 - 2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**

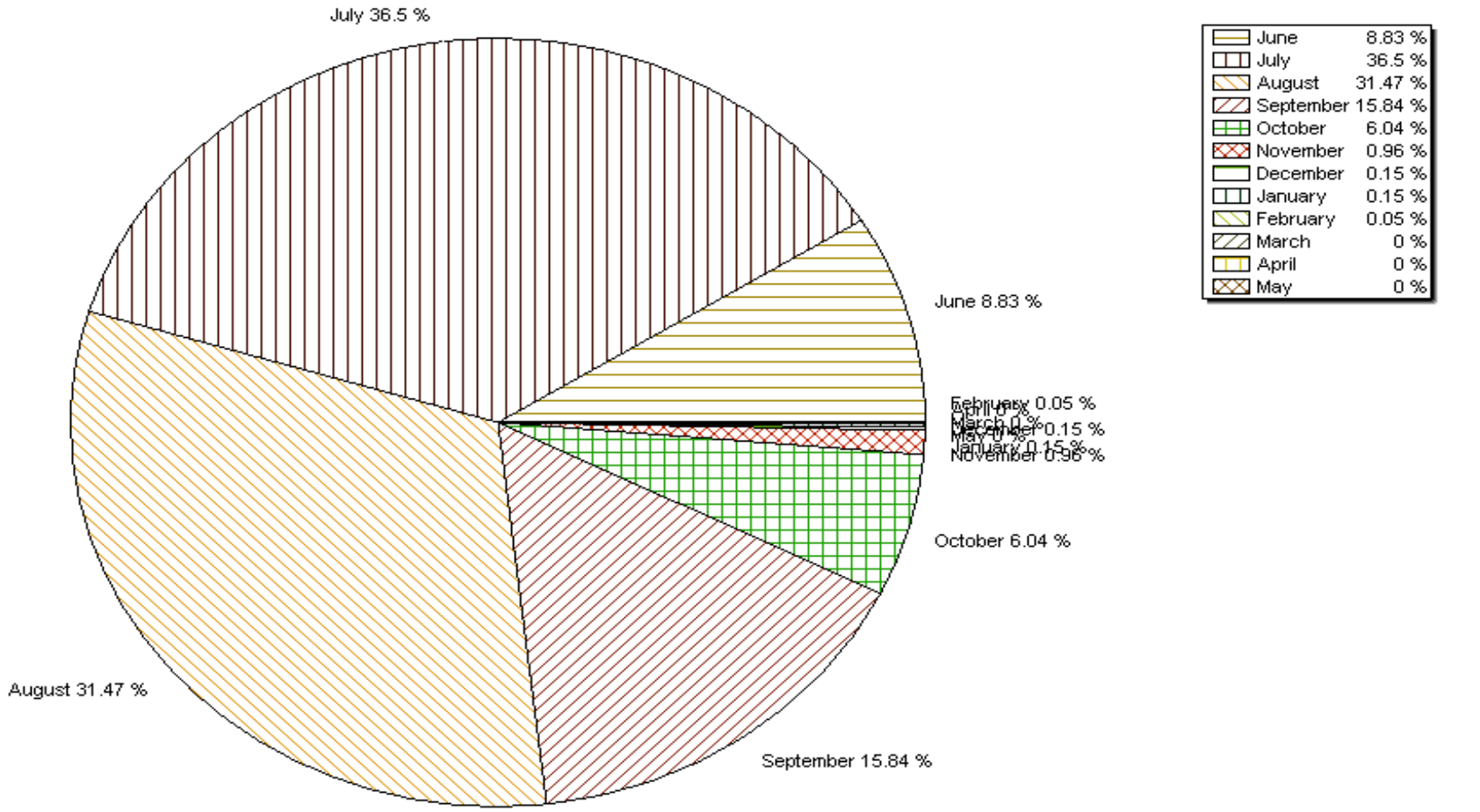


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2001-2015

Station Name : Belne Bridge (BELNE BRIDGE)
Local River : Gad

Division : Upper Krishna Divn, Pune
Sub-Division : South Western Rivers SD 4,Goa



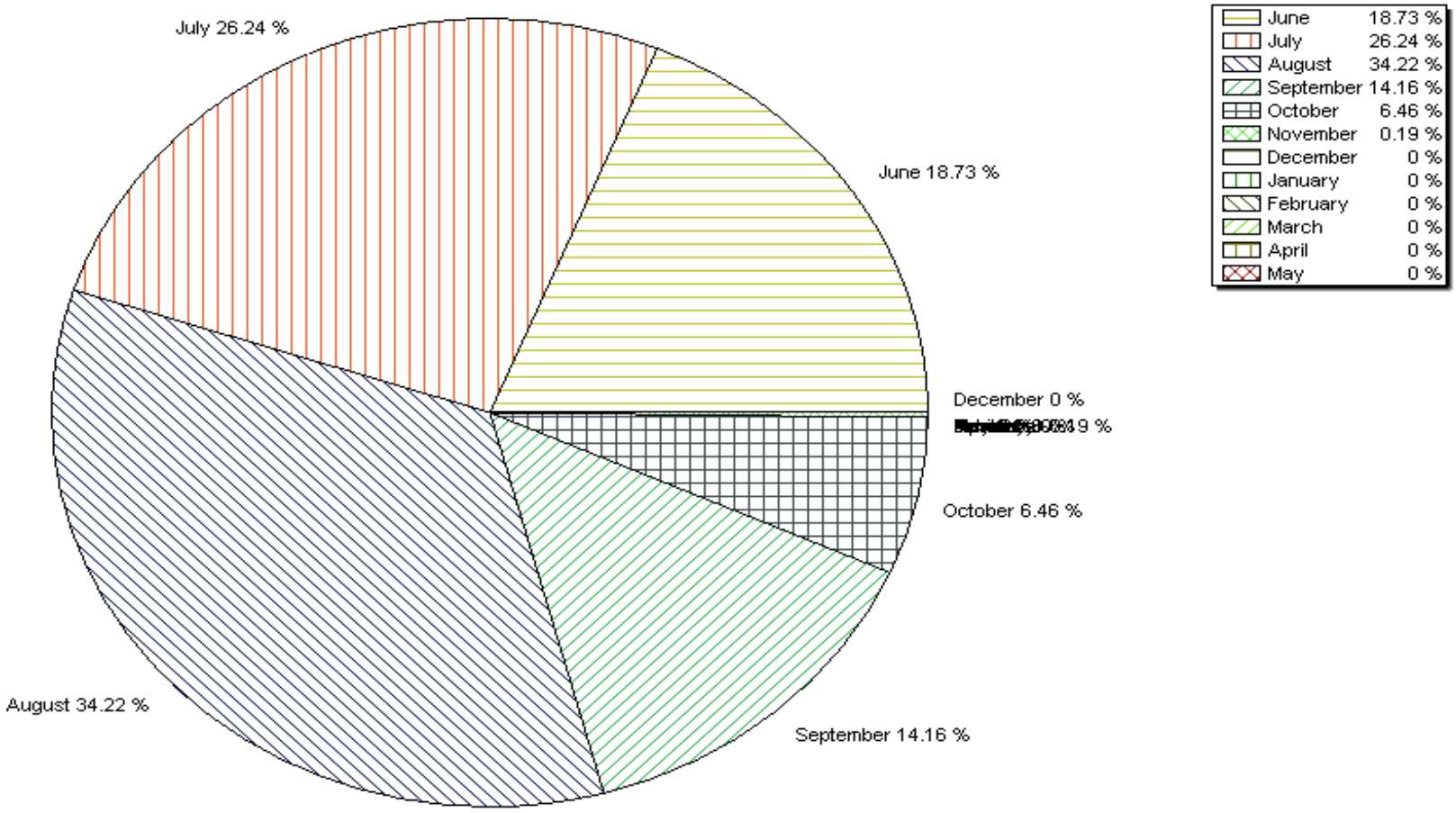
Monthly Runoff for the Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE)

Local River : Gad

Division : Upper Krishna Divn, Pune

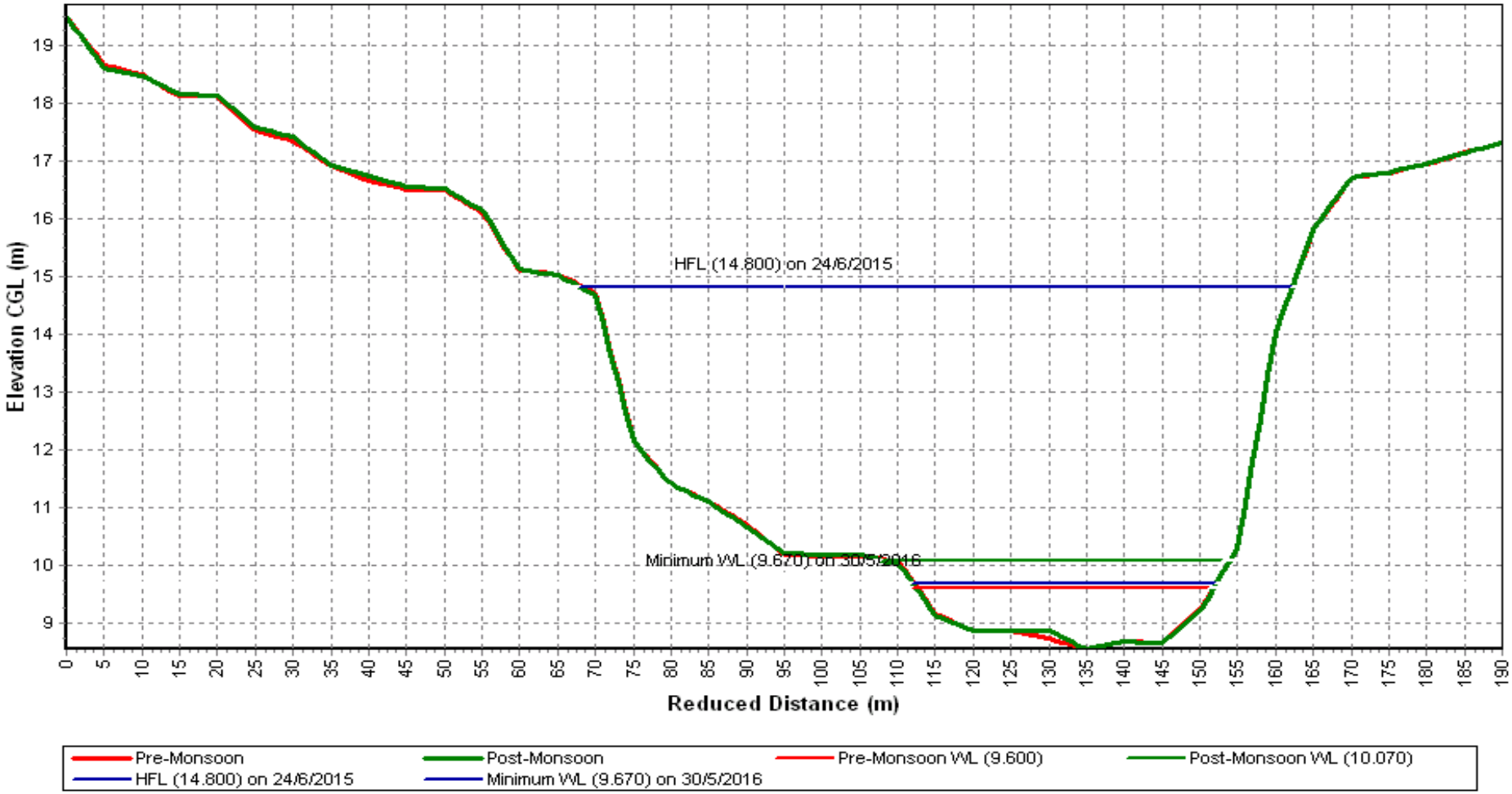
Sub-Division : South Western Rivers SD 4,Goa



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

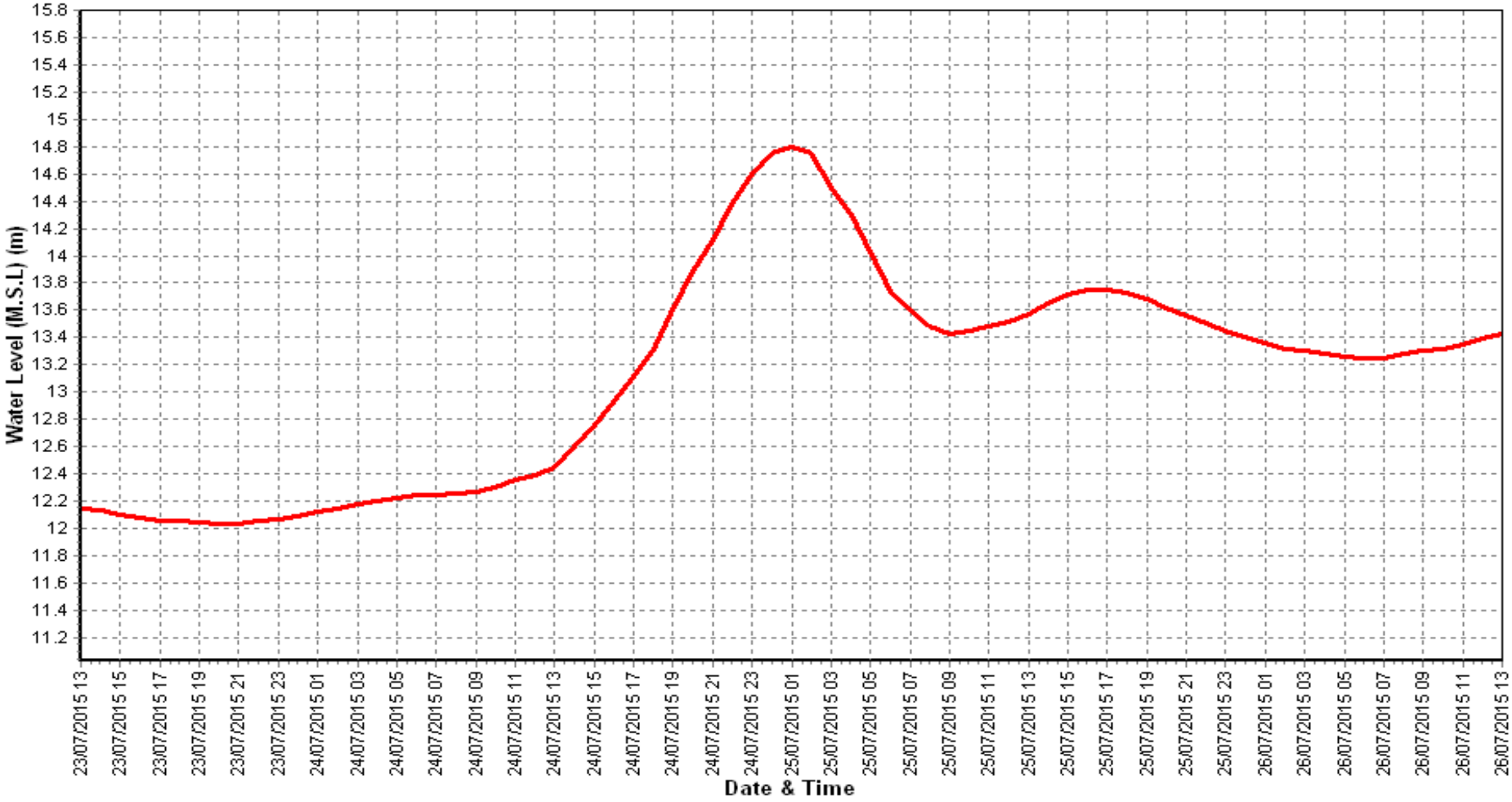
Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**

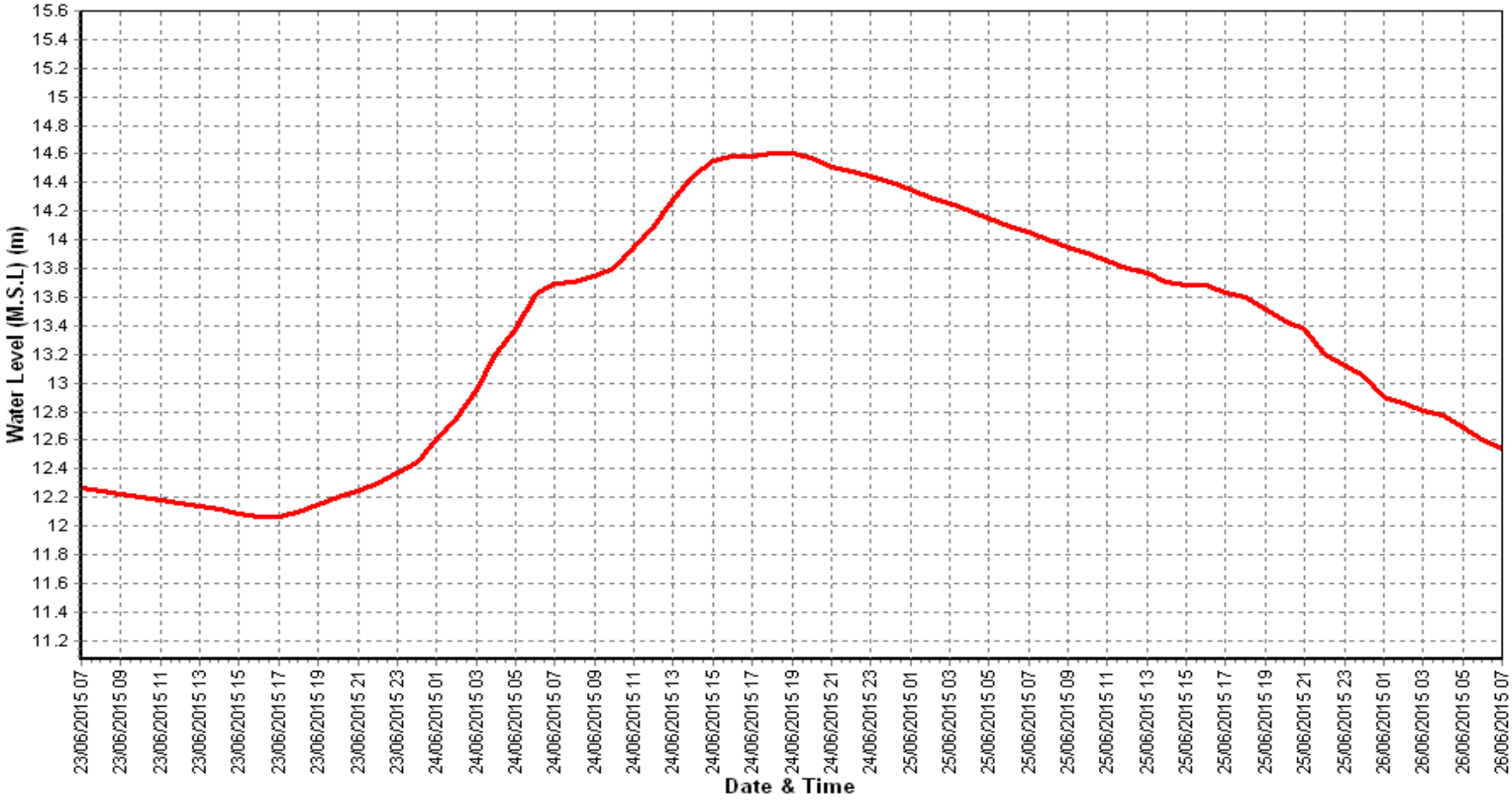


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**

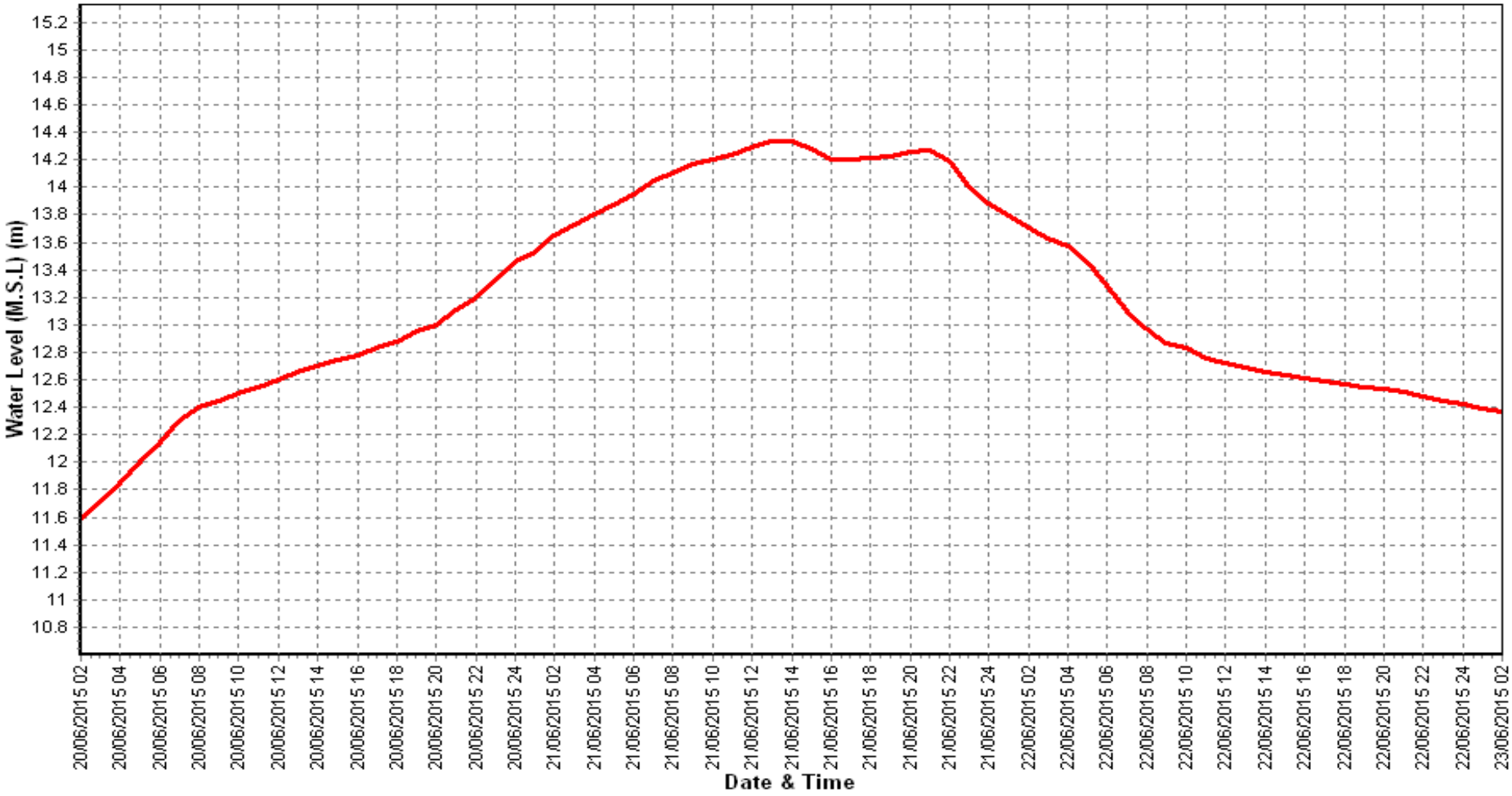


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Belne Bridge (BELNE BRIDGE) **Division : Upper Krishna Divn, Pune**

Local River : Gad **Sub-Division : South Western Rivers SD 4,Goa**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Ganjim**		**Code**	**: WM000P8**	
State	: Goa		District	North Goa	
Basin	: WFR South of Tapi		Independent River	: Mandovi	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Mandovi	
Division	: Upper Krishna Divn, Pune		Sub-Division	: South Western Rivers SD 4,Goa	
Drainage Area	: 880 Sq. Km.		Bank	: Left	
Latitude	: 15°28'16"		Longitude	: 74°05'58"	
Zero of Gauge (m)	: 0.000 (m.s.l)		01/01/1979		
	Opening Date		Closing Date		
Gauge	: 20/01/1979				
Discharge	: 20/01/1979				
Sediment	:				
Water Quality	:				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1979-1980	1650	8.210	11/08/1979	0.500	1.605	02/06/1979
1980-1981	2837	9.535	02/07/1980	0.395	1.540	03/06/1980
1981-1982	1570	7.160	02/08/1981	0.398	1.550	15/05/1982
1982-1983	4746	12.510	29/07/1982	0.400	1.490	13/05/1983
1983-1984	1910	8.205	12/08/1983	0.400	1.510	28/05/1984
1984-1985	3013	10.125	01/07/1984	0.400	1.510	02/06/1984
1985-1986	2868	9.815	01/08/1985	0.600	1.470	30/04/1986
1986-1987	2654	9.080	08/08/1986	0.200	1.560	09/05/1987
1987-1988	985.4	6.453	08/07/1987	0.177	1.600	23/05/1988
1988-1989	3454	10.620	18/07/1988	0.313	1.580	02/05/1989
1989-1990	1995	8.570	24/07/1989	0.100	1.470	02/05/1990
1990-1991	1766	7.910	03/07/1990	0.500	1.595	15/05/1991
1991-1992	2403	8.880	26/07/1991	0.000	1.520	17/05/1992
1992-1993	1835	8.140	26/07/1992	0.450	1.610	29/04/1993
1993-1994	1613	8.700	11/07/1993	0.450	1.580	23/05/1994
1994-1995	2066	8.620	14/07/1994	0.700	1.600	01/06/1994
1995-1996	1555	7.375	21/07/1995	0.698	1.410	27/05/1996
1996-1997	1050	6.210	20/07/1996	0.220	1.490	30/05/1997
1997-1998	1678	7.765	30/07/1997	0.220	1.490	01/06/1997

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1998-1999	805.0	5.750	09/07/1998	0.000	1.470	13/05/1999
1999-2000	2865	9.870	22/07/1999	0.000	1.600	04/05/2000
2000-2001	1736	8.380	12/06/2000	0.382	1.550	11/05/2001
2001-2002	1276	7.240	09/07/2001	0.161	1.540	07/05/2002
2002-2003	1978	8.550	09/08/2002	0.000	1.500	28/05/2003
2003-2004	829.7	5.745	07/07/2003	0.000	1.440	07/06/2003
2004-2005	1850	8.240	04/08/2004	0.000	1.525	25/05/2005
2005-2006	2375	9.620	25/07/2005	0.000	1.680	01/06/2005
2006-2007	1386	7.400	08/08/2006	0.000	2.660	31/01/2007
2007-2008	1867	8.190	09/07/2007	0.000	4.290	15/03/2008
2008-2009	2659	9.680	11/08/2008	0.000		26/01/2009
2009-2010	1266	7.570	15/07/2009	0.000	4.690	25/01/2010
2010-2011	1297	7.650	31/07/2010	0.000	5.950	13/05/2011
2011-2012	1682	8.750	03/09/2011	0.000	3.100	21/11/2011
2012-2013	1154	7.500	27/07/2012	0.000	5.190	25/01/2013
2013-2014	1493	8.100	26/07/2013	0.000	2.950	03/06/2013
2014-2015	1678	9.410	31/07/2014	0.000	3.210	01/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	4.440	262.7 *	4.195	236.2	4.750	307.4	3.905	144.6	3.570	64.99	3.370	29.72 *
2	4.500	277.4 *	4.400	253.0 *	4.750	339.9 *	3.890	134.6 *	3.980	154.6 *	3.330	23.68
3	4.500	277.4 *	4.190	202.9 *	4.505	252.1	3.805	130.0	3.790	112.8 *	3.310	21.07
4	4.510	279.9 *	3.890	141.9	4.270	221.8 *	3.740	102.2 *	3.710	95.85 *	3.290	16.27 *
5	4.620	307.2 *	3.720	97.95 *	4.230	212.3 *	3.690	91.68 *	4.040	162.3	3.520	57.49 *
6	4.200	205.2 *	3.620	77.31 *	5.315	506.3	3.640	81.38 *	4.125	185.4	3.365	29.72
7	3.910	139.0 *	3.540	61.38 *	5.400	510.2 *	3.610	77.56	4.145	191.3	3.350	26.25 *
8	3.875	127.5 #	3.700	93.76 *	6.910	938.7 *	3.630	80.70	3.910	139.0 *	3.320	21.17 *
9	3.850	125.8 #	4.520	282.3 *	5.530	545.5 *	3.670	87.54 *	3.780	110.7 *	3.300	15.72
10	3.850	125.8 *	4.970	396.3 *	4.975	376.2	3.760	106.4 *	3.690	91.68 *	3.300	17.88 *
11	3.700	93.76 *	4.380	248.1 *	4.840	350.1	3.920	141.8	3.640	81.38 *	3.280	14.69 *
12	3.670	87.54 *	4.230	212.3 *	4.650	314.7 *	3.750	104.3 *	3.630	80.22	3.300	15.74
13	3.570	67.29 *	4.310	257.0	4.580	297.2 *	3.720	97.95 *	3.590	70.29	3.280	14.69 *
14	3.630	79.34 *	4.300	251.4	4.560	292.2 *	3.825	130.1	3.560	65.31 *	3.280	14.69 *
15	3.490	51.72 *	4.100	181.9 *	4.700	327.2 *	4.000	159.2	3.530	58.29	3.280	14.69 *
16	3.330	22.84 *	3.950	147.9 *	4.590	299.7 *	4.400	253.0 *	3.490	51.72 *	3.280	11.05
17	3.340	24.54 *	4.050	162.1	4.320	208.2	4.500	277.4 *	3.470	49.94	3.280	14.69 *
18	3.100	11.10 *	4.540	287.3 *	4.150	193.5 *	4.690	324.7 *	3.550	63.34 *	3.270	13.13 *
19	3.390	29.53	4.430	260.3 *	4.040	168.2 *	4.410	255.4 *	3.545	58.56	3.260	9.906
20	4.240	191.4	6.095	714.9	3.915	146.0	4.160	195.9 *	3.470	50.07	3.220	7.306
21	4.370	245.7 *	4.885	365.0	4.090	179.6 *	4.060	166.2	3.430	40.49 *	3.340	23.50 #
22	4.785	344.6	4.950	391.2 *	4.140	191.2 *	3.990	156.9 *	3.420	38.66 *	3.260	11.59 *
23	4.605	272.3	4.750	339.9 *	4.050	170.5 *	3.880	132.4 *	3.400	35.04 *	3.740	100.1 #
24	5.220	462.0 *	4.795	357.5	3.925	147.7	3.790	116.0	3.380	31.48 *	3.730	100.1 *
25	5.400	510.2 *	5.530	568.9	3.840	123.6 *	3.730	100.1 *	3.370	29.72 *	3.730	100.1 *
26	4.720	332.3 *	5.290	480.7 *	3.930	143.4 *	3.690	97.02	3.360	29.16	3.720	97.95 *
27	4.175	230.1	5.315	505.7	4.040	168.2 *	3.660	85.48 *	3.340	24.54 *	3.710	95.85 #
28	3.980	154.6 *	5.140	440.8 *	4.335	216.6	3.630	80.10	3.340	25.36	3.720	97.95 *
29	3.815	135.8	4.690	324.7 *	4.380	226.1	3.620	78.75	3.330	23.90	3.710	95.85 *
30	3.930	148.6	4.440	262.7 *	4.310	231.3 *	3.590	71.27 *	3.310	19.52 *	3.720	
31			4.330	221.9	4.180	198.6			3.310	21.08		
Ten-Daily Mean												
I Ten-Daily	4.225	212.8	4.075	184.3	5.063	421.0	3.734	103.7	3.874	130.9	3.345	25.90
II Ten-Daily	3.546	65.91	4.439	272.3	4.435	259.7	4.137	194.0	3.547	62.91	3.273	13.06
III Ten-Daily	4.500	283.6	4.920	387.2	4.111	181.5	3.764	108.4	3.363	28.99	3.638	80.32
Monthly												
Min.	3.100	11.10	3.540	61.38	3.840	123.6	3.590	71.27	3.310	19.52	3.220	7.306
Max.	5.400	510.2	6.095	714.9	6.910	938.7	4.690	324.7	4.145	191.3	3.740	100.1
Mean	4.090	187.4	4.492	284.7	4.523	284	3.878	135.3	3.587	72.8	3.419	38.36

Annual Runoff in MCM = 4702 Annual Runoff in mm = 5343

Peak Observed Discharge = 714.9 cumecs on 20/07/2015 Corres. Water Level :6.095 m

Lowest Observed Discharge = 0.000 cumecs on 03/01/2016 Corres. Water Level :4.75 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**

Day	Dec			Jan			Feb		Mar		Apr		May	
	W.L	Q		WL	Q		WL	Q	WL	Q	WL	Q	WL	Q
1	3.720	97.95	#	4.700	327.2	#	6.060	0.000	5.710	0.000	4.560	0.000	3.330	0.000
2	4.230	212.3	*	4.700	327.2	#	6.050	0.000	5.670	0.000	4.520	0.000	3.250	0.000
3	4.280	224.2	*	4.750	0.000		6.050	0.000	5.620	0.000	4.490	0.000	3.160	0.000
4	4.260	219.4	#	4.970	0.000		6.050	0.000	5.560	0.000	4.460	0.000	3.110	0.000
5	4.260	219.4	#	5.090	0.000		6.050	0.000	5.500	0.000	4.430	0.000	3.100	0.000
6	4.200	205.2	*	5.300	0.000		6.040	0.000	5.400	0.000	4.390	0.000	3.100	0.000
7	4.170	198.2	#	5.470	0.000		6.040	0.000	5.300	0.000	4.340	0.000	3.100	0.000
8	4.230	212.3	#	5.650	0.000		6.040	0.000	5.280	0.000	4.320	0.000	3.100	0.000
9	4.240	214.7	*	5.810	0.000		6.040	0.000	5.230	0.000	4.320	0.000	3.100	0.000
10	4.240	214.7	*	5.980	0.000		6.030	0.000	5.200	0.000	4.290	0.000	3.100	0.000
11	4.240	214.7	#	6.090	701.1	#	6.030	0.000	5.150	0.000	4.260	0.000	3.100	0.000
12	4.240	214.7	*	6.090	701.1	#	6.030	0.000	5.130	0.000	4.160	0.000	3.080	0.000
13	4.250	217.0	*	6.090	701.1	*	6.020	0.000	5.120	0.000	4.160	0.000	3.040	0.000
14	4.250	217.0	#	6.090	701.1	*	6.020	0.000	5.100	0.000	4.110	0.000	2.980	0.000
15	4.250	217.0	#	6.090	701.1	#	6.010	0.000	5.090	0.000	4.080	0.000	2.960	0.000
16	4.710	329.8	*	6.090	701.1	*	6.010	0.000	5.090	0.000	4.070	0.000	2.900	0.000
17	4.740	337.3	*	6.090	701.1	*	6.000	0.000	5.090	0.000	4.030	0.000	3.040	0.000
18	4.740	337.3	*	6.080	698.3	#	6.000	0.000	5.090	0.000	3.980	0.000	3.100	0.000
19	4.740	337.3	#	6.080	698.3	#	5.990	0.000	5.090	0.000	3.920	0.000	3.130	0.000
20	4.740	337.3	*	6.080	698.3	*	5.980	0.000	5.080	0.000	3.890	0.000	3.310	0.000
21	4.720	334.8	#	6.080	698.3	*	5.970	0.000	5.020	0.000	3.860	0.000	3.350	0.000
22	4.730	334.8	#	6.080	698.3	#	5.970	0.000	4.960	0.000	3.840	0.000	3.350	0.000
23	4.730	334.8	*	6.080	698.3	#	5.960	0.000	4.900	0.000	3.800	0.000	3.320	0.000
24	4.710	329.8	*	6.080	698.3	*	5.950	0.000	4.860	0.000	3.740	0.000	3.260	0.000
25	4.780	347.5	*	6.070	695.5	#	5.940	0.000	4.820	0.000	3.710	0.000	3.220	0.000
26	4.710	329.8	*	6.070	695.5	*	5.880	0.000	4.800	0.000	3.650	0.000	3.170	0.000
27	4.730	334.8	*	6.070	695.5	#	5.850	0.000	4.770	0.000	3.550	0.000	3.130	0.000
28	4.720	332.3	#	6.070	695.5	#	5.800	0.000	4.740	0.000	3.490	0.000	3.110	0.000
29	4.680	322.2	#	6.060	692.6	*	5.750	0.000	4.700	0.000	3.470	0.000	3.100	0.000
30	4.690	324.7	*	6.060	692.6	*			4.650	0.000	3.400	0.000	3.080	0.000
31	4.700	327.2	*	6.060	692.6	*			4.600	0.000			3.070	0.000
Ten-Daily Mean														
I Ten-Daily	4.183	201.8		5.242	65.45		6.045	0.000	5.447	0.000	4.412	0.000	3.145	0.000
II Ten-Daily	4.490	276.0		6.087	700.3		6.009	0.000	5.103	0.000	4.066	0.000	3.064	0.000
III Ten-Daily	4.718	332.1		6.071	695.7		5.897	0.000	4.802	0.000	3.651	0.000	3.196	0.000
Monthly														
Min.	3.720	97.95		4.700	0.000		5.750	0.000	4.600	0.000	3.400	0.000	2.900	0.000
Max.	4.780	347.5		6.090	701.1		6.060	0.000	5.710	0.000	4.560	0.000	3.350	0.000
Mean	4.472	271.9		5.809	493.9		5.987	0	5.107	0	4.043	0	3.137	0

Peak Computed Discharge = 938.7 cumecs on 08/08/2015 **Corres. Water Level :6.91 m**

Lowest Computed Discharge = 11.10 cumecs on 18/06/2015 **Corres. Water Level :3.1 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

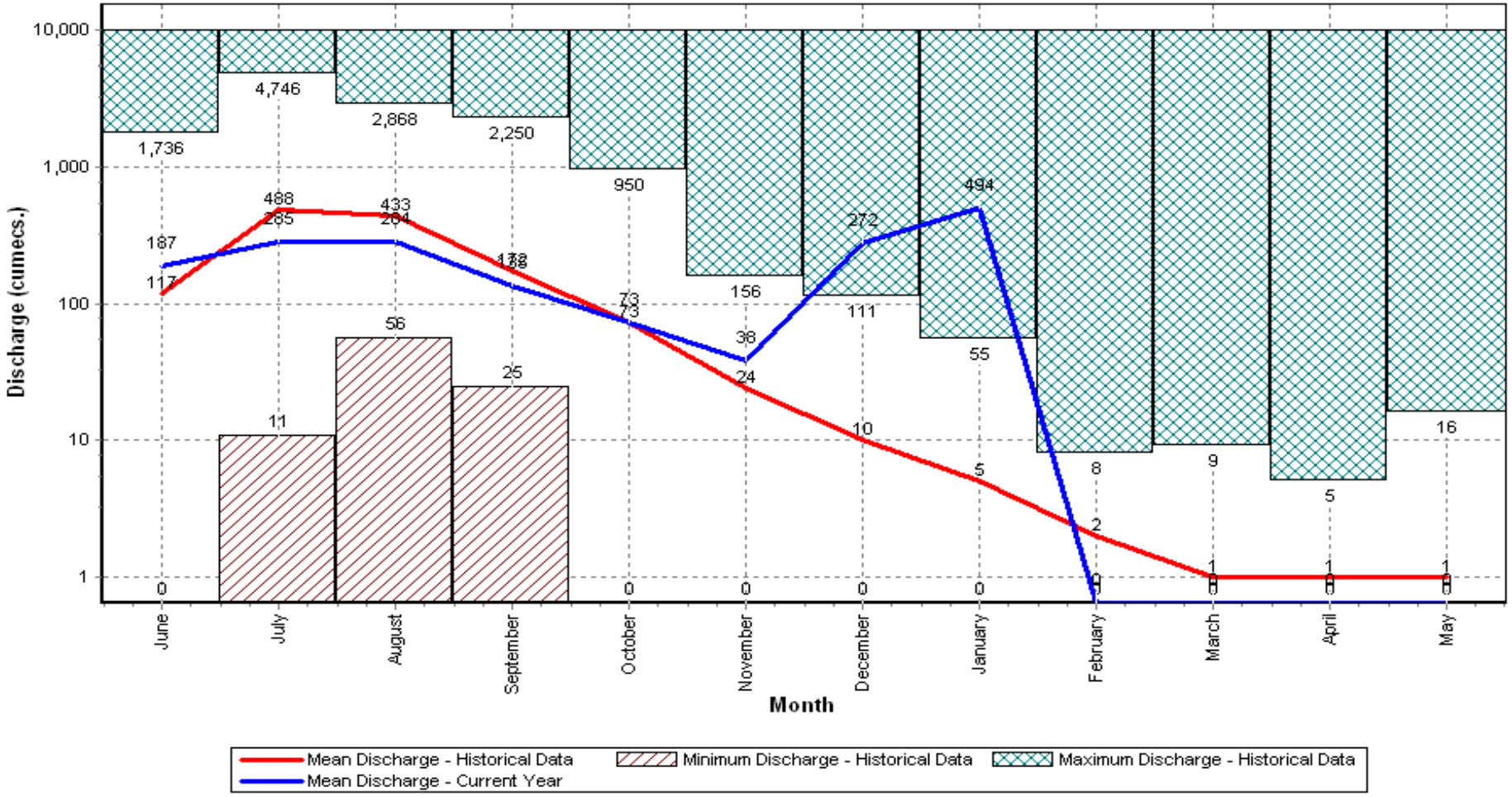
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Ganjim (WM000P8) | **Data considered : 1979-2016** | **Division : Upper Krishna Divn, Pune**

Local River : Mandovi | **Sub-Division : South Western Rivers SD 4,Goa**



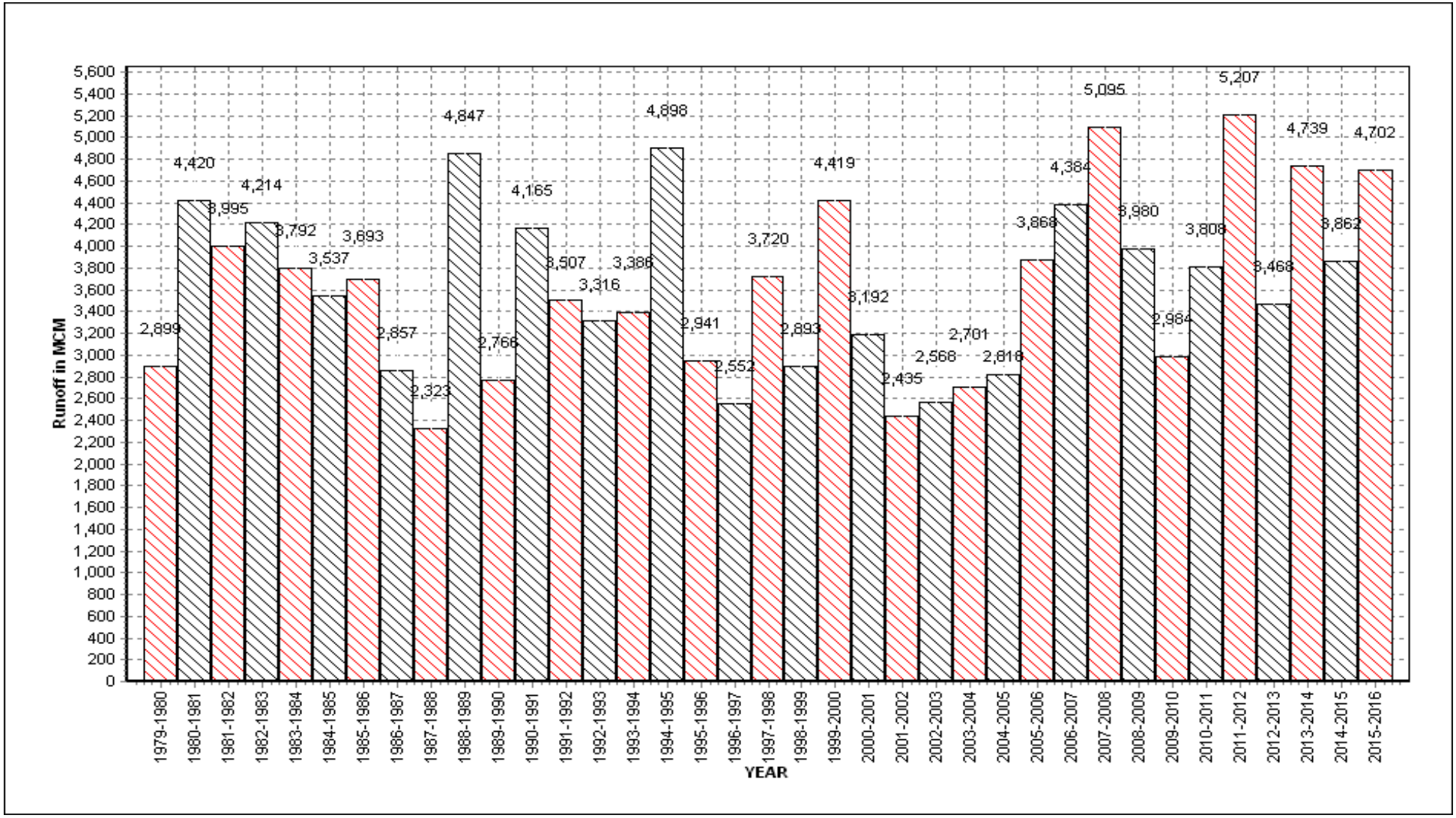
Annual Runoff Values for the period: 1979 - 2016

Station Name : Ganjim (WM000P8)

Division : Upper Krishna Divn, Pune

Local River : Mandovi

Sub-Division : South Western Rivers SD 4,Goa

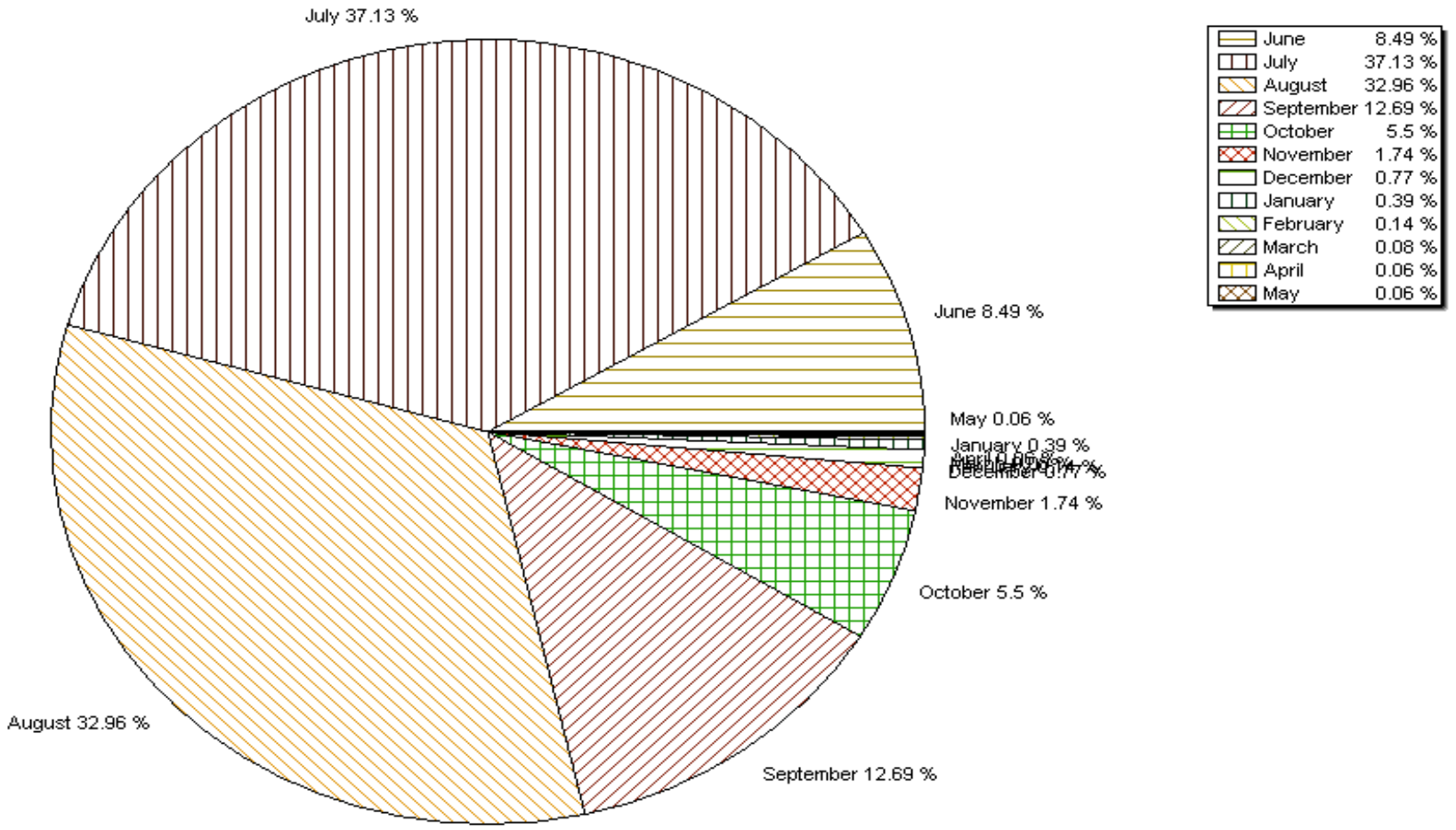


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1979-2015

Station Name : Ganjim (WM000P8)
Local River : Mandovi

Division : Upper Krishna Divn, Pune
Sub-Division : South Western Rivers SD 4,Goa



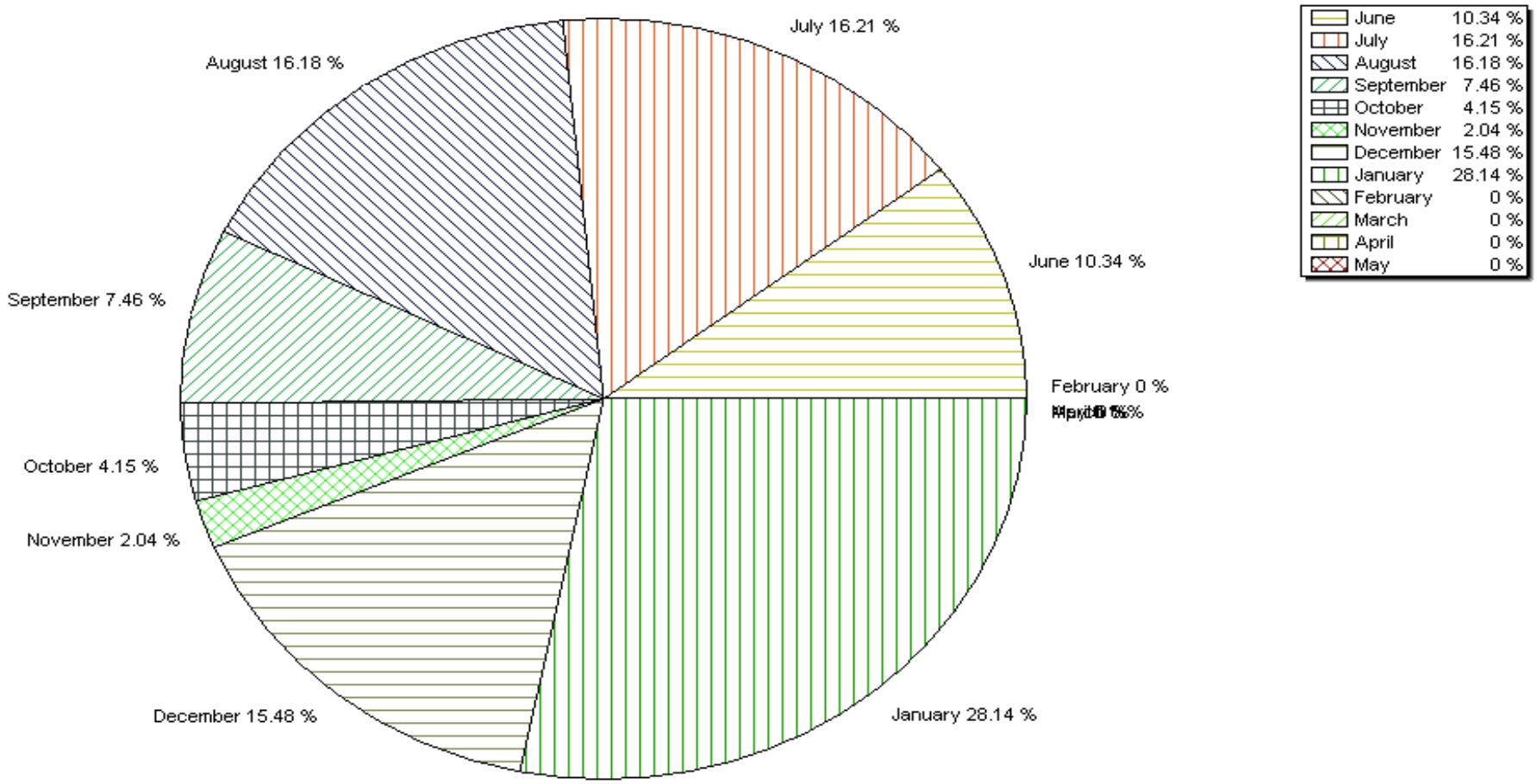
Monthly Runoff for the Year : 2015-2016

Station Name : Ganjim (WM000P8)

Local River : Mandovi

Division : Upper Krishna Divn, Pune

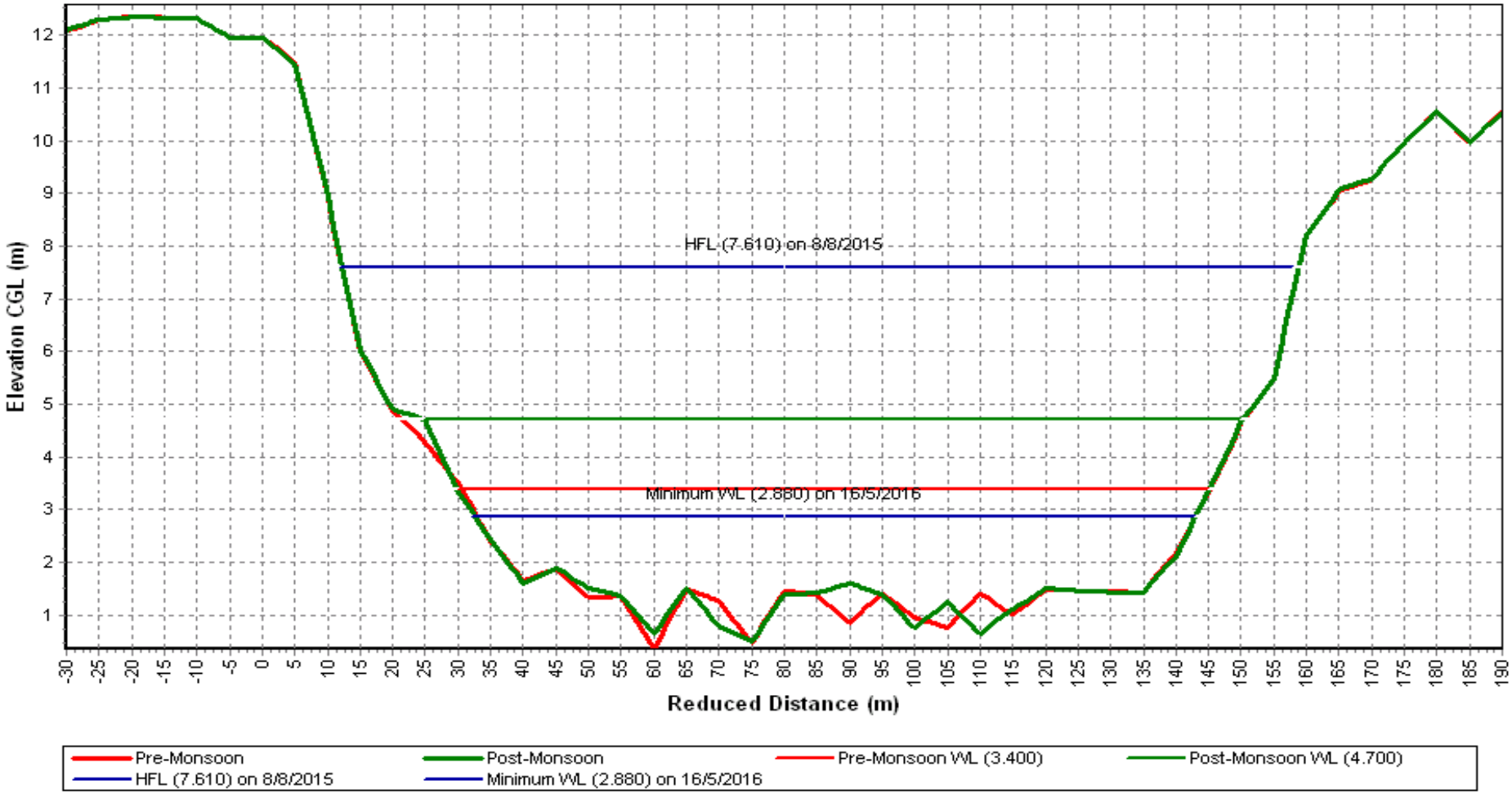
Sub-Division : South Western Rivers SD 4,Goa



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

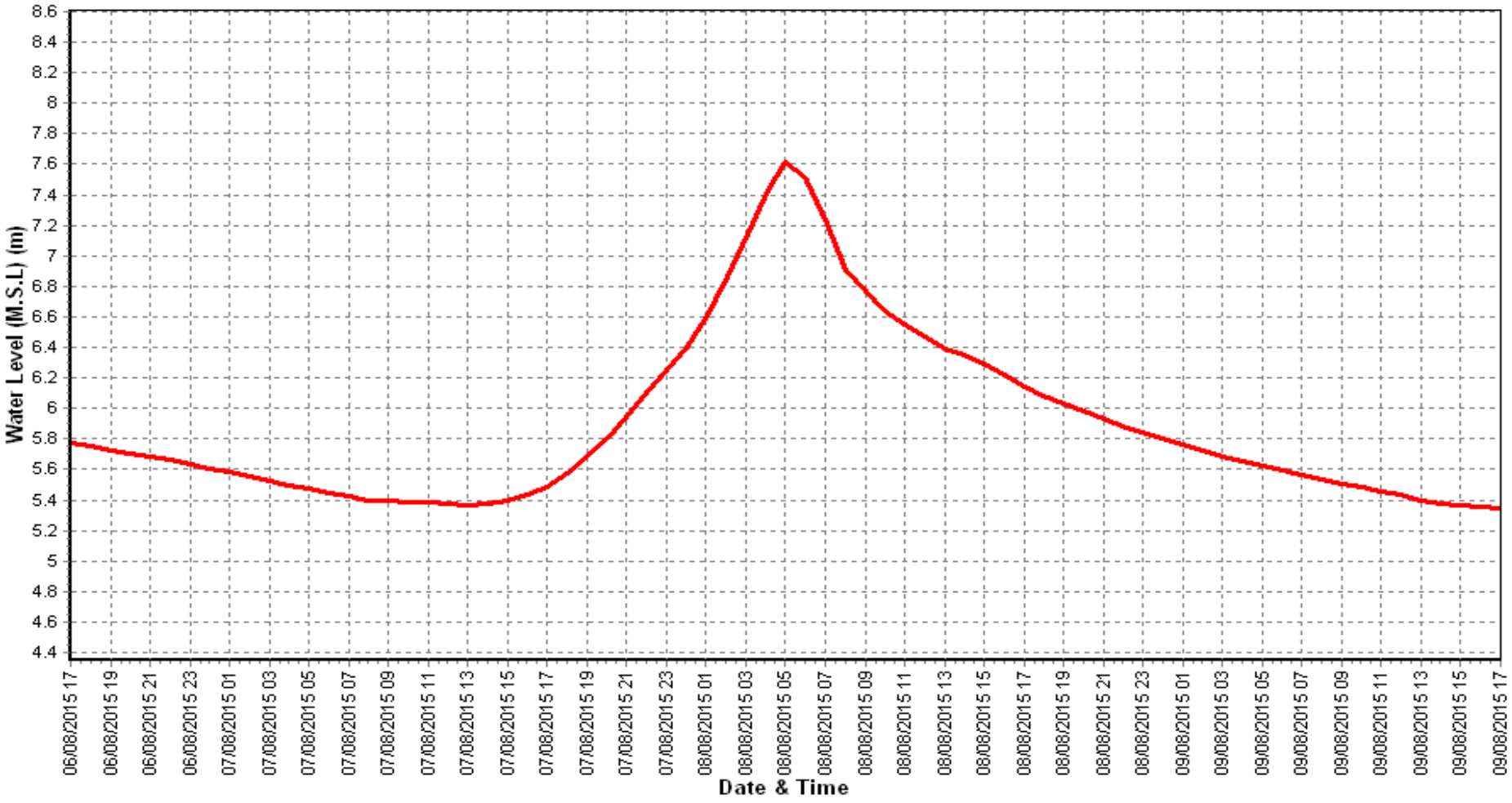
Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**

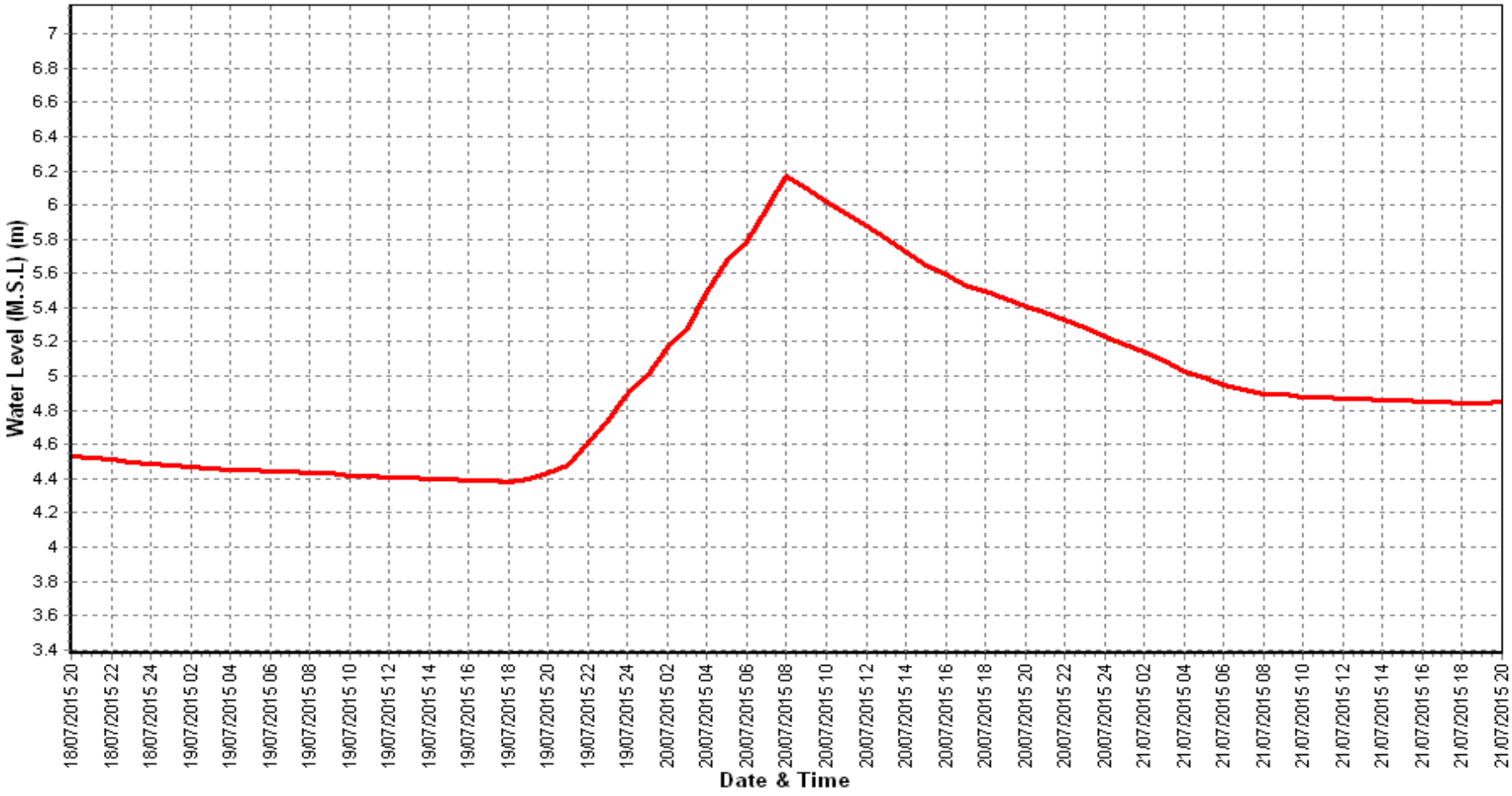


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**

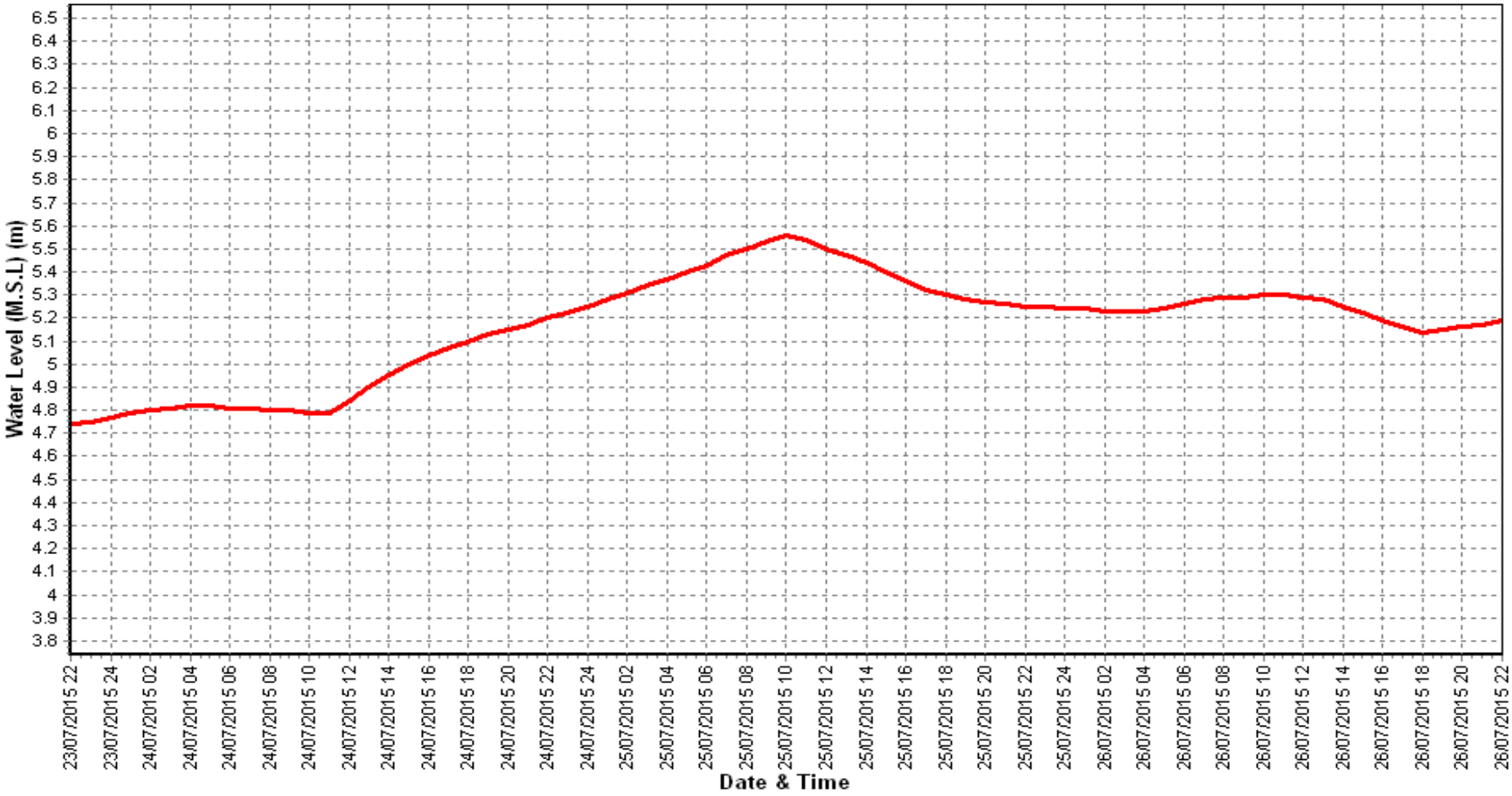


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Ganjim (WM000P8) **Division : Upper Krishna Divn, Pune**

Local River : Mandovi **Sub-Division : South Western Rivers SD 4,Goa**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**:**	**Collem**	**Code**	**:**	**WMA00E7**
State	:	Goa	District		South Goa
Basin	:	WFR South of Tapi	Independent River	:	Mandovi
Tributary	:	Khandepar	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Khandepar
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	South Western Rivers SD 4,Goa
Drainage Area	:	117 Sq. Km.	Bank	:	Left
Latitude	:	15°20'20"	Longitude	:	74°14'55"
Zero of Gauge (m)	:	65.000 (m.s.l)	01/12/1979		
		Opening Date	Closing Date		
Gauge	:	15/12/1979			
Discharge	:	15/12/1979			
Sediment	:				
Water Quality	:				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1980-1981	409.1	69.765	02/07/1980	0.210	66.585	01/06/1980
1981-1982	237.0	69.125	05/06/1981	0.190	66.540	14/05/1982
1982-1983	232.8	69.410	29/07/1982	0.300	66.520	21/04/1983
1983-1984	416.3	70.670	12/08/1983	0.000	66.920	07/04/1984
1984-1985	435.0	69.955	18/07/1984	0.000	66.975	27/04/1985
1985-1986	617.5	71.550	01/08/1985	0.000	67.040	18/04/1986
1986-1987	355.2	70.420	07/08/1986	0.000	67.050	13/06/1986
1987-1988	158.7	68.712	07/07/1987	0.311	66.970	17/03/1988
1988-1989	423.9	70.303	18/07/1988	0.331	67.015	27/02/1989
1989-1990	229.4	69.715	22/07/1989	0.200	66.880	01/04/1990
1990-1991	325.8	70.320	18/07/1990	0.260	66.920	25/03/1991
1991-1992	156.8	68.985	26/07/1991	0.000	66.850	19/04/1992
1992-1993	424.2	71.100	21/07/1992	0.000	66.875	14/06/1992
1993-1994	182.2	69.820	12/08/1993	0.000	66.890	25/04/1994
1994-1995	240.0	69.740	30/06/1994	0.000	66.990	15/04/1995
1995-1996	225.0	69.870	18/10/1995	0.000	66.995	06/05/1996
1996-1997	260.7	70.125	21/07/1996	0.000	66.900	06/05/1997
1997-1998	310.0	70.350	31/07/1997	0.000	66.965	14/05/1998
1998-1999	144.0	69.000	13/09/1998	0.000	66.945	07/05/1999

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1999-2000	442.0	71.520	22/07/1999	0.000	66.945	02/06/1999
2000-2001	223.0	70.050	09/07/2000	0.100	66.995	19/04/2001
2001-2002	115.2	68.690	09/07/2001	0.200	67.000	02/06/2001
2002-2003	220.8	70.070	11/08/2002	0.250	66.900	02/05/2003
2003-2004	97.23	68.400	05/08/2003	0.160	66.900	08/06/2003
2004-2005	211.8	70.020	03/08/2004	0.000	66.890	29/04/2005
2005-2006	270.0	70.340	25/07/2005	0.000	66.920	14/06/2005
2006-2007	220.7	69.500	08/08/2006	0.000	66.970	31/05/2007
2007-2008	258.0	70.125	05/08/2007	0.000	66.975	14/06/2007
2008-2009	442.8	71.550	10/08/2008	0.000	66.910	02/04/2009
2009-2010	299.7	70.550	15/07/2009	0.000	66.890	24/04/2010
2010-2011	173.0	69.385	26/07/2010	0.000	66.870	22/03/2011
2011-2012	189.9	70.050	04/08/2011	0.000	66.830	01/06/2011
2012-2013	103.7	68.813	03/08/2012	0.000	66.785	09/04/2013
2013-2014	265.7	70.350	03/07/2013	0.000	66.785	01/06/2013
2014-2015	117.0	69.050	21/07/2014	0.000	66.585	25/04/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Collem (WMA00E7) **Division : Upper Krishna Divn, Pune**

Local River : Khandepar **Sub-Division : South Western Rivers SD 4,Goa**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	66.585	0.000	67.220	12.78 *	67.800	39.61 *	67.160	10.71 *	66.950	4.652 *	66.830	2.140 *
2	66.585	0.000	67.160	10.61	67.610	29.56 *	67.110	10.86	66.940	4.415 *	66.825	2.053 *
3	66.585	0.000	67.125	9.171	67.410	20.27 *	67.080	8.171 *	66.960	4.584	66.820	1.966 *
4	66.585	0.000	67.090	8.473 *	67.330	18.39	67.050	6.111 #	66.960	4.895 *	66.815	1.882 #
5	66.585	0.000	67.015	6.314 *	67.560	25.80	67.020	6.450 *	67.100	8.779 *	66.820	1.966 #
6	66.585	0.000	66.960	4.895 *	68.080	56.46 *	67.000	5.913 *	67.090	8.473 *	66.825	2.053 *
7	66.585	0.000	66.920	3.954 *	67.960	48.95 *	66.980	5.395 *	67.030	6.726 *	66.825	1.957 #
8	66.585	0.000	67.100	8.779 *	68.200	64.38 *	67.000	5.913 *	67.030	5.879	66.815	1.882 *
9	66.605	0.000	67.570	27.59 *	67.820	40.73 *	67.020	5.600 #	67.010	5.379	66.810	1.798 *
10	66.615	0.000	68.110	58.40 *	67.660	32.09 *	67.060	6.105 #	66.980	5.395 *	66.805	1.717 #
11	66.625	0.000	67.500	24.28 *	67.600	29.06 *	67.410	20.27 *	66.960	4.895 *	66.800	1.636 *
12	66.625	0.000	67.290	15.38 *	67.520	23.70	67.240	13.51 *	66.950	4.652 *	66.800	1.636 *
13	66.615	0.000	67.320	16.56 *	67.545	24.88	67.150	10.38 *	66.940	4.415 *	66.795	1.558 #
14	66.645	0.000	67.440	21.58 *	67.560	27.11 *	67.150	10.38 *	66.930	3.755	66.790	1.480 *
15	66.630	0.000	67.230	13.03	67.780	38.50 *	67.230	13.14 *	66.920	3.954 *	66.790	1.480 *
16	66.630	0.000	67.138	9.786	67.700	34.17 *	67.970	49.85	66.910	3.485	66.785	1.405 *
17	66.635	0.000	67.300	15.77 *	67.470	22.91 *	67.640	31.07 *	66.900	3.514 *	66.780	1.331 #
18	66.640	0.510 #	67.580	28.08 *	67.320	17.63	67.880	44.18 *	66.890	3.301 *	66.775	1.258 #
19	67.225	12.96 *	67.400	19.84 *	67.220	12.78 *	67.600	26.61	66.880	3.094 *	66.775	1.258 *
20	67.550	26.63 *	69.100	136.1 *	67.150	10.38 *	67.340	17.36 *	66.870	2.892 *	66.770	1.187 *
21	67.400	19.84 *	67.720	35.24 *	67.210	12.87	67.240	13.51 *	66.860	2.877	66.765	1.118 *
22	67.240	13.51 *	67.973	49.43	67.270	13.34	67.150	10.39	66.850	2.505 *	66.760	1.050 *
23	67.100	8.779 *	67.790	41.18	67.220	12.78 *	67.110	10.84	66.840	2.437	66.760	1.050 *
24	67.090	6.600 #	67.630	30.56 *	67.190	11.73 *	67.070	7.873 *	66.830	2.140 *	66.755	0.985 *
25	67.565	25.81	67.940	47.74 *	67.150	10.38 *	67.040	7.006 *	66.820	1.966 *	66.755	0.985 *
26	67.325	17.92	67.720	35.24 *	67.110	10.97	67.030	6.726 *	66.810	1.798 *	66.750	0.920 #
27	67.100	8.779 *	67.800	39.61 *	67.150	11.34	67.010	6.180 *	66.820	1.820 #	66.750	0.920 *
28	67.190	11.73 *	67.680	33.16	67.680	33.13 *	66.990	5.652 *	66.830	2.140 *	66.745	0.764 #
29	67.050	7.291 *	67.410	20.16 #	67.340	17.36 *	66.970	5.142 *	66.820	1.966 *	66.745	0.858 *
30	67.080	8.171 *	67.330	16.95 *	67.290	15.38 *	66.970	4.821	66.820	1.844 #	66.740	0.797 *
31			67.400	19.84 *	67.260	14.25 *			66.830	2.140 *		
Ten-Daily Mean												
I Ten-Daily	66.590	0.000	67.227	15.10	67.743	37.62	67.048	7.123	67.005	5.918	66.819	1.941
II Ten-Daily	66.782	4.010	67.530	30.04	67.486	24.11	67.461	23.67	66.915	3.796	66.786	1.423
III Ten-Daily	67.214	12.84	67.672	33.56	67.261	14.87	67.058	7.814	66.830	2.149	66.753	0.945
Monthly												
Min.	66.585	0.000	66.920	3.954	67.110	10.38	66.970	4.821	66.810	1.798	66.740	0.764
Max.	67.565	26.63	69.100	136.1	68.200	64.38	67.970	49.85	67.100	8.779	66.830	2.140
Mean	66.862	5.618	67.483	26.47	67.489	25.19	67.189	12.87	66.914	3.896	66.786	1.436

Annual Runoff in MCM = 201 Annual Runoff in mm = 1721

Peak Observed Discharge = 49.85 cumecs on 16/09/2015 Corres. Water Level :67.97 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :66.585 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Collem (WMA00E7) **Division : Upper Krishna Divn, Pune**

Local River : Khandepar **Sub-Division : South Western Rivers SD 4,Goa**

Day	Dec			Jan		Feb		Mar		Apr		May	
	W.L	Q		WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	66.740	0.797	*	66.630	0.000	66.580	0.000	66.560	0.000	66.535	0.000	66.495	0.000
2	66.735	0.738	#	66.630	0.000	66.580	0.000	66.560	0.000	66.515	0.000	66.495	0.000
3	66.735	0.738	#	66.625	0.000	66.580	0.000	66.560	0.000	66.515	0.000	66.495	0.000
4	66.730	0.681	*	66.625	0.000	66.580	0.000	66.560	0.000	66.510	0.000	66.495	0.000
5	66.725	0.626	*	66.620	0.000	66.580	0.000	66.560	0.000	66.510	0.000	66.495	0.000
6	66.725	0.626	*	66.620	0.000	66.580	0.000	66.560	0.000	66.510	0.000	66.495	0.000
7	66.720	0.572	*	66.620	0.000	66.580	0.000	66.560	0.000	66.510	0.000	66.495	0.000
8	66.720	0.572	*	66.620	0.000	66.580	0.000	66.560	0.000	66.510	0.000	66.495	0.000
9	66.720	0.572	#	66.615	0.000	66.575	0.000	66.560	0.000	66.510	0.000	66.490	0.000
10	66.715	0.521	#	66.615	0.000	66.575	0.000	66.555	0.000	66.505	0.000	66.490	0.000
11	66.715	0.521	*	66.615	0.000	66.575	0.000	66.555	0.000	66.505	0.000	66.490	0.000
12	66.710	0.471	*	66.610	0.000	66.575	0.000	66.555	0.000	66.505	0.000	66.490	0.000
13	66.710	0.471	*	66.600	0.000	66.575	0.000	66.555	0.000	66.505	0.000	66.490	0.000
14	66.705	0.423	*	66.600	0.000	66.575	0.000	66.555	0.000	66.505	0.000	66.490	0.000
15	66.705	0.423	*	66.600	0.000	66.575	0.000	66.555	0.000	66.500	0.000	66.490	0.000
16	66.700	0.378	#	66.600	0.000	66.575	0.000	66.555	0.000	66.500	0.000	66.500	0.000
17	66.700	0.378	#	66.600	0.000	66.565	0.000	66.555	0.000	66.500	0.000	66.500	0.000
18	66.680	0.217	*	66.595	0.000	66.565	0.000	66.555	0.000	66.500	0.000	66.500	0.000
19	66.670	0.150	*	66.595	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.500	0.000
20	66.670	0.150	*	66.595	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.500	0.000
21	66.665	0.120	*	66.590	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.500	0.000
22	66.665	0.120	*	66.590	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.505	0.000
23	66.660	0.069	#	66.590	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.505	0.000
24	66.655	0.069	*	66.590	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.505	0.000
25	66.655	0.069	*	66.590	0.000	66.565	0.000	66.550	0.000	66.500	0.000	66.505	0.000
26	66.650	0.069	#	66.585	0.000	66.565	0.000	66.545	0.000	66.500	0.000	66.505	0.000
27	66.650	0.048	*	66.585	0.000	66.560	0.000	66.545	0.000	66.500	0.000	66.505	0.000
28	66.645	0.030	*	66.585	0.000	66.560	0.000	66.545	0.000	66.500	0.000	66.505	0.000
29	66.645	0.030	*	66.585	0.000	66.560	0.000	66.545	0.000	66.500	0.000	66.510	0.000
30	66.640	0.015	#	66.585	0.000			66.545	0.000	66.495	0.000	66.510	0.000
31	66.640	0.015	#	66.580	0.000			66.545	0.000			66.510	0.000
Ten-Daily Mean													
I Ten-Daily	66.727	0.644		66.622	0.000	66.579	0.000	66.559	0.000	66.513	0.000	66.494	0.000
II Ten-Daily	66.696	0.358		66.601	0.000	66.571	0.000	66.554	0.000	66.502	0.000	66.495	0.000
III Ten-Daily	66.652	0.059		66.587	0.000	66.563	0.000	66.547	0.000	66.499	0.000	66.506	0.000
Monthly													
Min.	66.640	0.015		66.580	0.000	66.560	0.000	66.545	0.000	66.495	0.000	66.490	0.000
Max.	66.740	0.797		66.630	0.000	66.580	0.000	66.560	0.000	66.535	0.000	66.510	0.000
Mean	66.690	0.344		66.603	0	66.571	0	66.553	0	66.505	0	66.499	0

Peak Computed Discharge = 136.1 cumecs on 20/07/2015 **Corres. Water Level :69.1 m**

Lowest Computed Discharge = 0.030 cumecs on 28/12/2015 **Corres. Water Level :66.645 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

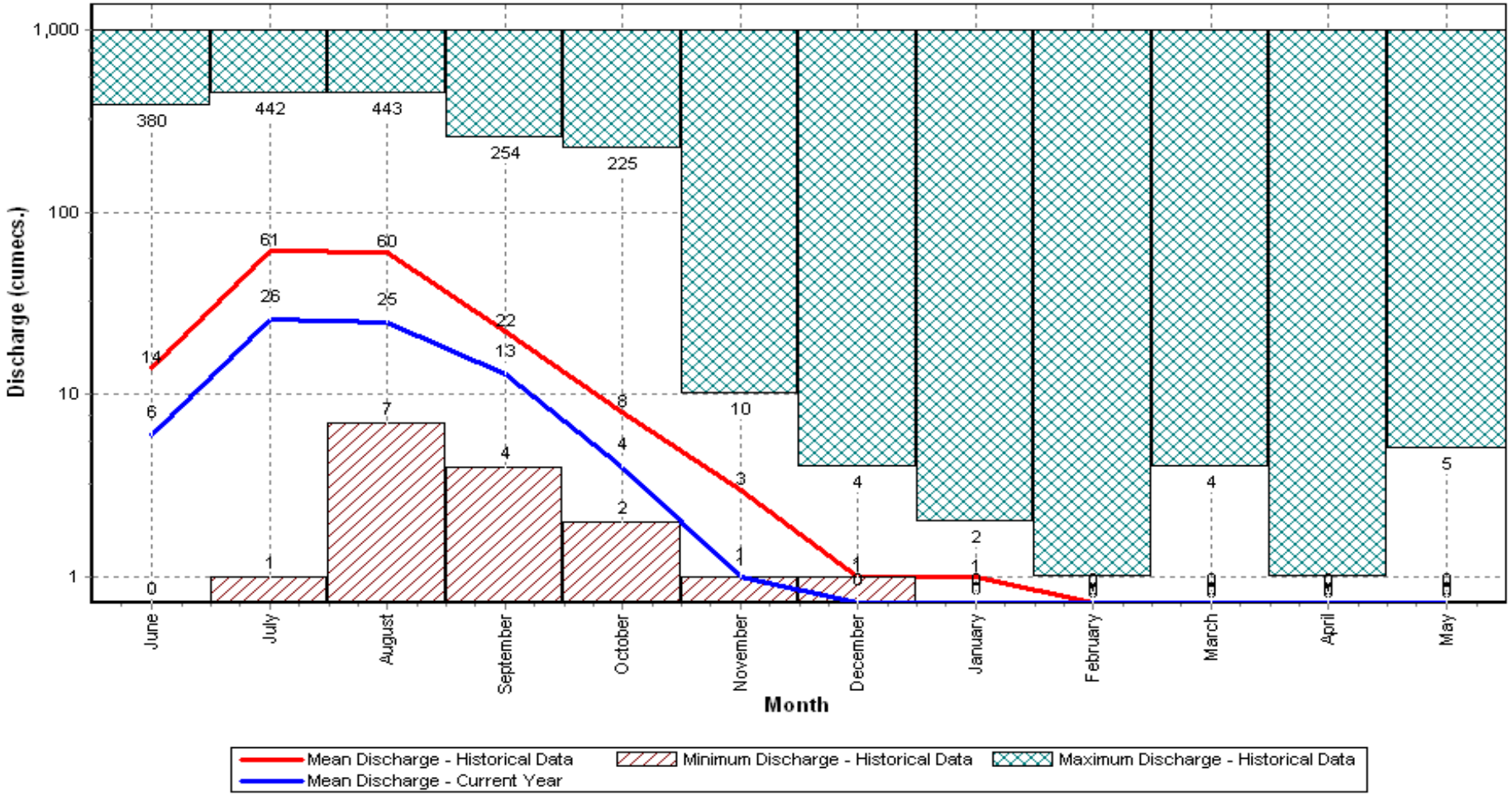
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Collem (WMA00E7) | **Data considered : 1980-2016** | **Division : Upper Krishna Divn, Pune**

Local River : Khandepar | **Sub-Division : South Western Rivers SD 4,Goa**



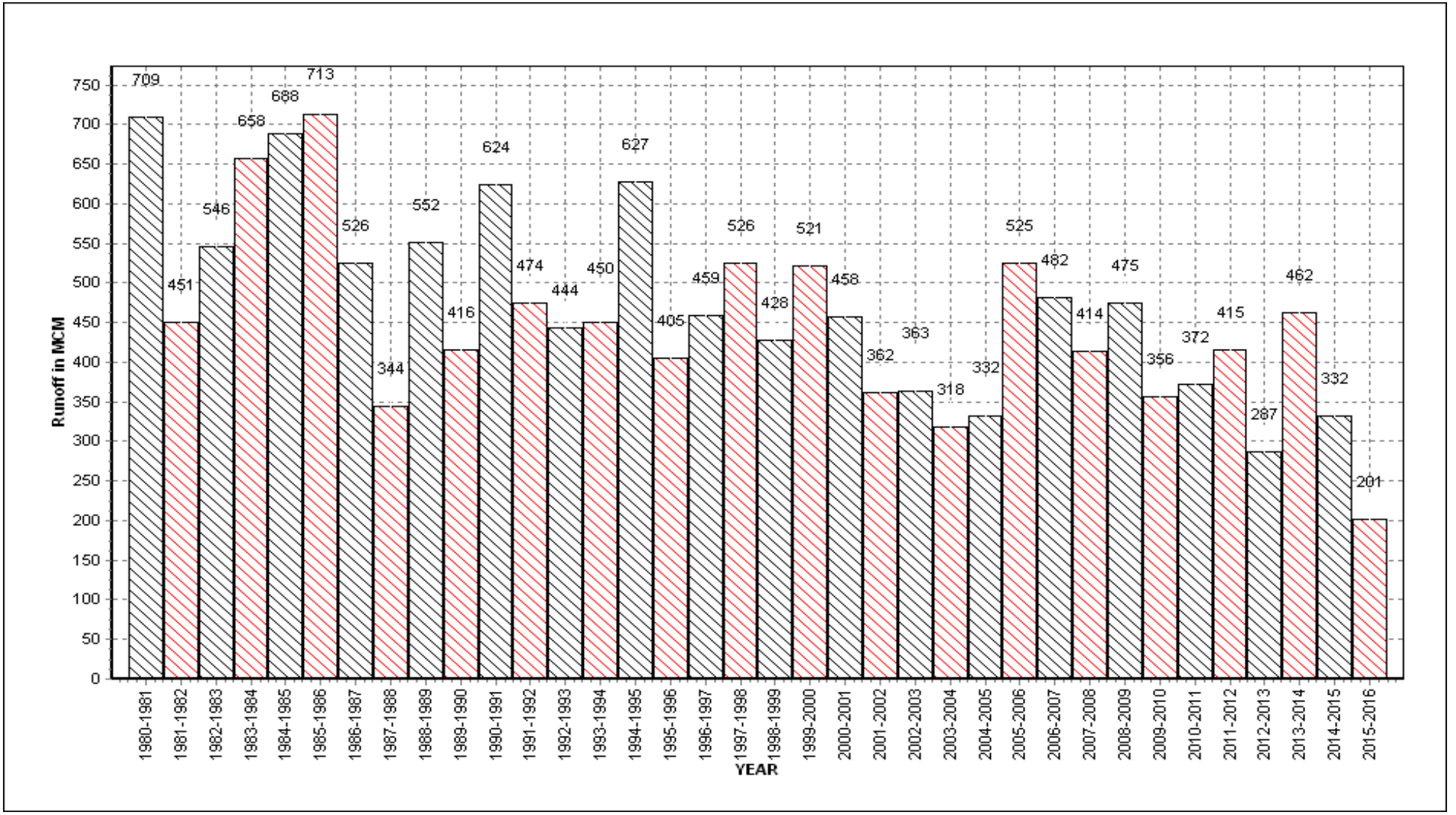
Annual Runoff Values for the period: 1980 - 2016

Station Name : Collem (WMA00E7)

Local River : Khandepar

Division : Upper Krishna Divn, Pune

Sub-Division : South Western Rivers SD 4,Goa

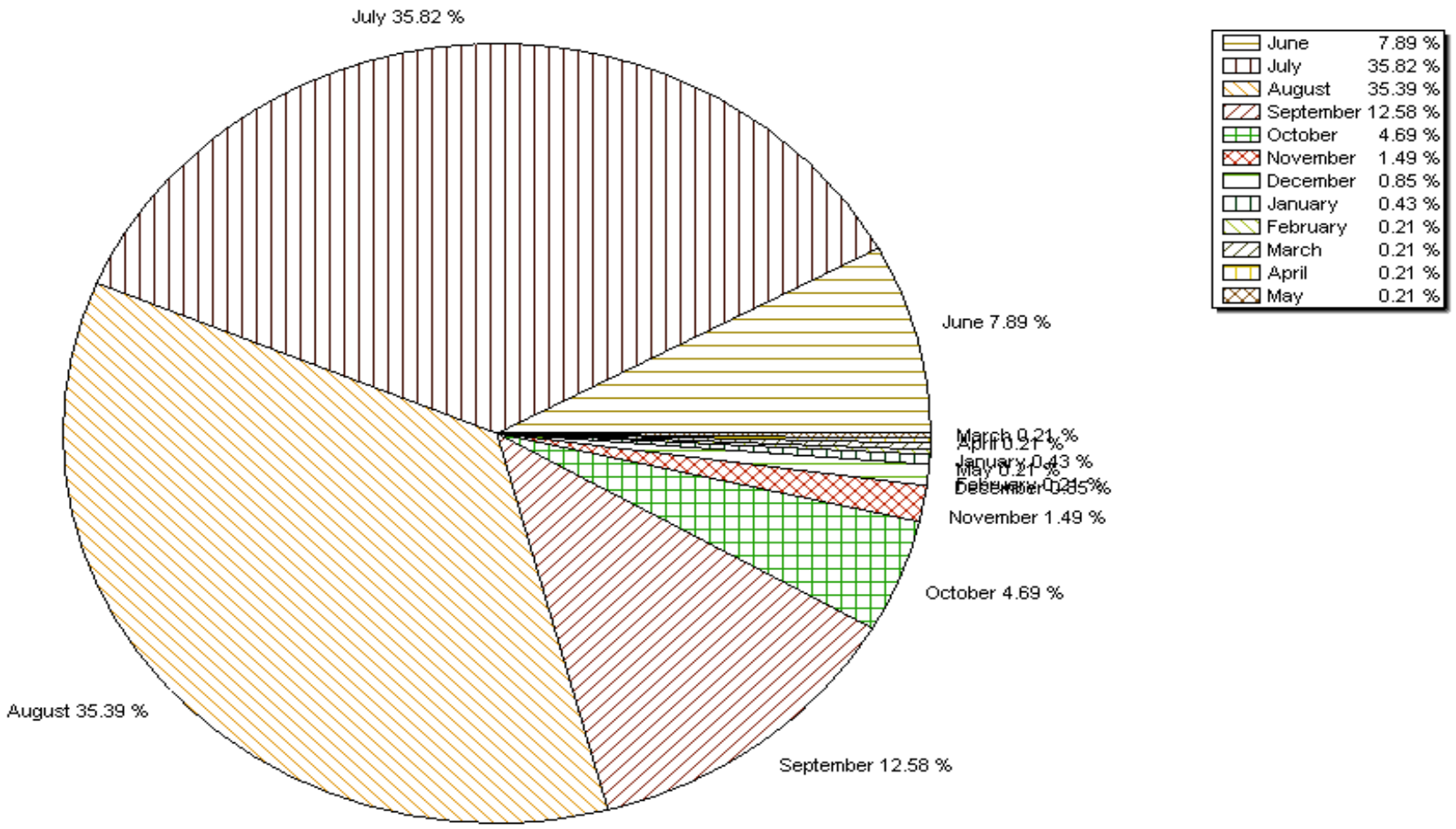


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1980-2015

Station Name : Collem (WMA00E7)
Local River : Khandepar

Division : Upper Krishna Divn, Pune
Sub-Division : South Western Rivers SD 4,Goa



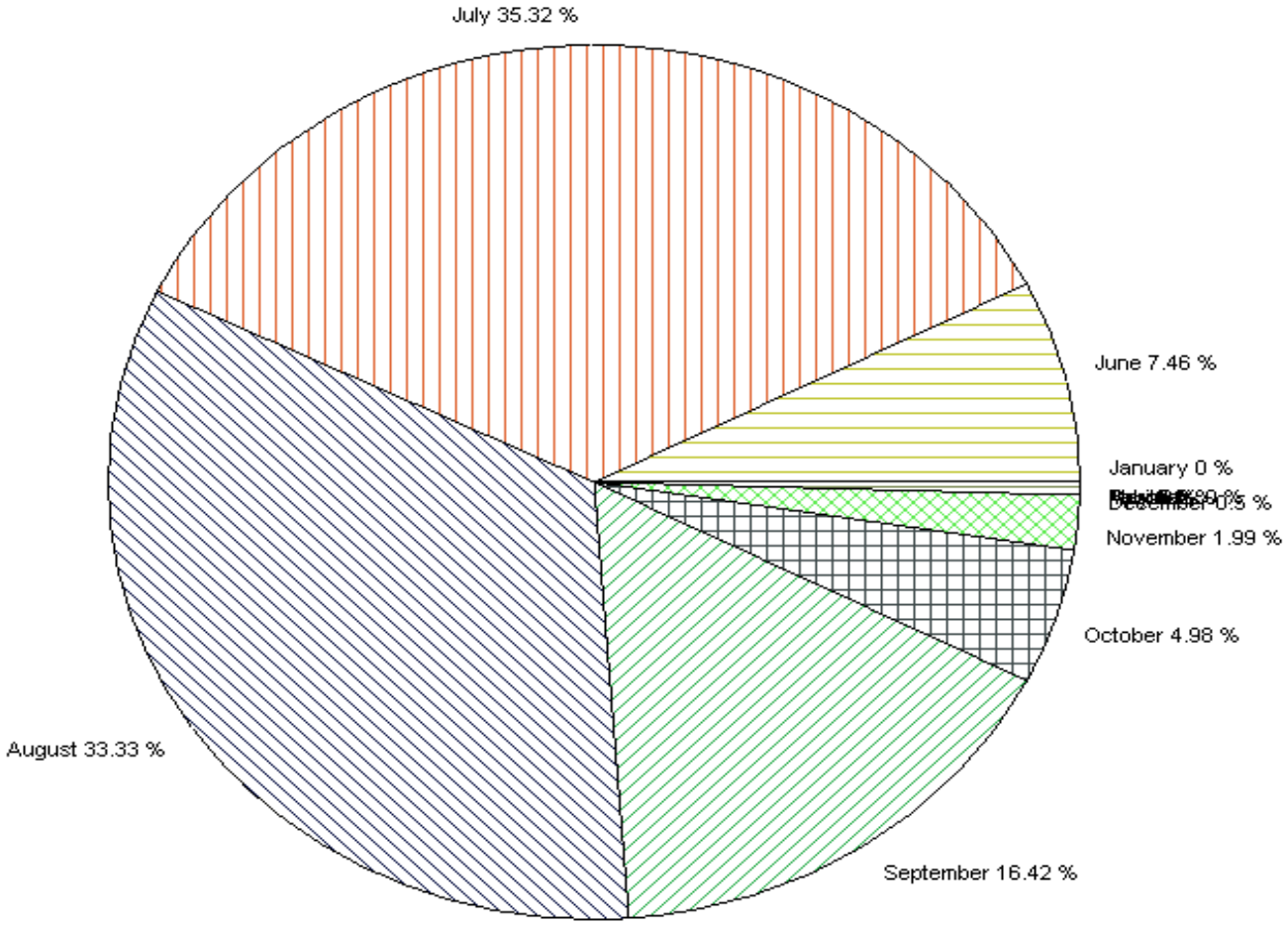
Monthly Runoff for the Year : 2015-2016

Station Name : Collem (WMA00E7)

Local River : Khandepar

Division : Upper Krishna Divn, Pune

Sub-Division : South Western Rivers SD 4,Goa



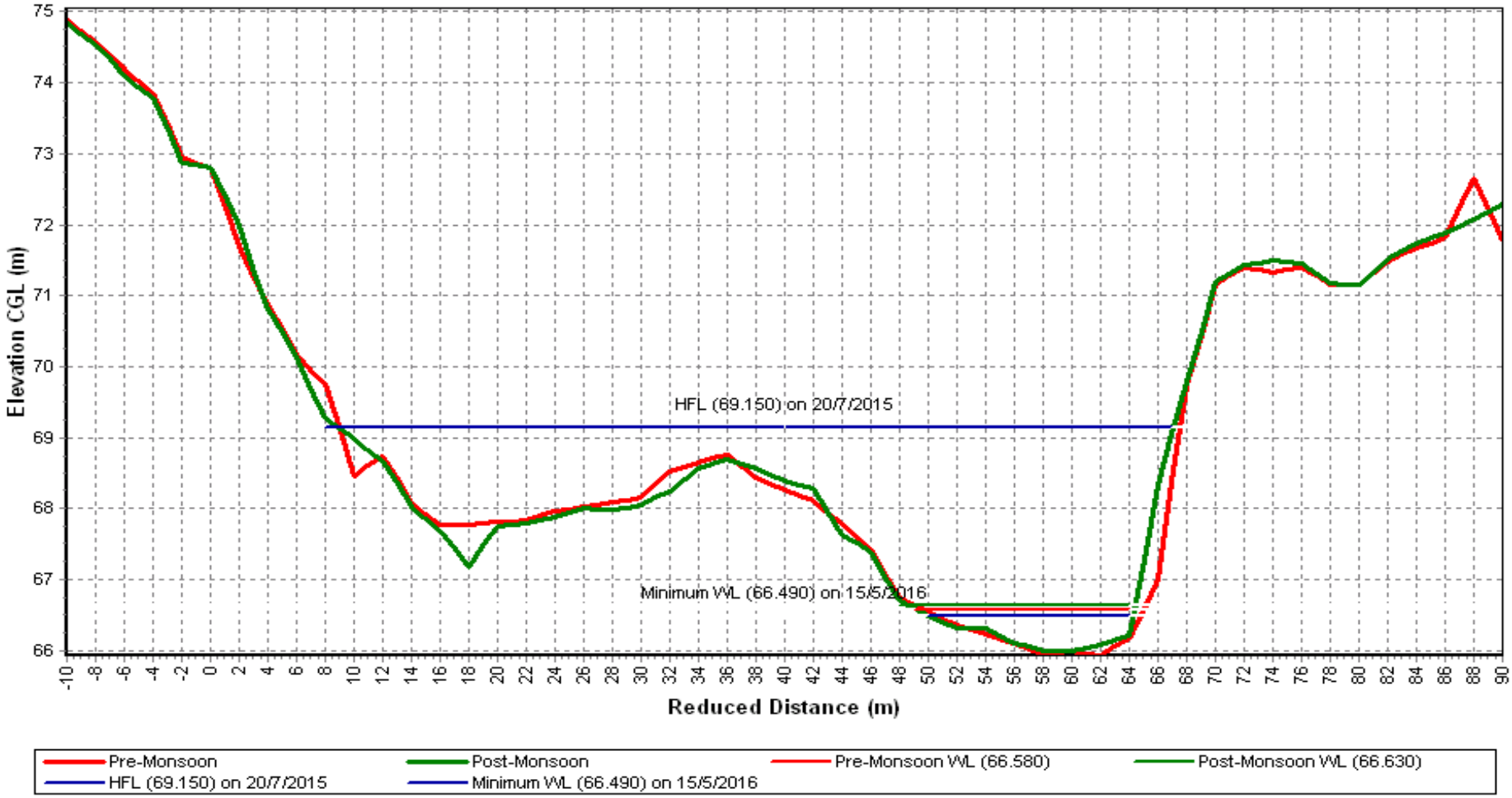
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Collem (WMA00E7)

Division : Upper Krishna Divn, Pune

Local River : Khandepar

Sub-Division : South Western Rivers SD 4,Goa



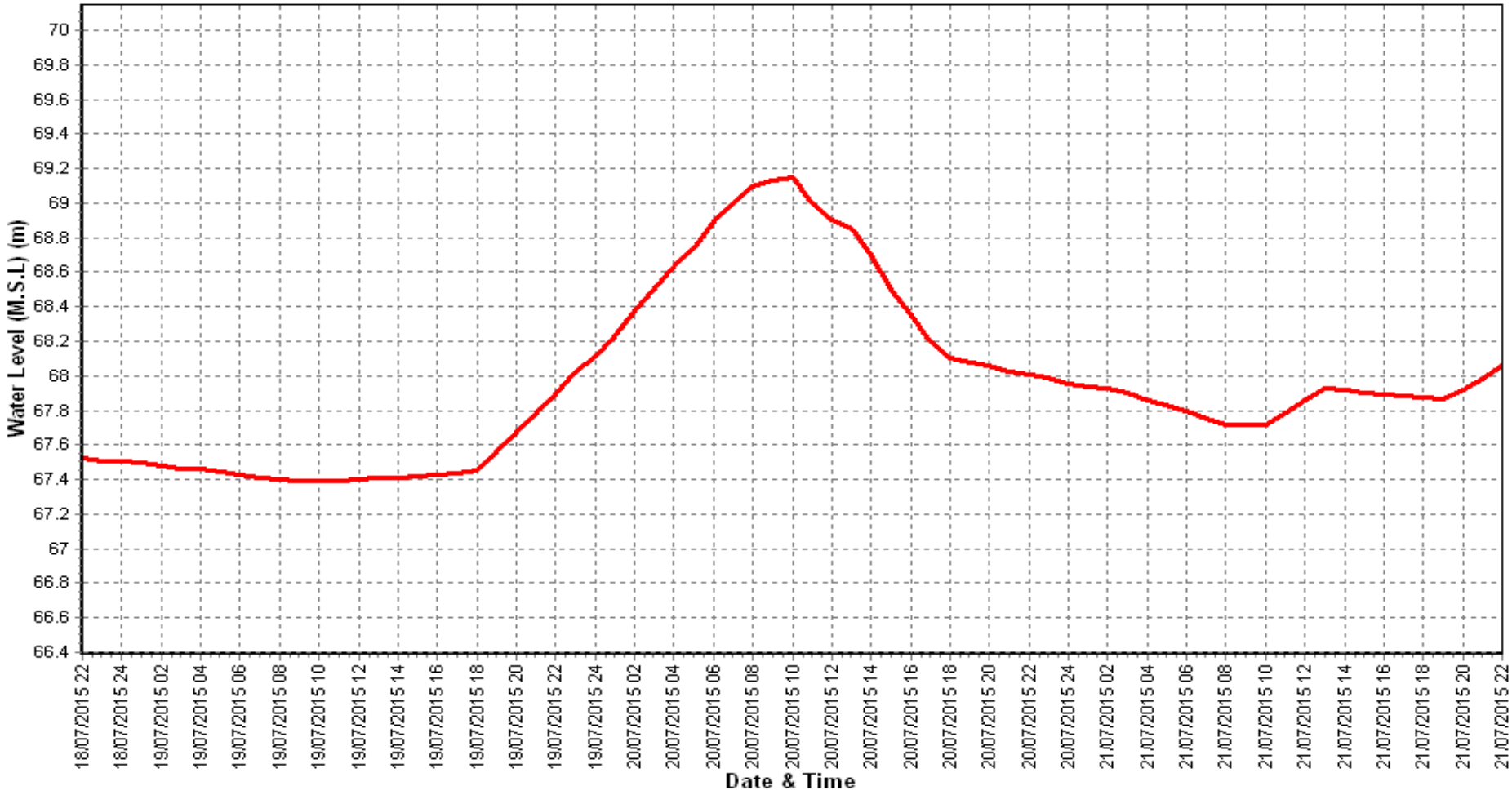
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Collem (WMA00E7)

Division : Upper Krishna Divn, Pune

Local River : Khandepar

Sub-Division : South Western Rivers SD 4,Goa

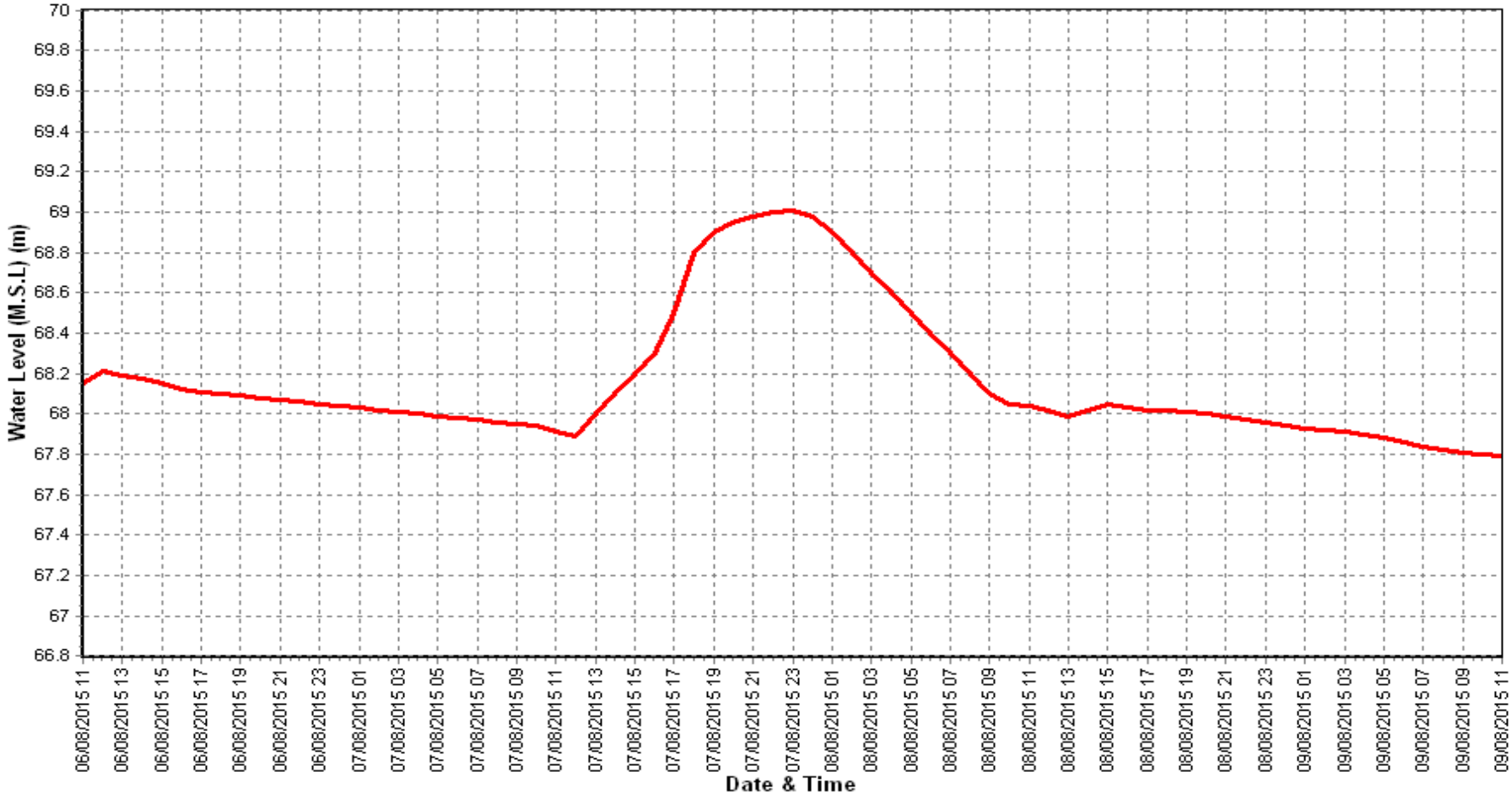


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Collem (WMA00E7) **Division : Upper Krishna Divn, Pune**

Local River : Khandepar **Sub-Division : South Western Rivers SD 4,Goa**

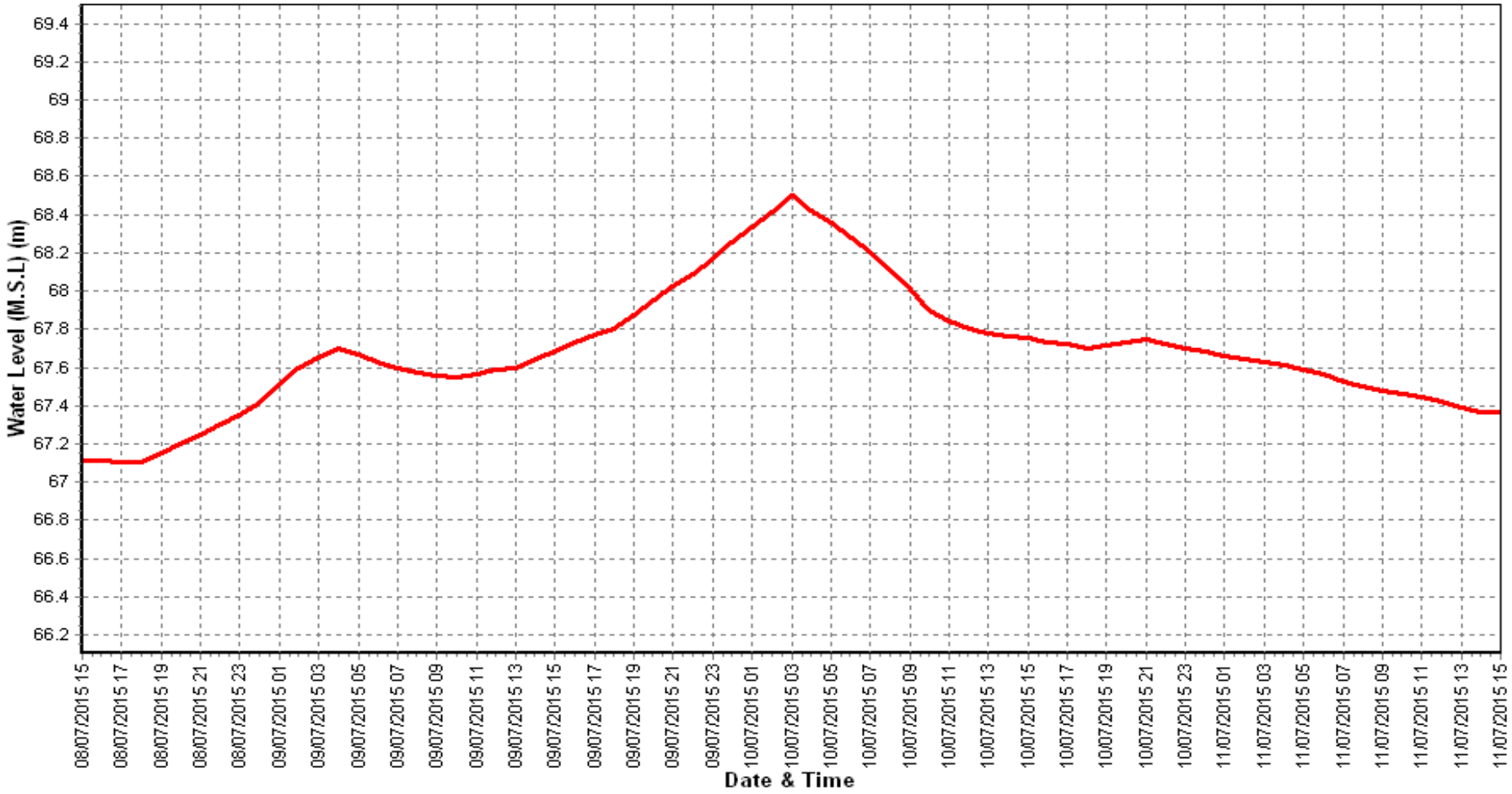


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Collem (WMA00E7) **Division : Upper Krishna Divn, Pune**

Local River : Khandepar **Sub-Division : South Western Rivers SD 4,Goa**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Santeguli**		**Code**	**: WA000K9**	
State	: Karnataka		District	North Canara	
Basin	: WFR South of Tapi		Independent River	: Aghanashini	
Tributary	: -		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Aghanashini	
Division	: Cauvery Division, Bangalore		Sub-Division	: SWRSD-III, Mangalore	
Drainage Area	: 1090 Sq. Km.		Bank	: Left	
Latitude	: 14°26'04"		Longitude	: 74°35'20"	
Zero of Gauge (m)	: 8.000(m.s.l)		21/05/1988		
	Opening Date		Closing Date		
Gauge	: 21/05/1988				
Discharge	: 09/06/1988				
Sediment	:				
Water Quality	: 01/09/1993				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1988-1989	6730	17.995	18/07/1988	0.000	10.280	08/06/1988
1989-1990	3640	16.310	22/07/1989	0.000	10.110	23/04/1990
1990-1991	2893	16.380	14/08/1990	0.900	10.520	28/04/1991
1991-1992	2144	16.303	17/07/1991	5.360	10.619	03/06/1991
1992-1993	2913	17.142	21/07/1992	1.450	10.490	06/05/1993
1993-1994	1982	15.788	16/07/1993	0.503	10.625	02/06/1993
1994-1995	3995	17.200	12/07/1994	1.227	10.240	29/05/1995
1995-1996	2020	16.500	21/07/1995	0.000	10.515	18/05/1996
1996-1997	1450	15.600	23/07/1996	0.000	10.650	08/06/1996
1997-1998	3061	16.590	12/07/1997	0.000	10.510	16/06/1997
1998-1999	2962	15.950	29/06/1998	0.500	10.450	07/06/1998
1999-2000	2870	17.660	23/07/1999	0.000	10.500	12/05/2000
2000-2001	4959	18.090	13/07/2000	0.001	10.650	01/06/2000
2001-2002	1421	14.630	09/07/2001	0.000	10.740	02/06/2001
2002-2003	1440	15.660	10/08/2002	0.992	10.490	15/04/2003
2003-2004	956.5	14.990	28/07/2003	0.468	10.475	07/06/2003
2004-2005	765.1	15.530	13/08/2004	0.000	10.410	31/05/2005
2005-2006	1808	17.000	25/07/2005	0.000	10.400	01/06/2005
2006-2007	1780	16.480	15/07/2006	0.000	10.420	31/05/2007

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2007-2008	2412	17.640	07/08/2007	0.000	10.420	09/06/2007
2008-2009	2053	17.300	12/08/2008	0.247	10.430	17/05/2009
2009-2010	1848	17.750	16/07/2009	1.071	10.490	04/06/2009
2010-2011	1246	16.030	29/07/2010	0.874	10.430	30/05/2011
2011-2012	2355	18.370	17/07/2011	0.970	10.440	01/06/2011
2012-2013	1319	16.330	11/08/2012	0.073	10.805	17/06/2012
2013-2014	1820	17.370	03/07/2013	0.607	10.430	25/04/2014
2014-2015	1955	17.540	31/07/2014	0.737	10.450	12/04/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	10.590	1.368	12.260	88.90	13.130	201.2	12.180	75.43	11.930	64.37	11.420	21.68 *
2	10.590	1.344	12.220	86.98	13.040	189.5 *	12.125	74.73	12.400	102.0 *	11.400	19.53
3	10.580	1.361	12.430	96.38	12.860	155.1	12.070	73.90	11.960	64.79	12.040	71.46
4	10.580	1.399	12.490	99.73	13.000	198.1	12.040	72.78	11.910	53.94 *	11.720	33.07
5	10.570	1.291	12.250	85.55 *	13.390	277.3	11.980	70.38	12.165	75.49	12.110	72.89
6	10.560	1.259	12.070	55.57	13.620	334.8	11.930	55.59 *	12.380	96.38	11.600	30.46
7	10.550	1.010 *	12.000	52.67	13.820	344.6	11.930	64.48	12.060	72.97	11.480	23.72
8	10.540	0.895 #	12.220	86.93	13.470	282.6	12.040	71.45	11.960	65.68	11.420	21.68 *
9	10.560	1.130 #	12.560	122.0	13.240	222.8 *	12.030	68.53	11.870	63.49	11.360	18.32
10	10.630	2.015	13.660	314.7	13.300	215.0	12.040	71.34	11.800	45.35 #	11.320	17.75
11	10.770	4.882	13.100	201.1	13.410	267.5	12.160	76.03	11.770	43.15 *	11.320	16.96 *
12	10.690	3.884	13.020	186.3 *	13.370	252.7	12.010	69.77	11.740	34.93	11.310	17.61
13	10.770	4.885	12.710	141.8	13.330	251.7	11.950	57.26 *	11.730	33.92	11.290	17.11
14	10.780	5.084 *	12.500	100.4	13.120	199.9	12.360	88.98	11.700	33.31	11.270	16.70
15	10.980	10.04	12.300	88.22	13.200	215.9 *	13.535	286.6	11.660	32.36	11.250	14.02 *
16	11.200	10.50	12.460	99.63	13.030	187.9 *	13.260	211.4	11.630	31.31	11.220	15.01
17	11.010	6.154 #	13.140	202.8	12.780	130.9	12.940	173.9 *	11.610	30.79	11.220	14.01
18	11.600	23.69	13.240	222.8 *	12.690	126.1	13.100	203.8	11.580	30.53 *	11.200	13.21
19	11.910	42.30	13.280	229.8 *	12.490	97.67	12.920	189.2	11.560	26.18	11.190	12.87
20	13.060	198.4	14.130	449.6	12.410	94.31	12.600	126.2 *	11.540	25.53	11.190	12.34
21	13.450	260.8 *	13.300	217.8	12.330	88.91	12.490	97.81	11.520	24.76	11.350	18.28
22	13.510	283.1	13.380	236.6	12.470	90.94	12.350	96.67	11.500	25.91 *	11.320	16.96 *
23	13.470	280.6	13.140	205.0	12.500	113.8 *	12.240	85.19	11.480	23.71	11.220	13.90
24	13.540	287.8	13.090	202.0	12.330	88.21	12.160	84.42	11.450	23.22 *	11.190	12.82
25	13.800	345.4	12.920	185.7	12.300	88.17	12.110	71.60 *	11.420	21.68 *	11.170	11.02 *
26	13.550	288.7	12.900	167.9 *	12.250	86.05	12.060	72.71	11.400	22.33	11.150	11.43
27	12.760	144.9	13.340	236.1	12.530	101.3	12.030	64.22 *	11.390	18.93	11.130	10.88
28	12.710	140.8 *	13.020	199.5	12.470	97.13	12.020	69.19	11.380	18.56	11.110	9.748
29	12.470	98.77	12.900	183.5	12.380	83.04	12.330	95.68	11.400	19.50	11.100	8.706 *
30	12.300	90.43	12.810	150.9	12.360	97.44 *	11.960	65.90	11.420	20.02	11.100	9.361
31			12.960	188.7	12.240	81.76			11.390	19.01		
Ten-Daily Mean												
I Ten-Daily	10.575	1.307	12.416	108.9	13.287	242.1	12.036	69.86	12.044	70.45	11.587	33.06
II Ten-Daily	11.277	30.98	12.988	192.3	12.983	182.5	12.684	148.3	11.652	32.20	11.246	14.98
III Ten-Daily	13.156	222.1	13.069	197.6	12.378	92.43	12.175	80.34	11.432	21.60	11.184	12.31
Monthly												
Min.	10.540	0.895	12.000	52.67	12.240	81.76	11.930	55.59	11.380	18.56	11.100	8.706
Max.	13.800	345.4	14.130	449.6	13.820	344.6	13.535	286.6	12.400	102.0	12.110	72.89
Mean	11.669	84.81	12.832	167.3	12.866	169.8	12.298	99.5	11.700	40.78	11.339	20.12

Annual Runoff in MCM = 1596 Annual Runoff in mm = 1465

Peak Observed Discharge = 449.6 cumecs on 20/07/2015 Corres. Water Level :14.13 m

Lowest Observed Discharge = 0.000 cumecs on 11/05/2016 Corres. Water Level :10.22 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	11.090	8.921	10.770	6.522	10.650	3.986	10.560	2.650	10.480	1.079	10.500	0.826 *
2	11.080	8.586	10.760	6.511	10.650	3.947	10.560	2.848	10.480	1.088	10.490	0.745
3	11.070	8.318	10.750	5.773 *	10.640	3.864	10.550	2.769	10.470	0.973 *	10.490	0.678
4	11.050	7.980	10.740	6.293	10.640	3.827	10.550	2.731	10.470	0.952	10.490	0.596
5	11.040	7.623	10.740	6.279	10.640	3.786	10.550	2.697	10.430	0.612	10.480	0.523
6	11.020	7.200 *	10.730	6.355	10.630	3.693	10.540	2.640 *	10.430	0.615	10.500	0.826 #
7	11.000	10.41	10.730	6.114	10.630	3.849 *	10.540	2.650	10.530	1.196	10.490	0.755 #
8	10.980	10.02	10.720	6.097	10.630	3.702	10.540	2.647	10.540	1.132 *	10.430	0.392 *
9	10.960	9.692	10.720	5.737	10.620	3.587	10.530	2.562	10.540	1.195	10.380	0.159
10	10.960	9.643	10.720	5.260 *	10.620	3.551	10.530	2.548	10.530	1.051 *	10.360	0.112
11	10.960	9.397	10.710	5.369	10.620	3.556	10.530	2.521	10.530	1.140	10.220	0.000
12	10.950	9.273	10.710	5.093 *	10.620	3.506	10.520	2.462	10.520	1.126	10.150	0.000
13	10.950	9.736 *	10.710	5.093 *	10.610	3.429	10.520	2.399 *	10.520	1.124	10.140	0.000
14	10.940	8.989	10.700	5.234	10.610	3.563 *	10.520	2.383	10.520	1.118	10.120	0.000
15	10.930	8.831	10.700	4.929 *	10.610	3.280	10.510	2.338	10.520	1.114	10.160	0.000
16	10.930	8.710	10.690	5.109	10.600	3.249	10.510	2.328	10.510	0.965	10.170	0.072
17	10.920	8.728	10.690	4.768 *	10.600	3.238	10.510	2.282	10.500	0.826 *	10.170	0.071
18	10.920	8.411	10.680	4.979	10.600	3.233	10.500	2.220	10.500	0.837	10.150	0.062 #
19	10.900	8.035	10.680	4.905	10.600	3.219	10.500	2.190	10.500	0.826 *	10.160	0.069
20	10.890	8.450 *	10.680	4.891	10.590	3.142	10.500	2.169 *	10.480	0.735	10.180	0.103
21	10.880	8.276	10.710	5.250	10.590	3.286 *	10.500	2.174	10.460	0.622	10.220	0.121 *
22	10.880	8.244	10.710	5.159	10.590	3.140	10.500	2.126	10.510	0.960	10.230	0.131 *
23	10.870	8.058	10.710	5.071	10.580	3.062	10.490	2.052	10.540	0.977	10.260	0.154
24	10.870	8.040 *	10.700	4.929 *	10.580	3.068	10.490	2.021	10.540	1.132 *	10.260	0.154
25	10.860	7.838 *	10.700	4.964	10.580	3.024	10.480	1.949 *	10.530	0.974	10.280	0.196
26	10.860	8.010	10.690	4.768 *	10.570	2.954	10.470	1.917	10.520	0.891	10.330	0.221
27	10.840	7.442 *	10.690	4.858	10.570	2.972	10.470	1.843 *	10.520	0.890	10.350	0.274 *
28	10.810	7.356	10.670	4.252	10.570	3.020 *	10.460	1.846	10.520	0.882	10.350	0.274 *
29	10.800	7.352	10.660	4.147	10.560	2.873	10.460	1.820	10.510	0.879	10.350	0.274 *
30	10.790	6.952	10.650	4.049			10.480	1.950	10.510	0.879	10.350	0.285
31	10.780	6.745	10.650	4.146 *			10.480	1.940			10.330	0.265
Ten-Daily Mean												
I Ten-Daily	11.025	8.840	10.738	6.094	10.635	3.779	10.545	2.674	10.490	0.989	10.461	0.561
II Ten-Daily	10.929	8.856	10.695	5.037	10.606	3.342	10.512	2.329	10.510	0.981	10.162	0.038
III Ten-Daily	10.840	7.665	10.685	4.690	10.577	3.044	10.480	1.967	10.516	0.909	10.301	0.214
Monthly												
Min.	10.780	6.745	10.650	4.049	10.560	2.873	10.460	1.820	10.430	0.612	10.120	0.000
Max.	11.090	10.41	10.770	6.522	10.650	3.986	10.560	2.848	10.540	1.196	10.500	0.826
Mean	10.928	8.428	10.705	5.255	10.607	3.4	10.511	2.312	10.505	0.96	10.308	0.269

Peak Computed Discharge = 260.8 cumecs on 21/06/2015 **Corres. Water Level :13.45 m**

Lowest Computed Discharge = 0.121 cumecs on 21/05/2016 **Corres. Water Level :10.22 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

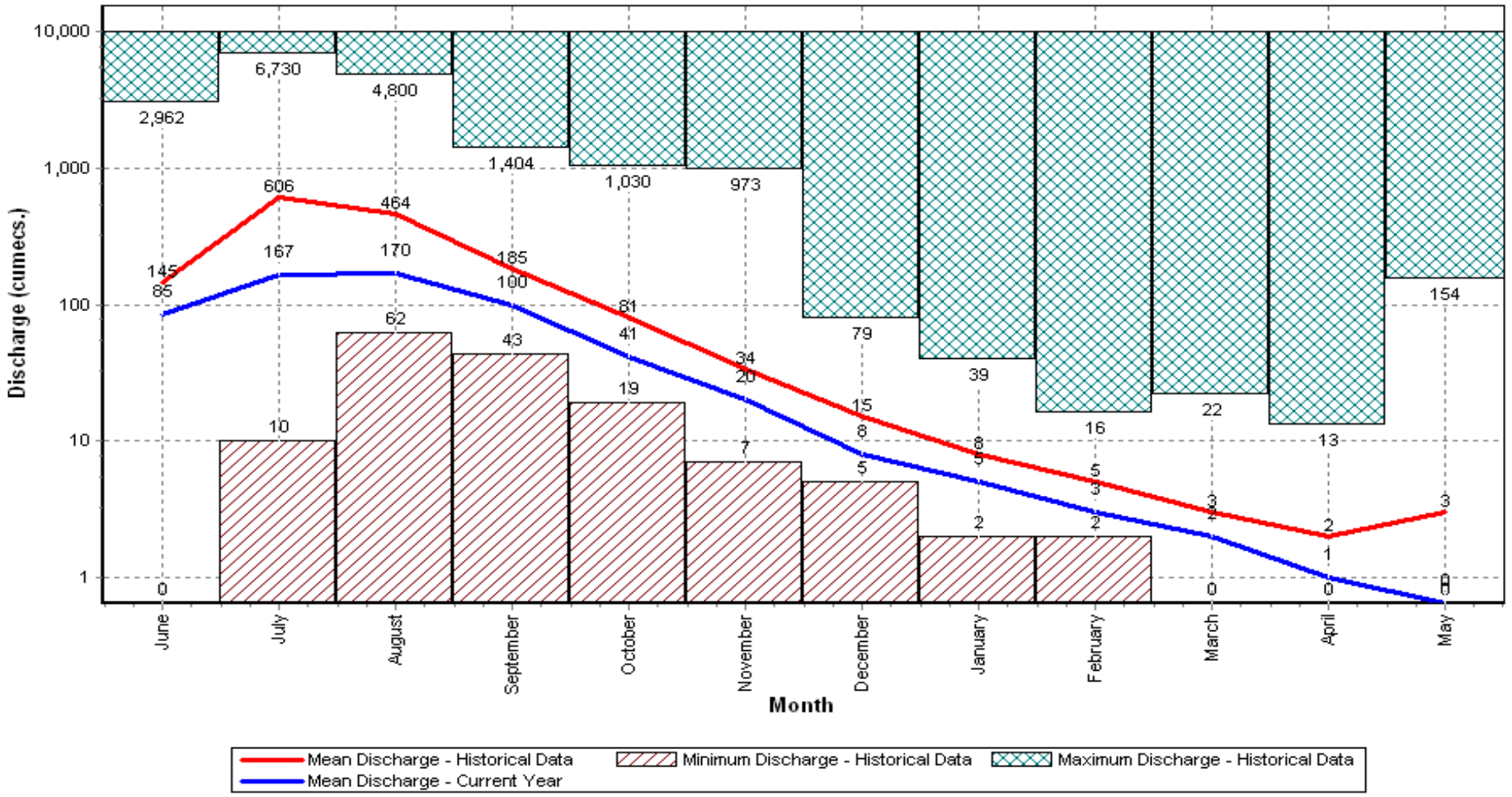
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Santeguli (WA000K9) | **Data considered : 1988-2016** | **Division : Cauvery Division, Bangalore**

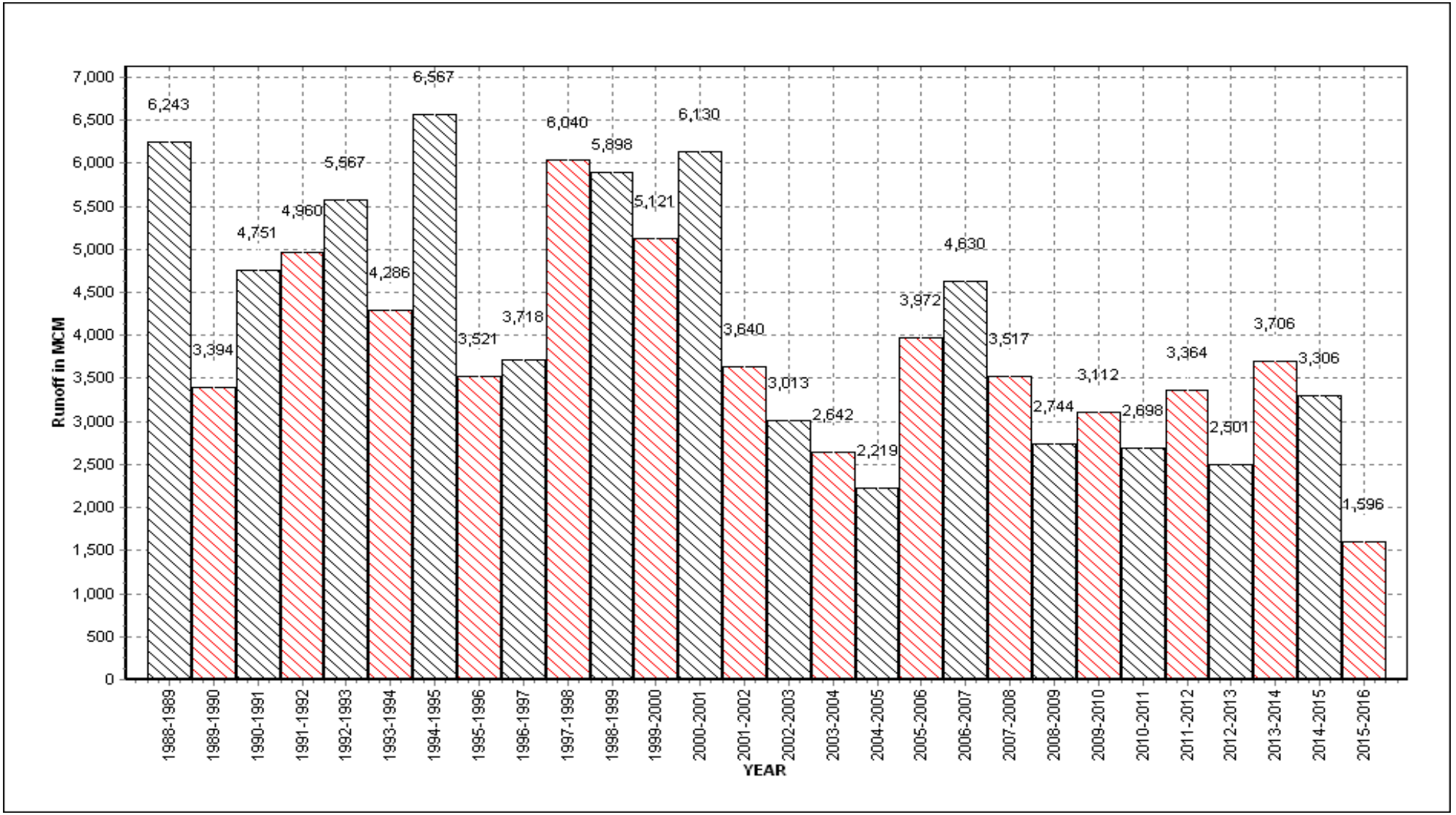
Local River : Aghanashini | **Sub-Division : SWRSD-III, Mangalore**



Annual Runoff Values for the period: 1988 - 2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**

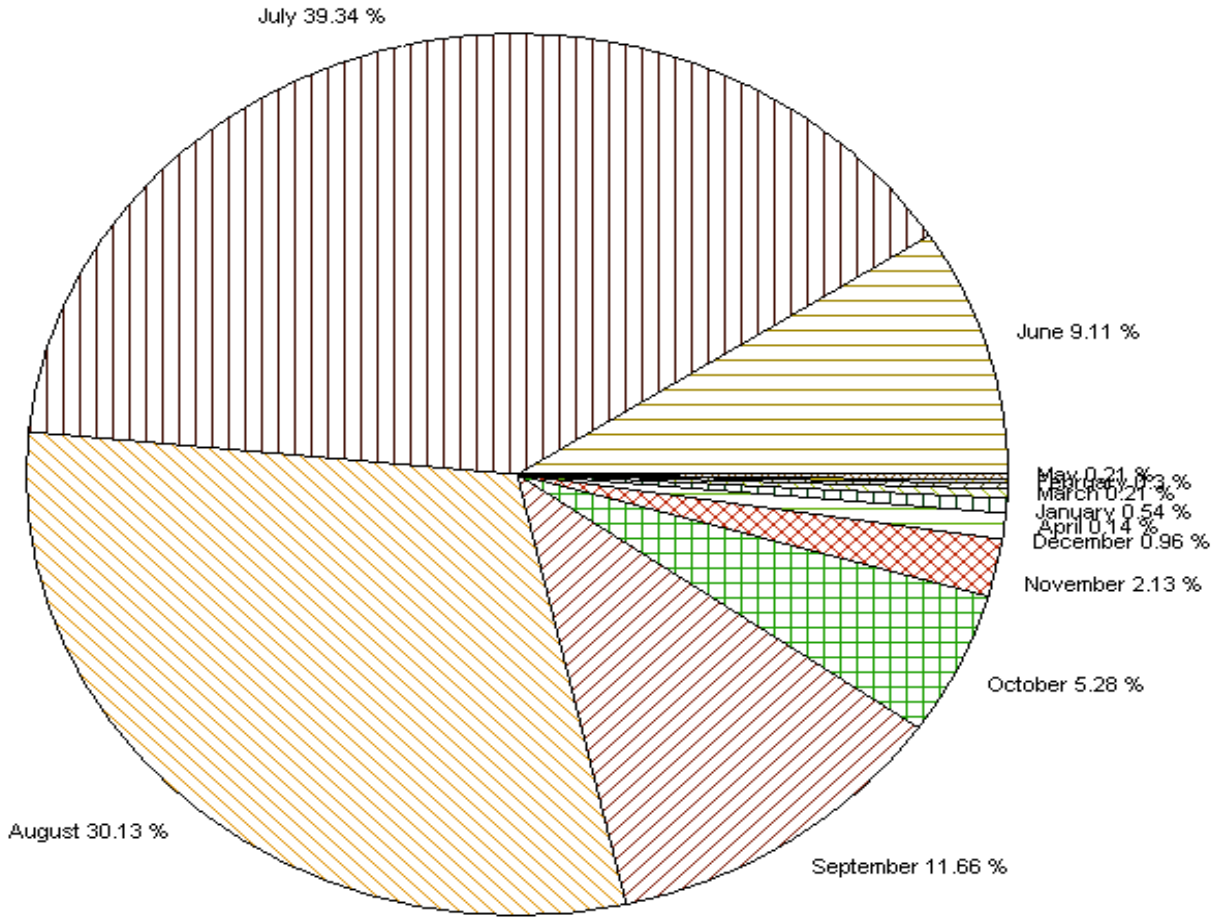


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1988-2015

Station Name : Santeguli (WA000K9)
Local River : Aghanashini

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



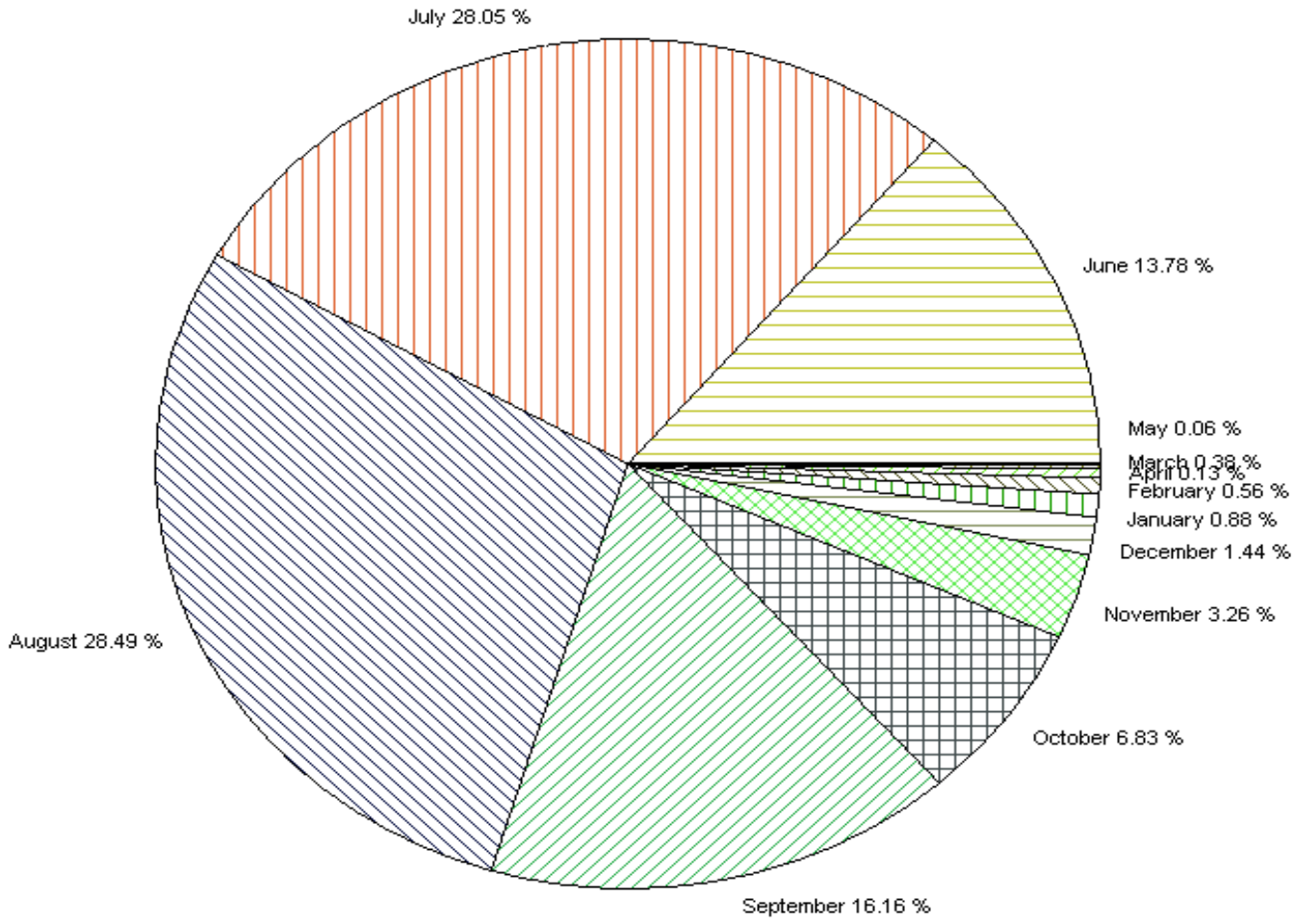
Monthly Runoff for the Year : 2015-2016

Station Name : Santeguli (WA000K9)

Local River : Aghanashini

Division : Cauvery Division, Bangalore

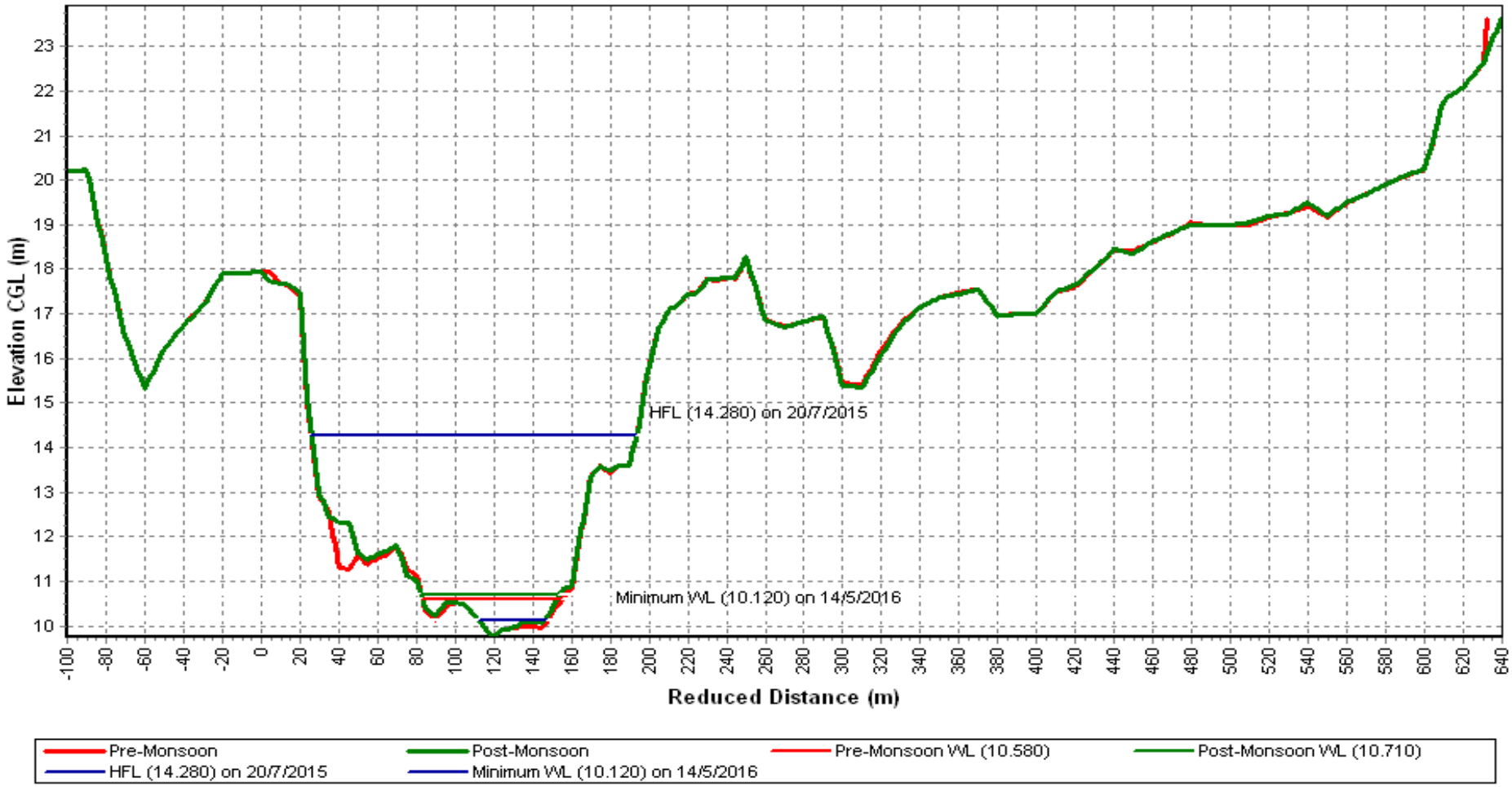
Sub-Division : SWRSD-III, Mangalore



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Santeguli (WA000K9)
Local River : Aghanashini

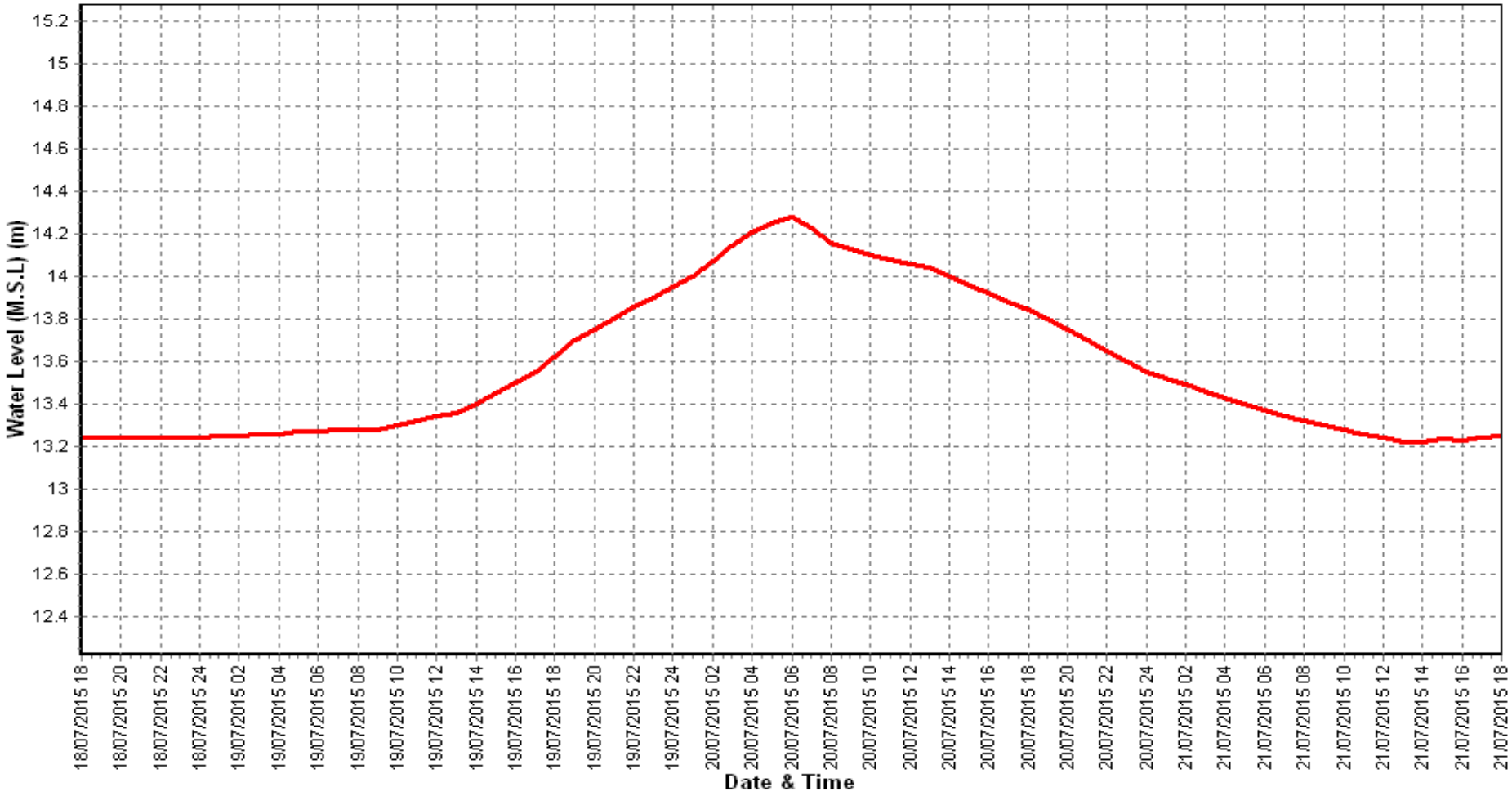
Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**

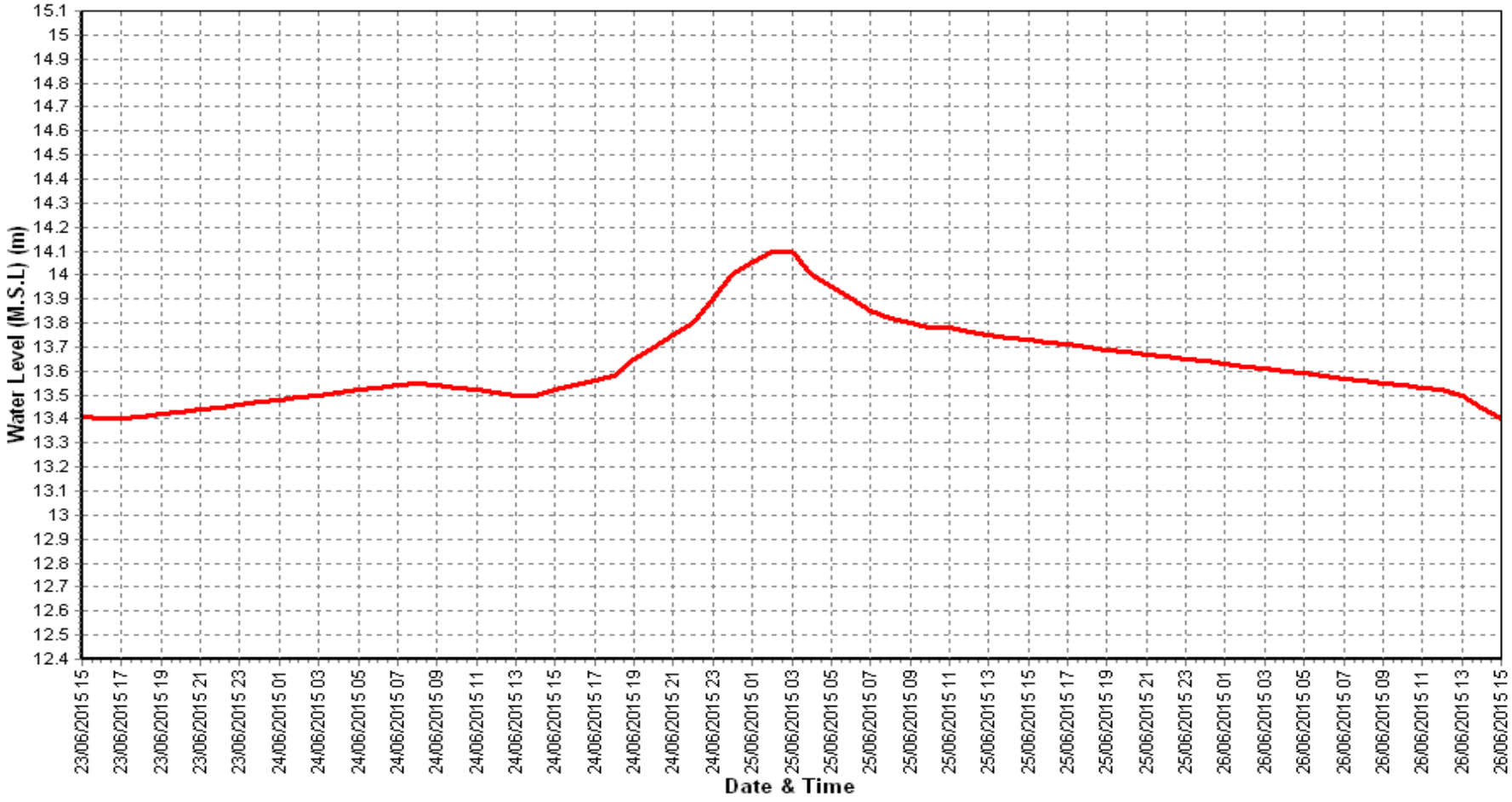


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**

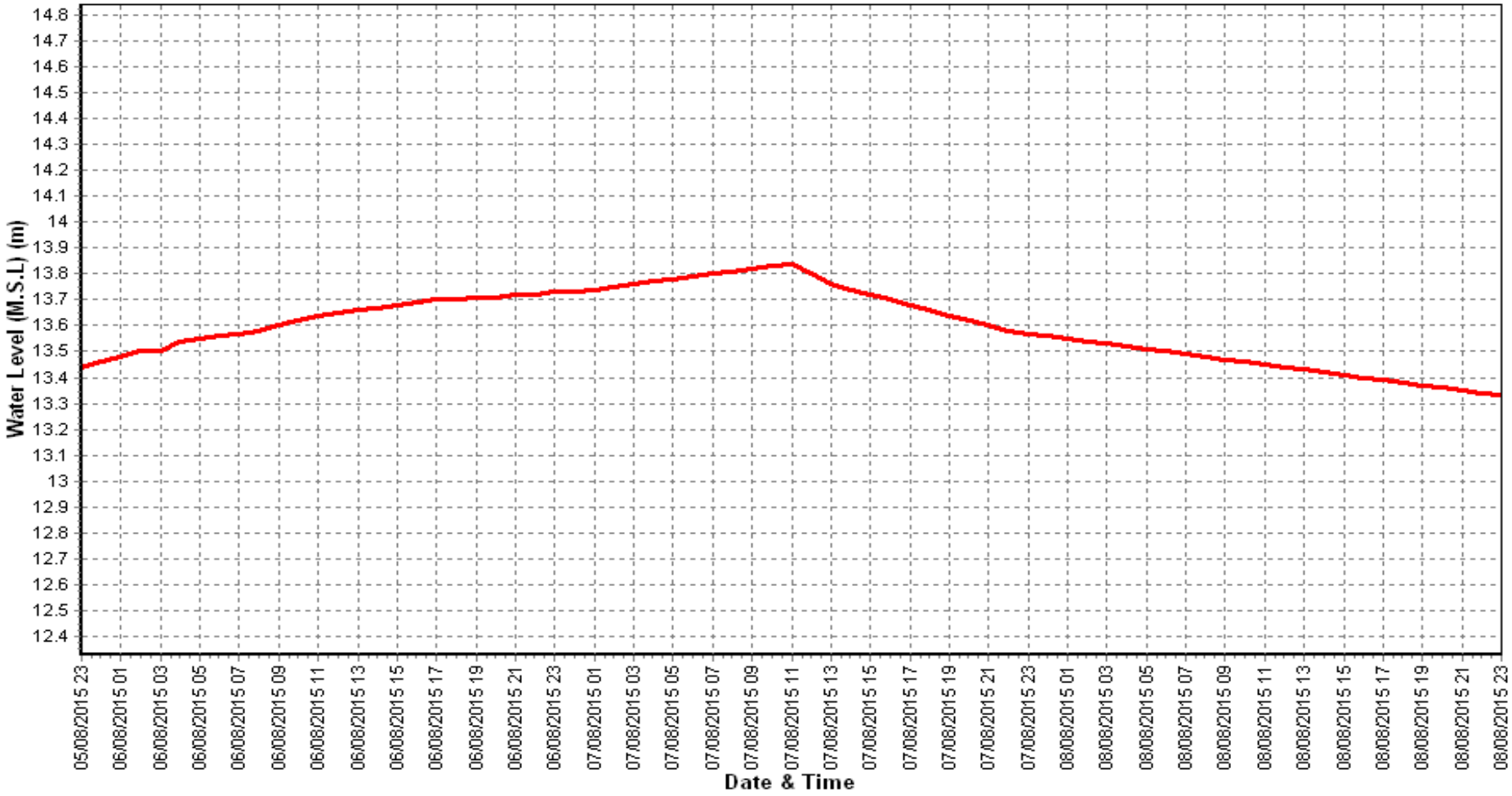


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Santeguli (WA000K9) **Division : Cauvery Division, Bangalore**

Local River : Aghanashini **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Haladi**		**Code**	**: WH000N1**	
State	: Karnataka		District	Udupi	
Basin	: WFR South of Tapi		Independent River	: Haladi	
Tributary	: -		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Haladi	
Division	: Cauvery Division, Bangalore		Sub-Division	: SWRSD-III, Mangalore	
Drainage Area	: 583 Sq. Km.		Bank	: Left	
Latitude	: 13°34'54"		Longitude	: 74°51'28"	
Zero of Gauge (m)	: 15.115 (m.s.l)	03/07/1984	-	31/05/1985	
	13.700 (m.s.l)	01/06/1985	-	31/05/1987	
	-2.000 (m.s.l)	01/06/1987			
	Opening Date	Closing Date			
Gauge	: 03/07/1984				
Discharge	: 30/12/1985				
Sediment	:				
Water Quality	: 01/09/1993				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	804.9	21.666	09/08/1986	0.000	15.905	04/05/1987
1987-1988	515.1	4.730	03/07/1987	0.000	0.260	20/05/1988
1988-1989	674.2	5.900	20/07/1988	0.000	0.900	25/04/1989
1989-1990	577.5	5.990	27/07/1989	0.000	0.880	02/06/1989
1990-1991	564.0	5.920	15/08/1990	16.80	1.400	12/05/1991
1991-1992	520.4	5.475	01/08/1991	17.23	1.527	17/05/1992
1992-1993	530.2	5.403	17/08/1992	12.03	1.347	04/02/1993
1993-1994	466.5	5.131	11/07/1993	13.17	1.403	08/06/1993
1994-1995	915.8	7.120	15/07/1994	11.78	1.470	03/06/1994
1995-1996	382.3	5.100	31/08/1995	9.200	1.400	26/05/1996
1996-1997	392.6	4.900	18/07/1996	2.288	1.140	21/03/1997
1997-1998	682.4	6.480	11/07/1997	7.500	1.460	13/06/1997
1998-1999	502.0	5.450	13/09/1998	9.080	1.380	18/05/1999
1999-2000	696.0	6.750	18/07/1999	11.18	1.480	29/02/2000
2000-2001	553.4	6.210	09/07/2000	1.702	1.100	14/04/2001
2001-2002	328.4	4.435	25/07/2001	5.677	1.300	25/12/2001
2002-2003	287.5	4.420	06/08/2002	7.482	1.290	21/04/2003
2003-2004	405.5	5.000	06/07/2003	4.798	1.240	05/04/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	407.3	5.020	13/08/2004	9.042	1.340	13/04/2005
2005-2006	549.6	5.640	02/08/2005	10.33	1.280	19/05/2006
2006-2007	565.8	5.840	12/08/2006	9.202	1.400	20/04/2007
2007-2008	613.0	6.320	25/09/2007	10.60	1.360	11/12/2007
2008-2009	640.9	6.480	11/08/2008	1.082	0.970	26/05/2009
2009-2010	741.4	6.720	16/07/2009	4.077	1.120	02/05/2010
2010-2011	409.3	5.050	30/07/2010	0.991	1.000	29/04/2011
2011-2012	1004	8.205	17/07/2011	0.468	0.940	12/04/2012
2012-2013	565.9	5.940	09/08/2012	0.000	0.900	20/05/2013
2013-2014	559.4	6.020	26/07/2013	0.001	0.830	31/05/2014
2014-2015	965.0	7.990	01/08/2014	0.157	0.950	21/05/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Haladi (WH000N1) **Division : Cauvery Division, Bangalore**

Local River : Haladi **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.900	51.72	1.960	51.99	2.540	93.08	2.010	55.30	2.270	74.30	1.760	36.50 *
2	2.010	57.57	2.130	64.81	2.420	88.11 *	2.230	73.37	1.700	32.61 *	1.880	46.36
3	1.800	41.12	2.190	68.23	2.410	88.01	1.900	50.36	1.700	32.80	1.710	32.84
4	1.890	50.59	1.830	40.39	2.670	116.9	1.960	51.17	1.990	52.73 *	1.710	30.19
5	1.840	43.27	2.010	54.24 *	2.660	117.0	1.910	50.33	1.700	32.72	1.660	25.22
6	0.920	1.094	1.860	45.74	3.280	185.3	1.710	33.25 *	2.010	55.45	1.550	23.57 *
7	1.600	26.48 *	2.040	61.88	3.070	162.0	1.880	45.29	1.940	47.59	1.650	29.49 *
8	1.650	33.38	2.570	103.6	2.940	128.7	1.980	55.12	1.940	49.28	1.590	25.89 *
9	1.080	3.683	2.970	134.7	3.020	146.9 *	1.960	52.89	2.110	63.04	1.530	22.45 *
10	1.680	34.76	4.210	274.1	2.670	116.6	1.880	43.62	1.910	45.25	1.540	23.01 *
11	1.580	27.89	3.100	147.9	3.110	172.7	1.960	52.59	1.910	46.86 *	1.700	32.61 *
12	1.230	9.567	4.200	289.4 *	3.420	200.1	1.970	54.55	1.880	43.10	1.600	24.41
13	1.550	24.69	2.870	122.5	3.210	174.5	1.910	46.86 *	1.880	44.83	1.600	24.16
14	1.740	35.19 *	2.640	106.2	2.940	128.5	1.970	55.25	1.870	43.03	1.570	21.01
15	1.590	30.36	2.620	102.3	3.110	156.6 *	2.770	120.6	1.860	42.09	1.390	15.10 *
16	1.840	44.26	3.040	140.3	3.050	150.1 *	2.760	119.6	1.840	40.23	1.330	10.45
17	1.770	37.07	3.110	155.1	2.630	112.5	2.290	76.77 *	2.210	69.26	1.390	13.16
18	1.550	23.50	4.790	372.1 *	2.350	83.81	2.360	77.51	1.900	46.14 *	1.400	14.04
19	1.520	21.86	4.750	366.2 *	2.300	78.89	2.240	72.94	1.690	29.97	1.400	12.64
20	2.270	75.57	5.010	391.0	2.280	76.45	2.390	85.45 *	1.810	41.71	1.370	12.32
21	2.240	72.55 *	3.110	150.1	2.150	68.67	2.210	70.25	1.860	43.08	1.440	15.64
22	2.150	63.76	3.210	173.5	2.110	65.36	2.100	61.57	1.810	39.86 *	1.500	20.79 *
23	2.640	108.6	2.920	126.2	2.120	62.77 *	2.040	56.35	1.790	40.81	1.470	18.73
24	1.910	50.29	3.280	184.1	2.070	59.35	2.360	77.52	1.800	39.18 *	1.350	12.65
25	2.670	106.0	3.070	141.5	2.060	58.77	1.900	46.14 *	1.780	37.83 *	1.380	14.62 *
26	3.500	188.7	2.980	142.7 *	1.980	53.25	1.880	45.44	1.760	39.04	1.480	17.86
27	2.580	91.09	2.940	124.8	2.140	64.76	1.920	47.58 *	1.600	24.95	1.380	13.04
28	2.520	97.19 *	2.710	110.2	2.150	66.31	1.690	30.96	1.790	39.99	1.270	9.593
29	2.080	62.42	2.600	97.37	2.070	60.08	1.860	41.94	1.870	44.22	1.350	13.19 *
30	2.100	64.32	2.480	102.9	2.300	77.62 *	1.610	27.88	1.860	43.31	1.300	9.934
31			2.740	112.6	1.620	28.89			1.600	24.71		
Ten-Daily Mean												
I Ten-Daily	1.637	34.37	2.377	89.97	2.768	124.3	1.942	51.07	1.927	48.58	1.658	29.55
II Ten-Daily	1.664	33.00	3.613	219.3	2.840	133.4	2.262	76.21	1.885	44.72	1.475	17.99
III Ten-Daily	2.439	90.50	2.913	133.3	2.070	60.53	1.957	50.56	1.775	37.91	1.392	14.61
Monthly												
Min.	0.920	1.094	1.830	40.39	1.620	28.89	1.610	27.88	1.600	24.71	1.270	9.593
Max.	3.500	188.7	5.010	391.0	3.420	200.1	2.770	120.6	2.270	74.30	1.880	46.36
Mean	1.913	52.62	2.966	147.1	2.544	104.6	2.054	59.28	1.859	43.55	1.508	20.72

Annual Runoff in MCM = 1570 Annual Runoff in mm = 2693

Peak Observed Discharge = 391.0 cumecs on 20/07/2015 Corres. Water Level :5.01 m

Lowest Observed Discharge = 0.403 cumecs on 07/05/2016 Corres. Water Level :0.96 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Haladi (WH000N1) **Division : Cauvery Division, Bangalore**

Local River : Haladi **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.350	12.02	1.320	9.367	1.360	13.47	1.990	53.05	1.710	36.12	1.470	18.44 *
2	1.320	10.76	1.220	6.653	1.370	13.78	1.700	35.52	1.710	33.98	1.640	30.84
3	1.360	12.24	1.230	7.288 *	1.540	20.29	1.740	35.06	1.730	34.91 *	1.450	15.56
4	1.320	11.01	1.720	30.89	1.530	19.45	1.910	52.26	1.790	43.66	1.610	30.08
5	1.300	10.04	1.290	8.477	1.370	13.92	1.870	47.26	1.170	6.658	1.700	31.69
6	1.390	14.26 *	1.200	6.035	1.370	13.78	1.690	32.10 *	1.350	12.98	1.690	29.54
7	1.270	8.631	1.190	5.689	1.490	19.55 *	1.730	36.48	1.340	12.92	0.960	0.403 #
8	1.280	9.225	1.220	7.292	1.720	34.53	1.890	47.03	1.720	34.20 *	0.950	0.296 *
9	1.260	8.204	1.280	9.163	1.370	14.49	1.900	47.79	1.490	19.31	1.700	32.61
10	1.330	10.24	1.360	12.81 *	1.370	14.09	1.810	39.85	1.330	11.43 *	1.680	32.94
11	1.270	8.511	1.350	12.88	1.360	13.13	1.860	46.68	1.340	12.74	1.800	38.82
12	1.180	5.686	1.360	13.28	1.720	34.21	1.960	53.67	1.240	7.648	1.690	31.68
13	1.340	11.88 *	1.370	14.33	1.370	14.35	1.760	37.08 *	1.700	33.53	1.720	36.46
14	1.320	10.98 *	1.360	13.55	1.430	16.30 *	1.860	46.46	1.750	36.35 *	1.800	38.77
15	1.400	14.76 *	1.700	32.79 *	1.720	34.75	2.450	88.68	1.840	43.31	1.520	21.27 *
16	1.310	10.54 *	1.400	14.23	1.370	14.06	1.870	46.57	1.750	36.20	1.630	29.08
17	1.370	13.29 *	1.420	15.78 *	1.370	14.09	2.220	71.79	1.420	15.78 *	1.830	41.01
18	1.340	10.90	1.740	34.11	1.370	14.58	2.250	75.35	1.340	12.72	1.680	31.61
19	1.330	10.05	1.360	12.95	1.540	21.48	2.230	73.06	1.370	13.29 *	1.830	41.01
20	1.420	15.78 *	1.270	8.582	1.720	35.46	2.230	77.75 *	1.700	33.20	2.020	55.70
21	1.180	5.619	1.370	14.57	1.500	20.12 *	2.150	70.03	1.700	33.19	1.820	41.58 *
22	1.360	11.38	1.360	13.52	1.730	35.68	1.850	46.80	1.700	33.23	2.020	58.07 *
23	1.280	9.199	1.370	14.58	1.730	35.34	2.480	102.7	1.950	52.45	1.610	28.35
24	1.370	13.29 *	1.390	14.26 *	1.730	34.96	1.750	35.92	1.920	49.54 *	1.940	51.84
25	1.270	8.852 *	1.370	14.09	1.710	35.61	1.710	33.49 *	1.890	50.32	1.990	55.94
26	1.310	9.053	1.370	13.29 *	1.740	36.71	1.740	37.07	1.680	32.44	1.950	50.23
27	1.190	5.852 *	1.360	13.34	1.620	27.42 *	2.040	59.84 *	2.460	88.97	2.020	55.32
28	1.270	6.850	1.270	8.730	1.720	34.20 *	1.950	53.31	1.730	36.60	1.330	12.58
29	1.300	8.219	1.360	13.67	1.730	34.91 *	2.250	75.27	1.670	30.35	1.520	21.27 *
30	1.300	8.313	1.650	29.17			1.840	44.67	1.720	36.30	1.630	29.09
31	1.250	6.562	1.800	40.05 *			1.710	34.08			1.430	17.69
Ten-Daily Mean												
I Ten-Daily	1.318	10.66	1.303	10.37	1.449	17.74	1.823	42.64	1.534	24.62	1.485	22.24
II Ten-Daily	1.328	11.24	1.433	17.25	1.497	21.24	2.069	61.71	1.545	24.48	1.752	36.54
III Ten-Daily	1.280	8.472	1.425	17.21	1.690	32.77	1.952	53.93	1.842	44.34	1.751	38.36
Monthly												
Min.	1.180	5.619	1.190	5.689	1.360	13.13	1.690	32.10	1.170	6.658	0.950	0.296
Max.	1.420	15.78	1.800	40.05	1.740	36.71	2.480	102.7	2.460	88.97	2.020	58.07
Mean	1.308	10.07	1.388	15.01	1.540	23.61	1.948	52.8	1.640	31.14	1.665	32.57

Peak Computed Discharge = 372.1 cumecs on 18/07/2015 **Corres. Water Level :4.79 m**

Lowest Computed Discharge = 0.296 cumecs on 08/05/2016 **Corres. Water Level :0.95 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

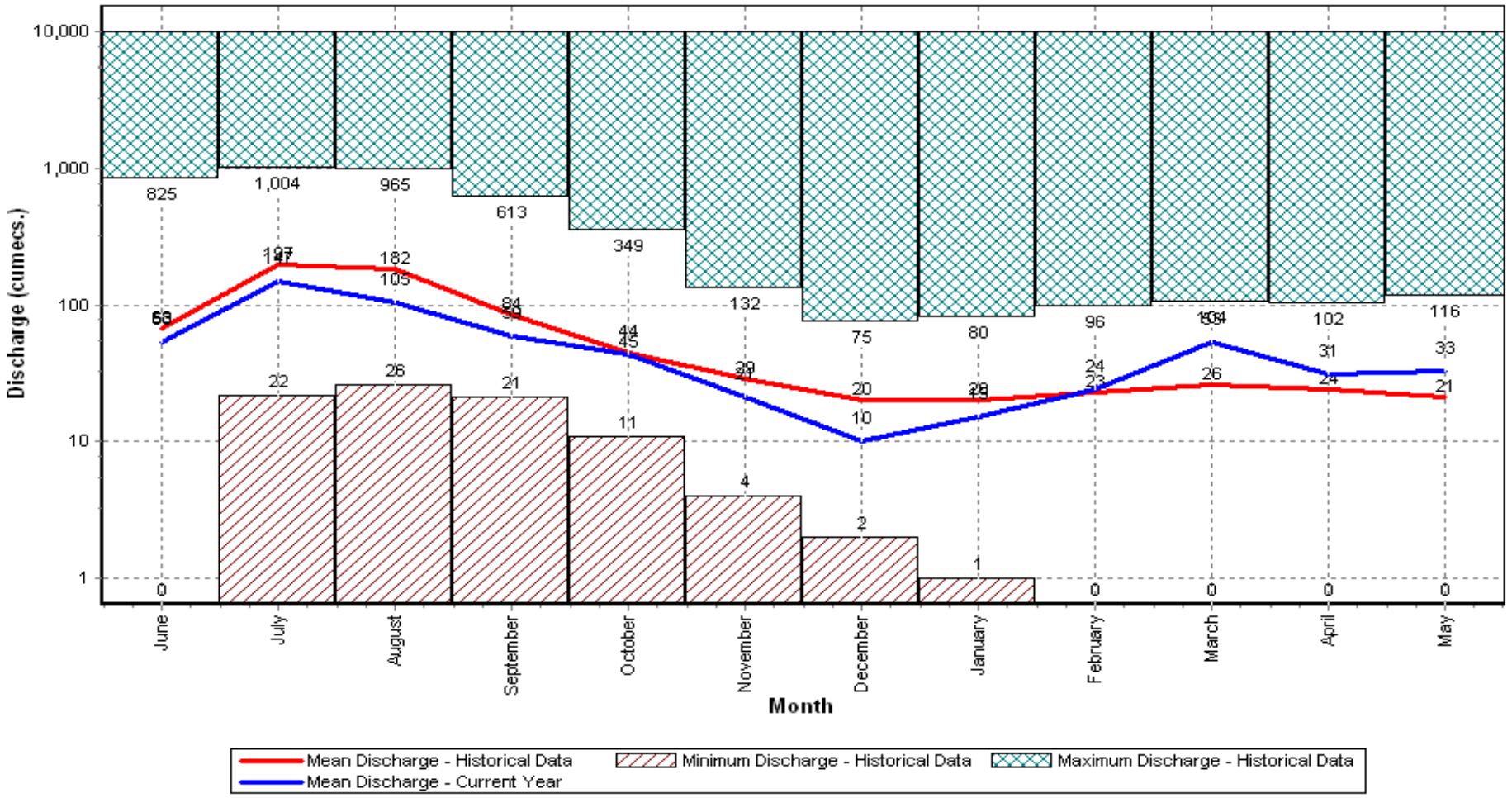
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Haladi (WH000N1) | **Data considered : 1986-2016** | **Division : Cauvery Division, Bangalore**

Local River : Haladi | **Sub-Division : SWRSD-III, Mangalore**



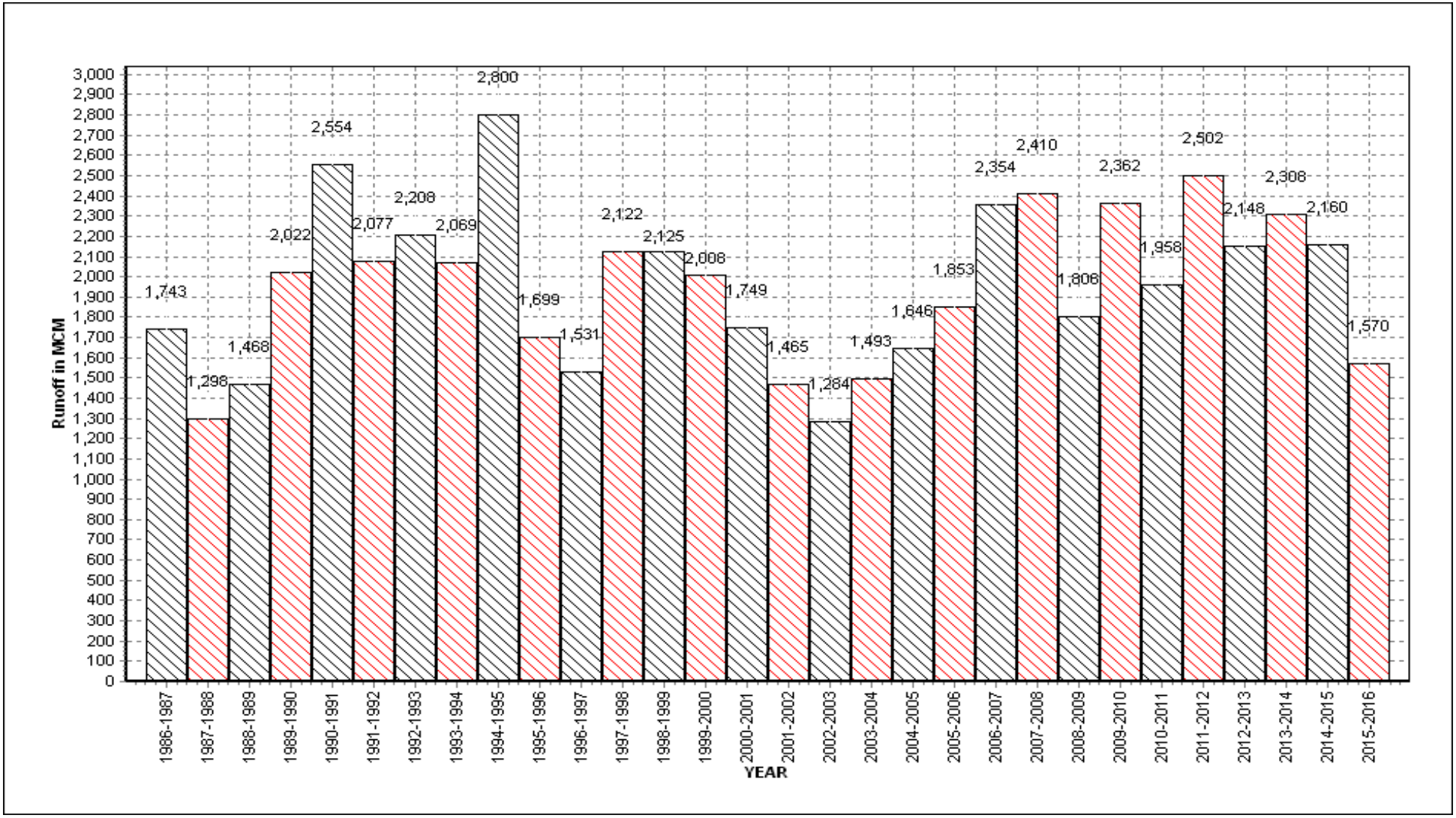
Annual Runoff Values for the period: 1986 - 2016

Station Name : Haladi (WH000N1)

Local River : Haladi

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore

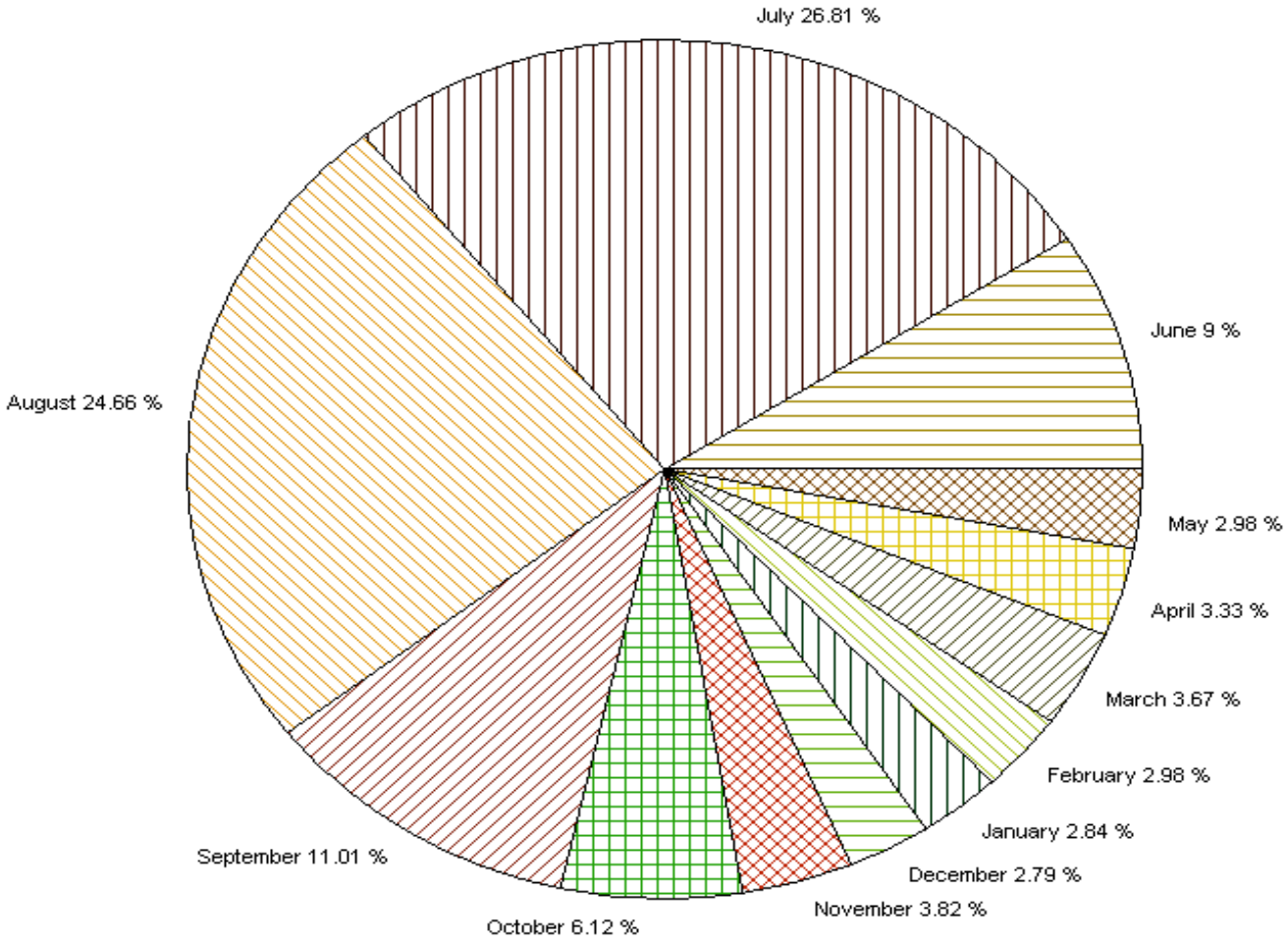


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : Haladi (WH000N1)
Local River : Haladi

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



June	9 %
July	26.81 %
August	24.66 %
September	11.01 %
October	6.12 %
November	3.82 %
December	2.79 %
January	2.84 %
February	2.98 %
March	3.67 %
April	3.33 %
May	2.98 %

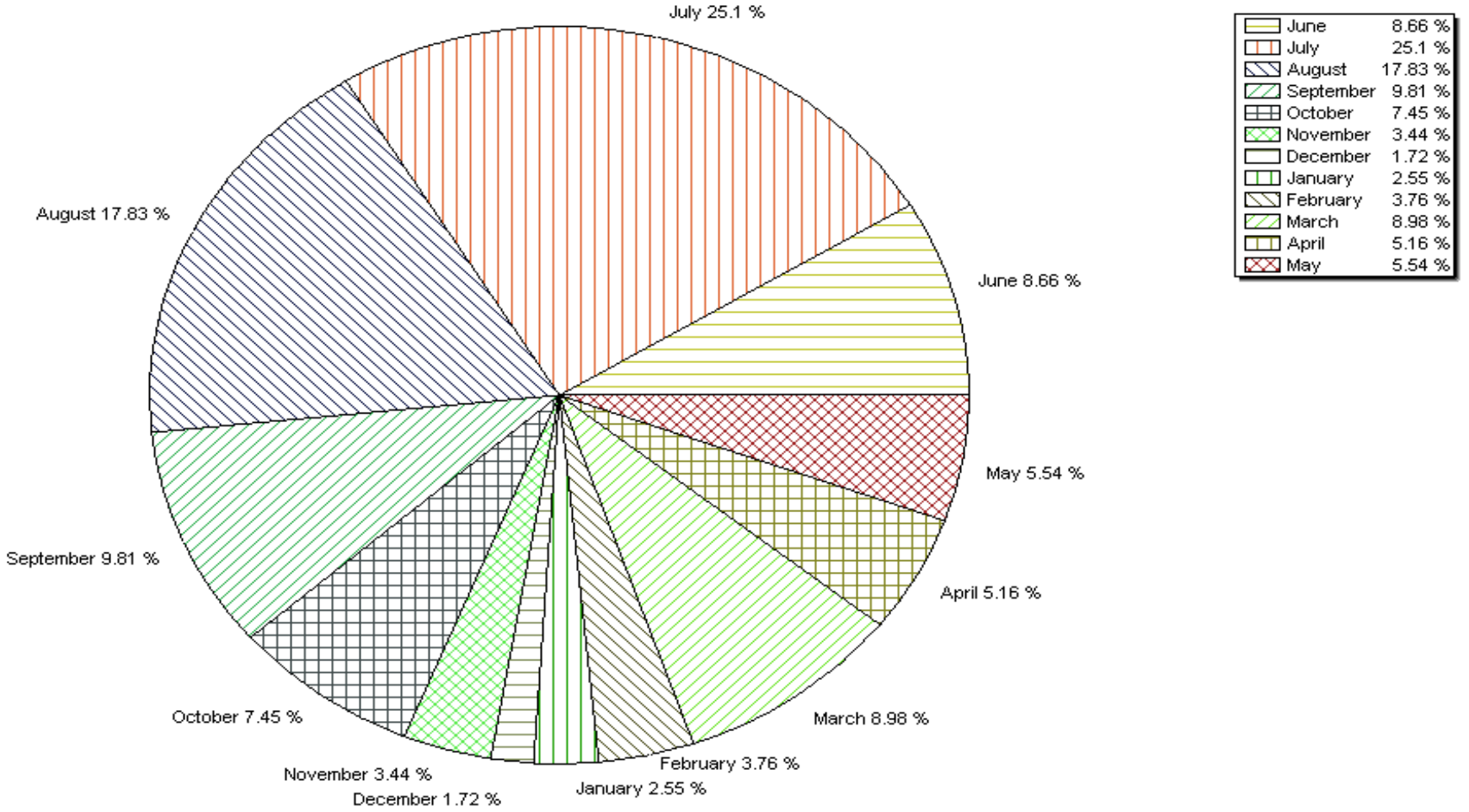
Monthly Runoff for the Year : 2015-2016

Station Name : Haladi (WH000N1)

Local River : Haladi

Division : Cauvery Division, Bangalore

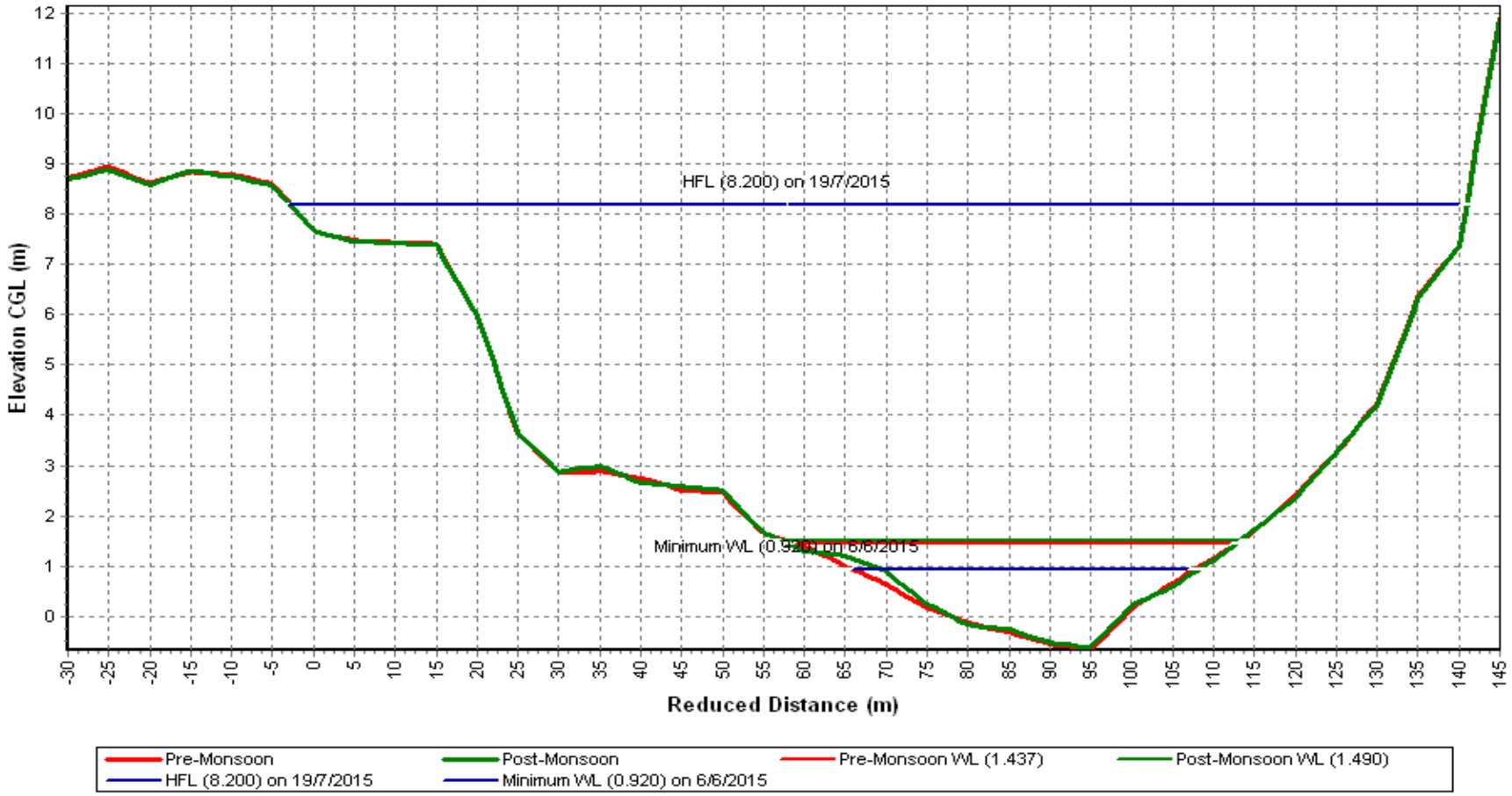
Sub-Division : SWRSD-III, Mangalore



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Haladi (WH000N1)
Local River : Haladi

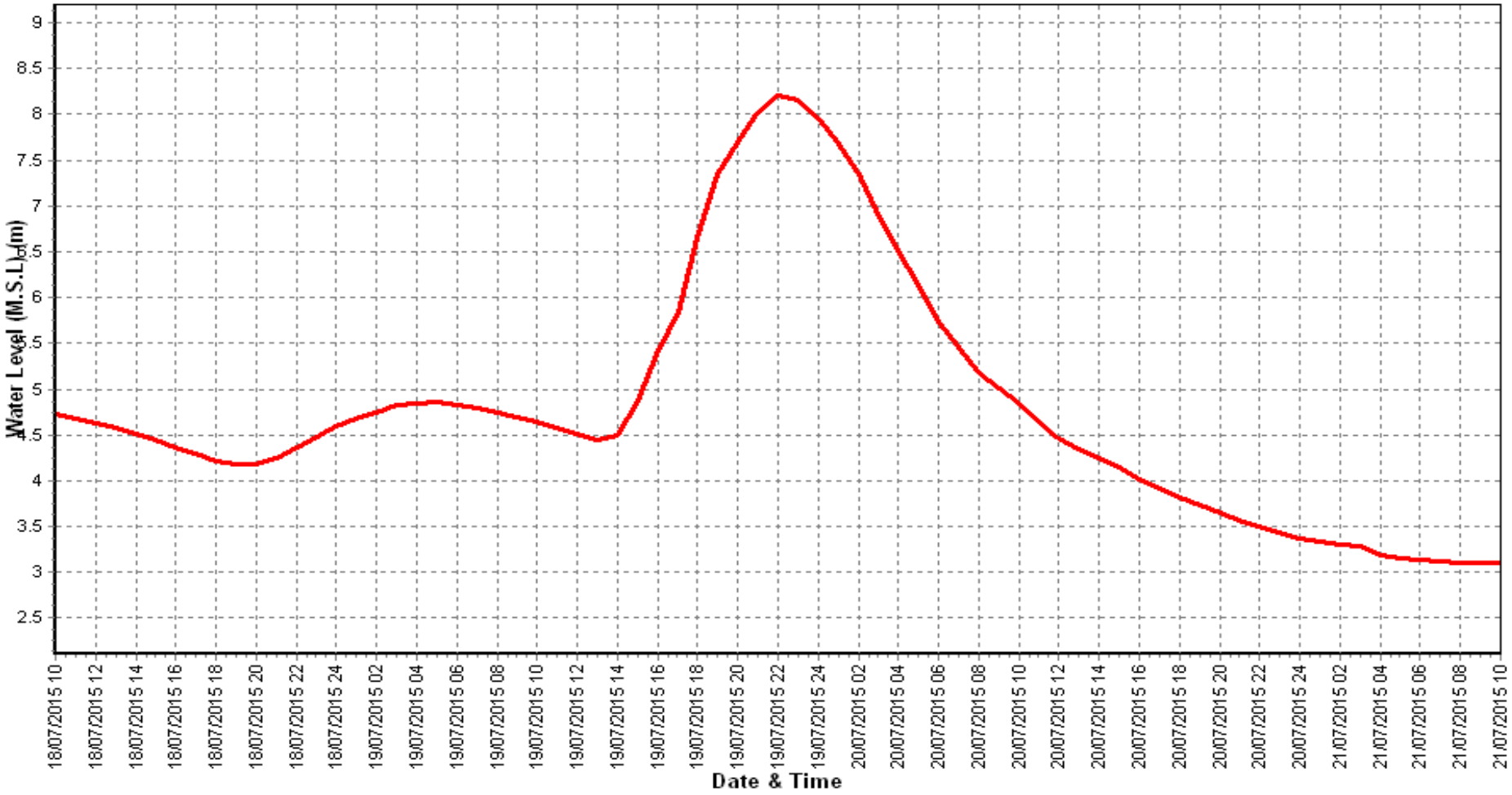
Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Haladi (WH000N1) **Division : Cauvery Division, Bangalore**

Local River : Haladi **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

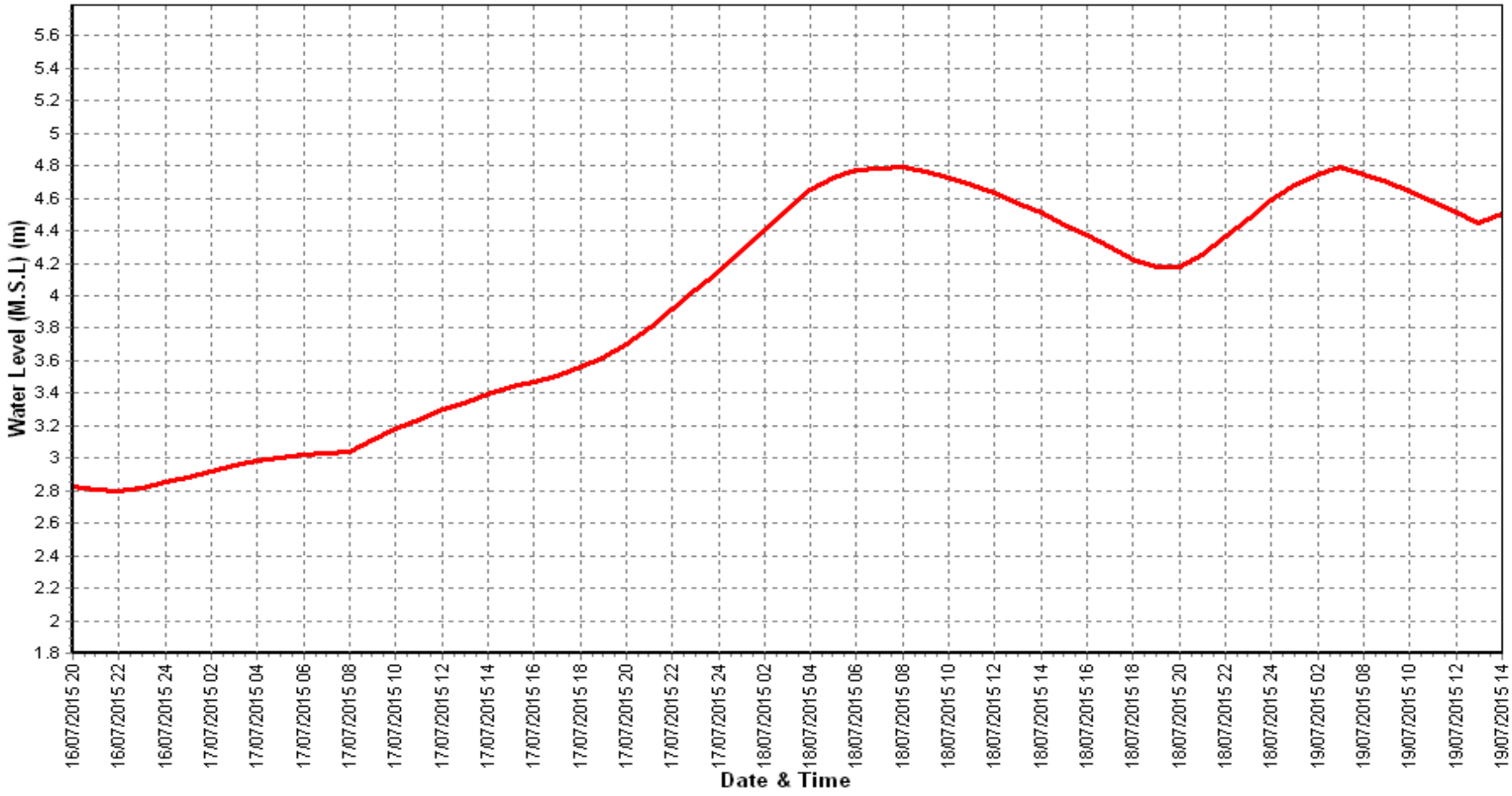
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Haladi (WH000N1)

Local River : Haladi

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore

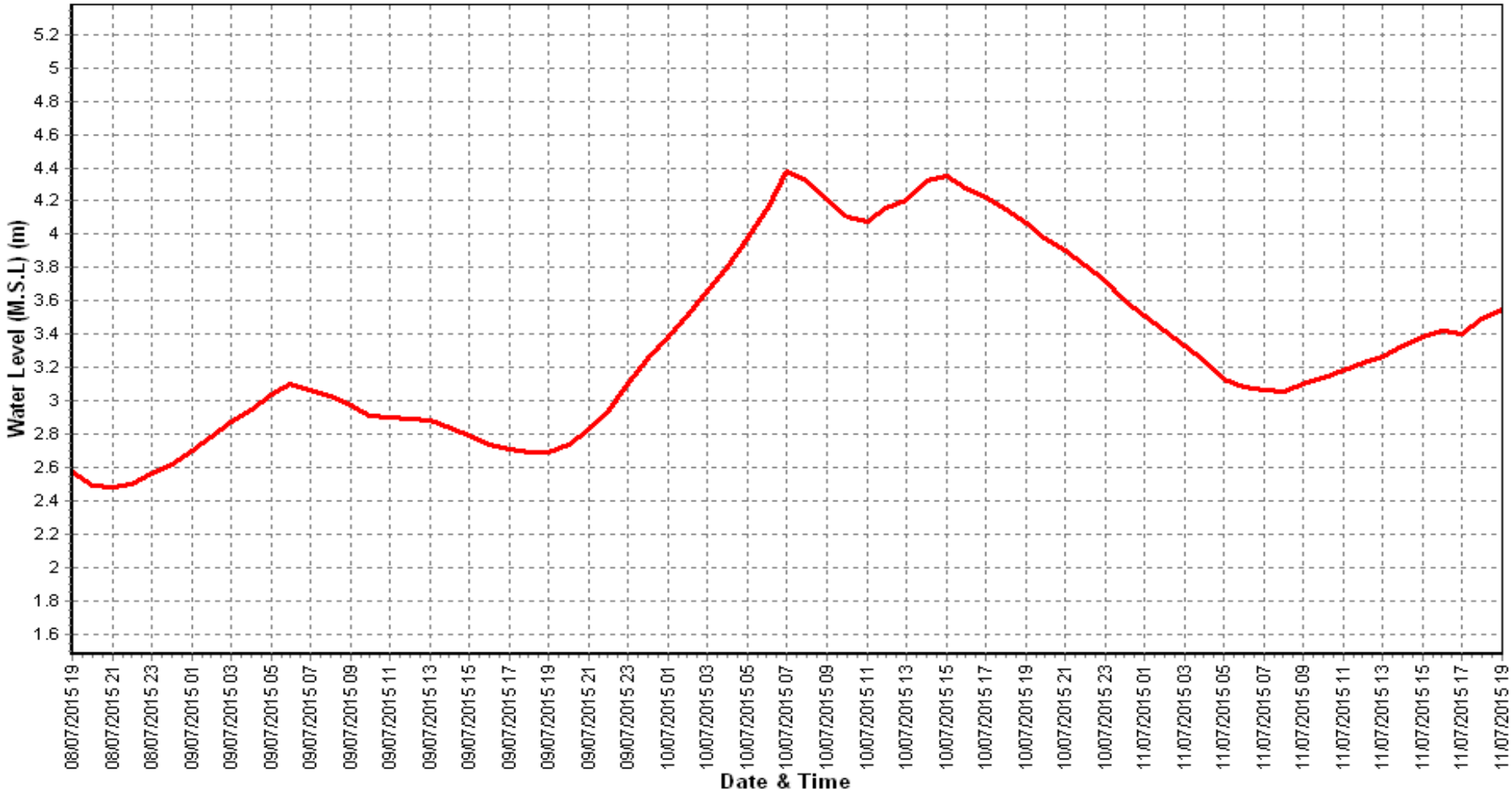


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Haladi (WH000N1) **Division : Cauvery Division, Bangalore**

Local River : Haladi **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Avershe**		**Code**	**: WI000J2**	
State	: Karnataka		District	Udupi	
Basin	: WFR South of Tapi		Independent River	: Sita	
Tributary	: -		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Sita	
Division	: Cauvery Division, Bangalore		Sub-Division	: SWRSD-III, Mangalore	
Drainage Area	: 253 Sq. Km.		Bank	: Right	
Latitude	: 13°31'17"		Longitude	: 74°52'48"	
Zero of Gauge (m)	: 88.000(m.s.l) 8.780 (m.s.l)		21/07/1998 01/06/2006	- 31/05/2006	
	Opening Date		Closing Date		
Gauge	: 21/07/1998				
Discharge	: 25/06/2002				
Sediment	:				
Water Quality	: 02/09/2002				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2003-2004	338.3	94.050	23/08/2003	0.000	91.110	28/03/2004
2004-2005	544.0	95.060	04/08/2004	0.000	91.180	27/03/2005
2005-2006	616.5	95.670	02/08/2005	0.000	91.240	20/03/2006
2006-2007	462.7	14.480	12/08/2006	0.000	11.050	20/04/2007
2007-2008	545.4	15.200	30/06/2007	0.000	11.040	16/05/2008
2008-2009	806.5	16.360	13/08/2008	0.000	11.080	10/04/2009
2009-2010	555.7	15.430	16/07/2009	0.000	11.170	12/04/2010
2010-2011	422.9	14.380	30/07/2010	0.000	11.130	08/04/2011
2011-2012	680.2	15.310	17/07/2011	0.000	11.000	01/06/2011
2012-2013	477.7	14.860	10/08/2012	0.000	10.845	01/06/2012
2013-2014	389.9	14.600	04/07/2013	0.000	11.110	10/03/2014
2014-2015	943.8	16.680	01/08/2014	0.000	11.170	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

Local River : Sita **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	11.150	0.000	12.320	55.27	12.580	85.83 #	12.180	43.36	11.990	25.78	11.780	11.62 *
2	11.150	0.000	12.320	55.43	12.620	90.78 *	12.160	39.30	12.120	36.90 *	11.840	13.76
3	11.170	0.000	12.270	49.42	12.580	85.83 #	12.120	34.52	12.100	31.89	12.510	91.90
4	11.170	0.000	12.300	53.87	12.770	137.7	12.050	28.91	12.060	31.69 *	12.170	39.46
5	11.200	0.000	12.245	48.67 *	12.940	140.8	12.160	39.14	12.340	64.29	12.120	34.91
6	11.190	0.000	12.170	41.09	12.970	149.6	12.105	35.57 *	12.130	35.24	11.980	25.47
7	11.180	0.000	12.120	35.79	12.830	126.1	12.090	31.36	12.050	28.60	11.920	16.87
8	11.210	0.000	12.100	34.90	12.990	153.9	12.270	51.49	12.080	30.93	11.880	17.93 *
9	11.220	0.000	13.010	127.3	13.130	162.4 *	12.175	40.51	12.000	26.13	11.860	14.30
10	11.240	0.000	14.010	317.7	12.770	117.6	12.190	41.37	11.970	21.06	11.840	13.62
11	11.250	0.000	12.960	121.2	13.040	165.3	12.220	43.49	11.950	22.94 *	11.820	14.02 *
12	11.260	0.000	12.930	132.5 *	13.090	176.6	12.160	39.05	12.040	28.40	11.810	12.78
13	11.270	0.000	13.060	133.9	13.080	173.9	12.160	40.53 *	11.960	19.39	11.820	13.03
14	11.560	0.000	12.470	73.70	12.950	142.0	12.130	38.21	11.940	18.92	11.790	12.33
15	11.610	3.464 #	12.470	74.01	12.780	111.6 *	12.770	121.6	11.900	16.88	11.770	11.04 *
16	11.620	3.841 #	12.950	120.9	12.880	125.4 *	12.920	139.5	11.880	16.11	11.750	10.33
17	11.640	4.635 #	12.960	122.8	12.640	108.3	12.480	73.93 *	11.870	14.61	11.740	10.05
18	11.760	12.66	12.930	132.5 *	12.570	101.3	12.380	70.03	11.860	16.59 *	11.730	9.797
19	11.730	8.857 #	14.130	343.5 *	12.470	87.11	12.360	68.24	11.850	14.04	11.730	9.795
20	11.770	13.08	14.070	334.0	12.340	64.26	12.400	64.89 *	11.840	13.65	11.720	9.612
21	11.840	15.28 *	12.980	126.0	12.300	56.05	12.280	52.42	11.840	13.66	11.730	9.811
22	12.220	46.01	12.930	118.1	12.330	56.00	12.250	48.79	11.820	14.02 *	11.725	8.596 *
23	12.210	45.95	12.520	78.42	12.380	62.70 *	12.170	40.52	11.800	12.65	11.720	9.607
24	12.340	56.68	13.080	137.7	12.320	55.21	12.120	33.95	11.780	11.62 *	11.710	9.305
25	12.380	64.98	12.620	86.38	12.280	53.84	12.030	29.20 *	11.770	11.04 *	11.705	7.584 *
26	13.090	143.2	12.550	82.19 *	12.290	53.24	12.060	28.98	11.770	10.85	11.700	8.971
27	12.410	68.71	12.720	94.61	12.380	69.77	12.040	30.02 *	11.760	10.60	11.700	8.984
28	12.530	79.80 *	12.470	82.12	12.430	76.49	12.000	26.07	11.760	10.66	11.690	8.689
29	12.250	48.40	12.480	82.29	12.310	54.37	11.970	21.05	11.940	19.22	11.690	6.856 *
30	12.430	70.93	12.350	75.73	12.320	56.30 *	11.940	19.41	11.980	25.46	11.680	6.386 #
31			12.530	79.80 #	12.230	47.65			11.820	13.05		
Ten-Daily Mean												
I Ten-Daily	11.188	0.000	12.487	81.94	12.818	125.1	12.150	38.55	12.084	33.25	11.990	27.99
II Ten-Daily	11.547	4.653	13.093	158.9	12.784	125.6	12.398	69.94	11.909	18.15	11.768	11.28
III Ten-Daily	12.370	63.99	12.657	94.86	12.325	58.33	12.086	33.04	11.822	13.89	11.705	8.479
Monthly												
Min.	11.150	0.000	12.100	34.90	12.230	47.65	11.940	19.41	11.760	10.60	11.680	6.386
Max.	13.090	143.2	14.130	343.5	13.130	176.6	12.920	139.5	12.340	64.29	12.510	91.90
Mean	11.702	22.88	12.743	111.3	12.632	101.5	12.211	47.18	11.935	21.51	11.821	15.91

Annual Runoff in MCM = 872 Annual Runoff in mm = 3446

Peak Observed Discharge = 334.0 cumecs on 20/07/2015 Corres. Water Level :14.07 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :11.15 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

Local River : Sita **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	11.680	7.694	11.510	2.896	11.340	1.121	11.230	0.000	10.780	0.000		0.000
2	11.680	7.708	11.490	2.414	11.340	1.117	11.230	0.000	10.750	0.000		0.000
3	11.750	10.30	11.490	2.861 *	11.330	1.071	11.220	0.000	10.730	0.000		0.000
4	11.700	8.100	11.480	2.240	11.330	1.067	11.220	0.000	10.700	0.000		0.000
5	11.680	7.608	11.480	2.245	11.330	1.053	11.210	0.000	10.660	0.000		0.000
6	11.660	6.396 *	11.470	2.161	11.330	1.059	11.200	0.000	10.540	0.000		0.000
7	11.650	6.855	11.470	2.157	11.330	0.940 *	11.190	0.000	10.370	0.000		0.000
8	11.650	6.824	11.460	2.077	11.330	1.054	11.170	0.000	10.250	0.000		0.000
9	11.640	6.328	11.460	2.068	11.320	0.943	11.160	0.000	10.070	0.000		0.000
10	11.640	5.892 *	11.450	2.262 *	11.320	0.939	11.150	0.000	10.040	0.000		0.000
11	11.630	6.143	11.450	2.006	11.320	0.933	11.140	0.000	10.040	0.000		0.000
12	11.630	6.113	11.450	2.012	11.320	0.932	11.130	0.000	10.040	0.000		0.000
13	11.620	5.412 *	11.450	1.999	11.320	0.911	11.120	0.000	10.030	0.000		0.000
14	11.620	5.957	11.450	2.006	11.310	0.783 *	11.120	0.000	10.030	0.000		0.000
15	11.610	5.786	11.440	2.126 *	11.310	0.747	11.110	0.000	10.030	0.000		0.000
16	11.610	5.772	11.440	1.900	11.290	0.000	11.100	0.000	10.030	0.000		0.000
17	11.600	5.544	11.440	2.126 *	11.270	0.000	11.090	0.000	9.970	0.000		0.000
18	11.600	5.514	11.440	1.889	11.250	0.000	11.080	0.000	9.880	0.000		0.000
19	11.590	5.333	11.430	1.776	11.250	0.000	11.070	0.000	9.780	0.000		0.000
20	11.590	4.738 *	11.430	1.994 *	11.250	0.000	11.060	0.000	9.780	0.000		0.000
21	11.580	4.428	11.430	1.994 *	11.240	0.000	11.050	0.000	9.780	0.000		0.000
22	11.580	4.443	11.450	1.776	11.240	0.000	11.030	0.000	9.780	0.000		0.000
23	11.580	4.429	11.400	1.660	11.240	0.000	11.020	0.000	9.780	0.000		0.000
24	11.570	4.317 *	11.390	1.516 *	11.240	0.000	11.000	0.000	9.780	0.000	11.220	0.000
25	11.570	4.317 *	11.380	1.568	11.240	0.000	10.980	0.000		0.000	11.190	0.000
26	11.560	3.678	11.370	1.306 *	11.240	0.000	10.960	0.000		0.000	11.160	0.000
27	11.550	3.920 *	11.370	1.263	11.240	0.000	10.940	0.000		0.000	11.150	0.000
28	11.540	3.359	11.360	1.225	11.240	0.000	10.920	0.000		0.000	11.140	0.000
29	11.540	3.350	11.360	1.224	11.230	0.000	10.890	0.000		0.000	11.150	0.000
30	11.530	3.156	11.350	1.177			10.860	0.000		0.000	11.130	0.000
31	11.520	3.057	11.350	1.114 *			10.820	0.000			11.125	0.000
Ten-Daily Mean												
I Ten-Daily	11.673	7.370	11.476	2.338	11.330	1.036	11.198	0.000	10.489	0.000		0.000
II Ten-Daily	11.610	5.631	11.442	1.983	11.289	0.431	11.102	0.000	9.961	0.000		0.000
III Ten-Daily	11.556	3.859	11.383	1.438	11.239	0.000	10.952	0.000	9.780	0.000	11.158	0.000
Monthly												
Min.	11.520	3.057	11.350	1.114	11.230	0.000	10.820	0.000	9.780	0.000	11.125	0.000
Max.	11.750	10.30	11.510	2.896	11.340	1.121	11.230	0.000	10.780	0.000	11.220	0.000
Mean	11.611	5.563	11.432	1.904	11.288	0.506	11.080	0	10.151	0	11.158	0

Peak Computed Discharge = 343.5 cumecs on 19/07/2015 **Corres. Water Level :14.13 m**

Lowest Computed Discharge = 0.783 cumecs on 14/02/2016 **Corres. Water Level :11.31 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

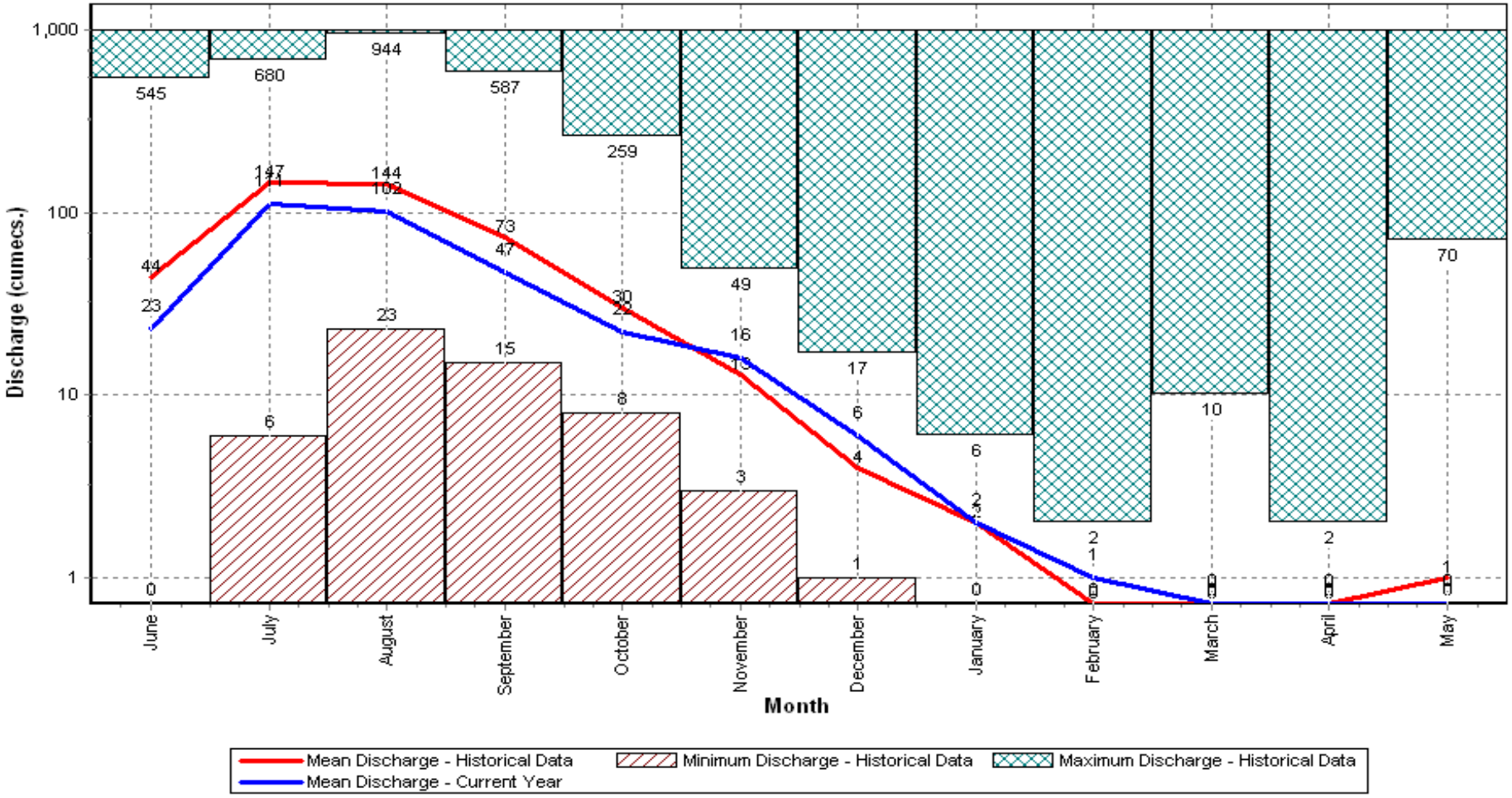
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Avershe (WI000J2) | **Data considered : 2003-2016** | **Division : Cauvery Division, Bangalore**

Local River : Sita | **Sub-Division : SWRSD-III, Mangalore**



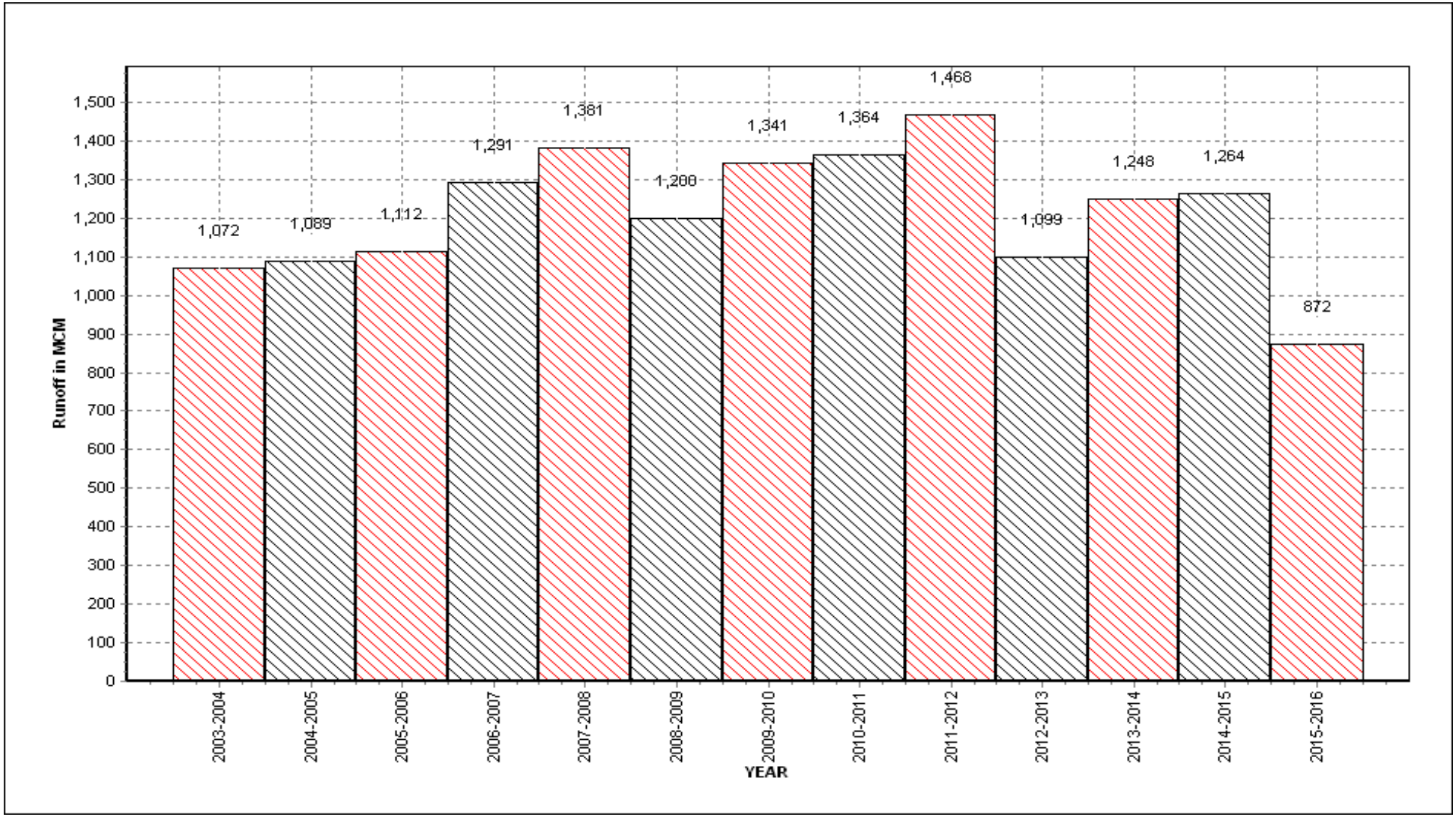
Annual Runoff Values for the period: 2003 - 2016

Station Name : Avershe (WI000J2)

Division : Cauvery Division, Bangalore

Local River : Sita

Sub-Division : SWRSD-III, Mangalore

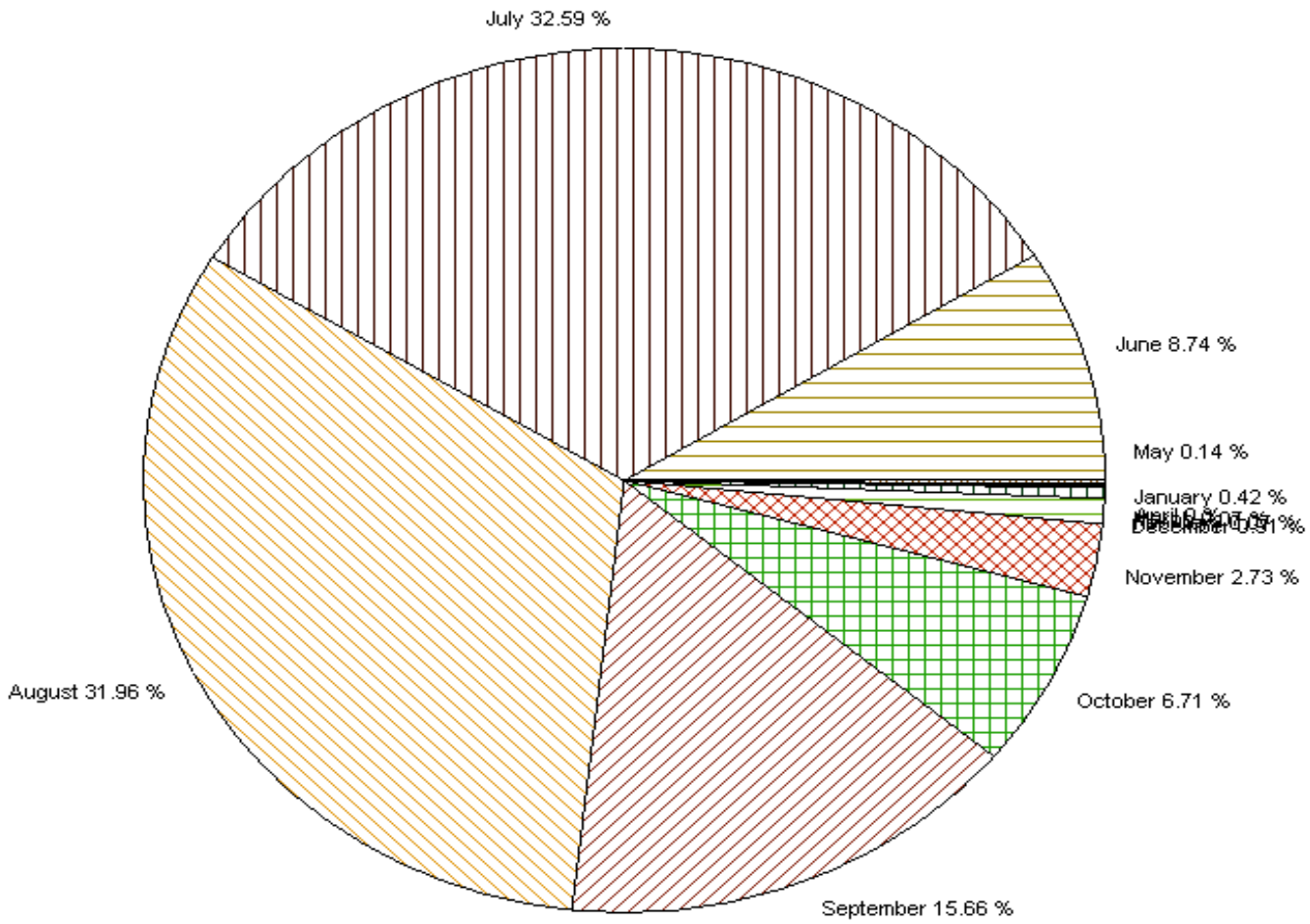


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2003-2015

Station Name : Avershe (WI000J2)
Local River : Sita

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



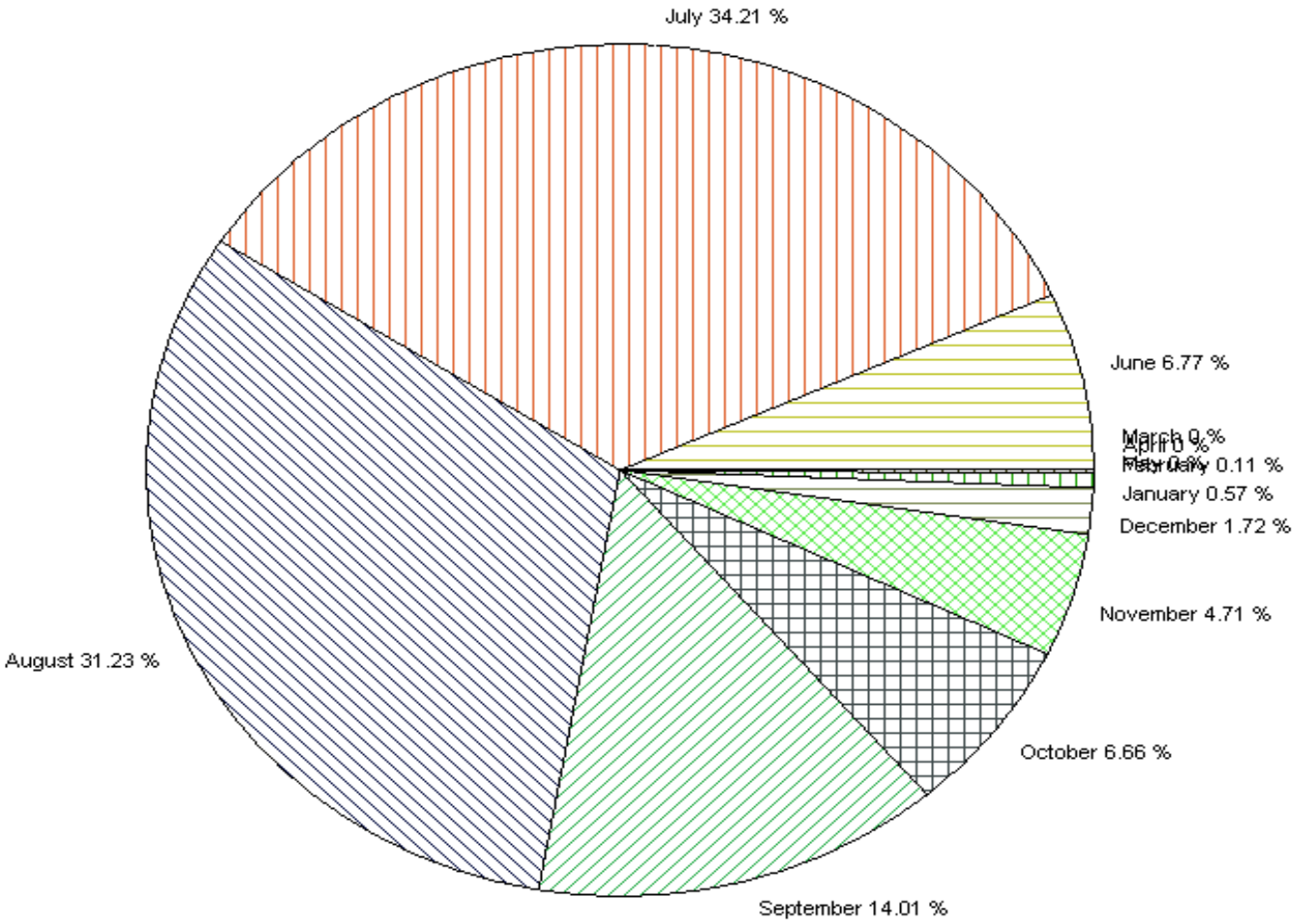
Monthly Runoff for the Year : 2015-2016

Station Name : Avershe (WI000J2)

Local River : Sita

Division : Cauvery Division, Bangalore

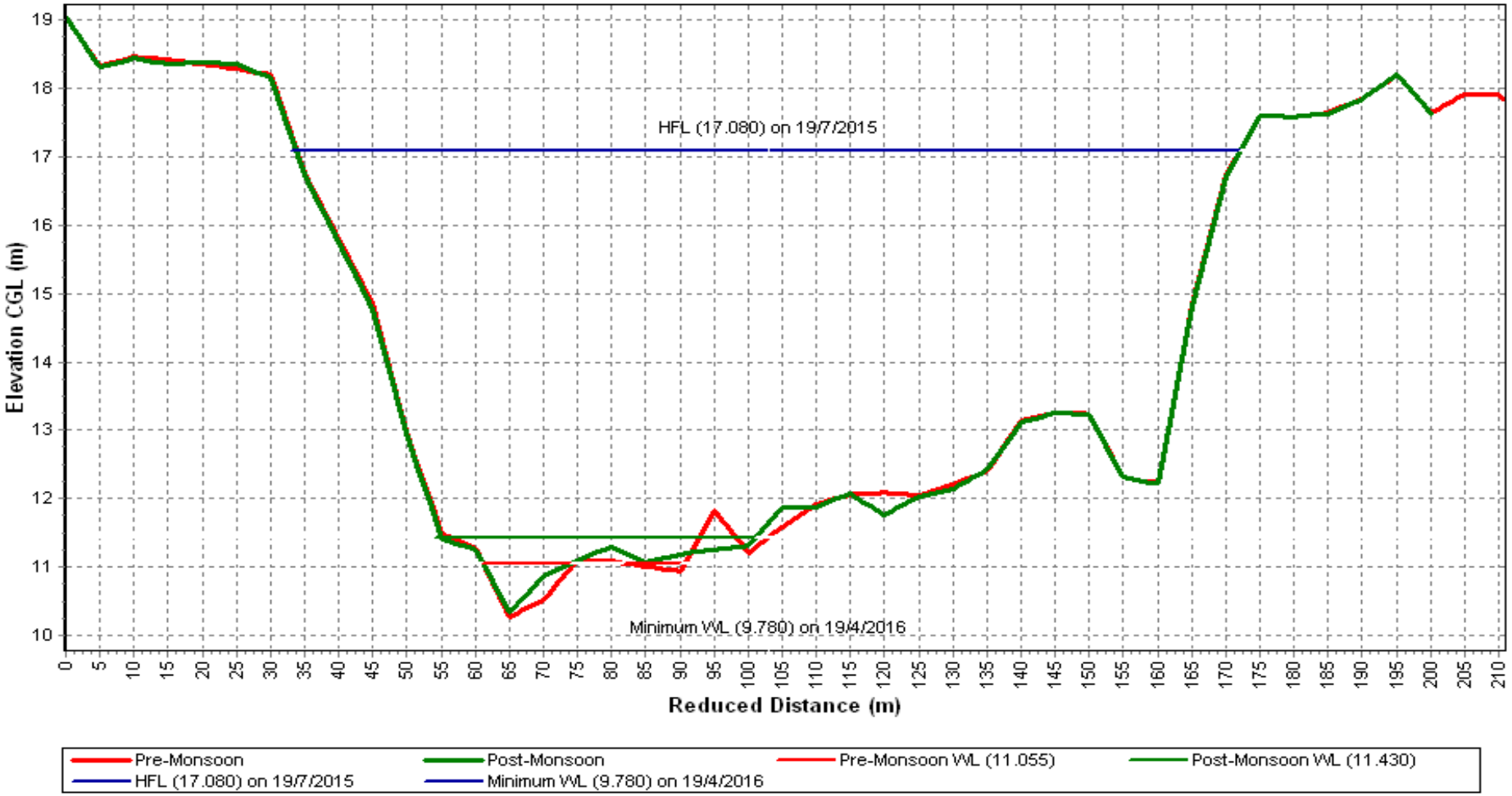
Sub-Division : SWRSD-III, Mangalore



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

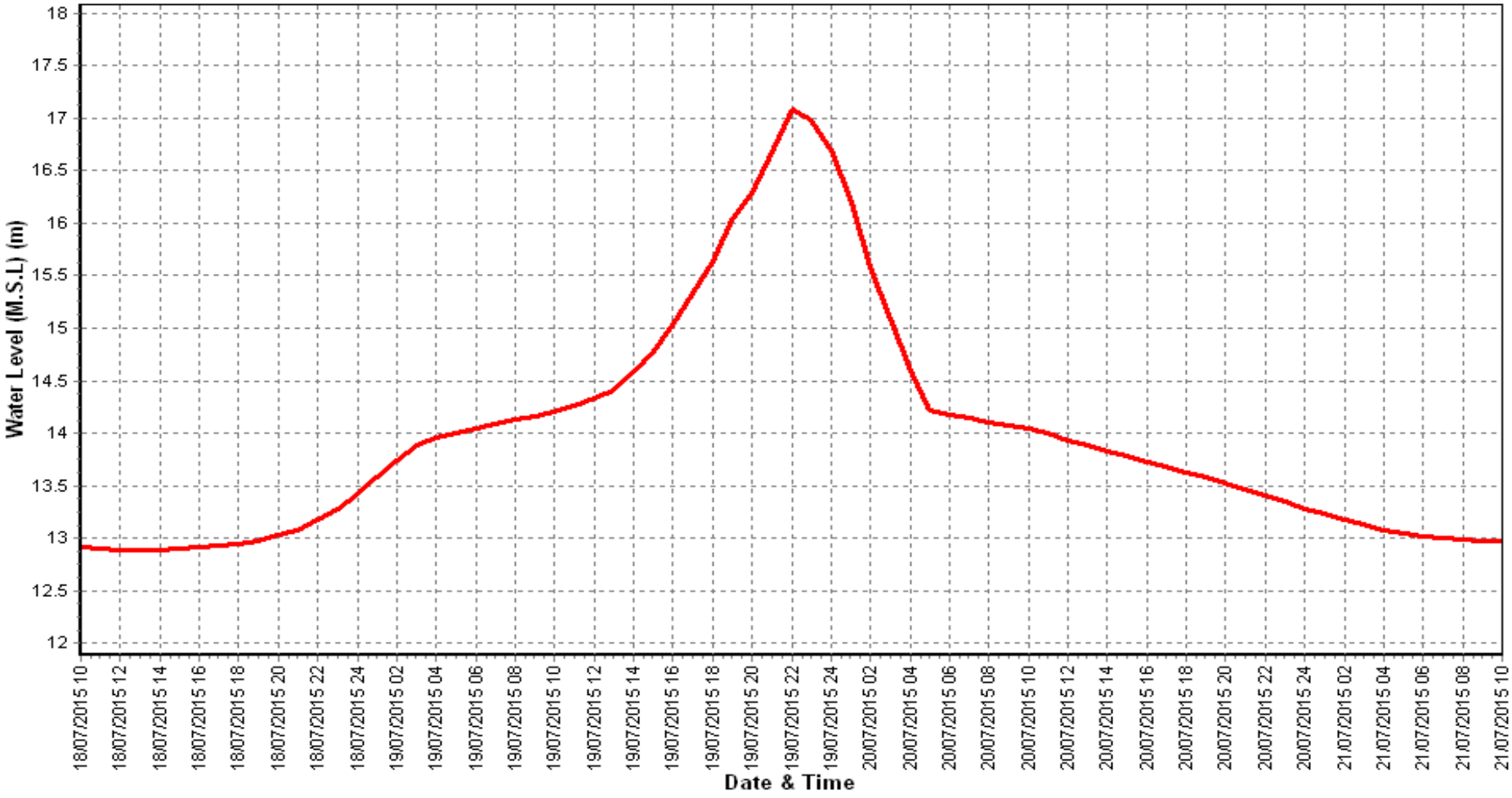
Local River : Sita **Sub-Division : SWRSD-III, Mangalore**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

Local River : Sita **Sub-Division : SWRSD-III, Mangalore**

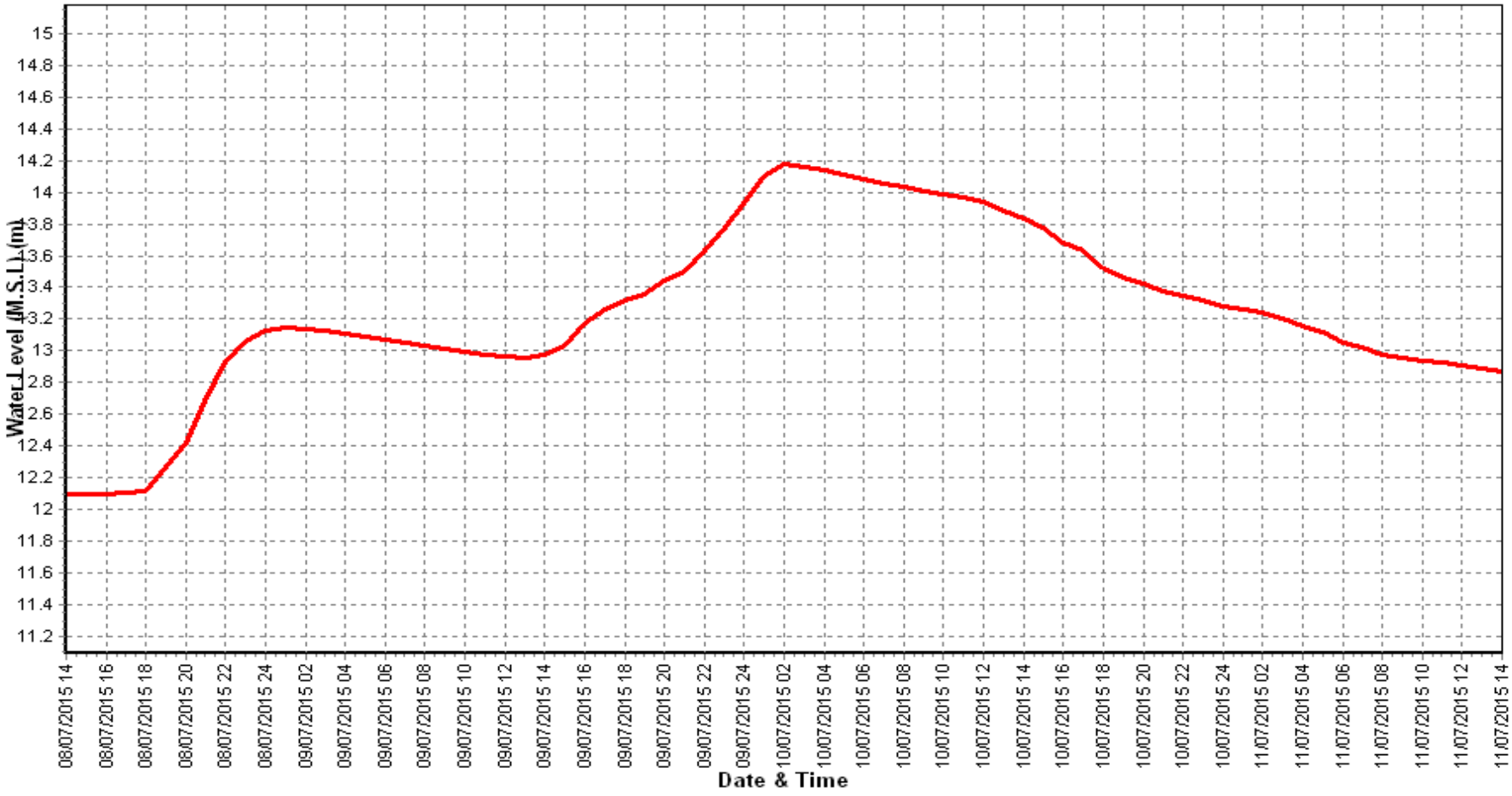


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

Local River : Sita **Sub-Division : SWRSD-III, Mangalore**

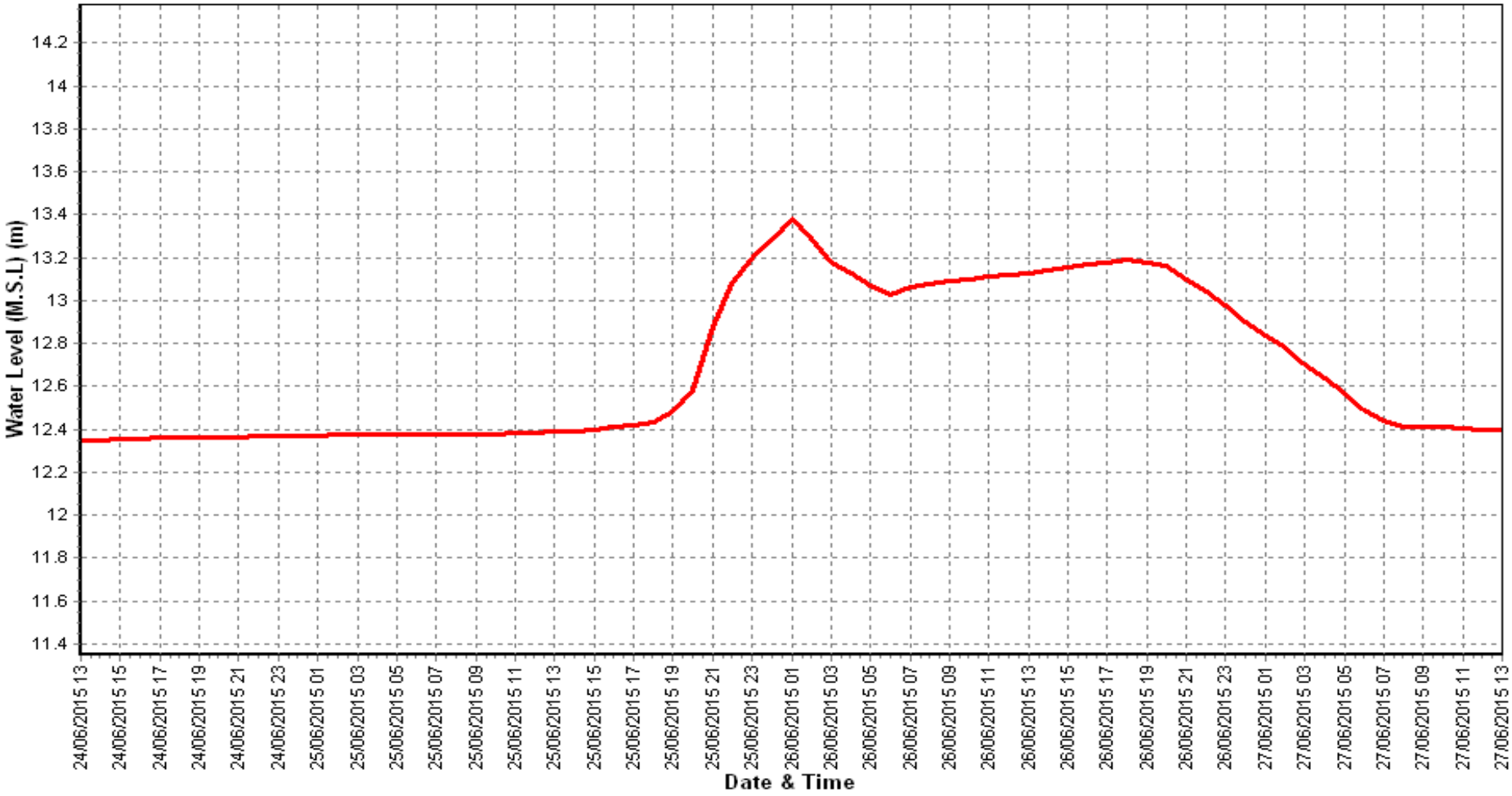


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Avershe (WI000J2) **Division : Cauvery Division, Bangalore**

Local River : Sita **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**:**	**Yennehole**	**Code**	**:**	**WS000Q1**
State	:	Karnataka	District		Udupi
Basin	:	WFR South of Tapi	Independent River	:	Swarna
Tributary	:	Yennehole	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Yennehole
Division	:	Cauvery Division, Bangalore	Sub-Division	:	SWRSD-III, Mangalore
Drainage Area	:	327 Sq. Km.	Bank	:	Right
Latitude	:	13°17'39"	Longitude	:	74°58'51"
Zero of Gauge (m)	:	15.000(m.s.l)	24/07/1989		
		Opening Date	Closing Date		
Gauge	:	24/07/1989			
Discharge	:	24/07/1989			
Sediment	:				
Water Quality	:	01/09/1993			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1990-1991	708.0	22.100	17/08/1990	0.000	17.130	05/04/1991
1991-1992	585.5	21.676	01/08/1991	0.000	17.075	22/03/1992
1992-1993	545.8	21.709	27/07/1992	0.000	17.088	04/05/1993
1993-1994	453.2	20.993	10/07/1993	0.000	17.095	22/03/1994
1994-1995	1062	23.390	13/07/1994	0.000	17.025	18/04/1995
1995-1996	696.3	22.800	11/07/1995	0.000	17.080	07/04/1996
1996-1997	910.0	23.925	29/09/1996	0.000	17.050	09/04/1997
1997-1998	789.5	23.045	10/07/1997	0.000	17.105	01/05/1998
1998-1999	626.5	21.650	06/07/1998	0.000	17.030	22/04/1999
1999-2000	695.7	22.410	18/07/1999	0.000	17.160	04/04/2000
2000-2001	610.6	22.290	25/08/2000	0.000	17.005	30/03/2001
2001-2002	370.3	20.770	05/07/2001	0.000	17.335	13/03/2002
2002-2003	310.2	20.425	17/08/2002	0.000	17.140	15/04/2003
2003-2004	766.0	22.670	23/06/2003	0.000	17.235	09/03/2004
2004-2005	704.1	22.300	03/08/2004	0.000	17.105	02/04/2005
2005-2006	658.8	22.590	02/08/2005	0.000	17.035	22/04/2006
2006-2007	578.1	21.930	20/07/2006	0.000	17.115	23/04/2007
2007-2008	721.0	22.400	30/06/2007	0.023	17.260	12/03/2008
2008-2009	746.7	22.640	11/08/2008	0.003	17.195	11/03/2009

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2009-2010	1531	24.650	06/07/2009	0.000	17.240	28/04/2010
2010-2011	482.5	21.650	22/10/2010	0.000	17.270	09/05/2011
2011-2012	859.9	23.525	18/07/2011	0.000	17.280	01/06/2011
2012-2013	740.1	22.800	26/08/2012	0.000	17.040	01/06/2012
2013-2014	1069	23.640	04/07/2013	0.000	17.190	19/02/2014
2014-2015	792.5	22.600	20/07/2014	0.000	17.240	15/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Yennehole (WS000Q1) **Division : Cauvery Division, Bangalore**

Local River : Yennehole **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	17.440	1.357	19.040	106.7	19.020	100.1	18.390	29.28	18.690	48.45	18.090	13.73 *
2	17.420	1.151	18.860	80.31	19.030	97.23 *	18.360	28.88	18.230	21.26 *	18.930	85.27
3	17.420	1.202	18.680	59.41	19.000	87.62	18.210	22.19	18.170	17.83 #	18.620	45.42
4	17.580	3.061	18.620	53.77	19.660	175.3	18.130	13.39	18.180	18.38 *	18.600	42.67
5	17.830	6.141	18.750	64.19 *	19.450	171.0	18.280	27.01	18.500	39.28	18.330	23.17
6	17.700	5.173	18.400	34.64	19.940	229.1	18.150	16.75 *	18.580	45.67	18.270	26.90
7	17.620	3.311 *	18.480	37.54	19.880	207.1	18.270	26.63	18.460	45.78	18.310	23.07
8	17.600	3.246	18.580	51.82	19.800	226.9	18.610	42.28	18.500	31.46	18.230	21.26 *
9	17.740	5.396	19.580	184.9	19.780	220.6 *	18.300	22.15	18.460	38.71	18.130	13.21
10	17.820	6.219	21.200	610.7	19.960	275.1	18.260	23.10 #	18.490	38.27	18.140	14.82
11	17.820	6.130	19.640	173.7	20.160	282.0	18.400	30.04	18.480	38.94 *	18.380	31.22 *
12	18.280	24.36 *	19.950	255.7 *	19.460	172.8	18.380	26.50	18.420	37.82	17.990	9.580
13	18.100	14.21 *	19.540	168.6	19.450	164.2	18.370	30.49 *	18.310	26.87	18.130	16.68
14	18.260	23.10 *	19.040	106.4	19.610	198.6	18.400	30.15	18.310	27.14	18.290	20.70
15	18.030	11.02 *	19.490	172.6	19.380	148.4 *	19.160	103.2	18.250	21.43	18.020	10.59 *
16	18.070	15.47	20.140	316.4	19.770	218.6 *	19.040	106.7	18.210	24.84	18.060	14.94
17	18.280	23.80	19.860	247.6	19.170	129.5	18.480	38.94 *	18.210	24.19	17.910	8.419
18	18.450	31.33	21.200	596.4 *	18.930	85.54	18.370	27.65	18.100	14.21 *	17.880	5.561 *
19	18.640	68.70	21.170	586.5 *	18.820	84.72	18.680	46.98	18.050	14.75	17.860	4.976 #
20	19.070	110.0	20.690	410.7	18.760	71.66	18.660	55.06 *	18.140	16.98	18.160	15.94
21	19.030	97.23 *	19.670	183.6	18.700	59.98	18.610	43.16	18.160	17.95	18.160	16.20
22	18.980	101.8	19.360	156.7	18.740	68.57	18.430	31.99	18.160	17.29 *	18.180	18.38 *
23	19.040	114.1	19.200	128.1	18.830	72.92 *	18.600	44.88	18.020	12.97	17.970	9.890
24	19.200	138.2	19.410	159.7	18.860	74.48	18.500	39.88	17.980	8.987 *	18.040	13.52
25	19.360	163.5	19.080	115.8	18.720	54.26	18.520	42.27 *	18.240	21.87 *	18.260	23.10 *
26	20.280	360.8	19.330	140.4 *	18.640	44.94	18.460	38.08	17.990	10.06	18.100	14.68
27	19.410	157.3	19.270	136.0	18.670	50.32	18.440	35.74 *	18.080	12.12	17.920	6.831 #
28	19.350	143.6 *	19.270	133.1	18.720	54.28	18.350	28.89	18.020	10.41	17.900	6.179 #
29	19.040	101.2	19.000	89.36	18.660	48.82	18.120	12.75	18.070	11.39	17.880	5.561 *
30	19.070	111.5	18.860	82.34	18.620	51.23 *	18.220	16.16	18.260	19.39	17.900	6.179 #
31			19.180	121.1	18.350	26.95			18.060	11.37		
Ten-Daily Mean												
I Ten-Daily	17.617	3.626	19.019	128.4	19.552	179.0	18.296	25.17	18.426	34.51	18.365	30.95
II Ten-Daily	18.300	32.81	20.072	303.5	19.351	155.6	18.594	49.57	18.248	24.72	18.068	13.86
III Ten-Daily	19.276	148.9	19.239	131.5	18.683	55.16	18.425	33.38	18.095	13.98	18.031	12.05
Monthly												
Min.	17.420	1.151	18.400	34.64	18.350	26.95	18.120	12.75	17.980	8.987	17.860	4.976
Max.	20.280	360.8	21.200	610.7	20.160	282.0	19.160	106.7	18.690	48.45	18.930	85.27
Mean	18.398	61.78	19.437	186	19.179	127.5	18.438	36.04	18.251	24.07	18.155	18.96

Annual Runoff in MCM = 1235 Annual Runoff in mm = 3777

Peak Observed Discharge = 610.7 cumecs on 10/07/2015 Corres. Water Level :21.2 m

Lowest Observed Discharge = 0.000 cumecs on 29/02/2016 Corres. Water Level :17.2 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Yennehole (WS000Q1) **Division : Cauvery Division, Bangalore**

Local River : Yennehole **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	17.880	7.339	17.660	4.640	17.390	1.304	17.200	0.000	17.130	0.000	17.040	0.000
2	17.970	10.64	17.650	4.669	17.360	1.180	17.200	0.000	17.130	0.000	17.040	0.000
3	18.020	12.26	17.640	4.331 *	17.330	0.640	17.200	0.000	17.130	0.000	17.040	0.000
4	17.980	11.65	17.620	3.541	17.300	0.487	17.200	0.000	17.130	0.000	17.030	0.000
5	17.920	8.223	17.590	3.211	17.300	0.486	17.190	0.000	17.130	0.000	17.020	0.000
6	17.900	8.891 *	17.570	2.903	17.300	0.470	17.190	0.000	17.130	0.000	17.020	0.000
7	17.880	7.979	17.540	3.383	17.300	0.469 *	17.190	0.000	17.130	0.000	17.010	0.000
8	17.870	8.138	17.520	2.928	17.300	0.459	17.200	0.000	17.130	0.000	17.010	0.000
9	17.870	7.996	17.520	2.899	17.310	0.565	17.190	0.000	17.120	0.000	17.000	0.000
10	17.860	7.583	17.510	2.529 *	17.310	0.538	17.180	0.000	17.120	0.000	17.000	0.000
11	17.850	7.181	17.470	2.502	17.310	0.564	17.180	0.000	17.120	0.000	17.000	0.000
12	17.860	8.024	17.480	2.604	17.330	0.618	17.170	0.000	17.120	0.000	16.990	0.000
13	17.840	7.735 *	17.480	2.757	17.320	0.590	17.160	0.000	17.120	0.000	17.020	0.000
14	17.900	8.150	17.460	1.995	17.310	0.538 *	17.160	0.000	17.120	0.000	17.020	0.000
15	18.020	12.30	17.470	2.049 *	17.310	0.559	17.160	0.000	17.110	0.000	17.090	0.000
16	17.980	10.32	17.460	2.025	17.310	0.535	17.160	0.000	17.120	0.000	17.080	0.000
17	17.900	8.140	17.460	1.934 *	17.310	0.508	17.160	0.000	17.120	0.000	17.120	0.000
18	17.850	7.659	17.460	2.001	17.300	0.457	17.150	0.000	17.110	0.000	17.170	0.000
19	17.820	7.363 *	17.450	1.877	17.300	0.449	17.150	0.000	17.100	0.000	17.170	0.000
20	17.850	7.924 *	17.450	1.902	17.290	0.454	17.150	0.000	17.090	0.000	17.160	0.000
21	17.790	6.818 *	17.450	1.921	17.270	0.284 *	17.150	0.000	17.090	0.000	17.160	0.000
22	17.780	6.639 *	17.450	1.872	17.270	0.269	17.150	0.000	17.090	0.000	17.150	0.000
23	17.780	6.639 *	17.440	1.729	17.270	0.283	17.150	0.000	17.070	0.000	17.150	0.000
24	17.760	6.288 *	17.430	1.606 *	17.270	0.266	17.140	0.000	17.100	0.000	17.150	0.000
25	17.750	6.115 *	17.410	1.475	17.270	0.232	17.140	0.000	17.090	0.000	17.140	0.000
26	17.740	5.943 *	17.420	1.502 *	17.260	0.177	17.140	0.000	17.080	0.000	17.140	0.000
27	17.730	5.774 *	17.410	1.439	17.240	0.129	17.140	0.000	17.080	0.000	17.150	0.000
28	17.720	5.273	17.400	1.346	17.220	0.060 *	17.140	0.000	17.090	0.000	17.140	0.000
29	17.710	5.127	17.400	1.361	17.200	0.000	17.130	0.000	17.070	0.000	17.150	0.000
30	17.700	4.732	17.400	1.359			17.130	0.000	17.060	0.000	17.150	0.000
31	17.680	4.877	17.400	1.301 *			17.130	0.000			17.150	0.000
Ten-Daily Mean												
I Ten-Daily	17.915	9.070	17.582	3.503	17.320	0.660	17.194	0.000	17.128	0.000	17.021	0.000
II Ten-Daily	17.887	8.480	17.464	2.165	17.309	0.527	17.160	0.000	17.113	0.000	17.082	0.000
III Ten-Daily	17.740	5.839	17.419	1.537	17.252	0.189	17.140	0.000	17.082	0.000	17.148	0.000
Monthly												
Min.	17.680	4.732	17.400	1.301	17.200	0.000	17.130	0.000	17.060	0.000	16.990	0.000
Max.	18.020	12.30	17.660	4.669	17.390	1.304	17.200	0.000	17.130	0.000	17.170	0.000
Mean	17.844	7.733	17.486	2.374	17.295	0.468	17.164	0	17.108	0	17.086	0

Peak Computed Discharge = 596.4 cumecs on 18/07/2015 **Corres. Water Level :21.2 m**

Lowest Computed Discharge = 0.060 cumecs on 28/02/2016 **Corres. Water Level :17.22 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

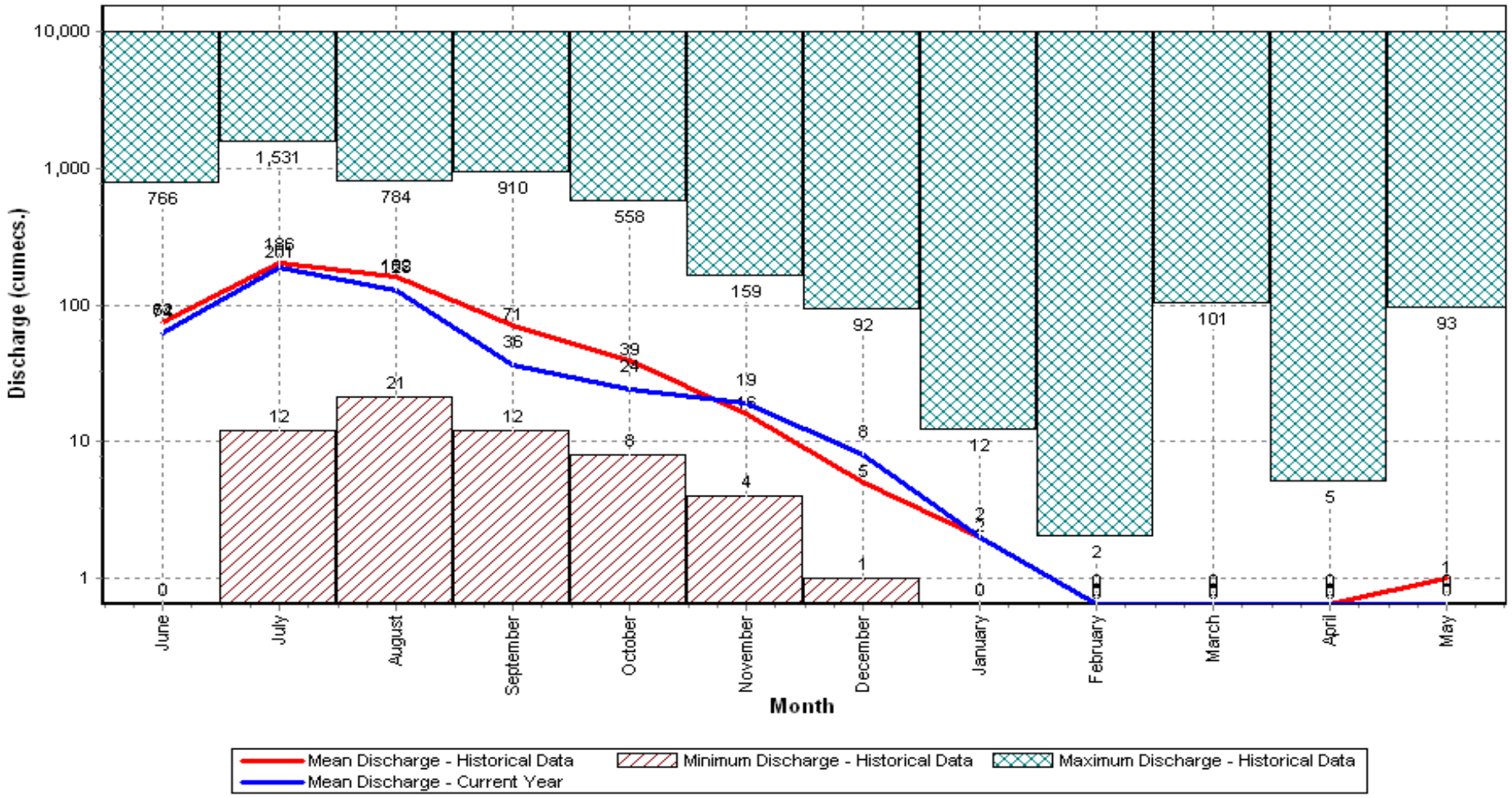
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Yennehole (WS000Q1) | **Data considered : 1990-2016** | **Division : Cauvery Division, Bangalore**

Local River : Yennehole | **Sub-Division : SWRSD-III, Mangalore**



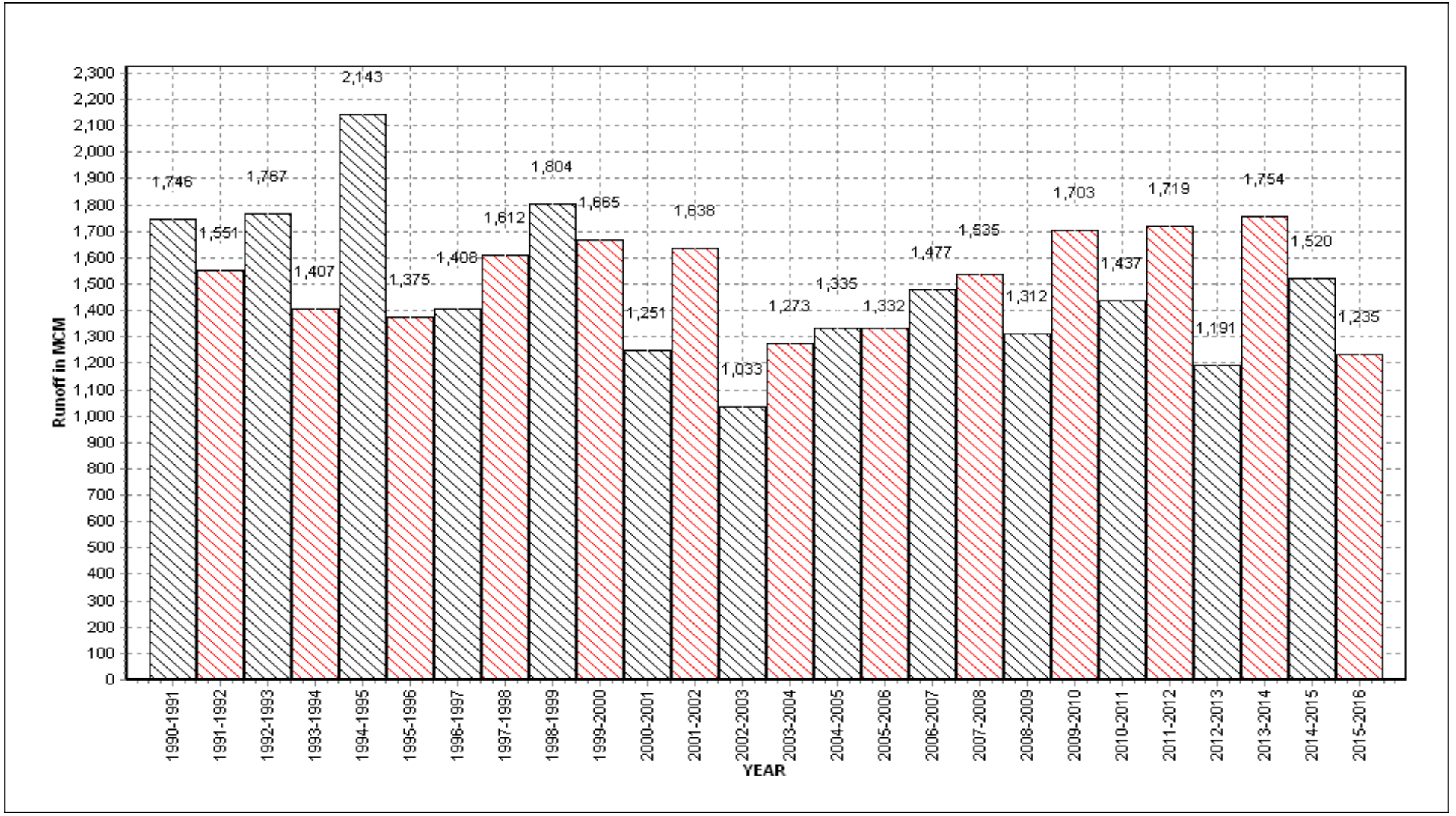
Annual Runoff Values for the period: 1990 - 2016

Station Name : Yennehole (WS000Q1)

Local River : Yennehole

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore



Note: Missing values have not been considered while arriving at Annual Runoff

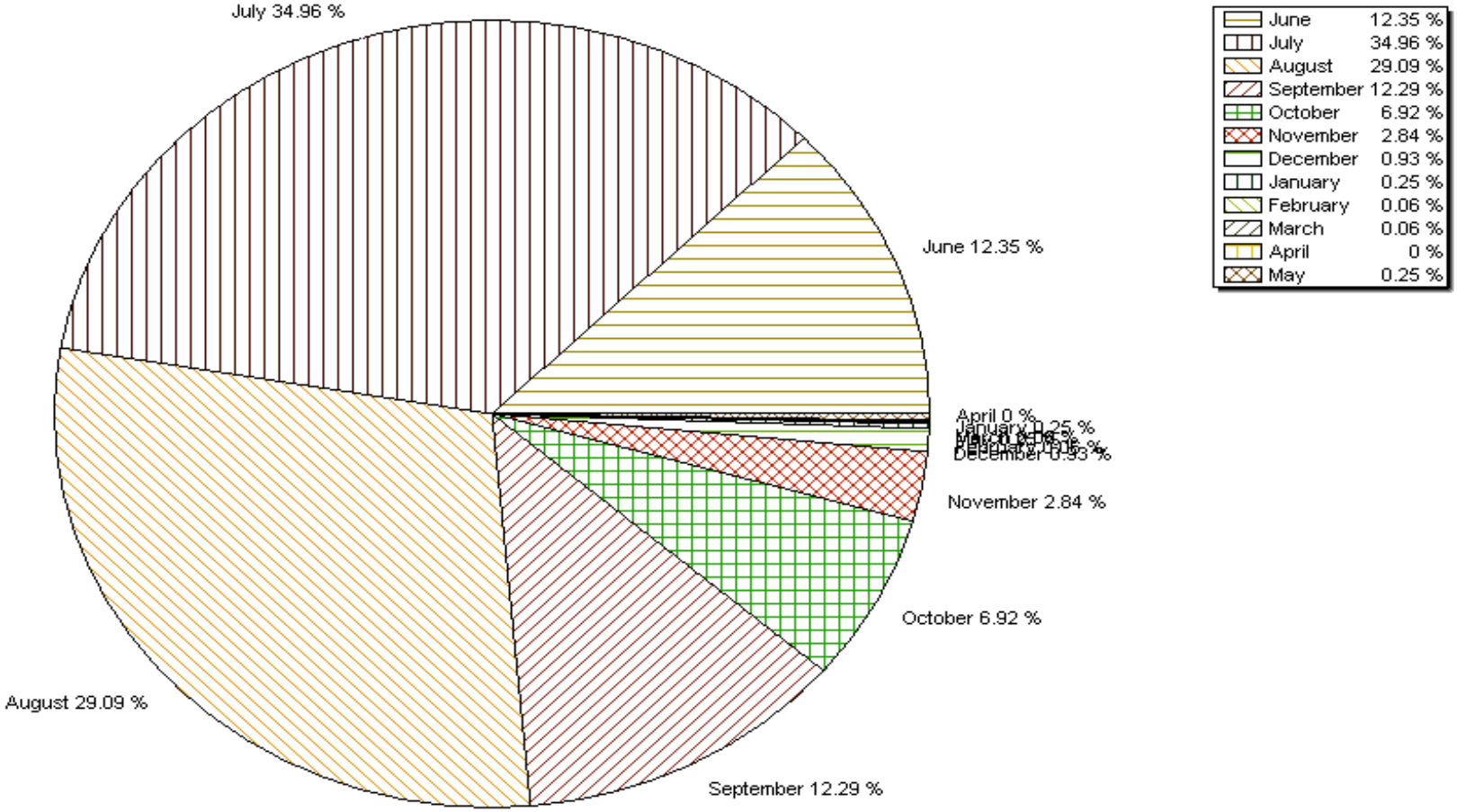
Monthly Average Runoff based on period : 1990-2015

Station Name : Yennehole (WS000Q1)

Local River : Yennehole

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore



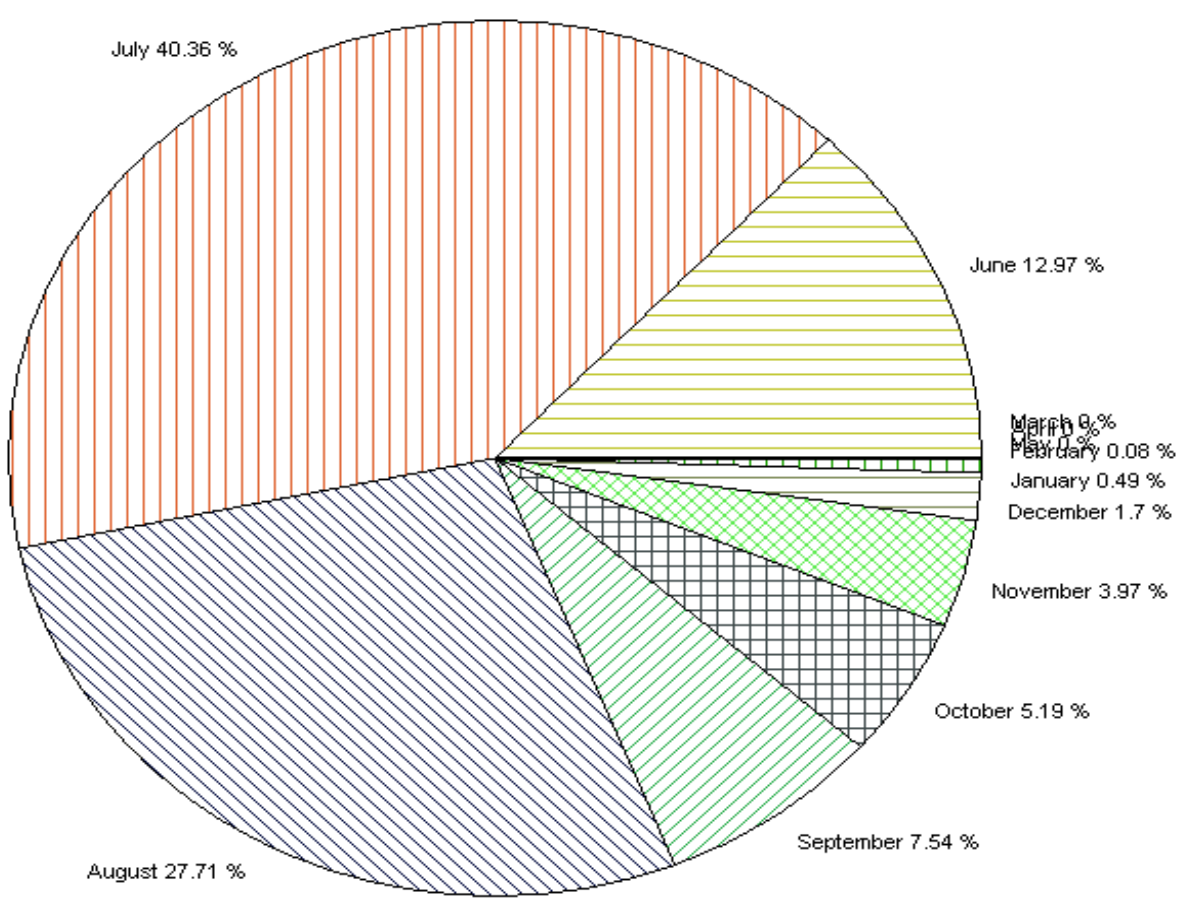
Monthly Runoff for the Year : 2015-2016

Station Name : Yennehole (WS000Q1)

Local River : Yennehole

Division : Cauvery Division, Bangalore

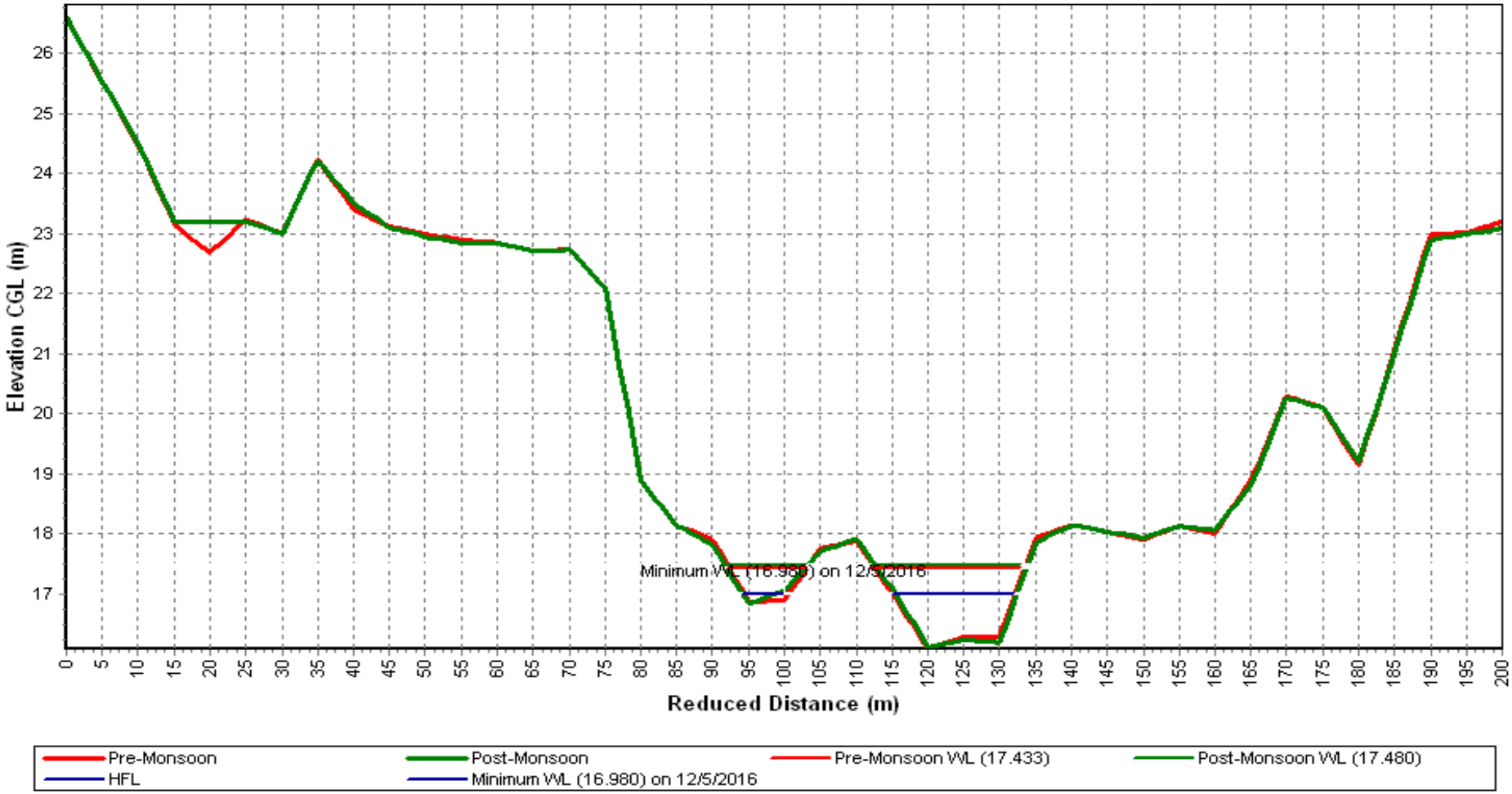
Sub-Division : SWRSD-III, Mangalore



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Yennehole (WS000Q1)
Local River : Yennehole

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



HISTORY SHEET

Water Year : 2015-2016

Site	**: Addoor**		**Code**	**: WG000E8**	
State	: Karnataka		District	South Canara	
Basin	: WFR South of Tapi		Independent River	: Gurpur	
Tributary	: -		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Gurpur	
Division	: Cauvery Division, Bangalore		Sub-Division	: SWRSD-III, Mangalore	
Drainage Area	: 688 Sq. Km.		Bank	: Right	
Latitude	: 12°55'44"		Longitude	: 74°57'14"	
Zero of Gauge (m)	: 10.000(Arb.) -1.000 (m.s.l)		21/08/1998 01/06/2005	- 31/05/2005	
	Opening Date		Closing Date		
Gauge	: 21/08/1998				
Discharge	: 17/07/2003				
Sediment	:				
Water Quality	: 02/09/2002				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	930.3	15.480	04/08/2004	0.000	10.430	06/02/2005
2005-2006	692.8	5.200	03/08/2005	0.000	0.060	14/02/2006
2006-2007	920.6	6.140	30/06/2006	0.000	1.520	27/01/2007
2007-2008	754.9	5.375	25/09/2007	0.000	1.620	31/01/2008
2008-2009	1043	5.990	13/08/2008	0.000	0.420	06/12/2008
2009-2010	1028	5.300	03/10/2009	0.000	0.960	31/01/2010
2010-2011	1170	6.245	30/07/2010	0.000	1.160	30/01/2011
2011-2012	888.6	5.120	18/07/2011	0000	0.575	01/06/2011
2012-2013	862.7	5.140	11/08/2012	0.000	0.030	01/06/2012
2013-2014	1408	6.510	04/07/2013	0.000	-0.600	01/06/2013
2014-2015	1083	5.390	20/07/2014	0.000	0.460	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Addoor (WG000E8) **Division : Cauvery Division, Bangalore**

Local River : Gurpur **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	0.570	0.000	1.410	83.51	1.700	164.1	1.090	31.43	1.080	31.42	0.900	8.392 *
2	0.560	0.000	1.440	87.50	1.570	138.1 *	1.020	30.18	1.270	65.92 *	1.700	143.7 #
3	0.560	0.000	1.170	72.02	1.610	136.7	1.050	35.48	1.280	67.55 #	1.440	86.74 #
4	0.580	0.000	1.290	80.23	2.660	328.5	1.010	29.58	1.290	69.19 *	1.300	51.85
5	0.770	0.000	1.380	91.19 *	2.390	291.1	1.000	30.94	1.610	131.4	1.200	44.42 #
6	0.710	0.000	1.110	57.36 #	2.210	199.4	0.980	25.19 *	1.910	154.5	0.980	16.05
7	0.680	0.000	1.100	65.54	2.330	276.9	0.980	23.49	1.680	69.63 #	0.980	15.99
8	0.720	0.000	1.080	63.80	3.080	374.4 #	1.210	69.39	1.460	49.28	0.960	13.82 *
9	0.690	0.000	1.890	174.8	2.290	237.8 *	1.100	39.39	1.420	44.60	0.920	9.728
10	0.860	0.000	3.230	681.7	2.350	291.6	1.080	34.17	1.440	46.12	0.850	4.058
11	0.810	0.000	2.830	315.7	3.280	548.8	0.980	24.18	1.370	40.38 *	0.840	0.000
12	0.980	0.000	3.640	487.8 *	2.190	236.4	1.010	30.16	1.330	37.06 #	0.820	0.000
13	1.020	0.000	2.210	214.0	2.180	237.2	0.940	20.68 *	1.260	28.98	0.860	0.000
14	0.970	0.000	1.800	164.9	2.050	226.5	0.950	22.87	1.280	37.74	0.940	0.000
15	0.890	0.000	2.220	217.7	2.100	241.0 *	1.300	90.91	1.200	23.68	0.850	0.000
16	0.900	0.000	2.190	202.7	2.440	332.3 *	1.570	144.1	1.100	21.65	0.800	0.000
17	0.870	0.000	2.220	209.1	1.790	159.1	1.340	77.61 *	1.050	17.00 #	0.750	0.000
18	1.000	0.000	4.080	586.2 *	1.600	147.8	1.180	41.27	1.020	15.22 *	0.750	0.000
19	1.130	60.61	4.260	628.9 *	1.480	102.9 #	1.220	69.15	1.000	22.85	0.750	0.000
20	1.870	148.6	4.510	629.9	1.370	82.82 #	1.300	70.85 *	0.960	13.82 #	0.755	0.000
21	1.510	110.9 *	2.810	357.4	1.420	104.5	1.210	40.87	1.020	23.43	0.780	0.000
22	1.580	119.9	2.220	211.3	1.480	102.9 #	1.150	42.74	1.060	24.97 *	0.800	0.000
23	1.740	133.1	2.000	201.7	1.590	124.4 *	1.120	40.22	0.980	15.85 #	0.820	0.000
24	1.710	129.2	2.300	265.9	1.460	107.4	1.100	35.66	0.930	10.98 *	0.780	0.000
25	1.890	186.4	1.920	181.6	1.300	78.09	1.060	35.08 *	0.910	9.225 *	0.800	0.000
26	3.570	903.5	1.850	174.0 *	1.220	74.67	1.100	35.23	0.920	10.09 #	0.900	0.000
27	2.570	365.6 #	2.280	251.7	1.480	102.9 #	1.050	33.78 *	0.880	6.817 #	0.860	0.000
28	2.420	318.5 *	1.880	177.1	1.520	141.2	1.020	28.48	1.040	22.54 #	0.910	0.000
29	1.540	129.4	1.640	137.3	1.250	80.14	1.000	25.70	1.120	30.69	0.880	0.000
30	1.670	138.0	1.420	122.5	1.200	54.91 *	1.000	25.30	1.020	20.21 #	0.900	0.000
31			1.510	130.4	1.100	47.15			0.920	10.07		
Ten-Daily Mean												
I Ten-Daily	0.670	0.000	1.510	145.8	2.219	243.8	1.052	34.92	1.444	72.96	1.123	39.47
II Ten-Daily	1.044	20.92	2.996	365.7	2.048	231.5	1.179	59.18	1.157	25.84	0.811	0.000
III Ten-Daily	2.020	253.4	1.985	201.0	1.365	92.57	1.081	34.31	0.982	16.81	0.843	0.000
Monthly												
Min.	0.560	0.000	1.080	57.36	1.100	47.15	0.940	20.68	0.880	6.817	0.750	0.000
Max.	3.570	903.5	4.510	681.7	3.280	548.8	1.570	144.1	1.910	154.5	1.700	143.7
Mean	1.245	91.45	2.158	236.3	1.861	186.2	1.104	42.8	1.187	37.83	0.926	13.16

Annual Runoff in MCM = 1615 Annual Runoff in mm = 2347

Peak Observed Discharge = 903.5 cumecs on 26/06/2015 Corres. Water Level :3.57 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :0.57 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Addoor (WG000E8) **Division : Cauvery Division, Bangalore**

Local River : Gurpur **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.050	0.000	1.310	0.000	1.210	0.000	0.880	0.000	0.495	0.000	0.090	0.000
2	1.100	0.000	1.260	0.000	1.200	0.000	0.870	0.000	0.490	0.000	0.090	0.000
3	1.120	0.000	1.240	0.000	1.190	0.000	0.860	0.000	0.470	0.000	0.080	0.000
4	1.150	0.000	1.230	0.000	1.180	0.000	0.850	0.000	0.460	0.000	0.060	0.000
5	1.170	0.000	1.210	0.000	1.170	0.000	0.840	0.000	0.450	0.000	0.045	0.000
6	1.180	0.000	1.200	0.000	1.160	0.000	0.830	0.000	0.440	0.000	0.045	0.000
7	1.200	0.000	1.180	0.000	1.150	0.000	0.820	0.000	0.420	0.000	0.035	0.000
8	1.200	0.000	1.170	0.000	1.120	0.000	0.810	0.000	0.410	0.000	0.025	0.000
9	1.210	0.000	1.170	0.000	1.110	0.000	0.800	0.000	0.400	0.000	0.020	0.000
10	1.280	0.000	1.190	0.000	1.100	0.000	0.770	0.000	0.385	0.000	0.010	0.000
11	1.370	0.000	1.220	0.000	1.100	0.000	0.750	0.000	0.370	0.000	0.000	0.000
12	1.500	0.000	1.240	0.000	1.080	0.000	0.740	0.000	0.360	0.000	0.020	0.000
13	1.600	0.000	1.240	0.000	1.070	0.000	0.730	0.000	0.350	0.000	0.000	0.000
14	1.600	0.000	1.250	0.000	1.060	0.000	0.720	0.000	0.340	0.000	0.010	0.000
15	1.610	0.000	1.250	0.000	1.050	0.000	0.710	0.000	0.325	0.000	0.020	0.000
16	1.610	0.000	1.250	0.000	1.040	0.000	0.700	0.000	0.320	0.000	0.000	0.000
17	1.620	0.000	1.250	0.000	1.030	0.000	0.680	0.000	0.305	0.000	0.000	0.000
18	1.610	0.000	1.260	0.000	1.010	0.000	0.670	0.000	0.290	0.000	0.000	0.000
19	1.600	0.000	1.260	0.000	1.000	0.000	0.655	0.000	0.275	0.000	0.000	0.000
20	1.600	0.000	1.270	0.000	1.000	0.000	0.645	0.000	0.265	0.000	0.000	0.000
21	1.580	0.000	1.270	0.000	0.990	0.000	0.640	0.000	0.235	0.000	-0.010	0.000
22	1.590	0.000	1.270	0.000	0.990	0.000	0.635	0.000	0.225	0.000	-0.020	0.000
23	1.500	0.000	1.270	0.000	0.960	0.000	0.630	0.000	0.215	0.000	-0.030	0.000
24	1.440	0.000	1.260	0.000	0.950	0.000	0.630	0.000	0.200	0.000	-0.040	0.000
25	1.380	0.000	1.260	0.000	0.940	0.000	0.620	0.000	0.170	0.000	-0.050	0.000
26	1.320	0.000	1.260	0.000	0.920	0.000	0.615	0.000	0.170	0.000	-0.050	0.000
27	1.400	0.000	1.240	0.000	0.910	0.000	0.580	0.000	0.160	0.000	-0.060	0.000
28	1.480	0.000	1.240	0.000	0.900	0.000	0.550	0.000	0.150	0.000	-0.060	0.000
29	1.450	0.000	1.230	0.000	0.890	0.000	0.540	0.000	0.130	0.000	0.050	0.000
30	1.410	0.000	1.220	0.000			0.530	0.000	0.115	0.000	0.050	0.000
31	1.340	0.000	1.220	0.000			0.520	0.000			0.050	0.000
Ten-Daily Mean												
I Ten-Daily	1.166	0.000	1.216	0.000	1.159	0.000	0.833	0.000	0.442	0.000	0.050	0.000
II Ten-Daily	1.572	0.000	1.249	0.000	1.044	0.000	0.700	0.000	0.320	0.000	0.005	0.000
III Ten-Daily	1.445	0.000	1.249	0.000	0.939	0.000	0.590	0.000	0.177	0.000	-0.015	0.000
Monthly												
Min.	1.050	0.000	1.170	0.000	0.890	0.000	0.520	0.000	0.115	0.000	-0.060	0.000
Max.	1.620	0.000	1.310	0.000	1.210	0.000	0.880	0.000	0.495	0.000	0.090	0.000
Mean	1.396	0	1.238	0	1.051	0	0.704	0	0.313	0	0.012	0

Peak Computed Discharge = 628.9 cumecs on 19/07/2015 **Corres. Water Level :4.26 m**

Lowest Computed Discharge = 8.392 cumecs on 01/11/2015 **Corres. Water Level :0.9 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

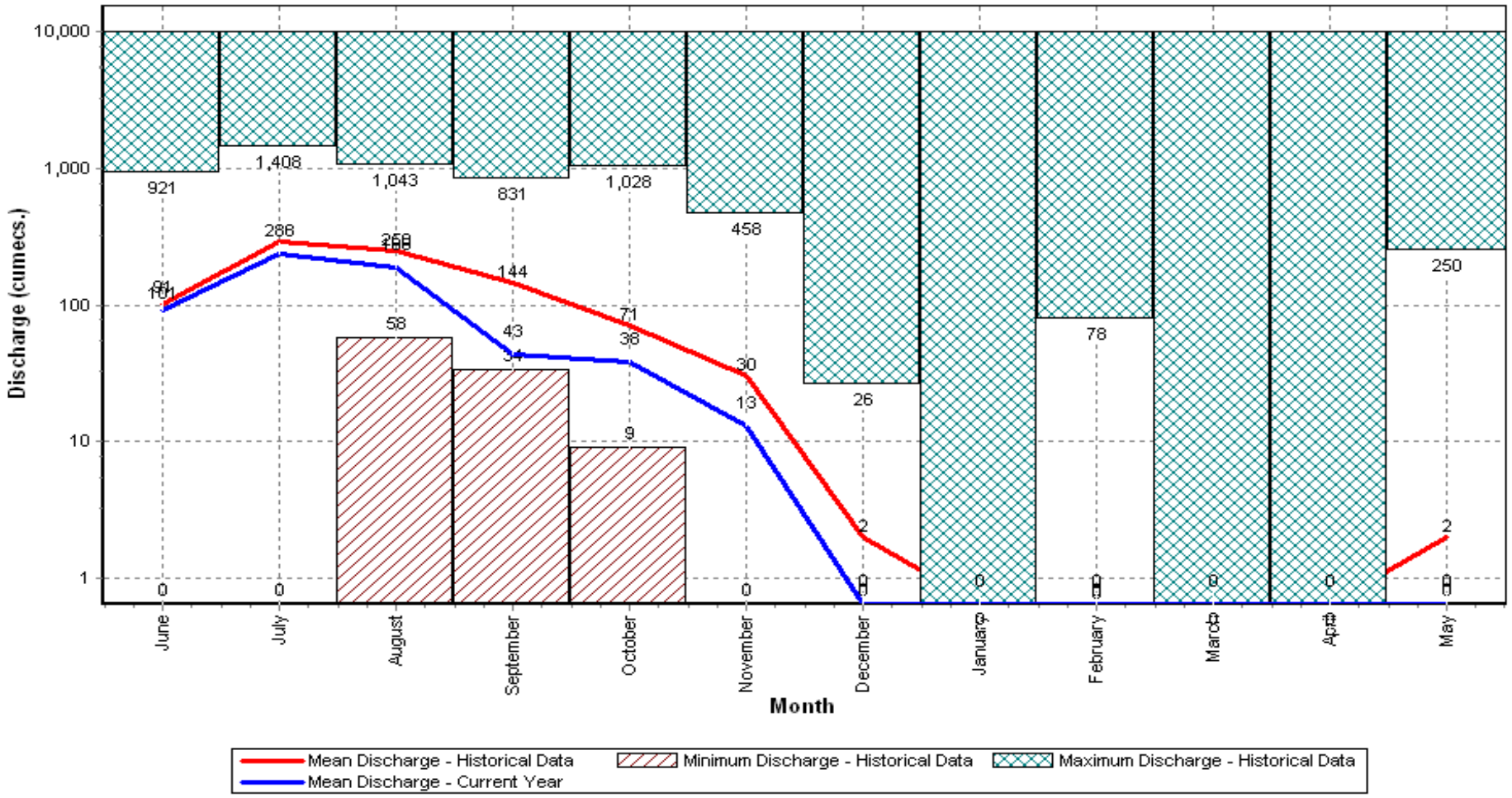
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Addoor (WG000E8) | **Data considered : 2004-2016** | **Division : Cauvery Division, Bangalore**

Local River : Gurpur | **Sub-Division : SWRSD-III, Mangalore**



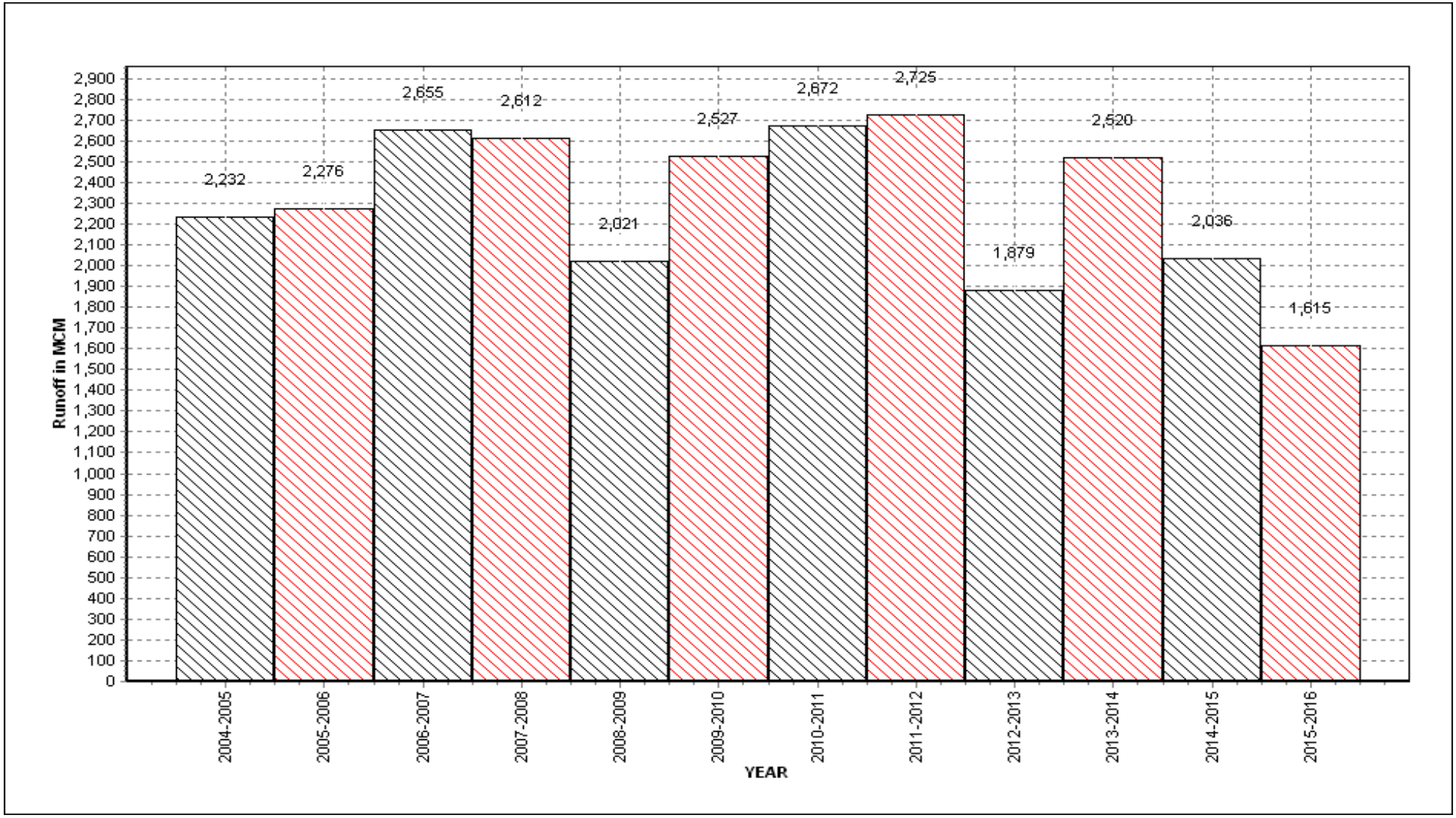
Annual Runoff Values for the period: 2004 - 2016

Station Name : Addoor (WG000E8)

Local River : Gurpur

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore

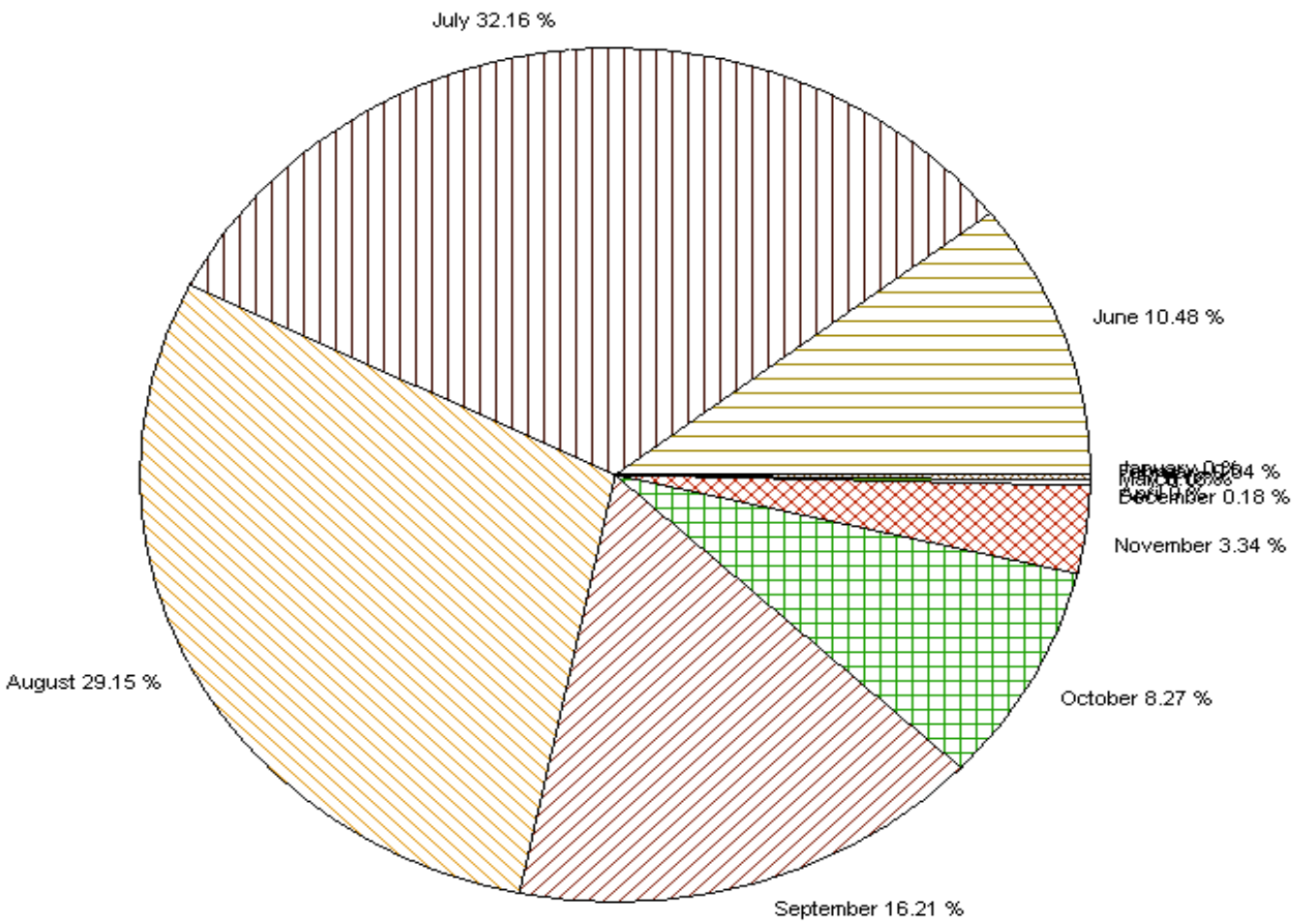


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2004-2015

Station Name : Addoor (WG000E8)
Local River : Gurpur

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



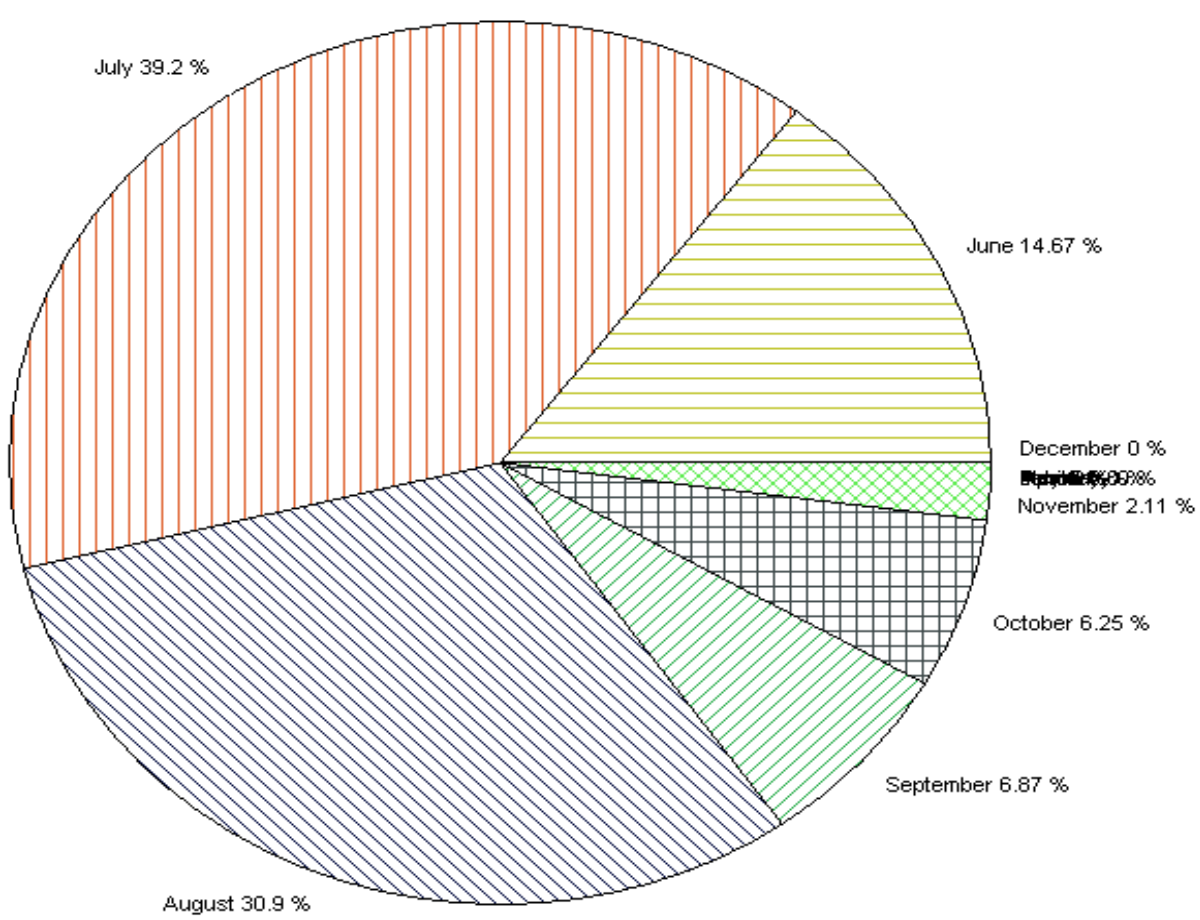
Monthly Runoff for the Year : 2015-2016

Station Name : Addoor (WG000E8)

Local River : Gurpur

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore

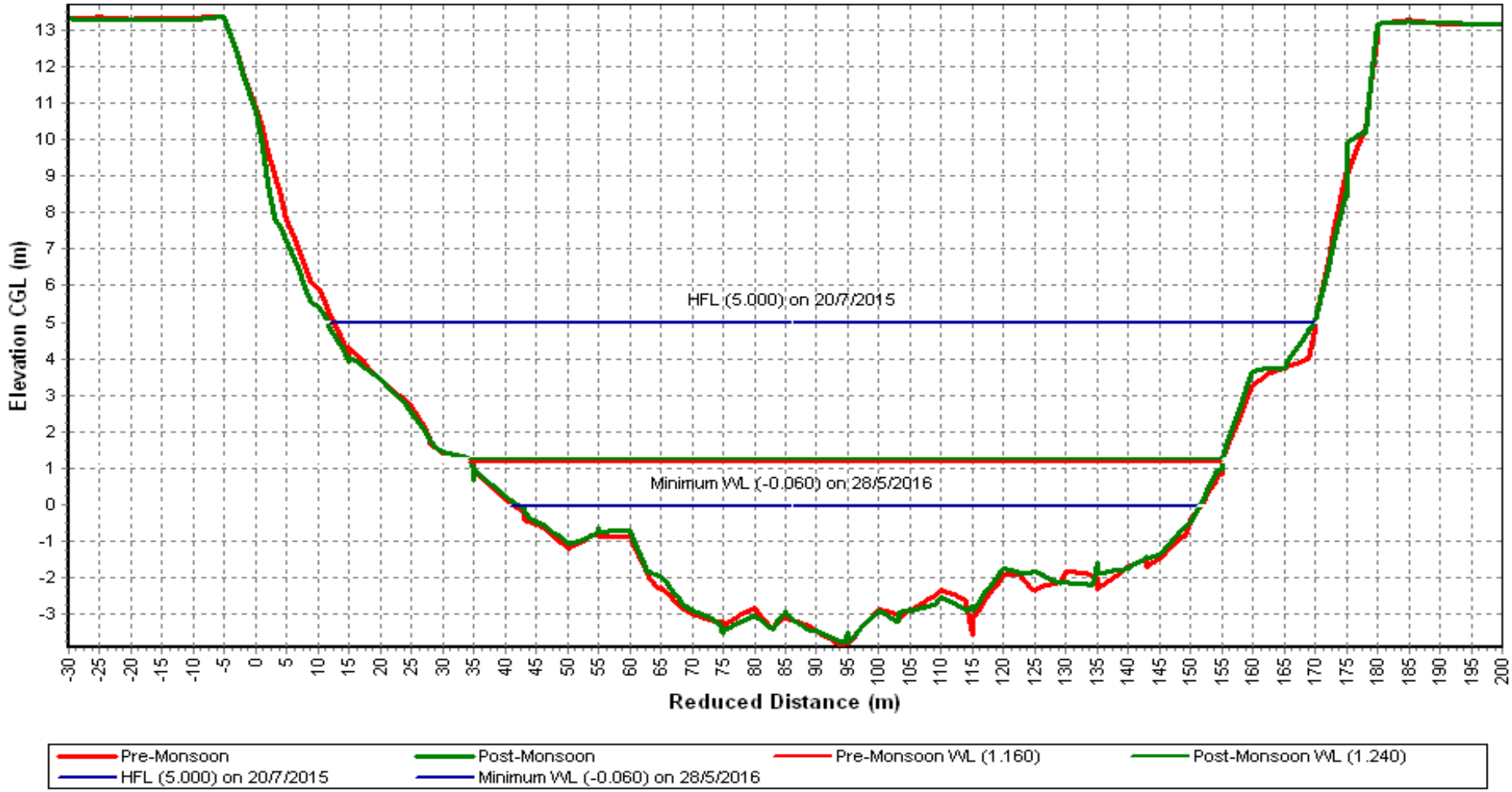


June	14.67 %
July	39.2 %
August	30.9 %
September	6.87 %
October	6.25 %
November	2.11 %
December	0 %
January	0 %
February	0 %
March	0 %
April	0 %
May	0 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Addoor (WG000E8)
Local River : Gurpur

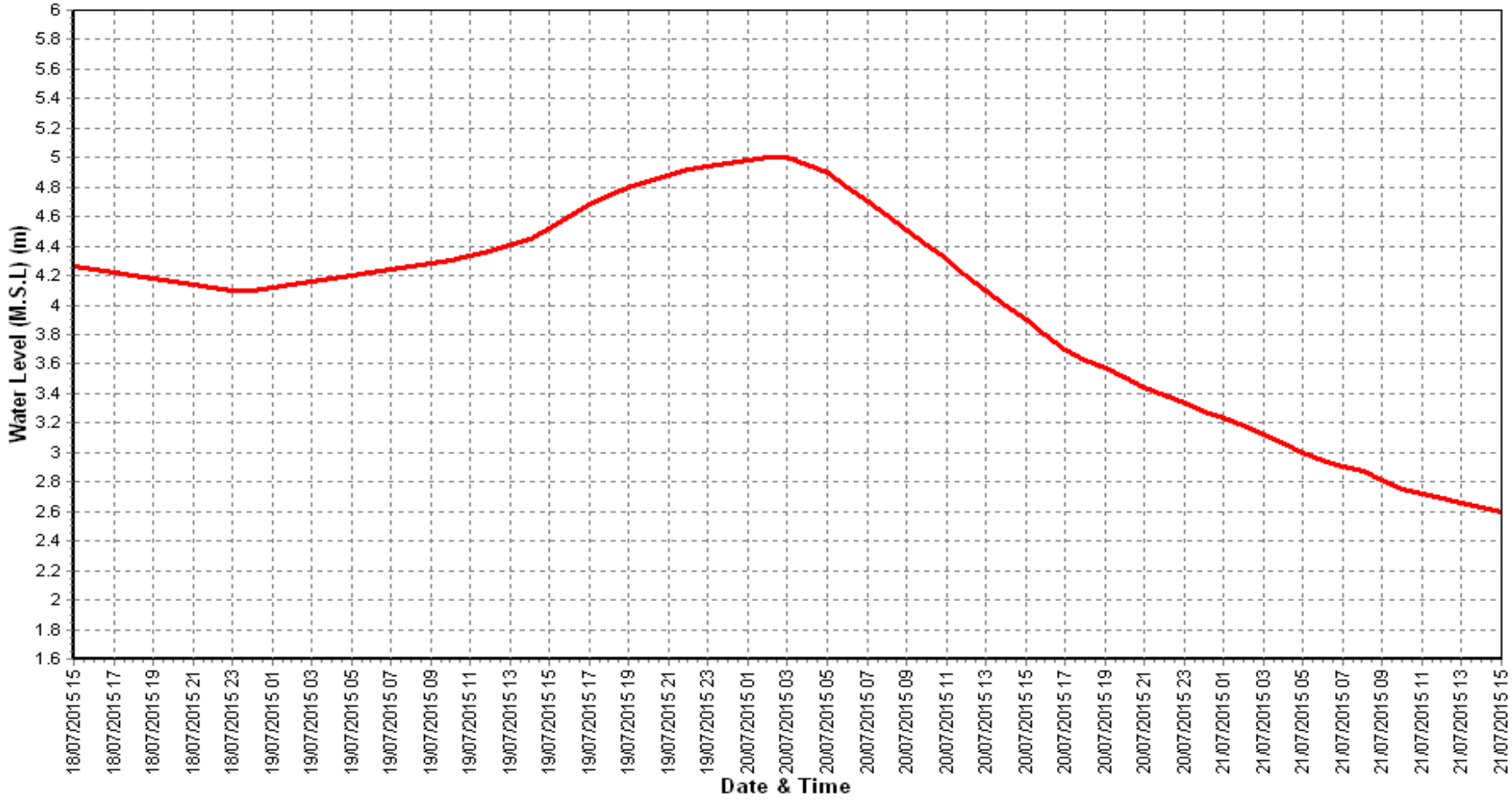
Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Addoor (WG000E8) **Division : Cauvery Division, Bangalore**

Local River : Gurpur **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

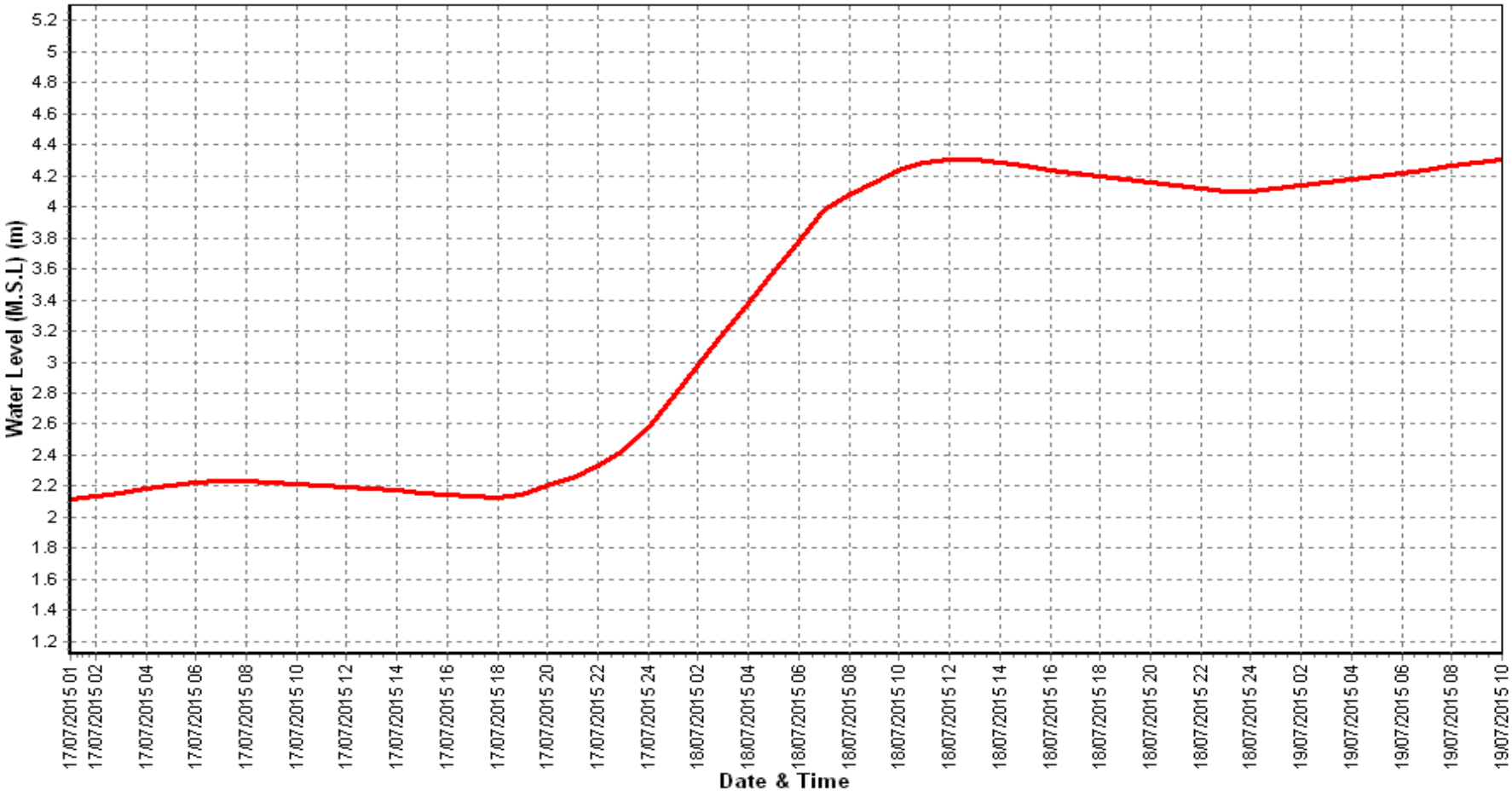
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Addoor (WG000E8)

Local River : Gurpur

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore

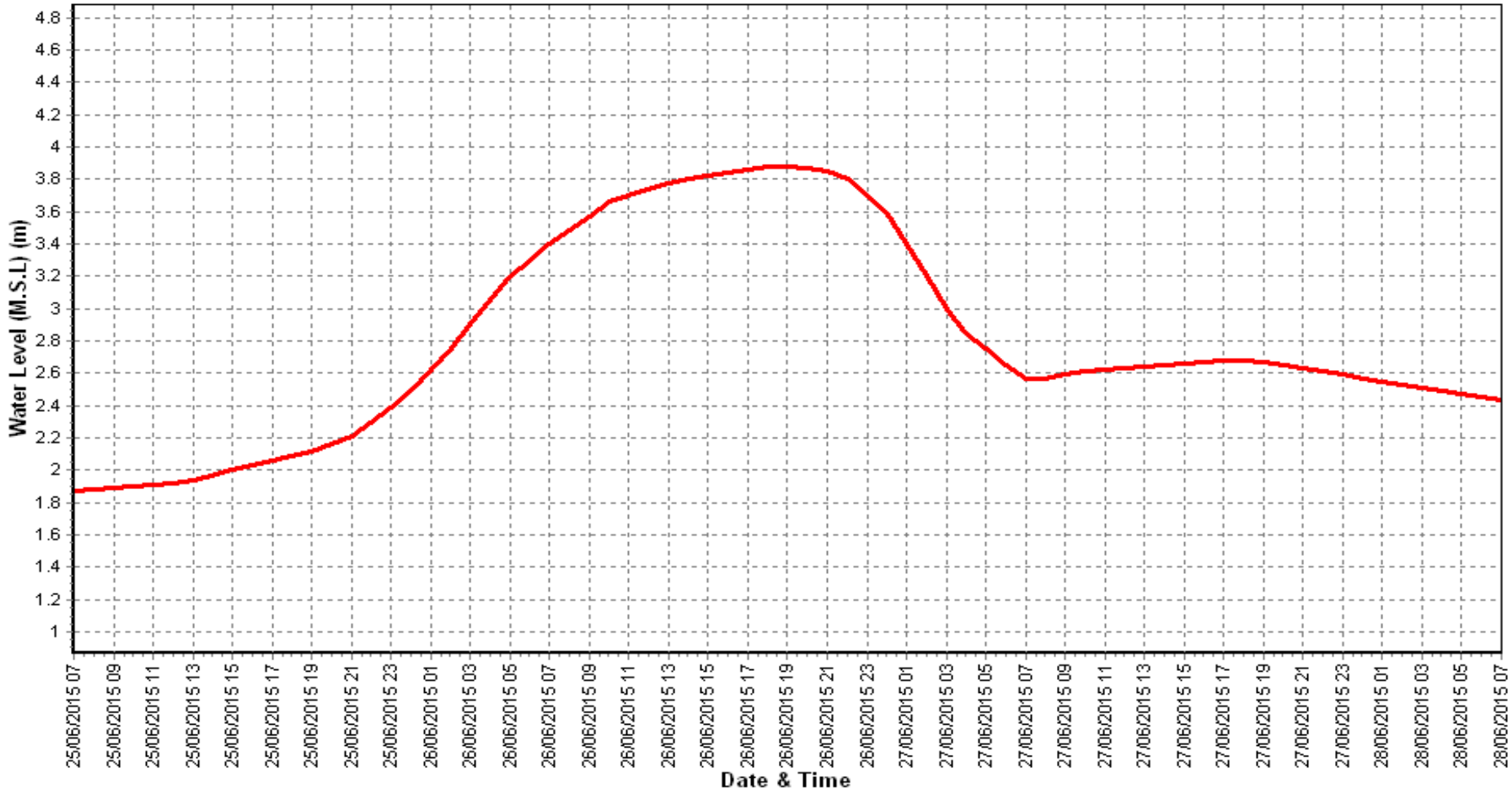


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Addoor (WG000E8) **Division : Cauvery Division, Bangalore**

Local River : Gurpur **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: Bantwal**		**Code**	**: WN000G9**	
State	: Karnataka		District		South Canara
Basin	: WFR South of Tapi		Independent River	:	Netravathi
Tributary	: -		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Netravathi
Division	: Cauvery Division, Bangalore		Sub-Division	:	SWRSD-III, Mangalore
Drainage Area	: 3184 Sq. Km.		Bank	:	Right
Latitude	: 12°52'51"		Longitude	:	75°02'28"
Zero of Gauge (m)	: 1.000 (m.s.l)		01/11/1970		
	Opening Date		Closing Date		
Gauge	: 01/11/1970				
Discharge	: 01/11/1970				
Sediment	: 22/06/1972				
Water Quality	: 15/06/1978				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1971-1972	4558	9.105	24/06/1971	2.000	1.370	31/03/1972
1972-1973	3679	8.445	08/07/1972	1.100	1.405	04/05/1973
1973-1974	3998	8.045	07/07/1973	2.800	1.480	20/03/1974
1974-1975	9832	12.650	26/07/1974	1.000	1.355	21/04/1975
1975-1976	5232	9.700	12/08/1975	1.700	1.460	28/05/1976
1976-1977	3370	8.550	24/07/1976	2.700	1.380	20/04/1977
1977-1978	4542	9.810	24/07/1977	2.400	1.420	28/04/1978
1978-1979	5415	10.350	25/07/1978	1.200	1.300	16/04/1979
1979-1980	5212	10.013	02/08/1979	2.200	1.335	01/06/1979
1980-1981	6601	11.200	02/07/1980	1.000	1.290	19/04/1981
1981-1982	5889	10.610	17/08/1981	1.200	1.575	15/04/1982
1982-1983	6505	11.462	02/08/1982	0.100	1.210	13/05/1983
1983-1984	3574	9.360	22/07/1983	2.100	1.467	08/06/1983
1984-1985	3576	9.090	18/07/1984	0.400	1.440	15/05/1985
1985-1986	2600	7.712	26/06/1985	0.500	1.380	20/04/1986
1986-1987	5506	10.875	08/08/1986	0.100	1.310	13/05/1987
1987-1988	1781	6.590	09/07/1987	0.750	1.465	10/04/1988
1988-1989	3746	9.345	05/08/1988	0.250	1.520	18/04/1989
1989-1990	3722	9.100	23/07/1989	0.050	1.160	06/05/1990

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1990-1991	3558	8.650	17/08/1990	0.632	1.530	27/03/1991
1991-1992	4568	10.124	28/07/1991	0.507	1.455	15/04/1992
1992-1993	3342	8.810	27/07/1992	1.688	1.727	17/05/1993
1993-1994	2658	7.955	12/07/1993	5.935	4.025	12/04/1994
1994-1995	4846	10.590	14/07/1994	0.570	2.920	23/04/1995
1995-1996	3940	9.450	17/07/1995	0.552	1.820	30/05/1996
1996-1997	2874	7.990	24/07/1996	0.277	3.630	23/04/1997
1997-1998	5030	11.110	10/07/1997	0.264	2.170	04/06/1997
1998-1999	3150	8.735	29/06/1998	4.272	1.700	06/06/1998
1999-2000	4207	10.480	18/07/1999	1.000	2.880	21/04/2000
2000-2001	2669	8.200	25/08/2000	0.000	1.950	19/01/2001
2001-2002	2658	8.110	08/07/2001	0.000	2.520	18/12/2001
2002-2003	2432	7.655	17/08/2002	0.000	2.850	08/12/2002
2003-2004	2715	7.130	21/08/2003	0.000	1.120	06/06/2003
2004-2005	3567	8.835	04/08/2004	0.000	2.800	01/12/2004
2005-2006	4197	9.200	02/08/2005	0.000	2.610	01/06/2005
2006-2007	3304	9.000	30/06/2006	0.000	2.550	13/12/2006
2007-2008	3990	9.220	07/08/2007	0.000	4.035	18/12/2007
2008-2009	5610	10.600	13/08/2008	0.000	2.460	05/11/2008
2009-2010	4218	9.420	16/07/2009	0.000	3.070	22/11/2009
2010-2011	3775	8.930	30/07/2010	0.000	2.385	01/06/2010
2011-2012	2709	7.490	17/07/2011	0.001	2.200	31/05/2012
2012-2013	3928	9.245	07/08/2012	0.000	2.670	01/12/2012
2013-2014	6055	10.820	04/07/2013	0.000	3.930	21/12/2013
2014-2015	3949	9.020	01/08/2014	0.000	3.940	19/12/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	2.890	100.4 #	3.390	407.4	3.605	474.4	3.040	277.7	3.250	359.7	2.625	151.4 *
2	2.890	0.000	3.450	405.8	3.470	435.3 *	2.980	255.1	3.290	365.2 *	4.060	657.1
3	2.980	0.000	3.360	398.9	3.475	421.9	2.920	237.3	2.830	213.8	3.685	525.3 *
4	2.970	0.000	3.060	283.2	4.110	657.3	2.910	229.0	3.190	328.4 *	3.760	558.3 *
5	3.060	0.000	3.100	296.7 *	3.985	601.3	2.965	249.1	3.090	276.8	3.200	338.5
6	2.950	0.000	2.960	249.5	4.330	929.7	2.960	249.9 *	3.340	385.0	2.825	183.7
7	2.460	0.000	2.830	243.1	4.480	1031	3.085	270.8	2.940	265.1	2.800	181.8
8	2.440	0.000	3.050	279.6 #	5.295	1371	3.470	423.3	2.955	258.8	2.570	137.2 *
9	2.210	0.000	4.970	1365	4.620	991.4 *	3.260	335.7	2.925	247.5	2.620	150.1 *
10	1.985	0.000	4.540	1044	4.380	909.1	3.045	268.7	2.900	243.8	2.435	104.8
11	1.880	3.668	4.500	1028	5.170	1337	3.055	268.2	2.950	246.7 *	2.500	119.8 *
12	3.200	172.3	5.095	1271 *	5.000	1243	2.930	227.6	2.710	188.2	2.535	131.4
13	3.530	264.0	4.240	798.6	4.805	1124	2.830	209.3 *	2.880	239.0	2.440	105.8 *
14	3.080	136.9 *	3.685	502.4	4.760	1100	2.850	210.2	2.855	231.9	2.495	112.2
15	3.070	142.8	4.215	769.9	4.780	1083 *	2.960	238.5	2.725	195.2	2.465	111.5 *
16	2.845	97.59	3.805	576.8	4.790	1088 *	3.200	330.4	2.595	139.2	2.370	90.23 *
17	2.750	87.24	4.165	757.0	4.150	714.4	2.940	243.5 *	2.625	142.2	2.340	83.88 *
18	3.325	162.5	6.090	1944 *	3.970	615.8	2.900	230.9	2.565	135.9 *	2.430	103.5 *
19	3.335	174.0	6.280	2086 *	3.795	542.4	3.115	285.2	2.605	144.0	2.230	62.21 *
20	4.230	505.9	6.580	2159	3.925	616.2	3.270	357.7 *	2.555	135.6	2.190	54.99 *
21	3.950	645.4 *	5.050	1260	3.515	427.8	3.240	344.8	2.515	126.0	2.400	96.77 *
22	4.595	894.4	4.640	1075	3.915	606.4	2.795	200.7	2.685	167.6 *	2.530	127.2 *
23	4.660	942.4	4.510	1115	3.885	615.0 *	2.965	247.6	2.620	147.4	2.220	60.37 #
24	4.865	1152	4.530	1027	3.720	527.6	2.905	227.3	2.510	122.3 *	2.170	51.51 #
25	4.715	1168	4.220	776.3	3.460	412.0	2.750	185.8 *	2.560	134.6 *	2.350	85.98 *
26	6.290	2136	4.090	712.7 *	3.360	374.6	2.960	245.8	2.415	103.2	2.400	96.77 *
27	5.020	1269	4.030	625.8	3.345	372.5	2.720	177.3 *	2.395	98.69	2.140	53.32
28	4.295	816.2 *	3.975	607.5	3.445	404.7	3.200	331.1	2.430	106.7	2.340	83.88 *
29	3.695	524.3	3.695	502.4	3.320	364.3	2.740	202.7	3.030	267.5	2.370	90.23 *
30	3.870	575.1	3.575	462.4	3.110	300.1 *	3.000	263.6	3.200	350.1	2.320	79.75 *
31			3.600	474.6	3.190	324.3			2.860	218.4 *		
Ten-Daily Mean												
I Ten-Daily	2.684	10.04	3.471	497.3	4.175	782.2	3.063	279.7	3.071	294.4	3.058	298.8
II Ten-Daily	3.124	174.7	4.865	1189	4.515	946.4	3.005	260.2	2.707	179.8	2.399	97.55
III Ten-Daily	4.595	1012	4.174	785.3	3.479	429.9	2.928	242.7	2.656	167.5	2.324	82.58
Monthly												
Min.	1.880	0.000	2.830	243.1	3.110	300.1	2.720	177.3	2.395	98.69	2.140	51.51
Max.	6.290	2136	6.580	2159	5.295	1371	3.470	423.3	3.340	385.0	4.060	657.1
Mean	3.468	399	4.170	822.7	4.037	710.2	2.999	260.8	2.806	212.4	2.594	159.6

Annual Runoff in MCM = 7070 Annual Runoff in mm = 2220

Peak Observed Discharge = 2159 cumecs on 20/07/2015 Corres. Water Level :6.58 m

Lowest Observed Discharge = 0.000 cumecs on 02/06/2015 Corres. Water Level :2.89 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	2.160	59.10	2.590	177.4 #	3.880	0.000	3.630	0.000	3.400	568.7 #	1.870	0.000
2	2.160	54.75	2.500	147.3 #	3.830	0.000	3.650	0.000	3.310	0.000	1.740	0.000
3	2.275	95.06	2.510	0.000	3.850	0.000	3.580	0.000	3.210	0.000	1.670	0.000
4	2.300	92.41	2.975	0.000	3.970	0.000	3.570	0.000	3.100	0.000	1.490	0.000
5	2.250	91.86	2.940	0.000	3.970	0.000	3.435	0.000	2.980	0.000	1.400	0.000
6	2.100	46.84 *	3.110	0.000	3.910	0.000	3.425	0.000	2.860	0.000	1.330	0.000
7	2.320	95.34 *	3.540	0.000	3.920	0.000	3.380	0.000	2.740	0.000	1.110	0.000
8	2.240	70.97	3.800	0.000	3.950	0.000	3.340	0.000	2.420	0.000	1.000	0.000
9	2.030	35.74	3.850	0.000	3.950	0.000	3.315	0.000	2.400	0.000	1.000	0.000
10	2.230	73.49 *	3.875	0.000	3.820	0.000	3.280	0.000	2.380	0.000	1.290	0.000
11	2.065	38.58	3.900	0.000	3.810	0.000	3.240	0.000	2.360	0.000	1.170	0.000
12	2.280	85.29 *	3.860	0.000	3.790	0.000	3.190	0.000	2.180	62.55 #	1.170	0.000
13	2.280	85.29 *	3.740	0.000	3.855	0.000	3.155	0.000	2.020	0.000	1.265	0.000
14	2.140	54.42 *	3.760	0.000	3.820	0.000	3.110	0.000	2.300	0.000	1.265	0.000
15	2.250	71.34	3.790	0.000	3.930	0.000	3.070	0.000	2.800	0.000	1.135	0.000
16	2.300	90.25 *	3.820	0.000	3.815	0.000	3.050	0.000	3.000	0.000	1.140	0.000
17	2.030	34.91 *	3.820	0.000	3.880	0.000	3.050	0.000	3.000	0.000	1.150	0.000
18	2.240	75.79 *	3.810	0.000	3.885	0.000	2.960	0.000	2.850	0.000	1.220	0.000
19	1.970	26.05 *	3.890	0.000	3.775	0.000	2.920	0.000	2.700	0.000	1.130	0.000
20	2.070	41.52 *	3.795	0.000	3.890	0.000	2.885	0.000	2.570	0.000	1.095	0.000
21	2.010	33.84	3.750	0.000	3.830	0.000	2.850	0.000	2.500	147.3 #	1.170	0.000
22	2.040	32.20	3.790	0.000	3.800	0.000	2.815	264.4 #	2.410	119.9 #	1.560	0.000
23	2.030	32.39	3.790	0.000	3.880	0.000	2.800	0.000	2.430	0.000	1.770	5.721 #
24	2.010	31.82 *	3.790	0.000	3.810	0.000	2.730	0.000	2.320	0.000	2.120	0.000
25	1.900	17.31 *	3.690	0.000	3.740	0.000	2.655	0.000	2.230	0.000	2.540	0.000
26	2.100	44.68	3.690	0.000	3.665	0.000	2.580	0.000	2.150	0.000	2.690	0.000
27	1.940	22.09 *	3.795	0.000	3.830	0.000	2.490	0.000	2.090	0.000	2.860	0.000
28	1.910	20.99	3.820	0.000	3.750	0.000	2.420	0.000	2.010	0.000	2.980	0.000
29	1.940	21.81	3.805	0.000	3.690	0.000	2.470	0.000	1.960	0.000	3.230	0.000
30	2.030	34.91 #	3.715	0.000			3.520	0.000	1.900	0.000	3.350	0.000
31	2.030	34.91 #	3.820	0.000			3.480	0.000			3.330	0.000
Ten-Daily Mean												
I Ten-Daily	2.207	71.56	3.169	32.47	3.905	0.000	3.461	0.000	2.880	56.87	1.390	0.000
II Ten-Daily	2.162	60.34	3.818	0.000	3.845	0.000	3.063	0.000	2.578	6.255	1.174	0.000
III Ten-Daily	1.995	29.72	3.769	0.000	3.777	0.000	2.801	24.04	2.200	26.72	2.509	0.520
Monthly												
Min.	1.900	17.31	2.500	0.000	3.665	0.000	2.420	0.000	1.900	0.000	1.000	0.000
Max.	2.320	95.34	3.900	177.4	3.970	0.000	3.650	264.4	3.400	568.7	3.350	5.721
Mean	2.117	53.1	3.591	10.47	3.845	0	3.098	8.529	2.553	29.95	1.717	0.185

Peak Computed Discharge = 2086 cumecs on 19/07/2015 **Corres. Water Level :6.28 m**

Lowest Computed Discharge = 17.31 cumecs on 25/12/2015 **Corres. Water Level :1.9 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

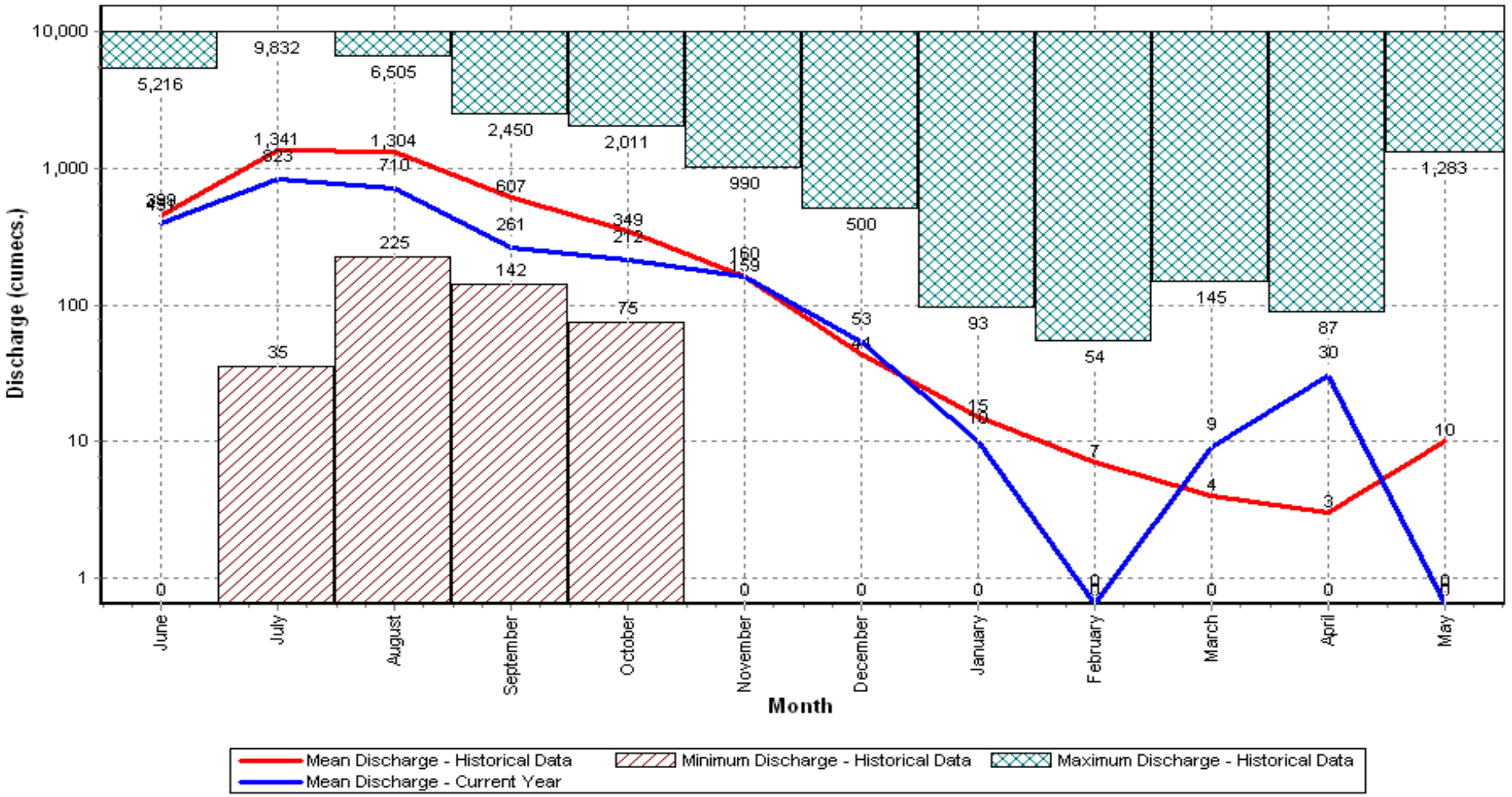
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : Bantwal (WN000G9) | **Data considered : 1971-2016** | **Division : Cauvery Division, Bangalore**

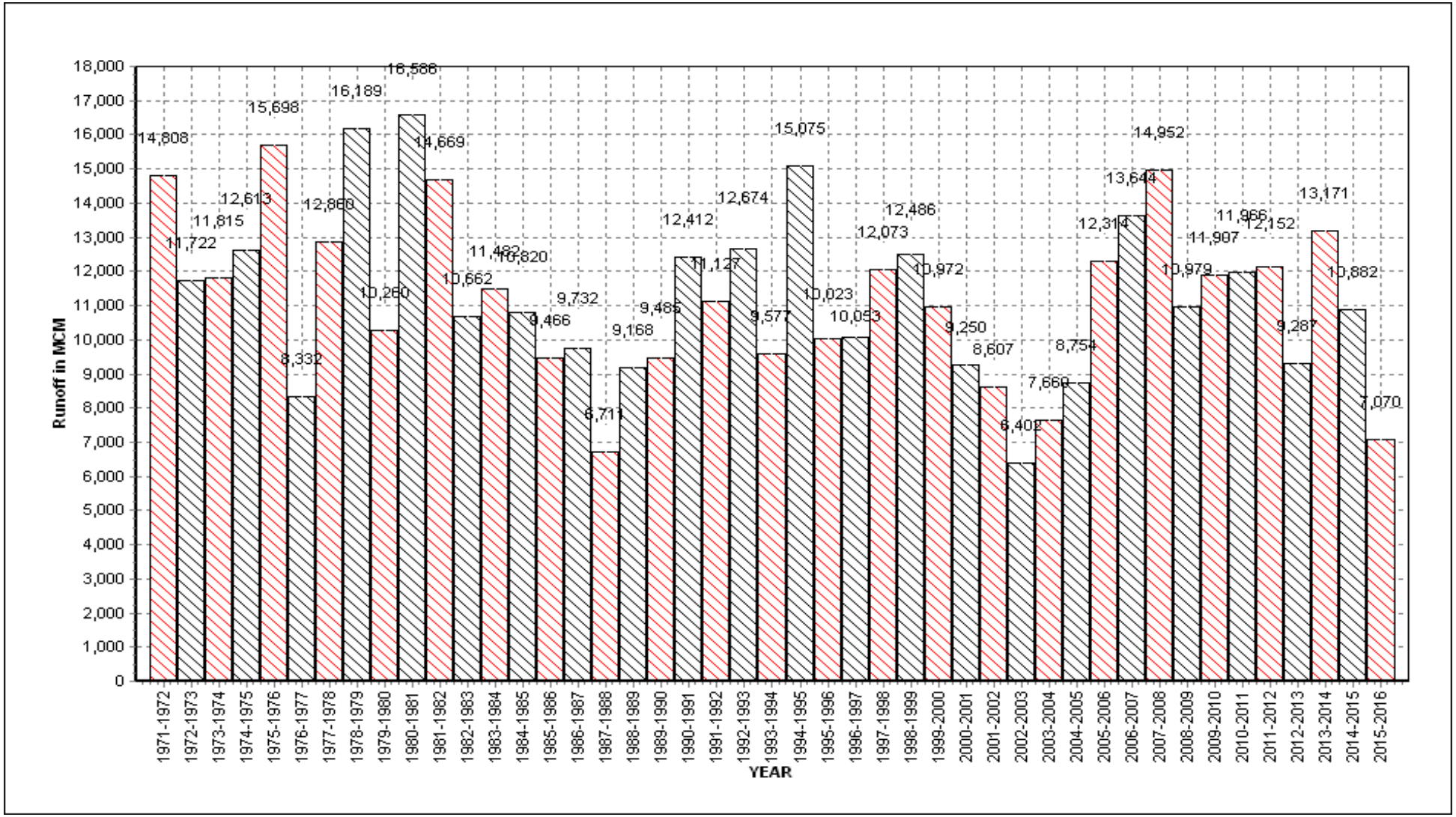
Local River : Netravathi | **Sub-Division : SWRSD-III, Mangalore**



Annual Runoff Values for the period: 1971 - 2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

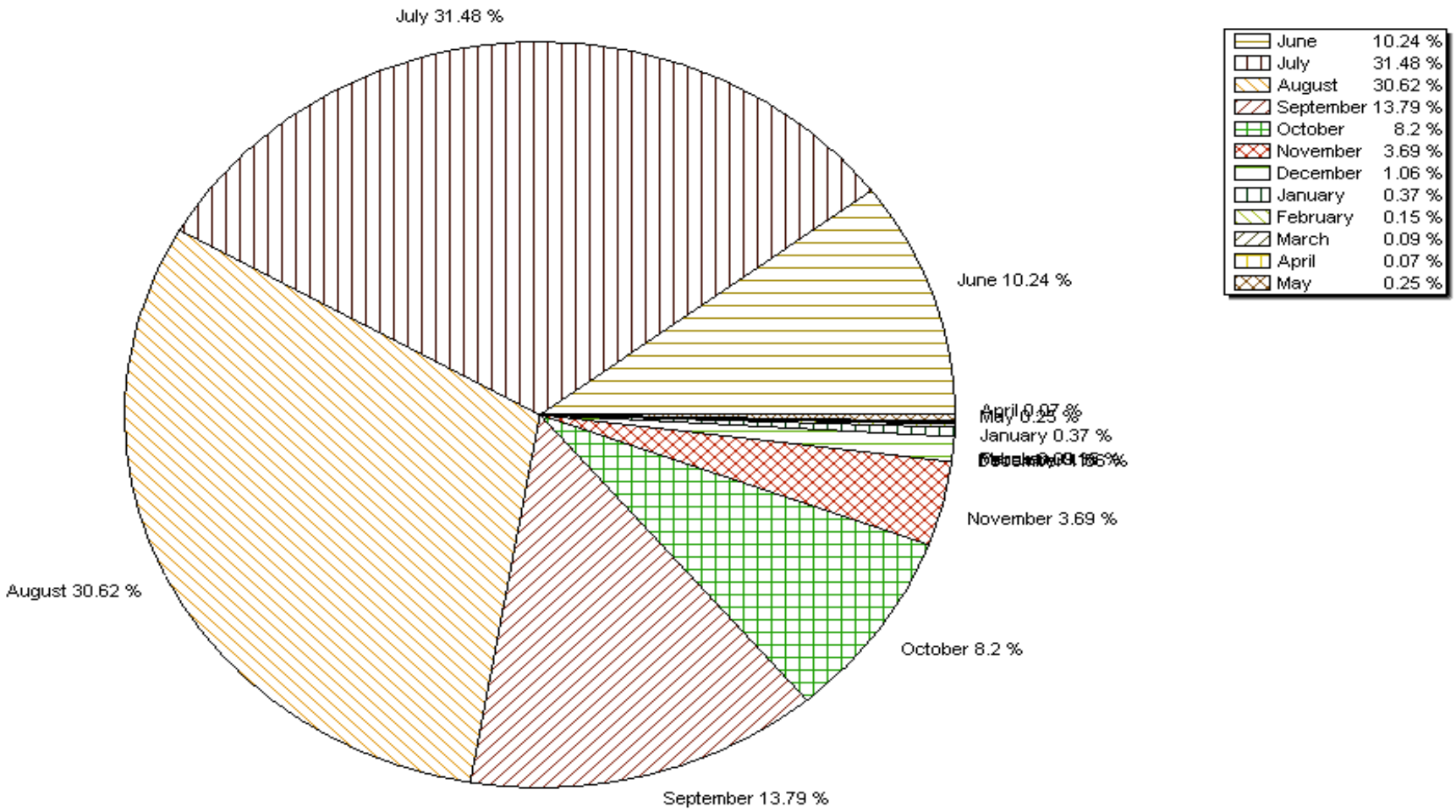


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1971-2015

Station Name : Bantwal (WN000G9)
Local River : Netravathi

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



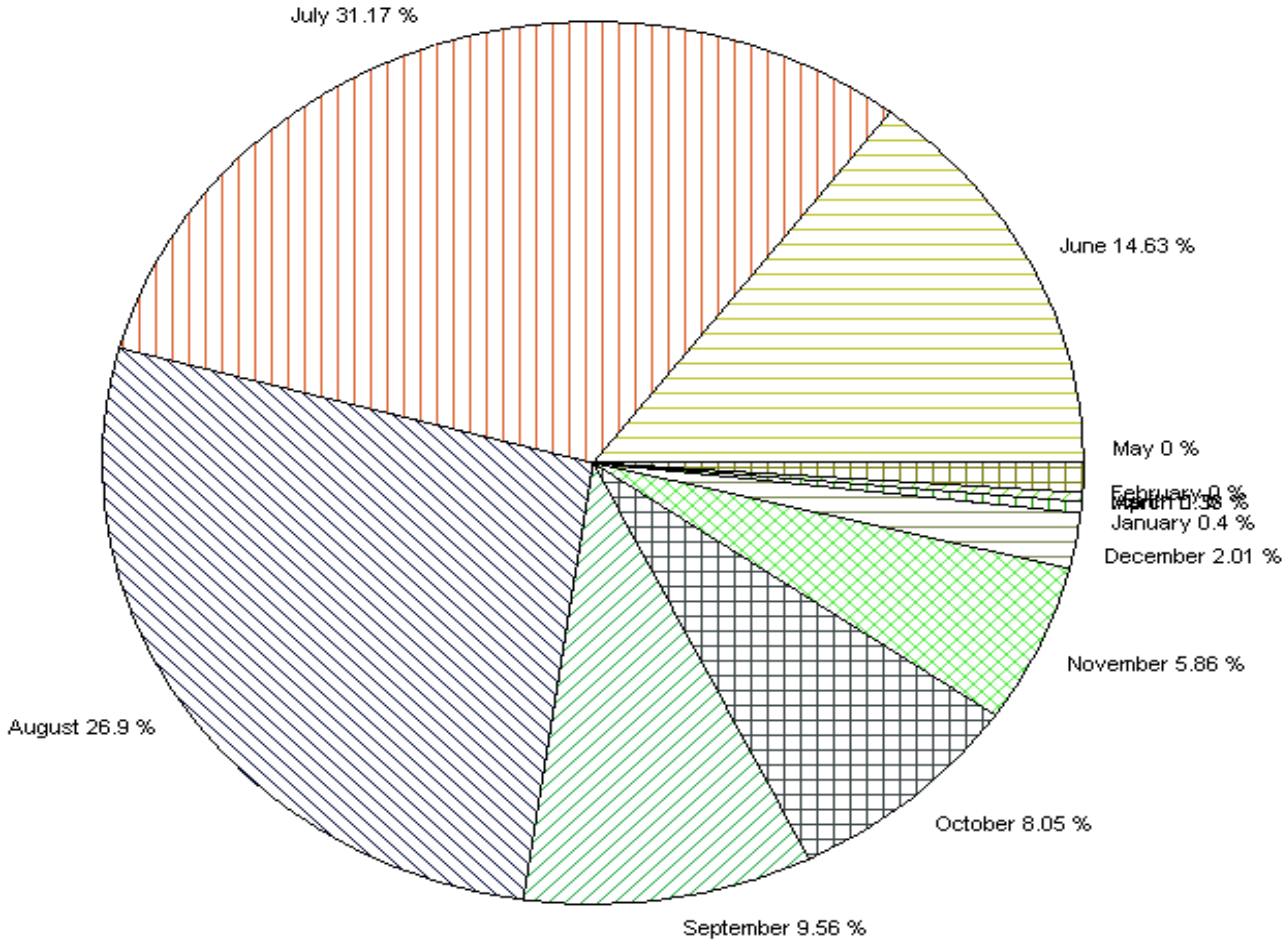
Monthly Runoff for the Year : 2015-2016

Station Name : Bantwal (WN000G9)

Local River : Netravathi

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore



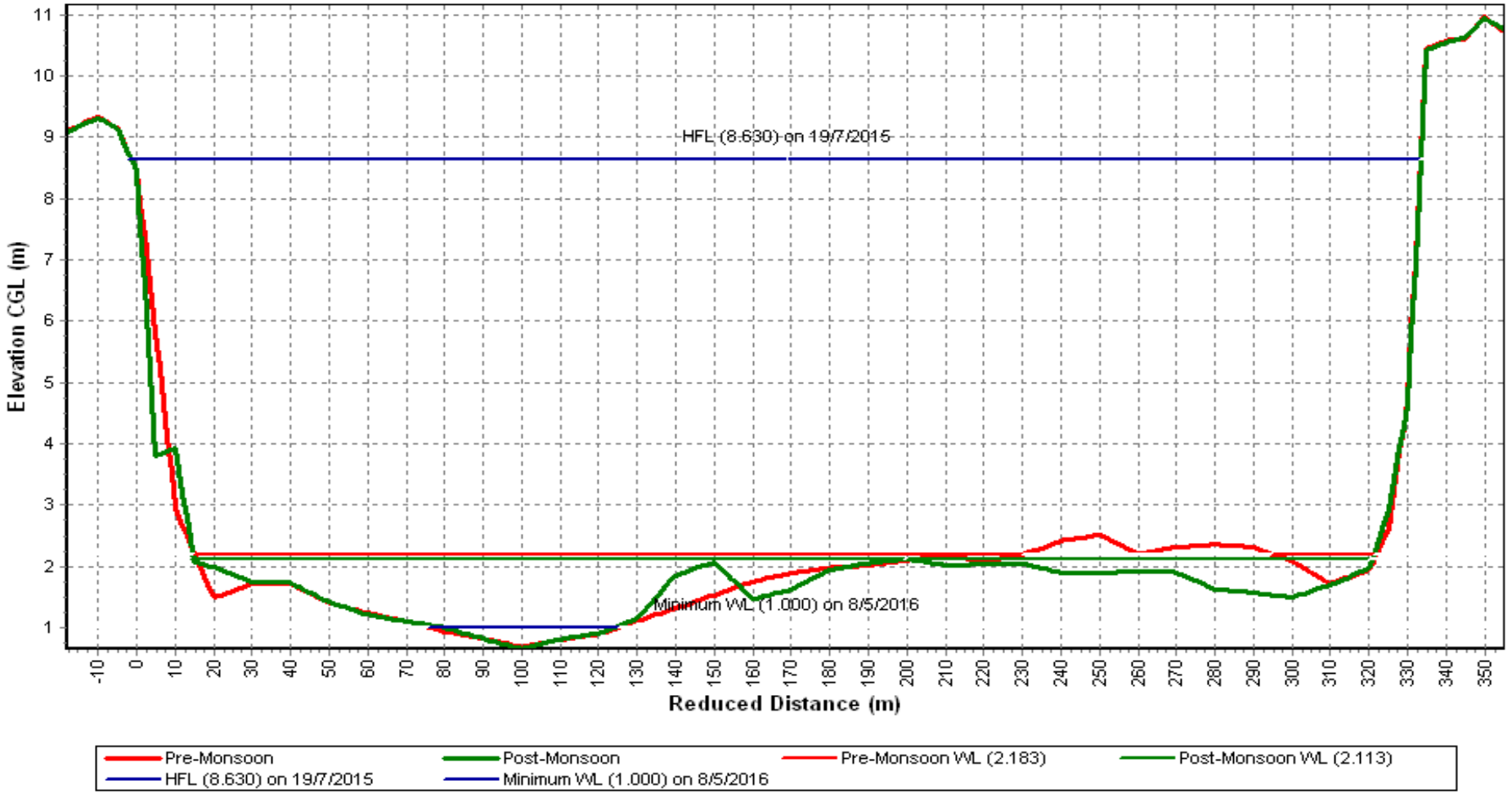
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : Bantwal (WN000G9)

Local River : Netravathi

Division : Cauvery Division, Bangalore

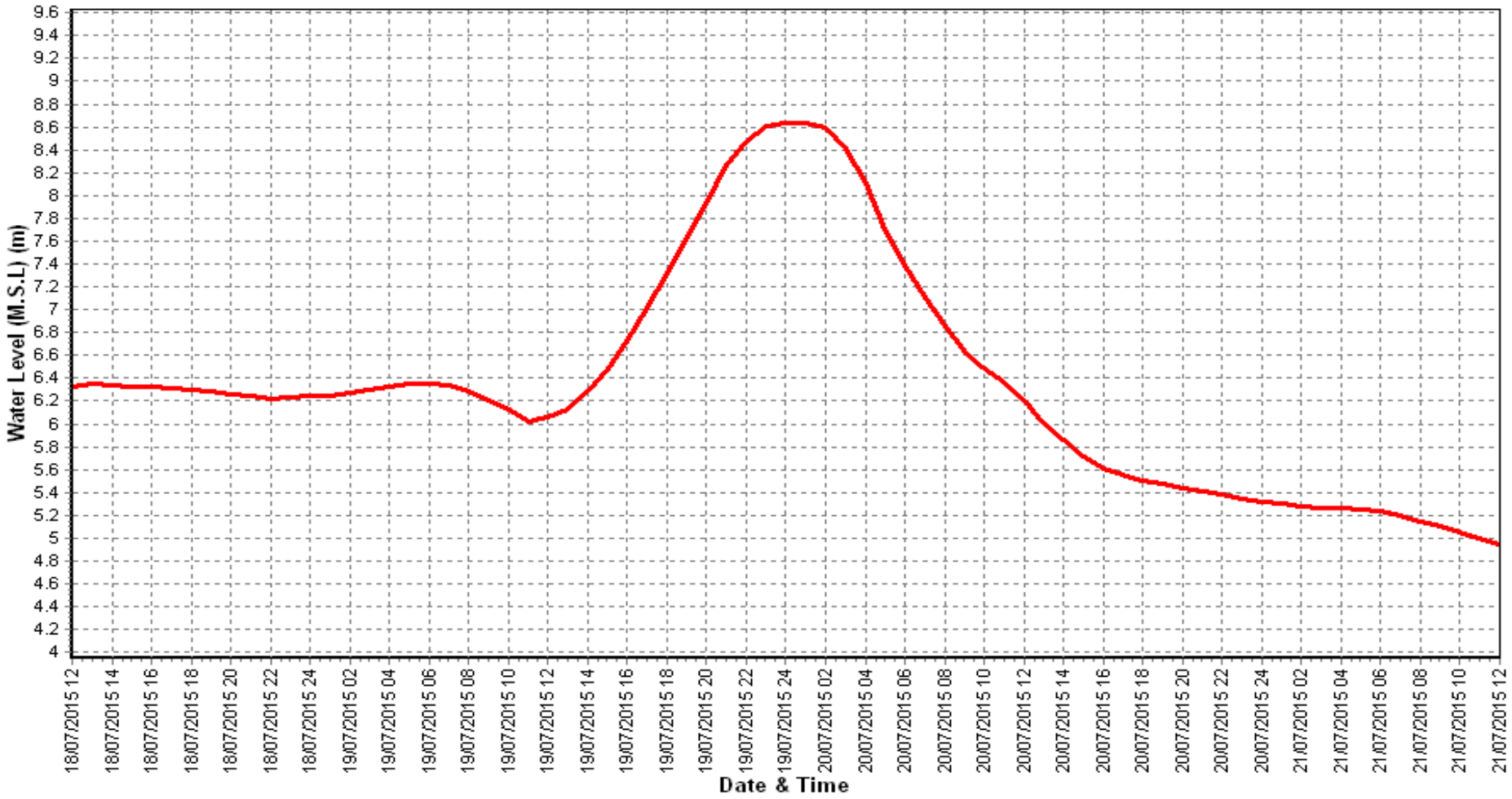
Sub-Division : SWRSD-III, Mangalore



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

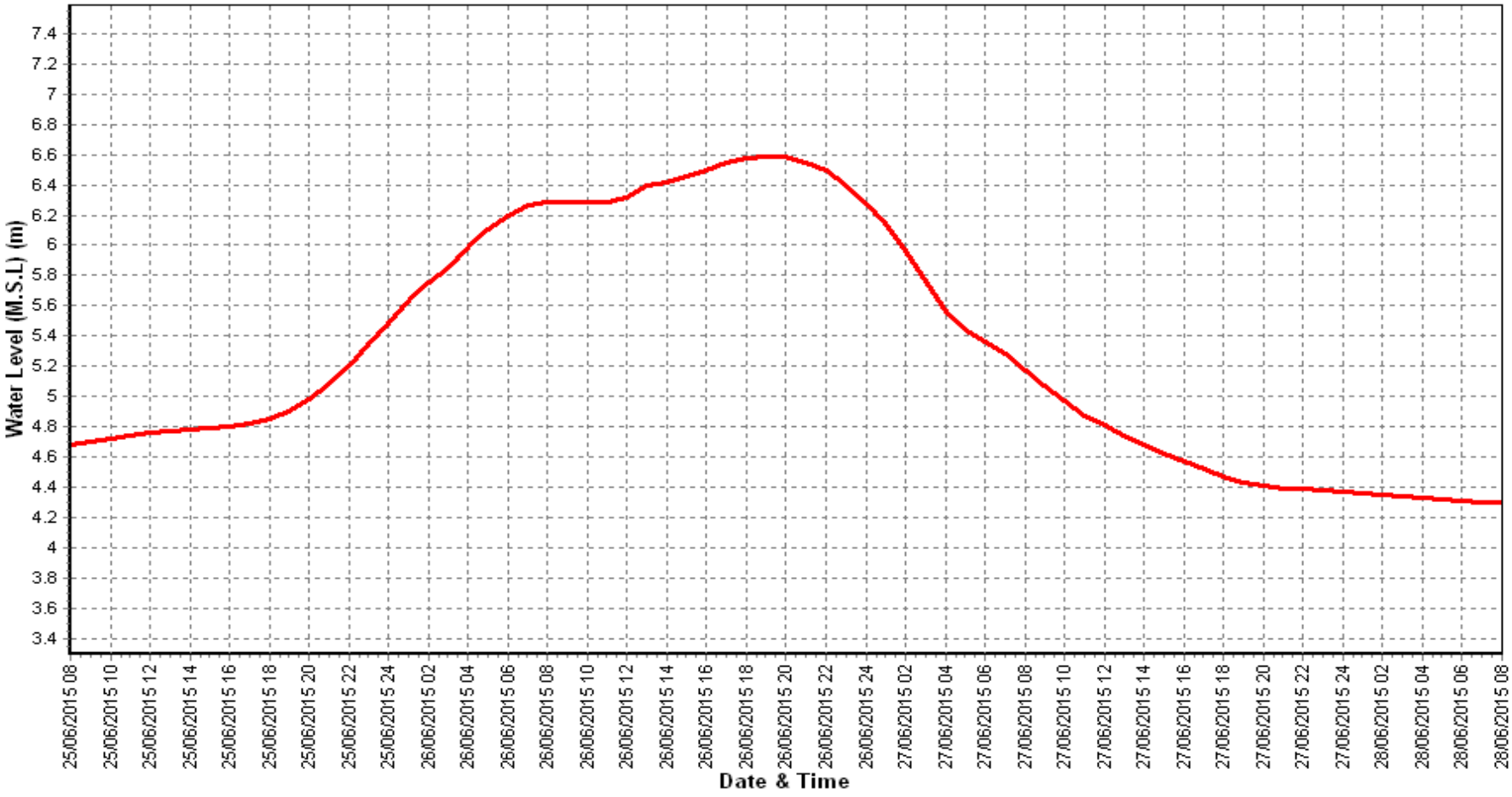


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

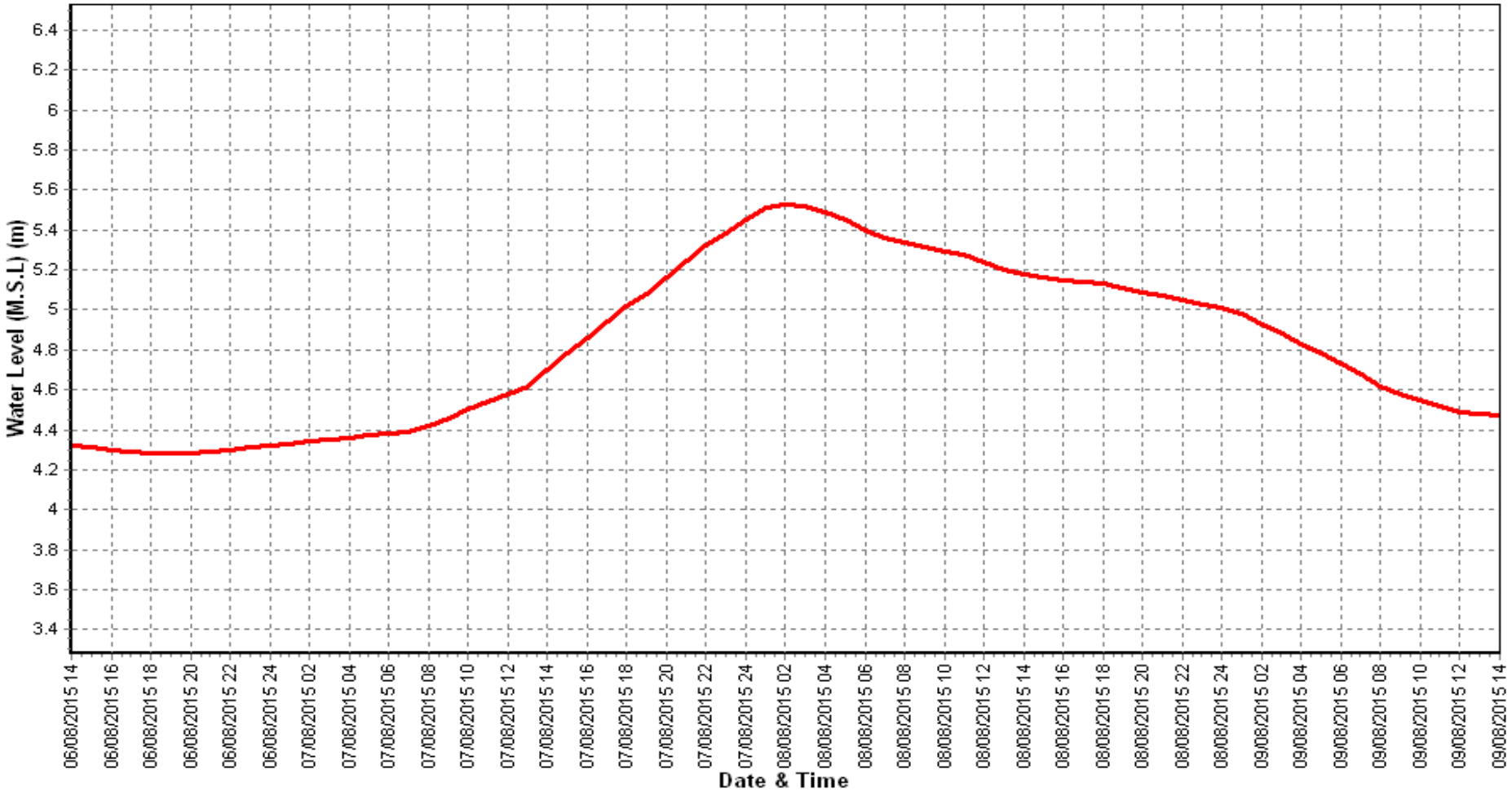


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: ERINJIPUZHA**		**Code**	**: KP000C3**	
State	: Kerala		District	Kasaragod	
Basin	: WFR South of Tapi		Independent River	: Payaswani	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Payaswani	
Division	: SWR Division, Kochi		Sub-Division	: Chaliyar SD, Calicut	
Drainage Area	: 957 Sq. Km.		Bank	: Right	
Latitude	: 12°29'45"		Longitude	: 75°09'25"	
Zero of Gauge (m)	: 0.000 (Arb.) 1.910 (Arb.) 9.100 (m.s.l)		20/07/1984 01/06/1985 01/04/1989	- 31/05/1985 - 31/03/1989	
	Opening Date		Closing Date		
Gauge	: 20/07/1984				
Discharge	: 25/06/1985				
Sediment	: 13/06/1988				
Water Quality	: 01/07/1988				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	866.8	10.500	08/08/1986	0.000	5.450*	01/06/1986
1987-1988	377.2	8.990	21/08/1987	0.000	6.180*	09/03/1988
1988-1989	725.0	10.260	18/07/1988	0.000	6.360*	01/06/1988
1989-1990	852.5	17.720	23/07/1989	0.000	13.240	22/03/1990
1990-1991	717.8	17.040	15/08/1990	0.000	13.065	22/03/1991
1991-1992	1047	17.800	18/08/1991	0.000	13.187	18/03/1992
1992-1993	975.2	17.454	28/07/1992	0.000	13.183	08/04/1993
1993-1994	474.9	16.705	26/07/1993	0.181	12.865	05/04/1994
1994-1995	1277	18.120	30/07/1994	0.000	12.990	27/03/1995
1995-1996	1085	17.840	12/07/1995	0.000	12.920	09/03/1996
1996-1997	675.3	17.170	13/08/1996	0.000	12.430	01/06/1996
1997-1998	1332	18.275	22/08/1997	0.000	12.740	03/06/1997
1998-1999	820.0	17.300	01/07/1998	0.000	13.280	31/03/1999
1999-2000	1388	18.790	18/07/1999	0.000	12.890	20/03/2000
2000-2001	632.1	16.850	25/08/2000	0.000	13.330	10/03/2001
2001-2002	749.3	17.120	08/07/2001	0.000	13.230	25/03/2002
2002-2003	388.5	16.395	17/08/2002	0.000	12.820	17/03/2003
2003-2004	507.4	16.660	24/08/2003	0.000	12.590	01/06/2003

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	1064	17.750	04/08/2004	0.000	12.880	27/02/2005
2005-2006	631.7	17.125	25/07/2005	0.000	12.780	09/03/2006
2006-2007	619.6	17.060	12/08/2006	0.000	12.800	18/03/2007
2007-2008	866.0	17.410	07/08/2007	0.000	12.735	14/03/2008
2008-2009	840.5	17.310	13/08/2008	0.000	12.790	25/02/2009
2009-2010	850.5	17.500	17/07/2009	0.000	12.740	01/04/2010
2010-2011	988.4	17.900	30/07/2010	0.000	13.140	02/03/2011
2011-2012	926.7	17.740	06/08/2011	0.000	12.850	19/03/2012
2012-2013	721.6	17.195	09/08/2012	0.000	12.810	02/06/2012
2013-2014	870.2	17.570	04/07/2013	0.000	12.550	23/03/2014
2014-2015	1042	17.870	07/08/2014	0.012	12.650	30/03/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	13.770	1.012 #	15.090	89.91	15.260	106.2	14.840	82.53	15.330	117.2	14.670	49.72 *
2	13.760	0.869 #	14.930	76.04	15.300	132.0 *	14.800	63.45	15.350	140.4 *	15.000	90.44
3	13.900	3.735 #	14.890	72.97	15.220	110.2	14.770	48.84	14.910	73.52	14.560	43.36
4	13.990	8.258	14.920	73.85	15.790	221.1	14.770	54.62	14.930	78.35 *	14.550	40.90
5	14.360	22.11	15.030	82.76 *	15.660	188.9	14.720	49.61	14.920	76.00	14.930	83.21
6	14.260	16.50	14.910	72.18	15.890	253.0	14.770	59.88 *	15.210	123.0	14.550	47.87
7	14.140	12.58 *	14.800	49.54	16.020	294.9	14.730	54.01	14.960	88.69	14.480	31.07
8	13.990	6.497 #	14.730	61.03	15.970	285.6	14.880	70.21	14.860	63.00	14.440	30.28 *
9	13.950	3.969	15.085	101.8	15.850	241.5 *	14.895	66.45	14.930	81.35	14.410	21.92
10	13.945	6.325	15.750	173.9	15.860	255.2	14.780	60.64	14.860	68.48	14.400	27.44 *
11	13.980	7.506	16.110	231.6	16.110	294.2	14.730	49.15	14.780	60.95 *	14.370	28.92
12	14.240	13.94	16.230	339.2 *	16.090	291.8	14.680	48.84	14.810	59.92	14.370	25.41 #
13	14.210	13.90	15.880	241.2	16.120	295.1	14.630	45.96 *	14.760	57.49	14.370	27.80
14	14.210	16.03 *	15.600	184.5	15.830	231.2	14.610	44.80	14.990	80.74	14.480	36.29
15	14.320	19.94	15.920	256.3	15.900	253.3 *	14.630	40.41	14.680	48.35	14.370	25.41 *
16	14.230	19.63	15.610	170.9	16.200	330.8 *	14.740	44.37	14.620	47.78	14.340	23.02
17	14.240	19.15	15.700	206.0	15.830	241.4	14.690	39.64	14.590	44.34	14.330	25.97
18	14.340	22.69	17.270	704.8 *	15.670	193.2	14.630	46.38	14.570	40.61 *	14.300	24.69
19	14.420	23.07	17.100	634.8 *	15.545	177.0	14.755	50.93	14.610	41.06	14.290	20.42 #
20	15.270	107.8	17.190	772.9	15.270	138.1	14.680	50.69 *	14.520	36.98	14.280	19.84 #
21	15.600	155.5 *	16.620	532.2	15.170	114.1	14.690	53.64	14.500	40.07	14.380	33.18
22	15.665	178.7	16.290	380.6	15.100	99.43	14.610	41.52	14.670	53.69	14.300	21.01 *
23	15.595	157.9	16.200	359.1	15.240	122.2 *	14.570	34.07	14.500	34.84 *	14.270	19.27 #
24	15.765	200.0	15.855	255.9	15.230	142.8	14.540	38.08 *	14.470	32.51 *	14.250	17.45
25	15.630	163.4	15.700	198.1	15.220	127.0	14.530	33.73	14.440	30.28 *	14.580	41.48 *
26	16.040	230.4	15.580	183.1 *	15.100	104.0	14.510	37.26	14.420	30.35	14.340	25.35
27	16.350	282.5	15.710	230.3	15.090	102.6	14.500	34.84 *	14.420	31.37	14.260	18.71 #
28	15.870	197.1 *	15.780	230.1	15.340	138.7 *	14.950	87.51	14.400	23.78	14.250	18.15 #
29	15.295	103.8	15.510	168.9	15.070	102.4	15.020	87.76	14.580	43.50	14.250	18.15 *
30	15.420	133.4	15.320	136.8	14.980	84.70 *	15.160	118.1	14.630	49.23	14.210	16.03 #
31			15.340	122.0	14.890	63.49			14.600	54.10		
Ten-Daily Mean												
I Ten-Daily	14.007	8.186	15.014	85.40	15.682	208.9	14.795	61.02	15.026	91.00	14.599	46.62
II Ten-Daily	14.346	26.37	16.261	374.2	15.857	244.6	14.677	46.12	14.693	51.82	14.350	25.78
III Ten-Daily	15.723	180.3	15.810	254.3	15.130	109.2	14.708	56.65	14.512	38.52	14.309	22.88
Monthly												
Min.	13.760	0.869	14.730	49.54	14.890	63.49	14.500	33.73	14.400	23.78	14.210	16.03
Max.	16.350	282.5	17.270	772.9	16.200	330.8	15.160	118.1	15.350	140.4	15.000	90.44
Mean	14.692	71.6	15.698	238.5	15.542	185	14.727	54.6	14.736	59.74	14.419	31.76

Annual Runoff in MCM = 1765 Annual Runoff in mm = 1844

Peak Observed Discharge = 772.9 cumecs on 20/07/2015 Corres. Water Level :17.19 m

Lowest Observed Discharge = 0.000 cumecs on 15/03/2016 Corres. Water Level :12.65 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	14.350	35.10 #	13.890	7.454	13.450	2.651	13.050	0.813	12.280	0.000	11.420	0.000
2	14.230	23.65 *	13.870	7.116	13.430	2.688	13.070	0.758	12.250	0.000	11.390	0.000
3	14.420	42.77 *	13.860	7.126 *	13.440	2.766	13.010	0.545	12.210	0.000	11.360	0.000
4	14.260	25.00	13.850	6.446	13.400	2.378	12.950	0.376	12.200	0.000	11.360	0.000
5	14.220	22.89	13.830	7.541	13.380	2.379	12.910	0.343	12.180	0.000	11.340	0.000
6	14.190	20.33 *	13.835	7.958	13.400	2.084	12.880	0.252 *	12.160	0.000	11.320	0.000
7	14.170	18.74	13.820	7.720	13.420	2.643 *	12.910	0.312 *	12.150	0.000	11.280	0.000
8	14.160	18.49	13.800	6.904	13.400	2.490	12.890	0.314	12.130	0.000	11.240	0.000
9	14.150	17.95	13.790	6.690	13.360	2.091	12.850	0.240	12.110	0.000	11.190	0.000
10	14.140	15.87	13.780	6.117 *	13.360	2.210	12.840	0.185 #	12.080	0.000	11.150	0.000
11	14.130	16.26	13.760	7.316	13.400	2.362	12.810	0.148	12.020	0.000	11.120	0.000
12	14.120	16.42	13.750	6.219	13.360	2.360	12.770	0.105	12.000	0.000	11.090	0.000
13	14.110	14.40 *	13.740	5.825	13.340	2.285	12.720	0.051 *	11.980	0.000	11.090	0.000
14	14.100	10.63	13.720	5.421	13.290	1.786 *	12.690	0.032 #	11.930	0.000	11.160	0.000
15	14.100	11.86	13.710	5.281	13.260	1.616	12.650	0.000	11.890	0.000	11.150	0.000
16	14.140	15.29	13.700	5.208	13.290	1.869	12.630	0.000	11.800	0.000	11.180	0.000
17	14.180	21.77	13.690	5.089 *	13.220	1.244	12.600	0.000	11.850	0.000	11.190	0.000
18	14.100	15.74	13.670	4.648	13.280	1.850	12.580	0.000	11.820	0.000	11.190	0.000
19	14.080	14.31	13.650	4.537	13.260	1.432	12.550	0.000	11.760	0.000	11.170	0.000
20	14.060	10.05 *	13.630	4.075	13.220	1.137	12.530	0.000	11.720	0.000	11.190	0.000
21	14.040	11.42	13.640	4.432	13.220	1.404 *	12.510	0.000	11.700	0.000	11.220	0.000
22	14.020	11.01	13.630	4.006	13.190	0.997	12.500	0.000	11.670	0.000	11.220	0.000
23	14.010	9.816	13.610	3.609	13.170	1.163 #	12.490	0.000	11.640	0.000	11.200	0.000
24	14.000	9.114 *	13.600	4.169 *	13.160	0.837	12.450	0.000	11.620	0.000	11.170	0.000
25	13.990	8.962 *	13.620	3.926	13.050	0.506	12.440	0.000	11.590	0.000	11.150	0.000
26	13.970	8.664 #	13.590	4.074 *	13.050	0.845	12.420	0.000	11.560	0.000	11.150	0.000
27	13.960	8.517 *	13.600	3.736	13.050	0.858	12.410	0.000	11.540	0.000	11.140	0.000
28	13.950	8.772	13.540	2.944	13.060	0.725 *	12.380	0.000	11.520	0.000	11.120	0.000
29	13.940	8.648	13.490	2.833	13.080	0.838	12.350	0.000	11.480	0.000	11.150	0.000
30	13.920	8.681	13.530	2.991			12.320	0.000	11.450	0.000	11.290	0.000
31	13.910	9.525	13.470	3.027 *			12.290	0.000			11.310	0.000
Ten-Daily Mean												
I Ten-Daily	14.229	24.08	13.833	7.107	13.404	2.438	12.936	0.414	12.175	0.000	11.305	0.000
II Ten-Daily	14.112	14.67	13.702	5.362	13.292	1.794	12.653	0.034	11.877	0.000	11.153	0.000
III Ten-Daily	13.974	9.375	13.575	3.613	13.114	0.908	12.415	0.000	11.577	0.000	11.193	0.000
Monthly												
Min.	13.910	8.517	13.470	2.833	13.050	0.506	12.290	0.000	11.450	0.000	11.090	0.000
Max.	14.420	42.77	13.890	7.958	13.450	2.766	13.070	0.813	12.280	0.000	11.420	0.000
Mean	14.101	15.83	13.699	5.305	13.276	1.741	12.660	0.144	11.876	0	11.216	0

Peak Computed Discharge = 704.8 cumecs on 18/07/2015 Corres. Water Level :17.27 m

Lowest Computed Discharge = 0.051 cumecs on 13/03/2016 Corres. Water Level :12.72 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

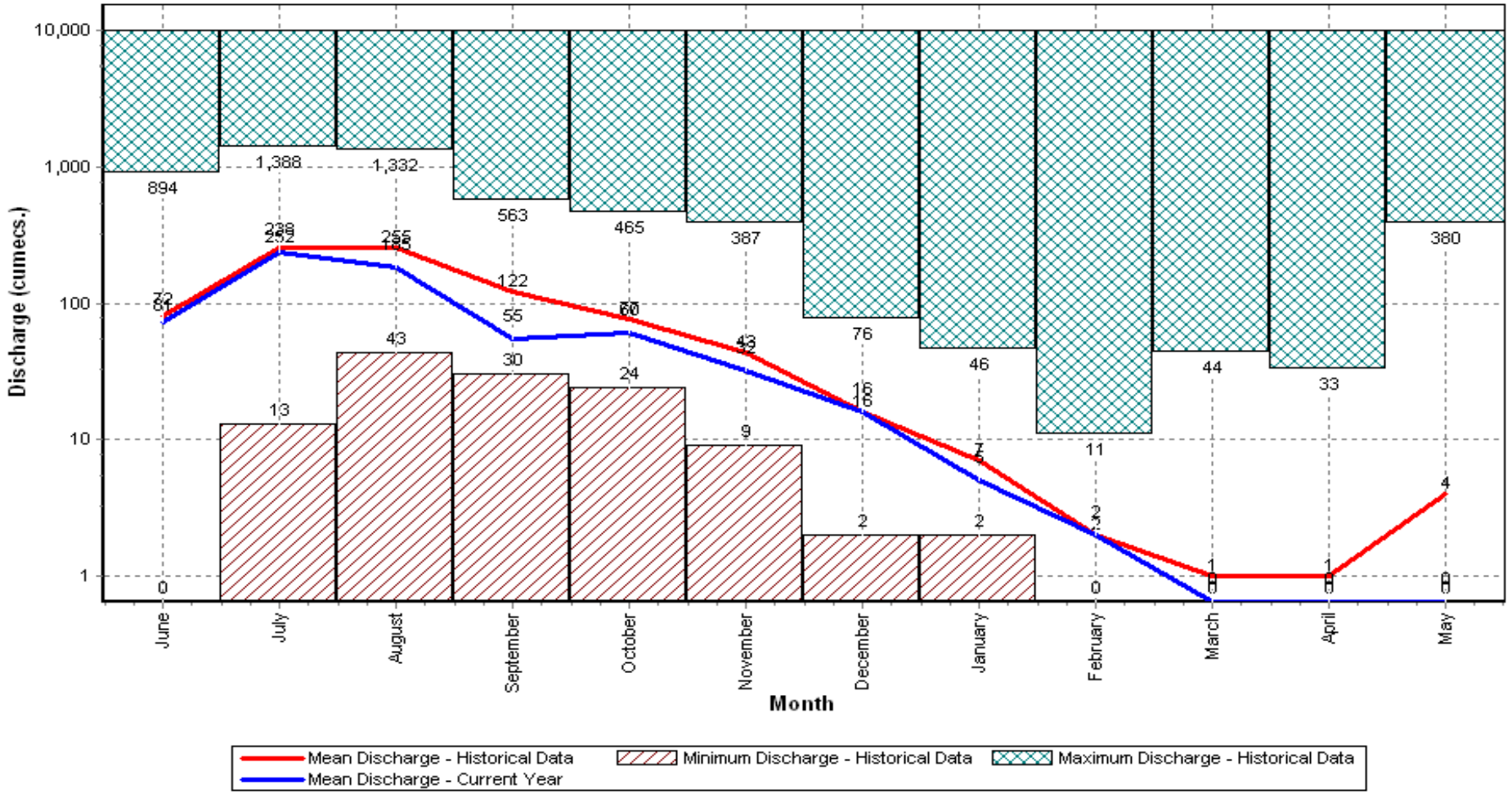
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Payaswani | **Sub-Division : Chaliyar SD, Calicut**



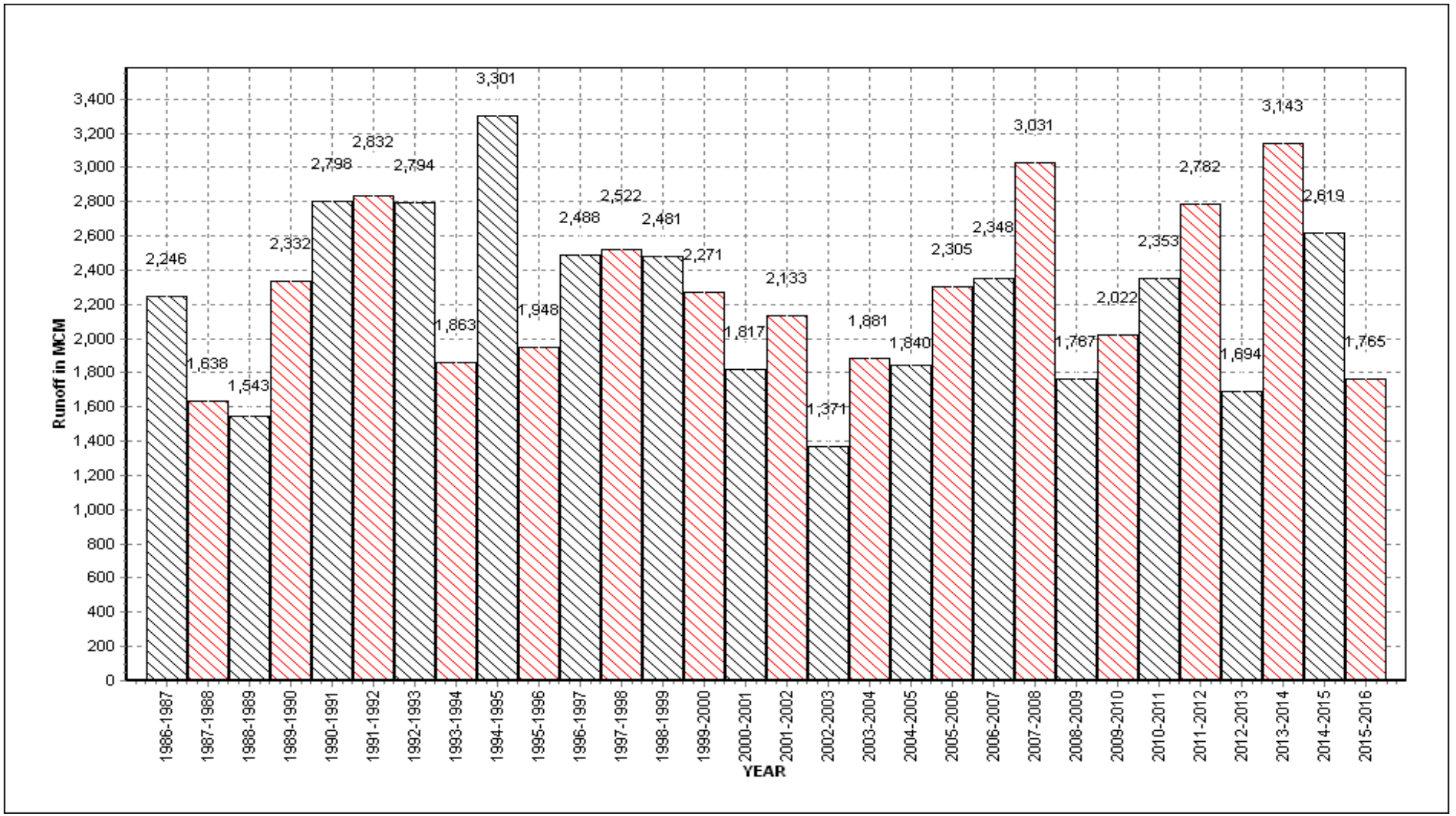
Annual Runoff Values for the period: 1986 - 2016

Station Name : ERINJIPUZHA (KP000C3)

Local River : Payaswani

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut

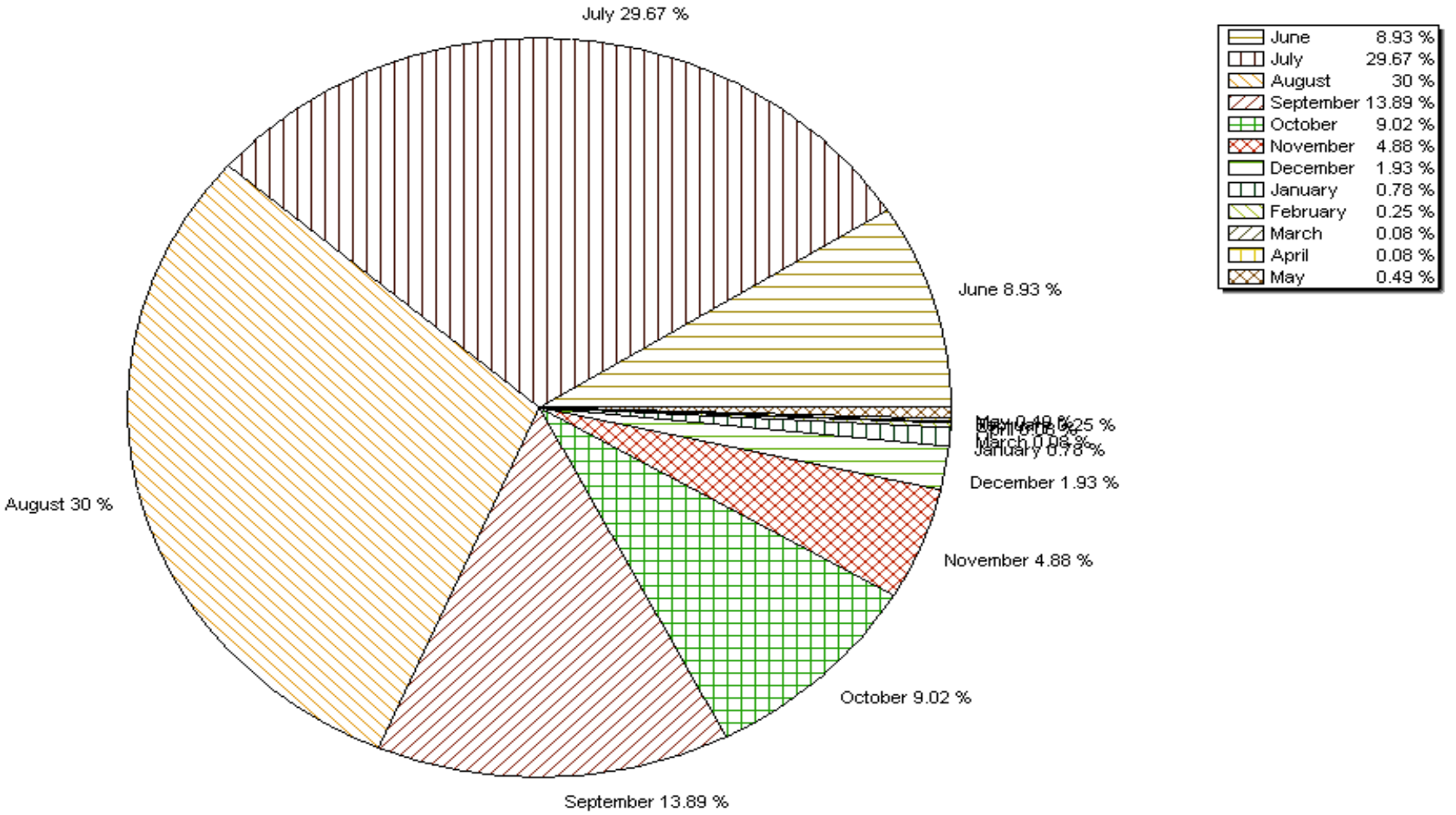


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : ERINJIPUZHA (KP000C3)
Local River : Payaswani

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



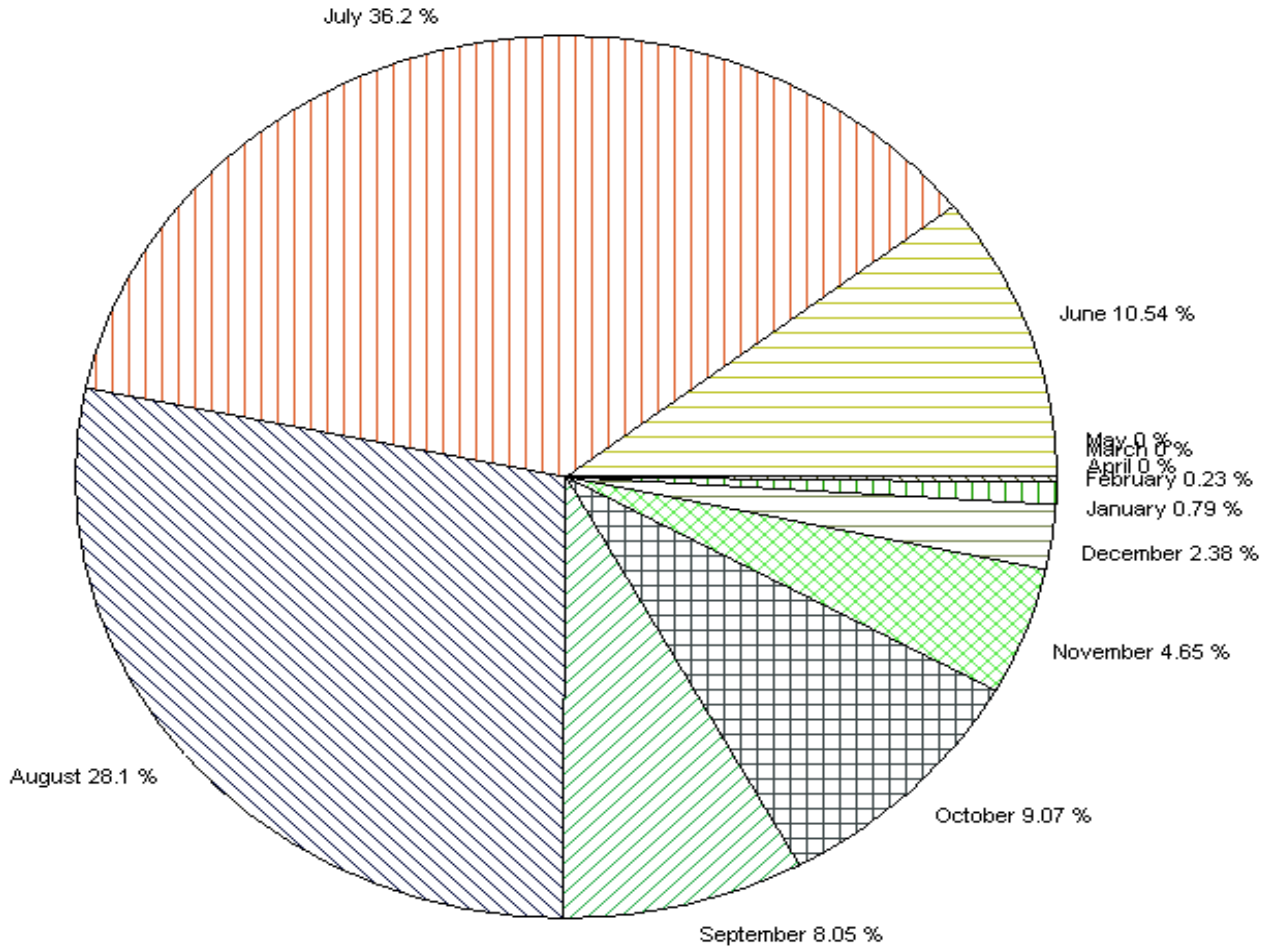
Monthly Runoff for the Year : 2015-2016

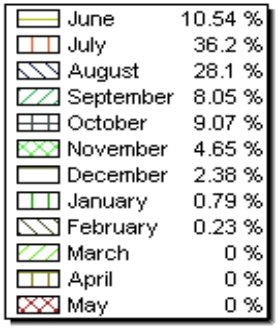
Station Name : ERINJIPUZHA (KP000C3)

Local River : Payaswani

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut

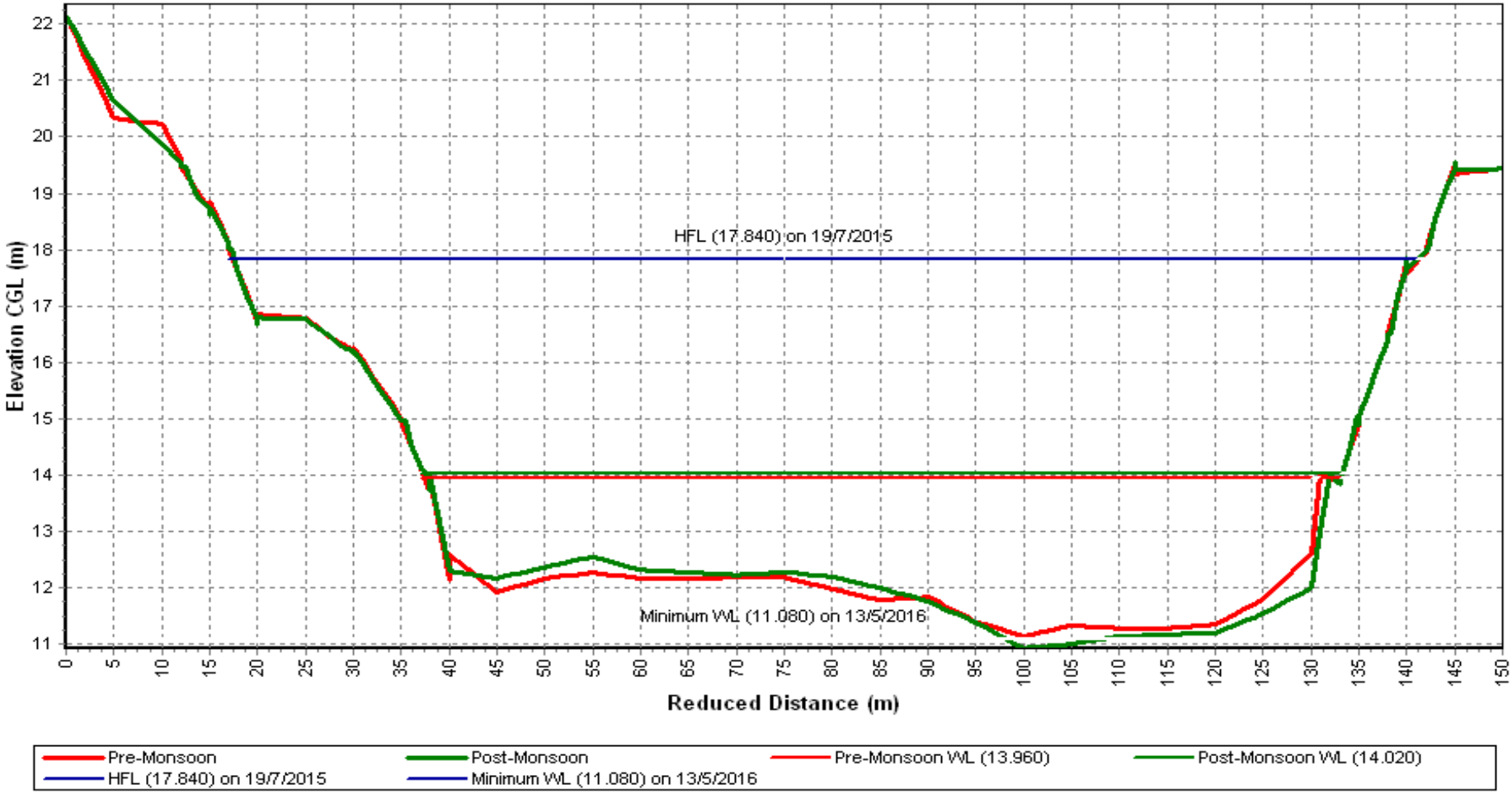




Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

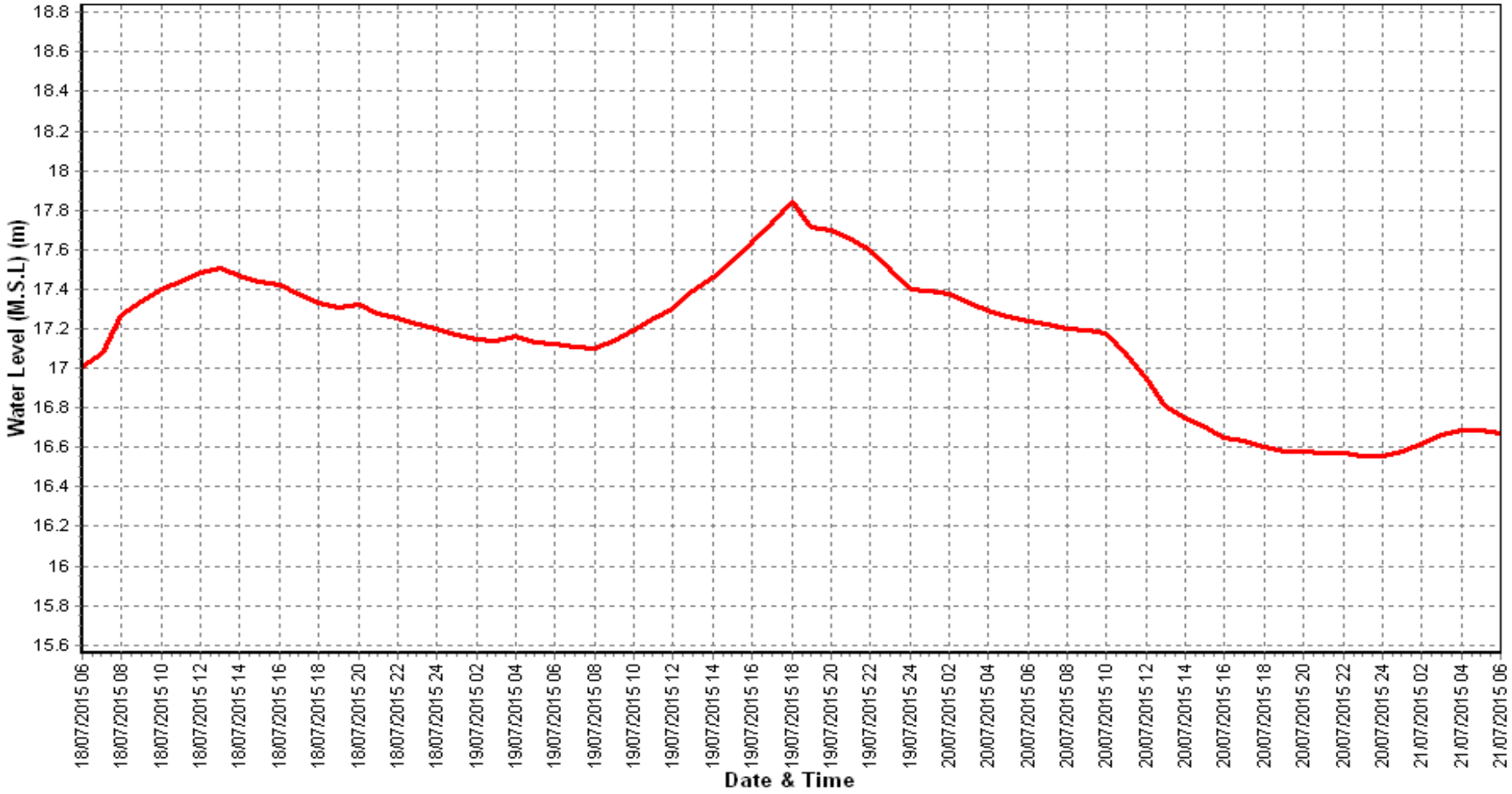
Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

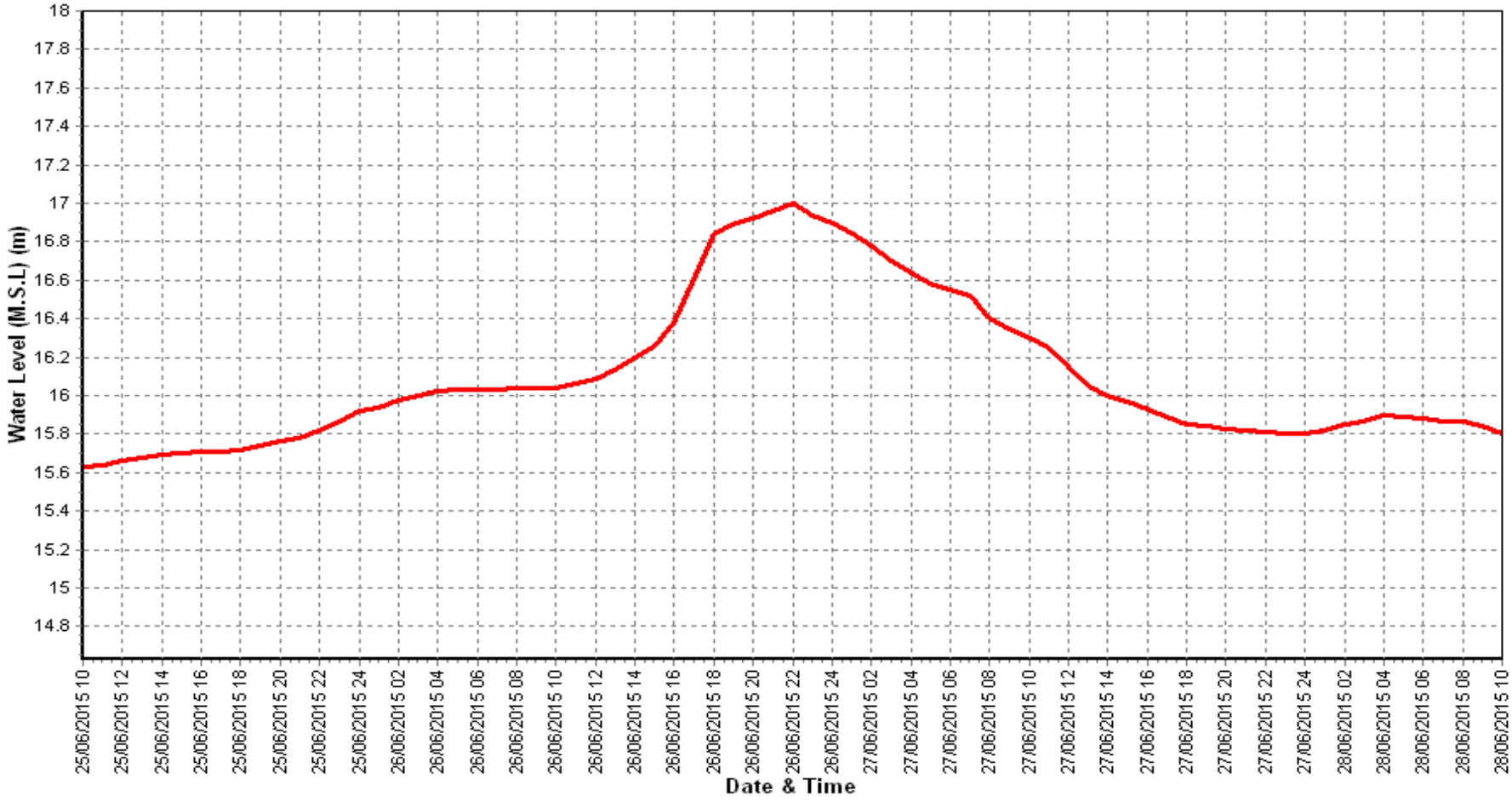


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

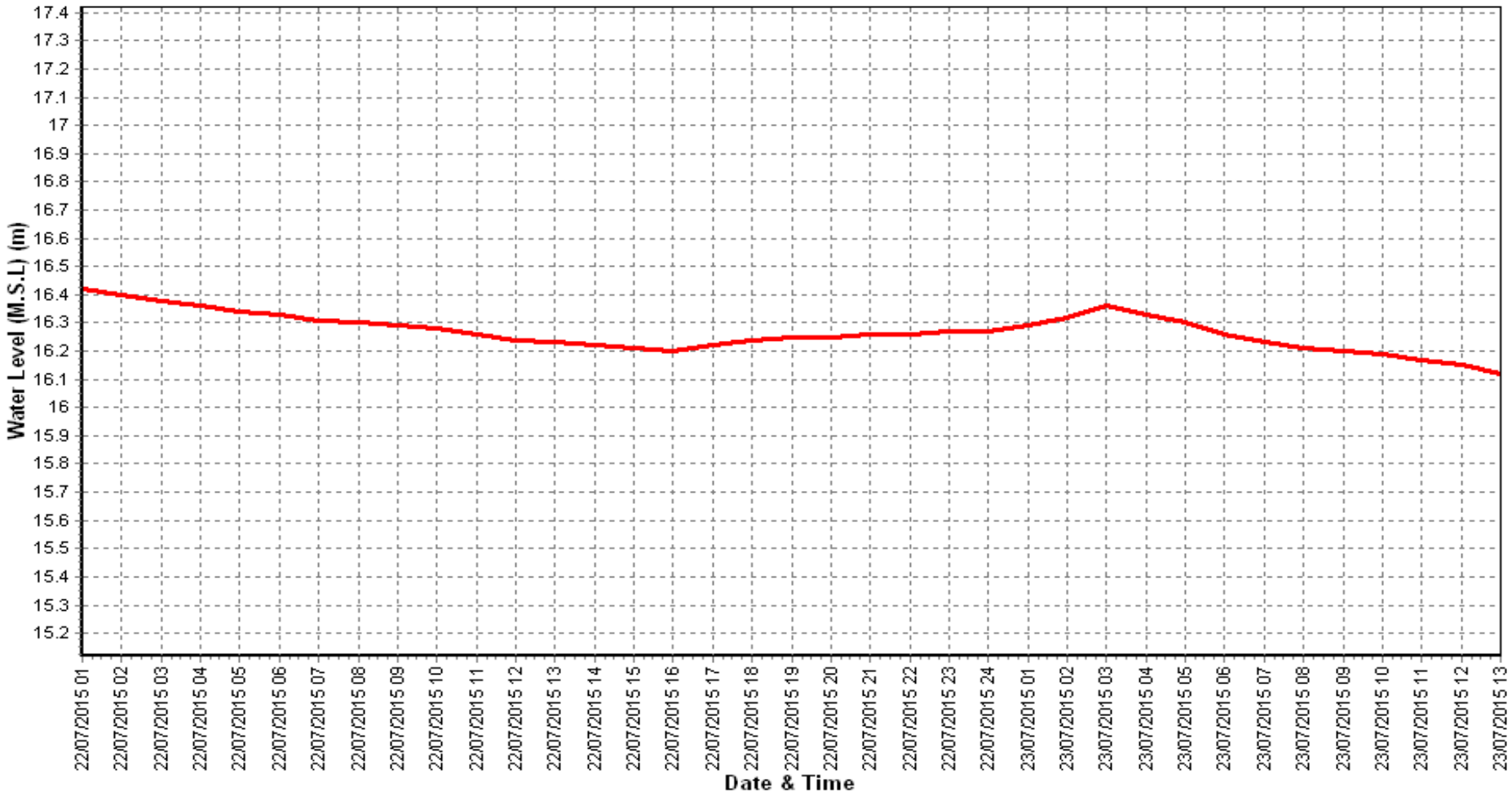


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**PERUMANNU**	**Code**	:	**KA000K8**
State	:	Kerala	District		Cannanore
Basin	:	WFR South of Tapi	Independent River	:	Valapatnam
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Valapatnam
Division	:	SWR Division, Kochi	Sub-Division	:	Chaliyar SD, Calicut
Drainage Area	:	1070 Sq. Km.	Bank	:	Right
Latitude	:	11°58'51"	Longitude	:	75°34'40"
Zero of Gauge (m)	:	3.470 (m.s.l)	23/05/1984		
		Opening Date	Closing Date		
Gauge	:	23/05/1984			
Discharge	:	26/06/1985			
Sediment	:	26/07/1986			
Water Quality	:	02/06/1986			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	1040	12.480	09/08/1986	0.000	5.865	13/05/1987
1987-1988	837.9	10.620	26/08/1987	0.805	6.030	01/06/1987
1988-1989	1267	12.370	04/08/1988	0.000	5.880	22/03/1989
1989-1990	1794	13.750	24/07/1989	0.139	5.930	02/06/1989
1990-1991	1010	11.430	27/06/1990	1.250	6.150	16/12/1990
1991-1992	1659	13.136	27/07/1991	1.141	6.070	01/12/1991
1992-1993	1878	13.211	21/06/1992	1.082	6.195	19/05/1993
1993-1994	1025	11.354	04/08/1993	0.288	6.038	21/05/1994
1994-1995	1856	13.673	15/07/1994	1.505	6.205	10/12/1994
1995-1996	1163	11.605	01/09/1995	0.800	6.110	17/12/1995
1996-1997	975.6	11.085	25/07/1996	1.300	6.190	22/05/1997
1997-1998	1776	12.975	07/08/1997	1.200	6.185	01/06/1997
1998-1999	1304	11.930	02/07/1998	2.254	6.255	01/05/1999
1999-2000	2380	13.870	18/07/1999	1.100	6.220	02/04/2000
2000-2001	1200	11.905	12/07/2000	0.973	6.160	02/05/2001
2001-2002	1782	12.600	08/07/2001	1.438	6.270	06/12/2001
2002-2003	1777	13.100	14/10/2002	0.676	6.130	30/04/2003
2003-2004	764.4	10.605	17/07/2003	0.730	6.145	03/05/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	1813	13.175	04/08/2004	1.208	6.235	20/04/2005
2005-2006	1499	12.435	29/05/2006	1.230	6.230	04/06/2005
2006-2007	1614	12.640	03/07/2006	2.100	6.225	21/05/2007
2007-2008	2370	14.530	17/07/2007	0.002	6.165	11/06/2007
2008-2009	1285	11.965	12/08/2008	1.641	6.215	18/05/2009
2009-2010	2202	13.780	18/07/2009	2.683	6.280	05/06/2009
2010-2011	1463	12.430	30/07/2010	1.966	6.270	08/04/2011
2011-2012	1326	12.400	17/07/2011	0.916	6.380	01/06/2011
2012-2013	2082	14.690	07/08/2012	0.000	6.310	29/11/2012
2013-2014	2197	14.500	04/07/2013	0.000	6.480	01/06/2013
2014-2015	2006	13.555	01/08/2014	0.880	6.150	13/01/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	6.260	1.956	8.710	192.5	8.400	126.4	8.550	148.1	8.065	85.75	6.630	5.414 *
2	6.260	1.946	8.660	178.2	8.320	117.2 *	8.485	132.8	8.070	89.07 *	6.650	6.579
3	6.260	1.876	8.540	158.9	8.285	113.7	8.390	122.2	8.100	85.10	6.650	6.771
4	6.260	1.831 *	8.430	139.2	8.445	134.9	8.180	92.16	8.130	95.40 *	7.860	61.73
5	6.270	2.197	8.430	131.1 *	8.680	157.1	8.045	84.76	8.335	119.1	7.870	69.20
6	8.270	99.34	8.270	99.38	8.620	156.5	8.090	91.15 *	9.295	269.6	7.815	57.42
7	6.450	4.025 *	8.060	84.95	8.715	176.1	8.395	122.3	8.820	180.9	7.540	37.93
8	6.430	3.900	8.260	107.5	9.340	283.1	8.425	123.5	8.315	111.9	6.920	12.98 *
9	6.330	2.464	9.120	263.2	8.960	211.2 *	8.515	140.4	8.590	148.0	6.930	10.70
10	6.350	2.688	8.970	249.3	8.995	226.6	8.270	112.1	8.870	178.8	6.940	13.65 *
11	6.390	3.251	9.015	262.2	9.345	292.5	8.405	127.3	8.580	151.5 *	6.950	11.39
12	7.730	54.14	9.070	230.7 *	9.700	368.2	8.190	99.88	8.460	128.2	7.380	26.25
13	6.810	11.30 #	9.040	267.7	9.535	335.0	8.090	91.15 *	8.110	89.51	7.385	27.99
14	6.820	11.56 *	9.000	259.4	9.230	256.4	8.000	87.12	8.140	91.99	7.600	43.68
15	6.850	8.784	8.630	170.7	9.330	281.0 *	7.925	72.77	8.085	86.42	8.290	113.6 *
16	7.380	34.56	8.520	126.7	9.310	276.9 *	7.895	77.57	7.305	27.80	8.135	99.24
17	7.160	24.77	9.440	331.3	8.925	213.8	8.410	130.2	8.370	119.6	7.920	68.25
18	7.820	63.89	10.900	719.0 *	8.930	241.8	8.190	98.57	7.790	62.84 *	7.000	13.47
19	7.260	26.66	10.500	584.2 *	8.880	204.9	8.215	108.9	7.780	60.49	6.590	5.397
20	8.320	110.0	10.500	639.6	8.545	152.2	8.150	97.57 *	7.465	38.31	6.650	6.750
21	8.450	133.7 *	9.660	359.2	8.390	131.9	8.335	121.9	7.530	37.98	6.700	8.362
22	10.150	460.1	9.300	284.9	8.470	135.2	8.205	96.25	7.510	38.13	6.780	8.845 *
23	12.135	1296	9.750	374.9 *	8.590	152.9 *	8.015	81.77	7.710	56.32 *	6.740	9.933
24	10.830	700.2	10.115	528.3	8.540	147.0	7.890	71.58 *	7.670	53.22 *	6.800	9.379 #
25	11.105	840.9	9.620	354.1	8.535	147.1	7.850	64.13	7.620	49.49 *	6.910	12.66 *
26	11.910	1147	9.340	283.0 *	8.280	123.3	8.020	76.76	7.575	41.92	8.140	96.16
27	11.620	1116	9.270	255.9	8.195	104.2	8.040	86.00 *	7.270	24.63	7.850	61.50
28	10.210	496.8 *	9.165	244.9	8.310	116.0 *	8.470	123.7	7.320	26.96	7.190	22.83
29	9.450	339.8	8.870	185.5	8.135	99.75	8.470	128.9	7.360	27.78	6.550	3.978 *
30	9.240	293.3	8.655	157.9	8.120	94.33 *	8.185	95.85	6.570	5.124	6.550	5.004
31			8.525	141.2	8.225	96.92			6.620	6.781		
Ten-Daily Mean												
I Ten-Daily	6.514	12.22	8.545	160.4	8.676	170.3	8.335	116.9	8.459	136.4	7.181	28.24
II Ten-Daily	7.254	34.89	9.462	359.2	9.173	262.3	8.147	99.09	8.008	85.67	7.390	41.60
III Ten-Daily	10.510	682.4	9.297	288.2	8.345	122.6	8.148	94.68	7.341	33.49	7.021	23.87
Monthly												
Min.	6.260	1.831	8.060	84.95	8.120	94.33	7.850	64.13	6.570	5.124	6.550	3.978
Max.	12.135	1296	10.900	719.0	9.700	368.2	8.550	148.1	9.295	269.6	8.290	113.6
Mean	8.093	243.2	9.108	269.9	8.719	183	8.210	103.6	7.917	83.5	7.197	31.24

Annual Runoff in MCM = 2466 Annual Runoff in mm = 2305

Peak Observed Discharge = 1296 cumecs on 23/06/2015 Corres. Water Level :12.135 m

Lowest Observed Discharge = 0.384 cumecs on 05/05/2016 Corres. Water Level :6.14 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	7.060	17.21	6.300	2.232	6.270	1.968	6.120	0.600	6.170	0.519	6.140	0.475 *
2	7.240	22.48 *	6.300	2.294	6.260	1.894	6.110	0.544	6.170	0.495	6.140	0.492
3	7.240	22.48 *	7.190	20.97 *	6.260	1.885	6.110	0.534	6.170	0.522 *	6.140	0.434
4	7.230	22.18 *	6.260	1.630	6.260	1.905	6.110	0.601	6.170	0.524	6.140	0.498
5	6.930	13.82 *	6.210	1.213	6.260	1.910	6.110	0.568	6.170	0.535	6.140	0.384
6	8.380	68.29 *	6.200	1.204	6.260	1.900	6.110	0.566 *	6.170	0.450	6.150	0.495
7	8.200	59.70 *	6.210	1.446	6.660	7.763 *	6.110	0.566 *	6.170	0.460	6.150	0.426
8	6.590	6.437 *	6.210	1.403	6.660	8.165	6.110	0.572	6.170	0.461	6.140	0.475 *
9	6.600	6.620 *	6.750	10.40	6.660	7.877	6.130	0.542	6.170	0.527	6.140	0.422
10	6.610	7.358	6.930	13.82 *	6.200	1.208	6.130	0.582	6.170	0.522 *	6.140	0.427
11	6.300	1.981	6.930	13.84	6.190	1.169	6.130	0.573	6.170	0.485	6.150	0.460
12	6.290	2.084	6.360	2.682	6.180	1.135	6.130	0.584	6.170	0.514	6.140	0.503
13	6.300	2.116 *	6.350	2.998	6.180	1.133	6.130	0.583 *	6.170	0.500	6.170	0.569
14	6.300	1.944	6.350	2.926	6.180	0.941 *	6.130	0.537	6.170	0.522 *	6.150	0.452
15	6.300	2.003	6.350	2.832	6.180	1.115	6.130	0.576	6.170	0.533	6.140	0.475 *
16	6.300	2.169	6.970	15.09	6.660	8.137	6.130	0.627	6.170	0.522	6.140	0.475 *
17	6.340	2.468	6.970	14.84 *	6.660	7.965	6.130	0.609	6.170	0.522 *	6.140	0.501
18	6.320	2.166	6.280	1.557	6.430	3.729	6.130	0.597	6.170	0.549	6.140	0.453
19	6.310	2.258	6.260	1.277	6.180	0.869	6.130	0.590	6.170	0.543	6.150	0.507
20	6.310	2.231 *	6.240	1.221	6.180	0.814	6.150	0.600 *	6.150	0.490 *	6.150	0.503
21	6.310	2.132	6.240	1.295	6.170	0.861 *	6.150	0.565	6.150	0.519	6.150	0.490 *
22	6.310	2.163	6.480	4.926	6.170	0.822	6.150	0.565	6.150	0.512	6.150	0.490 *
23	6.310	2.177	6.650	9.234	6.170	0.811	6.170	0.572	6.140	0.485	6.150	0.512
24	6.310	2.231 *	6.850	11.87 *	6.170	0.803	6.170	0.580	6.140	0.475 *	6.150	0.513
25	6.310	2.231 *	6.280	1.452	6.170	0.807	6.170	0.522 *	6.140	0.513	6.150	0.557
26	6.310	1.972	6.190	1.023 *	6.170	0.779	6.170	0.399	6.140	0.491	6.140	0.395
27	6.300	2.116 *	6.250	1.226	6.140	0.599	6.170	0.522 *	6.140	0.491	6.140	0.513
28	6.300	2.104	6.240	1.243	6.120	0.509 *	6.170	0.544	6.150	0.484	6.140	0.473
29	6.300	2.147	6.340	2.494	6.120	0.589	6.170	0.549	6.140	0.534	6.260	1.600 *
30	6.300	2.158	6.740	7.016			6.170	0.536	6.140	0.449	6.210	1.040
31	6.300	2.188	6.730	9.192 *			6.170	0.508			6.190	0.849
Ten-Daily Mean												
I Ten-Daily	7.208	24.66	6.456	5.661	6.375	3.647	6.115	0.567	6.170	0.502	6.142	0.453
II Ten-Daily	6.307	2.142	6.506	5.926	6.302	2.701	6.132	0.588	6.168	0.518	6.147	0.490
III Ten-Daily	6.305	2.147	6.454	4.634	6.156	0.731	6.166	0.533	6.143	0.495	6.166	0.676
Monthly												
Min.	6.290	1.944	6.190	1.023	6.120	0.509	6.110	0.399	6.140	0.449	6.140	0.384
Max.	8.380	68.29	7.190	20.97	6.660	8.165	6.170	0.627	6.170	0.549	6.260	1.600
Mean	6.597	9.407	6.471	5.382	6.282	2.416	6.139	0.562	6.160	0.505	6.152	0.544

Peak Computed Discharge = 719.0 cumecs on 18/07/2015 **Corres. Water Level :10.9 m**

Lowest Computed Discharge = 0.475 cumecs on 24/04/2016 **Corres. Water Level :6.14 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

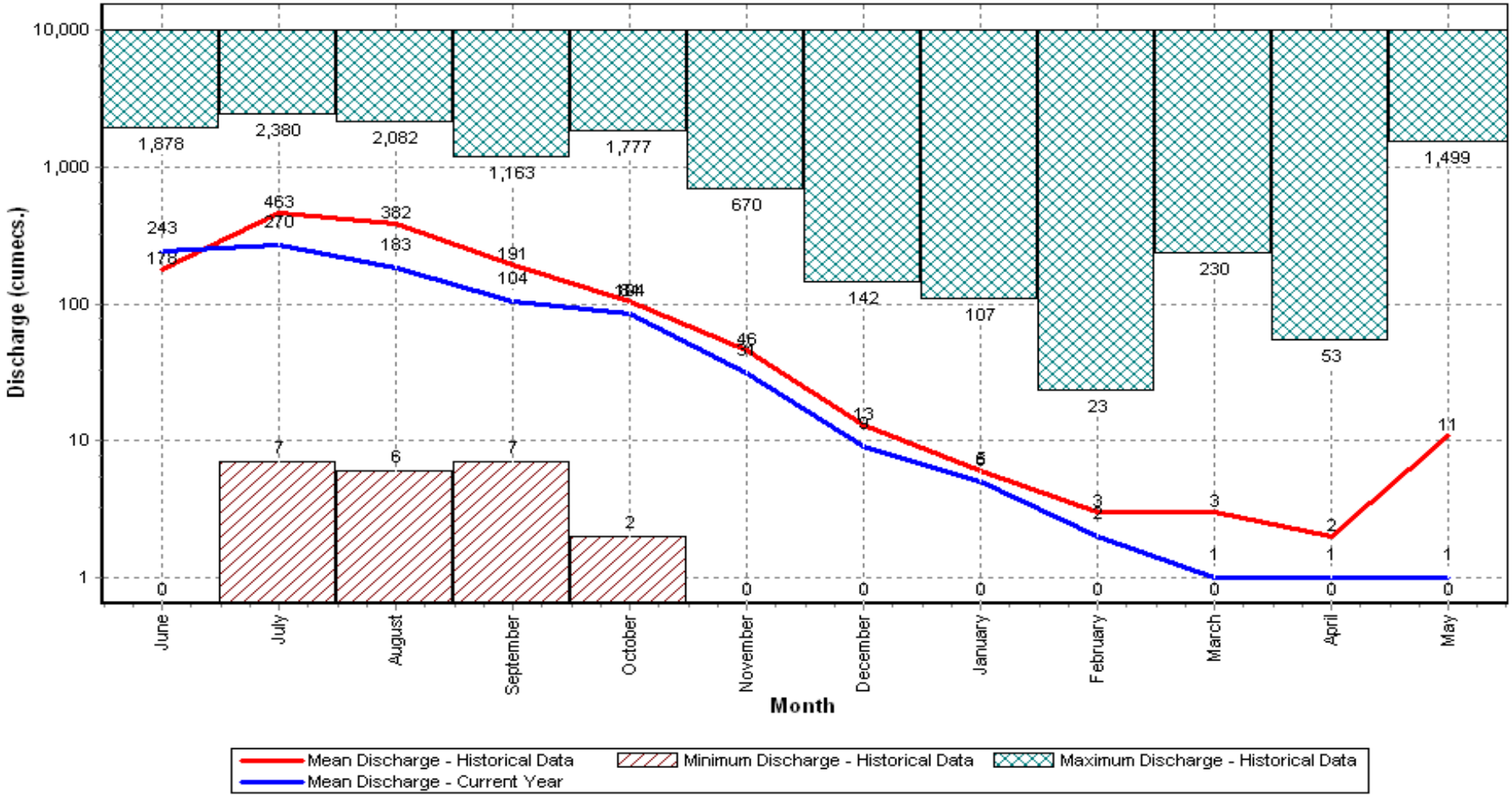
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : PERUMANNU (KA000K8) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Valapatnam | **Sub-Division : Chaliyar SD, Calicut**



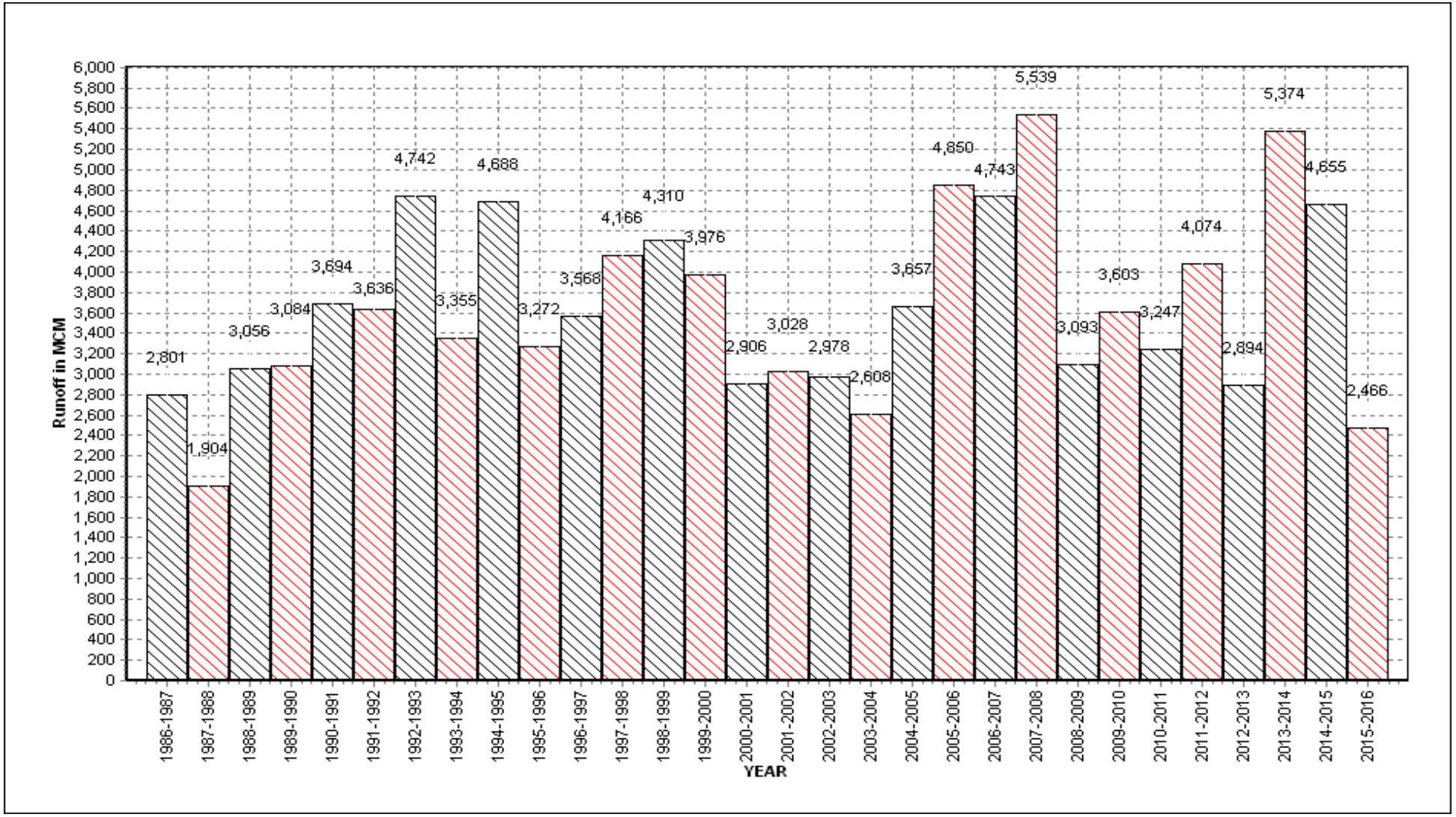
Annual Runoff Values for the period: 1986 - 2016

Station Name : PERUMANNU (KA000K8)

Division : SWR Division, Kochi

Local River : Valapatnam

Sub-Division : Chaliyar SD, Calicut

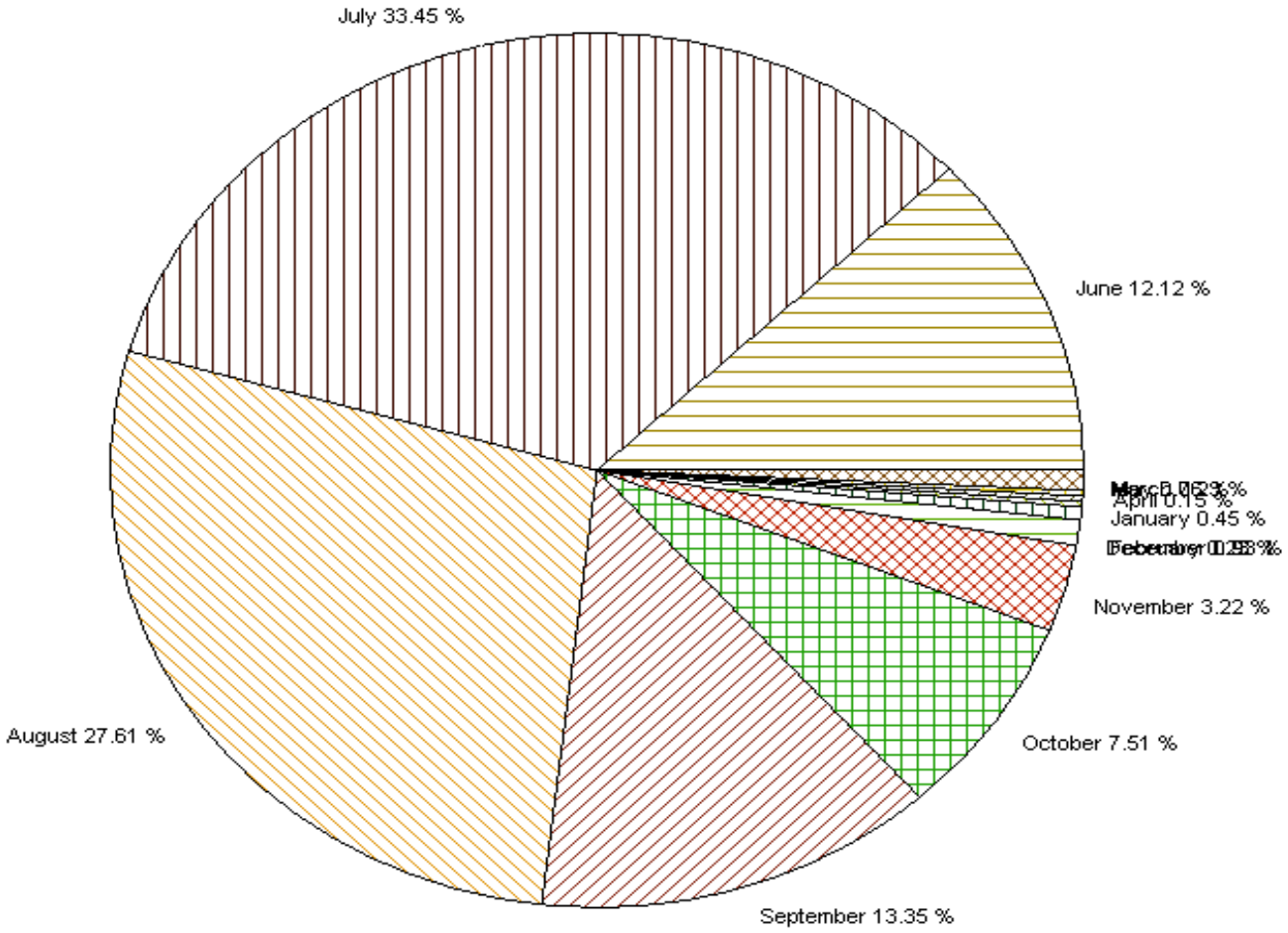


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : PERUMANNU (KA000K8)
Local River : Valapatnam

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



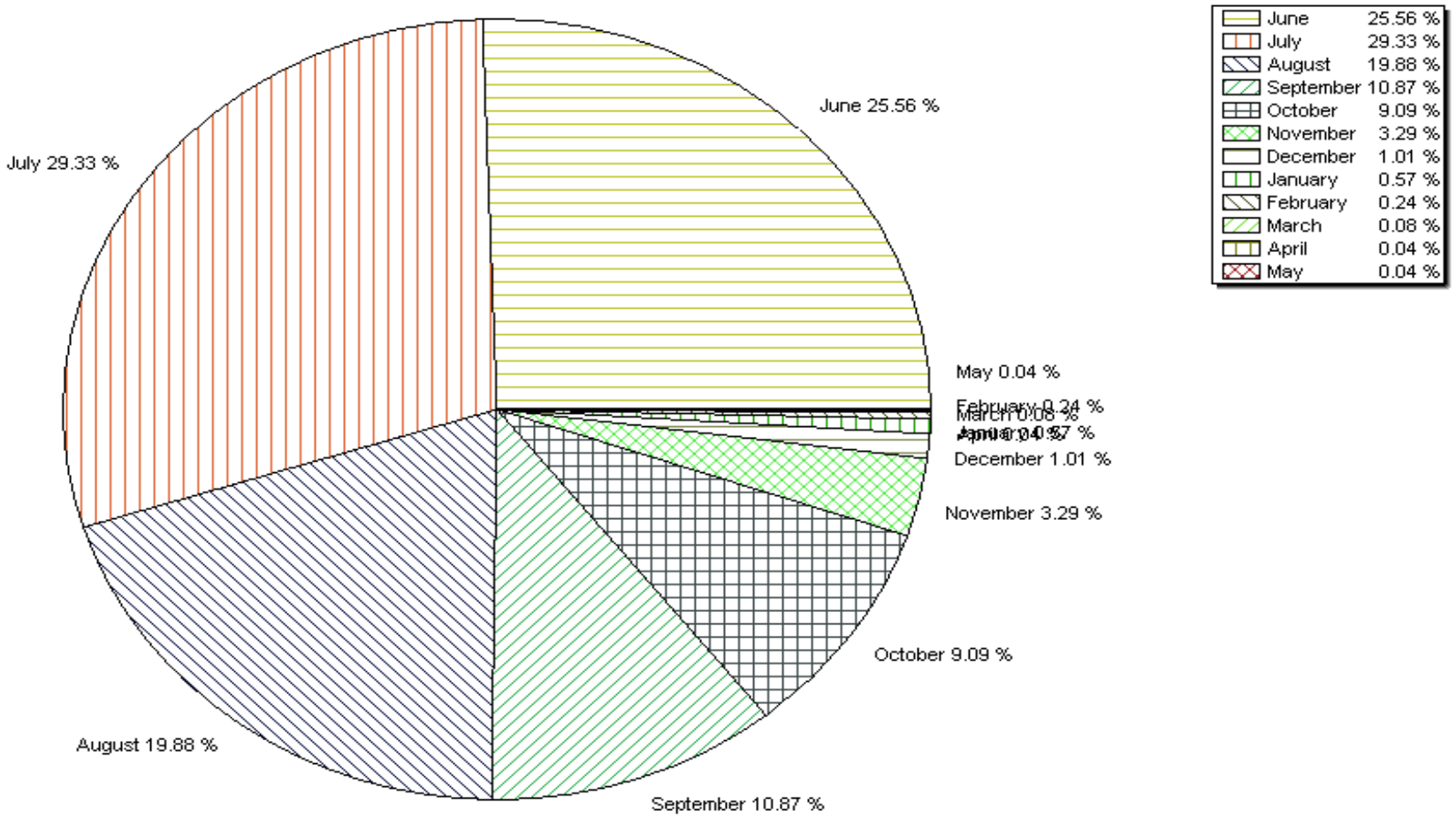
Monthly Runoff for the Year : 2015-2016

Station Name : PERUMANNU (KA000K8)

Local River : Valapatnam

Division : SWR Division, Kochi

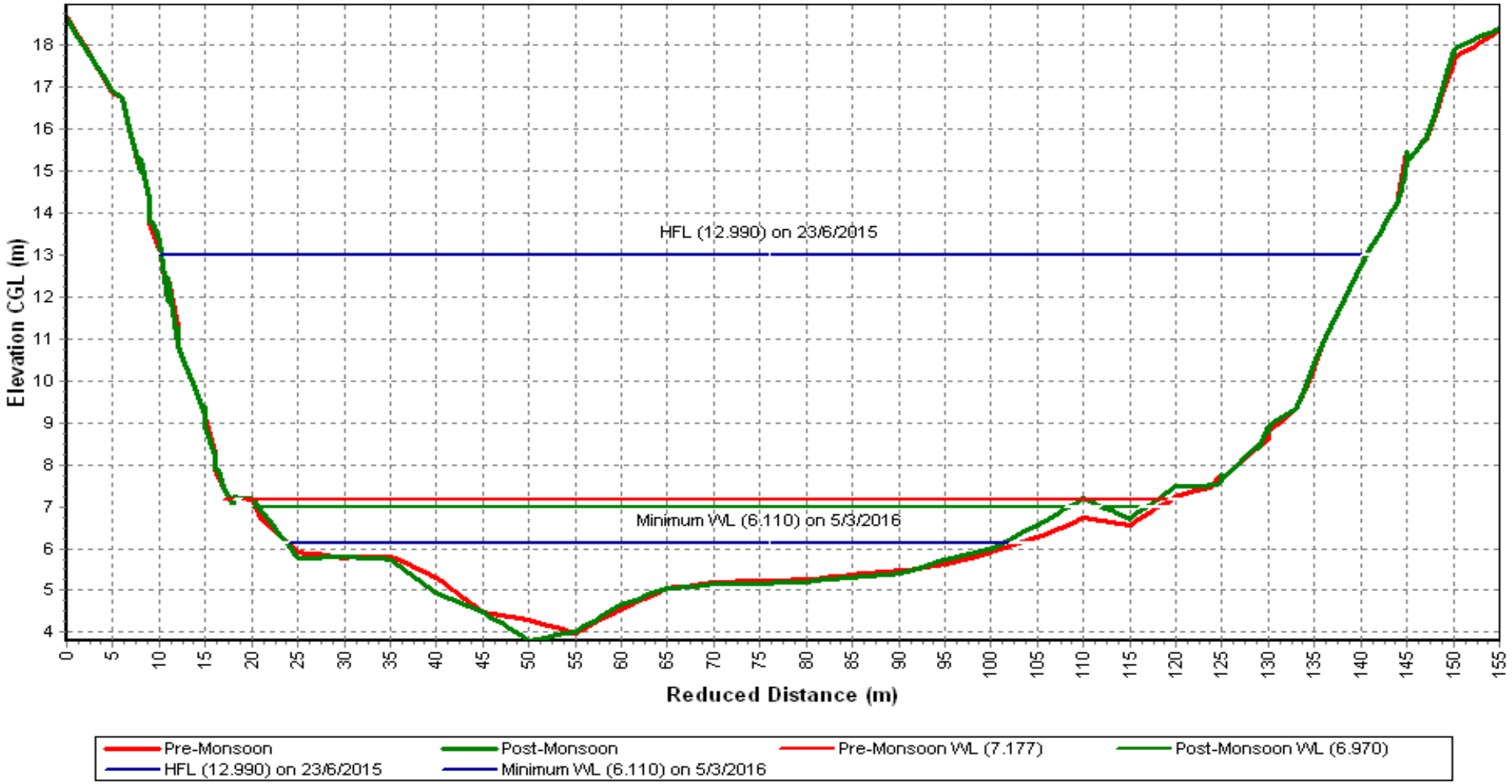
Sub-Division : Chaliyar SD, Calicut



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

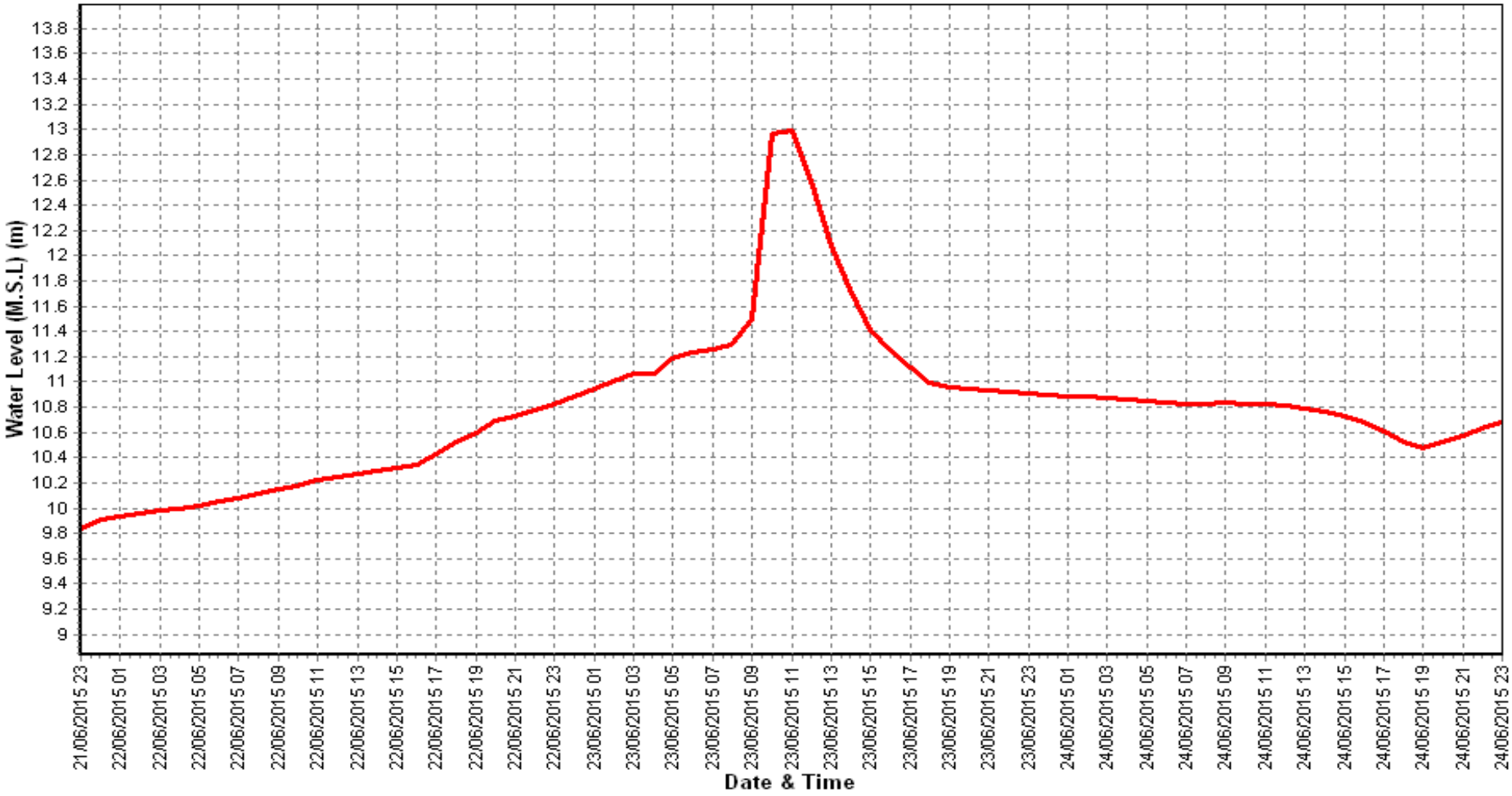
Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

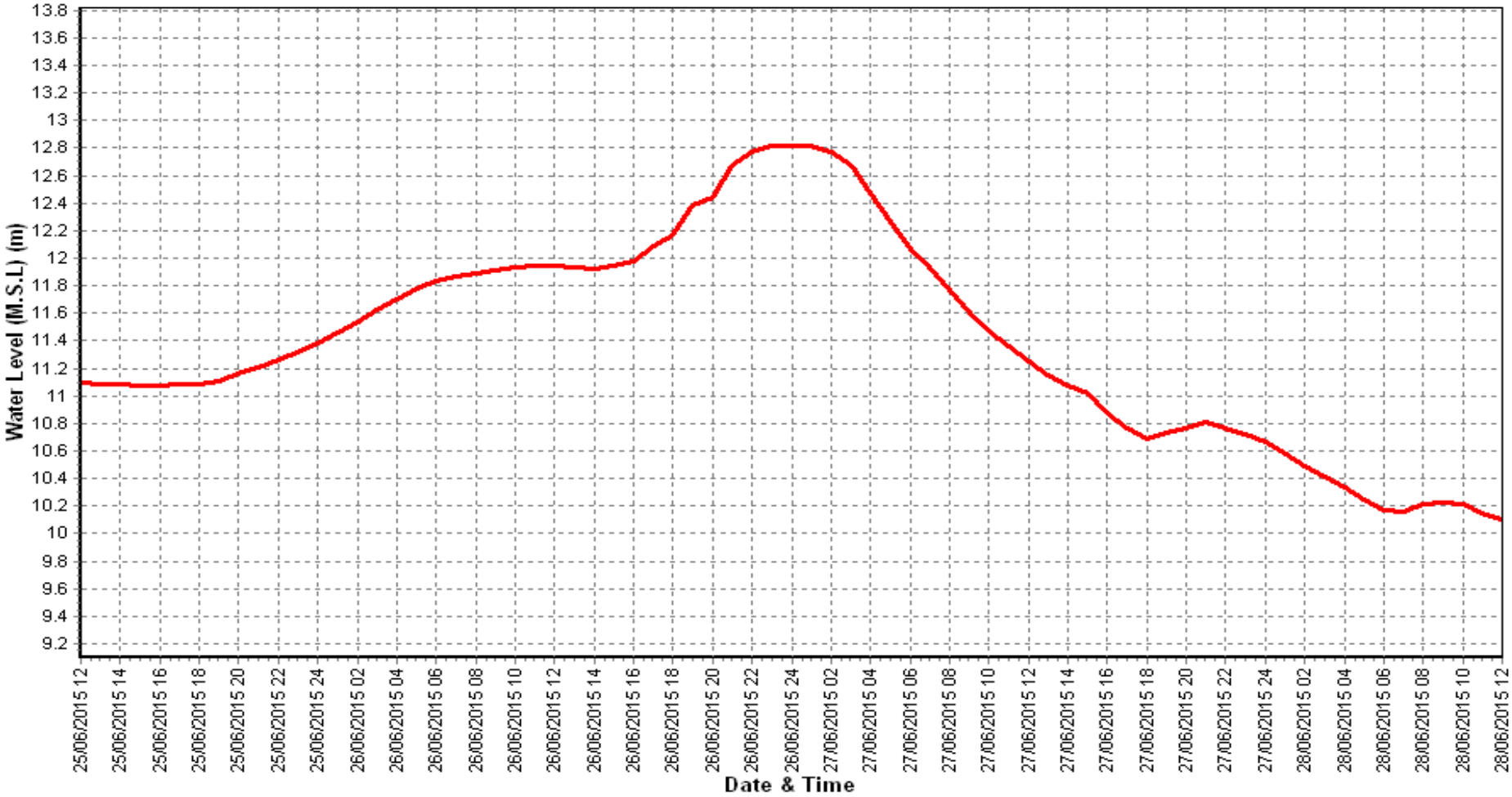


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

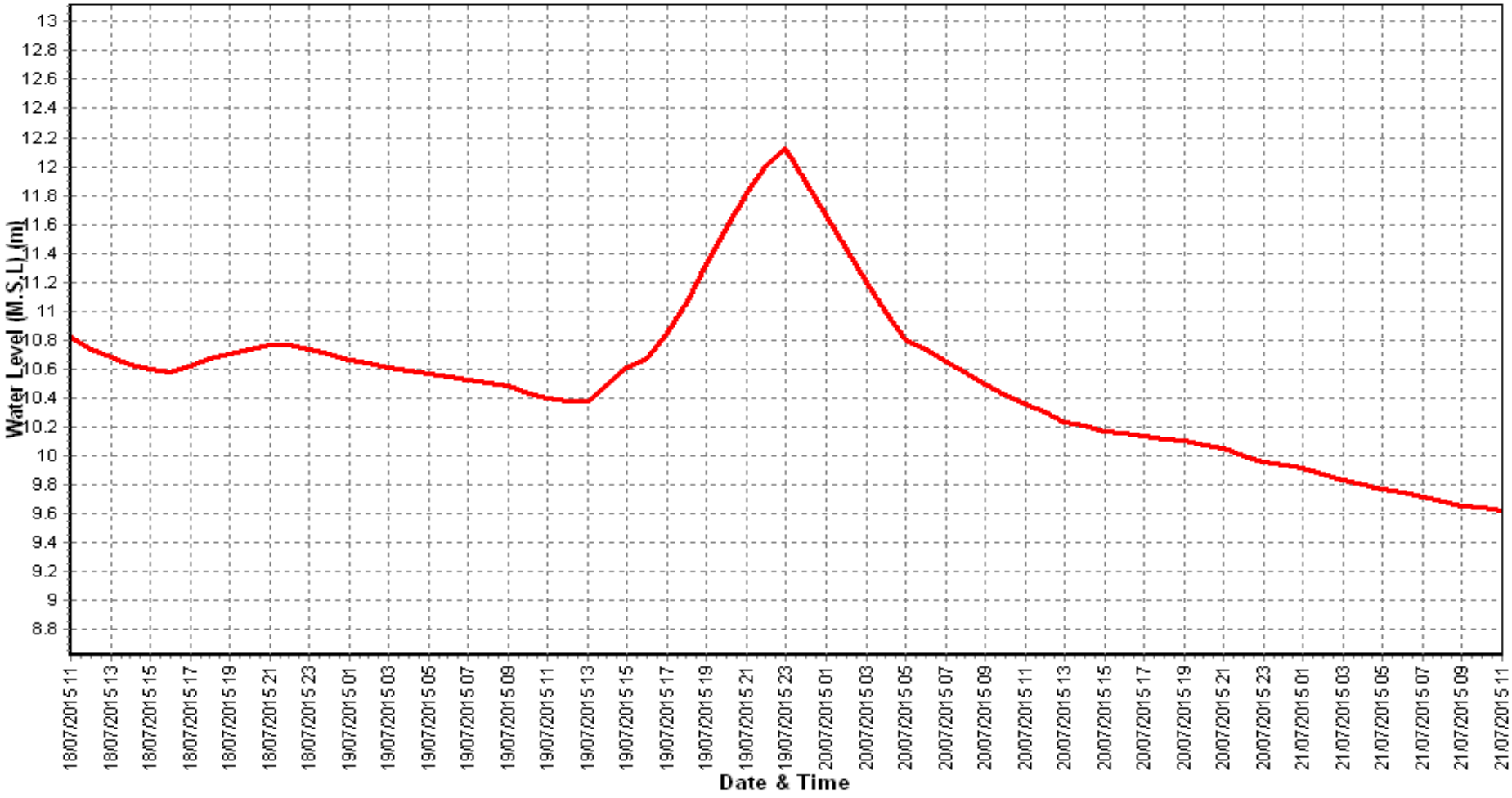


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**KUTTYADI**	**Code**	:	**KK000N2**
State	:	Kerala	District		Kozhikode
Basin	:	WFR South of Tapi	Independent River	:	Kuttyadi
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Kuttyadi
Division	:	SWR Division, Kochi	Sub-Division	:	Chaliyar SD, Calicut
Drainage Area	:	238 Sq. Km.	Bank	:	Right
Latitude	:	11°39'03"	Longitude	:	75°45'30"
Zero of Gauge (m)	:	0.000 (m.s.l)	16/03/1996		
		Opening Date	Closing Date		
Gauge	:	16/03/1996			
Discharge	:	13/03/2000			
Sediment	:	01/06/2013			
Water Quality	:	01/10/2002			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2000-2001	476.5	6.930	27/08/2000	0.712	2.695	16/05/2001
2001-2002	403.9	6.800	08/07/2001	0.587	2.670	23/04/2002
2002-2003	292.3	6.830	17/08/2002	0.910	2.700	13/03/2003
2003-2004	159.8	5.540	21/06/2003	0.000	2.380	12/03/2004
2004-2005	341.2	5.445	04/08/2004	0.742	0.550	27/05/2005
2005-2006	480.9	5.810	07/07/2005	0.698	0.605	16/05/2006
2006-2007	280.7	4.310	30/06/2006	1.297	0.600	02/03/2007
2007-2008	757.4	7.180	18/07/2007	1.097	0.460	12/02/2008
2008-2009	273.0	4.360	13/08/2008	0.799	0.320	05/02/2009
2009-2010	957.8	7.790	18/07/2009	0.313	0.440	05/06/2009
2010-2011	267.8	4.120	30/07/2010	1.274	0.530	20/02/2011
2011-2012	300.8	4.250	18/06/2011	1.539	0.620	09/04/2012
2012-2013	231.8	3.800	07/08/2012	0.028	0.520	03/06/2012
2013-2014	470.6	5.360	20/06/2013	1.293	0.580	23/01/2014
2014-2015	431.6	5.270	06/08/2014	1.102	0.740	02/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.100	12.31	2.290	91.64	1.550	38.27	1.405	29.49	1.700	49.63	1.160	17.49 *
2	1.050	12.91 *	2.110	82.18	1.530	36.44 *	1.440	30.63	1.720	48.09 *	1.420	29.96
3	0.990	10.64 *	2.080	78.96	1.400	30.41	1.430	30.47	1.140	17.59	1.230	21.71
4	1.300	24.05 *	1.980	72.90	1.620	39.23	1.435	30.92	1.150	17.05 *	1.200	20.38
5	1.420	30.27 *	2.100	74.86 *	1.500	31.51	1.550	38.86	1.520	37.34	1.200	20.60
6	1.340	26.06 *	2.030	79.17	1.660	42.74	1.680	45.54 *	1.580	39.00	1.130	16.77
7	1.230	20.67 *	1.940	74.30	1.860	54.11	1.900	59.00	1.640	43.16	1.080	15.45
8	1.350	23.08	2.450	102.0	1.920	59.43	2.880	139.8	1.730	50.87	1.050	12.91 *
9	1.245	16.18	2.440	101.2	1.960	64.48 *	1.990	63.94	2.450	103.9	1.000	9.569
10	1.150	13.66	2.110	83.12	1.720	47.14	1.720	52.63	2.000	73.94	0.980	10.28 *
11	1.140	13.51	2.140	73.75	2.350	98.06	1.620	37.33	1.740	49.38 *	1.020	11.03
12	1.150	13.87	2.220	84.22 *	2.440	104.2	1.590	36.21	1.620	48.44	1.030	11.03
13	1.230	15.07	2.010	64.03	2.480	110.2	1.430	30.81 *	1.560	41.00	1.440	31.64
14	1.330	25.55 *	1.980	62.85	2.530	112.7	1.350	29.14	1.560	40.07	0.950	9.414
15	1.190	14.20	2.040	64.81	2.320	92.33 *	1.130	20.87	1.500	33.32	0.910	7.883 *
16	1.200	14.53	1.830	51.61	2.430	101.6 *	1.290	27.70	1.470	31.97	0.870	7.402
17	1.450	29.06	1.970	59.94	2.080	80.72	1.260	20.63	1.470	31.92	0.850	7.034
18	1.385	26.99	3.620	221.4 *	2.105	84.78	1.200	19.30	1.400	29.20 *	0.830	5.674
19	1.440	28.29	3.570	215.7 *	2.280	95.62	1.150	17.64	1.340	24.90	0.820	5.574
20	2.390	95.06	3.400	201.2	2.020	77.20	1.180	18.38 *	1.320	23.97	0.850	6.833
21	2.240	85.82 *	2.790	129.8	1.850	63.38	1.220	19.66	1.320	23.78	0.880	7.825
22	2.370	92.97	2.470	115.5	1.920	67.65	1.120	14.82	1.330	23.89	0.890	7.242 *
23	3.255	159.3	2.890	134.6	1.750	50.04 *	1.070	13.31	1.260	22.09 *	0.820	4.991
24	3.160	153.5	3.990	247.2	1.650	44.18	1.030	12.14 *	1.230	20.67 *	0.890	7.984
25	3.950	234.3	2.630	120.4	1.640	43.88	1.040	12.79	1.220	20.20 *	0.920	8.210 *
26	4.880	419.3	2.340	93.98 *	1.570	39.01	1.780	56.70	1.140	17.17	0.840	6.691
27	4.420	318.3	2.230	89.79	1.610	40.56	1.720	48.09 *	1.270	21.55	0.800	5.283
28	5.220	432.4 *	2.100	82.08	1.580	39.39 *	1.830	59.48	1.210	20.64	1.030	11.16
29	3.000	166.6	1.830	56.88	1.500	38.16	1.800	58.16	1.230	19.88	0.830	5.448 *
30	2.660	114.1	1.650	46.68	1.430	30.81 *	1.730	51.45	1.200	20.27	0.790	4.354
31			1.590	39.88	1.395	30.78			1.220	19.53		
Ten-Daily Mean												
I Ten-Daily	1.217	18.98	2.153	84.03	1.672	44.37	1.743	52.13	1.663	48.06	1.145	17.51
II Ten-Daily	1.390	27.61	2.478	110.0	2.304	95.75	1.320	25.80	1.498	35.42	0.957	10.35
III Ten-Daily	3.515	217.7	2.410	105.2	1.627	44.35	1.434	34.66	1.239	20.88	0.869	6.918
Monthly												
Min.	0.990	10.64	1.590	39.88	1.395	30.41	1.030	12.14	1.140	17.05	0.790	4.354
Max.	5.220	432.4	3.990	247.2	2.530	112.7	2.880	139.8	2.450	103.9	1.440	31.64
Mean	2.041	88.08	2.349	99.89	1.860	60.94	1.499	37.53	1.459	34.34	0.990	11.59

Annual Runoff in MCM = 956 Annual Runoff in mm = 4017

Peak Observed Discharge = 419.3 cumecs on 26/06/2015 Corres. Water Level :4.88 m

Lowest Observed Discharge = 1.627 cumecs on 12/01/2016 Corres. Water Level :0.62 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	0.840	5.853	1.130	15.93	1.630	36.31	0.710	3.829	0.630	2.045	0.600	1.700 *
2	0.800	5.561 *	0.650	2.262	1.050	13.83	1.190	16.25	0.630	2.107	0.600	2.413
3	0.760	4.644 *	0.640	2.322 *	1.065	14.68	1.190	15.42	0.630	2.159 *	0.600	2.279
4	0.740	4.212 *	0.650	1.934	1.110	13.60	0.830	5.679	0.630	2.094	0.600	2.289
5	0.730	4.002 *	0.640	1.840	1.110	12.22	0.640	2.198	0.630	2.001	0.610	2.540
6	0.730	4.002 *	0.640	1.847	0.850	5.629	0.640	2.322 *	0.630	2.487	0.630	3.201
7	0.720	3.797 *	0.630	1.788	0.850	6.801 *	0.630	2.159 *	0.610	2.008	0.610	2.624
8	0.720	3.773	0.630	1.781	0.840	6.096	0.630	2.218	0.600	1.863	0.610	2.623 *
9	0.700	3.708	0.620	1.727	0.850	6.731	0.630	2.163	0.600	1.911	0.600	2.616
10	0.690	3.613	0.620	2.001 *	0.850	6.651	0.630	2.159	0.600	1.700 *	0.600	2.484
11	0.690	3.590	0.620	1.741	0.850	7.206	0.630	2.161	0.600	1.979	0.600	2.463
12	0.710	3.886	0.620	1.627	0.850	6.985	0.630	2.164	0.600	2.012	0.600	2.402
13	0.690	3.209 *	0.620	1.673	0.850	7.037	0.630	2.159 *	0.600	2.026	0.600	2.457
14	0.740	4.228	0.620	1.678	0.850	6.801 *	0.630	2.155	0.600	1.700 *	0.600	2.464
15	0.750	4.341	0.620	1.712	0.850	6.602	0.630	2.074	0.600	1.984	0.600	2.437 *
16	0.730	4.249	0.610	1.765	0.850	6.828	0.630	2.085	0.600	1.949	0.610	2.623 *
17	0.700	3.496	0.620	2.001 *	0.850	6.859	0.630	2.074	0.600	1.700 *	0.600	2.320
18	1.250	21.53	0.625	1.746	0.770	4.867 #	0.630	2.078	0.600	2.025	0.600	2.434
19	1.220	20.64	0.660	2.663 #	0.840	6.144	0.630	2.101	0.600	2.094	0.600	2.415
20	1.220	18.97 *	0.660	2.663 #	0.830	7.046	0.630	2.159 *	0.600	1.700 *	0.640	3.381
21	1.220	20.58	0.680	2.191	0.630	2.159 *	0.630	1.973	0.600	2.107	0.650	3.427 *
22	1.210	20.47	0.635	1.735	0.990	11.59	0.630	2.290	0.600	2.086	0.750	5.868 *
23	1.200	20.45	0.630	2.017	0.990	11.68	0.630	2.005	0.600	2.168	0.630	2.933
24	1.190	17.80 *	0.620	2.001 *	0.710	3.902	0.630	2.088	0.600	1.700 *	0.610	2.661
25	1.180	17.41 *	0.615	1.957	0.720	3.756	0.630	2.159 *	0.600	2.134	0.610	2.646
26	1.170	17.59	0.620	2.001 *	0.710	3.595	0.630	2.173	0.600	2.102	0.690	4.017
27	1.160	16.66 *	0.610	1.796	0.710	3.603	0.630	2.159 *	0.600	1.700 #	0.640	3.590
28	1.150	17.45	0.615	1.981	0.710	3.597 *	0.630	1.928	0.600	2.132	0.780	6.259
29	1.150	17.47	0.620	2.061	0.710	3.769	0.630	2.352	0.600	2.093	0.780	6.717 *
30	1.170	17.59	0.625	2.058			0.630	2.015	0.600	2.159	0.660	3.560
31	1.150	17.21	0.630	2.159 *			0.630	2.045			0.760	6.652
Ten-Daily Mean												
I Ten-Daily	0.743	4.316	0.685	3.344	1.021	12.25	0.772	5.440	0.619	2.037	0.606	2.477
II Ten-Daily	0.870	8.813	0.627	1.927	0.839	6.638	0.630	2.121	0.600	1.917	0.605	2.540
III Ten-Daily	1.177	18.24	0.627	1.996	0.764	5.295	0.630	2.108	0.600	2.038	0.687	4.394
Monthly												
Min.	0.690	3.209	0.610	1.627	0.630	2.159	0.630	1.928	0.600	1.700	0.600	1.700
Max.	1.250	21.53	1.130	15.93	1.630	36.31	1.190	16.25	0.630	2.487	0.780	6.717
Mean	0.938	10.71	0.646	2.408	0.878	8.158	0.676	3.187	0.606	1.998	0.635	3.177

Peak Computed Discharge = 432.4 cumecs on 28/06/2015 **Corres. Water Level :5.22 m**

Lowest Computed Discharge = 1.700 cumecs on 10/04/2016 **Corres. Water Level :0.6 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

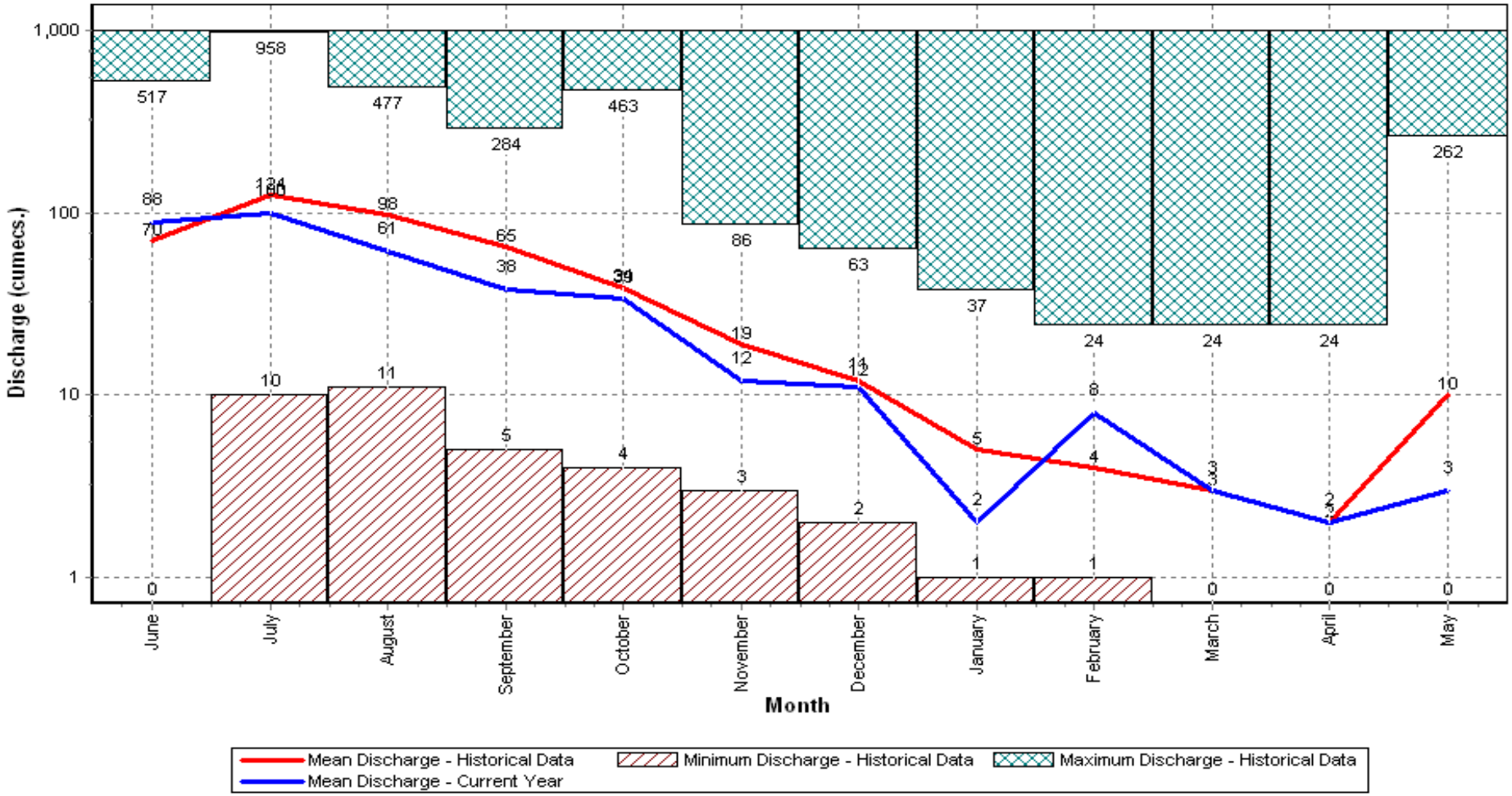
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KUTTYADI (KK000N2) | **Data considered : 2000-2016** | **Division : SWR Division, Kochi**

Local River : Kuttyadi | **Sub-Division : Chaliyar SD, Calicut**



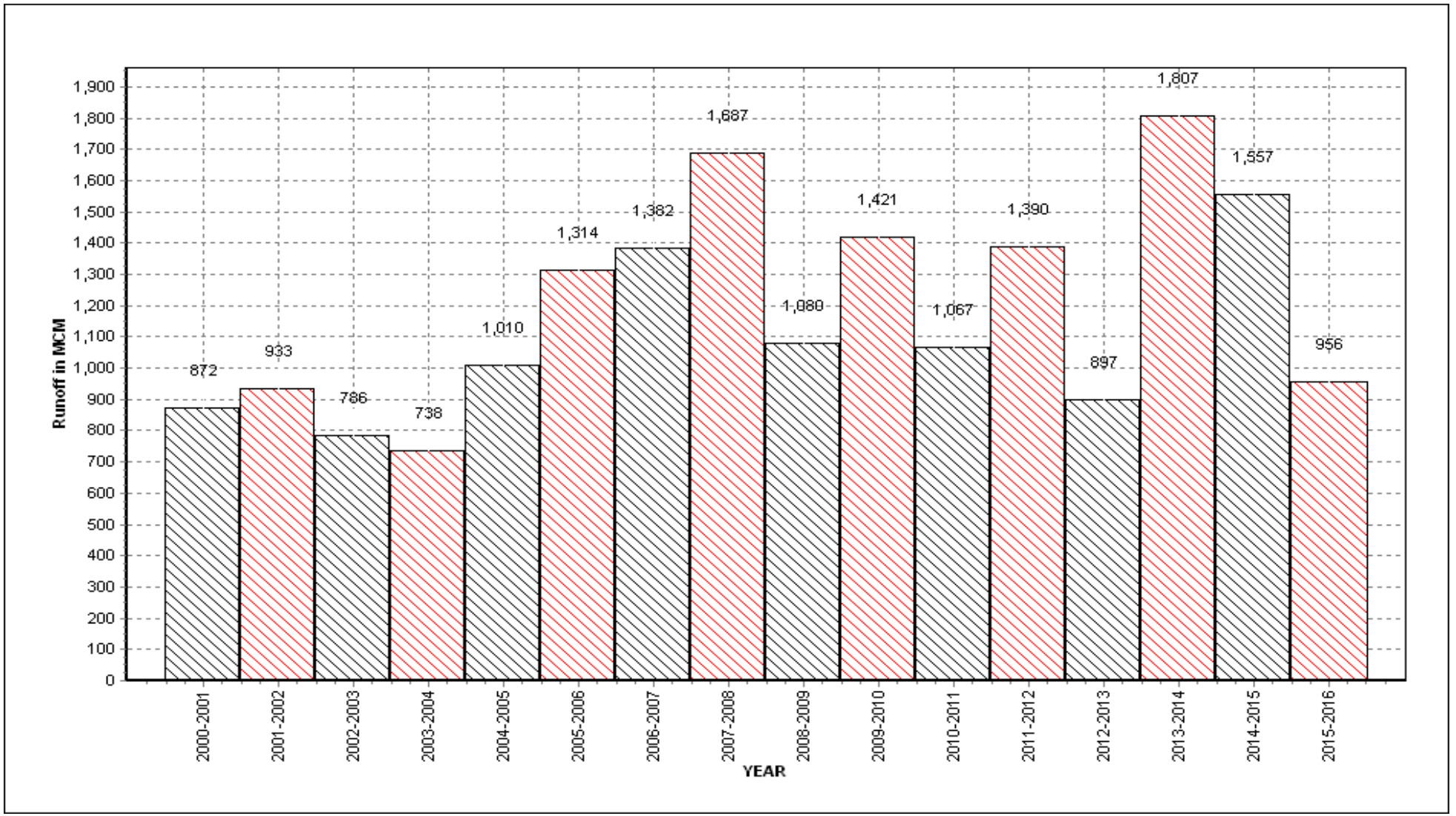
Annual Runoff Values for the period: 2000 - 2016

Station Name : KUTTYADI (KK000N2)

Division : SWR Division, Kochi

Local River : Kuttyadi

Sub-Division : Chaliyar SD, Calicut

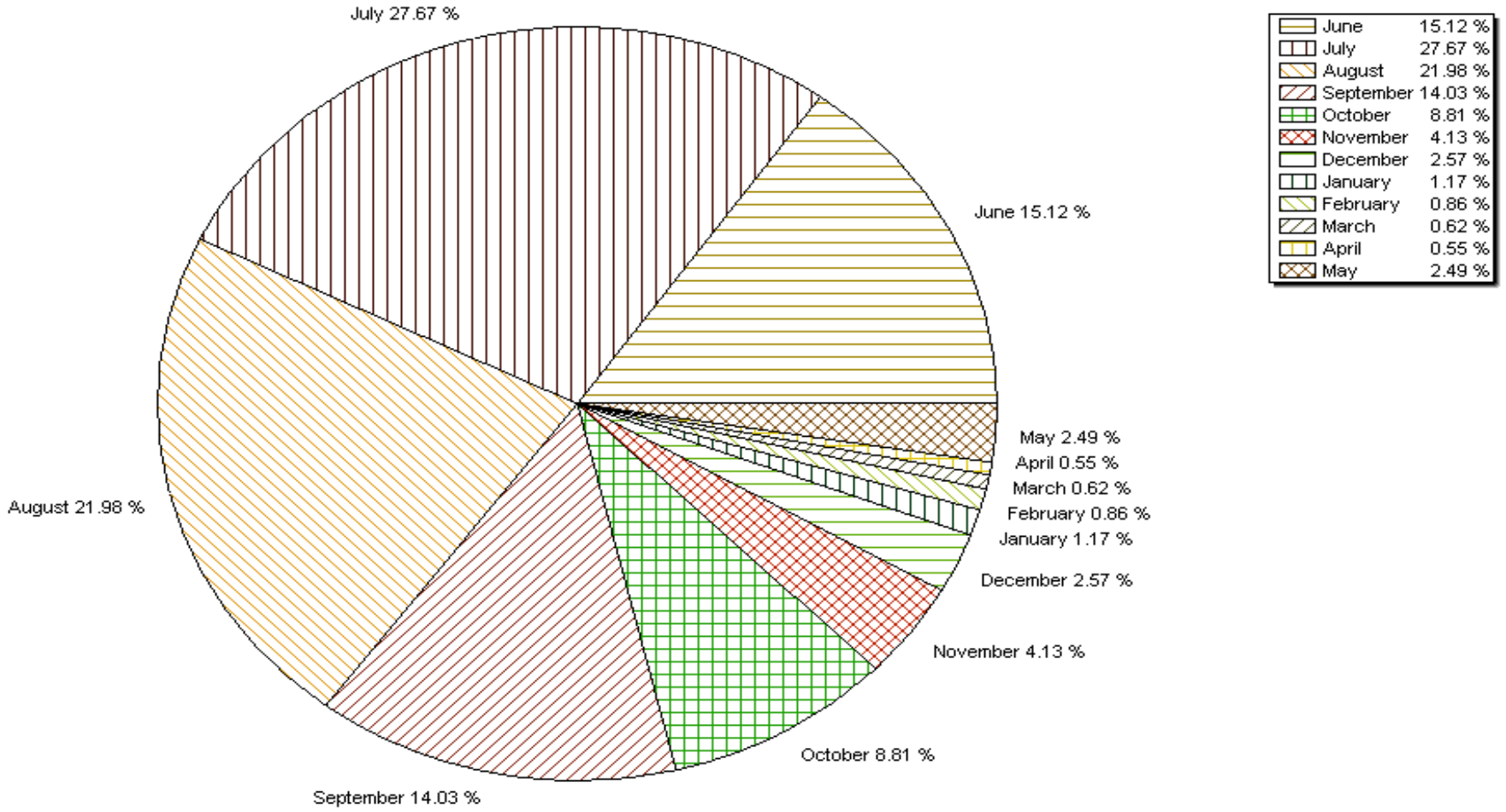


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2000-2015

Station Name : KUTTYADI (KK000N2)
Local River : Kuttyadi

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



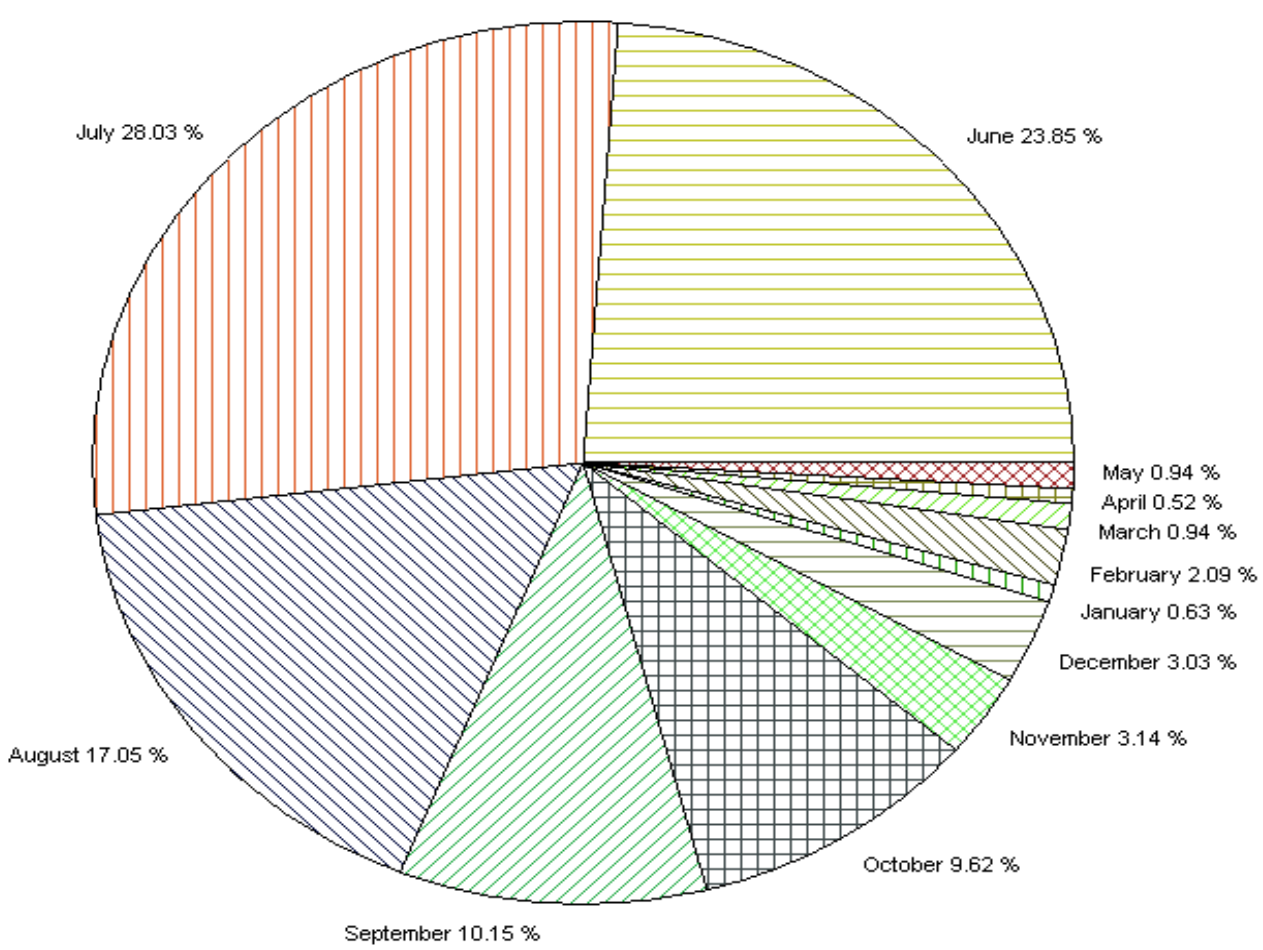
Monthly Runoff for the Year : 2015-2016

Station Name : KUTTYADI (KK000N2)

Local River : Kuttyadi

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut

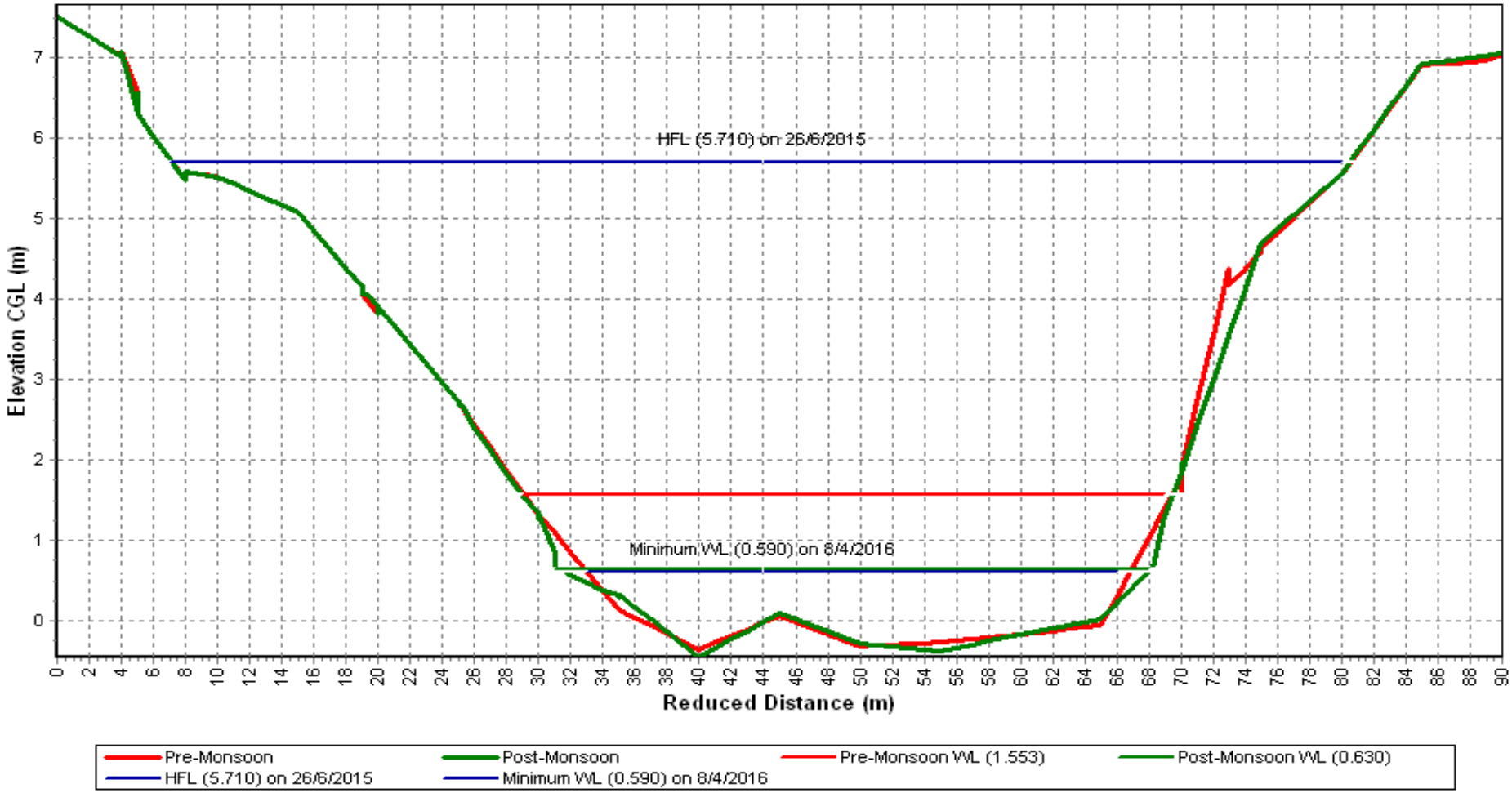


June	23.85 %
July	28.03 %
August	17.05 %
September	10.15 %
October	9.62 %
November	3.14 %
December	3.03 %
January	0.63 %
February	2.09 %
March	0.94 %
April	0.52 %
May	0.94 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

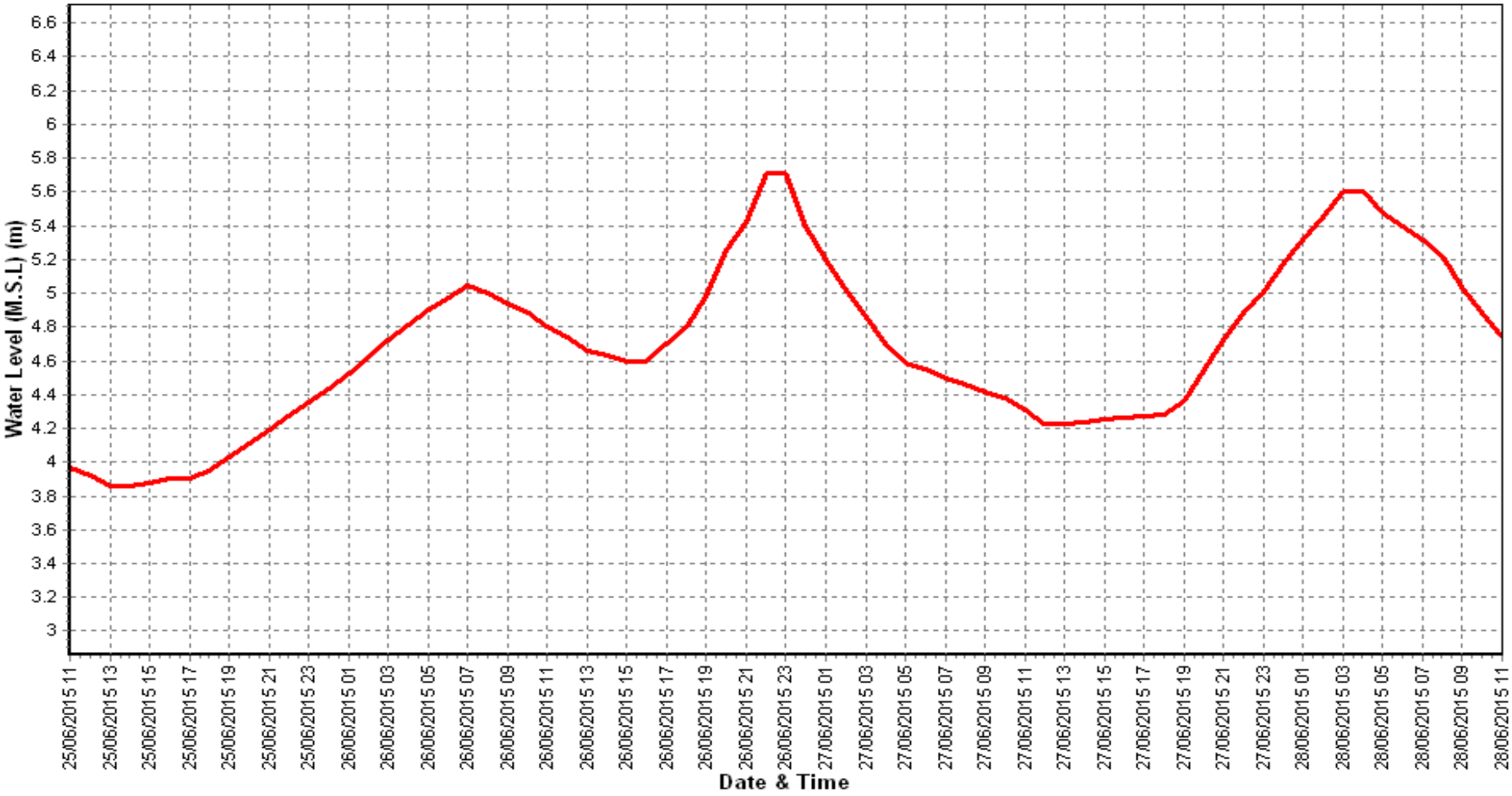
Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

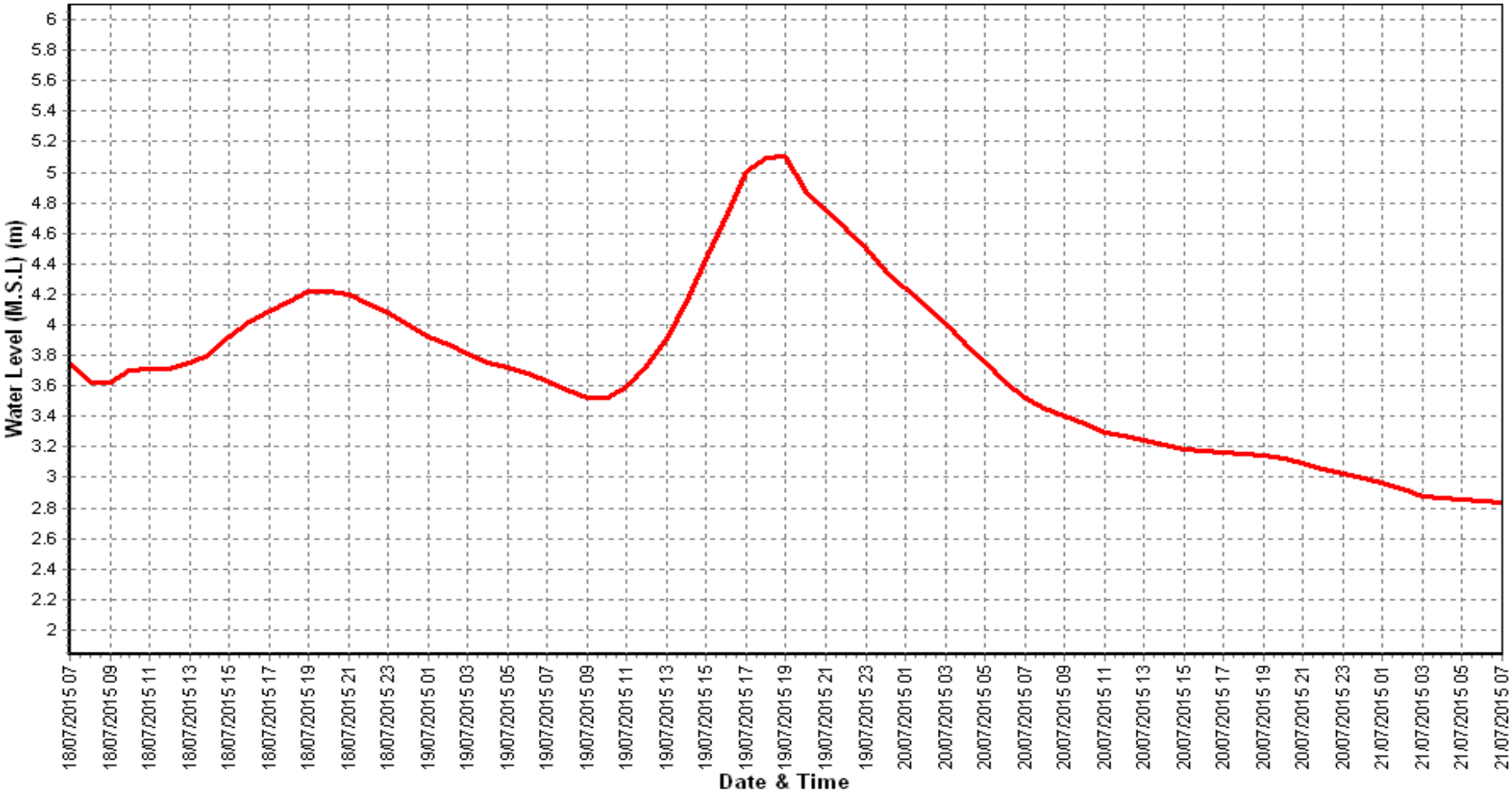
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KUTTYADI (KK000N2)

Division : SWR Division, Kochi

Local River : Kuttyadi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

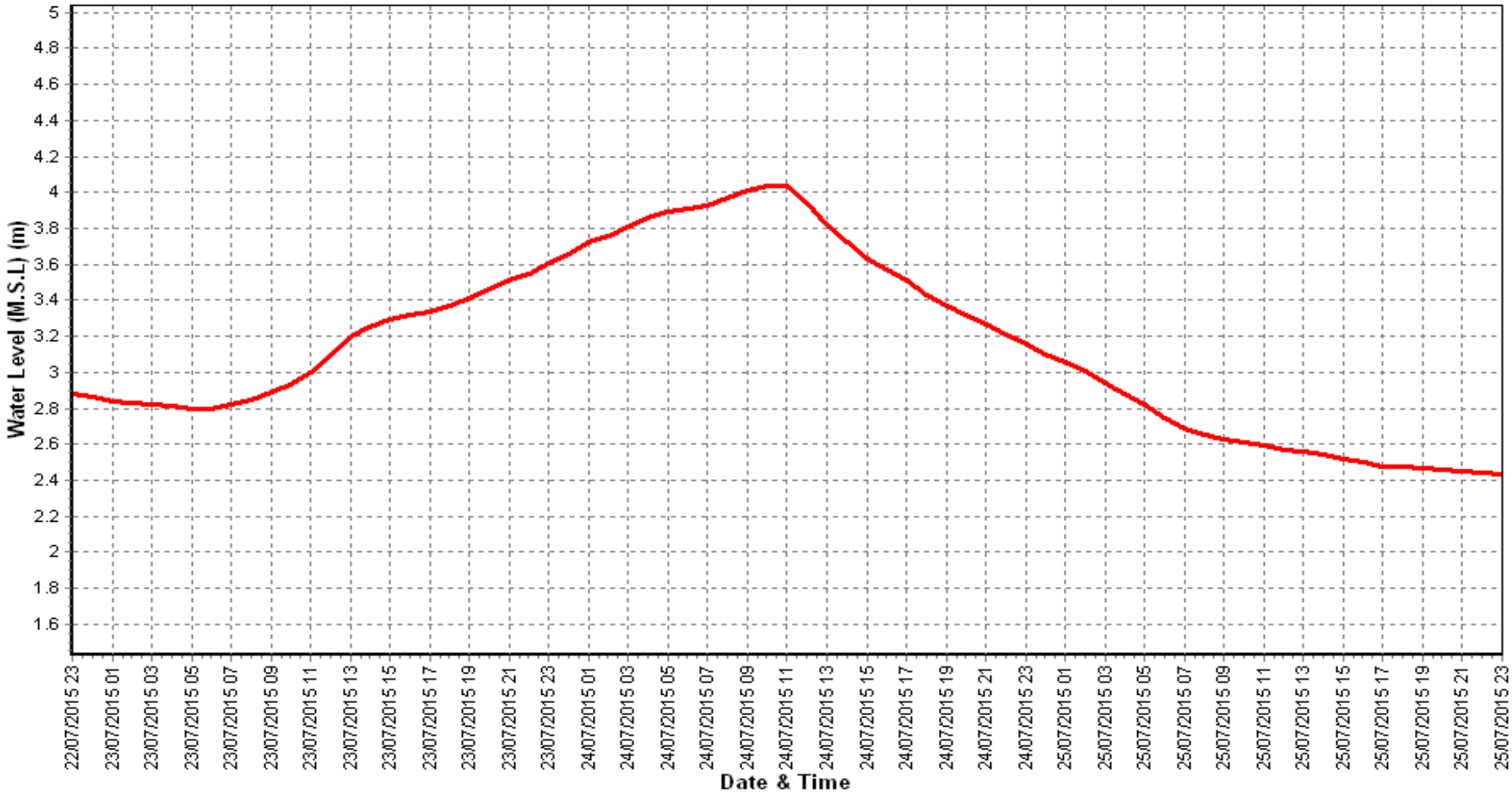
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KUTTYADI (KK000N2)

Division : SWR Division, Kochi

Local River : Kuttyadi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: KUNIYIL**		**Code**	**: KB000J3**	
State	: Kerala		District	Malappuram	
Basin	: WFR South of Tapi		Independent River	: Chaliyar	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Chaliyar	
Division	: SWR Division, Kochi		Sub-Division	: Chaliyar SD, Calicut	
Drainage Area	: 1876 Sq. Km.		Bank	: Right	
Latitude	: 11°14'22"		Longitude	: 76°01'24"	
Zero of Gauge (m)	: 3.300 (Arb.) 0.000 (m.s.l)		01/06/1978 01/06/1984	- 31/05/1984	
	Opening Date		Closing Date		
Gauge	: 01/06/1978				
Discharge	: 04/01/1979				
Sediment	: 21/01/1979				
Water Quality	: 15/01/1979				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1981-1982	2141	12.530	18/08/1981	1.800	4.675	22/04/1982
1982-1983	1560	11.885	21/07/1982	0.200	4.520	01/05/1983
1983-1984	1635	11.935	22/07/1983	1.300	4.590	06/06/1983
1984-1985	2162	8.940	17/06/1984	1.100	0.610	11/05/1985
1985-1986	2073	8.610	26/06/1985	0.300	0.550	19/04/1986
1986-1987	1485	7.248	08/08/1986	0.200	0.505	26/04/1987
1987-1988	674.2	4.690	26/08/1987	1.250	0.455	31/03/1988
1988-1989	1779	7.990	20/07/1988	0.400	0.475	16/04/1989
1989-1990	2100	9.100	24/07/1989	0.441	0.490	30/04/1990
1990-1991	1056	5.685	17/08/1990	0.300	0.295	07/04/1991
1991-1992	1664	7.886	28/07/1991	0.026	0.537	01/06/1991
1992-1993	2499	9.147	28/07/1992	2.138	0.585	16/05/1993
1993-1994	1354	5.902	01/08/1993	2.946	0.383	08/03/1994
1994-1995	3086	10.380	14/07/1994	0.511	0.455	31/03/1995
1995-1996	1350	6.678	01/09/1995	0.000	0.460	29/02/1996
1996-1997	1336	6.260	20/06/1996	0.000	0.365	02/06/1996
1997-1998	2193	8.820	11/07/1997	0.000	0.210	22/03/1998
1998-1999	1600	7.430	29/06/1998	0.000	0.120	01/03/1999

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1999-2000	1533	7.210	18/07/1999	0.000	0.080	01/02/2000
2000-2001	1412	6.490	27/08/2000	0.000	0.770	01/06/2000
2001-2002	1359	6.300	08/07/2001	6.256	0.450	04/02/2002
2002-2003	1054	5.200	18/08/2002	0.000	1.040	01/12/2002
2003-2004	569.4	3.610	17/07/2003	0.000	1.160	02/01/2004
2004-2005	2370	7.265	05/08/2004	0.000	1.295	07/12/2004
2005-2006	2254	6.635	02/08/2005	0.000	1.980	02/02/2006
2006-2007	1631	6.260	01/06/2006	0.000	1.290	02/12/2006
2007-2008	3256	8.880	17/07/2007	0.000	1.380	01/06/2007
2008-2009	1482	5.605	28/07/2008	0.000	1.890	22/11/2009
2009-2010	2730	8.250	16/07/2009	0.000	2.220	01/06/2009
2010-2011	992.5	4.580	30/07/2010	0.000	2.270	01/06/2010
2011-2012	1496	5.400	19/06/2011	0.000	1.780	15/12/2011
2012-2013	1136	4.840	07/08/2012	0.000	2.250	01/06/2012
2013-2014	2251	6.755	02/08/2013	0.000	1.880	19/12/2013
2014-2015	1931	6.370	24/07/2014	0.000	2.270	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	2.140	0.000	2.065	177.6	1.860	98.66	2.070	127.5	2.470	276.4	2.120	63.55 *
2	2.080	0.000	1.850	159.6	1.830	100.0 *	2.060	125.7	1.870	83.11 *	2.550	88.87 #
3	2.170	0.000	1.765	150.2	1.840	91.99	1.980	134.9 #	1.720	53.34 *	1.800	47.83 #
4	2.530	0.000	1.620	124.4	1.950	142.5	1.920	126.2 #	1.710	51.59 *	2.000	57.35 #
5	1.960	0.000	1.570	97.11 *	1.820	113.9	2.110	121.5	1.770	71.33	1.900	52.47 #
6	2.110	0.000	1.895	136.7	1.875	119.8	2.270	181.7 *	2.505	306.6	2.340	75.89 #
7	1.900	0.000	1.780	129.0	1.800	79.88	3.110	384.8	2.020	119.6 #	1.970	82.19 #
8	1.850	0.000	1.900	136.7	1.850	85.54	2.780	288.6	1.920	94.54 #	1.900	78.03 *
9	2.220	0.000	2.420	279.3 #	1.820	98.28 *	2.255	213.6	2.160	159.9 *	1.825	79.90
10	2.280	0.000	2.100	201.3 #	1.810	80.34	1.900	137.7	2.325	229.3	1.790	71.75 *
11	2.120	0.000	2.150	212.8 #	1.975	109.5	1.840	121.6	2.080	136.2 *	1.780	71.70
12	1.900	0.000	2.200	224.5 *	2.250	168.7	1.750	103.3 *	1.900	89.88 #	1.910	76.55
13	2.130	0.000	2.040	132.5	2.300	175.9	1.700	97.10 *	1.990	127.6	1.920	76.70
14	2.090	0.000	1.905	122.8	2.030	147.8	1.770	105.9 *	2.020	132.1	2.005	90.87
15	2.020	0.000	1.880	118.4	2.030	137.9 *	1.725	91.92	1.805	89.10	1.890	77.45 *
16	2.030	0.000	2.110	203.6 #	2.040	139.9 *	1.690	56.52	1.710	51.59 #	1.830	74.00 #
17	2.120	0.000	2.050	190.1 *	1.830	81.98	1.890	79.98	1.800	68.38 *	1.930	71.66
18	2.270	0.000	3.080	473.8 *	2.180	194.0	1.890	80.91	1.940	99.32 *	1.910	78.62 #
19	2.070	0.000	2.900	416.4 *	2.290	215.4	1.835	60.79	1.935	84.65	2.000	84.01 #
20	2.340	0.000	3.525	640.7	2.000	143.8	1.820	72.44 *	1.880	74.65	2.200	96.60
21	2.740	0.000	2.550	335.4	1.810	119.0	1.810	70.40 #	2.210	72.93	2.305	104.7
22	3.980	807.0 #	2.390	313.9	1.840	121.6	1.740	50.04	2.060	60.40 *	2.590	124.5 *
23	5.125	1539	2.500	324.8	1.910	114.3 *	1.930	96.91 *	1.980	56.35 *	1.780	70.96
24	5.230	1345	2.610	338.2	1.810	118.5	2.070	133.3 *	1.950	54.88 *	1.870	76.29 #
25	4.995	1307	2.545	328.3	1.710	112.7	2.130	150.8 *	1.890	51.99 *	1.860	75.71 *
26	5.075	1360	2.270	241.4 *	1.860	122.6	2.240	185.6 *	1.850	51.24	1.800	72.31 #
27	5.160	1163	2.260	283.3	1.850	120.0	2.140	153.8 *	2.065	52.83	1.870	76.29 #
28	3.890	770.3 *	2.020	135.8 #	1.900	123.3 *	3.030	545.2 #	2.370	77.67 #	1.840	74.57 #
29	2.835	400.5	1.830	100.0 #	1.800	109.8 *	2.275	172.4	2.145	64.68	1.950	80.99 *
30	2.460	253.3	1.700	78.99 #	1.740	102.1 *	1.920	94.54 #	1.975	61.49	1.950	80.99 *
31			1.920	107.3	1.855	120.1			1.940	52.46		
Ten-Daily Mean												
I Ten-Daily	2.124	0.000	1.896	159.2	1.845	101.1	2.246	184.2	2.047	144.6	2.020	69.78
II Ten-Daily	2.109	0.000	2.384	273.6	2.092	151.5	1.791	87.05	1.906	95.35	1.938	79.82
III Ten-Daily	4.149	894.5	2.236	235.2	1.826	116.7	2.128	165.3	2.040	59.72	1.982	83.73
Monthly												
Min.	1.850	0.000	1.570	78.99	1.710	79.88	1.690	50.04	1.710	51.24	1.780	47.83
Max.	5.230	1539	3.525	640.7	2.300	215.4	3.110	545.2	2.505	306.6	2.590	124.5
Mean	2.794	298.2	2.174	223.1	1.918	122.9	2.055	145.5	1.999	98.58	1.980	77.78

Annual Runoff in MCM = 2542 Annual Runoff in mm = 1355

Peak Observed Discharge = 1539 cumecs on 23/06/2015 Corres. Water Level :5.125 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :2.14 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.950	0.000	2.040	0.000	2.390	0.000	2.300	0.000	2.040	0.000	1.560	0.000
2	1.950	0.000	2.030	0.000	2.420	0.000	2.320	0.000	2.020	0.000	1.580	0.000
3	1.990	0.000	2.030	0.000	2.360	0.000	2.330	0.000	2.000	0.000	1.560	0.000
4	1.980	0.000	2.020	0.000	2.290	0.000	2.340	0.000	1.990	0.000	1.540	0.000
5	1.920	0.000	1.990	0.000	2.260	0.000	2.350	0.000	1.960	0.000	1.530	0.000
6	1.880	0.000	2.100	0.000	2.270	0.000	2.370	0.000	1.940	0.000	1.510	0.000
7	1.840	0.000	2.190	0.000	2.340	0.000	2.300	0.000	1.930	0.000	1.500	0.000
8	1.810	0.000	2.170	0.000	2.400	0.000	2.230	0.000	1.920	0.000	1.490	0.000
9	1.920	0.000	2.150	0.000	2.320	0.000	2.220	0.000	1.910	0.000	1.480	0.000
10	1.970	0.000	2.140	0.000	2.270	0.000	2.230	0.000	1.900	0.000	1.500	0.000
11	1.970	0.000	2.120	0.000	2.250	0.000	2.230	0.000	1.880	0.000	1.520	0.000
12	2.160	0.000	2.140	0.000	2.250	0.000	2.230	0.000	1.870	0.000	1.550	0.000
13	2.280	0.000	2.160	0.000	2.260	0.000	2.230	0.000	1.870	0.000	1.590	0.000
14	2.800	0.000	2.180	0.000	2.270	0.000	2.230	0.000	1.870	0.000	1.630	0.000
15	2.050	0.000	2.200	0.000	2.260	0.000	2.220	0.000	1.870	0.000	1.660	0.000
16	1.880	0.000	2.210	0.000	2.260	0.000	2.220	0.000	1.860	0.000	1.690	0.000
17	1.720	0.000	2.210	0.000	2.290	0.000	2.210	0.000	1.850	0.000	1.740	0.000
18	1.740	0.000	2.210	0.000	2.330	0.000	2.200	0.000	1.830	0.000	1.810	0.000
19	1.910	0.000	2.200	0.000	2.360	0.000	2.190	0.000	1.820	0.000	1.860	0.000
20	1.980	0.000	2.200	0.000	2.400	0.000	2.180	0.000	1.800	0.000	1.940	0.000
21	1.980	0.000	2.210	0.000	2.430	0.000	2.170	0.000	1.780	0.000	1.990	0.000
22	1.960	0.000	2.240	0.000	2.450	0.000	2.160	0.000	1.760	0.000	2.030	0.000
23	2.110	0.000	2.270	0.000	2.410	0.000	2.150	0.000	1.750	0.000	2.050	0.000
24	2.000	0.000	2.290	0.000	2.350	0.000	2.130	0.000	1.730	0.000	2.080	0.000
25	1.910	0.000	2.310	0.000	2.340	0.000	2.120	0.000	1.710	0.000	2.100	0.000
26	1.870	0.000	2.200	0.000	2.330	0.000	2.110	0.000	1.690	0.000	2.100	0.000
27	1.840	0.000	2.100	0.000	2.310	0.000	2.100	0.000	1.670	0.000	2.110	0.000
28	1.810	0.000	2.030	0.000	2.300	0.000	2.100	0.000	1.650	0.000	2.280	0.000
29	1.910	0.000	2.120	0.000	2.290	0.000	2.090	0.000	1.640	0.000	2.380	0.000
30	1.990	0.000	2.220	0.000			2.070	0.000	1.620	0.000	2.510	0.000
31	2.030	0.000	2.310	0.000			2.060	0.000			2.500	0.000
Ten-Daily Mean												
I Ten-Daily	1.921	0.000	2.086	0.000	2.332	0.000	2.299	0.000	1.961	0.000	1.525	0.000
II Ten-Daily	2.049	0.000	2.183	0.000	2.293	0.000	2.214	0.000	1.852	0.000	1.699	0.000
III Ten-Daily	1.946	0.000	2.209	0.000	2.357	0.000	2.115	0.000	1.700	0.000	2.194	0.000
Monthly												
Min.	1.720	0.000	1.990	0.000	2.250	0.000	2.060	0.000	1.620	0.000	1.480	0.000
Max.	2.800	0.000	2.310	0.000	2.450	0.000	2.370	0.000	2.040	0.000	2.510	0.000
Mean	1.971	0	2.161	0	2.326	0	2.206	0	1.838	0	1.818	0

Peak Computed Discharge = 770.3 cumecs on 28/06/2015 **Corres. Water Level :3.89 m**

Lowest Computed Discharge = 51.59 cumecs on 04/10/2015 **Corres. Water Level :1.71 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

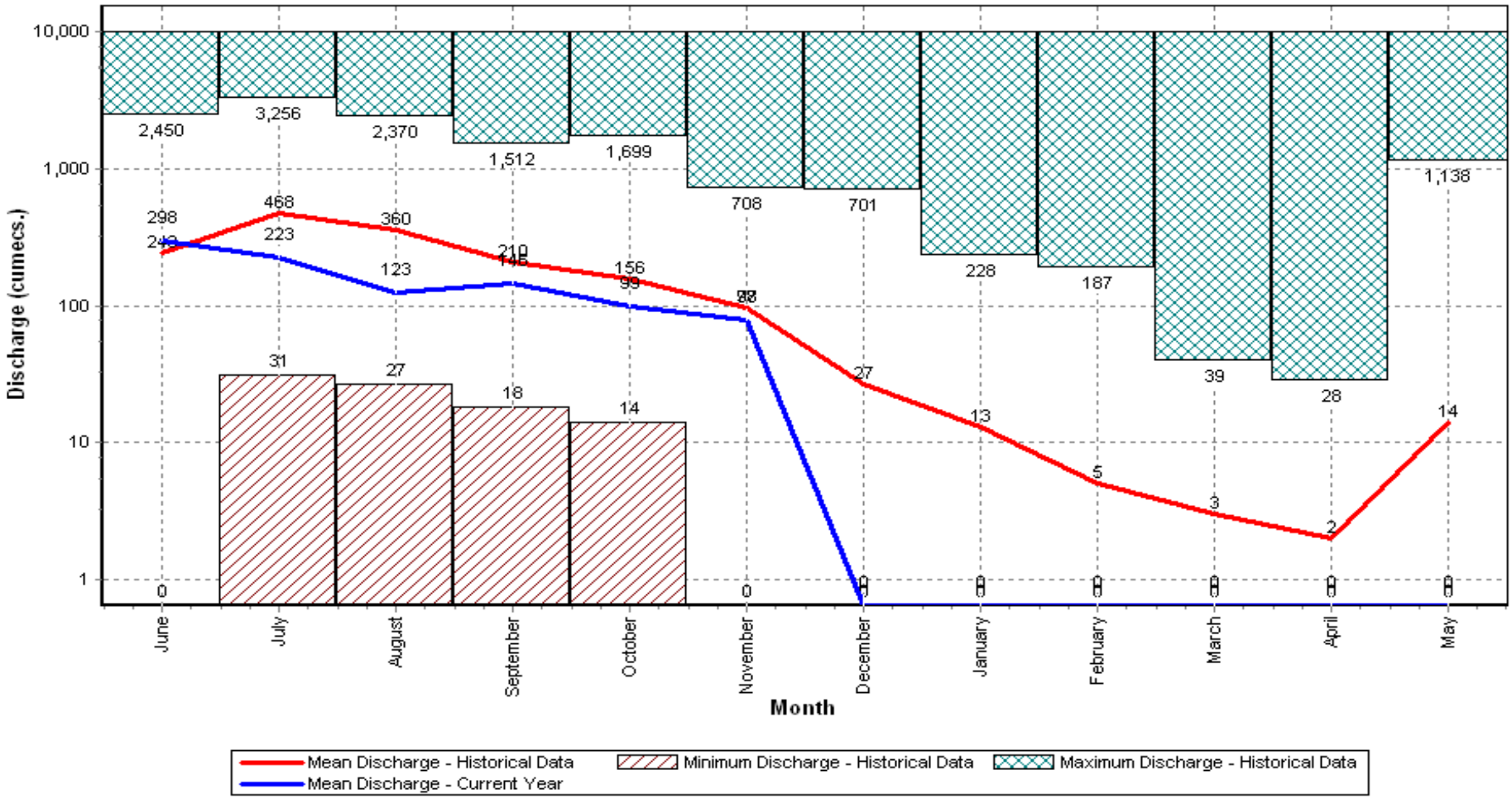
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KUNIYIL (KB000J3) | **Data considered : 1981-2016** | **Division : SWR Division, Kochi**

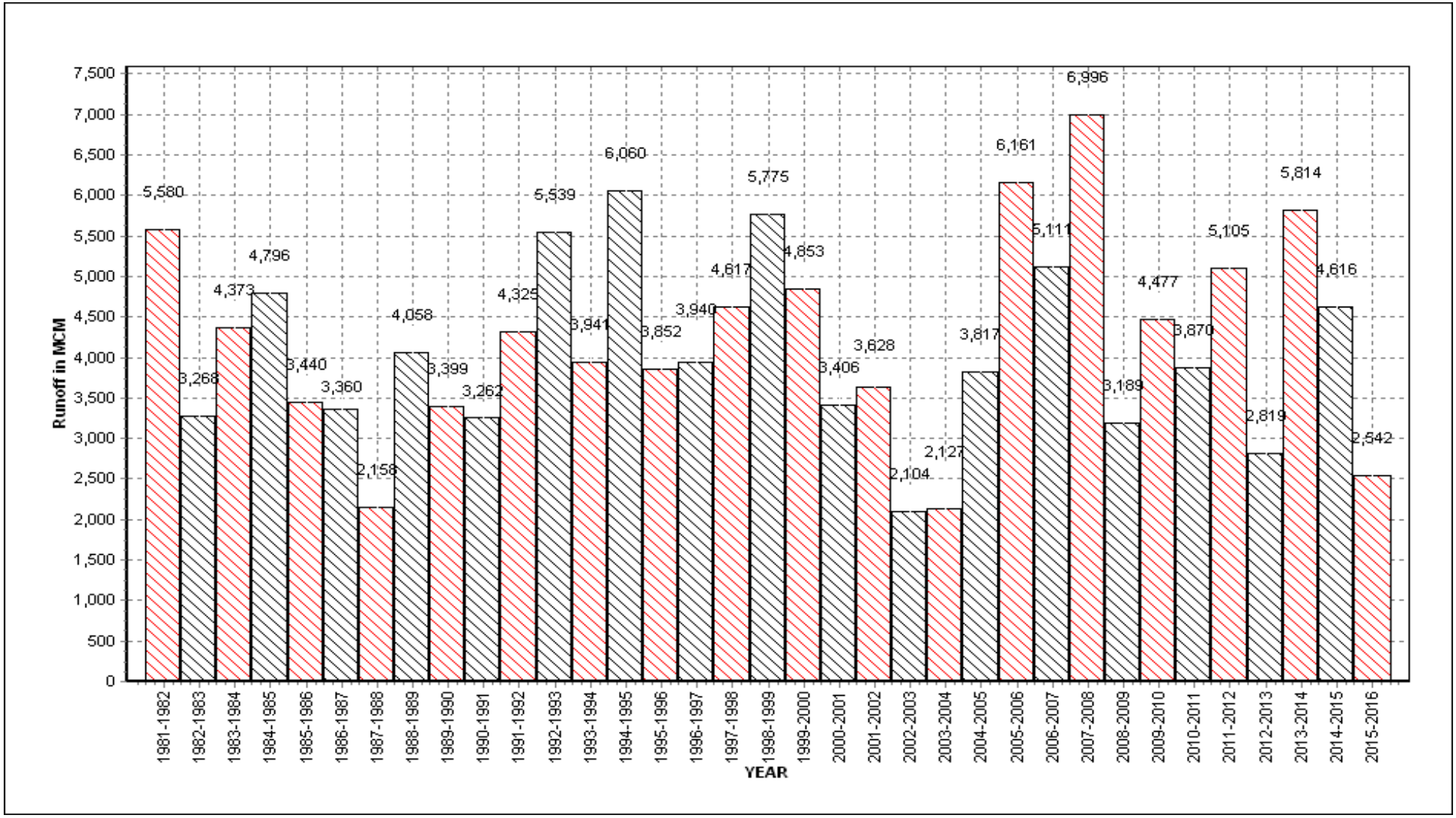
Local River : Chaliyar | **Sub-Division : Chaliyar SD, Calicut**



Annual Runoff Values for the period: 1981 - 2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

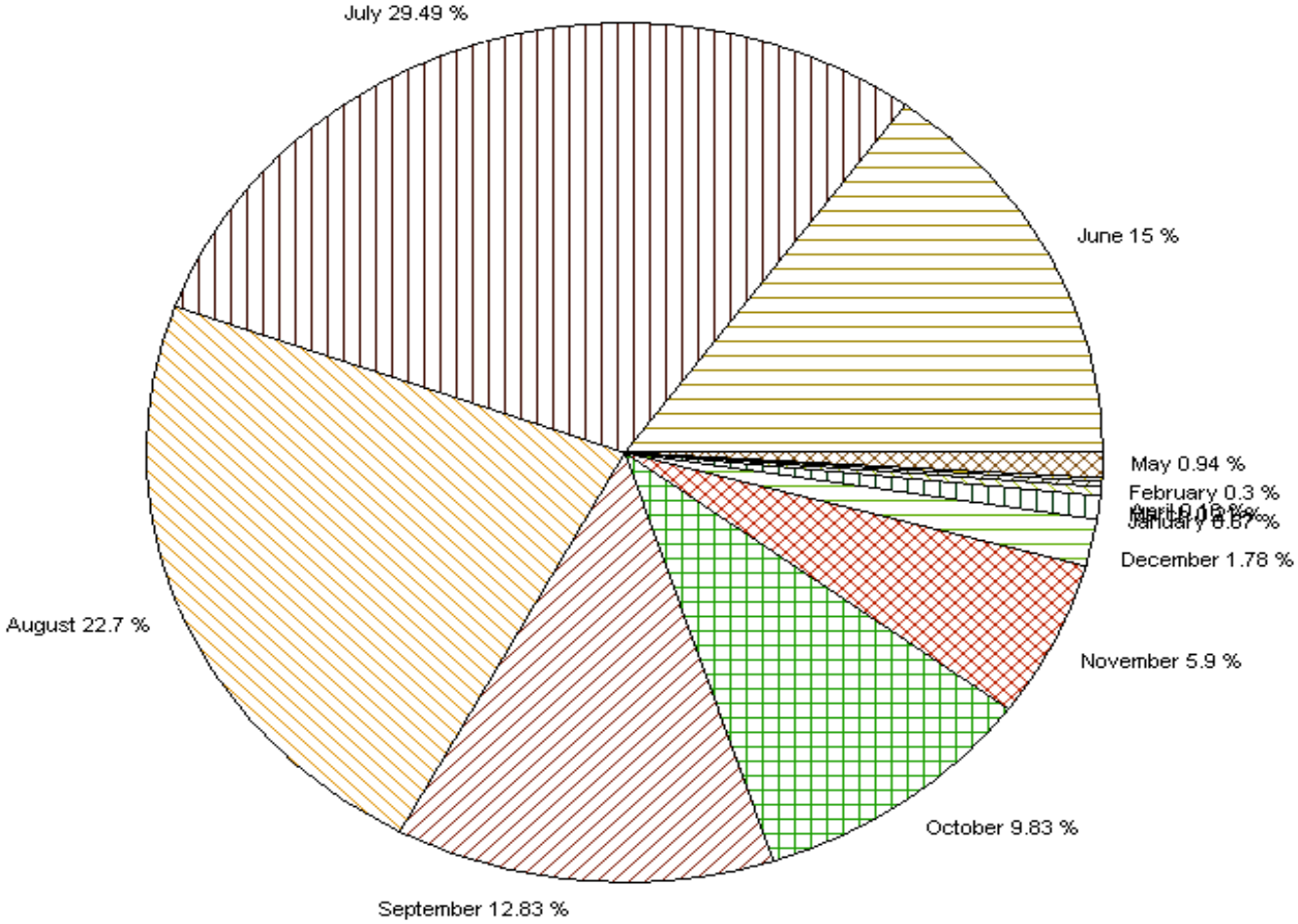


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1981-2015

Station Name : KUNIYIL (KB000J3)
Local River : Chaliyar

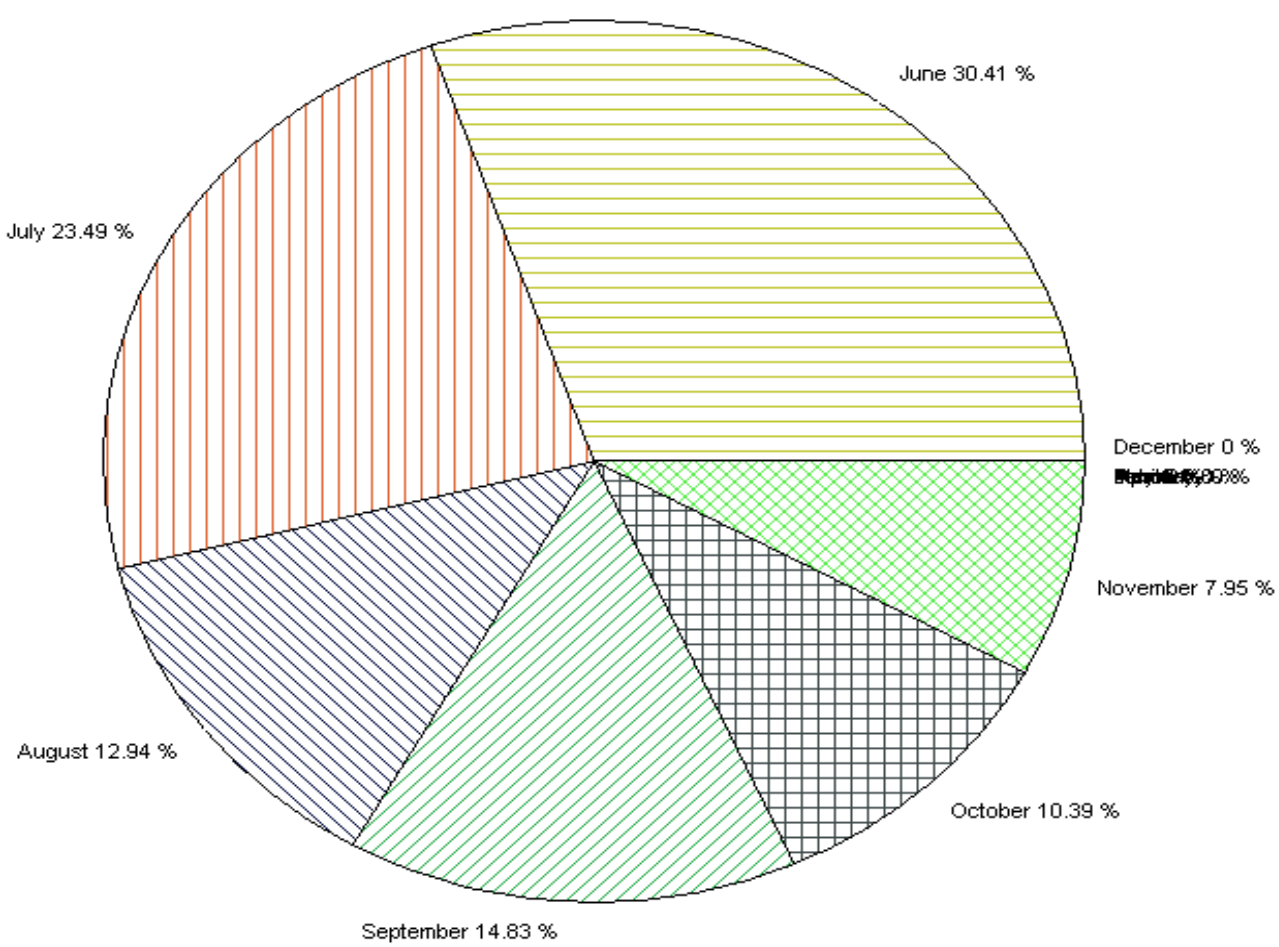
Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



Monthly Runoff for the Year : 2015-2016

Station Name : KUNIYIL (KB000J3)
Local River : Chaliyar

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



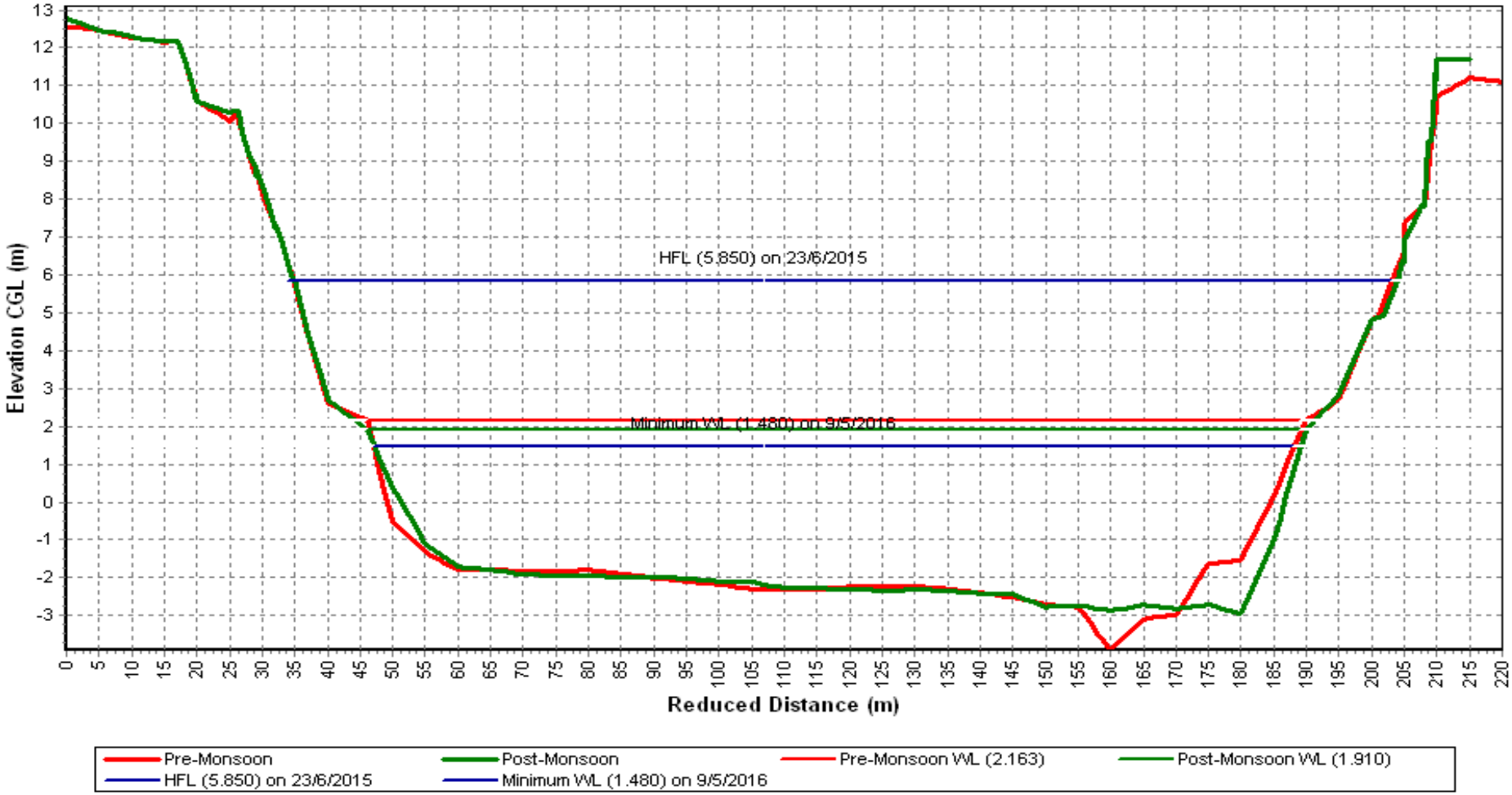
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KUNIYIL (KB000J3)

Local River : Chaliyar

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



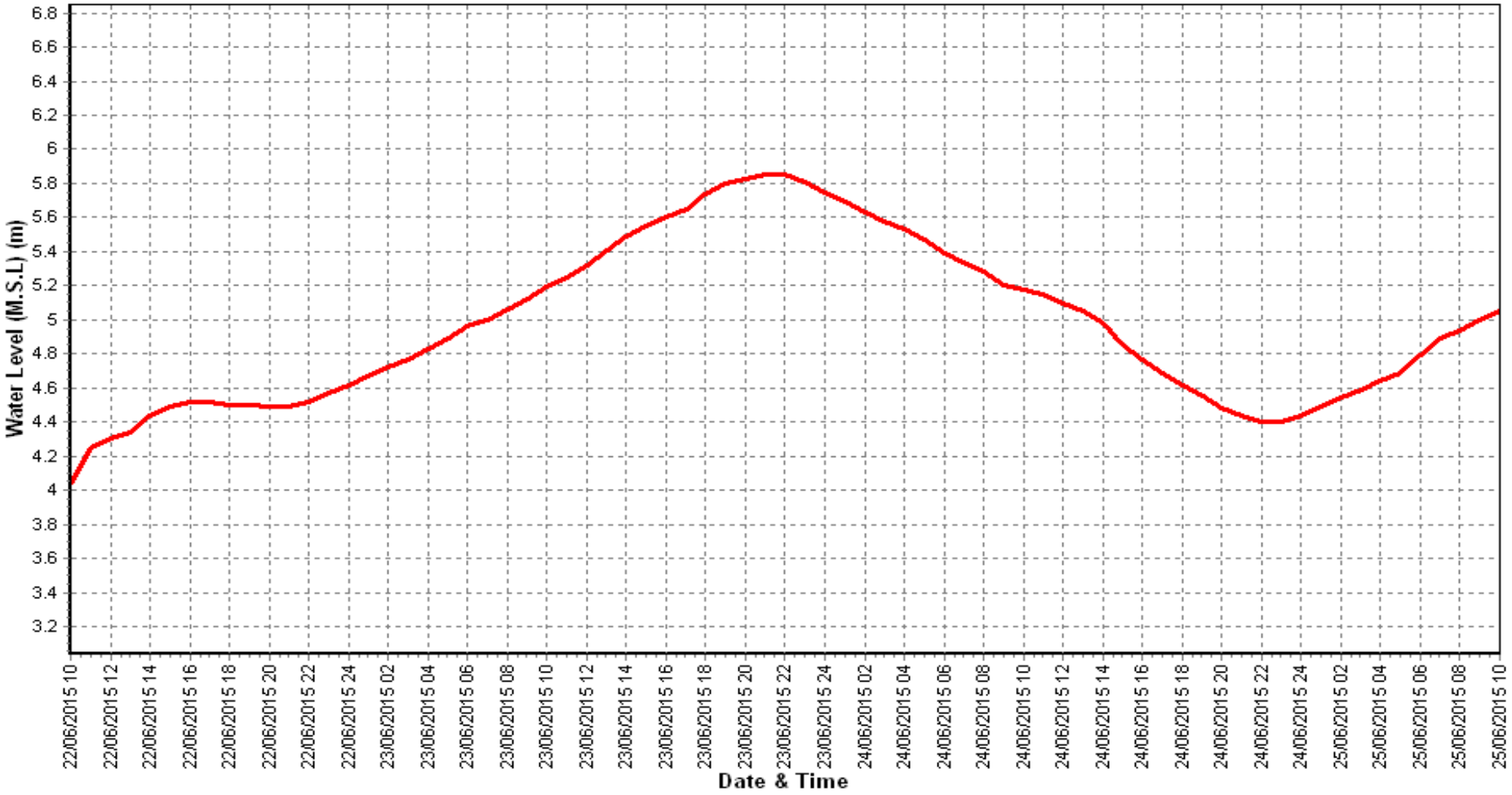
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KUNIYIL (KB000J3)

Local River : Chaliyar

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

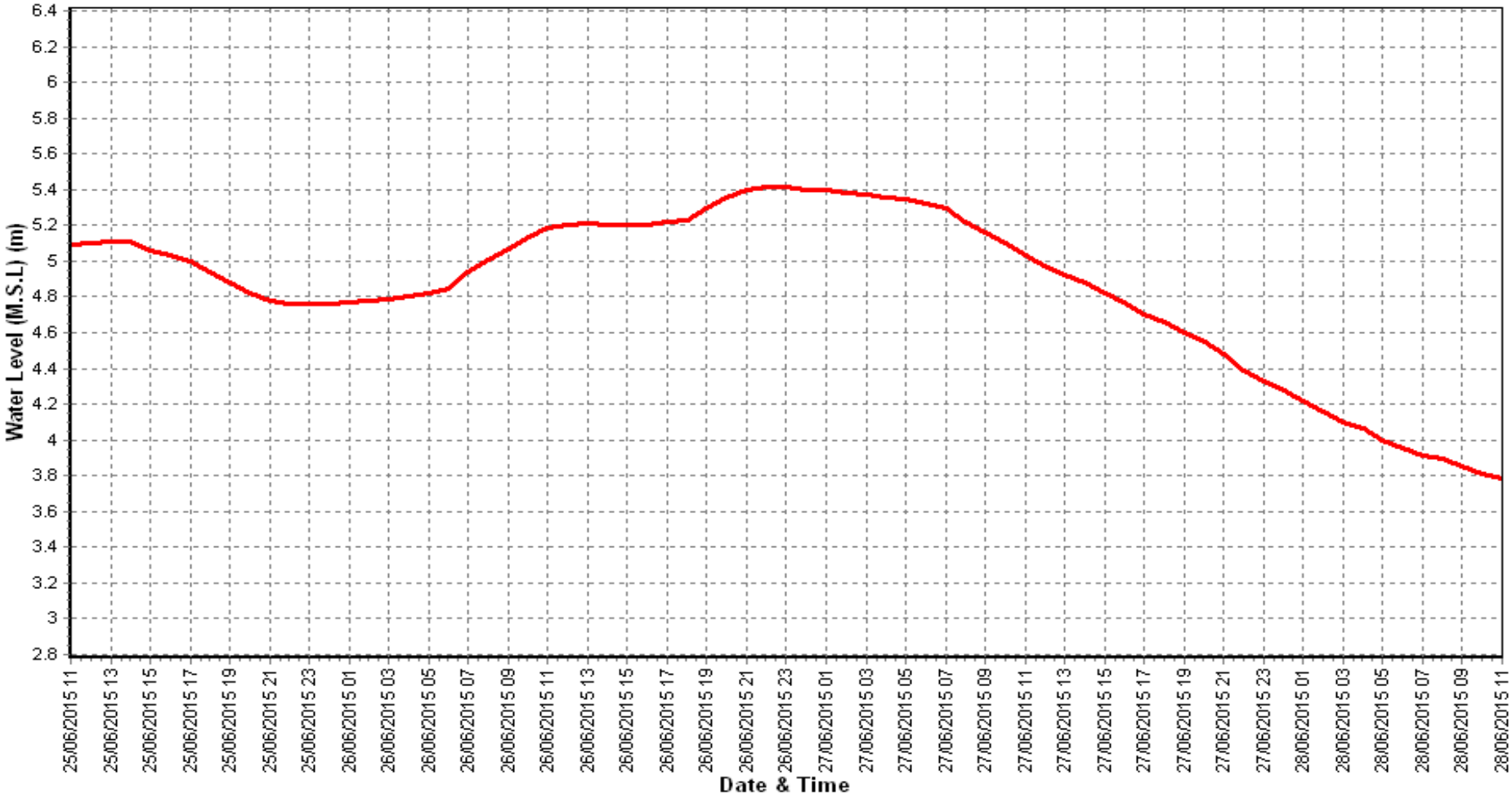
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KUNIYIL (KB000J3)

Division : SWR Division, Kochi

Local River : Chaliyar

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

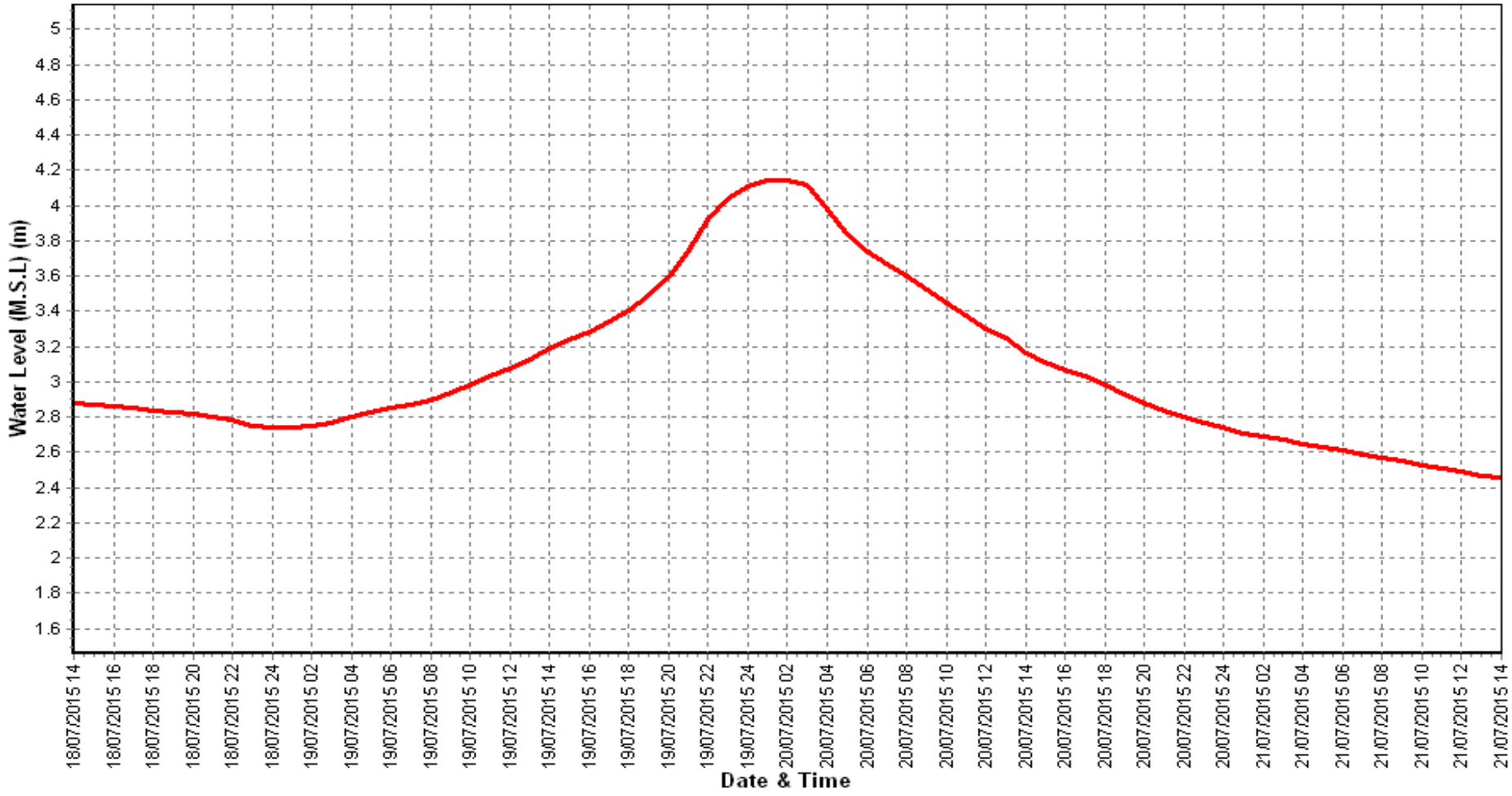
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KUNIYIL (KB000J3)

Local River : Chaliyar

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: KARATHODU**		**Code**	**: KL000L7**	
State	: Kerala		District	Malappuram	
Basin	: WFR South of Tapi		Independent River	: Kadalundi	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kadalundi	
Division	: SWR Division, Kochi		Sub-Division	: Chaliyar SD, Calicut	
Drainage Area	: 750 Sq. Km.		Bank	: Right	
Latitude	: 11°03'25"		Longitude	: 76°02'22"	
Zero of Gauge (m)	: 89.000 (Arb.) 2.000 (m.s.l)		28/12/1985 01/05/1988	- 30/04/1988	
	Opening Date		Closing Date		
Gauge	: 28/12/1985				
Discharge	: 20/06/1986				
Sediment	: 22/06/1989				
Water Quality	: 01/12/1988				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1987-1988	215.6	93.615	09/07/1987	0.000	89.950	01/06/1987
1988-1989	337.8	9.298	23/07/1988	0.000	4.085	17/01/1989
1989-1990	330.0	9.165	24/07/1989	0.000	3.955	06/02/1990
1990-1991	308.7	8.370	11/07/1990	0.000	3.850	11/02/1991
1991-1992	485.0	9.985	09/07/1991	0.000	Dry Bed	01/03/1992
1992-1993	690.6	11.959	28/07/1992	0.000	3.830	08/02/1993
1993-1994	294.7	8.511	03/07/1993	0.000	3.700	03/02/1994
1994-1995	784.4	13.270	16/07/1994	0.000	3.830	22/01/1995
1995-1996	333.0	8.650	02/09/1995	0.000	3.810	09/01/1996
1996-1997	267.0	7.900	19/10/1996	0.000	3.540	20/01/1997
1997-1998	745.0	12.950	12/07/1997	0.000	3.600	01/06/1997
1998-1999	357.5	9.080	05/07/1998	0.000	3.400	01/06/1998
1999-2000	366.8	9.180	20/06/1999	3.400	3.750	22/09/1999
2000-2001	216.3	7.440	12/07/2000	0.000	3.420	01/01/2001
2001-2002	431.0	8.720	25/06/2001	0.000	2.940	03/01/2002
2002-2003	361.4	7.520	18/08/2002	0.000	2.690	26/12/2002
2003-2004	153.3	6.120	06/07/2003	0.000	2.665	23/12/2003
2004-2005	331.1	8.425	05/08/2004	0.000	2.385	23/12/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2005-2006	295.3	7.935	02/07/2005	0.000	2.400	25/01/2006
2006-2007	454.4	8.960	17/09/2006	0.000	2.210	27/01/2007
2007-2008	1201	13.495	18/07/2007	0.000	2.850	01/06/2007
2008-2009	389.9	8.250	25/10/2008	0.000	2.975	01/06/2008
2009-2010	781.7	12.170	19/07/2009	0.000	2.850	01/06/2009
2010-2011	221.3	7.585	30/07/2010	0.000	2.100	01/06/2010
2011-2012	376.5	8.870	02/09/2011	0.000	2.255	23/12/2011
2012-2013	189.7	6.160	23/07/2012	0.000	2.970	01/06/2012
2013-2014	581.7	9.565	04/07/2013	0.000	2.555	19/12/2013
2014-2015	760.2	10.340	02/08/2014	0.000	3.145	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	3.230	0.000	4.990	110.9	4.045	39.28	3.660	23.06	3.835	21.85	3.720	21.34 *
2	3.340	6.630 *	4.600	81.26	3.970	33.94 *	3.630	21.64	3.730	21.80 *	4.160	41.99
3	3.270	0.000	4.455	73.07	3.910	33.58	3.590	17.38	3.600	16.95	3.840	27.58
4	3.230	0.000	4.300	61.61	4.155	44.64	3.570	15.95	4.080	40.13 *	3.650	18.19 #
5	3.575	18.83	4.190	46.67 *	3.913	34.75	3.550	15.34	3.880	27.53	3.645	17.98 #
6	3.440	12.58	4.140	49.08	3.860	30.81	3.720	21.34 *	4.500	57.38	4.130	36.43
7	3.340	6.630 *	4.000	42.50	3.890	34.25	5.000	121.6	4.495	56.60	3.780	23.26
8	3.270	0.000	4.130	50.82	4.590	72.36	5.595	160.0	4.130	35.73	4.100	41.29 *
9	3.250	0.000	5.250	135.4	4.160	44.85 *	5.148	108.1	4.310	48.50	4.220	38.28
10	3.335	4.837	4.850	113.1	4.035	39.98	5.000	97.34	5.250	101.8	4.020	36.71 *
11	3.350	6.316	4.330	55.50 #	4.270	57.60	4.550	68.34	4.740	84.36 *	3.945	31.97
12	3.320	4.526	4.250	50.39 *	4.840	112.4	4.330	57.40	4.395	50.73	3.815	27.17
13	3.475	14.10	4.165	45.40	5.425	137.1	4.230	49.14 *	4.255	46.23	3.820	23.07
14	3.480	11.34 *	4.005	37.81	4.790	104.5	4.085	44.31	4.735	66.27	3.965	32.65
15	3.450	10.26 #	3.960	35.46	4.565	71.52 *	3.980	34.95	4.220	43.72	3.810	25.63 *
16	3.350	5.165	4.325	59.93	4.360	57.47 *	3.915	28.05	4.075	38.03	3.680	18.08
17	3.490	12.59	4.090	49.34	4.245	53.70	3.895	29.97	4.020	35.74	3.665	15.35
18	3.600	16.06 #	4.930	99.14 *	4.410	68.21	3.880	23.95	3.885	29.43 *	3.615	18.80
19	3.550	17.88	5.415	140.6 *	4.960	119.9	3.840	22.61	3.835	23.34	3.720	23.17
20	4.090	44.60	5.635	145.1	4.680	83.55	3.790	24.65 *	3.790	20.54	3.725	23.01
21	4.120	42.47 *	5.070	111.3	4.305	55.77	4.040	35.95	3.860	24.00	3.610	18.52
22	4.615	72.30	5.095	104.0	4.440	69.96	3.760	22.36	3.760	20.15	3.555	14.22 *
23	5.510	136.2	5.020	100.9	4.290	52.93 *	3.650	20.62	3.715	21.11 *	3.520	9.924
24	6.120	206.1	5.540	138.0	4.290	58.60	3.620	16.90 *	3.660	18.63 *	3.490	11.72 #
25	6.420	237.5	5.390	134.5	4.075	45.79	3.590	16.58	3.605	16.27 *	3.450	10.26 *
26	6.380	236.5	4.940	99.94 *	3.945	37.88	3.585	15.24	3.575	14.01	3.445	0.000
27	8.520	437.0	5.095	115.0	3.890	32.34	3.560	14.42 *	3.550	13.96	3.405	0.000
28	7.330	349.1 *	4.620	79.04	3.950	32.86 *	3.660	20.97	3.550	13.05	3.410	0.000
29	5.850	158.4	4.395	67.22	3.865	31.64	3.710	22.68	3.630	12.41	3.465	10.80 *
30	5.540	153.9	4.255	50.20	3.780	24.17 *	3.760	20.39	3.600	16.06 #	3.365	0.000
31			4.140	42.76	3.730	26.01			3.720	17.21		
Ten-Daily Mean												
I Ten-Daily	3.328	4.951	4.491	76.45	4.053	40.84	4.246	60.19	4.181	42.83	3.927	30.30
II Ten-Daily	3.515	14.28	4.511	71.87	4.655	86.60	4.050	38.34	4.195	43.84	3.776	23.89
III Ten-Daily	6.040	202.9	4.869	94.80	4.051	42.54	3.693	20.61	3.657	16.99	3.471	7.545
Monthly												
Min.	3.230	0.000	3.960	35.46	3.730	24.17	3.550	14.42	3.550	12.41	3.365	0.000
Max.	8.520	437.0	5.635	145.1	5.425	137.1	5.595	160.0	5.250	101.8	4.220	41.99
Mean	4.295	74.06	4.631	81.48	4.246	56.21	3.996	39.71	4.000	33.99	3.725	20.58

Annual Runoff in MCM = 815 Annual Runoff in mm = 1087

Peak Observed Discharge = 437.0 cumecs on 27/06/2015 Corres. Water Level :8.52 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :3.23 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	3.340	0.000	3.020	0.000	2.930	0.000	2.830	0.000	2.570	0.000	2.210	0.000
2	3.350	0.000	3.010	0.000	2.930	0.000	2.820	0.000	2.560	0.000	2.190	0.000
3	3.355	0.000	3.050	0.000	2.920	0.000	2.805	0.000	2.550	0.000	2.190	0.000
4	3.380	0.000	3.040	0.000	2.920	0.000	2.800	0.000	2.540	0.000	2.170	0.000
5	3.350	0.000	3.000	0.000	2.920	0.000	2.795	0.000	2.530	0.000	2.160	0.000
6	3.330	0.000	2.940	0.000	2.920	0.000	2.795	0.000	2.520	0.000	2.140	0.000
7	3.300	0.000	2.960	0.000	2.915	0.000	2.790	0.000	2.495	0.000	2.130	0.000
8	3.280	0.000	2.930	0.000	2.915	0.000	2.780	0.000	2.475	0.000	2.120	0.000
9	3.260	0.000	3.020	0.000	2.910	0.000	2.770	0.000	2.465	0.000	2.115	0.000
10	3.260	0.000	3.010	0.000	2.910	0.000	2.760	0.000	2.450	0.000	2.110	0.000
11	3.250	0.000	3.000	0.000	2.905	0.000	2.755	0.000	2.455	0.000	2.100	0.000
12	3.240	0.000	3.000	0.000	2.905	0.000	2.750	0.000	2.445	0.000	2.100	0.000
13	3.240	0.000	3.010	0.000	2.900	0.000	2.745	0.000	2.440	0.000	2.100	0.000
14	3.745	21.62	3.000	0.000	2.890	0.000	2.740	0.000	2.430	0.000	2.090	0.000
15	3.880	25.07	3.000	0.000	2.890	0.000	2.740	0.000	2.420	0.000	2.090	0.000
16	3.870	24.20	2.990	0.000	2.890	0.000	2.720	0.000	2.410	0.000	2.095	0.000
17	3.555	12.14	2.990	0.000	2.890	0.000	2.710	0.000	2.405	0.000	2.120	0.000
18	3.470	0.000	2.985	0.000	2.885	0.000	2.690	0.000	2.390	0.000	2.130	0.000
19	3.420	0.000	2.980	0.000	2.880	0.000	2.680	0.000	2.380	0.000	2.130	0.000
20	3.370	0.000	2.980	0.000	2.875	0.000	2.660	0.000	2.370	0.000	2.150	0.000
21	3.340	0.000	2.975	0.000	2.870	0.000	2.650	0.000	2.350	0.000	2.150	0.000
22	3.290	0.000	2.970	0.000	2.865	0.000	2.640	0.000	2.340	0.000	2.145	0.000
23	3.100	0.000	2.960	0.000	2.860	0.000	2.640	0.000	2.330	0.000	2.140	0.000
24	3.250	0.000	2.960	0.000	2.855	0.000	2.640	0.000	2.320	0.000	2.135	0.000
25	3.240	0.000	2.980	0.000	2.850	0.000	2.640	0.000	2.310	0.000	2.090	0.000
26	3.220	0.000	2.960	0.000	2.845	0.000	2.640	0.000	2.300	0.000	2.070	0.000
27	3.200	0.000	2.960	0.000	2.840	0.000	2.630	0.000	2.280	0.000	2.050	0.000
28	3.140	0.000	2.960	0.000	2.840	0.000	2.620	0.000	2.265	0.000	2.030	0.000
29	3.130	0.000	2.950	0.000	2.840	0.000	2.605	0.000	2.240	0.000	2.050	0.000
30	3.100	0.000	2.940	0.000			2.600	0.000	2.235	0.000	2.050	0.000
31	3.080	0.000	2.940	0.000			2.590	0.000			2.060	0.000
Ten-Daily Mean												
I Ten-Daily	3.320	0.000	2.998	0.000	2.919	0.000	2.795	0.000	2.516	0.000	2.154	0.000
II Ten-Daily	3.504	8.302	2.993	0.000	2.891	0.000	2.719	0.000	2.414	0.000	2.111	0.000
III Ten-Daily	3.190	0.000	2.960	0.000	2.852	0.000	2.627	0.000	2.297	0.000	2.088	0.000
Monthly												
Min.	3.080	0.000	2.930	0.000	2.840	0.000	2.590	0.000	2.235	0.000	2.030	0.000
Max.	3.880	25.07	3.050	0.000	2.930	0.000	2.830	0.000	2.570	0.000	2.210	0.000
Mean	3.333	2.678	2.983	0	2.888	0	2.711	0	2.409	0	2.116	0

Peak Computed Discharge = 349.1 cumecs on 28/06/2015 **Corres. Water Level :7.33 m**

Lowest Computed Discharge = 6.630 cumecs on 02/06/2015 **Corres. Water Level :3.34 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

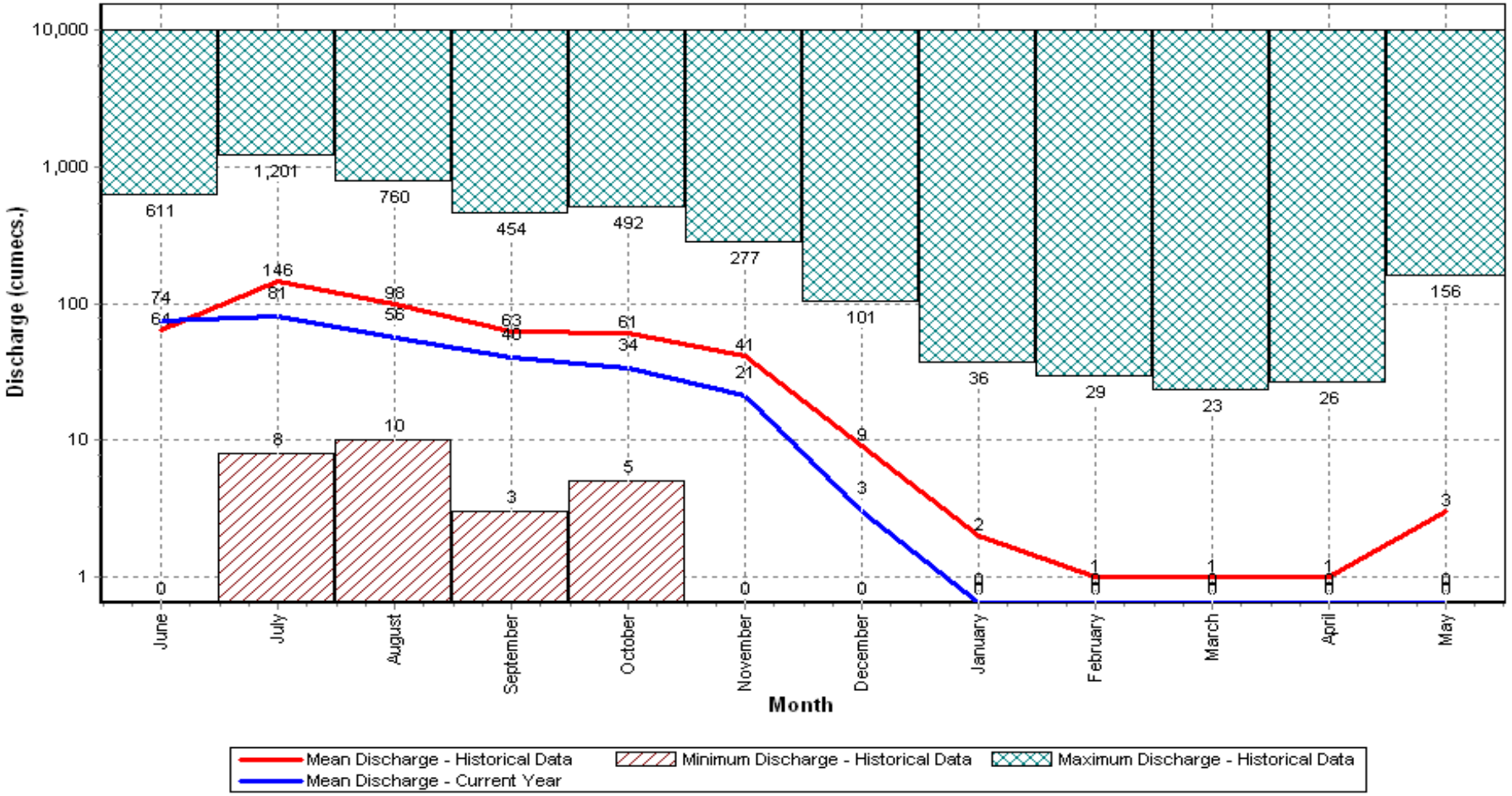
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KARATHODU (KL000L7) | **Data considered : 1987-2016** | **Division : SWR Division, Kochi**

Local River : Kadalundi | **Sub-Division : Chaliyar SD, Calicut**



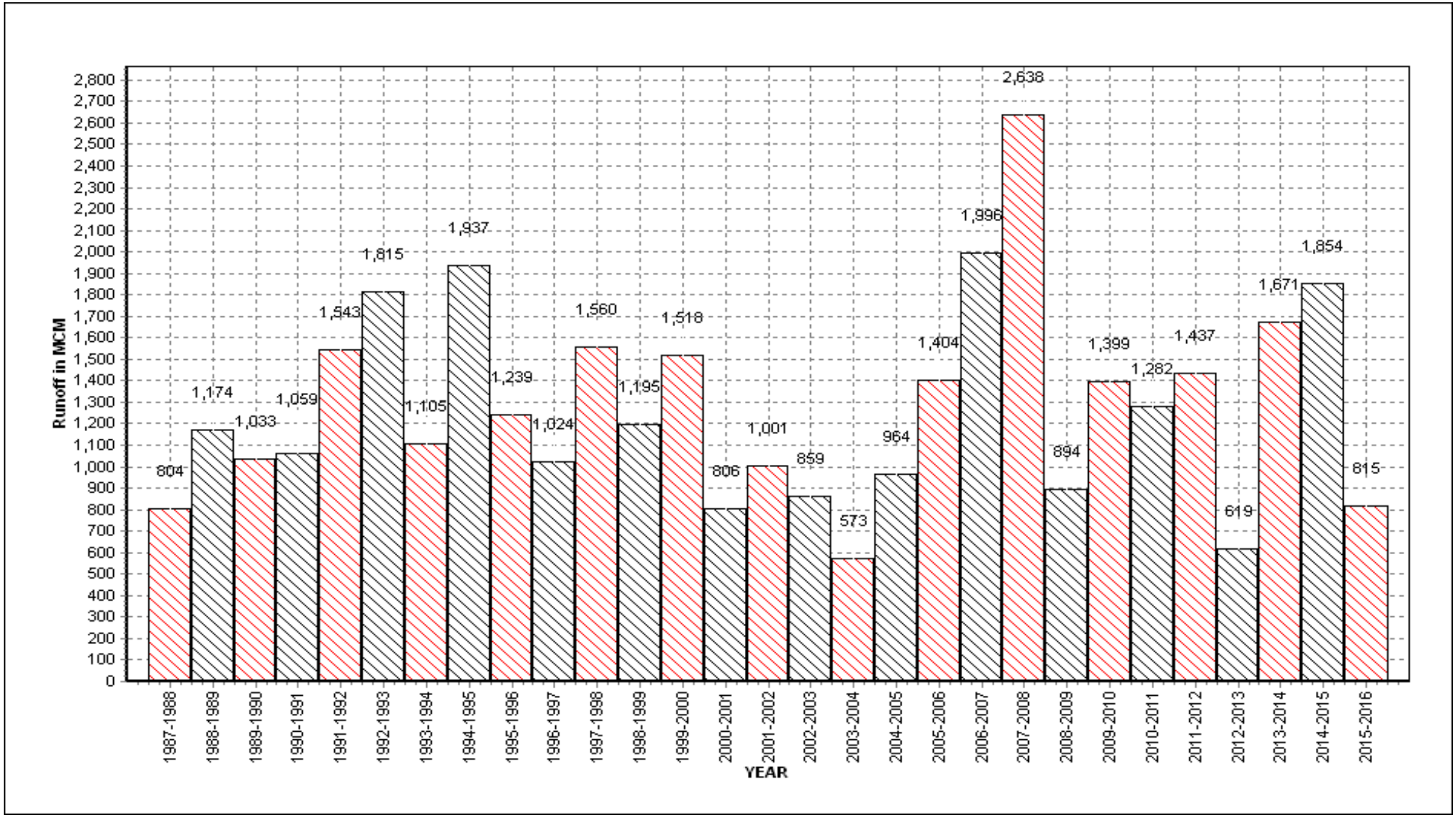
Annual Runoff Values for the period: 1987 - 2016

Station Name : KARATHODU (KL000L7)

Division : SWR Division, Kochi

Local River : Kadalundi

Sub-Division : Chaliyar SD, Calicut

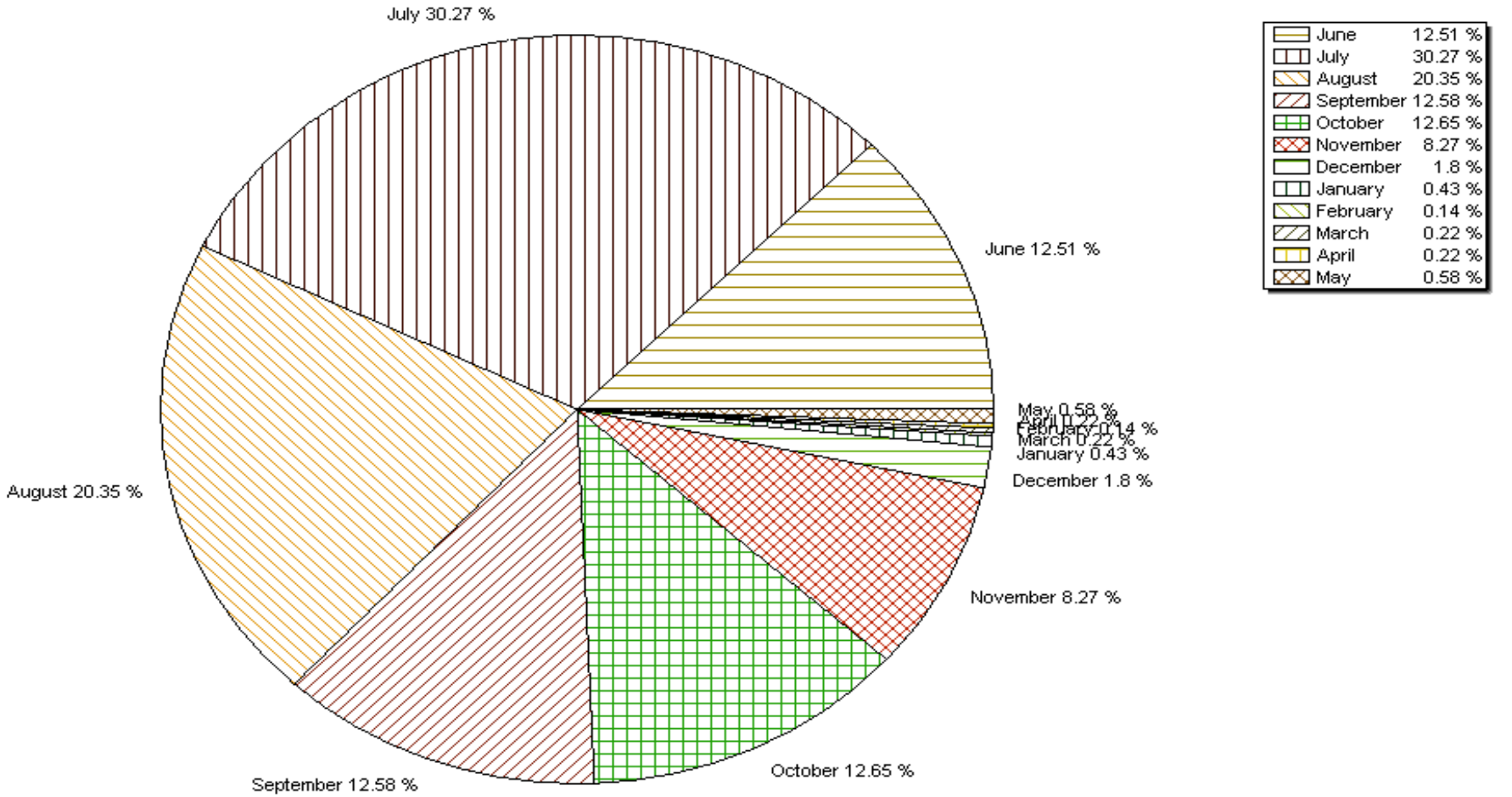


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1987-2015

Station Name : KARATHODU (KL000L7)
Local River : Kadalundi

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



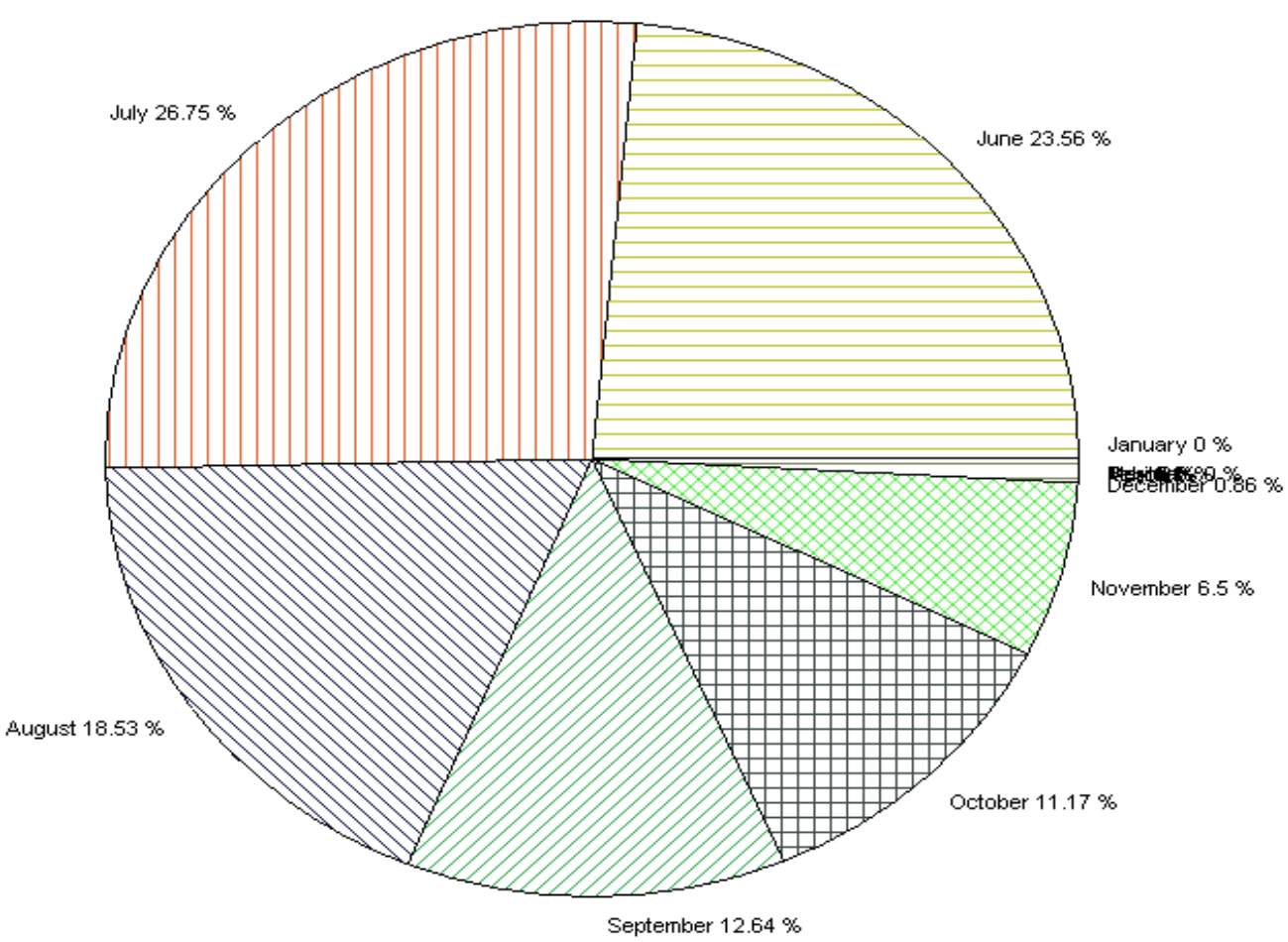
Monthly Runoff for the Year : 2015-2016

Station Name : KARATHODU (KL000L7)

Local River : Kadalundi

Division : SWR Division, Kochi

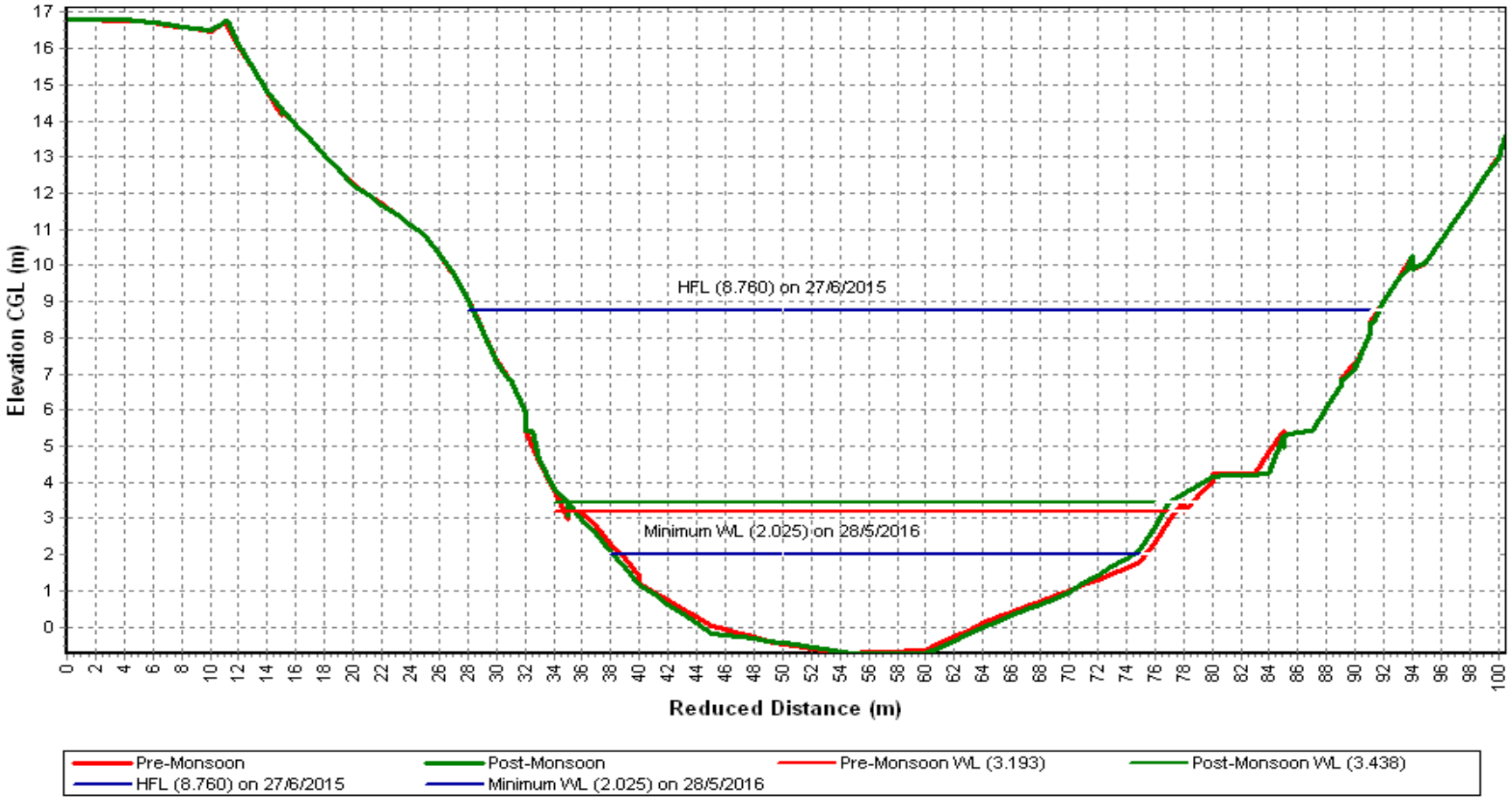
Sub-Division : Chaliyar SD, Calicut



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

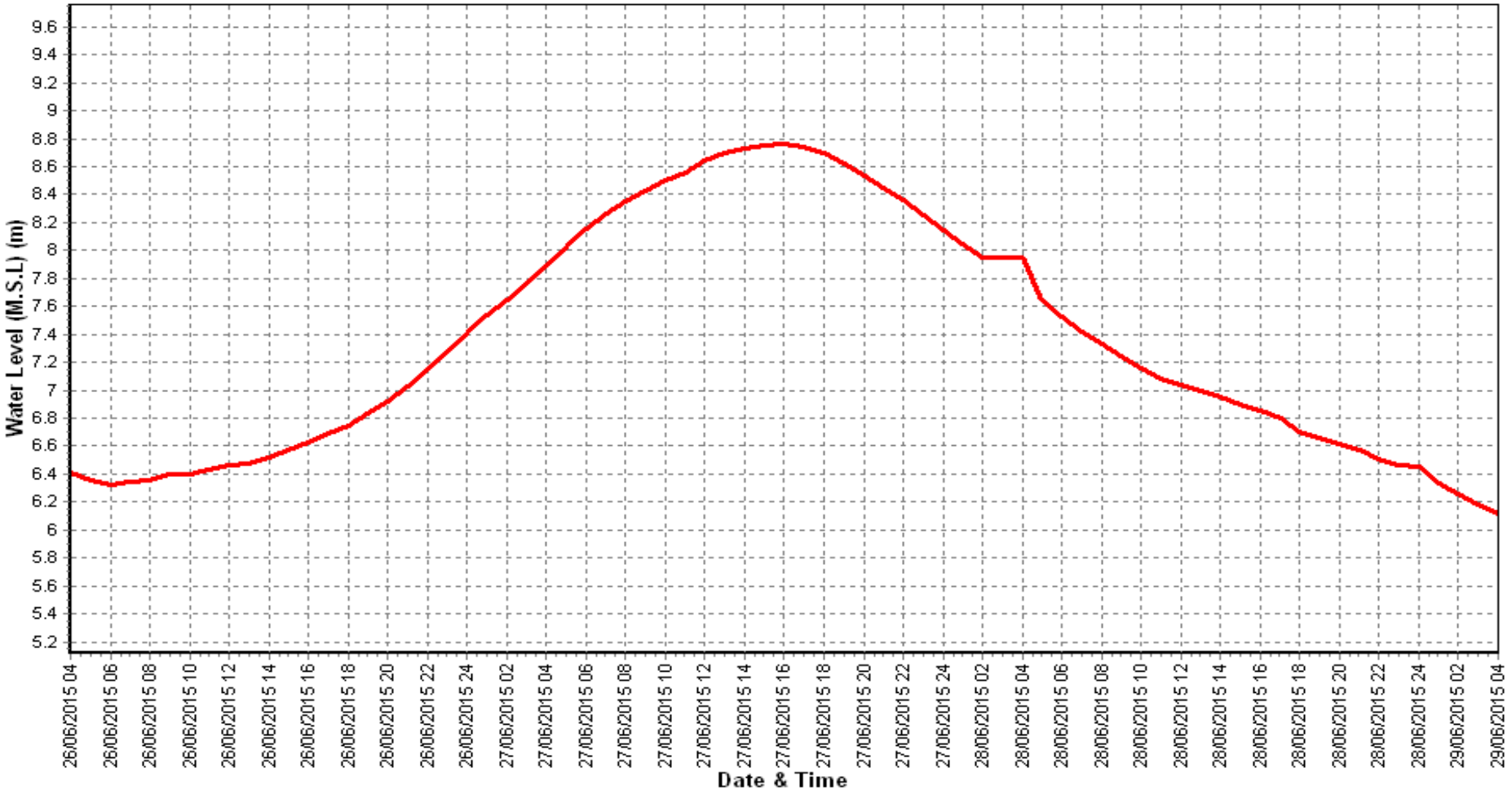
Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

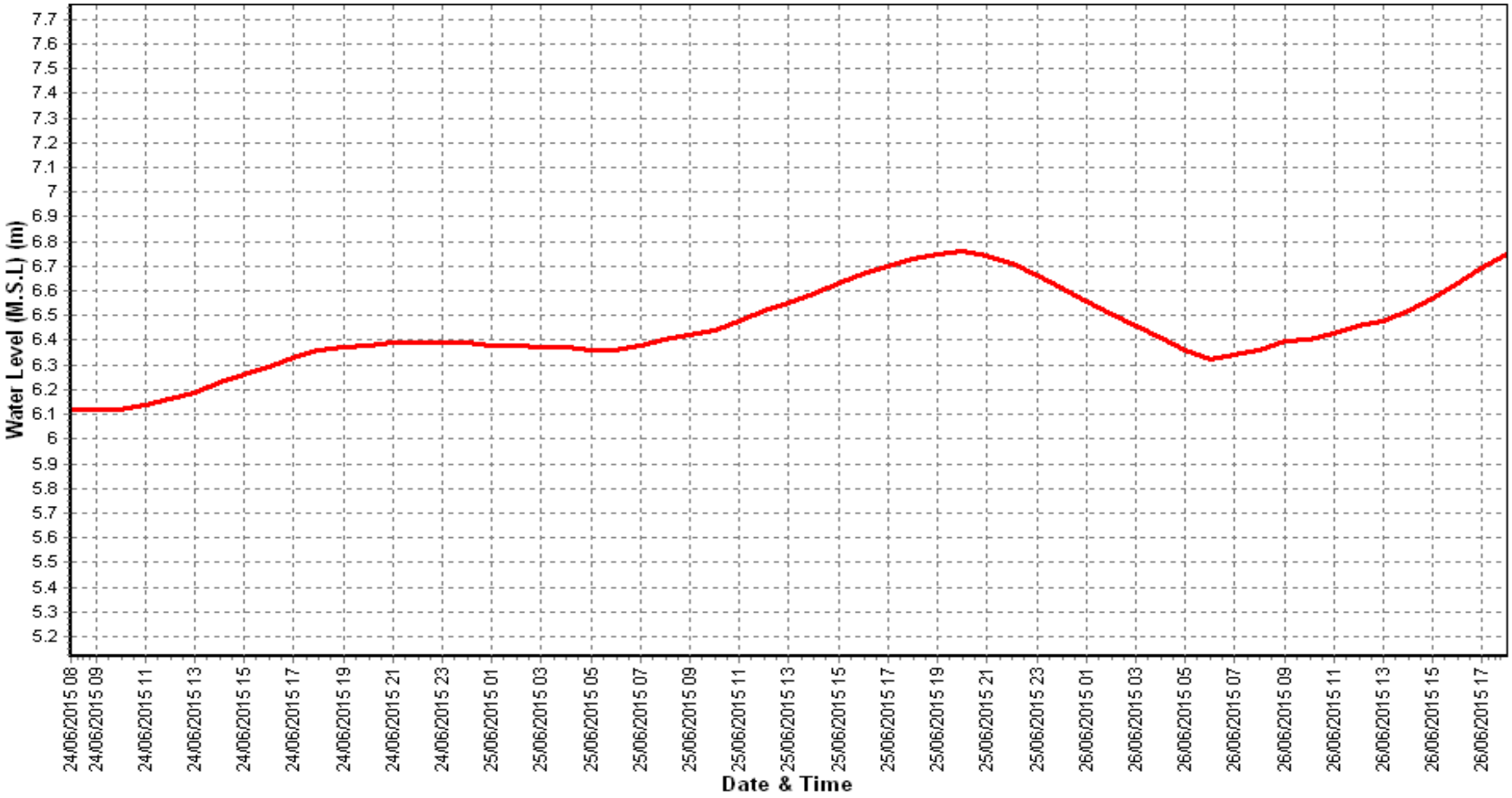
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KARATHODU (KL000L7)

Division : SWR Division, Kochi

Local River : Kadalundi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

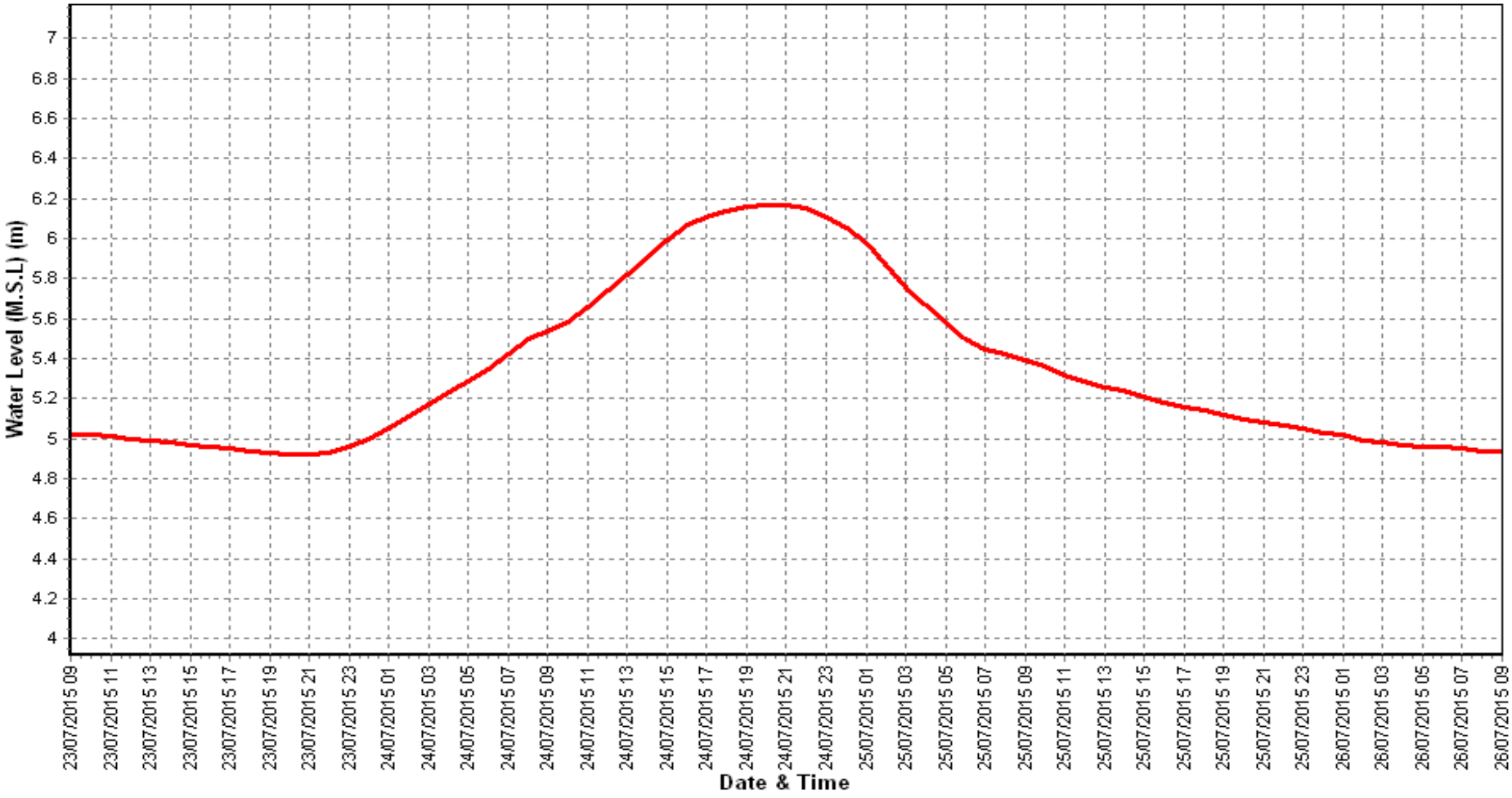
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KARATHODU (KL000L7)

Local River : Kadalundi

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: KUMBIDI**		**Code**	**: KR000C9**	
State	: Kerala		District	Palakkad	
Basin	: WFR South of Tapi		Independent River	: Bharathapuzha	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Bharathapuzha	
Division	: SWR Division, Kochi		Sub-Division	: Chaliyar SD, Calicut	
Drainage Area	: 5755 Sq. Km.		Bank	: Left	
Latitude	: 10°51'16"		Longitude	: 76°01'12"	
Zero of Gauge (m)	: 4.000 (m.s.l) 2.000 (m.s.l)		01/06/1978 01/06/2007	- 31/05/2007	
	Opening Date		Closing Date		
Gauge	: 01/06/1978				
Discharge	: 08/01/1979				
Sediment	: 24/06/1980				
Water Quality	: 03/12/1979				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1979-1980 *	141.5	6.090	01/12/1979	0.000	4.760	02/03/1980
1980-1981	2084	9.490	03/07/1980	0.000	4.605	26/02/1981
1981-1982	1729	8.885	18/08/1981	0.000	4.485	03/03/1982
1982-1983	1336	8.560	02/08/1982	0.000	4.310	07/03/1983
1983-1984	1557	8.800	22/07/1983	0.000	4.300	02/06/1983
1984-1985	1803	8.650	18/06/1984	0.000	Dry Bed	17/03/1984
1985-1986	2295	9.610	27/06/1985	0.000	4.420	05/03/1986
1986-1987	1555	8.745	10/08/1986	0.000	4.445	09/03/1987
1987-1988	754.6	7.210	25/09/1987	0.000	4.465	01/06/1987
1988-1989	1242	8.330	05/08/1988	0.000	4.670	11/02/1989
1989-1990	1810	8.665	24/07/1989	0.000	4.650	01/06/1989
1990-1991	1015	7.890	11/07/1990	0.000	4.620	09/02/1991
1991-1992	2164	9.192	28/07/1991	0.000	4.495	14/03/1992
1992-1993	2519	9.247	29/07/1992	0.949	4.540	10/05/1993
1993-1994	745.7	7.201	04/08/1993	0.000	4.420	12/03/1994
1994-1995	2813	9.440	15/07/1994	0.177	4.100	30/03/1995
1995-1996	1410	8.100	17/07/1995	0.000	4.050	27/12/1996
1996-1997	1080	7.530	30/09/1996	0.226	4.260	02/05/1997

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1997-1998	1758	8.660	11/07/1997	0.650	4.230	05/06/1997
1998-1999	1190	7.830	01/07/1998	0.000	4.290	02/04/1999
1999-2000	1102	7.670	14/06/1999	0.000	4.440	10/02/2000
2000-2001	1073	7.450	13/07/2000	0.000	4.280	01/06/2000
2001-2002	1311	7.780	25/06/2001	1.591	3.950	12/05/2002
2002-2003	1464	7.805	18/08/2002	0.258	3.940	26/05/2003
2003-2004	479.3	6.077	23/08/2003	0.000	3.870	14/02/2004
2004-2005	2175	8.450	05/08/2004	0.000	3.680	12/03/2005
2005-2006	1838	8.015	02/08/2005	0.901	3.670	15/05/2006
2006-2007	1294	7.470	17/09/2006	0.398	3.900	09/04/2007
2007-2008	3032	9.475	18/07/2007	3.805	3.770	19/05/2008
2008-2009	978.2	7.100	27/10/2008	0.592	3.430	17/05/2009
2009-2010	3545	9.110	18/07/2009	0.000	3.330	18/03/2010
2010-2011	1417	7.020	30/07/2010	1.575	2.980	13/04/2011
2011-2012	1772	7.660	02/09/2011	0.000	3.565	28/03/2012
2012-2013	518.9	5.775	05/09/2012	0.000	3.250	14/02/2013
2013-2014	2686	7.445	02/08/2013	0.000	3.130	06/03/2014
2014-2015	3363	8.590	02/08/2014	0.000	2.930	02/03/2015

* Partial Data

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	3.650	24.04	5.300	332.2 *	4.350	103.1	4.150	80.11	5.590	428.0	3.910	51.23 *
2	3.600	25.12 *	5.010	248.3 *	4.260	94.97 *	3.940	57.57	5.080	267.2 *	3.950	59.50
3	3.440	15.36	4.760	196.5	4.160	83.51	3.930	55.46	4.600	165.2	3.950	60.61
4	3.400	12.27	4.600	150.4	4.170	85.87	3.900	51.20	4.530	140.3 *	3.960	62.74
5	3.810	33.09	4.500	134.7 *	4.200	88.54	3.900	54.54	4.460	127.5 *	3.970	64.46
6	3.880	43.06	4.330	96.96	4.300	94.86	3.930	53.30 *	4.900	220.3 *	4.920	232.4
7	3.810	41.59 *	4.290	93.86	4.300	96.30	4.175	89.85	5.040	275.5	5.350	345.7
8	3.660	26.34	4.160	80.52	4.950	232.5	4.680	188.4	4.800	192.6	5.590	431.1 *
9	3.650	24.61	4.860	212.0	4.980	240.5 *	4.900	226.6	4.660	177.6	5.080	267.8
10	3.810	33.67	5.100	277.7	4.740	180.7	4.600	164.3	5.100	274.9	4.610	155.7 *
11	3.680	27.94	4.980	240.9	4.680	183.8	4.380	94.46	4.900	220.3 *	4.540	134.5
12	3.480	18.12	4.860	210.6 *	5.030	271.3	4.350	100.8	4.670	190.7	4.550	131.3
13	3.450	16.94	4.760	189.9	5.470	407.1	4.260	94.97 *	4.595	163.2	4.480	128.4
14	3.630	27.17 *	4.410	101.0	5.440	365.6	3.950	55.43 *	4.570	140.9	4.550	138.8
15	3.900	45.70	4.440	112.0	5.100	272.8 *	3.950	55.43 *	4.580	146.4	4.580	149.8 *
16	3.630	22.74	4.530	130.3	4.730	180.8 *	3.930	54.31	4.470	126.2	4.450	120.8
17	3.980	57.80	4.350	99.06	4.580	144.8	3.970	64.56	4.350	101.9	4.150	81.97
18	3.900	46.23	5.010	248.3 *	4.600	168.0	4.110	74.30	4.250	93.49 *	3.800	41.39
19	4.110	69.07	5.780	504.4 *	4.750	197.1	4.150	79.26	3.995	67.65	4.380	119.2
20	4.390	106.4	6.110	661.1	5.390	338.3	4.190	84.92 *	4.080	74.09	4.280	90.21
21	5.550	416.5 *	5.570	410.1	5.080	267.6	4.310	94.56	4.130	76.61	4.110	75.23
22	5.330	321.1	5.520	369.2	4.790	200.2	4.200	87.13	4.160	84.89	3.970	57.60 *
23	6.020	648.6	5.620	420.9	4.790	194.2 *	3.950	58.40	4.100	72.97 *	3.890	50.73
24	6.110	638.4	5.400	350.8	4.650	172.9	3.930	53.30 *	4.060	68.01 *	3.780	41.63
25	6.010	624.1	5.720	487.6	4.630	177.6	3.965	65.76	3.970	57.60 *	3.900	50.21 *
26	6.090	633.9	5.400	364.5 *	4.460	124.4	3.950	60.32	3.890	48.14	3.760	38.89
27	6.820	1297	5.280	310.6	4.330	105.7 *	3.900	50.21 *	3.900	52.16	4.010	74.07
28	6.970	1131 *	5.110	280.7	4.300	101.0 *	3.900	59.18	3.720	36.50	3.600	32.29
29	5.940	550.4	4.860	205.9	4.300	101.0 *	4.985	252.9	3.770	41.34	3.600	25.12 *
30	5.560	381.6	4.600	148.3	4.260	94.97 *	4.460	118.5	3.800	42.88	3.590	31.08
31			4.440	116.4	4.160	85.51			3.790	41.79		
Ten-Daily Mean												
I Ten-Daily	3.671	27.92	4.691	182.3	4.441	130.1	4.210	102.1	4.876	226.9	4.529	173.1
II Ten-Daily	3.815	43.81	4.923	249.8	4.977	253.0	4.124	75.84	4.446	132.5	4.376	113.6
III Ten-Daily	6.040	664.3	5.229	315.0	4.523	147.7	4.155	90.03	3.935	56.63	3.821	47.68
Monthly												
Min.	3.400	12.27	4.160	80.52	4.160	83.51	3.900	50.21	3.720	36.50	3.590	25.12
Max.	6.970	1297	6.110	661.1	5.470	407.1	4.985	252.9	5.590	428.0	5.590	431.1
Mean	4.509	245.3	4.957	251.2	4.643	176	4.163	89.33	4.404	136	4.242	111.5

Annual Runoff in MCM = 2848 Annual Runoff in mm = 495

Peak Observed Discharge = 1297 cumecs on 27/06/2015 Corres. Water Level :6.82 m

Lowest Observed Discharge = 0.000 cumecs on 12/02/2016 Corres. Water Level :3 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	3.600	32.89	3.440	23.37	3.210	12.00	2.850	0.000	2.830	0.000	2.760	0.000
2	3.610	33.06 *	3.400	20.10	3.210	12.12	2.850	0.000	2.840	0.000	2.760	0.000
3	3.890	51.73	3.390	19.64 *	3.190	10.52	2.800	0.000	2.920	2.789 *	2.750	0.000
4	3.760	43.12	3.385	15.26	3.190	10.65	2.800	0.000	2.940	3.897	2.750	0.000
5	3.610	34.43	3.250	13.20	3.200	11.87	2.790	0.000	2.940	3.568	2.740	0.000
6	3.600	32.37 *	3.230	12.18	3.200	11.69	2.780	0.000	2.930	3.159	2.740	0.000
7	3.720	40.67	3.190	10.65	3.190	10.54 *	2.780	0.000	2.920	2.971	2.730	0.000
8	3.740	41.55	3.265	15.31	3.200	11.52	2.760	0.000	2.890	2.202	2.730	0.000
9	4.280	92.93	3.280	16.28	3.110	6.624	2.750	0.000	2.890	2.071	2.770	0.000
10	4.000	70.42	3.250	12.97 *	3.110	7.184	2.770	0.000	2.880	2.074 *	2.780	0.000
11	4.150	82.63	3.190	11.67	3.100	6.122	2.790	0.000	2.880	2.074 #	2.850	0.000
12	3.805	46.49	3.120	5.814	3.000	0.000	2.790	0.000	2.840	0.000	3.120	7.907
13	3.760	44.27 *	3.120	7.846	3.000	0.000	2.800	0.000	2.840	0.000	3.100	6.420
14	3.860	51.95	3.120	8.255	2.960	0.000	2.820	0.000	2.830	0.000	3.100	7.052
15	4.060	81.45	3.110	6.764	2.940	0.000	2.830	0.000	2.830	0.000	3.110	7.705 *
16	4.360	109.9	3.110	6.335	2.940	0.000	2.920	2.789 #	2.820	0.000	3.120	8.034 *
17	4.285	91.40	3.190	10.54 *	2.940	0.000	2.890	2.504	2.820	0.000	3.100	7.023
18	3.855	47.83	3.190	11.12	2.920	0.000	2.890	2.156	2.810	0.000	3.090	6.432
19	3.750	43.00	3.170	10.12	2.880	0.000	2.880	2.074 #	2.810	0.000	3.090	6.704
20	3.760	44.27 *	3.170	10.25	2.860	0.000	2.880	0.000	2.800	0.000	3.120	8.119
21	3.600	32.37 *	3.280	15.92	2.860	0.000	2.830	0.000	2.800	0.000	3.150	9.064 *
22	3.610	33.06 *	3.280	15.44	2.850	0.000	2.820	0.000	2.790	0.000	3.130	8.370 *
23	3.610	33.06 *	3.270	14.72	2.850	0.000	2.810	0.000	2.790	0.000	3.120	8.232
24	3.650	35.88 *	3.280	14.28 *	2.860	0.000	2.800	0.000	2.780	0.000	3.090	6.244
25	3.610	33.06 *	3.270	14.62	2.870	0.000	2.790	0.000	2.780	0.000	2.940	3.188 #
26	3.590	31.58	3.270	13.83 *	2.870	0.000	2.790	0.000	2.780	0.000	2.850	0.000
27	3.600	32.37 *	3.260	13.78	2.870	0.000	2.780	0.000	2.770	0.000	2.840	0.000
28	3.590	30.66	3.260	13.68	2.860	0.000	2.780	0.000	2.770	0.000	2.840	0.000
29	3.390	18.25	3.190	11.06	2.860	0.000	2.800	0.000	2.770	0.000	3.110	7.705 *
30	3.450	24.06	3.230	12.95			2.810	0.000	2.760	0.000	3.130	8.987
31	3.450	24.71	3.230	12.13 *			2.820	0.000			3.160	9.820
Ten-Daily Mean												
I Ten-Daily	3.781	47.32	3.308	15.89	3.181	10.47	2.793	0.000	2.898	2.273	2.751	0.000
II Ten-Daily	3.964	64.32	3.149	8.871	2.954	0.612	2.849	0.952	2.828	0.207	3.080	6.540
III Ten-Daily	3.559	29.92	3.256	13.86	2.861	0.000	2.803	0.000	2.779	0.000	3.033	5.601
Monthly												
Min.	3.390	18.25	3.110	5.814	2.850	0.000	2.750	0.000	2.760	0.000	2.730	0.000
Max.	4.360	109.9	3.440	23.37	3.210	12.12	2.920	2.789	2.940	3.897	3.160	9.820
Mean	3.761	46.63	3.238	12.91	3.003	3.822	2.815	0.307	2.835	0.827	2.957	4.097

Peak Computed Discharge = 1131 cumecs on 28/06/2015 **Corres. Water Level :6.97 m**

Lowest Computed Discharge = 2.074 cumecs on 10/04/2016 **Corres. Water Level :2.88 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

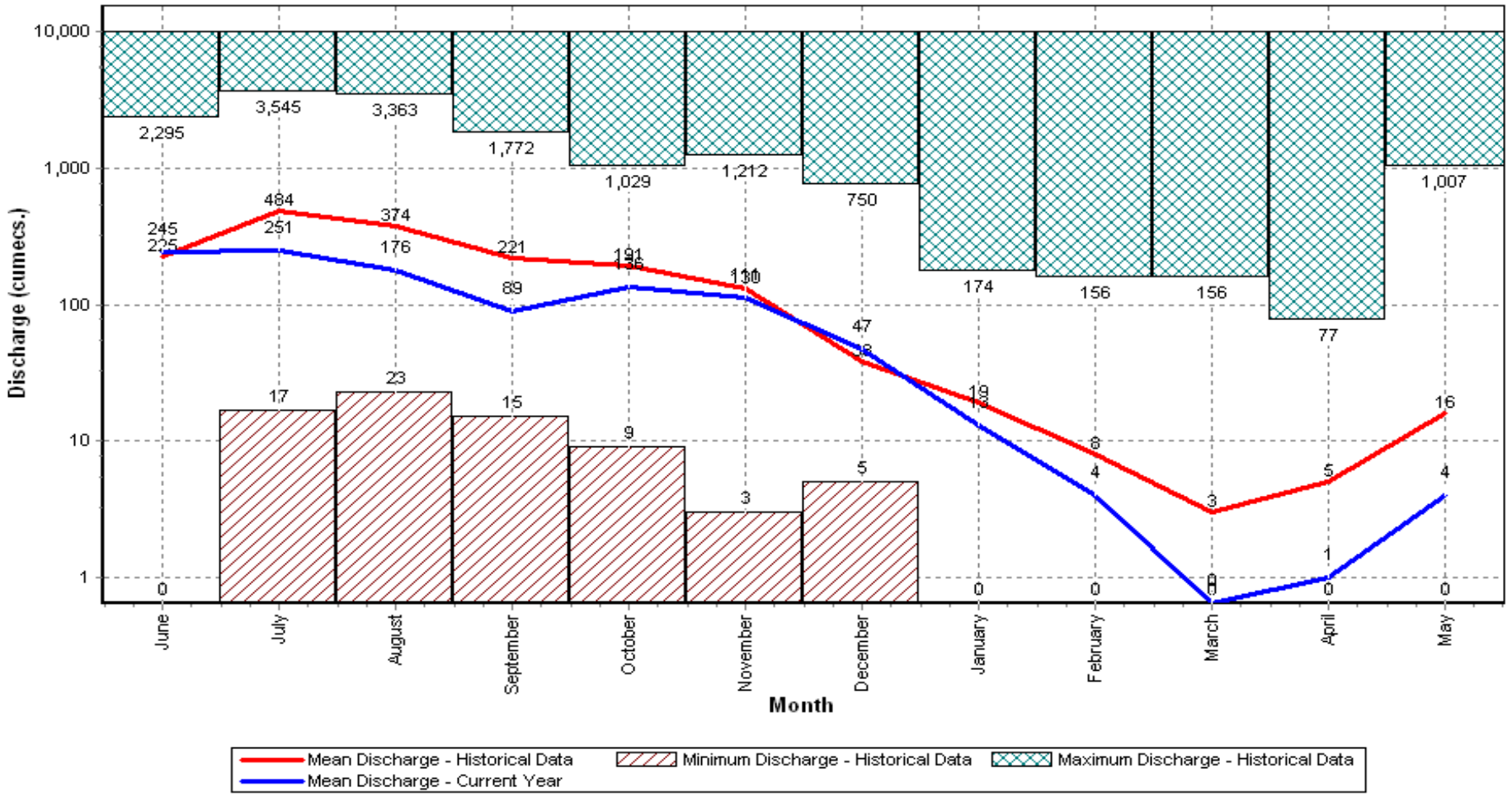
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KUMBIDI (KR000C9) | **Data considered : 1980-2016** | **Division : SWR Division, Kochi**

Local River : Bharathapuzha | **Sub-Division : Chaliyar SD, Calicut**



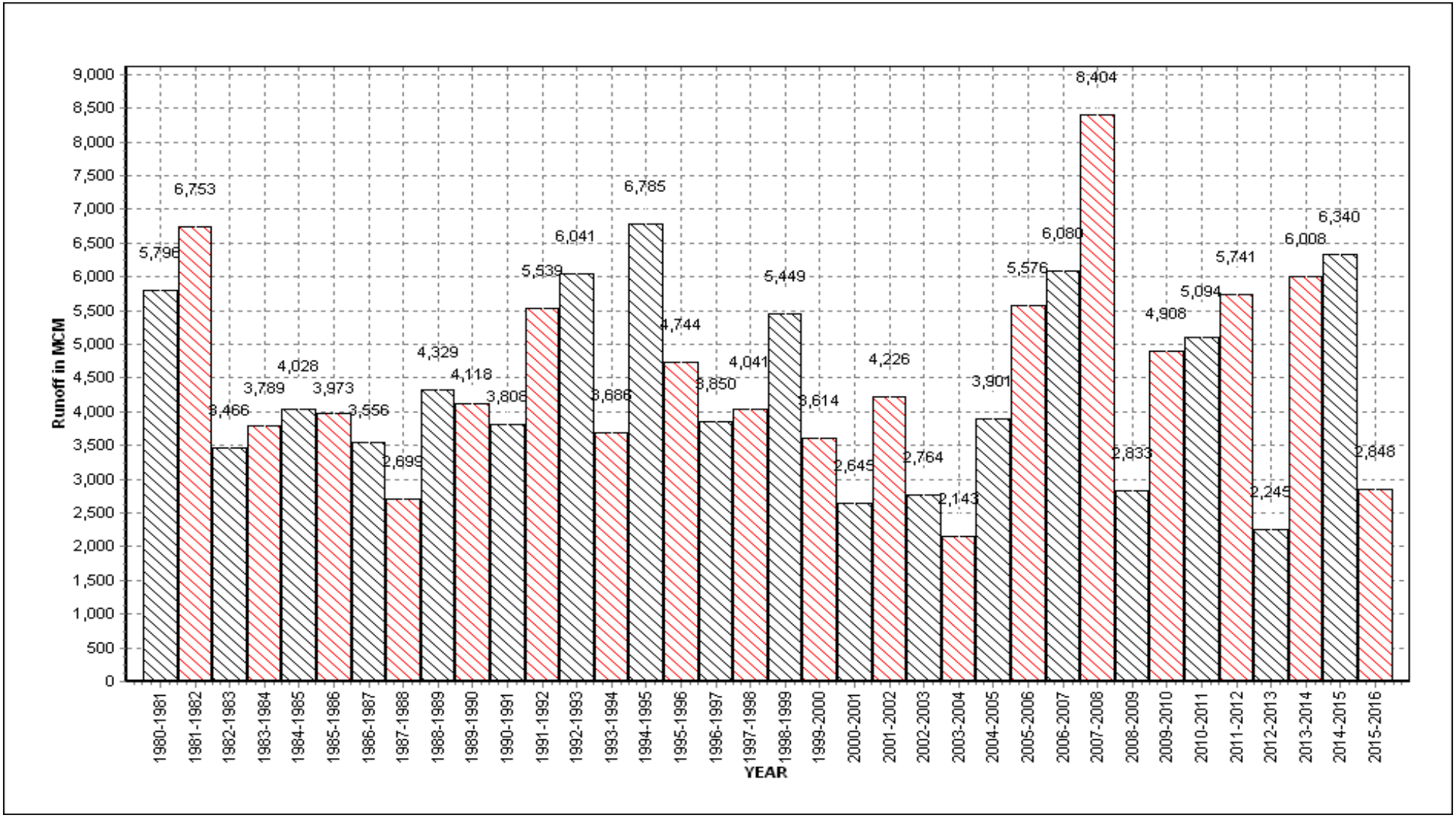
Annual Runoff Values for the period: 1980 - 2016

Station Name : KUMBIDI (KR000C9)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut

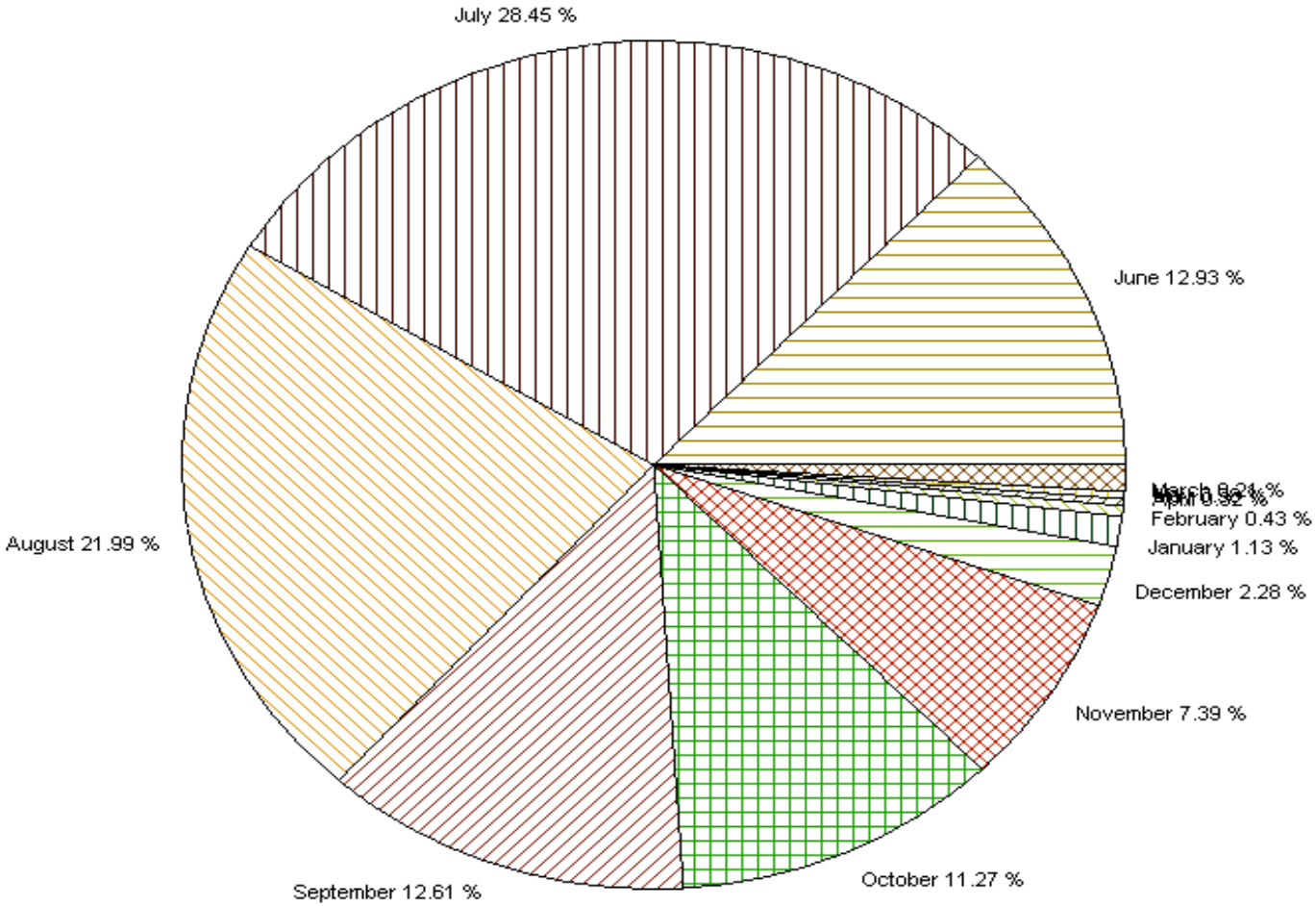


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1980-2015

Station Name : KUMBIDI (KR000C9)
Local River : Bharathapuzha

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



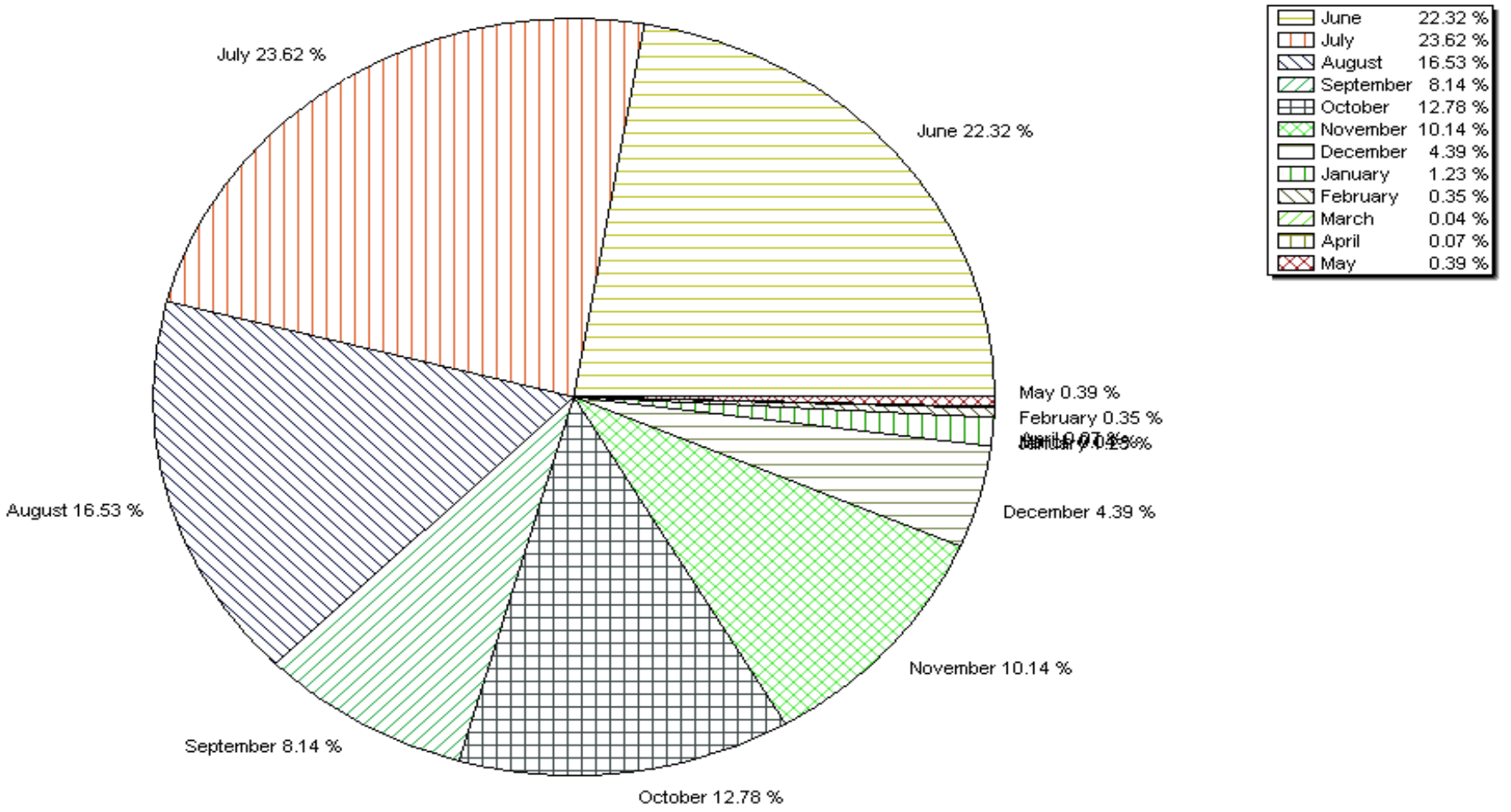
Monthly Runoff for the Year : 2015-2016

Station Name : KUMBIDI (KR000C9)

Local River : Bharathapuzha

Division : SWR Division, Kochi

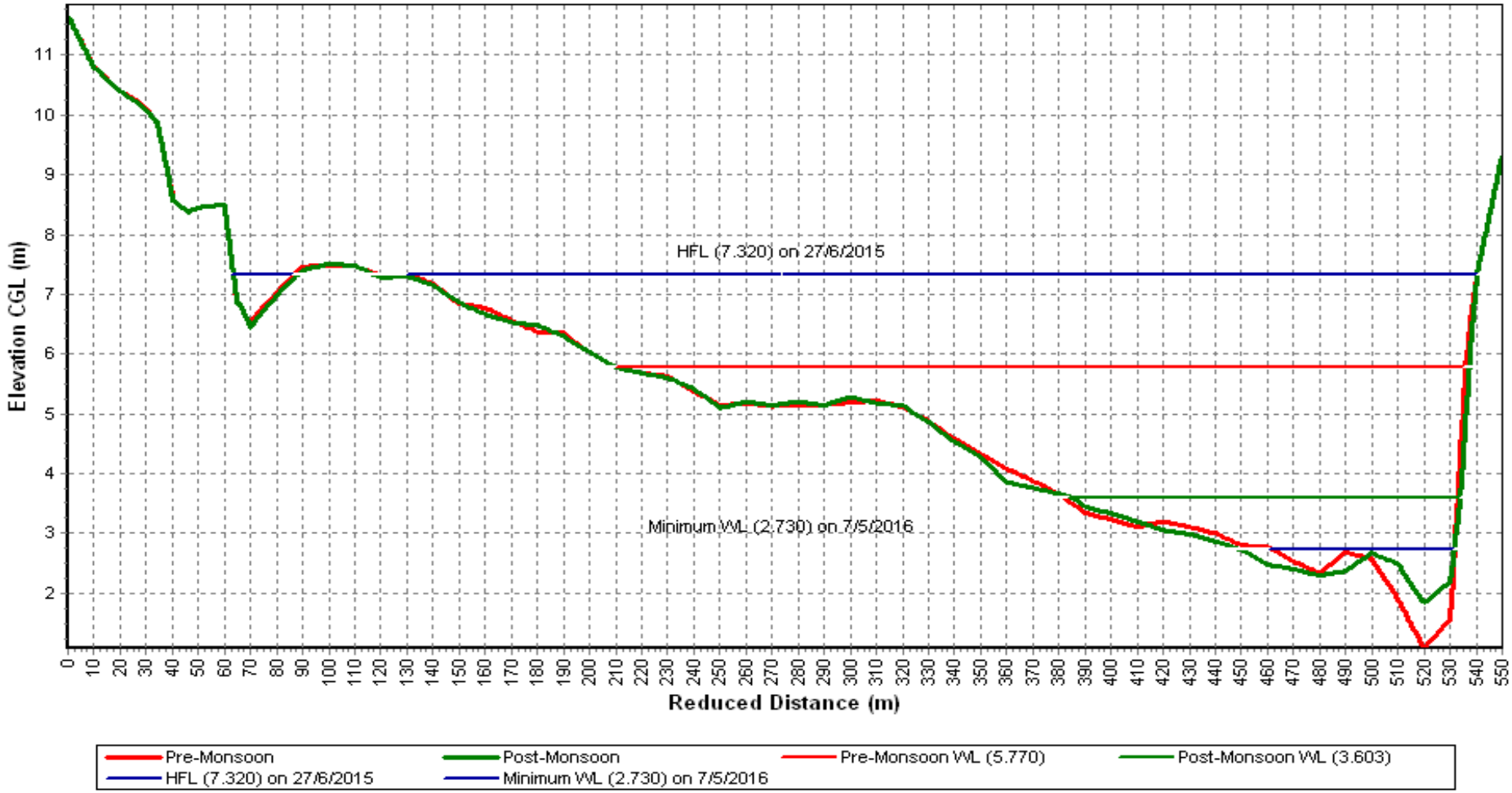
Sub-Division : Chaliyar SD, Calicut



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KUMBIDI (KR000C9)
Local River : Bharathapuzha

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



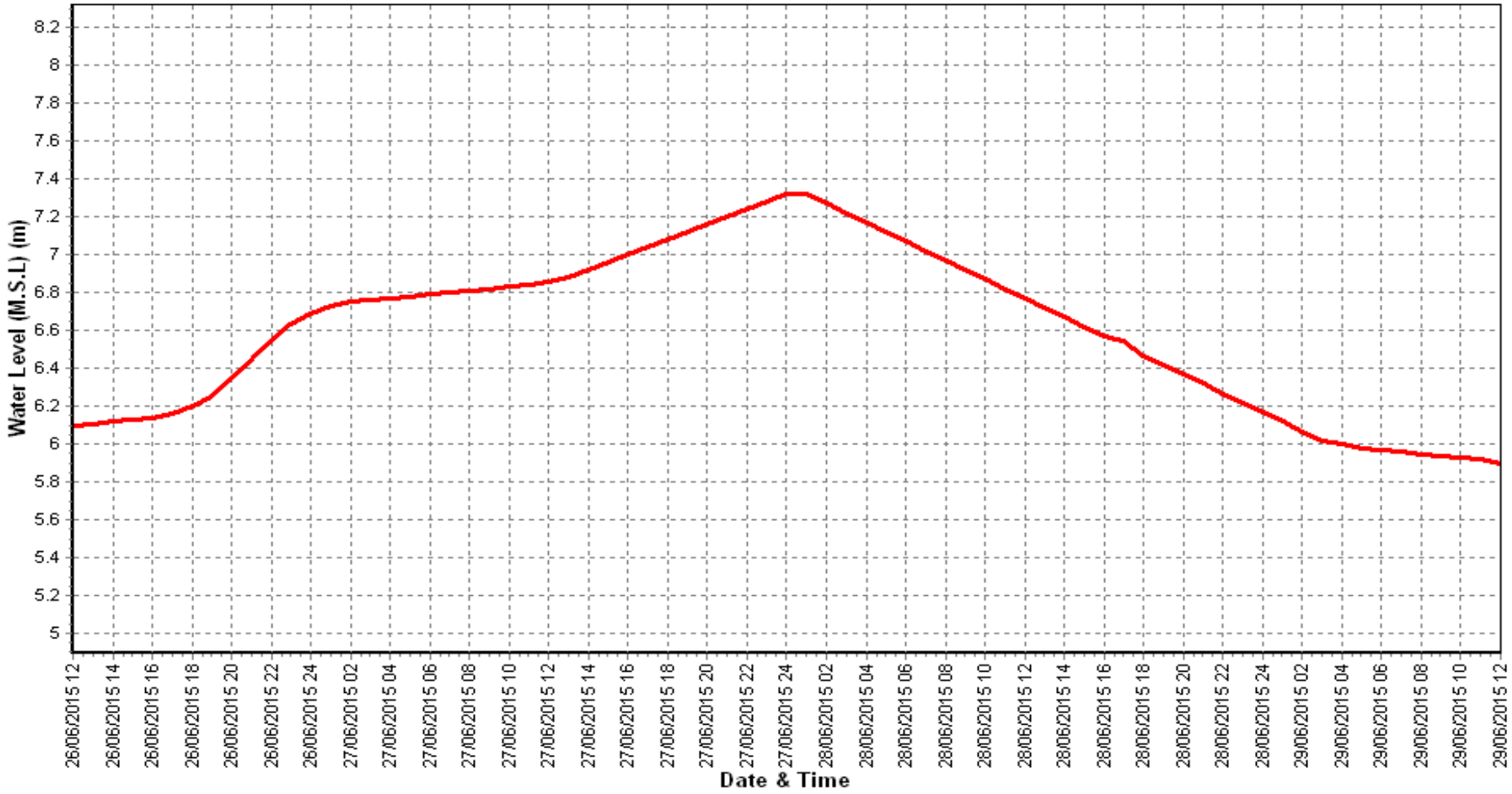
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KUMBIDI (KR000C9)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

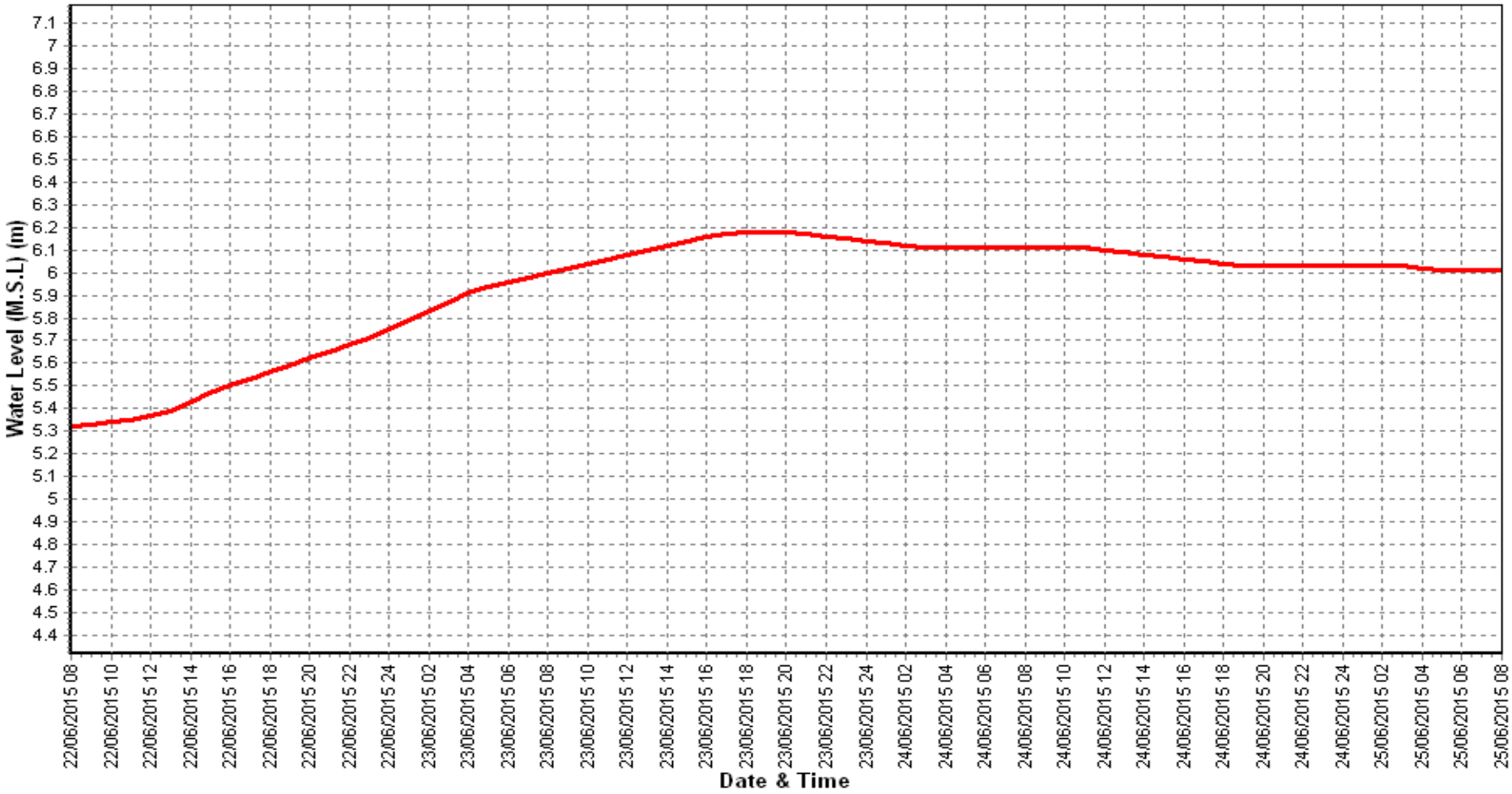
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KUMBIDI (KR000C9)

Division : SWR Division, Kochi

Local River : Bharathapuzha

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

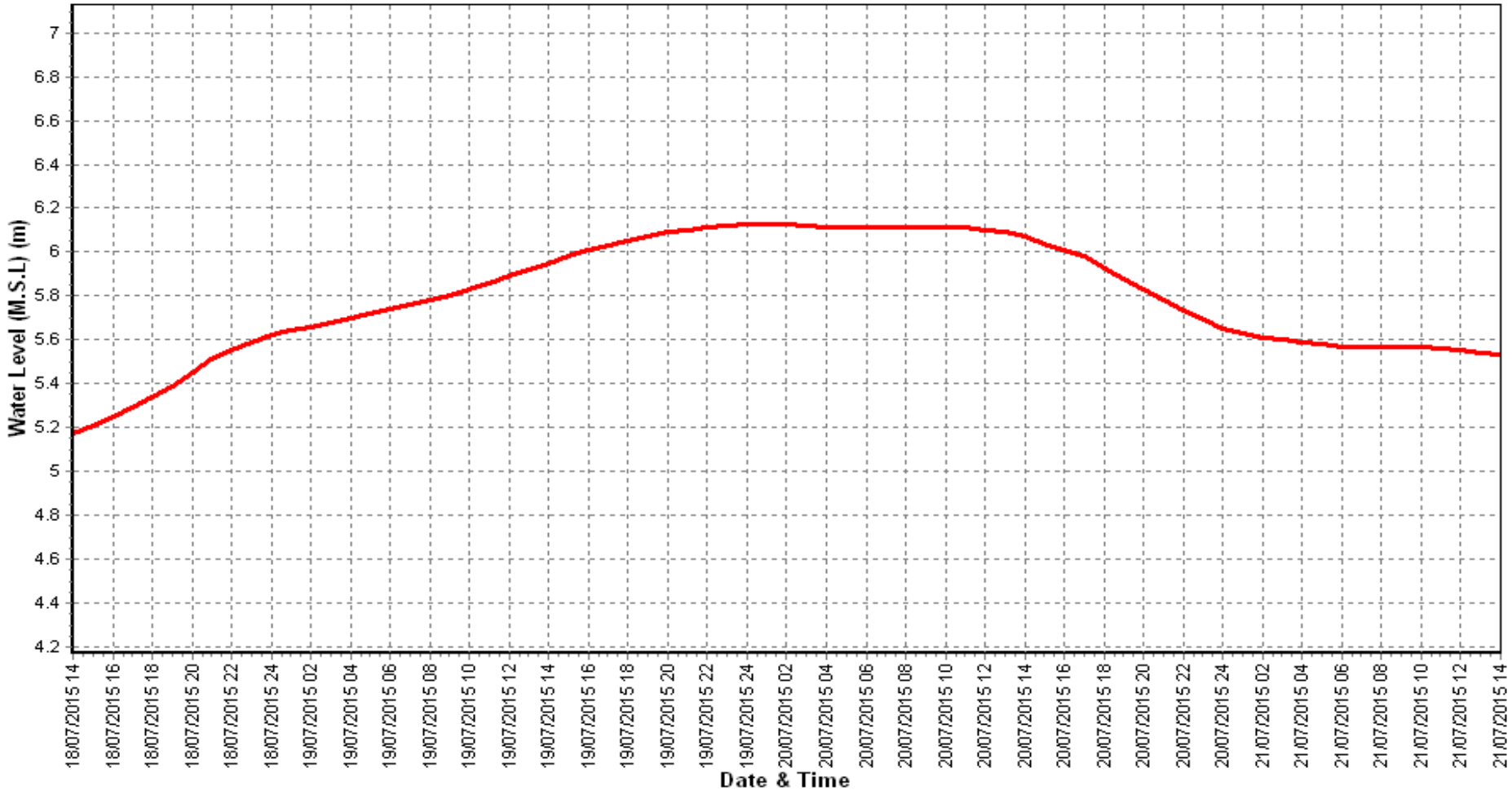
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KUMBIDI (KR000C9)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: PULAMANTHOLE**		**Code**	**: KRA00G4**	
State	: Kerala		District	Palakkad	
Basin	: WFR South of Tapi		Independent River	: Bharathapuzha	
Tributary	: Pulanthodu		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Pulanthodu	
Division	: SWR Division, Kochi		Sub-Division	: Chaliyar SD, Calicut	
Drainage Area	: 940 Sq. Km.		Bank	: Left	
Latitude	: 10°53'53"		Longitude	: 76°11'31"	
Zero of Gauge (m)	: 84.500 (m.s.l) 10.400 (m.s.l)		24/05/1985 01/06/1987	- 31/05/1987	
	Opening Date		Closing Date		
Gauge	: 24/05/1985				
Discharge	: 17/02/1986				
Sediment	: 28/08/1986				
Water Quality	: 02/06/1986				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	782.7	90.145	09/08/1986	0.000	85.545	06/04/1987
1987-1988	273.7	14.175	20/11/1987	0.000	11.420	02/04/1988
1988-1989	436.9	15.265	19/07/1988	0.000	11.265	05/03/1989
1989-1990	677.9	16.175	23/07/1989	0.000	11.340	22/03/1990
1990-1991	465.0	15.180	02/07/1990	0.000	11.450	17/03/1991
1991-1992	580.3	15.728	28/07/1991	0.059	11.315	24/03/1992
1992-1993	1410	18.489	28/07/1992	0.568	11.355	27/04/1993
1993-1994	325.0	14.398	03/07/1993	0.724	11.302	12/03/1994
1994-1995	1344	18.800	14/07/1994	0.091	11.340	25/03/1995
1995-1996	483.4	15.340	31/08/1995	0.600	11.250	09/03/1996
1996-1997	500.0	15.395	29/09/1996	0.449	11.310	12/03/1997
1997-1998	1020	17.680	11/07/1997	0.956	11.380	24/04/1998
1998-1999	560.0	15.500	24/08/1998	1.000	11.320	02/05/1999
1999-2000	605.0	16.000	18/07/1999	0.000	11.295	12/03/2000
2000-2001	479.1	15.090	12/07/2000	0.360	11.130	25/03/2001
2001-2002	538.0	15.230	08/07/2001	0.555	11.110	03/05/2002
2002-2003	408.7	14.410	18/08/2002	0.990	11.030	13/02/2003
2003-2004	175.1	13.100	20/06/2003	0.000	10.810	28/02/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	630.2	15.620	05/08/2004	0.000	10.960	05/03/2005
2005-2006	535.0	15.240	31/07/2005	1.038	10.920	16/05/2006
2006-2007	672.0	15.800	17/09/2006	0.123	10.930	08/04/2007
2007-2008	1166	16.995	03/07/2007	1.189	11.030	12/03/2008
2008-2009	632.8	15.400	26/10/2008	0.000	11.070	26/01/2009
2009-2010	1125	16.780	17/07/2009	0.000	11.170	01/06/2009
2010-2011	603.6	14.470	10/11/2010	0.086	10.770	19/03/2011
2011-2012	673.6	14.920	18/06/2011	0.165	10.675	20/04/2012
2012-2013	305.6	13.650	07/08/2012	0.000	10.625	09/02/2013
2013-2014	619.5	15.190	26/06/2013	0.000	11.465	12/04/2014
2014-2015	690.8	15.705	02/08/2014	0.000	12.930	01/06/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	13.000	6.724	13.460	104.7	13.220	23.39	13.220	20.51	13.310	44.05	13.420	63.88 *
2	13.005	7.496 *	13.375	81.32	13.220	29.13 *	13.200	26.20 #	13.220	29.13 *	13.315	42.56
3	13.015	8.159 *	13.320	64.81	13.200	22.93	13.135	21.59	13.180	20.45	13.175	16.39
4	13.275	34.90 *	13.300	40.90	13.305	46.09	13.135	20.37	13.330	47.57 *	13.200	26.69 #
5	13.070	12.30 *	13.280	36.80 *	13.255	25.89	13.150	22.28	13.250	33.77 #	13.330	48.24
6	13.065	11.89 *	13.260	33.13	13.290	38.56	13.320	45.73 *	13.895	213.1	13.350	59.05
7	13.015	8.159 *	13.230	19.24	13.270	30.16	13.815	151.6	13.490	80.32	14.040	236.4
8	13.000	7.174 *	13.250	34.39	13.470	76.40 *	13.825	167.2	13.350	62.23	13.720	136.1 *
9	13.070	12.30 *	13.445	94.29	13.315	44.83 *	13.480	79.92	13.450	78.05	13.410	61.78
10	13.045	10.31 *	13.310	53.59	13.280	29.30	13.395	62.26	13.590	105.6 #	13.360	52.35 *
11	13.015	7.978	13.340	57.21	13.335	47.13	13.290	40.42 *	13.500	83.33 *	13.340	48.22
12	13.020	9.880	13.330	53.51 *	13.540	91.30	13.235	23.24	13.360	62.85	13.310	42.67
13	13.055	12.59	13.290	32.33	13.530	92.96	13.220	29.13 *	13.310	43.98	13.345	54.32
14	13.105	15.36 *	13.325	42.59	13.410	65.24	13.200	22.43	13.405	71.78	13.295	41.12
15	13.105	17.77	13.335	49.20	13.310	43.93 *	13.180	23.40 #	13.275	28.04	13.240	32.39 *
16	13.110	17.95	13.395	87.80	13.495	82.16 *	13.160	22.09	13.240	18.75	13.230	32.41
17	13.185	19.06	13.310	51.57	13.290	47.05	13.165	22.82	13.210	14.84	13.200	24.98
18	13.150	15.11	13.590	170.0 *	13.405	61.47	13.170	23.27	13.200	14.24 *	13.290	43.50
19	13.175	19.01	13.660	208.4 *	13.690	135.4	13.150	22.16	13.180	13.04	13.260	36.41
20	13.610	103.7	13.640	197.2 #	13.435	67.64	13.160	20.74 *	13.210	15.05	13.210	27.29
21	13.480	68.61 *	13.490	111.0	13.335	48.24	13.200	21.30	13.215	15.28	13.210	27.06
22	14.065	209.8	13.575	113.8	13.505	78.75	13.140	21.32	13.205	15.05	13.180	24.02 *
23	14.405	345.4	13.525	101.6	13.370	55.21 *	13.120	20.03	13.180	11.81 *	13.160	17.53
24	14.045	206.6	13.550	111.2	13.330	47.49	13.110	14.70 *	13.155	9.126 *	13.150	20.25 #
25	14.230	283.1	13.660	134.0	13.260	28.50	13.100	17.38	13.140	7.696 *	13.130	17.90 *
26	14.070	232.4	13.465	75.28 *	13.230	23.59	13.110	18.04	13.120	16.37	13.110	17.42
27	14.500	401.2	13.500	79.53	13.225	22.60	13.120	15.84 *	13.100	14.41	13.100	16.51
28	13.935	182.3 *	13.390	64.40	13.195	25.49 *	13.220	27.63	13.100	13.56	13.090	15.56
29	13.690	142.4	13.320	53.75	13.210	27.65 *	13.200	25.38	13.170	22.73 #	13.090	13.59 *
30	13.605	94.54 #	13.280	48.55	13.240	32.19 *	13.195	22.91	13.125	16.13	13.080	14.85
31			13.250	38.11	13.160	19.47			13.110	15.68 *		
Ten-Daily Mean												
I Ten-Daily	13.056	11.94	13.323	56.32	13.282	36.67	13.368	61.77	13.406	71.43	13.432	74.34
II Ten-Daily	13.153	23.84	13.421	94.98	13.444	73.43	13.193	24.97	13.289	36.59	13.272	38.33
III Ten-Daily	14.002	216.6	13.455	84.64	13.278	37.20	13.151	20.45	13.147	14.35	13.130	18.47
Monthly												
Min.	13.000	6.724	13.230	19.24	13.160	19.47	13.100	14.70	13.100	7.696	13.080	13.59
Max.	14.500	401.2	13.660	208.4	13.690	135.4	13.825	167.2	13.895	213.1	14.040	236.4
Mean	13.404	84.14	13.402	78.84	13.333	48.72	13.237	35.73	13.277	39.94	13.278	43.71

Annual Runoff in MCM = 938 Annual Runoff in mm = 998

Peak Observed Discharge = 401.2 cumecs on 27/06/2015 Corres. Water Level :14.5 m

Lowest Observed Discharge = 0.000 cumecs on 01/03/2016 Corres. Water Level :12.91 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	13.090	15.82	13.005	5.621	12.980	2.466	12.910	0.000	12.920	0.000	12.460	0.000
2	13.080	14.05 *	13.000	5.017	12.980	2.649 *	12.905	0.000	12.925	0.000	12.420	0.000
3	13.075	13.83	13.000	4.936 *	12.975	2.429	12.905	0.000	12.940	0.000	12.420	0.000
4	13.080	14.22	13.000	4.462	12.975	2.404	12.900	0.000	12.950	2.593	12.500	0.000
5	13.070	13.98	13.000	4.196	12.970	2.336	12.900	0.000	12.960	3.260	12.780	0.000
6	13.060	11.49 *	13.000	4.016	12.960	2.251	12.905	0.000	12.960	3.006	12.860	0.000
7	13.055	12.24	13.000	4.188	12.950	2.431 *	12.910	0.000	12.960	2.943	12.880	0.000
8	13.050	12.14	13.000	4.083	12.945	2.096	12.910	0.000	12.960	3.259	12.900	0.000
9	13.050	11.25	13.000	4.049	12.940	1.978	12.915	0.000	12.960	3.157	12.900	0.000
10	13.050	11.08	13.000	4.936 *	12.940	2.032	12.950	2.341	12.950	2.431 *	12.910	0.000
11	13.040	10.34	12.990	3.328	12.935	1.375	12.960	2.585	12.940	2.014	13.000	6.388
12	13.040	10.25	12.990	3.352	12.930	1.078	12.960	2.564	12.920	0.000	13.000	6.793
13	13.090	15.40 *	12.990	3.318	12.930	1.017	12.970	3.914 *	12.910	0.000	13.010	7.643
14	13.210	27.78	12.990	3.234	12.930	1.242 *	12.980	4.706	12.910	0.000	12.980	4.943
15	13.350	54.76	12.990	3.142	12.940	2.032	12.970	4.207	12.910	0.000	12.950	2.431 *
16	13.250	38.36	12.990	3.152	12.940	1.941	12.965	3.635	12.900	0.000	12.960	3.138 *
17	13.150	17.92	12.990	3.064 *	12.925	0.996 #	12.950	2.480	12.900	0.000	12.980	4.868
18	13.090	16.92	12.990	3.117	12.945	2.318	12.930	1.275	12.900	0.000	12.960	3.151
19	13.070	14.36	12.990	3.057	12.950	2.569	12.920	0.848	12.900	0.000	12.960	3.103
20	13.060	11.49 *	12.990	3.197	12.950	2.515	12.910	0.000	12.880	0.000	13.040	11.63
21	13.050	12.74	12.995	3.331	12.950	2.431 *	12.910	0.000	12.860	0.000	13.060	13.64 *
22	13.040	10.42	13.000	3.407	12.955	2.865	12.900	0.000	12.850	0.000	12.990	5.664 *
23	13.035	9.653	13.000	3.495	12.970	3.146	12.900	0.000	12.840	0.000	12.955	3.277
24	13.025	7.441 *	13.000	3.509 *	12.970	3.224	12.900	0.000	12.810	0.000	12.940	1.797 #
25	13.020	6.913 *	13.000	3.326	12.950	2.274	12.895	0.000	12.780	0.000	12.930	1.489
26	13.020	8.158	12.990	3.064 *	12.930	1.174	12.890	0.000	12.740	0.000	12.920	0.000
27	13.010	5.897 *	12.980	2.669	12.930	1.149	12.910	0.000	12.680	0.000	12.910	0.000
28	13.010	6.964	12.980	2.725	12.925	0.996 *	12.920	0.000	12.620	0.000	12.910	0.000
29	13.005	6.440	12.980	2.611	12.925	1.015	12.920	0.000	12.560	0.000	12.920	0.000
30	13.005	5.993	12.980	2.537			12.920	0.000	12.500	0.000	13.000	7.822
31	13.010	6.687	12.980	2.649 *			12.920	0.000			13.040	11.77
Ten-Daily Mean												
I Ten-Daily	13.066	13.01	13.001	4.550	12.961	2.307	12.911	0.234	12.948	2.065	12.703	0.000
II Ten-Daily	13.135	21.76	12.990	3.196	12.938	1.708	12.951	2.621	12.907	0.201	12.984	5.408
III Ten-Daily	13.021	7.937	12.990	3.029	12.945	2.031	12.908	0.000	12.724	0.000	12.961	4.132
Monthly												
Min.	13.005	5.897	12.980	2.537	12.925	0.996	12.890	0.000	12.500	0.000	12.420	0.000
Max.	13.350	54.76	13.005	5.621	12.980	3.224	12.980	4.706	12.960	3.260	13.060	13.64
Mean	13.072	14.03	12.993	3.574	12.948	2.015	12.923	0.921	12.860	0.755	12.885	3.211

Peak Computed Discharge = 208.4 cumecs on 19/07/2015 Corres. Water Level :13.66 m

Lowest Computed Discharge = 0.996 cumecs on 28/02/2016 Corres. Water Level :12.925 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

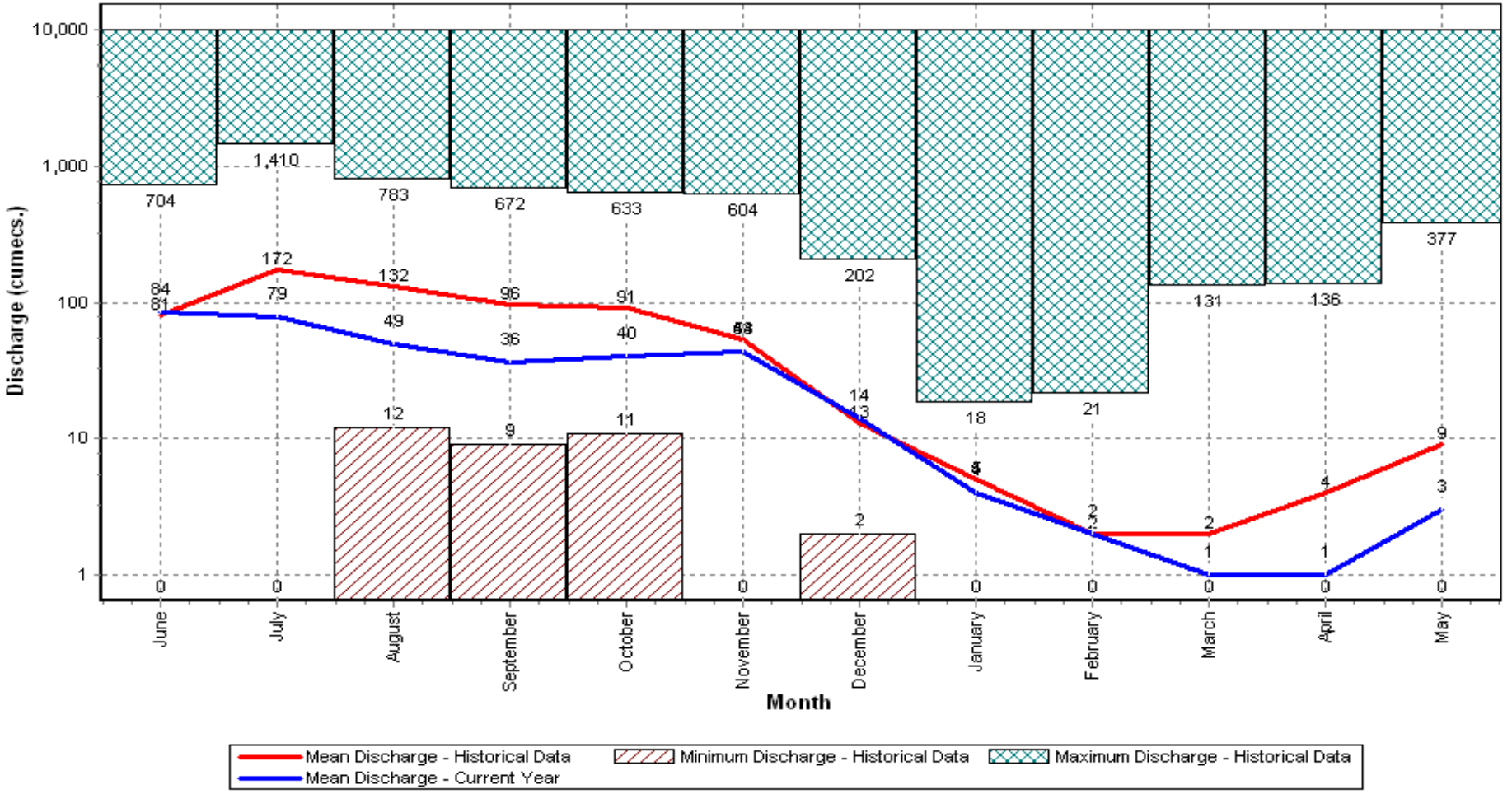
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Pulanthodu | **Sub-Division : Chaliyar SD, Calicut**



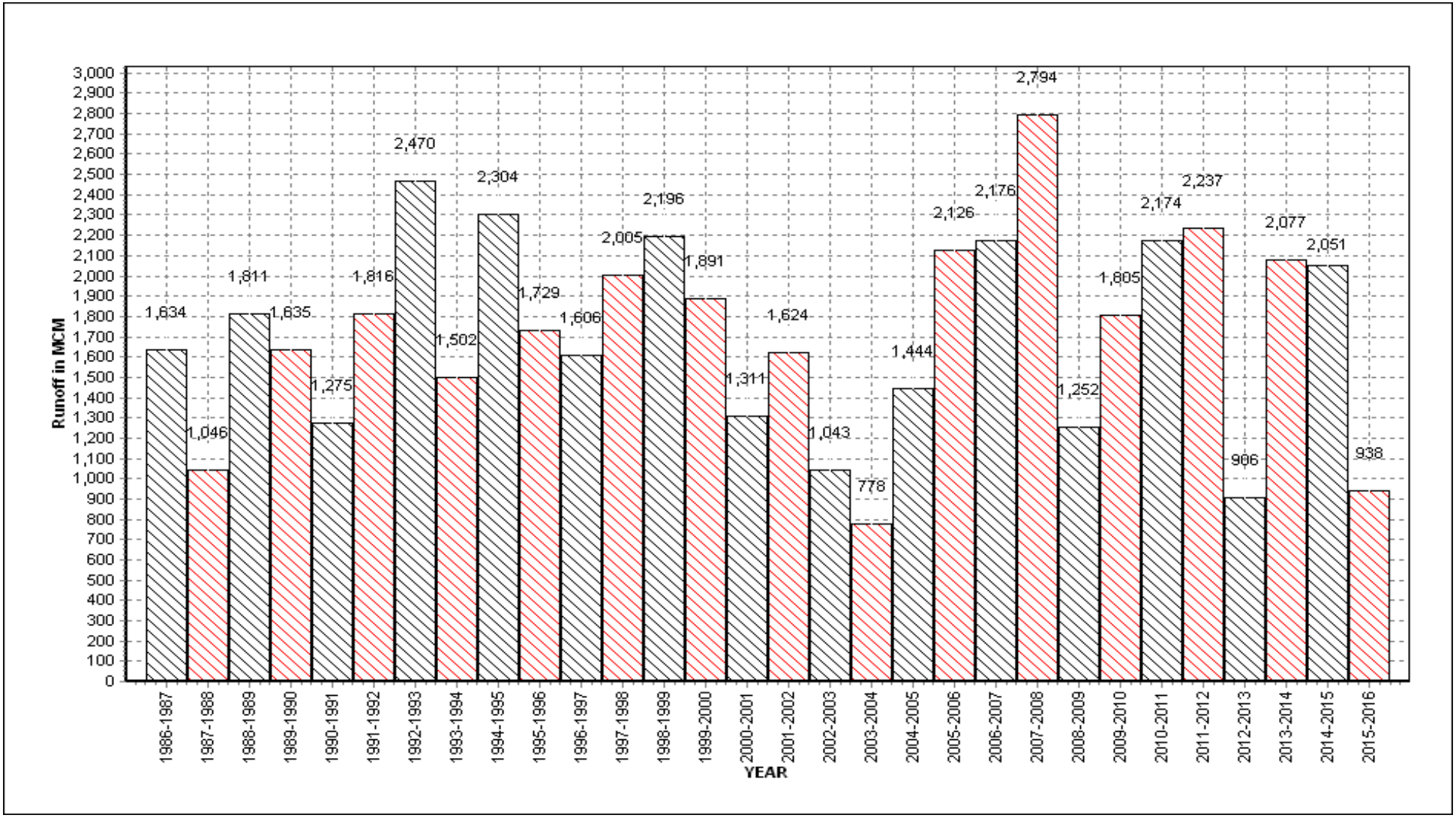
Annual Runoff Values for the period: 1986 - 2016

Station Name : PULAMANTHOLE (KRA00G4)

Division : SWR Division, Kochi

Local River : Pulanthodu

Sub-Division : Chaliyar SD, Calicut

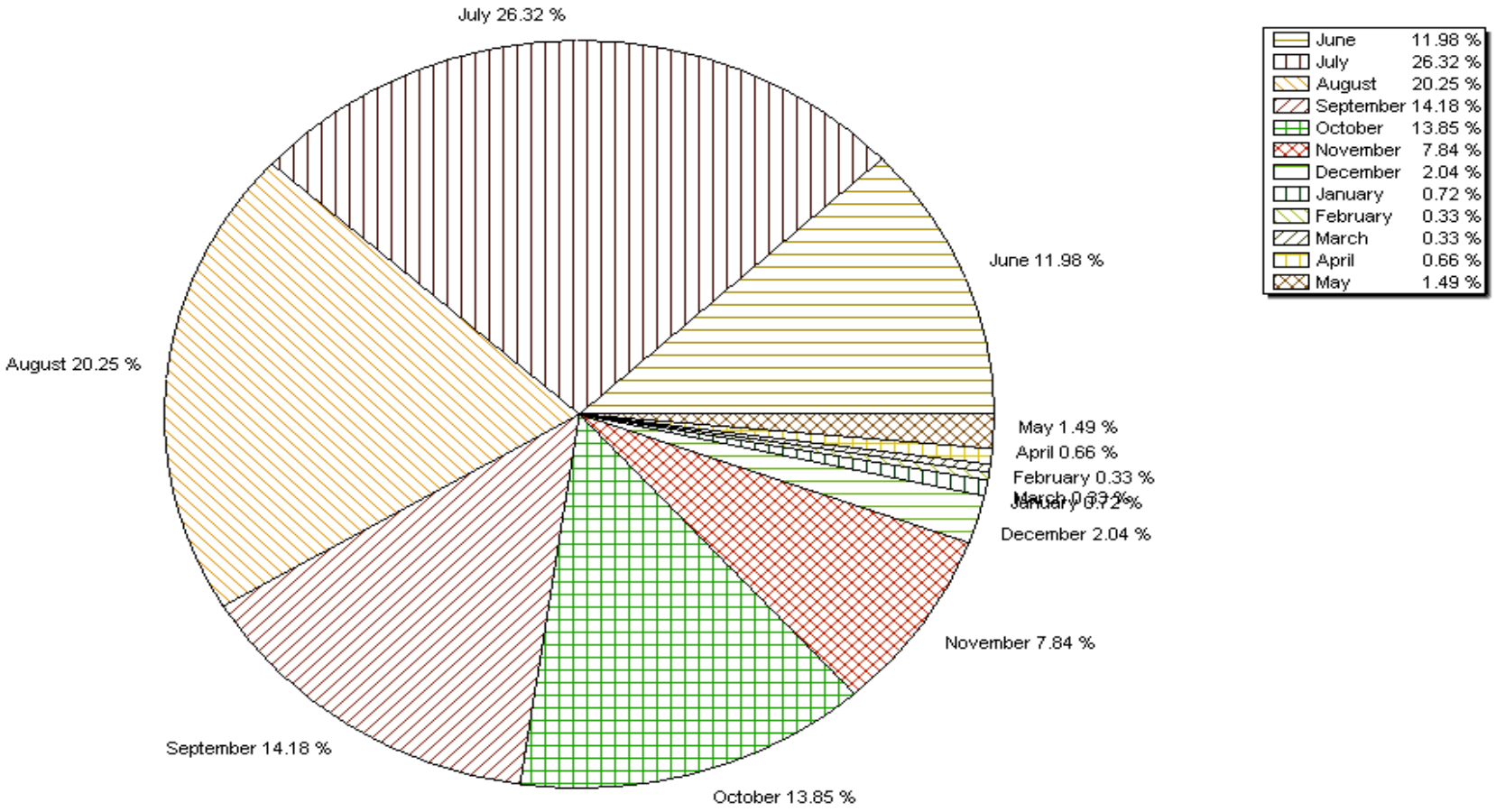


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : PULAMANTHOLE (KRA00G4)
Local River : Pulanthodu

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



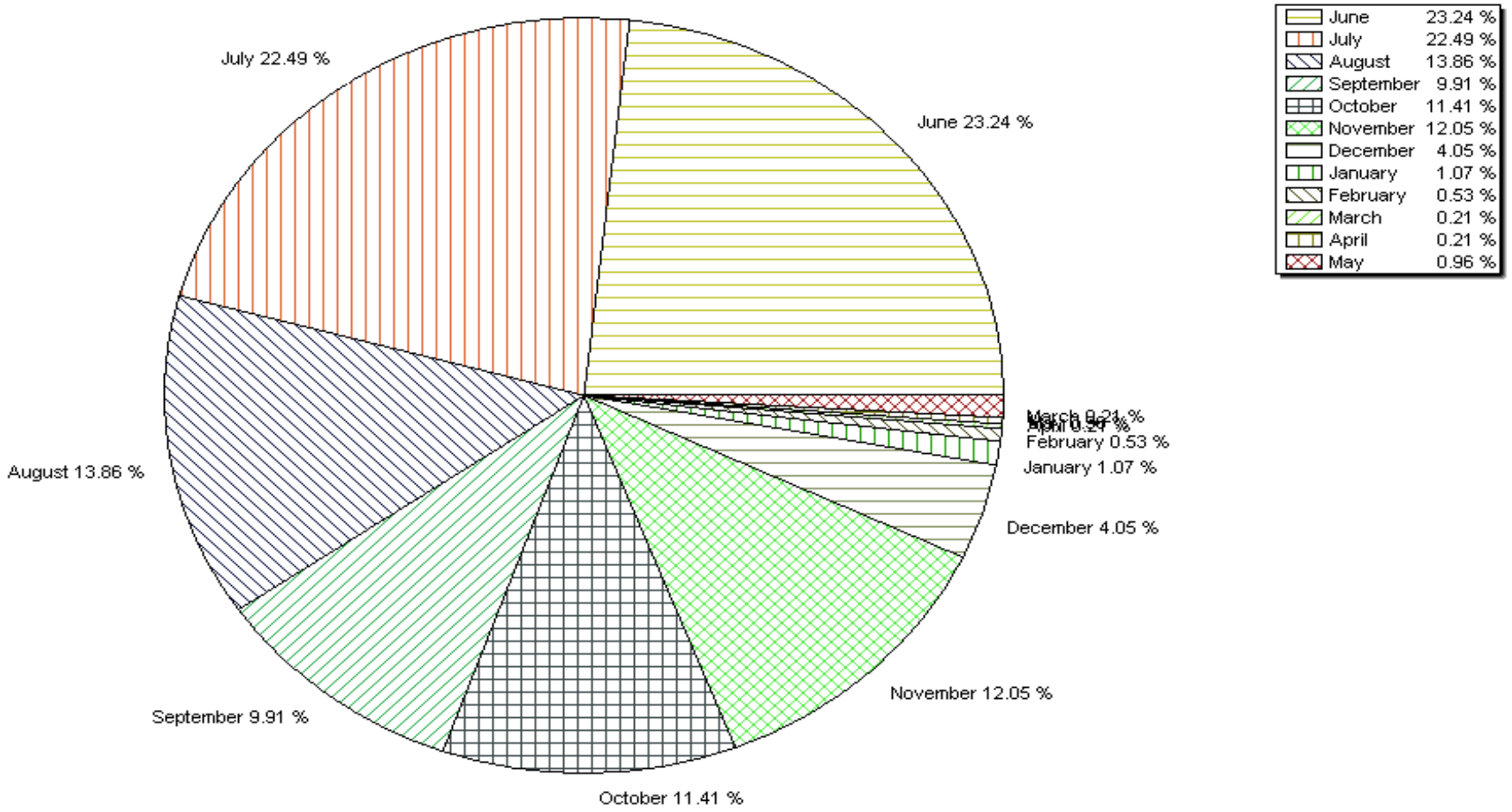
Monthly Runoff for the Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4)

Local River : Pulanthodu

Division : SWR Division, Kochi

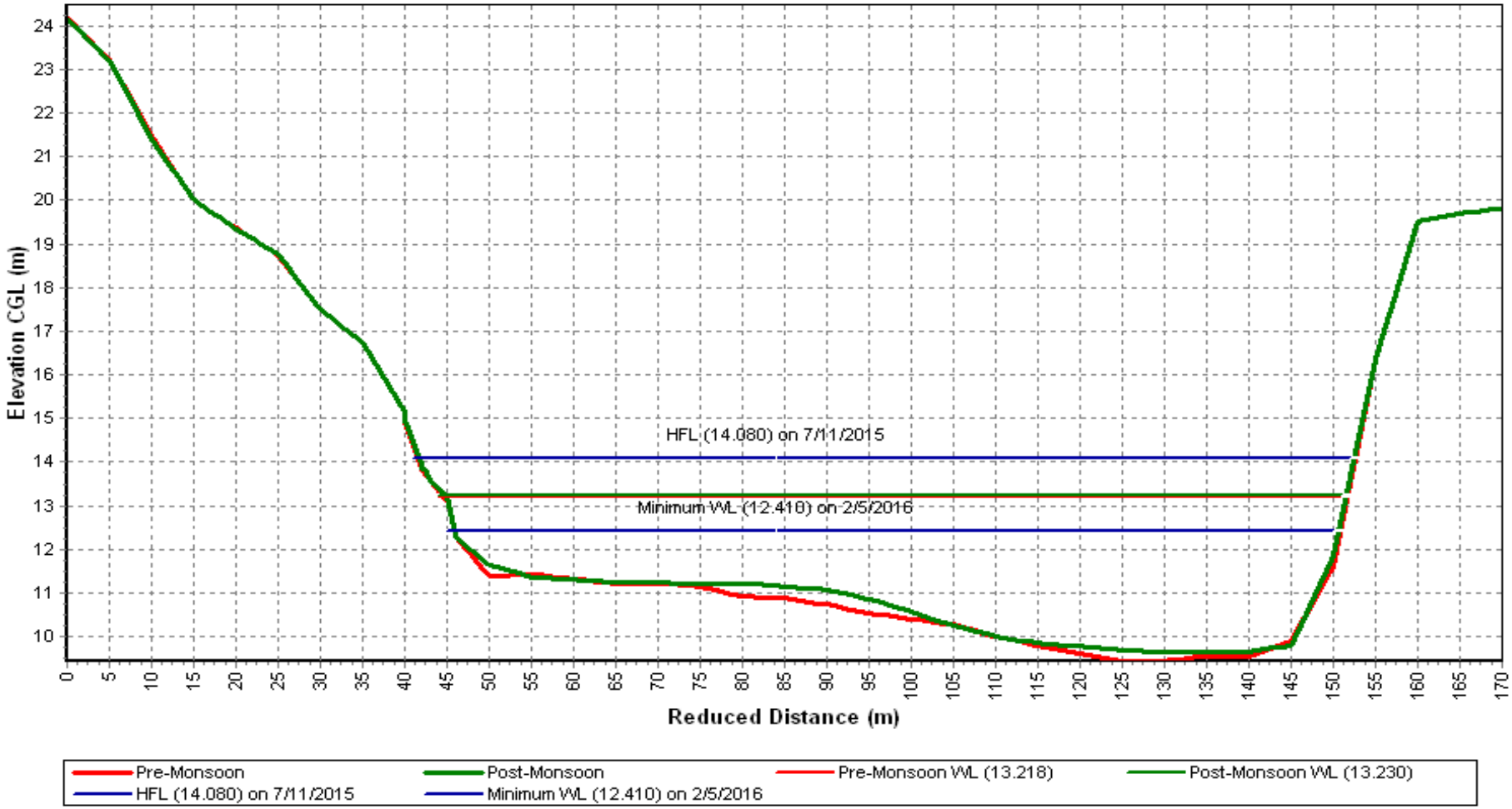
Sub-Division : Chaliyar SD, Calicut



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

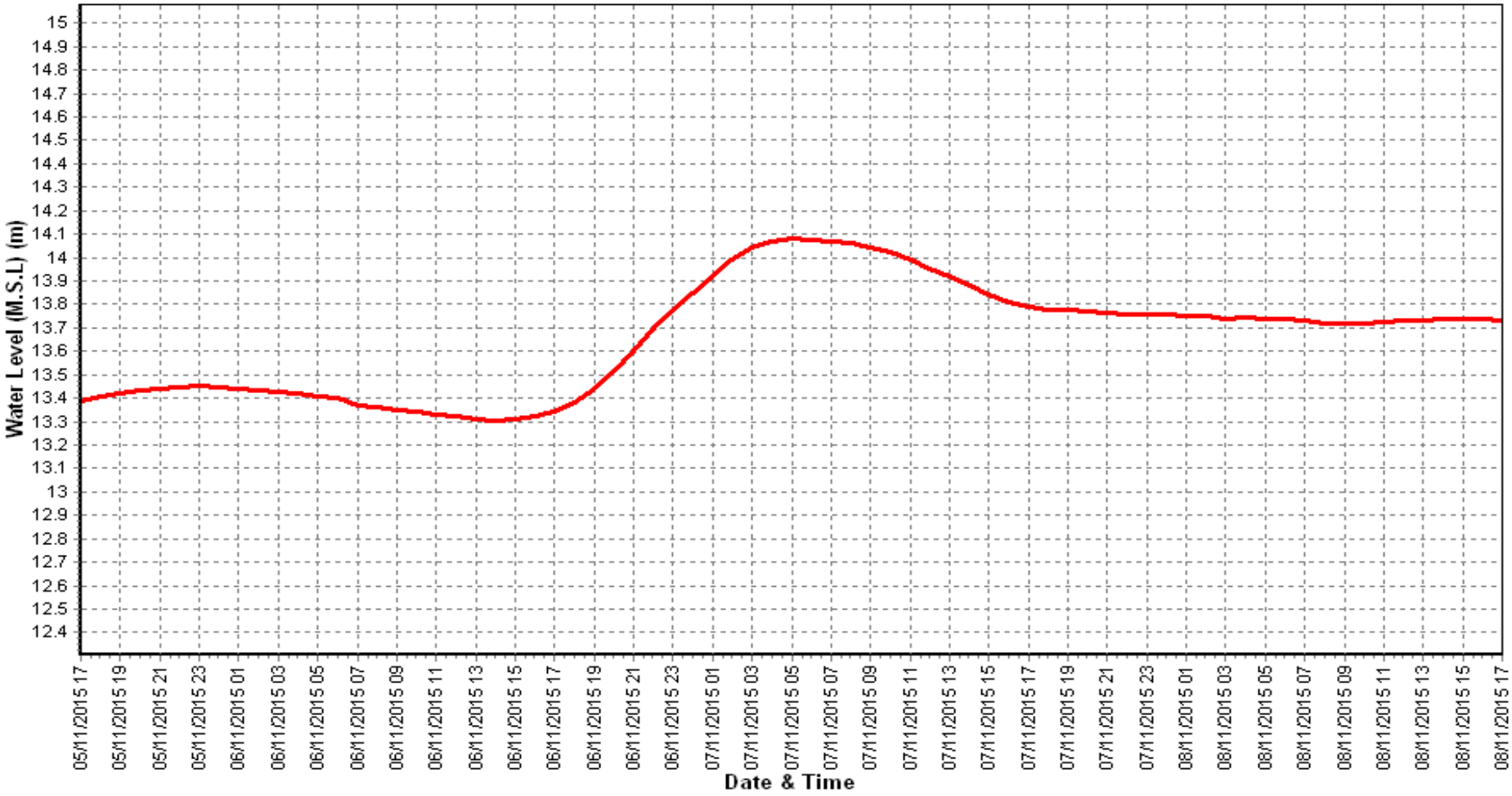
Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

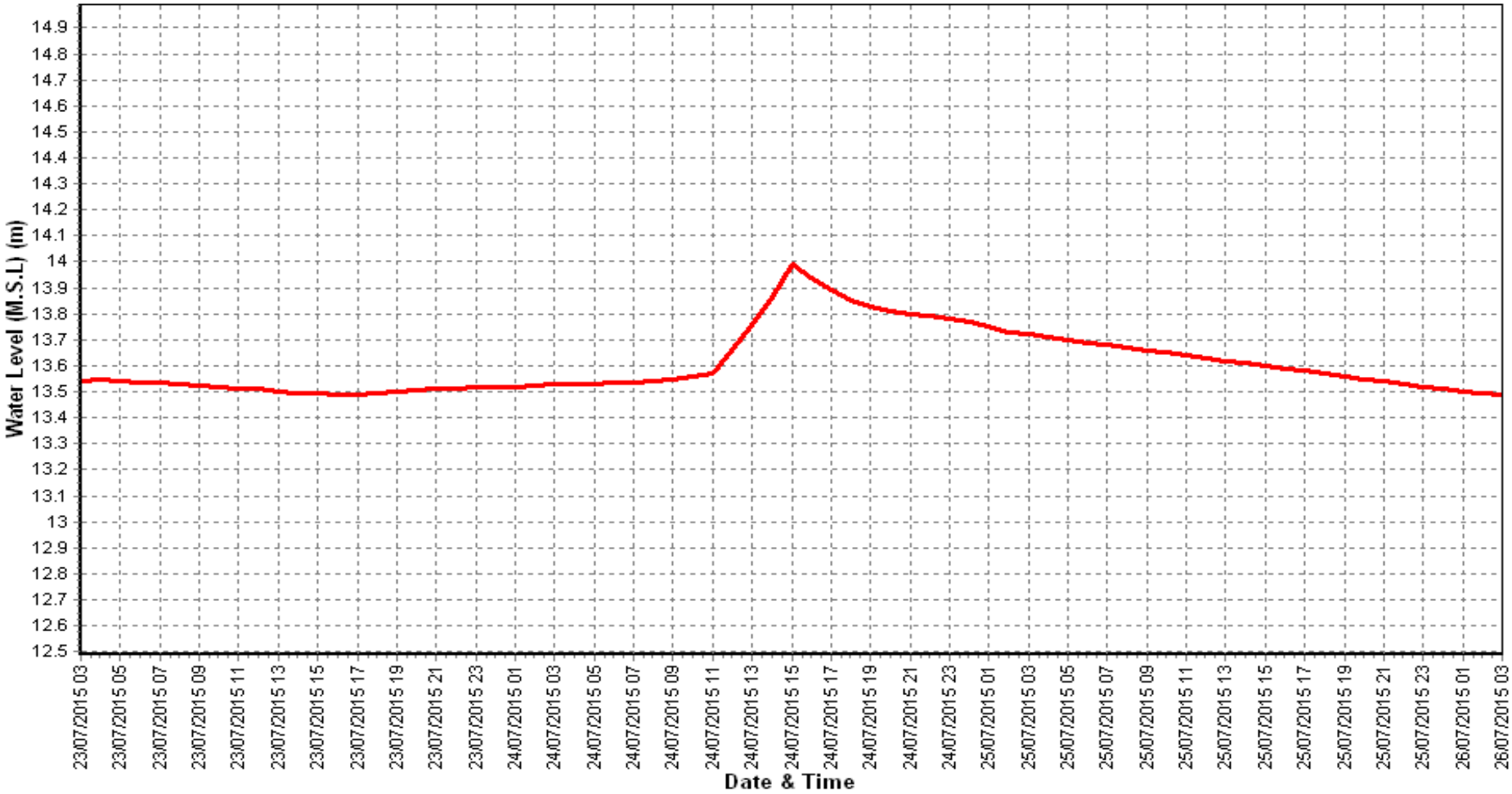
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4)

Division : SWR Division, Kochi

Local River : Pulanthodu

Sub-Division : Chaliyar SD, Calicut

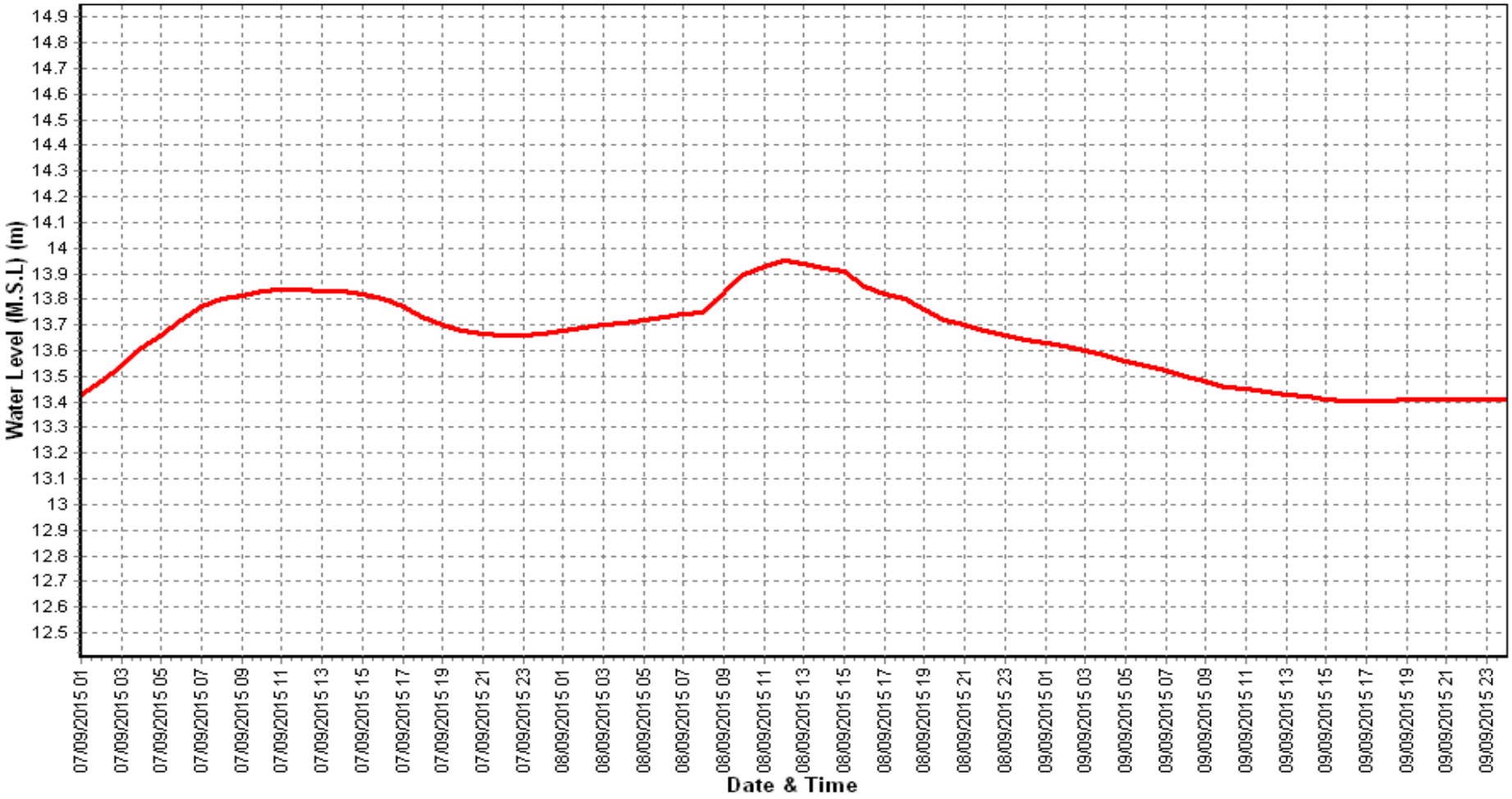


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2014-2015

Site	**: MANKARA**		**Code**	**: KR000K4**	
State	: Kerala		District	Palakkad	
Basin	: WFR South of Tapi		Independent River	: Bharathapuzha	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Bharathapuzha	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 2775 Sq. Km.		Bank	: Right	
Latitude	: 10°45'40"		Longitude	: 76°29'10"	
Zero of Gauge (m)	: 45.830 (m.s.l) 45.000 (m.s.l)		26/05/1984 01/06/1989	- 31/05/1989	
	Opening Date		Closing Date		
Gauge	: 26/05/1984				
Discharge	: 21/06/1985				
Sediment	: 24/09/2013				
Water Quality	: 02/06/1986				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	351.1	49.080	09/08/1986	0.000	47.095	08/06/1986
1987-1988	153.6	48.435	16/12/1987	0.000	47.035	01/06/1987
1988-1989	275.8	49.295	04/08/1988	0.025	46.930	10/04/1989
1989-1990	232.0	49.115	24/07/1989	0.000	47.000	02/03/1990
1990-1991	217.9	49.056	31/10/1990	0.000	47.010	28/03/1991
1991-1992	664.0	49.923	28/07/1991	0.093	46.990	17/03/1992
1992-1993	1220	50.971	14/11/1992	0.340	47.020	03/05/1993
1993-1994	305.3	49.733	09/11/1993	0.000	47.055	05/03/1994
1994-1995	827.3	50.290	06/11/1994	0.000	47.040	01/06/1994
1995-1996	329.1	49.090	17/07/1995	0.000	47.112	01/06/1995
1996-1997	246.0	48.860	15/10/1996	0.000	46.970	01/06/1996
1997-1998	486.1	49.900	25/11/1997	0.000	47.080	01/06/1997
1998-1999	529.5	50.050	14/12/1998	0.000	47.080	01/06/1998
1999-2000	395.0	48.920	27/07/1999	0.000	47.195	14/02/2000
2000-2001	311.6	48.840	12/07/2000	0.000	46.965	01/06/2000
2001-2002	116.1	48.550	08/11/2001	0.000	47.090	01/06/2001
2002-2003	141.4	48.610	18/08/2002	0.000	47.060	03/02/2003
2003-2004	85.81	48.245	21/10/2003	0.000	47.060	01/01/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	234.4	49.145	05/08/2004	0.000	47.010	22/03/2005
2005-2006	370.8	49.780	24/11/2005	0.191	47.060	05/06/2005
2006-2007	190.2	48.860	17/09/2006	0.000	47.045	16/03/2007
2007-2008	637.8	49.740	03/07/2007	0.000	47.030	12/03/2008
2008-2009	316.3	49.180	22/10/2008	0.000	46.990	21/02/2009
2009-2010	371.3	49.590	17/07/2009	0.000	47.005	22/02/2010
2010-2011	404.2	49.585	18/11/2010	0.000	47.030	01/06/2010
2011-2012	578.1	49.460	07/11/2011	0.000	47.025	18/04/2012
2012-2013	71.26	48.100	05/09/2012	0.000	47.045	10/12/2012
2013-2014	492.2	49.525	23/10/2013	0.000	47.045	12/03/2014
2014-2015	459.2	49.500	02/08/2014	0.000	47.015	06/04/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	47.330	5.694	47.635	25.33	47.320	7.513	47.320	7.470	47.840	48.32	47.360	7.692 *
2	47.310	4.846	47.535	18.40	47.310	6.396 *	47.280	3.947	47.580	22.93 *	47.350	7.204 *
3	47.280	3.917	47.455	13.56	47.280	3.963	47.280	4.066	47.435	12.95	47.350	7.255
4	47.380	10.09	47.400	11.63	47.320	7.567	47.215	3.066 #	47.380	9.665 *	47.345	7.359
5	47.380	10.06	47.375	9.408 *	47.350	8.281	47.215	3.066 #	47.350	8.761	47.735	37.68
6	47.310	4.990	47.350	8.327	47.455	13.77	47.315	6.606 *	47.400	11.35	48.245	99.33
7	47.280	4.465 *	47.330	8.292	47.455	13.82	47.455	13.57	47.435	12.77	48.155	82.10
8	47.250	3.850	47.320	7.522	47.840	47.64	47.585	25.74	47.435	12.82	47.840	51.60 *
9	47.215	1.590	47.705	36.26	47.660	29.90 *	47.560	22.88	47.350	8.775	47.605	29.03
10	47.195	1.341	47.718	39.25	47.535	18.94	47.500	18.45	47.350	8.808	47.560	21.04 *
11	47.180	1.181	47.555	22.74	47.600	24.41	47.435	12.49	47.330	7.258 *	47.480	17.35
12	47.180	1.232	47.480	15.56 *	47.840	48.07	47.435	12.51	47.320	7.524	47.480	15.62
13	47.180	1.240	47.455	13.32	47.970	62.12	47.365	8.905 *	47.280	4.204	47.595	23.88
14	47.180	1.122 *	47.400	11.40	47.970	62.57	47.320	7.632	47.300	5.233	47.570	21.26
15	47.180	1.230	47.345	8.381	47.710	34.75 *	47.320	7.614	47.270	3.917	47.490	15.58 *
16	47.180	1.237	47.345	8.429	47.505	17.27 *	47.320	7.575	47.230	1.909	47.430	10.69
17	47.345	8.305	47.365	9.308	47.455	13.79	47.350	8.689	47.210	1.522	47.370	10.02
18	47.365	9.161	47.780	42.17 *	47.455	13.66	47.435	12.54	47.210	2.099 *	47.570	22.34
19	47.413	12.27	48.150	94.00 *	47.970	62.81	47.400	11.34	47.160	1.036 #	47.550	22.76
20	48.303	114.4	47.935	56.75	47.725	33.20	47.420	11.85 *	47.200	1.154	47.440	11.73
21	48.150	89.80 *	47.840	46.80	47.610	25.43	47.400	11.26	47.270	3.790	47.370	10.04
22	48.065	80.77	47.725	32.76	47.535	18.59	47.320	7.487	47.210	1.525	47.350	7.204 *
23	48.390	123.0	47.605	25.99	47.505	17.27 *	47.320	7.540	47.200	1.855 *	47.350	8.333
24	48.325	119.8	47.610	25.51	47.610	25.46	47.320	6.820 *	47.170	1.217 *	47.340	7.849
25	48.350	129.1	47.610	25.47	47.610	25.70	47.280	4.107	47.160	1.036 *	47.340	6.733 *
26	48.485	146.9	47.660	29.90 *	47.455	13.60	47.280	4.139	47.140	0.719 #	47.580	20.89
27	49.035	308.1	47.705	33.41	47.455	13.57	47.280	5.208 *	47.120	0.489	47.380	9.415
28	48.450	151.9 *	47.560	23.10	47.400	10.73 *	47.400	11.41	47.120	0.487	47.345	7.799
29	47.960	60.53	47.470	15.20	47.350	8.354	47.435	12.73	47.070	0.072 #	47.345	6.966 *
30	47.775	44.41	47.400	11.63	47.350	8.178 *	47.435	12.81	47.295	4.816 #	47.350	8.436
31			47.345	8.528	47.345	8.382			47.340	6.733 #		
Ten-Daily Mean												
I Ten-Daily	47.293	5.083	47.482	17.80	47.453	15.78	47.373	10.89	47.455	15.72	47.655	35.03
II Ten-Daily	47.350	15.14	47.581	28.21	47.720	37.27	47.380	10.11	47.251	3.586	47.498	17.12
III Ten-Daily	48.299	125.4	47.594	25.30	47.475	15.93	47.347	8.352	47.190	2.067	47.375	9.367
Monthly												
Min.	47.180	1.122	47.320	7.522	47.280	3.963	47.215	3.066	47.070	0.072	47.340	6.733
Max.	49.035	308.1	48.150	94.00	47.970	62.81	47.585	25.74	47.840	48.32	48.245	99.33
Mean	47.647	48.55	47.554	23.82	47.547	22.76	47.367	9.784	47.295	6.96	47.509	20.51

Annual Runoff in MCM = 440 Annual Runoff in mm = 159

Peak Observed Discharge = 308.1 cumecs on 27/06/2015 Corres. Water Level :49.035 m

Lowest Observed Discharge = 0.000 cumecs on 29/04/2016 Corres. Water Level :47.02 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	47.370	11.14	47.300	5.456	47.280	3.958	47.050	0.296	47.030	0.155	47.020	0.000
2	47.345	7.861 *	47.280	4.223	47.280	4.373 *	47.050	0.305	47.030	0.151	47.020	0.000
3	47.365	9.153 *	47.250	3.122 *	47.250	3.616	47.060	0.329	47.030	0.152 *	47.010	0.000
4	47.365	9.153 *	47.230	1.933	47.250	3.651	47.060	0.330	47.030	0.081 #	47.010	0.000
5	47.345	7.861 *	47.230	1.895	47.230	1.922	47.050	0.298	47.020	0.048 #	47.010	0.000
6	47.400	11.67 *	47.230	1.852	47.230	1.890	47.050	0.293 *	47.020	0.048 #	47.020	0.000
7	47.360	8.820 #	47.250	3.693	47.230	2.411 *	47.060	0.380 *	47.280	4.112	47.350	8.682
8	48.200	164.2 *	47.250	3.512	47.200	1.142	47.050	0.293 *	47.310	5.962	47.350	7.802 *
9	48.070	126.4 *	47.300	5.492	47.200	1.162	47.050	0.293 *	47.280	4.124	47.350	8.834
10	48.020	113.2 *	47.310	5.849 *	47.220	1.610	47.050	0.300	47.280	4.832 *	47.330	7.525
11	47.650	39.32 *	47.320	7.236	47.190	1.083	47.050	0.301	47.330	8.095	47.320	6.989
12	47.500	20.66 *	47.330	7.574	47.180	1.043	47.320	7.001	47.350	8.513	47.310	6.034
13	47.470	17.67 *	47.330	7.305	47.160	0.832	47.340	7.224 *	47.330	6.872 *	47.270	3.957
14	47.380	9.524	47.320	6.909	47.160	0.671 *	47.350	8.277	47.280	4.832 *	47.250	2.948
15	47.500	20.66 *	47.300	5.542	47.160	0.834	47.330	7.911	47.190	2.140 *	47.230	3.186 *
16	47.500	20.66 *	47.290	4.812	47.140	0.379 #	47.290	4.516	47.160	1.505 #	47.190	2.140 *
17	47.400	9.834	47.285	4.603 *	47.160	0.853	47.180	2.286 #	47.140	1.150 *	47.160	1.505 #
18	47.380	9.267	47.305	5.608	47.160	0.851	47.140	1.477 #	47.100	0.596 #	47.160	0.753
19	47.350	8.204	47.310	6.708	47.120	0.173 #	47.080	0.589 #	47.080	0.299	47.160	0.779
20	47.340	7.554 *	47.305	5.706	47.120	0.492	47.060	0.380 *	47.080	0.393 *	47.200	1.129
21	47.340	7.607	47.300	5.040	47.110	0.461 *	47.060	0.314	47.060	0.226	47.200	1.197 *
22	47.320	7.060	47.290	4.645	47.100	0.435	47.050	0.288	47.050	0.198	47.190	1.088 *
23	47.310	6.558	47.310	6.409	47.090	0.400	47.050	0.293	47.050	0.189	47.180	0.985 *
24	47.300	5.332 *	47.310	5.849 *	47.080	0.364	47.040	0.249	47.050	0.174 *	47.180	1.038
25	47.280	4.373 *	47.305	5.995	47.070	0.338	47.040	0.217 *	47.050	0.193	47.160	0.796
26	47.310	5.849 *	47.310	5.849 *	47.070	0.350	47.040	0.217 *	47.050	0.196	47.160	0.766
27	47.280	4.373 *	47.280	4.234	47.060	0.315	47.040	0.217 *	47.050	0.182	47.160	0.825
28	47.280	4.373 *	47.280	4.111	47.060	0.380 *	47.040	0.245	47.040	0.108	47.160	0.795
29	47.310	5.849 *	47.310	6.246	47.060	0.330	47.040	0.237	47.020	0.000	47.190	1.088 *
30	47.310	5.849 *	47.320	6.981			47.030	0.173	47.020	0.000	47.180	1.013
31	47.300	5.557	47.300	5.332 *			47.030	0.162			47.180	1.014
Ten-Daily Mean												
I Ten-Daily	47.584	46.95	47.263	3.703	47.237	2.573	47.053	0.312	47.131	1.967	47.147	3.284
II Ten-Daily	47.447	16.34	47.310	6.200	47.155	0.721	47.214	3.996	47.204	3.440	47.225	2.942
III Ten-Daily	47.304	5.707	47.301	5.517	47.078	0.375	47.042	0.238	47.044	0.147	47.176	0.964
Monthly												
Min.	47.280	4.373	47.230	1.852	47.060	0.173	47.030	0.162	47.020	0.000	47.010	0.000
Max.	48.200	164.2	47.330	7.574	47.280	4.373	47.350	8.277	47.350	8.513	47.350	8.834
Mean	47.440	22.44	47.292	5.152	47.159	1.252	47.101	1.474	47.126	1.851	47.183	2.351

Peak Computed Discharge = 164.2 cumecs on 08/12/2015 **Corres. Water Level :48.2 m**

Lowest Computed Discharge = 0.152 cumecs on 03/04/2016 **Corres. Water Level :47.03 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

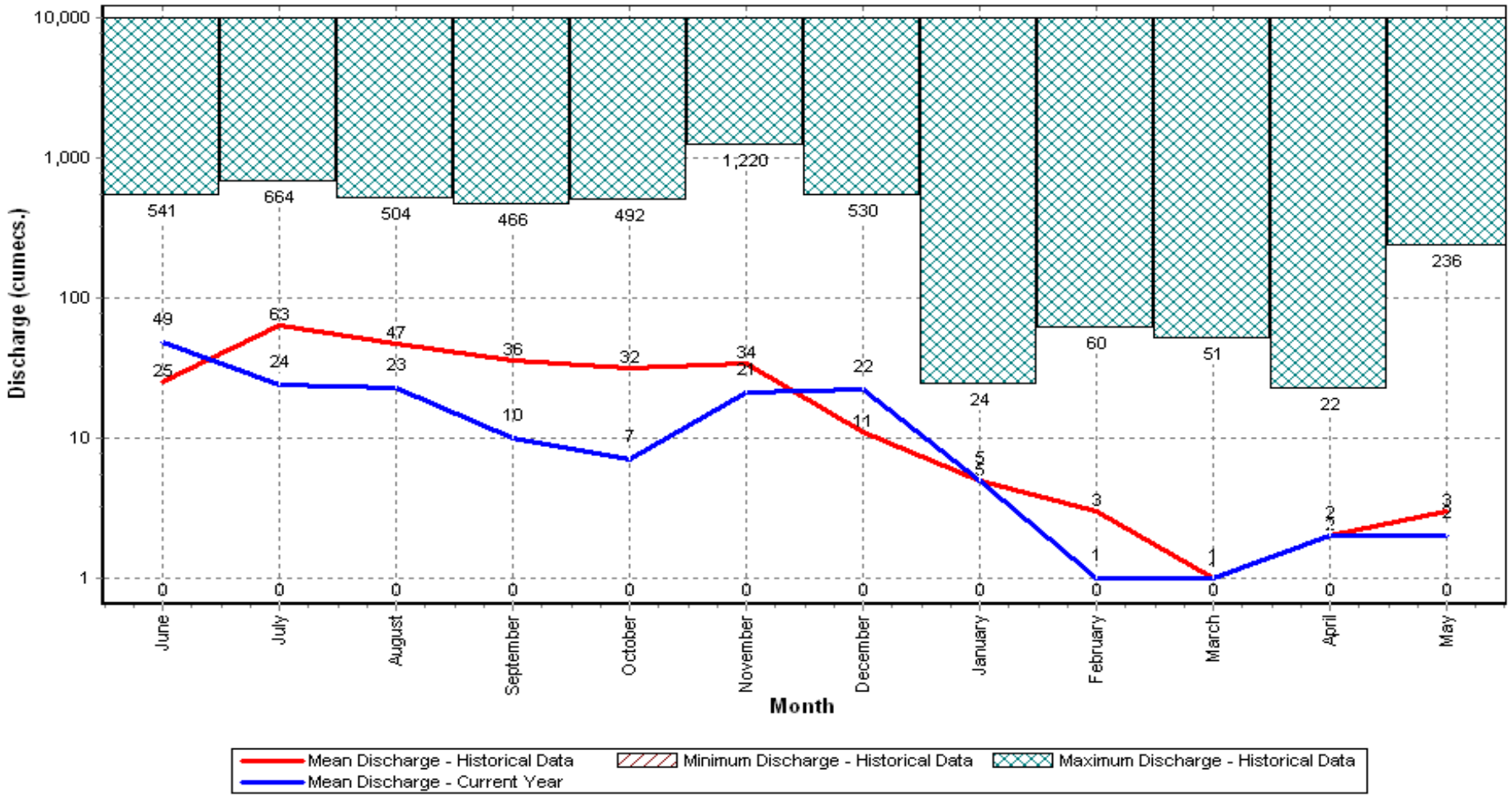
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : MANKARA (KR000K4) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Bharathapuzha | **Sub-Division : SWR SD No 2, Kochi**



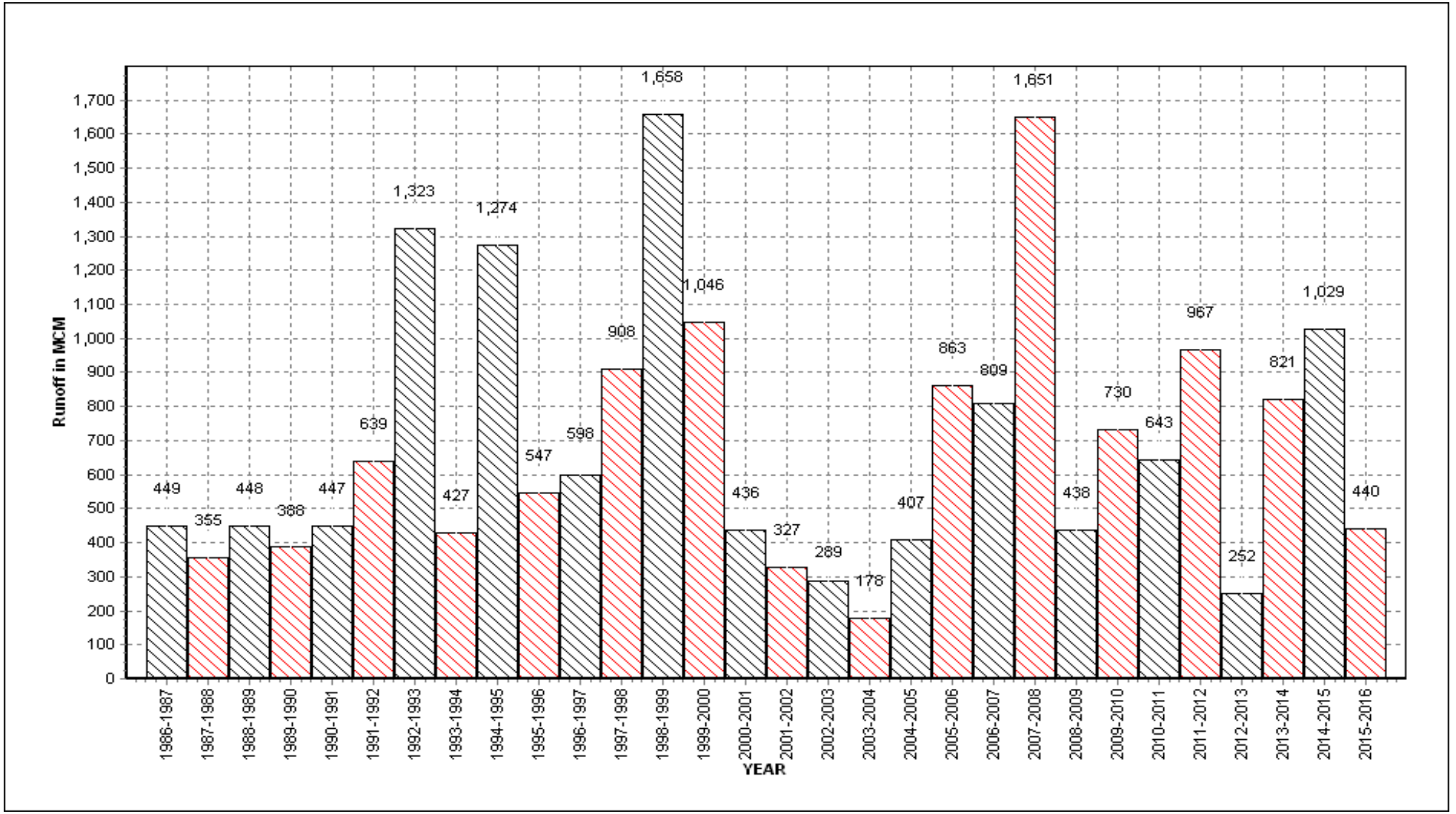
Annual Runoff Values for the period: 1986 - 2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

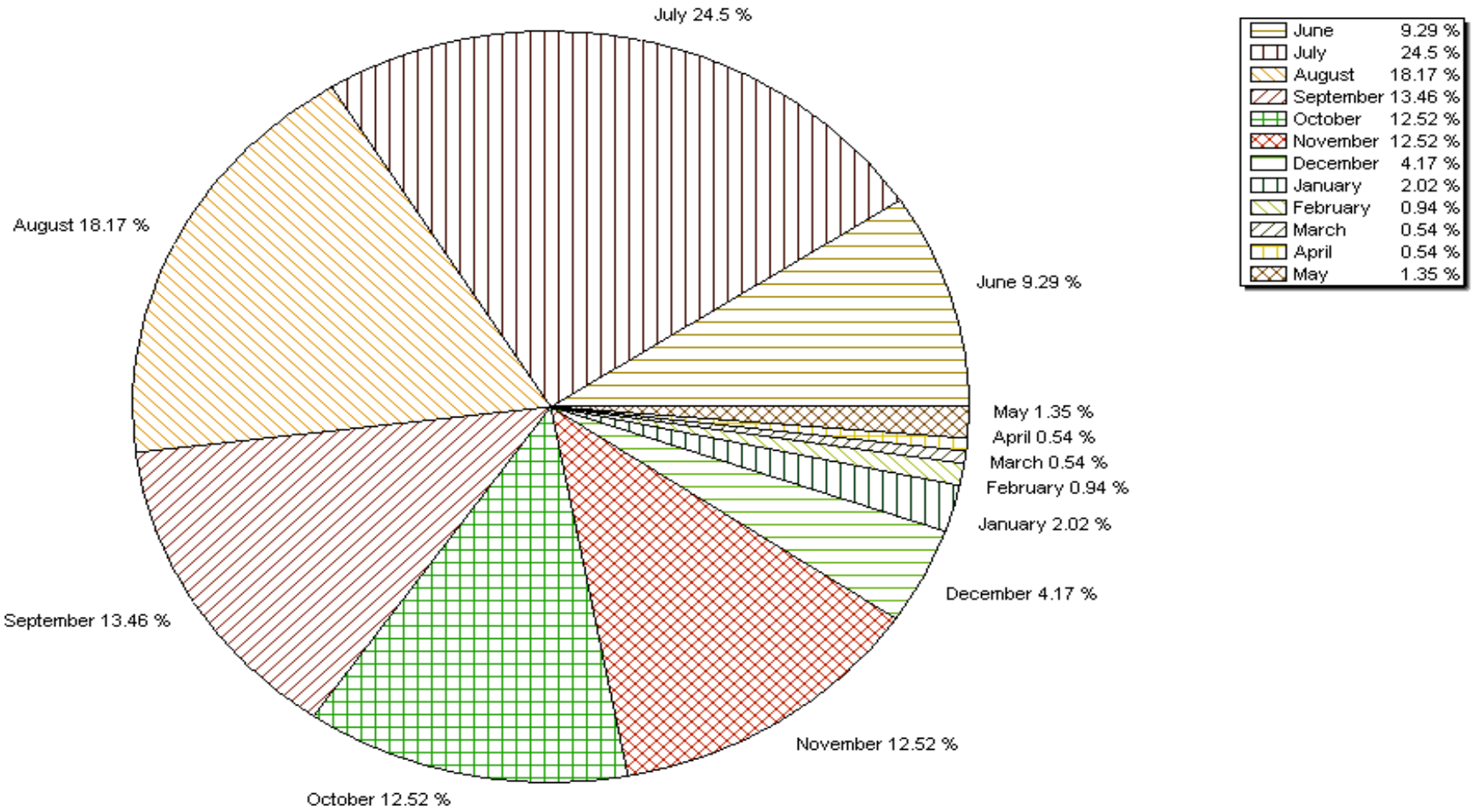


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : MANKARA (KR000K4)
Local River : Bharathapuzha

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



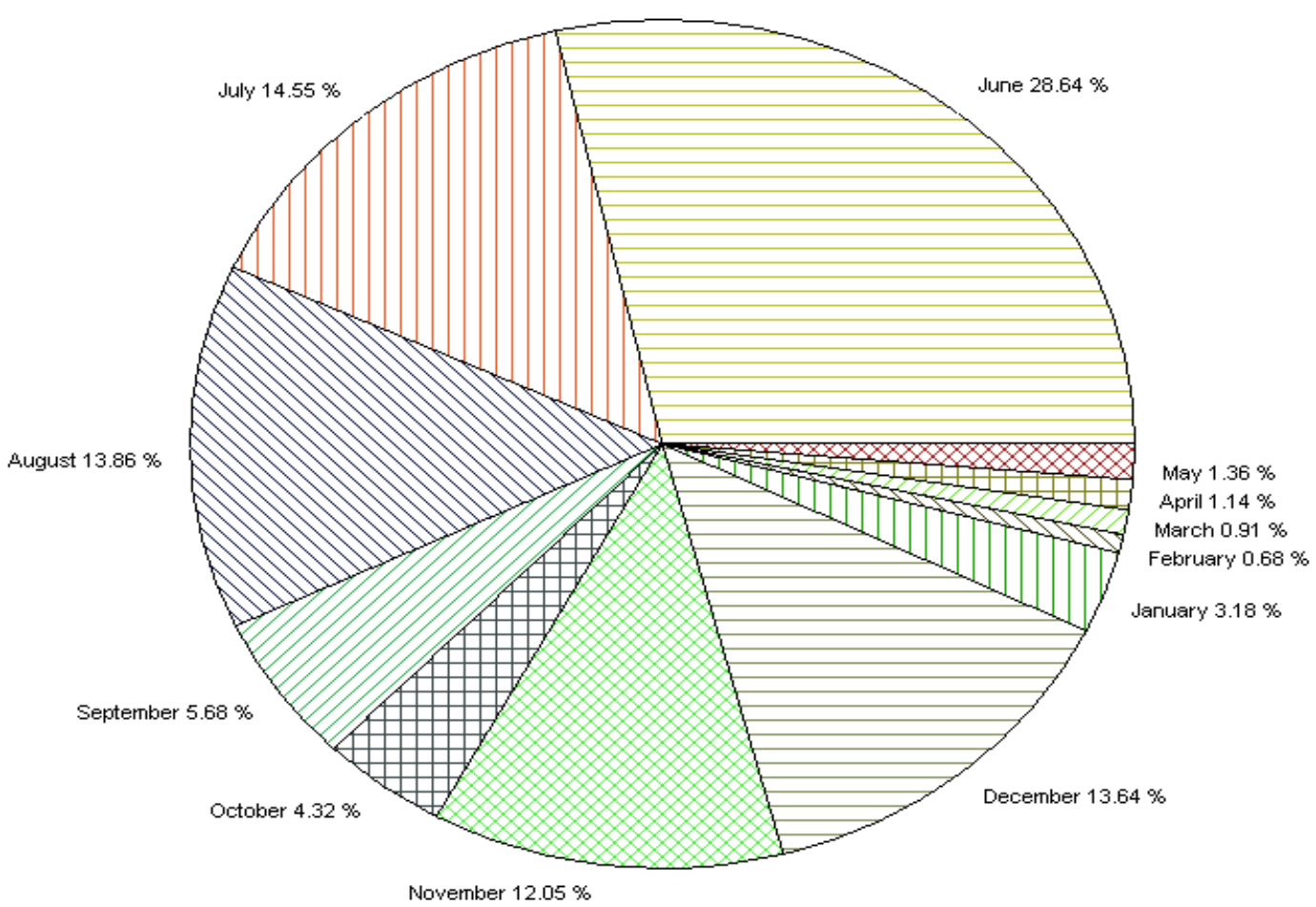
Monthly Runoff for the Year : 2015-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



June	28.64 %
July	14.55 %
August	13.86 %
September	5.68 %
October	4.32 %
November	12.05 %
December	13.64 %
January	3.18 %
February	0.68 %
March	0.91 %
April	1.14 %
May	1.36 %

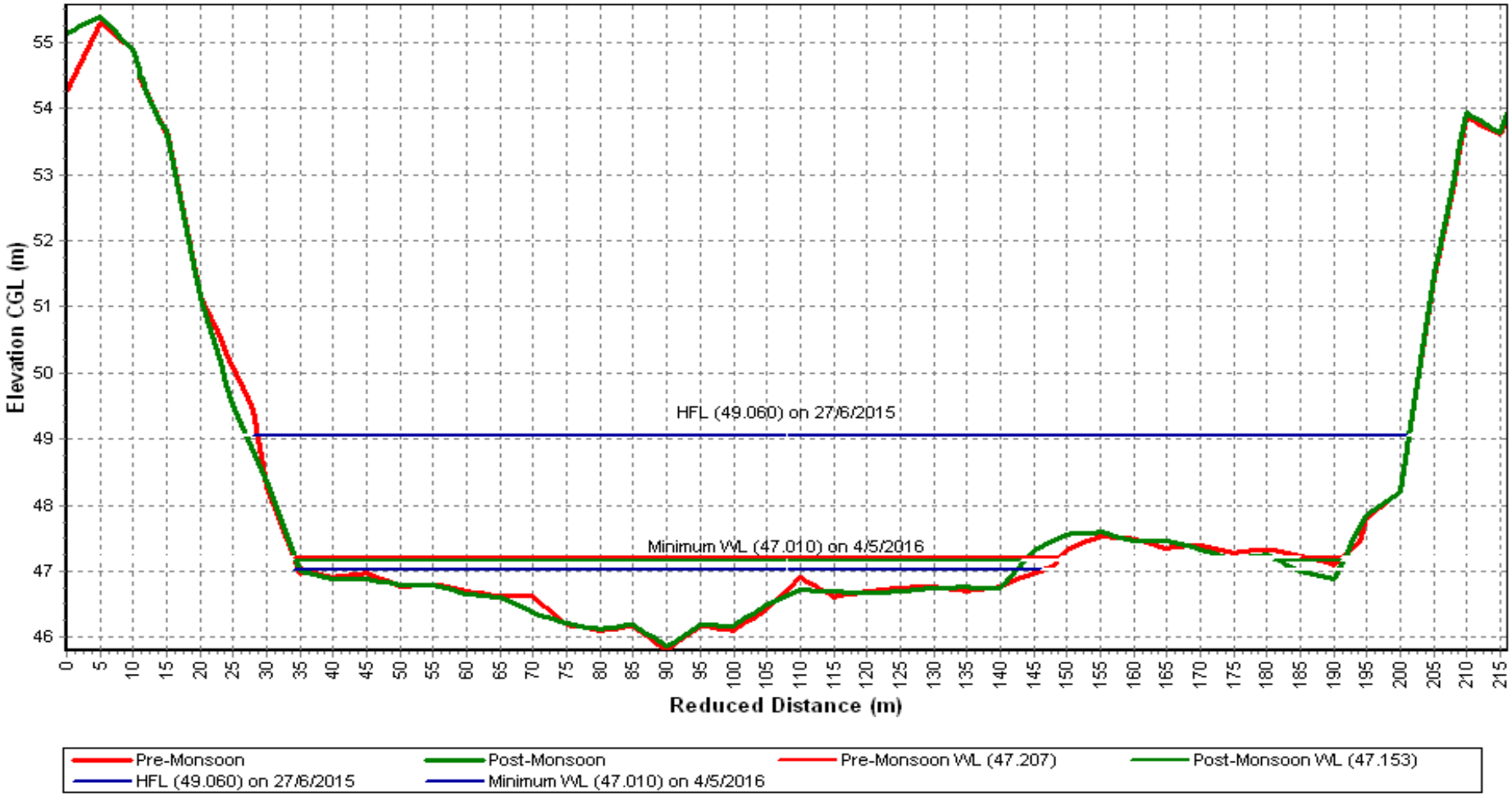
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



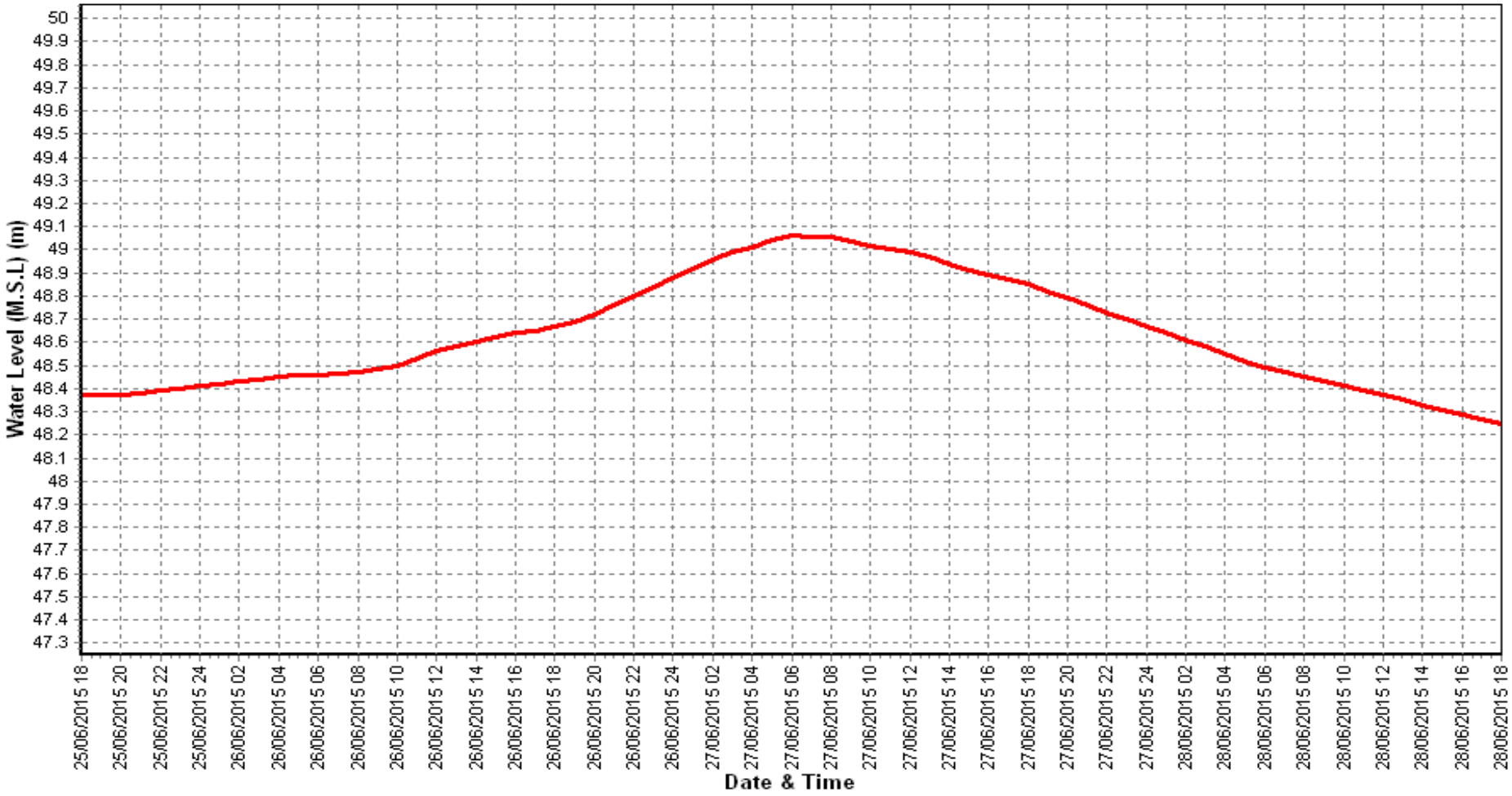
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

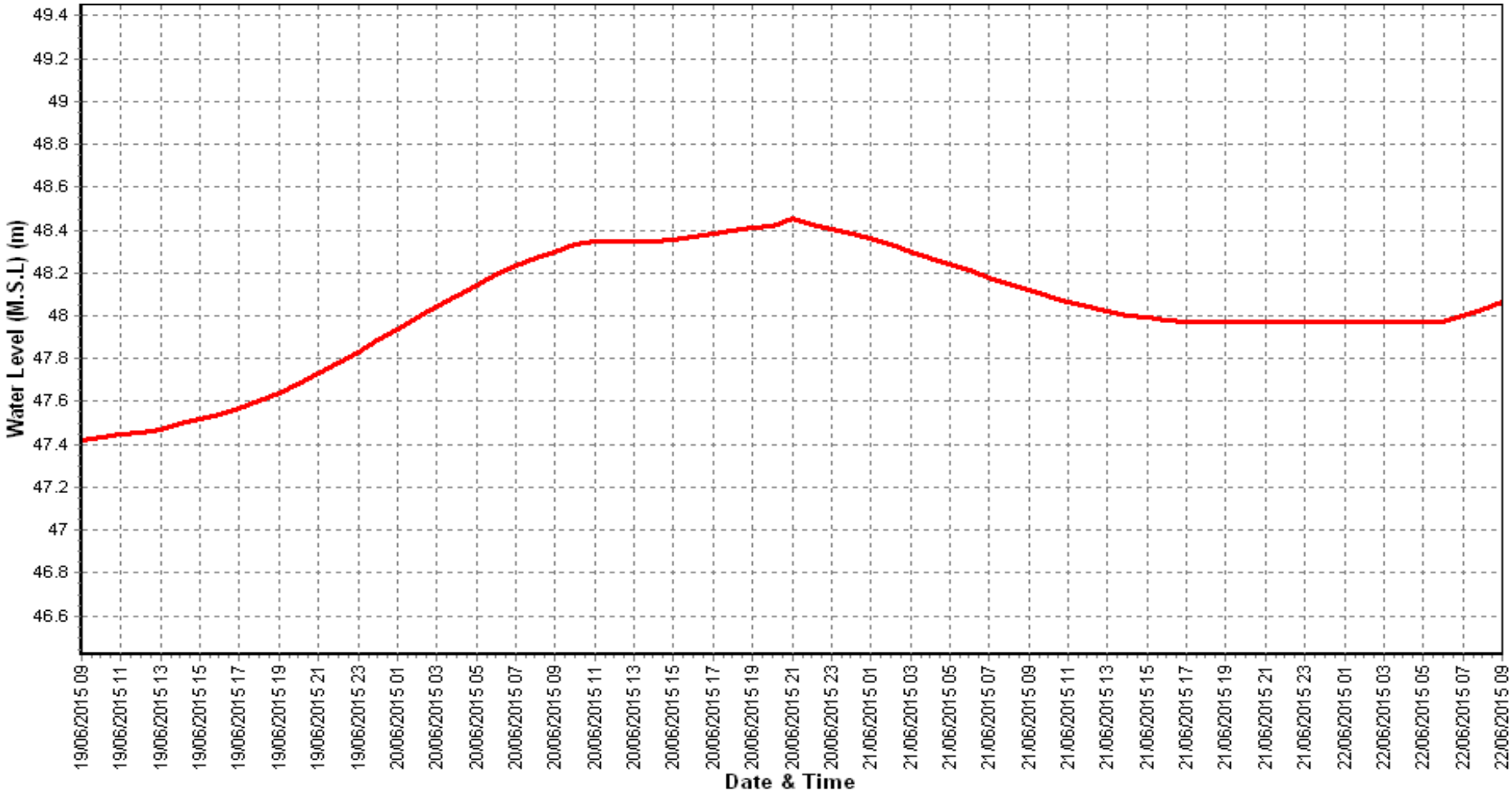
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

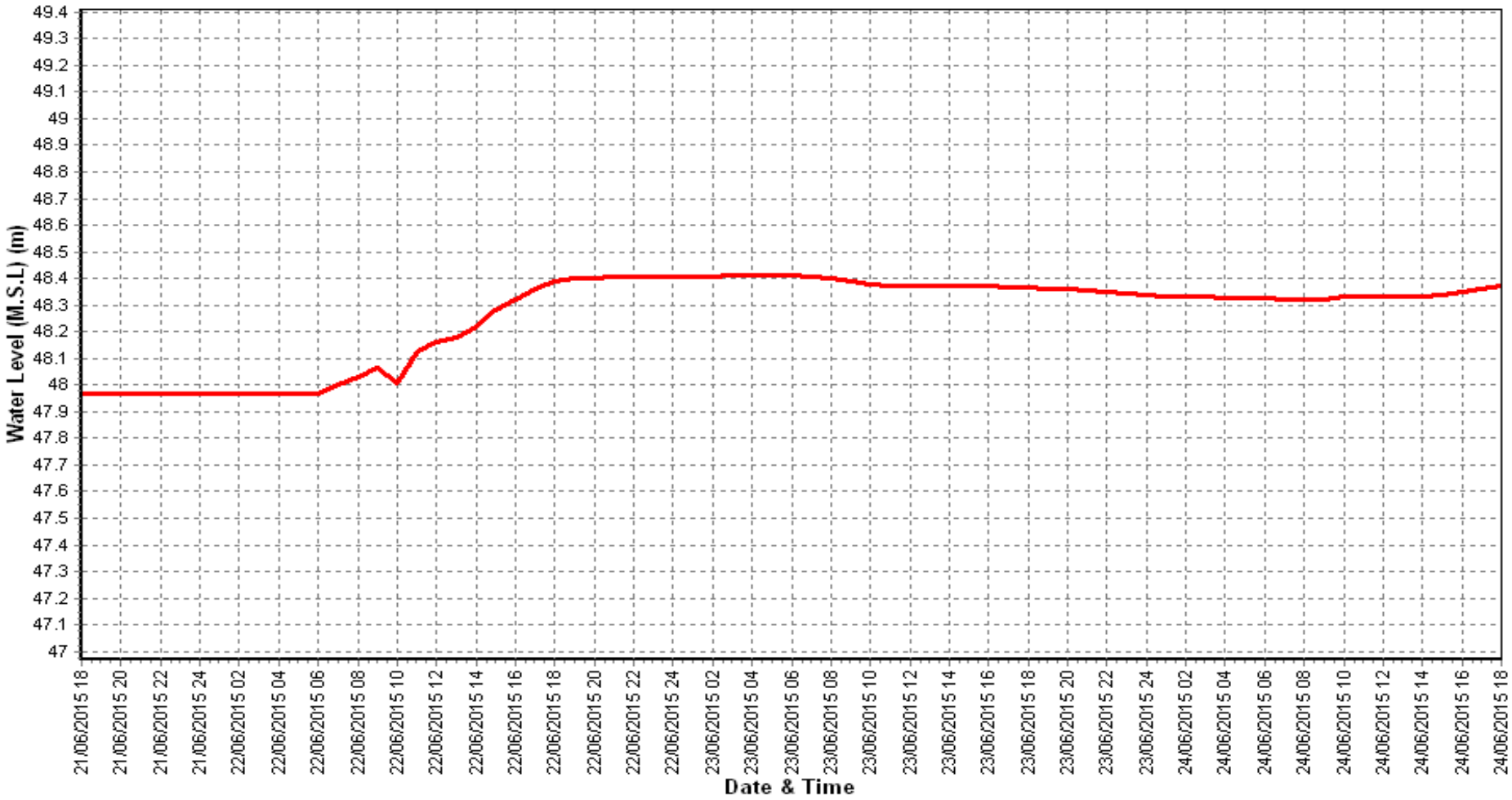


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: PUDUR**		**Code**	**: KR000M1**	
State	: Kerala		District	Palakkad	
Basin	: WFR South of Tapi		Independent River	: Bharathapuzha	
Tributary	: Kannadipuzha		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kannadipuzha	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 1313 Sq. Km.		Bank	: Left	
Latitude	: 10°46'39"		Longitude	: 76°30'44"	
Zero of Gauge (m)	: 40.500 (m.s.l) 58.285 (m.s.l) 58.000 (m.s.l)		01/06/1985 01/09/1985 01/06/1989	- 31/08/1985 - 31/05/1989	
	Opening Date		Closing Date		
Gauge	: 01/06/1985				
Discharge	: 02/09/1985				
Sediment	: 01/10/2013				
Water Quality	: 02/06/1986				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	111.5	61.480	09/08/1986	0.000	59.935	10/06/1986
1987-1988	48.19	61.205	16/12/1987	0.000	59.905	01/06/1987
1988-1989	73.85	61.620	05/08/1988	0.000	59.935	01/06/1988
1989-1990	87.41	61.860	24/07/1989	0.000	59.915	01/06/1989
1990-1991	85.63	61.845	31/10/1990	0.000	60.000	31/03/1991
1991-1992	135.9	62.213	27/07/1991	0.000	59.885	16/03/1992
1992-1993	744.1	64.729	14/11/1992	0.623	59.997	08/04/1993
1993-1994	230.2	62.574	09/11/1993	0.761	59.923	04/03/1994
1994-1995	475.8	63.500	06/11/1994	0.000	59.930	01/06/1994
1995-1996	78.00	61.550	17/07/1995	0.000	59.840	01/06/1995
1996-1997	67.15	61.555	15/10/1996	0.000	Dry Bed	01/06/1996
1997-1998	70.00	61.580	08/12/1997	0.000	59.910	01/06/1997
1998-1999	316.9	63.050	14/12/1998	0.000	59.830	04/06/1998
1999-2000	81.27	61.600	27/07/1999	0.000	59.880	03/07/1999
2000-2001	82.54	61.330	01/12/2000	0.000	59.680	01/06/2000
2001-2002	44.10	61.300	08/11/2001	0.000	59.740	01/06/2001
2002-2003	48.68	61.275	18/08/2002	0.000	59.710	01/06/2002

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2003-2004	34.32	61.060	05/10/2003	0.000	59.555	01/06/2003
2004-2005	87.46	61.840	05/08/2004	0.000	59.770	02/09/2004
2005-2006	163.1	62.300	24/11/2005	0.000	59.670	01/06/2005
2006-2007	64.69	61.475	14/08/2006	0.000	59.960	18/06/2006
2007-2008	165.9	62.130	10/08/2007	0.349	59.740	14/05/2008
2008-2009	140.8	62.110	22/10/2008	0.000	59.720	13/02/2009
2009-2010	740.1	64.930	08/11/2009	0.000	59.525	01/06/2009
2010-2011	181.0	62.660	18/11/2010	0.000	59.685	01/06/2010
2011-2012	125.1	61.975	06/11/2011	0.000	59.770	01/06/2011
2012-2013	82.24	62.040	21/10/2012	0.000	59.620	13/02/2013
2013-2014	142.9	61.495	03/08/2013	0.000	59.410	01/06/2013
2014-2015	183.0	61.925	02/08/2014	0.010	59.725	17/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	60.230	3.767	60.395	8.795	60.100	2.344	60.110	2.399	60.835	33.52	60.225	4.020 *
2	60.160	2.584	60.285	4.993	60.045	1.563 *	60.060	2.140	60.510	12.08 *	60.245	4.354
3	60.135	2.322	60.190	3.424	60.020	1.467	60.000	1.363	60.285	5.244	60.325	5.814
4	60.175	3.201	60.100	2.346	60.050	1.867	59.965	1.192	60.185	3.516 *	60.265	4.342
5	60.135	2.606	60.100	2.276 *	60.085	2.117	59.770	0.046 #	60.110	2.355	60.740	21.92
6	60.125	2.175	60.055	1.850	60.215	3.771	60.075	2.094 *	60.140	2.613	61.330	63.10
7	60.045	1.608 *	60.010	1.358	60.290	5.154	60.370	7.374	60.340	6.584	60.920	32.11
8	60.025	1.313	60.025	1.503	60.665	24.21	60.390	8.560	60.285	5.260	60.450	11.99 *
9	59.960	1.096	60.655	19.24	60.470	12.09 *	60.405	9.215	60.180	3.300	60.400	8.256
10	60.035	1.286	60.670	19.79	60.410	8.152	60.380	7.469	60.115	2.427	60.295	6.651 *
11	59.965	0.937	60.410	8.682	60.595	20.99	60.335	6.815	60.070	2.257 *	60.270	4.428
12	59.990	1.120	60.355	7.788 *	60.810	25.91	60.345	7.586	60.030	1.503	60.530	16.70
13	59.945	0.935	60.320	5.393	61.015	38.82	60.210	4.216 *	60.030	1.495	60.455	13.73
14	59.925	0.760 *	60.200	3.580	60.880	33.29	60.210	3.589	60.005	1.308	60.450	13.80
15	59.915	0.813	60.155	2.964	60.550	15.39 *	60.250	4.632	59.955	1.070	60.350	8.401 *
16	60.025	1.356	60.115	2.584	60.400	9.562 *	60.330	6.136	59.930	1.081	60.220	4.240
17	60.220	3.877	60.185	3.820	60.305	5.855	60.330	6.387	59.895	0.881	60.150	2.981
18	60.240	4.280	60.630	17.42 *	60.945	33.87	60.400	7.867	59.870	0.735 *	60.230	4.704
19	60.415	9.679	61.000	36.40 *	60.760	24.24	60.360	7.200	59.860	0.779	60.455	14.55
20	61.375	62.70 #	60.825	28.60	60.640	20.98	60.330	6.820 *	59.865	0.819	60.240	4.415
21	61.020	37.63 *	60.860	31.36	60.460	11.71 #	60.180	3.285	59.855	0.757	60.205	4.152
22	60.975	33.73	60.610	18.14	60.335	6.308	60.200	4.035	59.845	0.734	60.170	3.311 *
23	61.225	52.50	60.435	13.55	60.320	7.076 *	60.165	3.089	59.810	0.442 *	60.150	3.070
24	61.120	43.91	60.430	13.23	60.495	15.86	60.090	2.289 *	59.790	0.361 *	60.160	3.245
25	61.080	37.37	60.555	16.99	60.425	12.68	60.060	2.151	59.775	0.306 *	60.205	4.152 *
26	61.105	38.74	60.550	15.39 *	60.305	5.363	60.115	2.615	59.755	0.239 #	60.580	20.06
27	61.585	100.8	60.565	19.22	60.185	3.636	60.105	2.495 *	59.745	0.209 #	60.220	4.237
28	61.160	46.76 *	60.390	8.318	60.160	3.324 *	60.135	2.977	59.735	0.181 #	60.170	3.442
29	60.740	23.01	60.270	4.936	60.205	4.190	60.215	4.102	60.365	6.767	60.155	2.974 *
30	60.585	19.57	60.170	3.631	60.175	3.610 *	60.850	32.05	60.295	5.131	60.180	3.988
31			60.135	2.890	60.135	2.905			60.295	5.535		
Ten-Daily Mean												
I Ten-Daily	60.102	2.196	60.248	6.558	60.235	6.274	60.153	4.185	60.299	7.690	60.520	16.26
II Ten-Daily	60.201	8.646	60.420	11.72	60.690	22.89	60.310	6.125	59.951	1.193	60.335	8.794
III Ten-Daily	61.060	43.40	60.452	13.42	60.291	6.969	60.211	5.909	59.933	1.878	60.220	5.263
Monthly												
Min.	59.915	0.760	60.010	1.358	60.020	1.467	59.770	0.046	59.735	0.181	60.150	2.974
Max.	61.585	100.8	61.000	36.40	61.015	38.82	60.850	32.05	60.835	33.52	61.330	63.10
Mean	60.454	18.08	60.376	10.66	60.402	11.88	60.225	5.406	60.057	3.532	60.358	10.1

Annual Runoff in MCM = 206 Annual Runoff in mm = 157

Peak Observed Discharge = 100.8 cumecs on 27/06/2015 Corres. Water Level :61.585 m

Lowest Observed Discharge = 0.000 cumecs on 26/02/2016 Corres. Water Level :59.655 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	60.250	4.661	60.105	2.165	60.075	2.007	59.590	0.000	59.435	0.000	59.210	0.000
2	60.185	4.230	60.010	1.065	60.060	1.864	59.565	0.000	59.430	0.000	59.200	0.000
3	60.160	3.280	59.990	1.228 *	60.030	1.479	59.560	0.000	59.420	0.000	59.190	0.000
4	60.140	3.036	59.940	1.061	59.975	1.105	59.555	0.000	59.415	0.000	59.185	0.000
5	60.325	7.375 *	59.955	0.986	59.975	0.940	59.550	0.000	59.405	0.000	59.185	0.000
6	60.515	13.94 *	59.985	1.078	59.960	1.000	59.550	0.000	59.400	0.000	59.180	0.000
7	62.040	146.9 *	59.975	1.043	59.930	0.823 *	59.550	0.000	59.390	0.000	59.235	0.000
8	61.600	99.64	60.125	2.574	59.905	0.765	59.550	0.000	59.385	0.000	59.230	0.000
9	61.205	50.71	60.180	3.156	59.875	0.532 #	59.550	0.000	59.375	0.000	59.230	0.000
10	61.165	51.04	60.180	3.180 *	59.885	0.579 #	59.550	0.000	59.370	0.000	59.230	0.000
11	60.535	17.25	60.175	2.977	59.900	0.655 #	59.545	0.000	59.360	0.000	59.245	0.000
12	60.345	7.064	60.190	3.280	60.040	1.495	59.535	0.000	59.355	0.000	59.310	0.000
13	60.410	7.082 *	60.150	3.041	60.000	1.203	59.535	0.000	59.350	0.000	59.310	0.000
14	60.295	5.173	60.105	2.270	59.950	0.948 *	59.230	0.000	59.340	0.000	59.305	0.000
15	60.280	5.105	60.040	1.520	59.945	0.934	59.525	0.000	59.335	0.000	59.990	1.228 *
16	60.205	3.938	59.990	1.137	59.850	0.423 #	59.520	0.000	59.330	0.000	60.105	2.282 *
17	60.170	3.226	60.070	1.921 *	59.775	0.180 #	59.515	0.000	59.325	0.000	60.010	1.224
18	60.135	3.018	60.040	1.604	59.730	0.088 #	59.510	0.000	59.315	0.000	60.000	1.149
19	60.120	2.315	60.035	1.570	59.705	0.069	59.505	0.000	59.310	0.000	59.995	1.165
20	60.110	2.337 *	60.050	1.731 *	59.685	0.037	59.500	0.000	59.300	0.000	59.990	1.149
21	60.100	2.152	60.080	1.996	59.785	0.206 *	59.500	0.000	59.290	0.000	59.980	1.154 *
22	60.080	1.893	60.135	2.813	59.800	0.248 #	59.495	0.000	59.285	0.000	59.970	1.083 *
23	60.105	2.229	60.195	3.352	59.760	0.145 #	59.490	0.000	59.280	0.000	59.960	1.169
24	60.025	1.509 *	60.175	3.115 *	59.730	0.088 #	59.485	0.000	59.270	0.000	59.940	1.094
25	60.080	2.020 *	60.185	3.226	59.690	0.029	59.475	0.000	59.260	0.000	59.965	1.204
26	60.175	3.021	60.110	2.337 *	59.655	0.000	59.465	0.000	59.255	0.000	59.980	1.193
27	60.120	2.448 *	60.105	2.278	59.620	0.000	59.460	0.000	59.245	0.000	59.975	0.963
28	60.130	2.622	60.155	3.267	59.600	0.000	59.455	0.000	59.235	0.000	59.965	1.037
29	60.090	2.299	60.200	3.473	59.585	0.000	59.450	0.000	59.230	0.000	59.960	1.014 *
30	60.100	2.228 *	60.130	2.778			59.445	0.000	59.220	0.000	59.975	0.860
31	60.110	2.314	60.075	1.970 *			59.440	0.000			59.995	1.266 #
Ten-Daily Mean												
I Ten-Daily	60.759	38.48	60.045	1.754	59.967	1.109	59.557	0.000	59.403	0.000	59.208	0.000
II Ten-Daily	60.260	5.651	60.084	2.105	59.858	0.603	59.492	0.000	59.332	0.000	59.726	0.820
III Ten-Daily	60.101	2.249	60.140	2.782	59.692	0.080	59.469	0.000	59.257	0.000	59.970	1.094
Monthly												
Min.	60.025	1.509	59.940	0.986	59.585	0.000	59.230	0.000	59.220	0.000	59.180	0.000
Max.	62.040	146.9	60.200	3.473	60.075	2.007	59.590	0.000	59.435	0.000	60.105	2.282
Mean	60.365	15.03	60.091	2.232	59.844	0.615	59.505	0	59.330	0	59.645	0.653

Peak Computed Discharge = 146.9 cumecs on 07/12/2015 **Corres. Water Level :62.04 m**

Lowest Computed Discharge = 0.206 cumecs on 21/02/2016 **Corres. Water Level :59.785 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

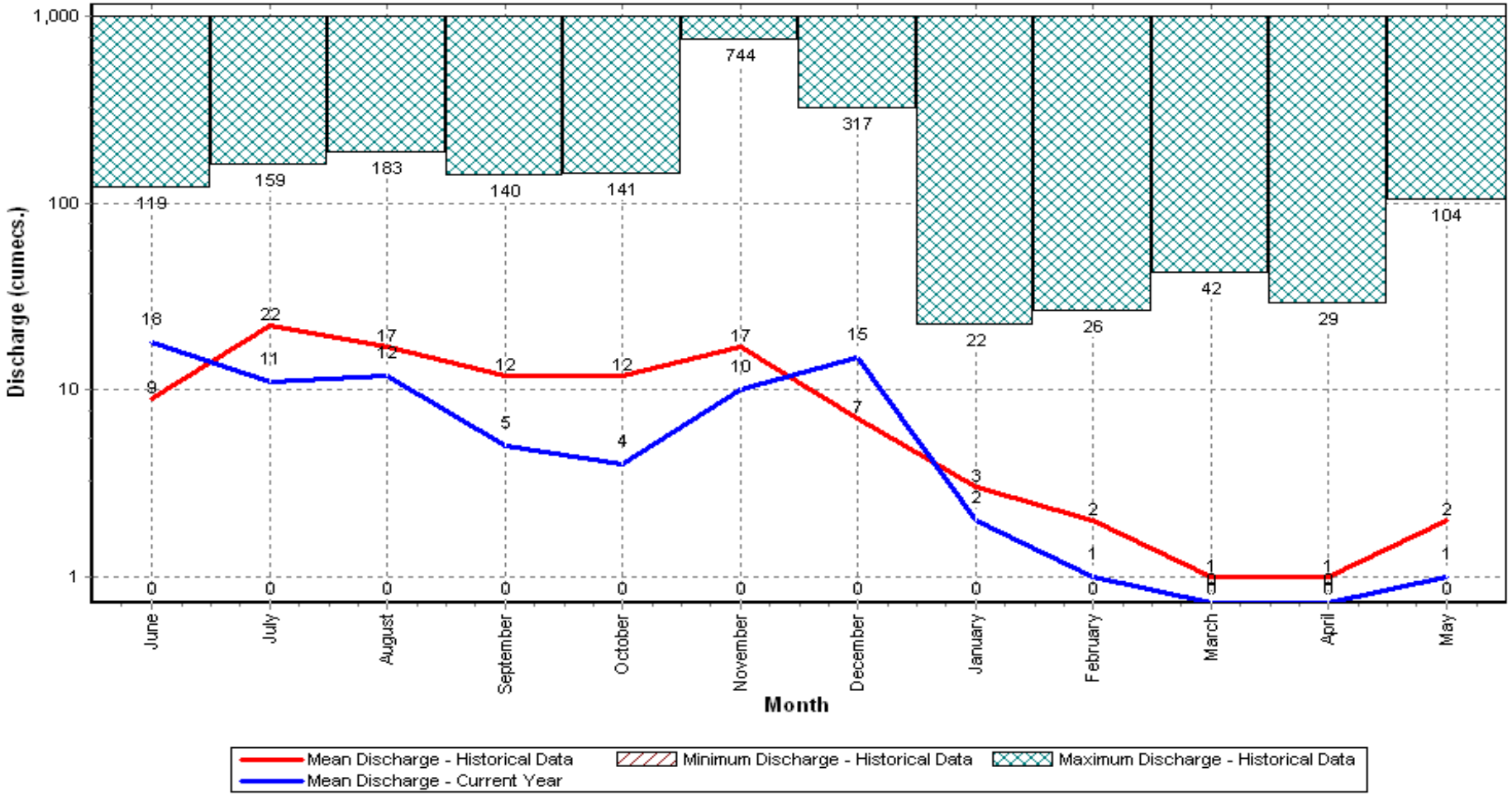
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : PUDUR (KR000M1) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Kannadipuzha | **Sub-Division : SWR SD No 2, Kochi**



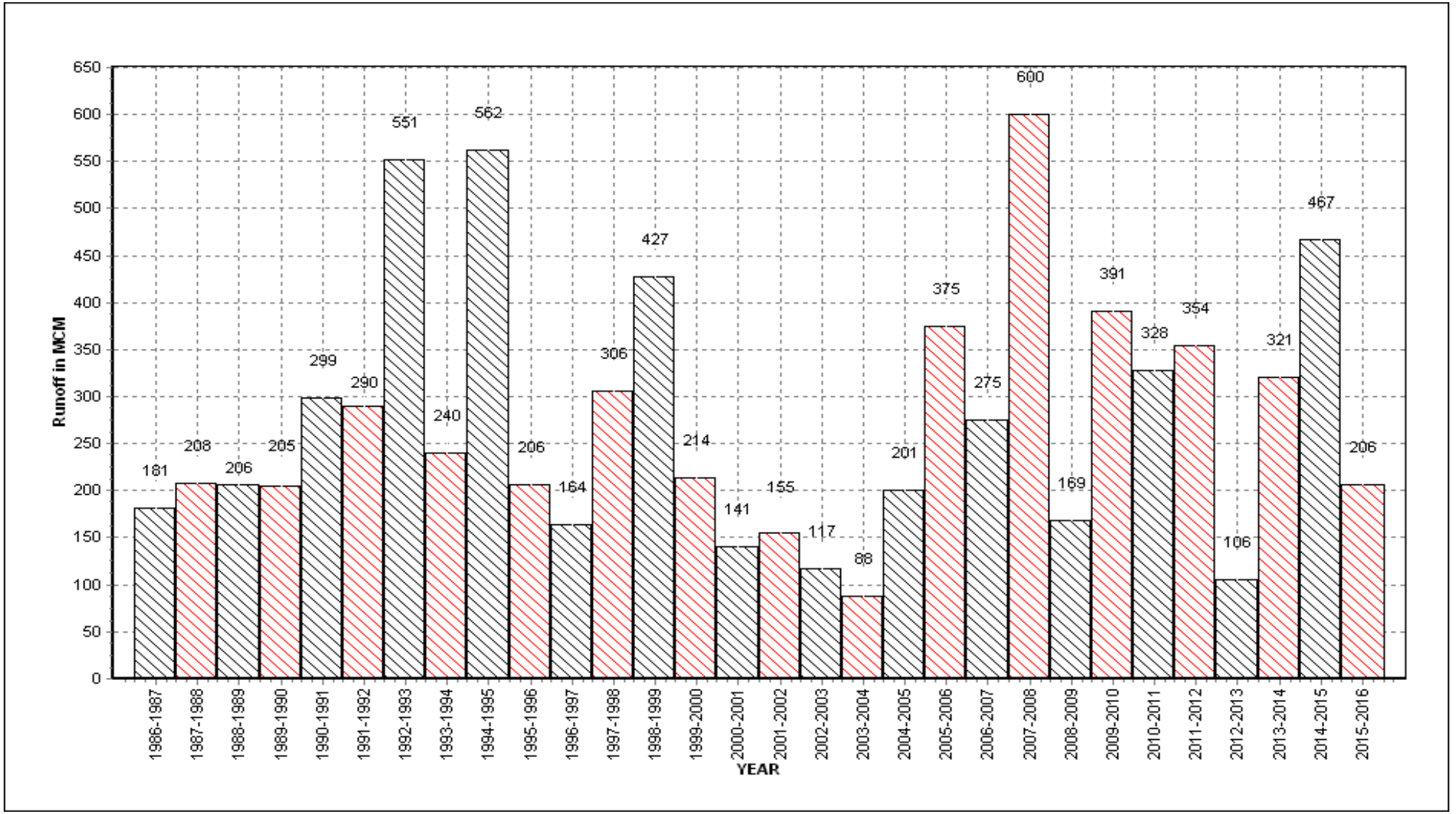
Annual Runoff Values for the period: 1986 - 2016

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

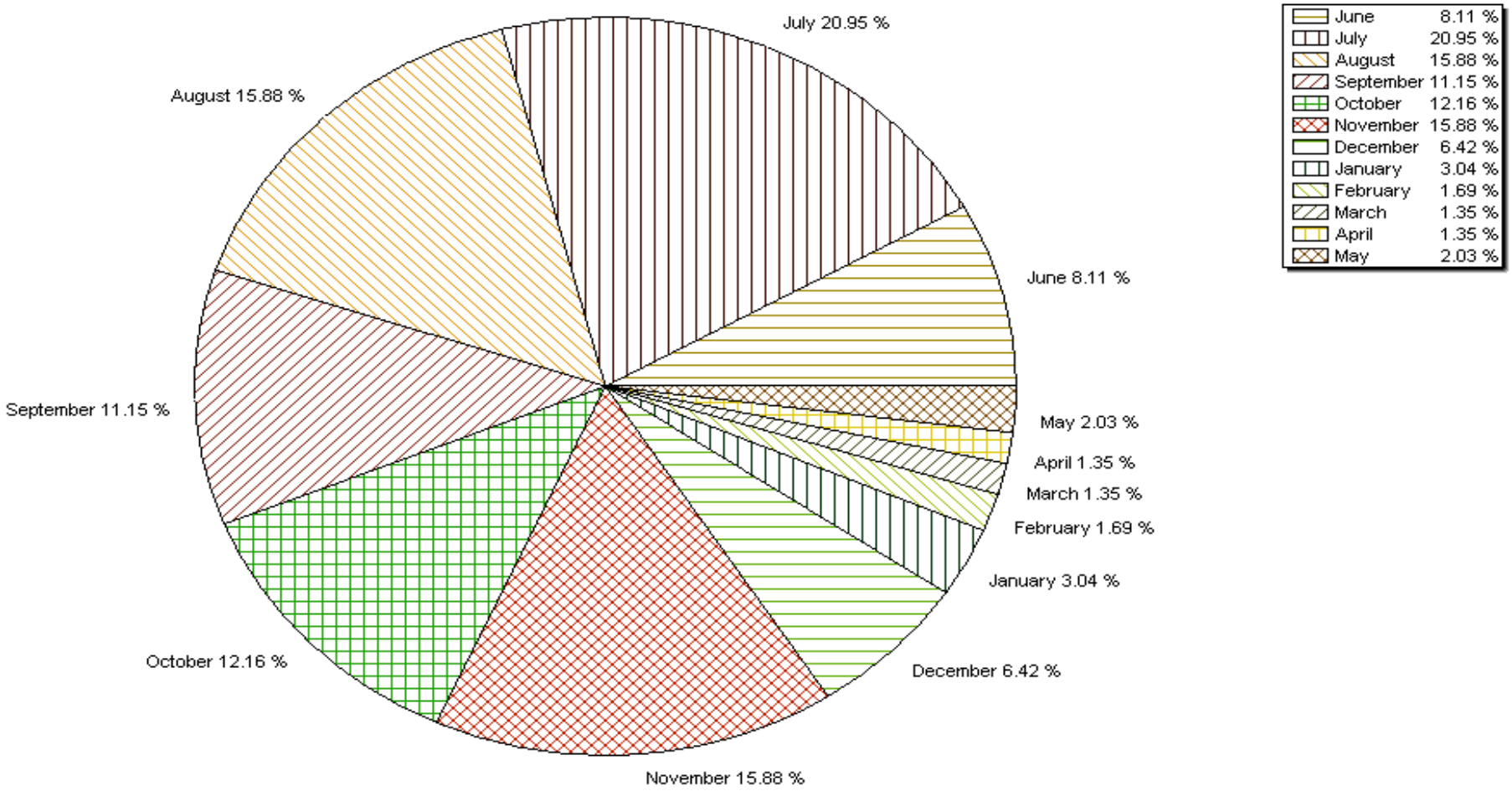


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : PUDUR (KR000M1)
Local River : Kannadipuzha

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



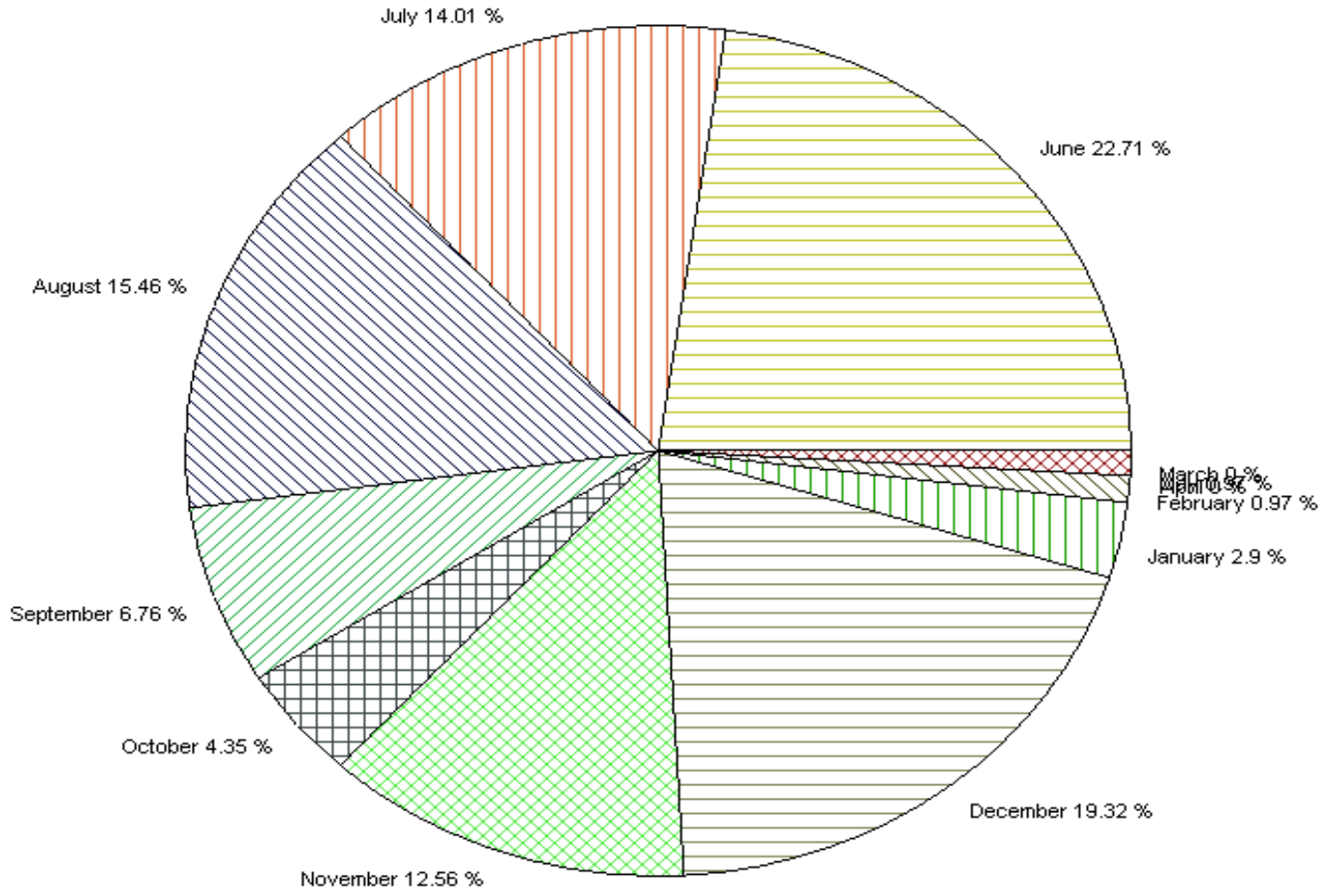
Monthly Runoff for the Year : 2015-2016

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

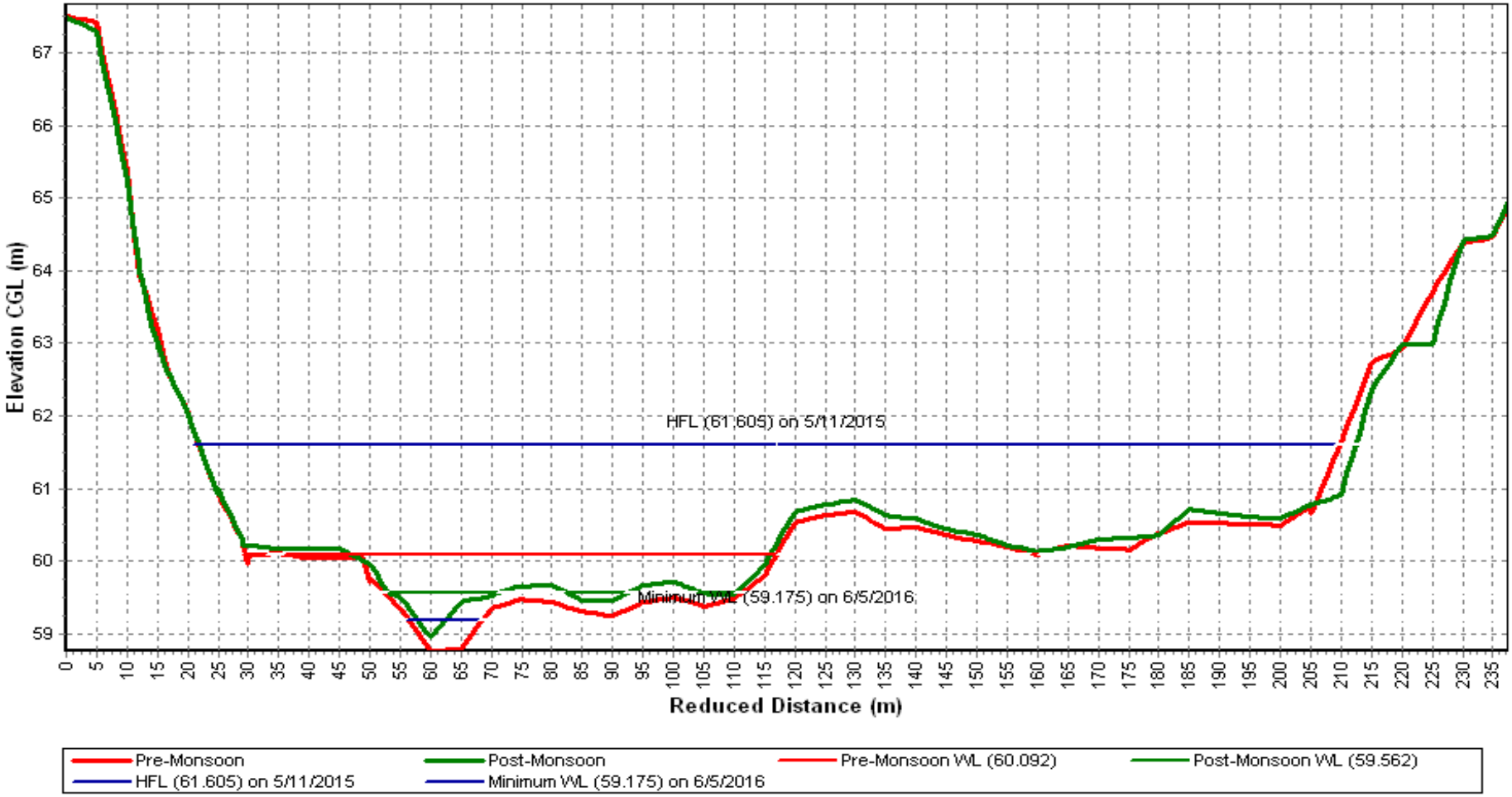
Sub-Division : SWR SD No 2, Kochi



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : PUDUR (KR000M1)
Local River : Kannadipuzha

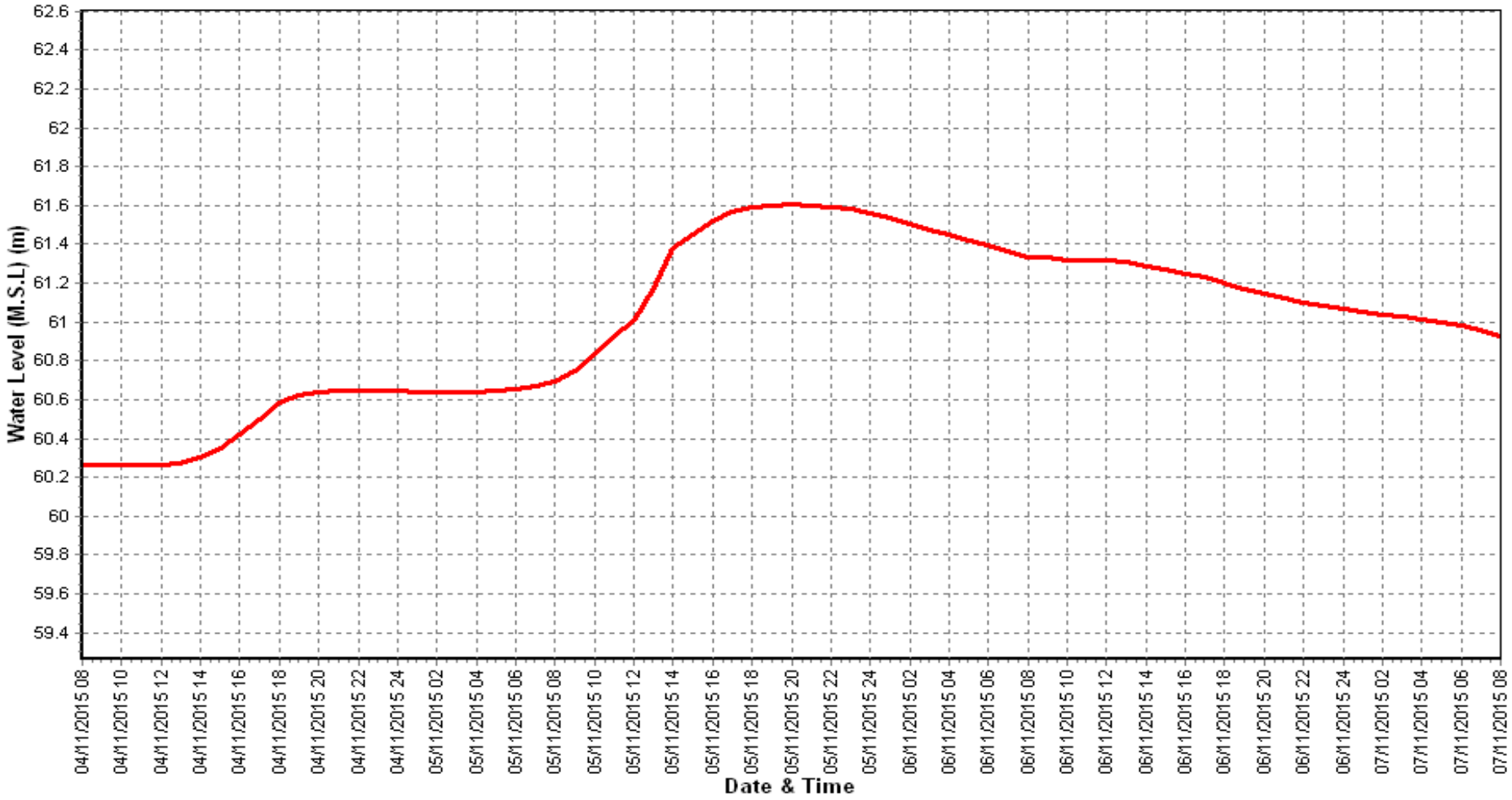
Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : PUDUR (KR000M1)
Local River : Kannadipuzha

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi

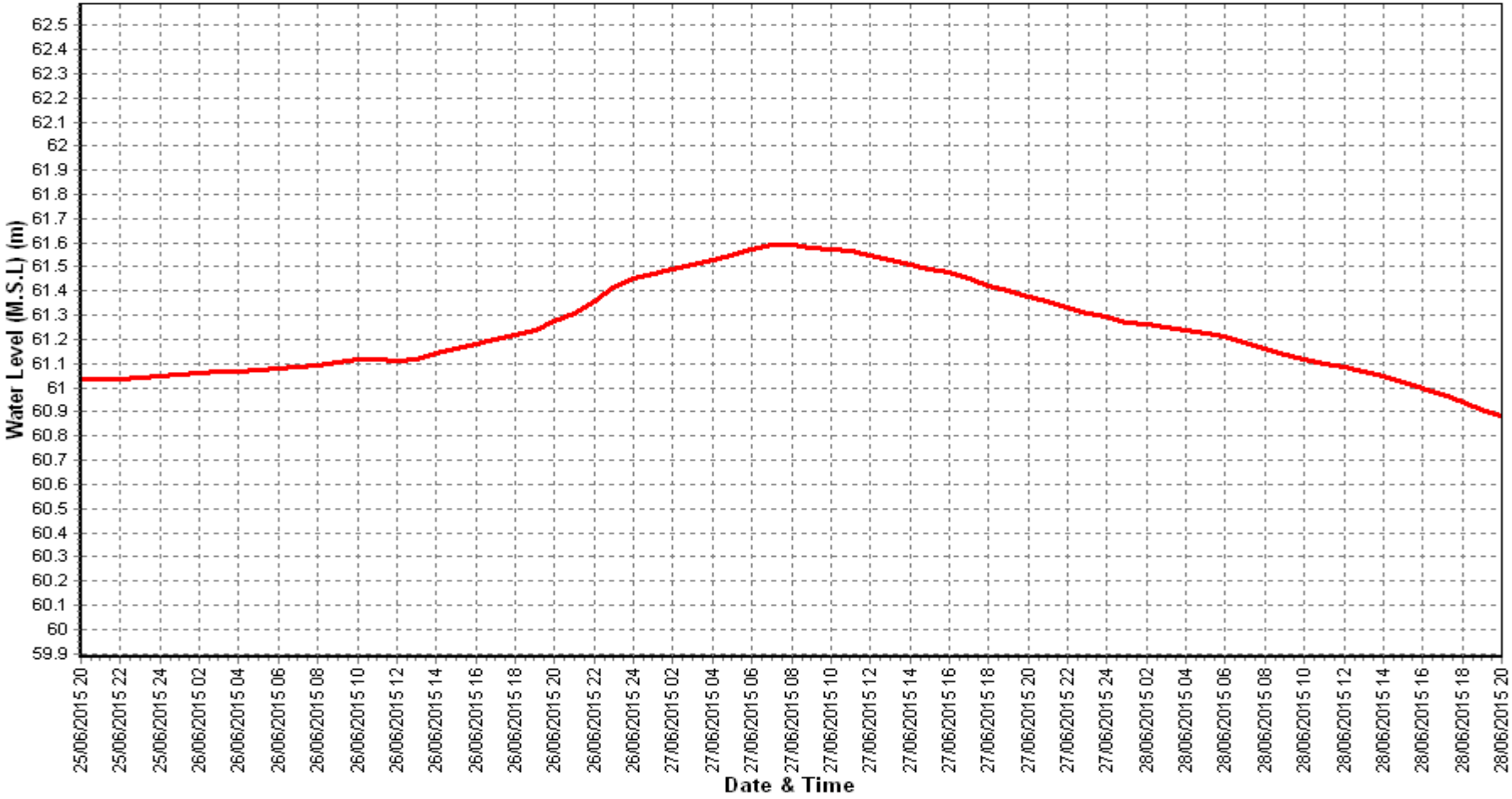


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Loc **chi**



Time Span: 72 Hrs

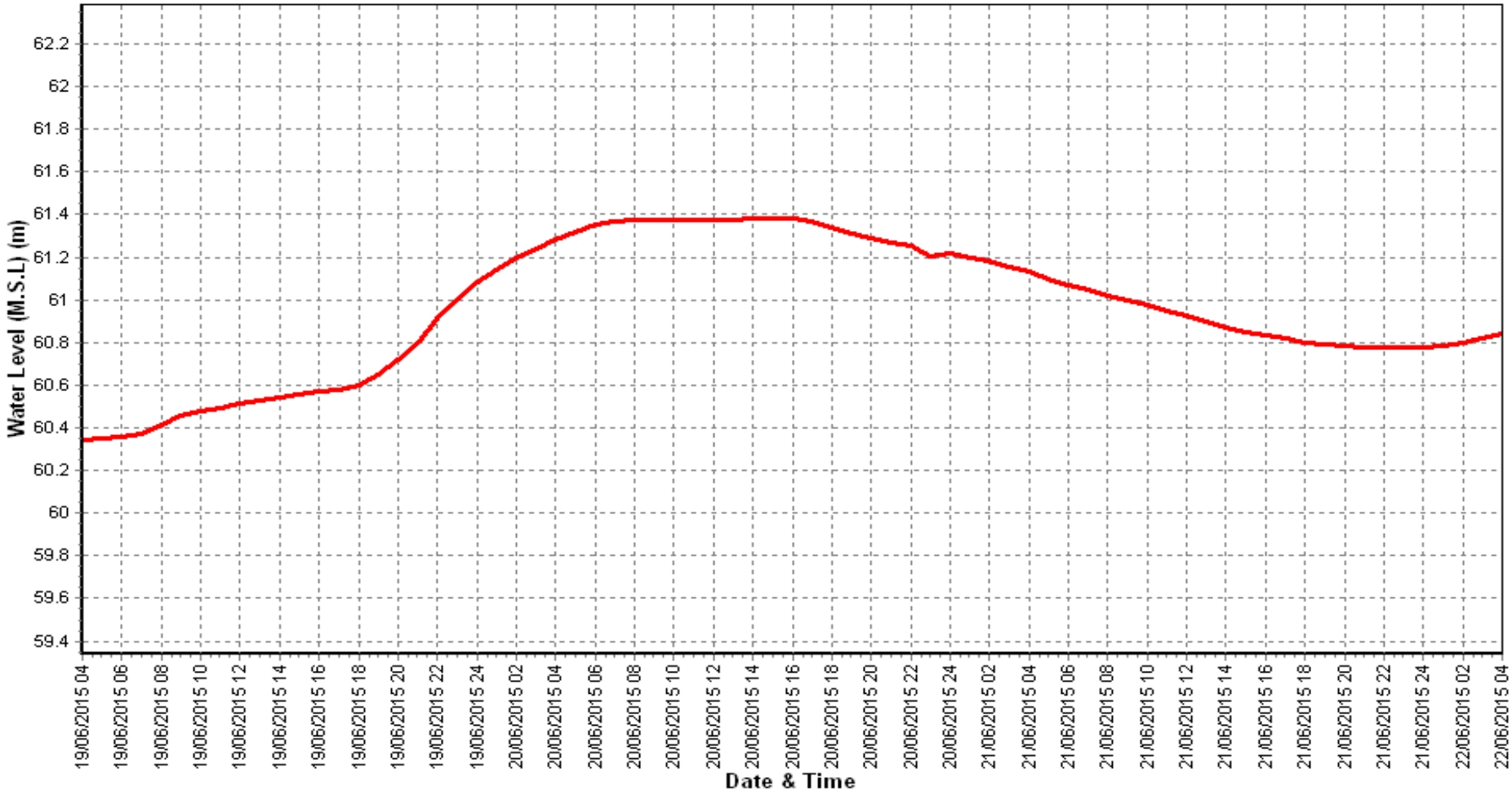
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: AMBARAMPALAYAM**		**Code**	**: KR000U2**	
State	: Tamil Nadu		District	Coimbatore	
Basin	: WFR South of Tapi		Independent River	: Bharathapuzha	
Tributary	: Aliyar		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Aliyar	
Division	: SR Division, Coimbatore		Sub-Division	: Middle Cauvery SD, Coimbatore	
Drainage Area	: 950 Sq. Km.		Bank	: Right	
Latitude	: 10°37'53"		Longitude	: 76°56'46"	
Zero of Gauge (m)	: 217.000 (m.s.l)		26/09/1977		
	Opening Date		Closing Date		
Gauge	: 26/09/1977				
Discharge	: 09/03/1978				
Sediment	: 01/08/2002				
Water Quality	: 01/08/1978				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1978-1979	72.90	220.500	25/11/1978	1.000	219.210	28/05/1979
1979-1980	399.0	221.770	17/11/1979	1.200	219.300	29/03/1980
1980-1981	285.0	221.500	16/11/1980	0.500	219.195	13/04/1981
1981-1982	47.60	220.185	24/09/1981	0.400	219.130	29/04/1982
1982-1983	23.70	219.920	14/10/1982	0.100	219.055	30/05/1983
1983-1984	38.90	220.160	28/10/1983	0.000	218.990	06/06/1983
1984-1985	50.80	220.325	03/01/1985	0.000	218.900	01/06/1984
1985-1986	20.30	219.860	01/01/1986	0.500	219.100	14/05/1986
1986-1987	24.40	220.070	26/10/1986	0.100	219.000	10/05/1987
1987-1988	39.51	220.150	10/12/1987	0.608	219.150	06/04/1988
1988-1989	20.16	219.810	14/12/1988	0.540	219.140	25/05/1989
1989-1990	29.10	220.020	09/01/1990	0.644	219.120	03/05/1990
1990-1991	125.0	222.100	04/11/1990	0.418	219.070	13/05/1991
1991-1992	25.18	219.825	01/01/1992	0.066	219.087	10/04/1992
1992-1993	5122	223.274	14/11/1992	1.274	219.268	06/08/1992
1993-1994	409.5	221.466	09/11/1993	1.695	219.280	23/04/1994
1994-1995	278.0	221.200	06/11/1994	3.000	219.410	25/06/1994
1995-1996	39.40	220.145	07/11/1995	1.280	219.040	17/05/1996

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1996-1997	38.30	220.025	15/12/1996	0.000	219.115	03/06/1996
1997-1998	62.40	220.430	26/10/1997	2.428	219.330	01/05/1998
1998-1999	285.0	221.080	08/11/1998	1.483	219.260	06/05/1999
1999-2000	65.87	220.240	05/10/1999	0.000	218.850	31/05/2000
2000-2001	73.37	220.293	29/12/2000	0.004	218.790	05/05/2001
2001-2002	39.34	220.010	07/11/2001	0.000	218.900	17/06/2001
2002-2003	35.47	219.995	27/02/2003	0.000	218.830	16/06/2002
2003-2004	34.71	219.960	18/12/2003	0.000	218.840	05/05/2004
2004-2005	183.4	220.900	01/11/2004	0.591	219.040	22/05/2005
2005-2006	215.4	221.035	24/11/2005	0.579	219.055	01/06/2005
2006-2007	27.55	220.005	22/11/2006	0.425	219.040	16/05/2007
2007-2008	88.15	220.385	25/10/2007	0.541	219.045	06/05/2008
2008-2009	24.42	219.905	21/10/2008	0.449	219.000	03/05/2009
2009-2010	1287	224.780	08/11/2009	1.273	219.160	12/04/2010
2010-2011	404.0	222.250	21/11/2010	1.025	219.130	20/05/2011
2011-2012	122.8	220.625	02/11/2011	1.666	219.150	20/04/2012
2012-2013	27.60	219.960	21/10/2012	0.418	219.020	06/04/2013
2013-2014	40.66	220.060	07/08/2013	1.800	219.180	22/04/2014
2014-2015	94.87	220.475	28/10/2014	0.949	219.045	14/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	219.310	3.112	219.390	5.692	219.310	3.361	219.550	9.537	219.555	9.299	219.590	10.92 *
2	219.300	3.054	219.390	5.658	219.290	3.309 *	219.660	13.80	219.395	5.396 *	219.645	12.95
3	219.295	2.978	219.375	5.461	219.420	5.932	219.595	10.98	219.320	3.489	219.630	11.88
4	219.275	2.625	219.365	5.055	219.555	9.747	219.680	14.63	219.280	3.140 *	219.635	12.23
5	219.295	3.152	219.360	4.634 *	219.650	12.92	219.670	14.05	219.220	2.419	219.940	29.60
6	219.355	4.294	219.355	4.451	219.485	7.399	219.660	13.47 *	219.230	2.875	219.550	9.494
7	219.375	4.952 *	219.390	5.425	219.490	7.596	219.520	8.592	219.230	2.564	219.395	5.230
8	219.370	4.671	219.515	8.748	219.525	8.849	219.640	12.60	219.235	2.679	219.330	4.035 *
9	219.355	4.296	219.465	6.990	219.485	7.669 *	219.625	12.03	219.245	2.816	219.370	4.906
10	219.525	8.174	219.470	7.188	219.520	8.645	219.670	14.13	219.230	2.577	219.470	7.258 *
11	219.500	7.487	219.420	5.944	219.520	8.579	219.670	14.07	219.220	2.234 *	219.440	6.523
12	219.545	9.232	219.400	5.510 *	219.555	9.814	219.600	11.24	219.210	2.335	219.440	6.537
13	219.600	11.40	219.350	4.316	219.350	4.325	219.590	10.92 *	219.220	2.415	219.495	7.712
14	219.590	10.92 *	219.305	3.303	219.340	4.136	219.640	12.79	219.260	2.615	219.475	7.110
15	219.600	11.38	219.220	2.872	219.340	4.229	219.610	11.46	219.270	2.837	219.440	6.475 *
16	219.610	11.75	219.230	2.565	219.400	5.510	219.620	11.97	219.250	2.410	219.435	6.343
17	219.510	7.767	219.550	9.433	219.950	31.20	219.580	10.58 *	219.235	2.302	219.420	5.721
18	219.450	6.729	219.560	9.925 *	219.600	11.24	219.585	10.59	219.200	1.971 *	219.375	4.982
19	219.515	8.003	219.500	8.093 *	219.650	13.14	219.580	10.33	219.010	0.355 #	219.375	4.940
20	219.600	11.90	219.375	5.110	219.485	7.415	219.540	9.290 *	219.440	6.328	219.500	7.838
21	219.450	6.730 *	219.375	5.099	219.400	5.633	219.615	11.74	219.555	9.764 *	219.550	9.520
22	219.390	4.946	219.445	6.505	219.420	5.932	219.570	10.15	219.640	12.71 *	219.495	7.950 *
23	219.365	5.040	219.400	5.592	219.600	11.27 *	219.570	10.17	219.650	13.40	219.530	8.906
24	219.370	5.198	219.355	4.470	219.425	6.074	219.390	5.283 *	219.655	13.28 *	220.030	36.36
25	219.390	5.718	219.330	3.777	219.375	5.568	219.370	4.758	219.640	12.71 *	219.650	13.09 *
26	219.445	6.510	219.330	4.035 *	219.400	5.638	219.360	4.519	219.650	13.31	219.510	8.126
27	219.680	15.20	219.310	3.347	219.400	5.623	219.360	4.634 *	219.660	13.75	219.380	5.076
28	219.450	6.730 *	219.465	7.028	219.395	5.478	219.380	4.992	219.640	12.68	219.410	5.694
29	219.365	5.045	219.420	5.929	219.385	5.233	219.370	4.936	219.700	15.45	219.480	7.530 *
30	219.370	5.219	219.375	5.128	219.360	4.634 *	219.375	5.079	219.580	10.26	219.470	7.056
31			219.320	3.559	219.525	8.842			219.570	9.861		
Ten-Daily Mean												
I Ten-Daily	219.345	4.131	219.408	5.930	219.473	7.542	219.627	12.38	219.294	3.725	219.555	10.85
II Ten-Daily	219.552	9.657	219.391	5.707	219.519	9.959	219.601	11.32	219.231	2.580	219.439	6.418
III Ten-Daily	219.427	6.634	219.375	4.952	219.426	6.357	219.436	6.627	219.631	12.47	219.551	10.93
Monthly												
Min.	219.275	2.625	219.220	2.565	219.290	3.309	219.360	4.519	219.010	0.355	219.330	4.035
Max.	219.680	15.20	219.560	9.925	219.950	31.20	219.680	14.63	219.700	15.45	220.030	36.36
Mean	219.442	6.807	219.391	5.511	219.471	7.901	219.555	10.11	219.393	6.459	219.515	9.4

Annual Runoff in MCM = 312 Annual Runoff in mm = 329

Peak Observed Discharge = 116.9 cumecs on 09/12/2015 Corres. Water Level :220.54 m

Lowest Observed Discharge = 0.355 cumecs on 19/10/2015 Corres. Water Level :219.01 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	219.485	7.526	219.760	18.73	219.610	11.44	219.575	10.21	219.485	7.551	219.425	6.072 *
2	219.460	6.828	219.655	13.75	219.620	12.05	219.545	9.165	219.385	5.010	219.460	6.980
3	220.000	34.10	219.720	16.28 *	219.595	10.93	219.490	7.708	219.320	3.571 *	219.410	5.645
4	219.900	26.69	219.710	16.09	219.600	11.23	219.505	8.058	219.345	4.058	219.450	6.667
5	219.770	18.75	219.705	15.74	219.630	12.38	219.465	7.234	219.370	4.811	219.420	6.167
6	219.750	19.60 *	219.655	13.70	219.595	10.92	219.495	8.076 *	219.350	4.237	219.420	6.120
7	220.500	100.6	219.580	10.41	219.610	11.94 *	219.470	7.108	219.340	4.014	219.460	7.258
8	220.520	111.9	219.775	19.04	219.630	12.36	219.485	7.457	219.340	4.069	219.390	5.170 *
9	220.540	116.9	219.740	17.58	219.585	10.55	219.470	7.099	219.400	5.393	219.390	5.271
10	220.060	40.47	219.740	17.14 *	219.600	11.27	219.480	7.338	219.400	5.421 *	219.370	4.815
11	219.910	27.44	219.735	17.25	219.550	9.518	219.520	8.568	219.380	5.098	219.380	5.044
12	219.850	24.51	219.730	16.83	219.550	9.504	219.510	8.274	219.375	5.202	219.410	5.916
13	219.780	18.91 *	219.715	16.24	219.550	9.606	219.460	7.041 *	219.380	5.042	219.400	5.607
14	219.740	17.65	219.730	16.90	219.600	11.58 *	219.495	7.807	219.370	4.685 *	219.380	5.036
15	219.720	16.58	219.730	16.71 *	219.665	13.94	219.490	7.677	219.370	4.791	219.390	5.170 *
16	219.760	18.64	219.740	17.60	219.560	9.789	219.535	9.018	219.370	4.762	219.390	5.283
17	219.730	17.18	219.740	17.14 *	219.560	9.807	219.435	6.171	219.340	4.000 *	219.505	8.449
18	219.685	14.88	219.735	17.09	219.555	9.553	219.415	5.651	219.335	3.902	219.460	7.190
19	219.690	15.26	219.745	17.86	219.590	10.95	219.415	5.604	219.335	3.924	219.505	8.458
20	219.710	15.86 *	219.735	17.17	219.590	10.96	219.350	4.223 *	219.340	4.000 *	219.570	11.03
21	219.660	13.78	219.725	16.62	219.540	9.504 *	219.270	2.719	219.350	4.337	219.565	10.34 *
22	219.650	13.39	219.710	16.14	219.590	11.01	219.260	2.599	219.320	3.539	219.565	10.34 *
23	219.620	11.83	219.645	13.00	219.600	11.16	219.390	5.191	219.320	3.558	219.565	10.15
24	219.650	13.44 *	219.640	13.06 *	219.615	11.59	219.400	5.425	219.310	3.365 *	219.560	9.949
25	219.645	13.25 *	219.655	13.63	219.635	12.62	219.365	4.568 *	219.320	3.546	219.560	9.943
26	219.685	14.90	219.680	14.63 *	219.645	13.04	219.330	3.499	219.245	2.405	219.555	9.707
27	219.680	14.63 *	219.670	14.04	219.625	12.08	219.345	4.111 *	219.295	3.083	219.555	9.748
28	219.705	16.08	219.670	14.01	219.590	11.22 *	219.280	2.807	219.295	3.062	219.585	10.92
29	219.695	15.41	219.680	14.66	219.580	10.41	219.310	3.297	219.360	4.515	219.590	11.22 *
30	219.670	14.14	219.675	14.31			219.520	8.524	219.340	4.381	219.580	10.65
31	219.805	21.51	219.640	13.06 *			219.340	3.795			219.585	10.89
Ten-Daily Mean												
I Ten-Daily	219.999	48.33	219.704	15.85	219.607	11.51	219.498	7.945	219.373	4.814	219.420	6.016
II Ten-Daily	219.757	18.69	219.733	17.08	219.577	10.52	219.463	7.003	219.359	4.541	219.439	6.718
III Ten-Daily	219.679	14.76	219.672	14.29	219.602	11.40	219.346	4.230	219.316	3.579	219.570	10.35
Monthly												
Min.	219.460	6.828	219.580	10.41	219.540	9.504	219.260	2.599	219.245	2.405	219.370	4.815
Max.	220.540	116.9	219.775	19.04	219.665	13.94	219.575	10.21	219.485	7.551	219.590	11.22
Mean	219.807	26.86	219.702	15.69	219.595	11.14	219.433	6.323	219.350	4.311	219.479	7.781

Peak Computed Discharge = 19.60 cumecs on 06/12/2015 **Corres. Water Level :219.75 m**

Lowest Computed Discharge = 1.971 cumecs on 18/10/2015 **Corres. Water Level :219.2 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

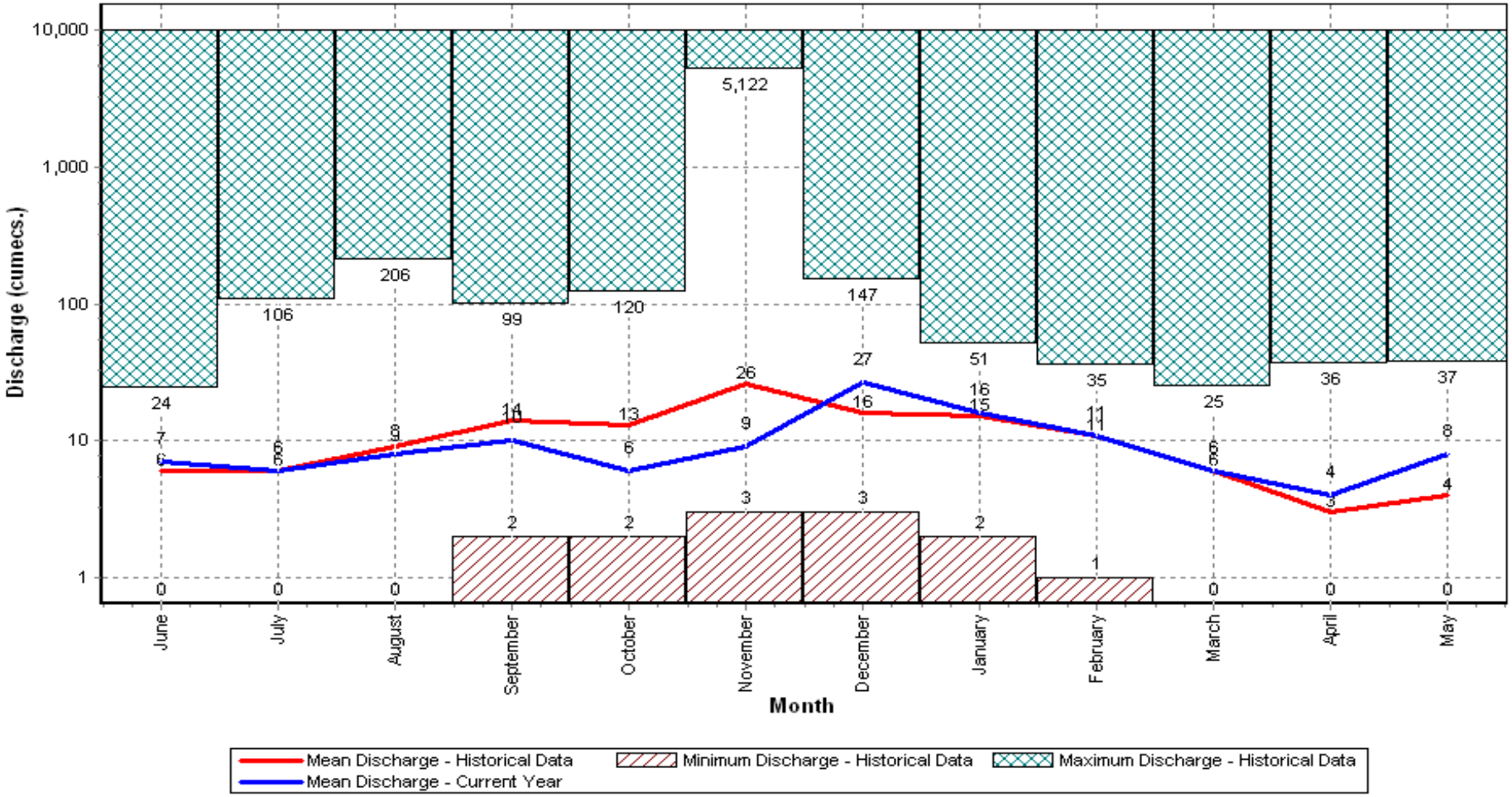
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Data considered : 1978-2016** **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**



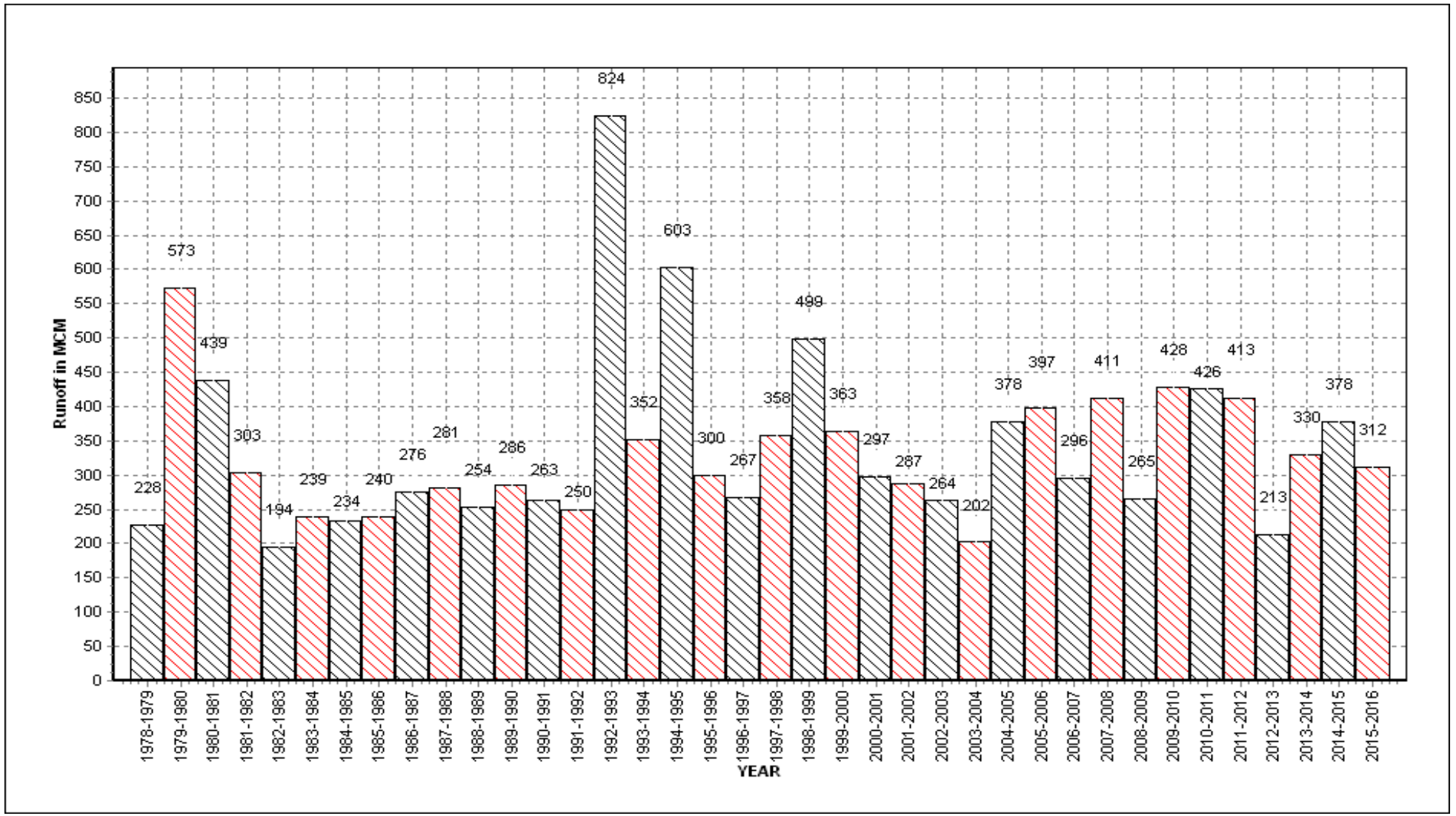
Annual Runoff Values for the period: 1978 - 2016

Station Name : AMBARAMPALAYAM (KR000U2)

Division : SR Division, Coimbatore

Local River : Aliyar

Sub-Division : Middle Cauvery SD, Coimbatore



Note: Missing values have not been considered while arriving at Annual Runoff

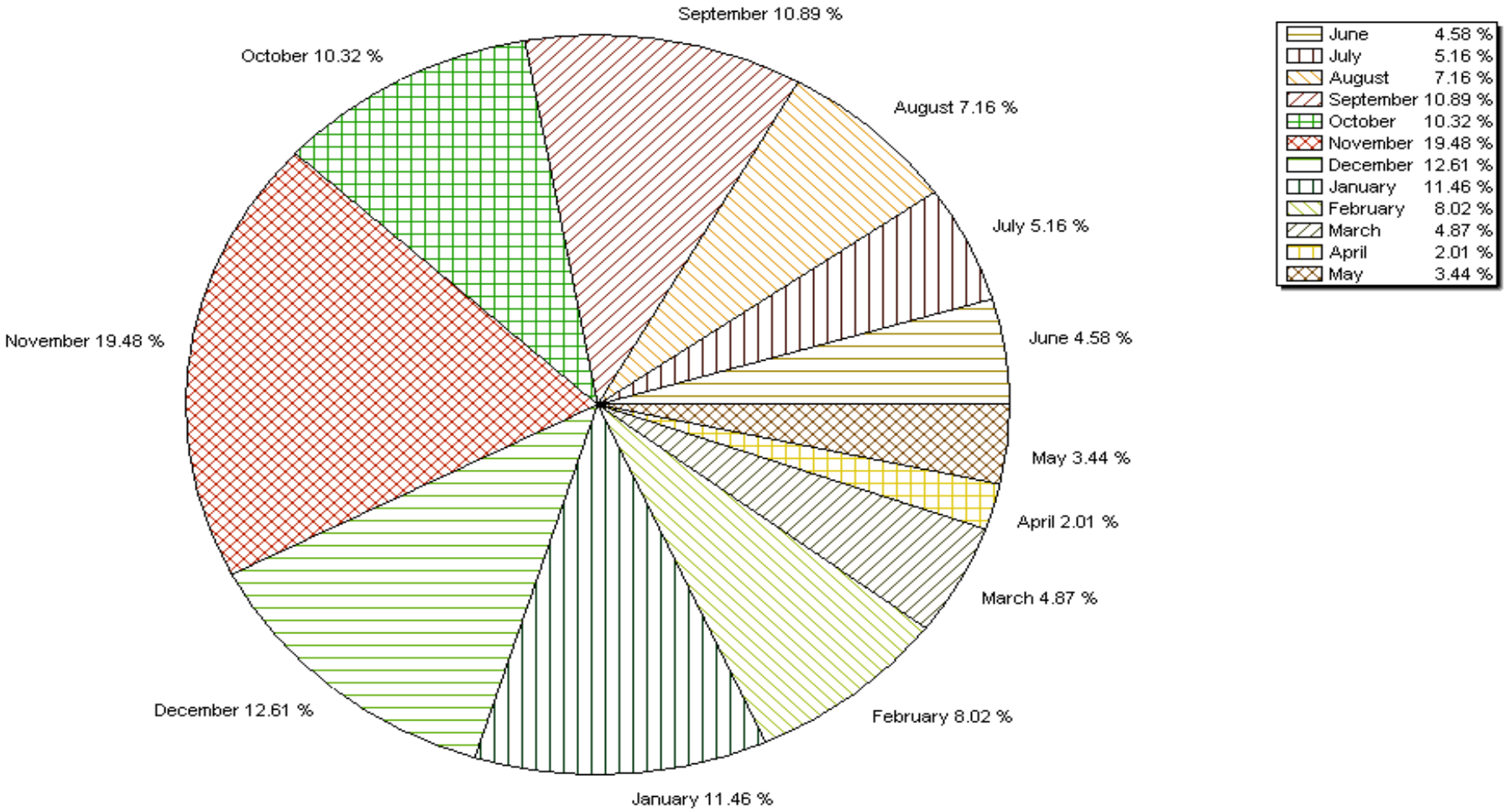
Monthly Average Runoff based on period : 1978-2015

Station Name : AMBARAMPALAYAM (KR000U2)

Local River : Aliyar

Division : SR Division, Coimbatore

Sub-Division : Middle Cauvery SD, Coimbatore



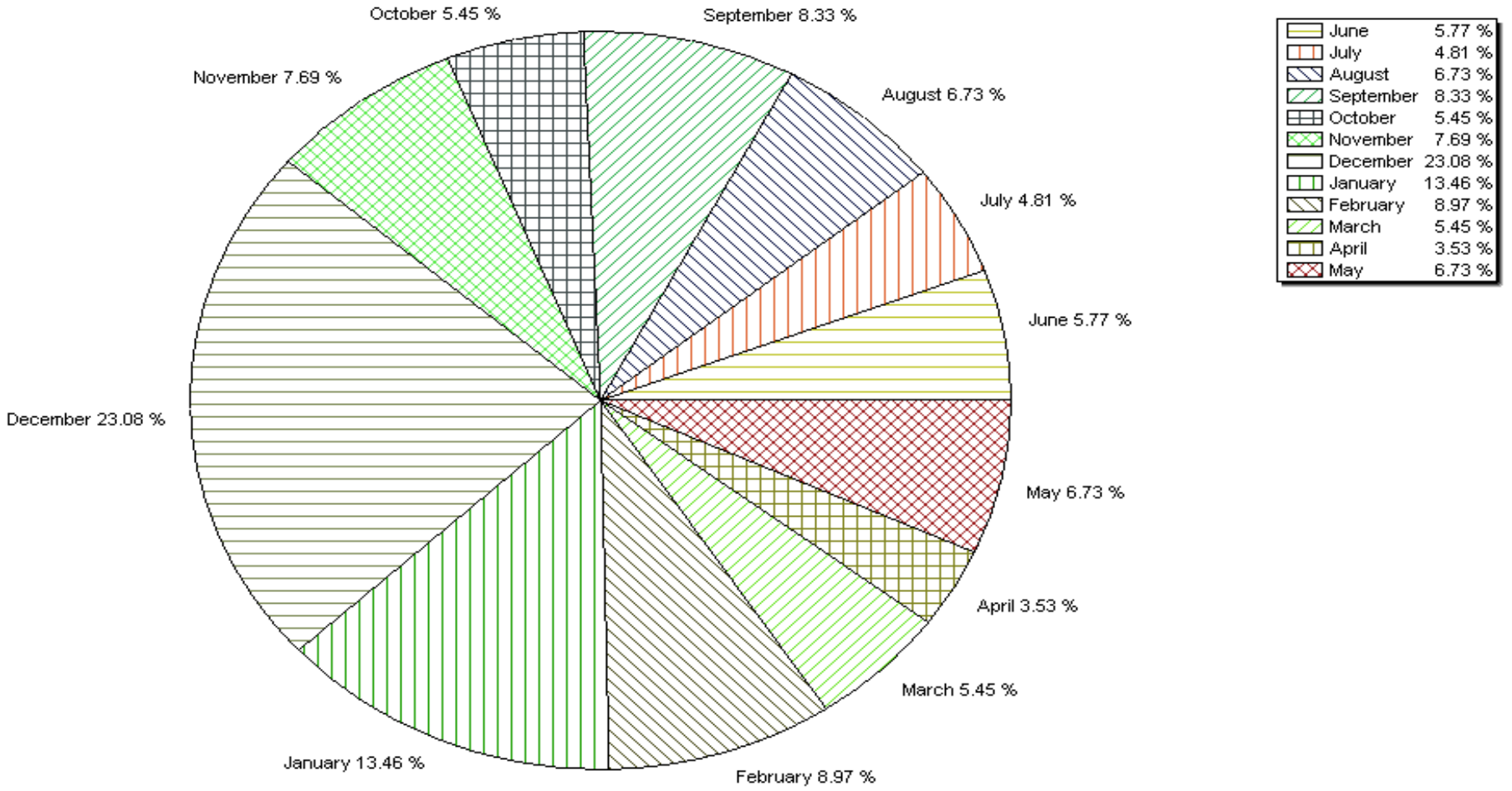
Monthly Runoff for the Year : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2)

Division : SR Division, Coimbatore

Local River : Aliyar

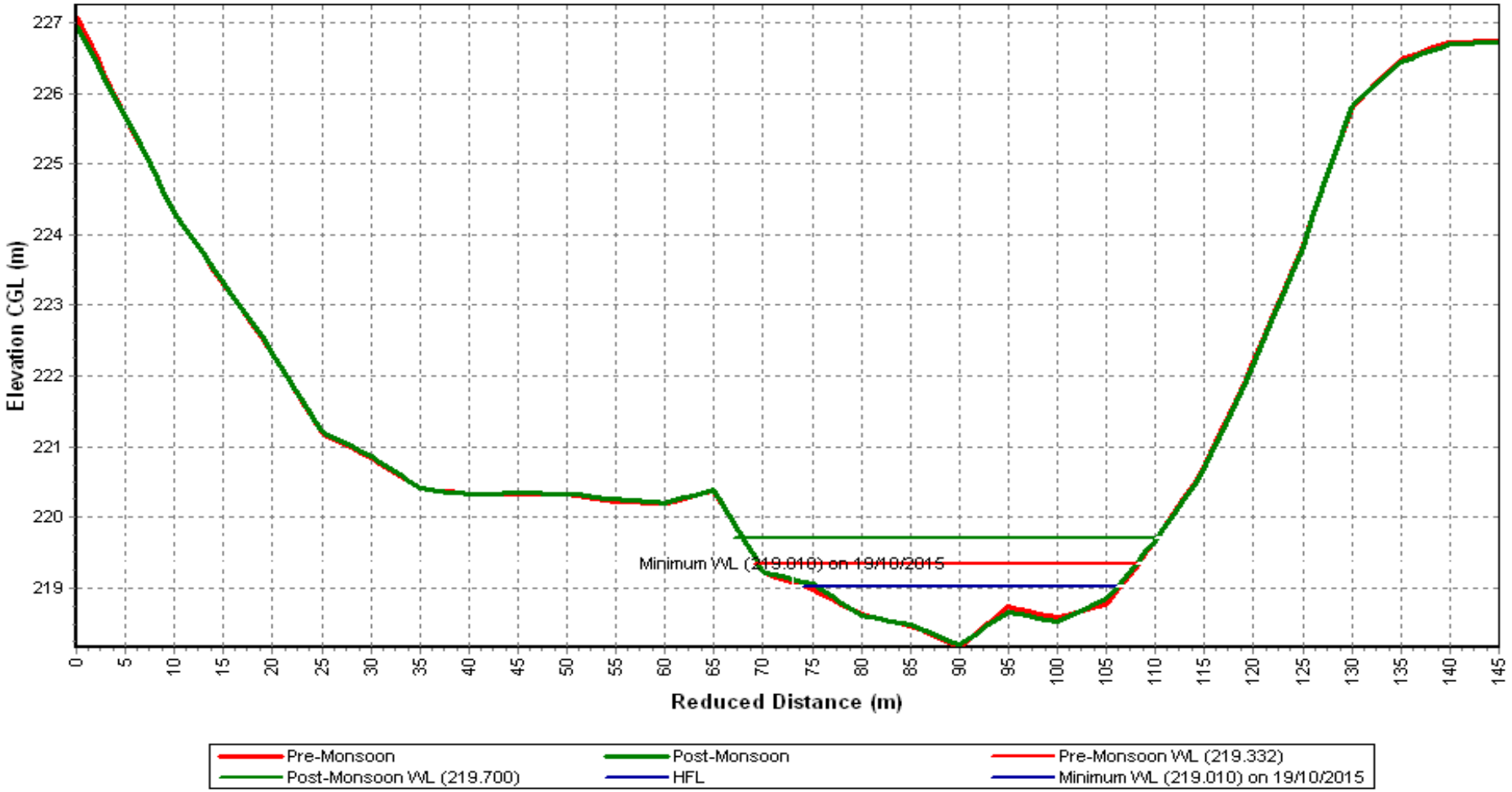
Sub-Division : Middle Cauvery SD, Coimbatore



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**



HISTORY SHEET

Water Year : 2014-2015

Site	**: ARANGALY**		**Code**	**: KSA00F3**	
State	: Kerala		District	Thrissur	
Basin	: WFR South of Tapi		Independent River	: Periyar	
Tributary	: Chalakudy		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Chalakudy	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 1342 Sq. Km.		Bank	: Left	
Latitude	: 10°17'10"		Longitude	: 76°19'20"	
Zero of Gauge (m)	: 0.000 (m.s.l)		17/02/1978		
	Opening Date		Closing Date		
Gauge	: 17/02/1978				
Discharge	: 27/04/1978				
Sediment	: 08/07/1980				
Water Quality	: 01/08/1978				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1978-1979	504.5	4.980	11/08/1978	3.000	1.138	01/05/1979
1979-1980	875.0	6.930	08/08/1979	3.000	1.115	16/04/1980
1980-1981	707.4	6.240	02/07/1980	4.200	1.205	06/02/1981
1981-1982	568.0	5.850	24/09/1981	3.100	1.130	16/04/1982
1982-1983	356.9	4.410	02/08/1982	2.500	0.980	14/05/1983
1983-1984	599.4	5.750	21/07/1983	4.900	1.105	11/06/1983
1984-1985	466.7	5.190	20/07/1984	3.300	0.795	08/05/1985
1985-1986	793.0	7.580	27/06/1985	2.200	0.630	22/04/1986
1986-1987	770.5	5.985	09/08/1986	2.600	0.610	06/05/1987
1987-1988	502.0	4.650	26/08/1987	4.840	0.580	08/02/1988
1988-1989	539.3	4.715	18/07/1988	2.233	0.530	25/05/1989
1989-1990	859.5	6.605	24/07/1989	3.018	0.330	16/05/1990
1990-1991	431.0	3.800	04/11/1990	0.800	0.440	27/12/1990
1991-1992	718.8	5.562	29/07/1991	2.803	0.087	07/03/1992
1992-1993	910.4	5.861	28/07/1992	4.900	0.330	02/05/1993
1993-1994	432.4	3.928	04/08/1993	3.850	0.177	07/02/1994
1994-1995	915.3	6.445	03/08/1994	0.000	0.500	20/12/1994
1995-1996	520.5	4.640	03/09/1995	0.000	0.560	18/01/1996
1996-1997	524.0	4.590	29/09/1996	0.000	0.480	01/06/1996

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1997-1998	605.0	4.190	25/07/1997	0.000	0.410	28/04/1998
1998-1999	838.8	5.725	12/10/1998	2.809	0.340	01/06/1998
1999-2000	690.0	4.650	18/07/1999	0.000	0.415	03/03/2000
2000-2001	608.5	4.635	25/08/2000	0.000	0.310	01/06/2000
2001-2002	576.0	4.775	09/07/2001	0.000	0.620	23/01/2002
2002-2003	668.4	4.945	17/08/2002	0.126	0.310	11/12/2002
2003-2004	292.8	2.500	24/08/2003	0.000	0.350	17/03/2004
2004-2005	680.6	4.875	05/08/2004	0.000	0.660	05/01/2005
2005-2006	881.8	6.120	01/08/2005	0.000	0.630	01/06/2005
2006-2007	551.4	4.160	16/08/2006	0.000	0.620	01/02/2007
2007-2008	1265	7.160	17/07/2007	0.000	0.610	16/12/2007
2008-2009	379.4	3.230	28/07/2008	0.000	0.450	0/06/2008
2009-2010	1363	6.355	18/07/2009	0.000	0.590	01/06/2009
2010-2011	359.0	2.850	04/10/2010	0.000	0.680	15/01/2011
2011-2012	710.1	4.725	03/09/2011	0.000	0.440	11/12/2011
2012-2013	374.0	2.950	18/08/2012	0.000	0.520	01/06/2012
2013-2014	1266	5.870	05/08/2013	0.000	0.540	01/06/2013
2014-2015	639.9	3.610	01/09/2014	1.587	0.600	07/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	0.710	15.29	0.915	96.81	0.500	71.41	0.325	55.16	1.350	122.9 #	0.790	66.34 *
2	0.570	0.095 *	0.770	97.74	0.490	64.51 *	0.390	51.06	0.880	84.05 *	0.755	41.80
3	0.670	7.364	0.640	87.42	0.500	67.25	0.880	102.4 #	0.930	88.27	0.855	49.39
4	0.690	9.638	0.630	85.46	0.715	78.71	1.020	117.4 #	0.930	87.79 *	0.785	47.54
5	0.910	65.70 #	0.620	76.50 *	0.655	75.08	1.190	136.5 #	1.020	87.77	0.860	62.32
6	0.840	49.70	0.560	67.52	0.625	73.22	0.550	69.96 *	1.090	94.66	0.970	89.19 *
7	0.870	52.56 *	0.530	71.46	0.535	66.20	1.040	119.6 #	0.860	72.04	0.840	62.55 *
8	0.890	58.96 #	0.540	70.94	0.560	75.08	0.900	92.92	0.760	73.93	0.790	53.65 *
9	0.640	4.359 #	0.710	87.32	0.510	66.31 *	0.760	83.82	0.840	78.76	0.740	52.59
10	0.670	7.827 #	0.810	95.84	0.530	74.60	0.830	94.64	0.740	81.48	0.700	39.49 *
11	0.755	24.27	0.800	93.81	0.710	100.4	0.725	77.45	0.670	69.37 *	0.720	42.43 #
12	0.840	43.59 #	0.720	86.17 *	0.915	118.7	0.650	73.14	0.700	70.92	0.720	42.43 #
13	0.820	38.04 #	0.610	77.65	1.240	151.8	0.630	77.45 *	0.720	77.34	0.885	77.73
14	0.870	52.56 *	0.500	75.21	0.925	111.1	0.600	71.51	1.175	116.2	0.840	68.96
15	0.875	43.63	0.495	78.37	0.800	94.19 *	0.535	66.92	0.890	81.05	0.760	48.67 *
16	0.770	25.55	0.440	72.27	0.710	85.19 *	0.555	65.13	0.805	73.51	0.620	28.86 #
17	0.870	53.42	1.060	99.27	0.630	73.64	0.770	86.84	0.820	73.58	0.760	52.41
18	1.190	136.5 #	1.550	180.0 *	0.665	64.69	0.735	71.35	0.860	73.48 *	0.720	42.43 #
19	0.380	56.80	1.840	217.9 *	2.580	334.6	0.710	74.18	0.840	72.44 #	0.750	54.81
20	0.330	49.39	1.880	211.0	1.025	134.1	0.710	72.04 *	0.810	64.76	0.830	56.63
21	0.410	57.48 *	1.380	160.2	0.760	89.05	0.615	67.07	0.770	55.86	0.840	60.38
22	1.020	114.6	3.010	416.0	0.780	85.70	0.570	60.55	0.800	66.34 #	0.740	45.49 *
23	1.180	125.5	1.840	219.8	0.670	81.29 *	0.580	56.23	0.650	53.12 *	0.680	36.66 #
24	1.680	221.7	2.420	328.2	0.700	76.08	0.430	54.54 *	0.570	46.21 *	0.825	52.51
25	1.770	242.6	1.780	204.0	0.590	70.96	0.555	61.41	0.580	47.05 *	0.920	78.34 *
26	2.160	283.1	1.400	161.4 *	0.480	60.15	0.410	52.03	0.498	38.22	0.810	57.96
27	3.910	531.5	1.010	119.8	0.405	54.56	0.440	55.12 *	0.575	45.20	0.880	56.87
28	2.240	274.0 *	0.790	99.89	0.330	50.73 *	0.830	86.56	0.430	39.38	0.780	49.71
29	1.415	142.2	0.650	94.80	0.355	52.11	0.660	76.89	0.435	33.77	0.710	40.95 *
30	1.315	137.5	0.570	76.70	0.360	53.23 *	0.700	75.30	0.605	52.46	0.610	26.04
31			0.540	76.42	0.380	53.35			0.720	57.35		
Ten-Daily Mean												
I Ten-Daily	0.746	27.15	0.673	83.70	0.562	71.24	0.789	92.35	0.940	87.16	0.808	56.49
II Ten-Daily	0.770	52.38	0.990	119.2	1.020	126.8	0.662	73.60	0.829	77.27	0.761	51.54
III Ten-Daily	1.710	213.0	1.399	177.9	0.528	66.11	0.579	64.57	0.603	48.63	0.780	50.49
Monthly												
Min.	0.330	0.095	0.440	67.52	0.330	50.73	0.325	51.06	0.430	33.77	0.610	26.04
Max.	3.910	531.5	3.010	416.0	2.580	334.6	1.190	136.5	1.350	122.9	0.970	89.19
Mean	1.075	97.51	1.033	128.6	0.698	87.36	0.677	76.84	0.785	70.3	0.783	52.84

Annual Runoff in MCM = 1509 Annual Runoff in mm = 1125

Peak Observed Discharge = 531.5 cumecs on 27/06/2015 Corres. Water Level :3.91 m

Lowest Observed Discharge = 2.766 cumecs on 18/01/2016 Corres. Water Level :0.32 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	0.700	40.79	0.570	6.860 #	0.880	6.965	0.630	4.444	0.610	3.993 *	0.660	4.346 *
2	0.810	52.49	0.530	5.418	0.810	6.924	0.620	4.041 #	0.610	3.993 *	0.700	3.970
3	0.910	53.16 *	0.540	6.253 *	0.840	6.699	0.600	3.684	0.620	4.062 *	0.685	4.529 #
4	0.890	51.20 #	0.530	4.569	0.815	6.346	0.600	3.279	0.655	3.512	0.675	4.807
5	0.830	45.54 *	0.480	3.821	0.815	6.079	0.560	3.627	0.620	4.062 #	0.670	4.500
6	0.710	35.21 *	0.470	4.016	0.810	5.291	0.540	3.318 *	0.610	4.617	0.670	4.513
7	0.850	47.39 *	0.450	3.839	0.800	5.870 *	0.560	3.493 *	0.600	3.845	0.730	5.728
8	0.690	29.07	0.440	4.305	0.835	5.081	0.560	4.252	0.610	3.789	0.780	5.259 *
9	0.850	47.39 #	0.410	3.623	0.800	6.039	0.570	3.706	0.630	4.015	0.800	6.561
10	0.650	28.20	0.440	4.464 *	0.765	4.605	0.580	4.684	0.700	4.640 *	0.790	5.771
11	0.770	37.27	0.460	5.256	0.760	6.094	0.590	4.044	0.730	4.037	0.820	6.189
12	0.880	50.23 #	0.415	4.672	0.780	5.732	0.590	4.188	0.740	4.074	0.840	7.019
13	0.830	45.54 *	0.470	5.828	0.780	5.840	0.600	3.855 *	0.725	4.119	0.850	4.786
14	1.160	76.55	0.440	5.352	0.780	5.653 *	0.620	3.740	0.915	6.395 *	0.830	5.324
15	1.120	56.20	0.500	5.495 #	0.790	4.774	0.595	3.202	0.720	4.791 #	0.860	5.918 *
16	1.135	51.18	0.560	7.424	0.760	4.440	0.590	3.575	0.680	4.732	0.880	6.089 *
17	1.090	44.80	0.480	5.138 *	0.730	5.877	0.590	3.683	0.670	4.419 *	0.930	6.529 #
18	0.870	27.95	0.320	2.766 #	0.695	4.700	0.580	4.352	0.690	4.321	0.700	4.365
19	0.840	26.05	0.370	3.416 #	0.680	5.010	0.570	3.567	0.660	4.341	0.835	5.708 #
20	0.950	34.70 *	0.420	5.308	0.655	4.238	0.580	3.672 *	0.640	4.203 *	0.925	6.484 *
21	0.710	22.56	0.460	5.500	0.640	4.230 *	0.610	3.839	0.645	4.767	0.840	5.750 *
22	0.770	23.94	0.560	6.654 #	0.650	4.125	0.580	2.874	0.635	5.270	0.920	6.439 *
23	0.845	20.52	0.650	4.326 #	0.635	4.152	0.600	4.069	0.620	5.086	0.850	5.834 #
24	0.830	26.24 *	0.660	4.423 *	0.650	3.114	0.595	3.885	0.615	4.027 *	0.890	5.312
25	0.770	22.50 *	0.700	4.820 #	0.640	4.230 #	0.600	3.924 *	0.635	3.862	0.720	4.210
26	0.710	12.31	0.710	4.921 *	0.640	4.230 #	0.625	3.632	0.590	3.723	0.830	6.491
27	0.700	9.875 *	0.730	6.463	0.610	3.026	0.610	3.993 *	0.580	3.788 #	0.880	6.089 #
28	0.630	7.472	0.740	6.651	0.600	3.855 *	0.650	3.067	0.580	4.565	0.990	7.077 #
29	0.590	7.583	0.780	5.747	0.650	5.059	0.620	4.062 #	0.590	4.127	0.980	6.984 *
30	0.580	6.763	0.810	6.413			0.610	3.993 #	0.610	4.241	0.980	8.114
31	0.600	7.935	0.850	6.425 *			0.610	3.993 *			0.900	6.263 #
Ten-Daily Mean												
I Ten-Daily	0.789	43.04	0.486	4.717	0.817	5.990	0.582	3.853	0.627	4.053	0.716	4.998
II Ten-Daily	0.964	45.05	0.443	5.066	0.741	5.236	0.590	3.788	0.717	4.543	0.847	5.841
III Ten-Daily	0.703	15.25	0.695	5.667	0.635	4.002	0.610	3.758	0.610	4.346	0.889	6.233
Monthly												
Min.	0.580	6.763	0.320	2.766	0.600	3.026	0.540	2.874	0.580	3.512	0.660	3.970
Max.	1.160	76.55	0.850	7.424	0.880	6.965	0.650	4.684	0.915	6.395	0.990	8.114
Mean	0.815	33.83	0.547	5.167	0.734	5.113	0.595	3.798	0.651	4.314	0.820	5.708

Peak Computed Discharge = 274.0 cumecs on 28/06/2015 **Corres. Water Level :2.24 m**

Lowest Computed Discharge = 0.095 cumecs on 02/06/2015 **Corres. Water Level :0.57 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

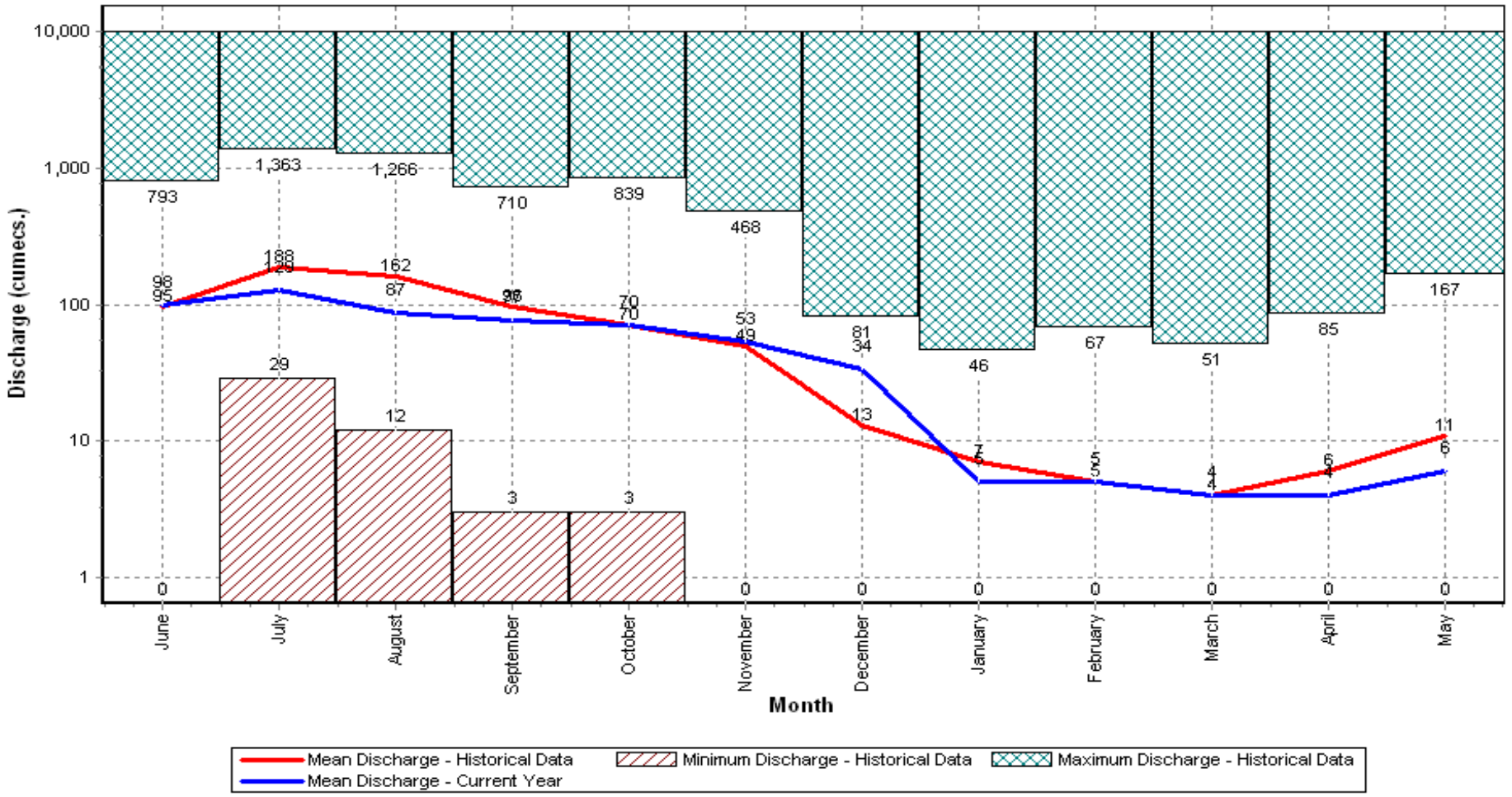
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : ARANGALY (KSA00F3) | **Data considered : 1978-2016** | **Division : SWR Division, Kochi**

Local River : Chalakudy | **Sub-Division : SWR SD No 2, Kochi**



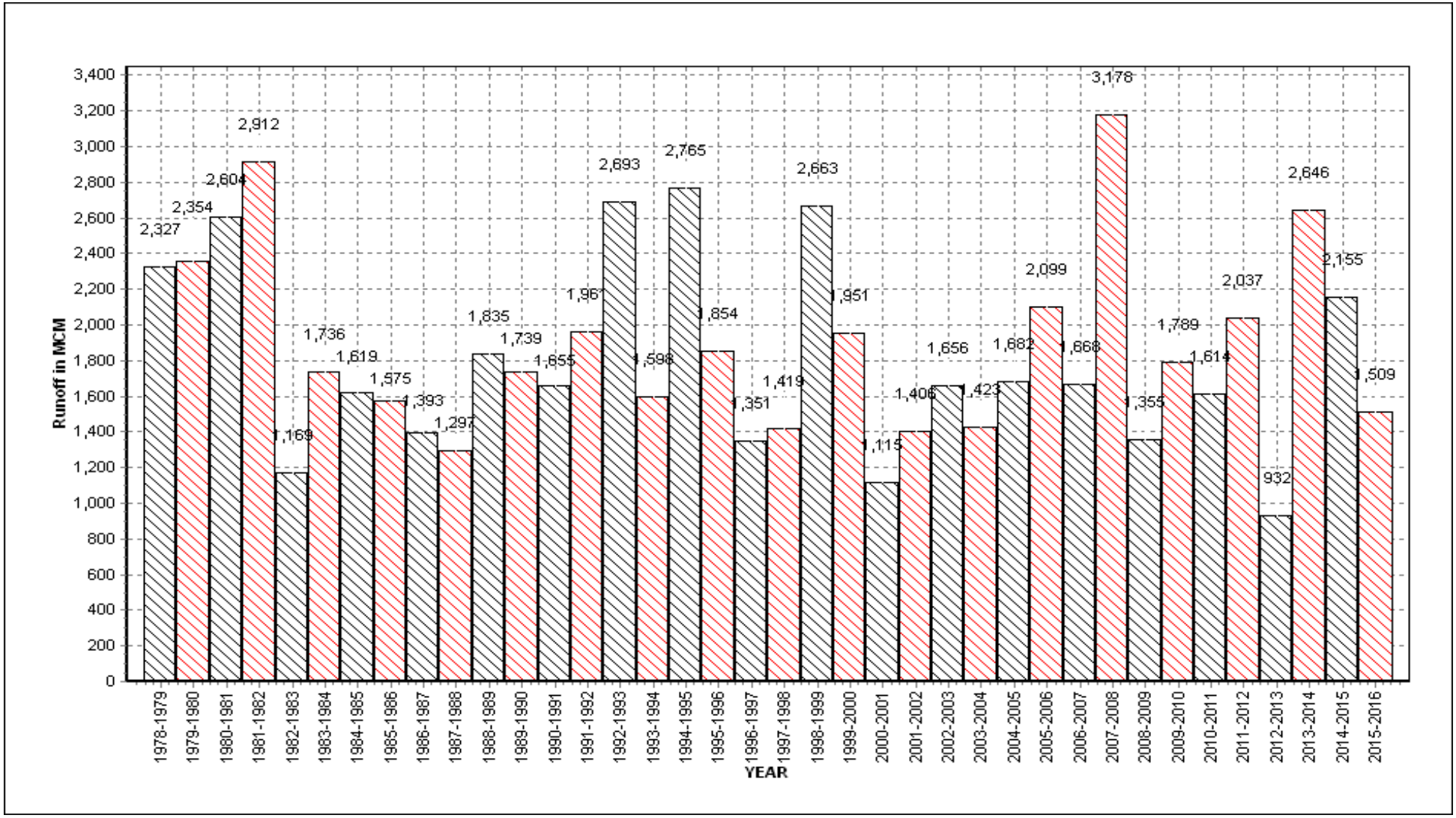
Annual Runoff Values for the period: 1978 - 2016

Station Name : ARANGALY (KSA00F3)

Division : SWR Division, Kochi

Local River : Chalakudy

Sub-Division : SWR SD No 2, Kochi

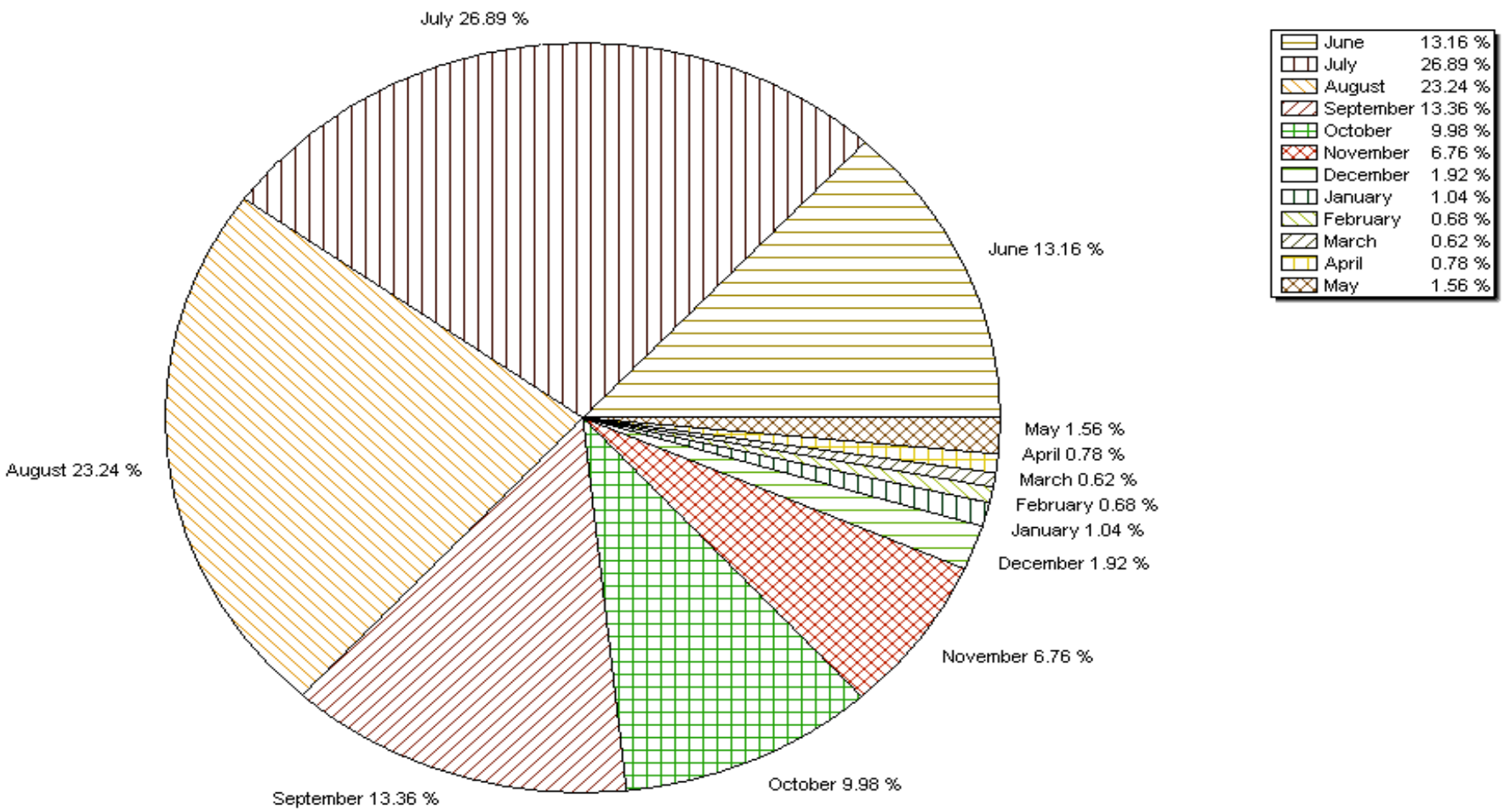


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1978-2015

Station Name : ARANGALY (KSA00F3)
Local River : Chalakudy

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



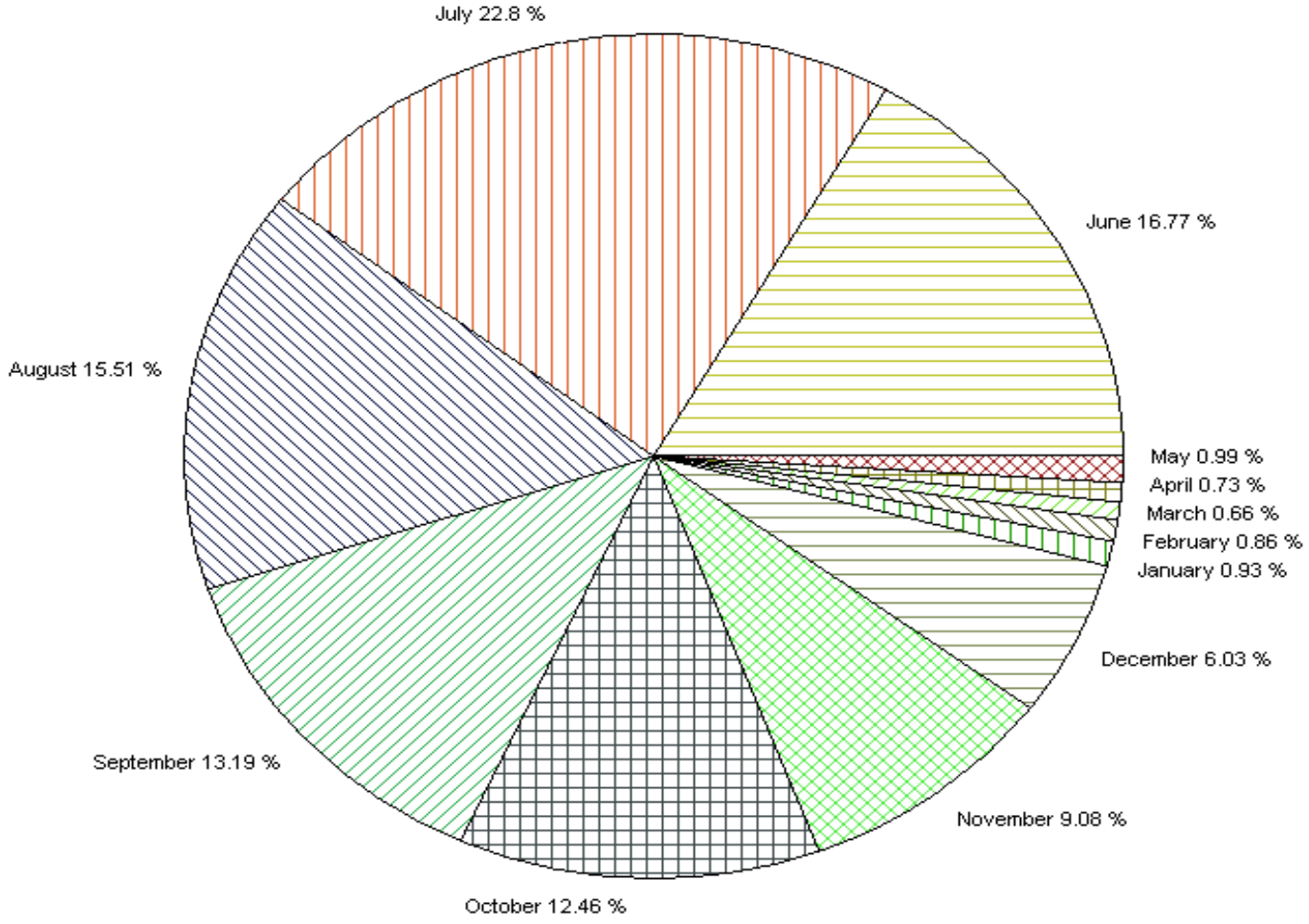
Monthly Runoff for the Year : 2015-2016

Station Name : ARANGALY (KSA00F3)

Local River : Chalakudy

Division : SWR Division, Kochi

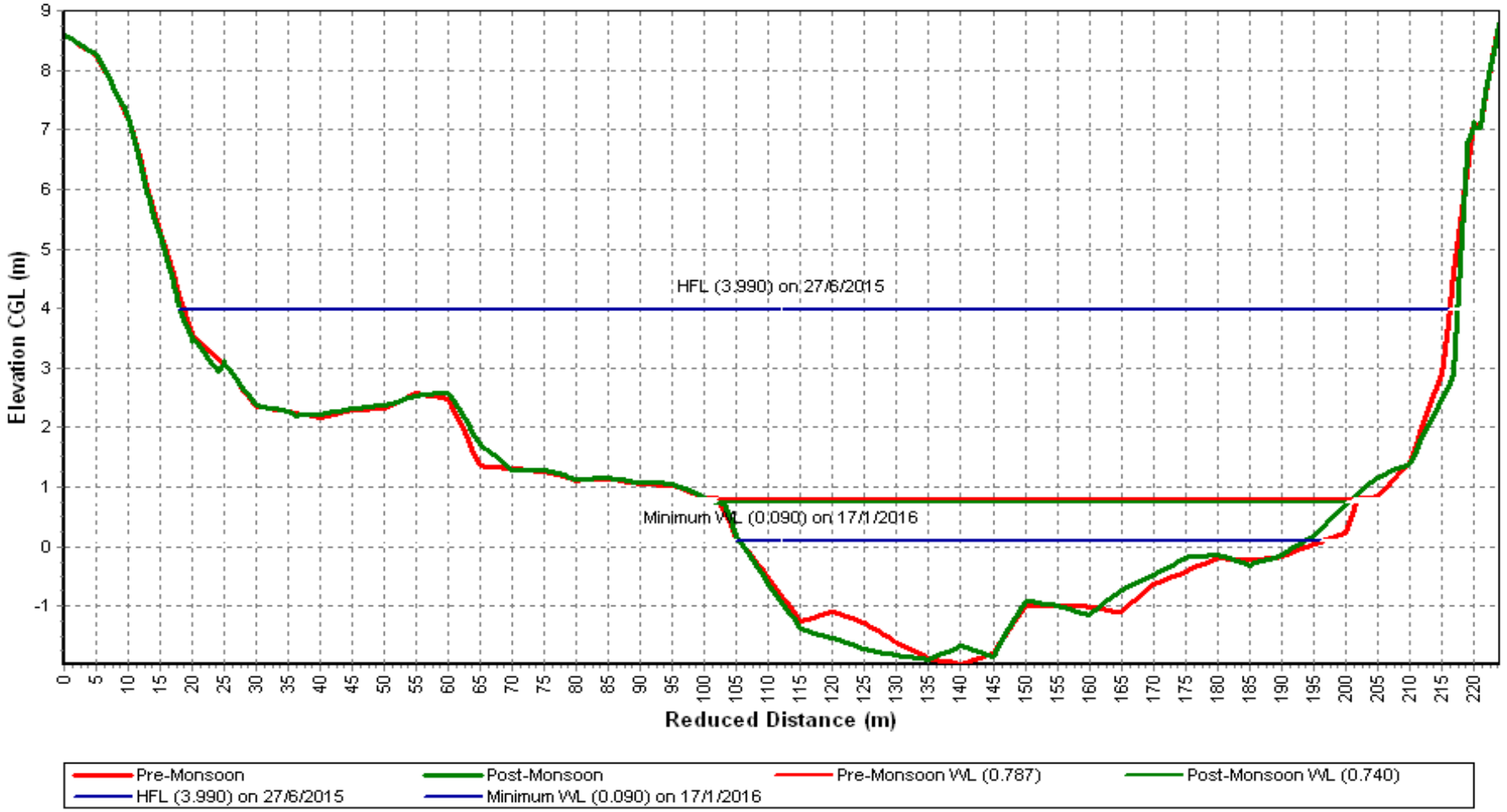
Sub-Division : SWR SD No 2, Kochi



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWR SD No 2, Kochi**



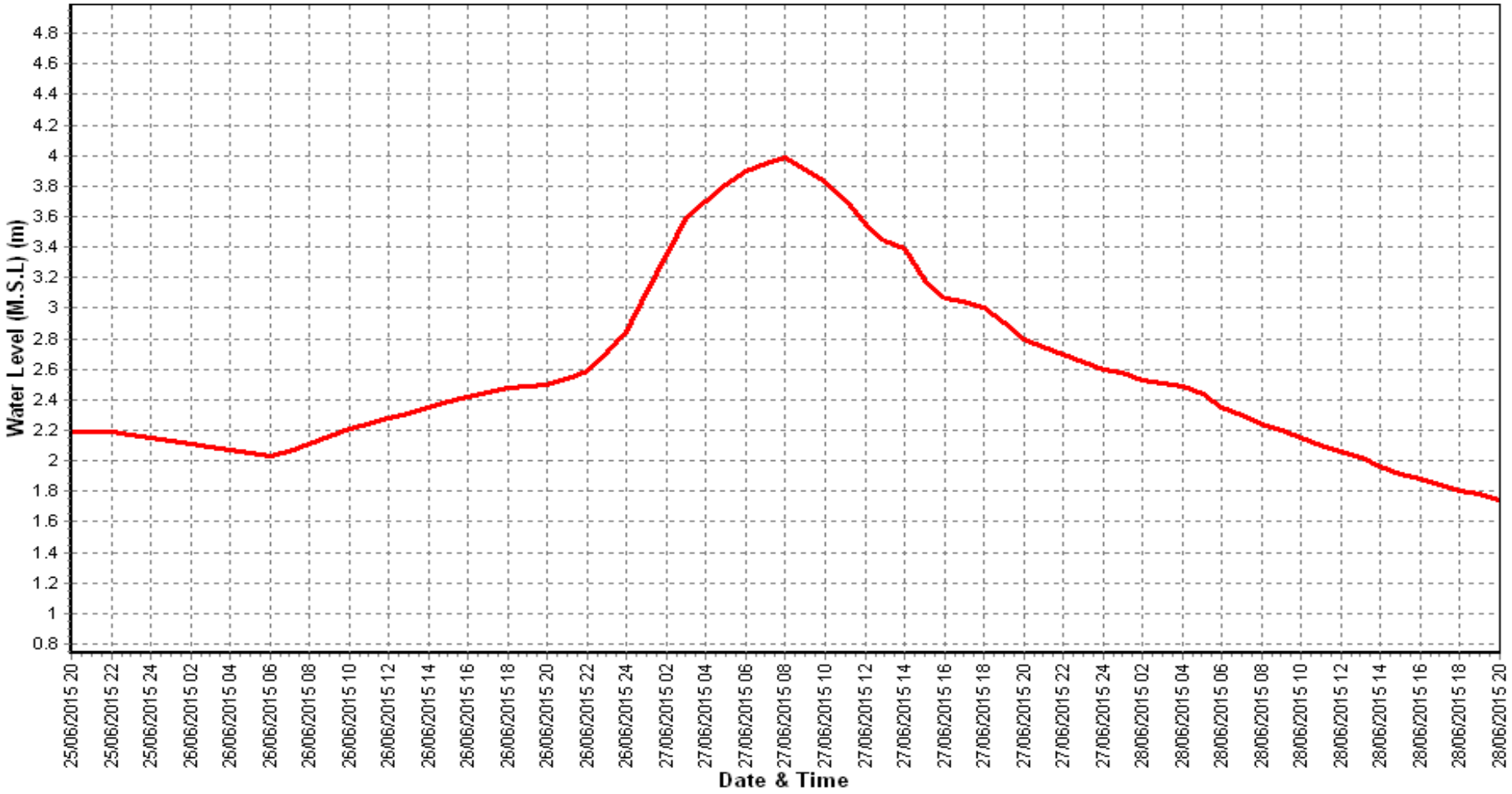
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : ARANGALY (KSA00F3)

Division : SWR Division, Kochi

Local River : Chalakudy

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

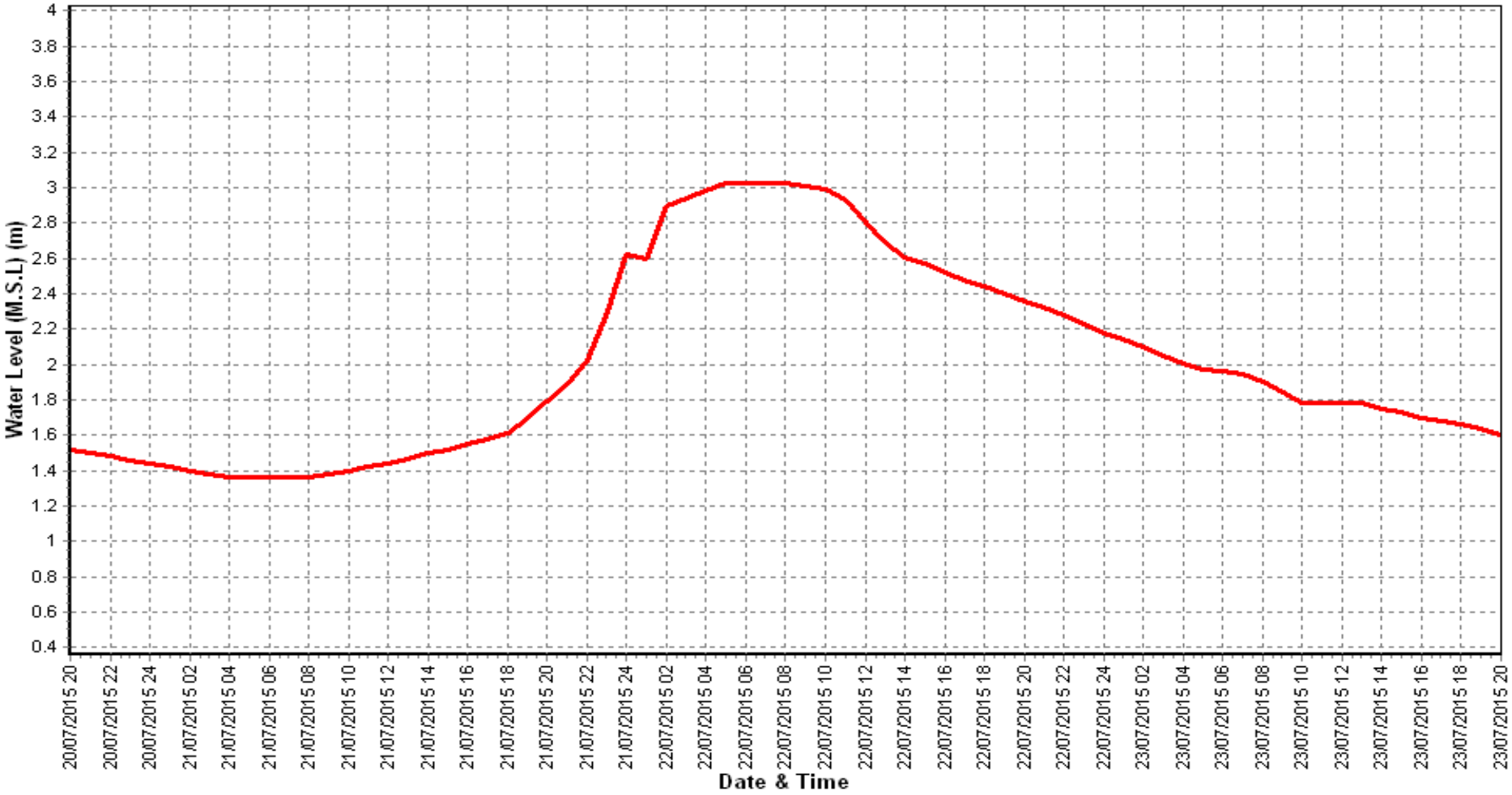
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : ARANGALY (KSA00F3)

Local River : Chalakudy

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

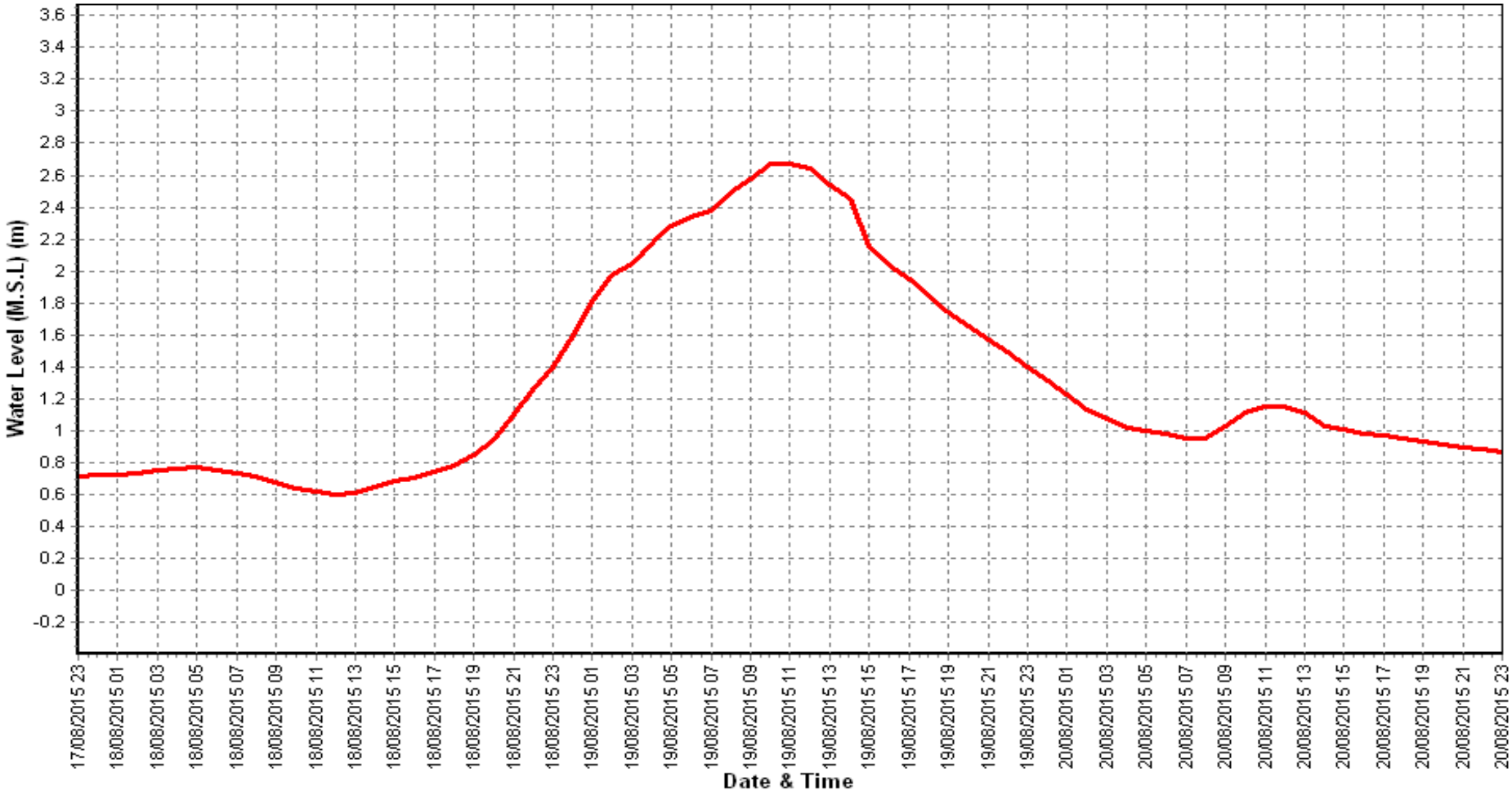
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : ARANGALY (KSA00F3)

Local River : Chalakudy

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: NEELESWARAM**		**Code**	**: KS000F3**	
State	: Kerala		District	Ernakulam	
Basin	: WFR South of Tapi		Independent River	: Periyar	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Periyar	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 4234 Sq. Km.		Bank	: Right	
Latitude	: 10°11'01"		Longitude	: 76°29'44"	
Zero of Gauge (m)	: 1.000 (m.s.l) -3.000 (m.s.l)		19/01/1971 01/06/2005	- 31/05/2005	
	Opening Date		Closing Date		
Gauge	: 19/01/1971				
Discharge	: 16/03/1971				
Sediment	: 26/09/1972				
Water Quality	: 15/06/1978				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1971-1972	2410	9.750	25/06/1971	11.00	2.035	02/02/1972
1972-1973	2611	8.755	17/07/1972	10.60	2.095	14/02/1973
1973-1974	2523	8.105	08/07/1973	8.300	2.060	28/01/1974
1974-1975	3300	9.470	27/07/1974	4.000	2.155	22/04/1975
1975-1976	3502	9.350	16/08/1975	9.100	2.265	12/05/1976
1976-1977	2822	8.735	24/07/1976	5.400	2.182	15/02/1977
1977-1978	1514	7.225	25/07/1977	6.500	2.125	21/04/1978
1978-1979	2041	6.815	11/07/1978	4.900	2.370	06/02/1979
1979-1980	2570	8.445	01/08/1979	6.700	2.165	28/03/1980
1980-1981	2175	7.780	02/07/1980	6.500	2.240	11/04/1981
1981-1982	2117	7.390	16/06/1981	2.700	1.940	13/04/1982
1982-1983	1052	5.780	21/07/1982	1.500	1.800	13/05/1983
1983-1984	1862	7.540	18/08/1983	3.600	2.015	31/03/1984
1984-1985	1549	6.785	17/06/1984	3.100	2.085	13/02/1985
1985-1986	2920	9.280	26/06/1985	7.000	2.020	08/03/1986
1986-1987	2745	9.420	09/08/1986	7.900	1.940	31/01/1987
1987-1988	960.8	5.870	24/08/1987	21.00	2.130	31/03/1988
1988-1989	1675	7.720	04/08/1988	11.83	1.975	06/02/1989
1989-1990	2760	9.315	24/07/1989	10.50	1.940	20/12/1989

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1990-1991	1019	5.275	15/06/1990	29.23	2.040	18/10/1990
1991-1992	2603	7.120	29/07/1991	27.96	2.000	31/03/1992
1992-1993	2555	7.814	28/07/1992	23.23	1.913	12/05/1993
1993-1994	1684	6.172	04/08/1993	19.28	1.857	01/02/1994
1994-1995	2401	6.890	14/07/1994	30.78	1.810	15/02/1995
1995-1996	1455	6.050	02/09/1995	30.79	1.580	08/03/1996
1996-1997	1475	6.060	21/07/1996	27.00	1.340	09/02/1997
1997-1998	1928	6.300	24/07/1997	25.00	1.250	22/06/1997
1998-1999	1784	5.800	12/10/1998	34.38	1.060	09/06/1998
1999-2000	1365	4.770	18/07/1999	22.50	0.720	16/05/2000
2000-2001	1901	5.410	25/08/2000	21.87	0.490	23/12/2000
2001-2002	2537	6.960	09/07/2001	27.38	0.420	20/01/2002
2002-2003	1292	4.700	17/08/2002	36.34	0.380	29/05/2003
2003-2004	1490	5.325	22/08/2003	13.63	0.200	04/02/2004
2004-2005	2074	5.790	04/08/2004	20.36	0.270	03/12/2004
2005-2006	3025	4.250	31/05/2006	0.011	0.300	25/01/2006
2006-2007	1150	4.040	17/08/2006	32.27	0.140	31/05/2007
2007-2008	2474	6.500	23/06/2007	0.023	0.210	08/02/2008
2008-2009	1169	3.670	31/07/2008	0.000	0.070	10/03/2009
2009-2010	2303	6.025	18/07/2009	0.000	0.355	18/01/2010
2010-2011	1392	4.700	13/06/2010	0.000	0.190	17/01/2011
2011-2012	1395	4.460	07/08/2011	0.000	0.410	18/01/2012
2012-2013	1521	3.840	18/08/2012	0.000	0.120	08/12/2012
2013-2014	6324	9.455	05/08/2013	0.000	0.280	05/06/2013
2014-2015	1820	5.120	04/08/2014	0.688	0.150	05/12/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	0.620	113.1	1.180	279.6	0.600	218.2 #	0.365	162.6	2.000	512.6	0.800	193.4 *
2	0.750	184.0	1.100	261.8	0.140	0.000	0.550	189.3	0.970	231.9 *	0.840	162.7
3	0.860	204.0	0.785	281.9	0.540	181.0	0.460	147.7	1.000	236.5	0.915	226.5
4	0.810	172.7 *	0.720	241.3	1.170	318.0 #	0.700	195.0	1.200	288.0 *	0.820	149.8
5	0.710	147.8 *	0.710	240.2 *	0.800	229.4 #	1.150	347.6	1.275	330.3	1.000	216.1
6	0.720	155.3	0.685	190.8	0.760	204.6	0.990	273.3 *	1.170	281.2	0.840	202.2 #
7	0.590	119.7 *	0.740	217.0	0.570	160.7	1.570	358.6	1.080	291.9	0.730	144.8
8	0.740	168.9	0.580	184.0	0.575	166.3	1.020	319.2	0.880	257.4	0.870	209.0 *
9	0.800	171.4	1.155	359.3	0.560	178.6 *	0.920	267.7	0.670	175.7	0.630	165.0
10	0.490	117.1	1.500	487.1	0.560	198.8	0.795	260.3	0.680	210.8	0.380	109.6 *
11	0.280	56.10	0.790	274.3	1.550	421.5 #	0.540	160.3	0.550	141.5 *	0.270	90.62 #
12	1.065	273.1	0.870	274.6 *	1.480	401.5 #	0.460	146.2	1.320	337.8	0.360	106.1 #
13	0.780	192.4	1.625	412.4	2.110	567.6	0.420	151.6 *	1.100	259.8	1.030	304.2
14	1.010	226.3 *	0.740	277.0	1.030	259.3	0.590	229.0	1.270	258.7	0.700	199.9
15	0.640	102.2	0.800	259.2 #	1.400	379.2 *	0.870	303.2	0.895	203.8	0.400	113.2 *
16	0.610	124.3 #	0.845	308.5	1.680	459.8 *	0.220	88.45	0.710	162.3	0.425	133.9
17	0.580	98.71	1.450	504.1	1.540	418.6 #	0.825	239.6	0.690	147.8	0.960	245.4
18	0.845	193.1	2.660	863.6 *	0.960	282.7	0.820	219.7	0.950	227.3 *	0.720	183.3
19	1.180	263.1	2.490	790.3 *	1.015	303.5	0.780	230.5	0.630	157.4 #	0.820	203.5
20	1.780	537.5	2.035	549.2	1.245	370.5	0.890	249.8 *	0.800	181.3	0.770	142.3
21	1.250	297.0 *	1.750	515.0 #	0.780	272.6	0.575	157.4	0.790	205.3	0.830	225.0
22	3.125	1237	3.020	1046	0.870	298.1	0.635	155.1	0.670	126.8	0.640	159.5 *
23	2.560	745.6	2.050	576.0	1.050	287.9 *	0.680	200.1	0.550	141.5 *	0.430	134.2
24	2.805	674.4	2.790	917.1	1.015	335.9	0.550	176.6 *	0.700	171.9 *	0.800	220.8
25	2.250	785.0	2.080	605.9	0.850	244.0	0.765	247.9	0.270	90.62 *	0.530	137.6 *
26	2.780	836.9	1.710	502.1 *	0.760	245.5	0.500	192.1	0.320	72.48	0.610	164.5
27	4.630	1726	1.335	347.2	0.630	231.4	1.020	280.6 *	0.560	135.1	0.720	179.5
28	3.000	981.5 *	1.240	402.8	0.480	162.9 *	1.085	292.2	0.320	120.2	0.795	196.7
29	1.990	484.3	1.070	345.9	0.380	144.2 #	1.045	249.9	0.550	159.8	0.700	171.9 *
30	1.890	483.3	1.010	324.9	0.450	157.2 *	1.035	207.5	0.670	177.4	0.820	194.3
31			0.850	293.5	0.305	141.6			0.700	150.6		
Ten-Daily Mean												
I Ten-Daily	0.709	155.4	0.915	274.3	0.627	185.6	0.852	252.1	1.092	281.6	0.783	177.9
II Ten-Daily	0.877	206.7	1.430	451.3	1.401	386.4	0.641	201.8	0.891	207.8	0.645	172.2
III Ten-Daily	2.628	825.1	1.719	534.2	0.688	229.2	0.789	215.9	0.555	141.1	0.687	178.4
Monthly												
Min.	0.280	56.10	0.580	184.0	0.140	0.000	0.220	88.45	0.270	72.48	0.270	90.62
Max.	4.630	1726	3.020	1046	2.110	567.6	1.570	358.6	2.000	512.6	1.030	304.2
Mean	1.405	395.7	1.367	423.6	0.899	265.8	0.761	223.3	0.837	207.9	0.705	176.2

Annual Runoff in MCM = 5043 Annual Runoff in mm = 1191

Peak Observed Discharge = 1726 cumecs on 27/06/2015 Corres. Water Level :4.63 m

Lowest Observed Discharge = 0.000 cumecs on 02/08/2015 Corres. Water Level :0.14 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	0.795	171.9	0.370	18.98	0.570	23.12	0.680	27.33 #	0.640	25.46 *	0.680	27.33 *
2	0.970	221.5	0.410	30.62	0.580	28.22	0.700	24.95	0.700	28.28 *	0.700	28.28 *
3	1.280	312.3	0.380	24.10 *	0.580	22.76 #	0.680	0.000	0.740	30.23 *	0.680	27.33 *
4	0.830	233.0	0.415	25.71	0.600	23.65 #	0.940	0.000	0.850	35.85 *	0.740	30.23 *
5	0.660	170.2	0.310	17.45	0.630	22.44	0.850	0.000	0.690	27.80 *	0.800	33.24 *
6	0.640	163.1 *	0.595	64.32	0.450	0.000	0.640	0.000	0.740	30.23 *	0.850	35.85 *
7	0.640	159.4	0.270	9.786	0.400	0.000	0.640	0.000	0.920	39.63 *	0.660	26.39 *
8	0.665	193.8	0.210	0.000	0.380	0.000	0.390	0.000	0.630	25.00 *	0.750	30.72 *
9	0.470	118.0	0.210	0.000	0.450	0.000	0.340	0.000	0.800	33.24 *	0.750	30.72 *
10	0.265	94.98	0.130	0.000	0.380	0.000	0.390	0.000	0.600	23.65 *	0.730	29.73 *
11	0.580	140.4	0.240	0.000	0.500	0.000	0.470	21.38	0.660	26.39 *	0.760	31.22 *
12	0.720	201.3	0.330	12.91 #	0.580	0.000	0.710	24.74	0.620	24.55 *	0.360	13.97 *
13	0.670	169.3 *	0.450	21.26	0.600	23.65 #	0.680	27.33 *	0.400	15.44 *	0.370	14.33 *
14	0.870	209.4	0.540	21.03 *	0.640	25.46 *	0.590	0.000	0.400	15.44 *	0.390	15.06 *
15	1.230	277.2	0.600	25.14	0.560	21.89 #	0.580	0.000	0.480	18.55 *	0.440	16.96 *
16	0.920	145.0	0.650	28.59	0.520	0.000	0.650	25.10	0.540	21.03 *	0.540	21.03
17	0.750	136.3	0.620	24.55 *	0.460	0.000	0.790	0.000	0.580	22.76 *	0.660	26.39
18	0.800	121.7 *	0.410	11.75	0.430	0.000	0.830	0.000	0.610	24.10 *	0.610	24.10 *
19	0.510	47.28 *	0.390	0.000	0.410	16.27	0.730	31.46	0.620	24.55 *	0.660	26.39 *
20	0.470	39.44 *	0.310	0.000	0.450	20.05	0.610	0.000	0.640	25.46 *	0.770	31.72 *
21	0.280	11.04 *	0.430	16.26	0.460	17.75 *	0.580	0.000	0.720	29.25 *	0.820	34.28 *
22	0.560	57.94 *	0.510	19.78 #	0.500	19.36 #	0.550	0.000	0.490	18.95 *	0.650	25.92 *
23	0.550	55.73 *	0.590	22.52	0.550	25.00	0.580	0.000	0.580	22.76 *	0.680	27.33 *
24	0.530	51.43 *	0.650	25.92 *	0.640	25.46 #	0.680	0.000	0.650	25.92 *	0.590	23.20 *
25	0.330	17.02 *	0.630	25.00 #	0.630	28.23	0.580	0.000	0.670	26.85 *	0.650	25.92 *
26	0.330	17.02 *	0.610	24.10 *	0.620	19.55	0.520	0.000	0.670	26.85 *	1.300	62.80 *
27	0.420	30.51 *	0.600	19.33	0.620	24.55 *	0.510	0.000	0.620	24.55 *	0.620	24.55 *
28	0.480	41.34 *	0.600	23.72	0.640	25.46 *	0.500	0.000	0.630	25.00 *	0.880	37.45 *
29	0.750	106.7 *	0.520	14.81	0.750	37.79	0.690	0.000	0.640	25.46 *	1.170	54.38 *
30	0.550	55.73 *	0.530	20.85			0.640	0.000	0.640	25.46 *	0.890	37.99 *
31	0.520	49.34 *	0.540	21.03 *			0.630	0.000			0.650	25.92 *
Ten-Daily Mean												
I Ten-Daily	0.721	183.8	0.330	19.10	0.502	12.02	0.625	5.228	0.731	29.94	0.734	29.98
II Ten-Daily	0.752	148.7	0.454	14.52	0.515	10.73	0.664	13.00	0.555	21.83	0.556	22.12
III Ten-Daily	0.482	44.89	0.565	21.21	0.601	24.79	0.587	0.000	0.631	25.11	0.809	34.52
Monthly												
Min.	0.265	11.04	0.130	0.000	0.380	0.000	0.340	0.000	0.400	15.44	0.360	13.97
Max.	1.280	312.3	0.650	64.32	0.750	37.79	0.940	31.46	0.920	39.63	1.300	62.80
Mean	0.646	123.2	0.453	18.37	0.537	15.54	0.624	5.88	0.639	25.62	0.703	29.06

Peak Computed Discharge = 981.5 cumecs on 28/06/2015 **Corres. Water Level :3 m**

Lowest Computed Discharge = 11.04 cumecs on 21/12/2015 **Corres. Water Level :0.28 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

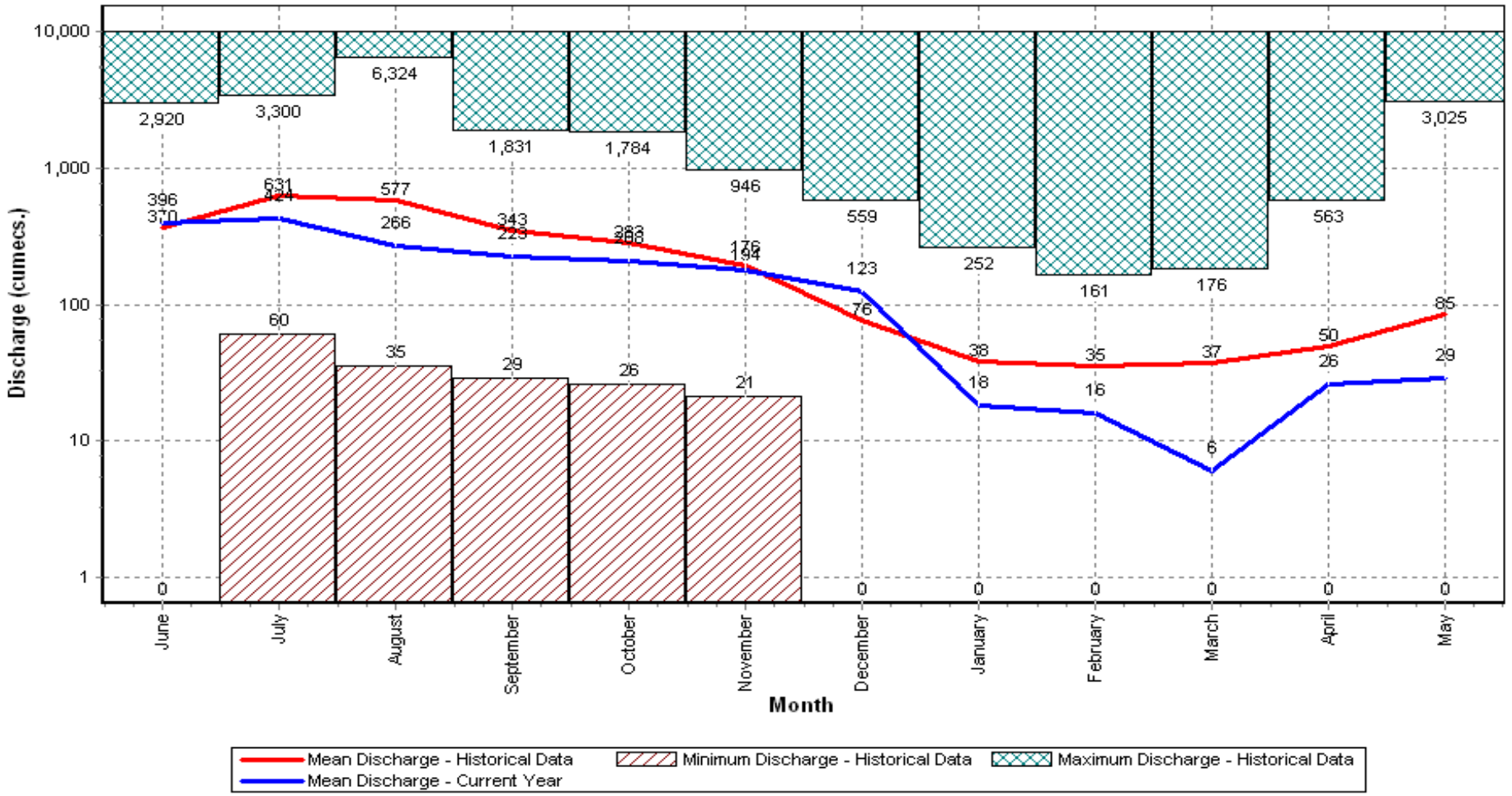
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : NEELESWARAM (KS000F3) | **Data considered : 1971-2016** | **Division : SWR Division, Kochi**

Local River : Periyar | **Sub-Division : SWR SD No 2, Kochi**



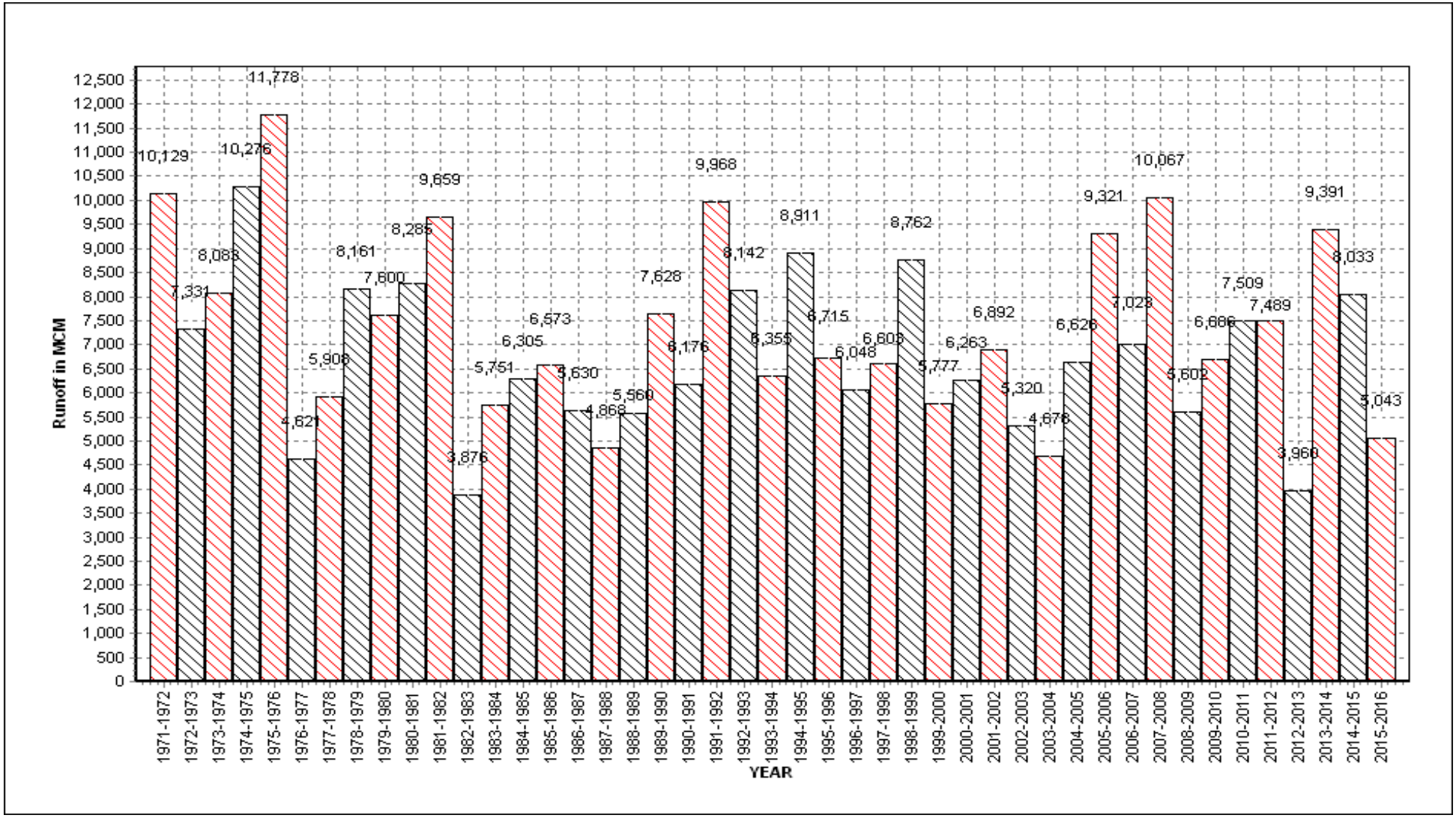
Annual Runoff Values for the period: 1971 - 2016

Station Name : NEELESWARAM (KS000F3)

Division : SWR Division, Kochi

Local River : Periyar

Sub-Division : SWR SD No 2, Kochi

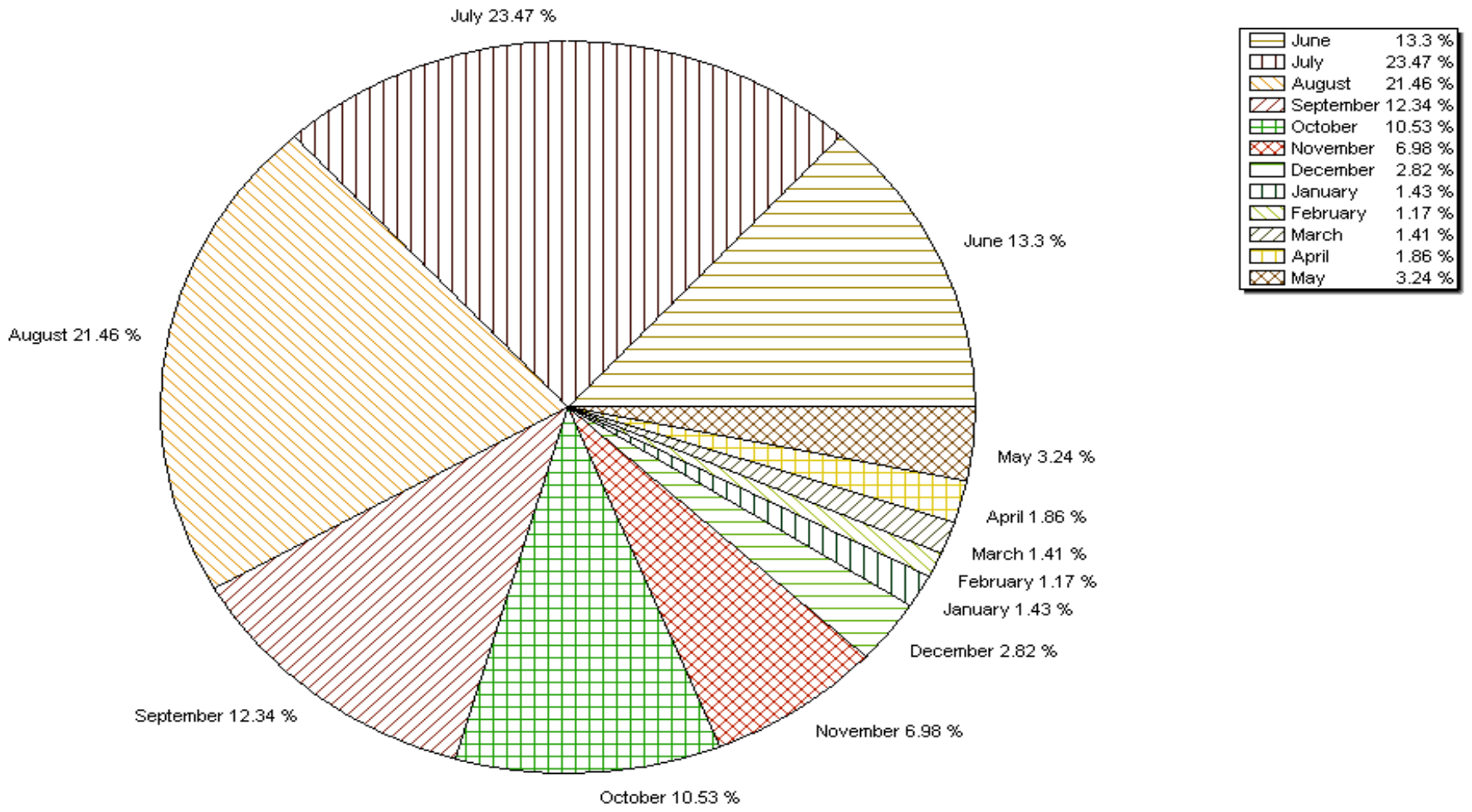


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1971-2015

Station Name : NEELESWARAM (KS000F3)
Local River : Periyar

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



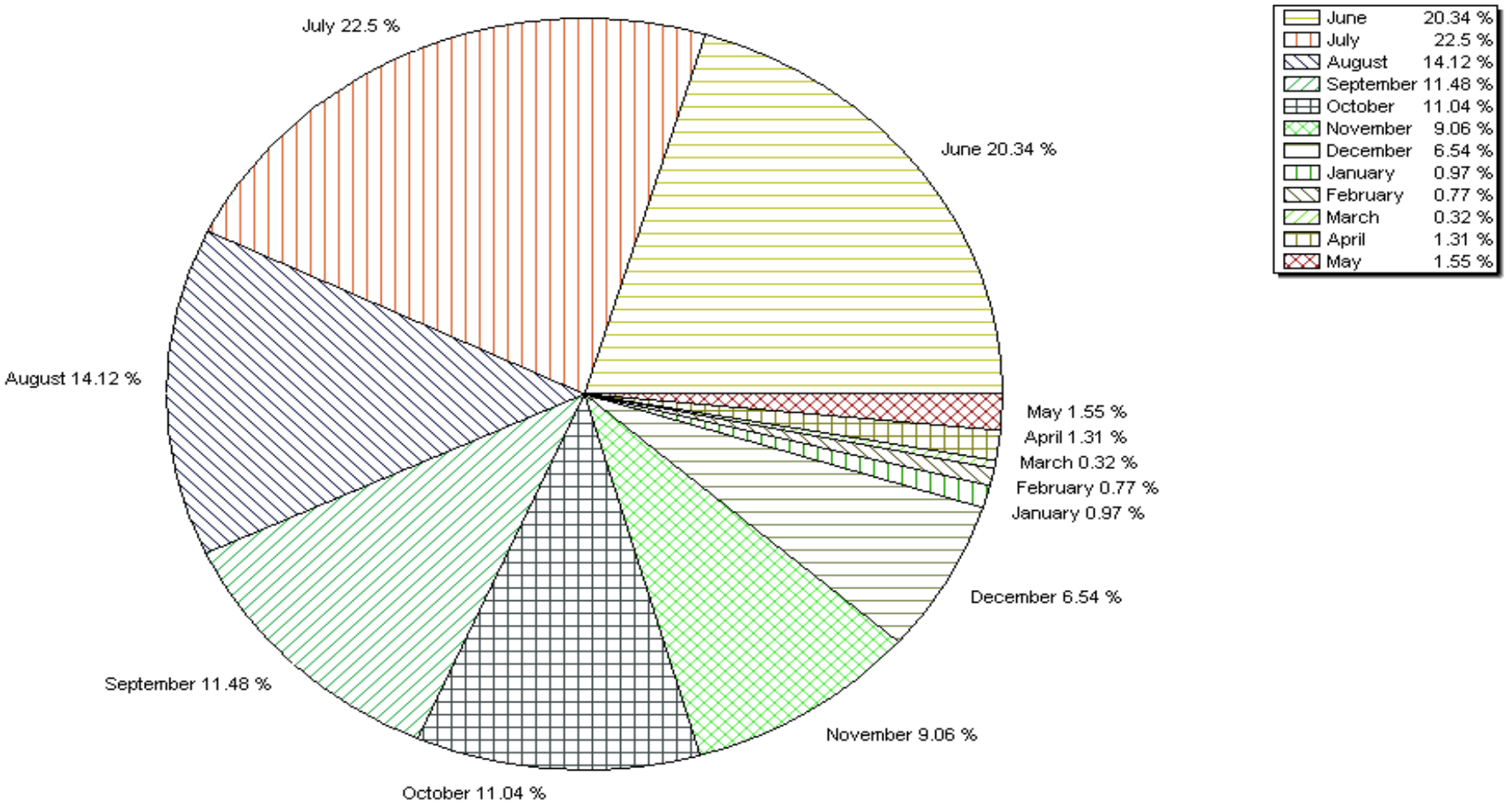
Monthly Runoff for the Year : 2015-2016

Station Name : NEELESWARAM (KS000F3)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



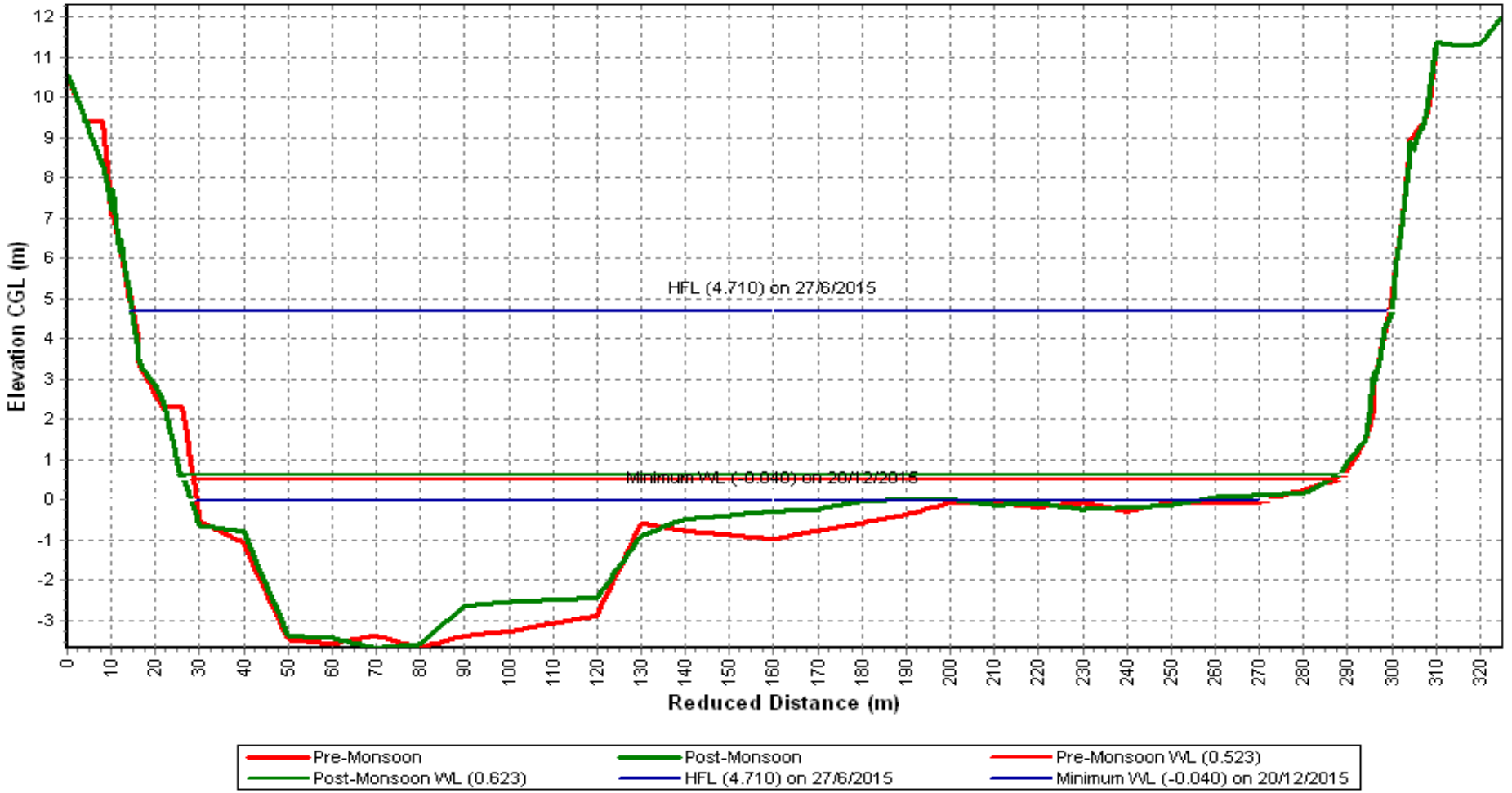
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : NEELESWARAM (KS000F3)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



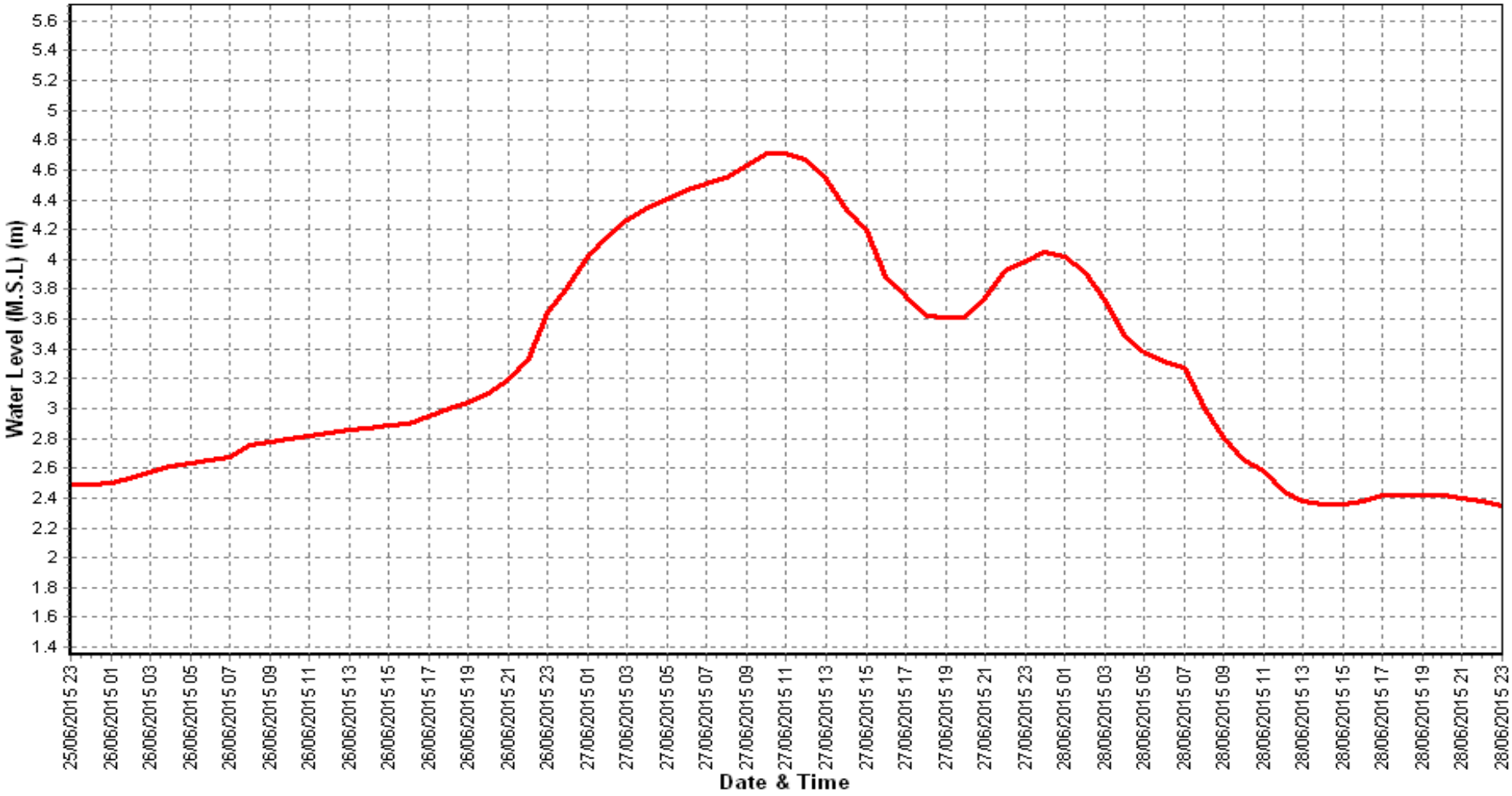
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : NEELESWARAM (KS000F3)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

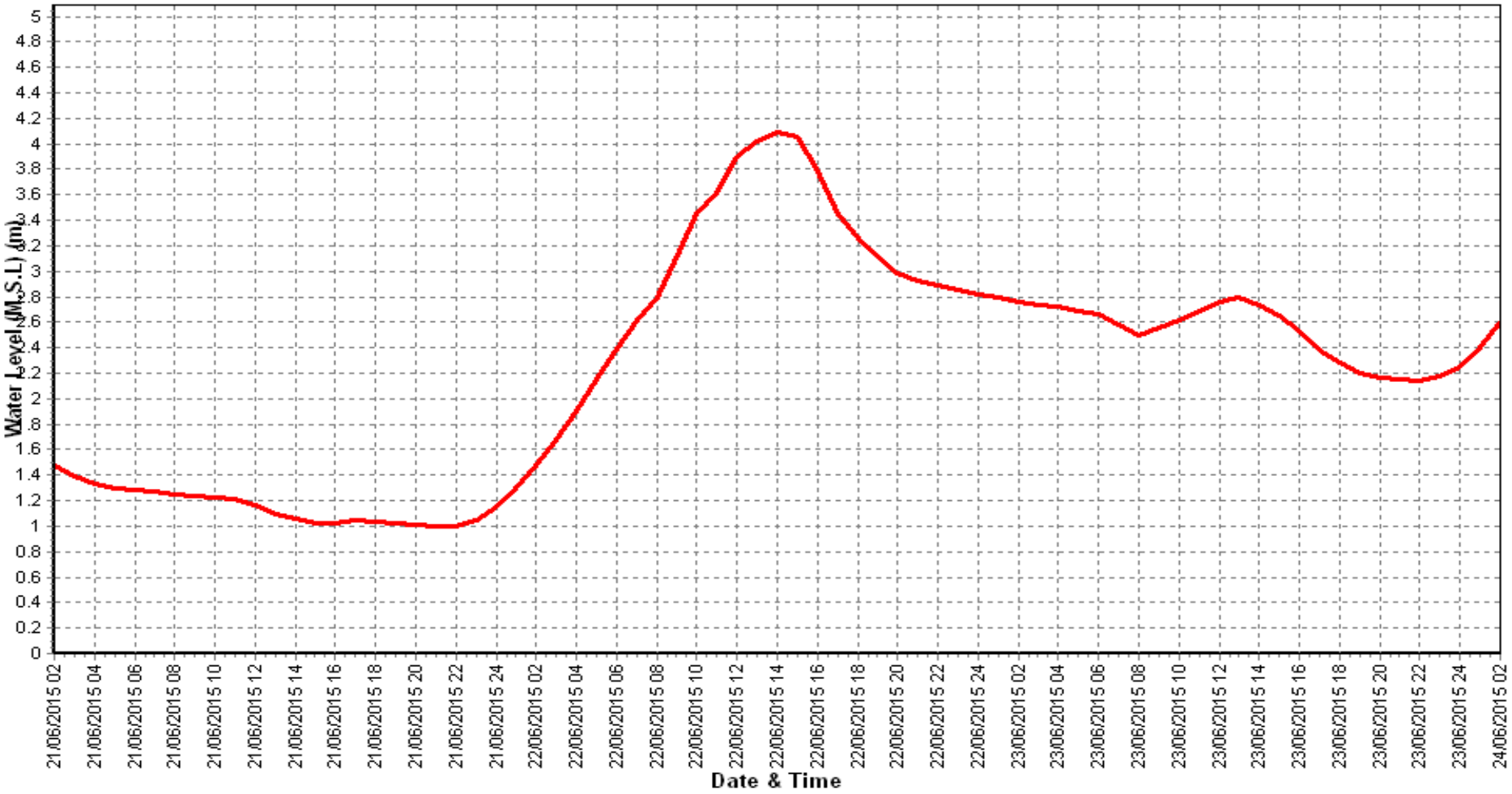


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**

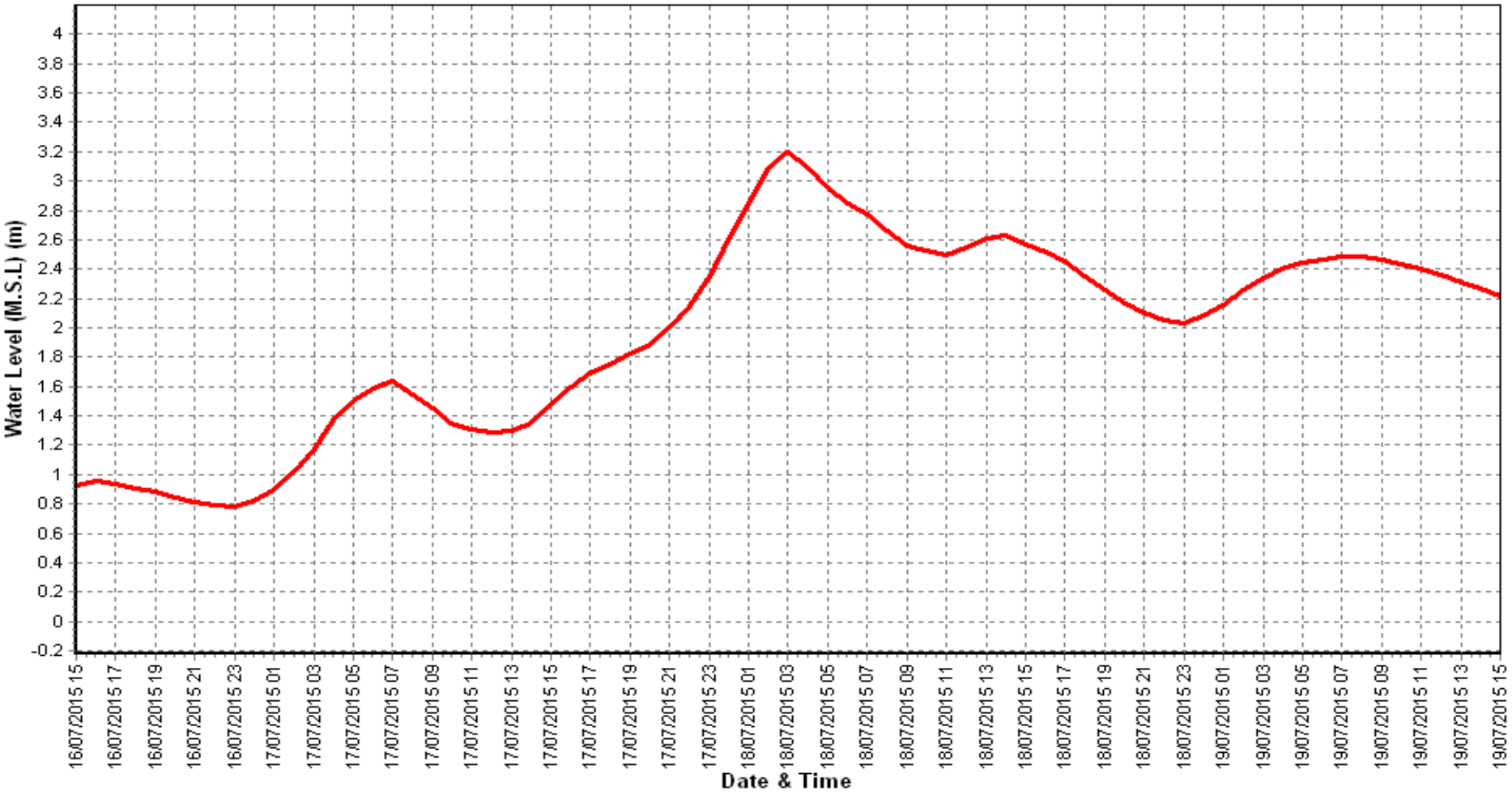


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**:**	**VANDIPERIYAR**	**Code**	**:**	**KS000U1**
State	:	Kerala	District		Idukki
Basin	:	WFR South of Tapi	Independent River	:	Periyar
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Periyar
Division	:	SWR Division,Kochi	Sub-Division	:	SWR SD No 2, Kochi
Drainage Area	:	712 Sq. Km.	Bank	:	Left
Latitude	:	09°34'24"	Longitude	:	77°05'26"
Zero of Gauge (m)	:	789.000 (m.s.l)	19/04/1999		
		Opening Date	Closing Date		
Gauge	:	19/04/1999			
Discharge	:	07/06/2000			
Sediment	:				
Water Quality	:	01/10/2002			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2000-2001	146.5	793.215	26/08/2000	0.000	791.220	16/12/2000
2001-2002	206.1	793.540	09/07/2001	0.000	791.340	01/06/2001
2002-2003	36.66	792.320	18/08/2002	0.000	791.010	13/02/2003
2003-2004	62.07	792.530	07/10/2003	0.000	790.980	05/06/2003
2004-2005	171.6	793.265	04/08/2004	0.000	790.980	24/02/2005
2005-2006	203.2	793.620	27/07/2005	0.000	790.990	05/03/2006
2006-2007	134.3	793.260	20/11/2006	0.000	790.970	15/03/2007
2007-2008	152.0	793.600	01/07/2007	0.000	791.020	01/03/2008
2008-2009	65.11	792.800	28/07/2008	0.000	791.050	01/06/2008
2009-2010	69.31	793.060	16/07/2009	0.000	791.030	01/06/2009
2010-2011	36.23	792.575	13/06/2010	0.000	791.080	01/06/2010
2011-2012	52.60	792.890	07/08/2011	0.000	791.060	01/06/2011
2012-2013	31.09	792.360	18/08/2012	0.000	791.020	01/06/2012
2013-2014	87.61	793.135	25/06/2013	0.000	791.015	22/02/2014
2014-2015	88.16	793.070	04/08/2014	0.000	791.040	18/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : VANDIPERIYAR (KS000U1) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	791.195	0.470	791.920	8.634	791.615	4.202 #	791.465	2.592	792.045	12.99	791.560	3.438 *
2	791.190	0.369 *	791.830	6.505	791.580	3.707 *	791.450	2.396	791.920	10.02 *	791.585	3.219
3	791.185	0.380	791.765	5.243	791.570	4.132	791.440	2.255	792.015	13.32	791.530	2.568
4	791.175	0.332	791.750	5.685	791.560	3.824	791.585	3.888	791.950	10.75 *	791.510	2.408
5	791.180	0.379	791.685	5.296 *	791.630	4.425 #	791.590	3.919	792.115	16.42	791.675	5.297
6	791.235	0.578	791.655	4.587	791.705	6.308	791.660	4.889 *	791.990	11.73	791.580	3.227
7	791.200	0.408 *	791.610	4.023	791.615	5.336	791.610	4.424	791.940	9.751	791.660	5.157
8	791.195	0.425	791.590	3.626	791.680	6.554	791.585	3.816	791.863	7.996	791.610	4.129 *
9	791.275	0.678	791.585	3.511	791.620	4.275 *	791.665	5.625	792.090	16.05	791.550	2.970
10	791.250	0.649	791.585	3.555	791.615	5.254	791.640	5.256	791.960	10.21	791.550	3.309 *
11	791.245	0.592	791.635	4.111	791.680	6.047	791.650	5.472	791.900	9.556 *	791.515	2.442
12	791.220	0.454	791.575	3.638 *	791.985	12.57	791.780	7.736	792.000	11.21	791.495	2.350
13	791.215	0.426	791.550	3.175	791.990	12.69	791.690	5.380 *	791.890	7.943	791.635	5.212
14	791.250	0.638 *	791.510	3.274	791.870	9.671	791.635	5.191	791.840	6.607	791.635	5.235
15	791.260	0.673	791.505	3.136	791.785	7.106 *	791.600	3.898	791.765	6.099	791.570	3.571 *
16	791.400	1.597	791.530	3.395	791.720	5.896 *	791.625	4.648	791.720	5.033	791.550	3.004
17	791.395	1.595	791.515	3.310	791.705	6.112	791.660	5.232	791.685	4.715	791.620	3.960
18	791.440	2.042	791.805	7.504 *	791.700	5.777	791.680	5.348	791.650	4.732 *	791.610	3.437
19	791.625	4.322	791.810	7.605 *	791.655	5.066	791.695	5.953	791.645	4.134	791.960	9.399
20	792.025	15.33	791.770	6.674	791.695	5.781	791.850	8.441 *	791.625	3.937	792.055	12.29
21	791.890	9.327 *	791.925	10.66	791.670	5.871	791.710	6.284	791.590	3.553	791.905	8.948
22	792.630	31.92	792.005	14.79	791.655	5.447	791.660	5.234	791.565	3.303	791.830	8.018 *
23	792.860	41.10	792.005	14.16	791.625	4.350 *	791.620	4.389	791.545	3.245 *	791.805	6.330
24	792.435	28.11	792.280	26.27	791.600	4.107	791.590	3.845 *	791.530	3.058 *	791.755	5.029
25	792.535	33.54	792.080	14.35 #	791.620	4.651	791.725	5.586	791.585	3.775 *	791.710	5.722 *
26	792.800	45.41	791.950	10.75 *	791.575	3.933	791.650	5.032	791.515	2.647	791.665	4.051
27	792.885	49.47	791.865	8.980	791.550	3.309 *	791.610	4.129 *	791.500	2.409	791.635	3.194
28	792.480	28.30 *	791.790	7.914	791.530	3.058 *	791.600	3.975	791.490	2.407	791.610	4.129 #
29	792.195	17.72	791.735	7.256	791.505	2.759 *	791.605	4.000	791.655	5.216	791.615	4.202 *
30	792.035	13.61	791.685	6.378	791.495	2.644 *	791.790	7.416	791.530	2.632	791.600	3.985 #
31			791.650	5.669	791.480	2.305			791.500	2.393		
Ten-Daily Mean												
I Ten-Daily	791.208	0.467	791.698	5.067	791.619	4.802	791.569	3.906	791.989	11.92	791.581	3.572
II Ten-Daily	791.407	2.767	791.620	4.582	791.778	7.672	791.687	5.730	791.772	6.397	791.664	5.090
III Ten-Daily	792.474	29.85	791.906	11.56	791.573	3.858	791.656	4.989	791.546	3.149	791.713	5.361
Monthly												
Min.	791.175	0.332	791.505	3.136	791.480	2.305	791.440	2.255	791.490	2.393	791.495	2.350
Max.	792.885	49.47	792.280	26.27	791.990	12.69	791.850	8.441	792.115	16.42	792.055	12.29
Mean	791.697	11.03	791.747	7.215	791.654	5.392	791.637	4.875	791.762	7.027	791.653	4.674

Annual Runoff in MCM = 131 Annual Runoff in mm = 185

Peak Observed Discharge = 49.47 cumecs on 27/06/2015 Corres. Water Level :792.885 m

Lowest Observed Discharge = 0.000 cumecs on 03/03/2016 Corres. Water Level :791.11 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : VANDIPERIYAR (KS000U1) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	791.560	3.425	791.420	1.653	791.200	0.502	791.115	0.129	791.030	0.000	791.020	0.000
2	791.540	2.383 *	791.410	1.488	791.195	0.500	791.110	0.110	791.030	0.000	791.020	0.000
3	791.640	4.008 *	791.400	1.586 *	791.185	0.467	791.110	0.000	791.030	0.000	791.015	0.000
4	791.665	4.479 *	791.390	1.569	791.180	0.455	791.105	0.000	791.030	0.000	791.010	0.000
5	791.585	3.062 *	791.380	1.480	791.175	0.418	791.100	0.000	791.025	0.000	791.010	0.000
6	791.610	3.476 *	791.375	1.450	791.170	0.405	791.100	0.000	791.020	0.000	791.010	0.000
7	791.600	3.307 *	791.370	1.285	791.165	0.321 *	791.095	0.000	791.020	0.000	791.025	0.000
8	792.870	58.89 *	791.360	1.198	791.165	0.368	791.090	0.000	791.020	0.000	791.020	0.000
9	792.260	23.57 *	791.355	1.170	791.165	0.374	791.085	0.000	791.020	0.000	791.100	0.000
10	792.075	17.19	791.350	1.255 *	791.165	0.373	791.085	0.000	791.130	0.000	791.060	0.000
11	791.600	3.001	791.345	1.109	791.165	0.381	791.085	0.000	791.090	0.000	791.050	0.000
12	791.565	3.203	791.335	1.063	791.170	0.403	791.085	0.000	791.080	0.000	791.110	0.000
13	791.550	2.527 *	791.330	1.094	791.190	0.467	791.100	0.000	791.070	0.000	791.100	0.000
14	792.435	33.92	791.320	1.072	791.190	0.417 *	791.100	0.000	791.080	0.000	791.100	0.000
15	791.775	5.567	791.310	1.045	791.175	0.422	791.100	0.000	791.080	0.000	791.090	0.000
16	791.810	6.036	791.300	0.990	791.160	0.330	791.100	0.000	791.075	0.000	791.090	0.000
17	791.690	5.774	791.290	0.899 *	791.150	0.297	791.100	0.000	791.075	0.000	791.090	0.000
18	791.640	3.516	791.285	0.916	791.140	0.278	791.100	0.000	791.070	0.000	791.290	0.729
19	791.620	3.405	791.365	1.455	791.140	0.281	791.100	0.000	791.065	0.000	791.200	0.390
20	791.630	3.826 *	791.315	1.023	791.130	0.171	791.095	0.000	791.060	0.000	791.210	0.403
21	792.385	32.00	791.300	0.977	791.130	0.203 *	791.095	0.000	791.045	0.000	791.195	0.438 *
22	791.610	3.073	791.285	0.828	791.130	0.177	791.090	0.000	791.040	0.000	791.185	0.397 *
23	791.550	3.103	791.280	0.814	791.120	0.166	791.080	0.000	791.040	0.000	791.170	0.245
24	791.525	2.542 *	791.270	0.792 *	791.120	0.161	791.075	0.000	791.035	0.000	791.150	0.182
25	791.510	2.418 *	791.260	0.760	791.120	0.160	791.070	0.000	791.030	0.000	791.135	0.139
26	791.490	2.333	791.255	0.714 *	791.120	0.163	791.065	0.000	791.030	0.000	791.135	0.138
27	791.475	2.138 *	791.250	0.700	791.115	0.149	791.055	0.000	791.030	0.000	791.135	0.132
28	791.460	2.001	791.235	0.651	791.115	0.159 *	791.050	0.000	791.030	0.000	791.130	0.126
29	791.455	1.962	791.220	0.568	791.115	0.135	791.045	0.000	791.025	0.000	791.150	0.167 *
30	791.450	1.843	791.210	0.541			791.045	0.000	791.025	0.000	791.150	0.153
31	791.435	1.774	791.205	0.480 *			791.035	0.000			791.140	0.146 *
Ten-Daily Mean												
I Ten-Daily	791.841	12.38	791.381	1.413	791.177	0.418	791.099	0.024	791.036	0.000	791.029	0.000
II Ten-Daily	791.732	7.077	791.319	1.067	791.161	0.345	791.097	0.000	791.075	0.000	791.133	0.152
III Ten-Daily	791.577	5.017	791.252	0.711	791.121	0.164	791.064	0.000	791.033	0.000	791.152	0.206
Monthly												
Min.	791.435	1.774	791.205	0.480	791.115	0.135	791.035	0.000	791.020	0.000	791.010	0.000
Max.	792.870	58.89	791.420	1.653	791.200	0.502	791.115	0.129	791.130	0.000	791.290	0.729
Mean	791.712	8.056	791.315	1.052	791.154	0.314	791.086	0.008	791.048	0	791.106	0.122

Peak Computed Discharge = 58.89 cumecs on 08/12/2015 **Corres. Water Level :792.87 m**

Lowest Computed Discharge = 0.146 cumecs on 31/05/2016 **Corres. Water Level :791.14 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

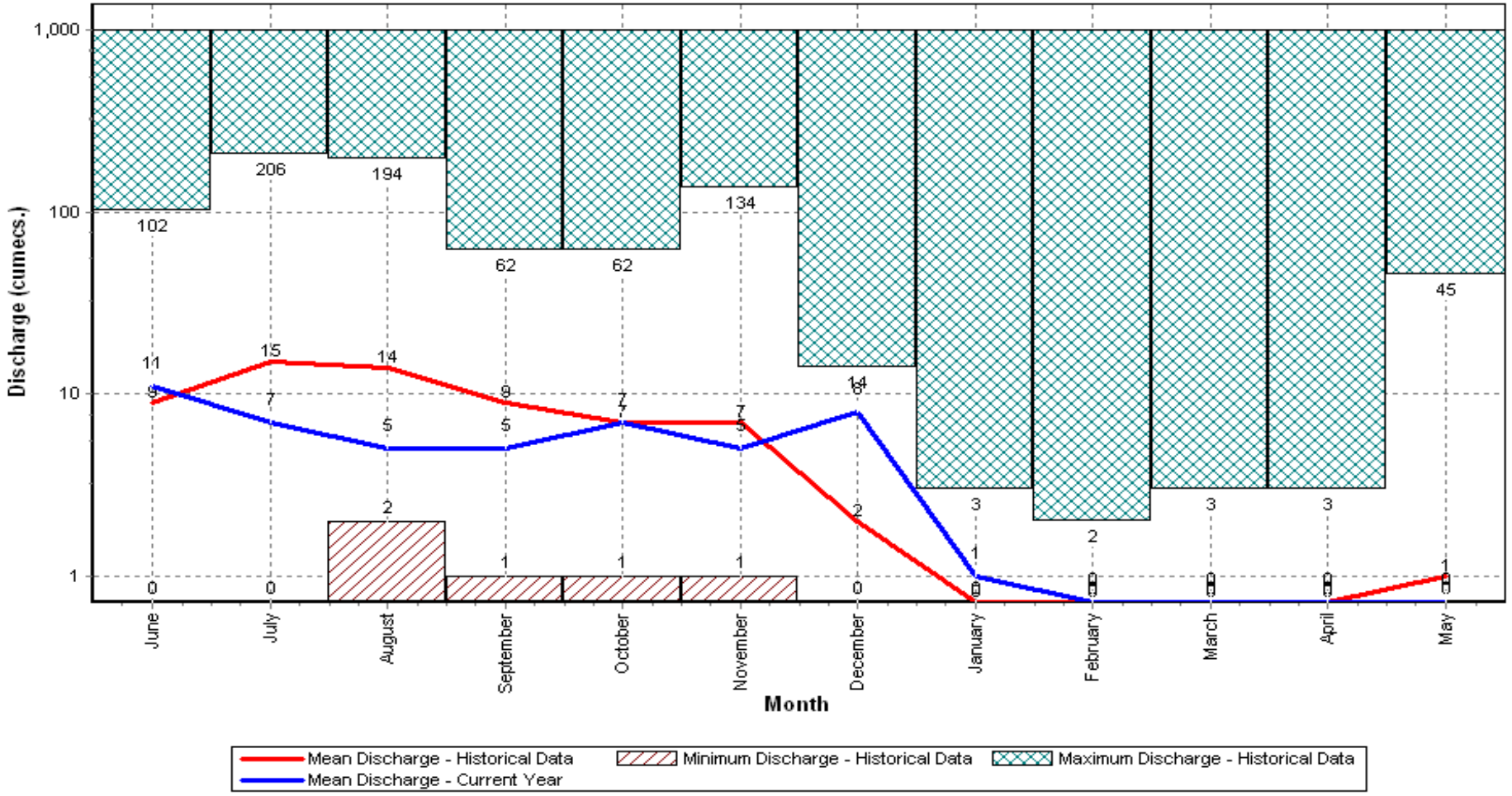
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1) | **Data considered : 2000-2016** | **Division : SWR Division, Kochi**

Local River : Periyar | **Sub-Division : SWR SD No 2, Kochi**



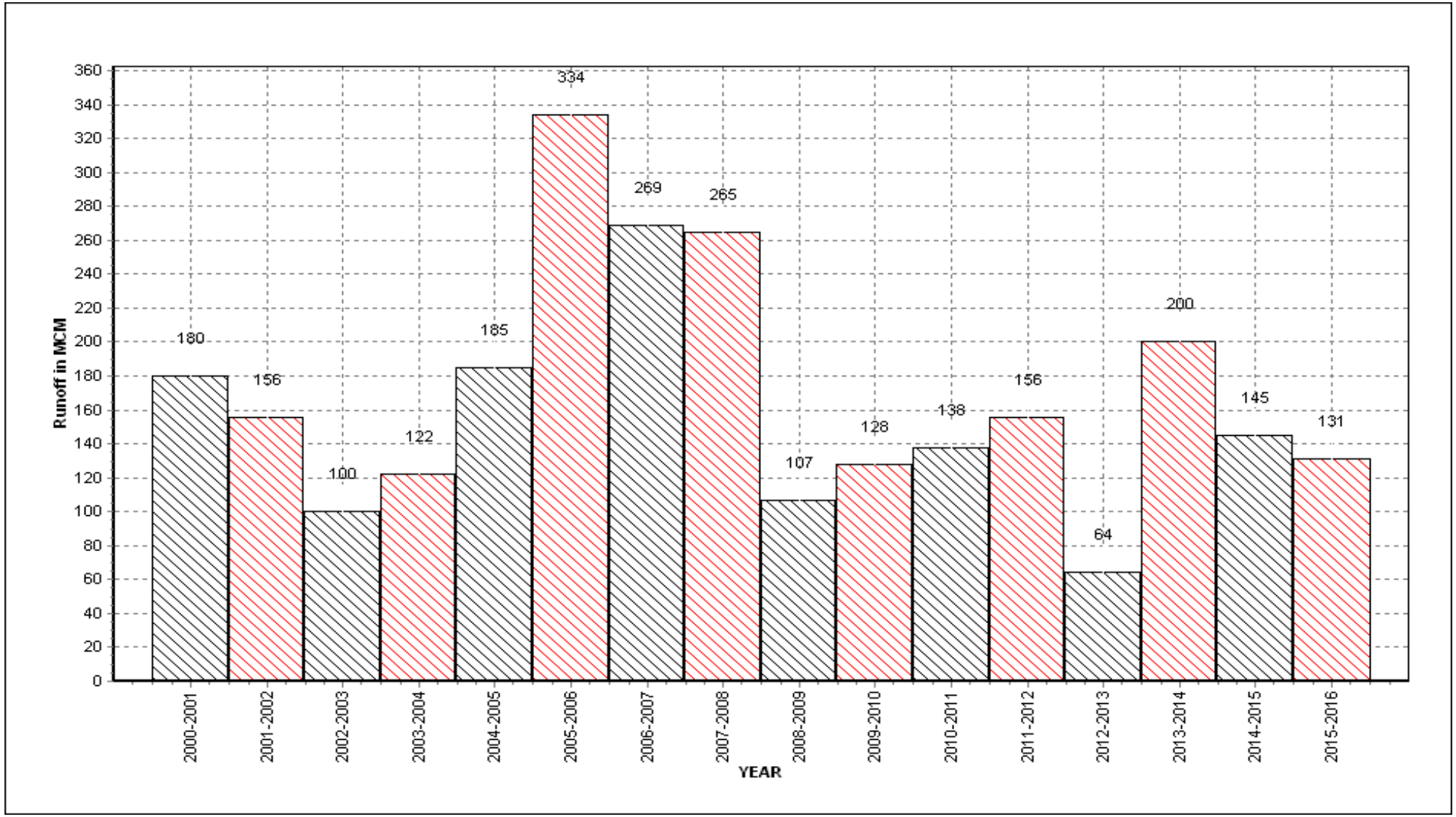
Annual Runoff Values for the period: 2000 - 2016

Station Name : VANDIPERIYAR (KS000U1)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

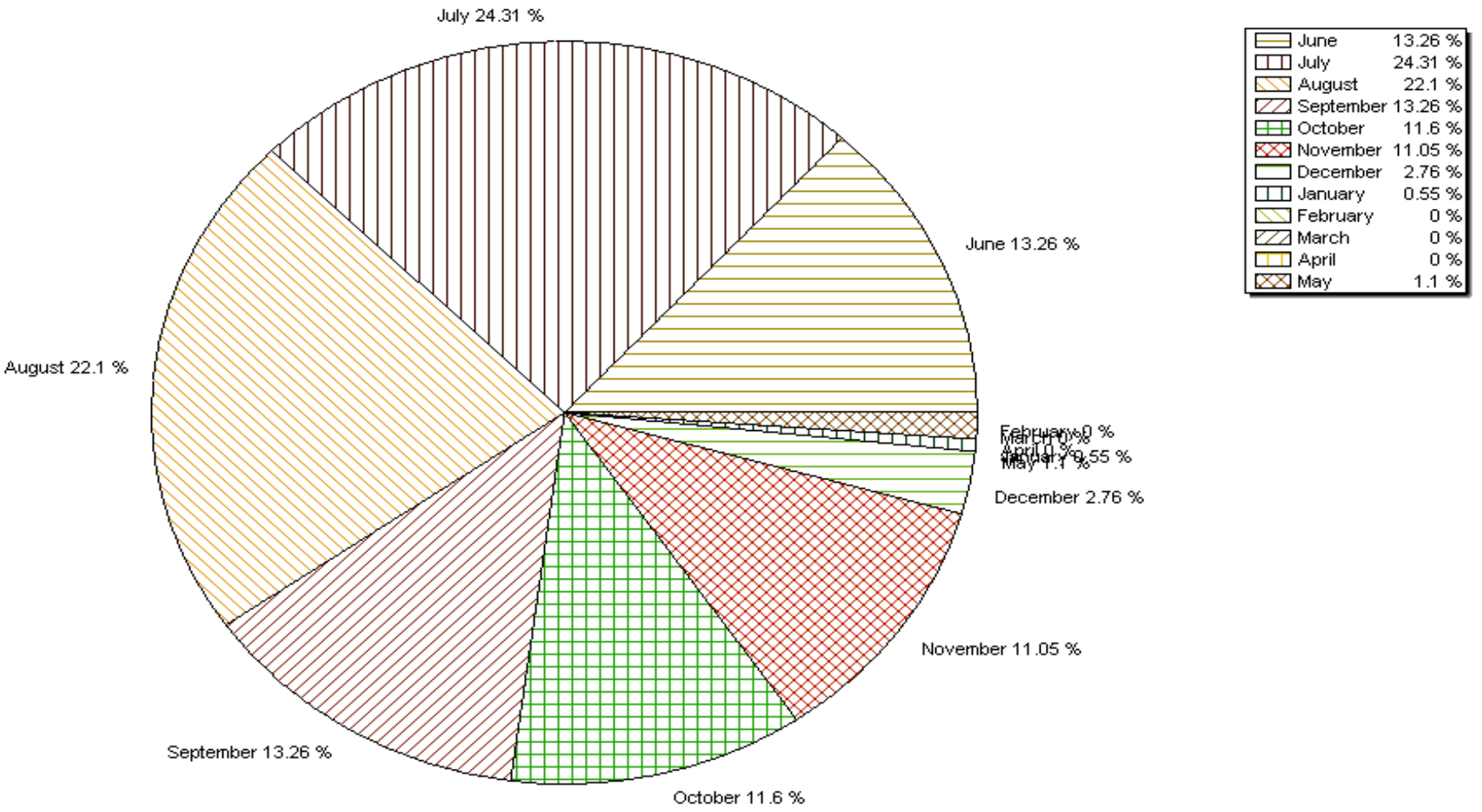


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2000-2015

Station Name : VANDIPERIYAR (KS000U1)
Local River : Periyar

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



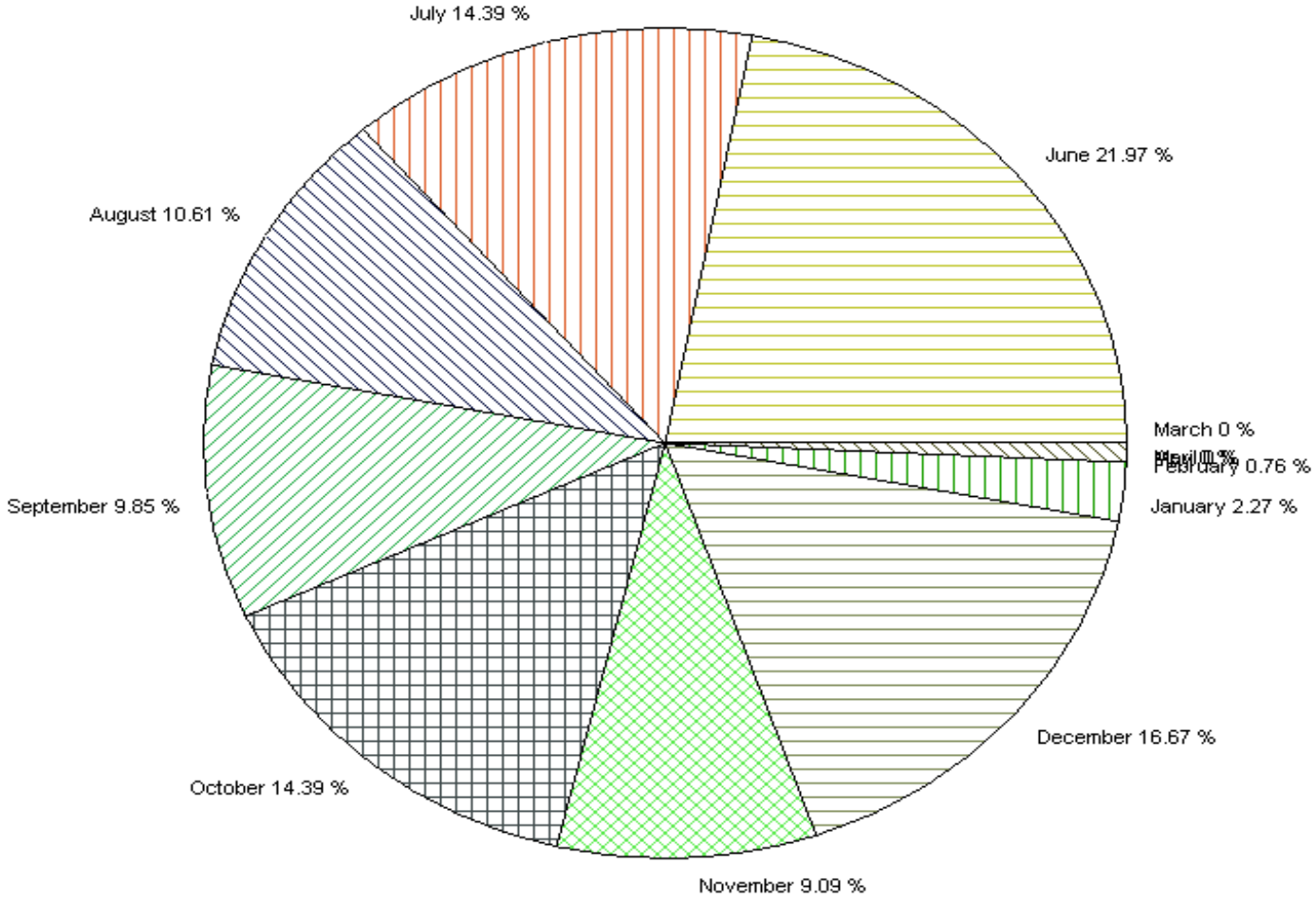
Monthly Runoff for the Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1)

Local River : Periyar

Division : SWR Division, Kochi

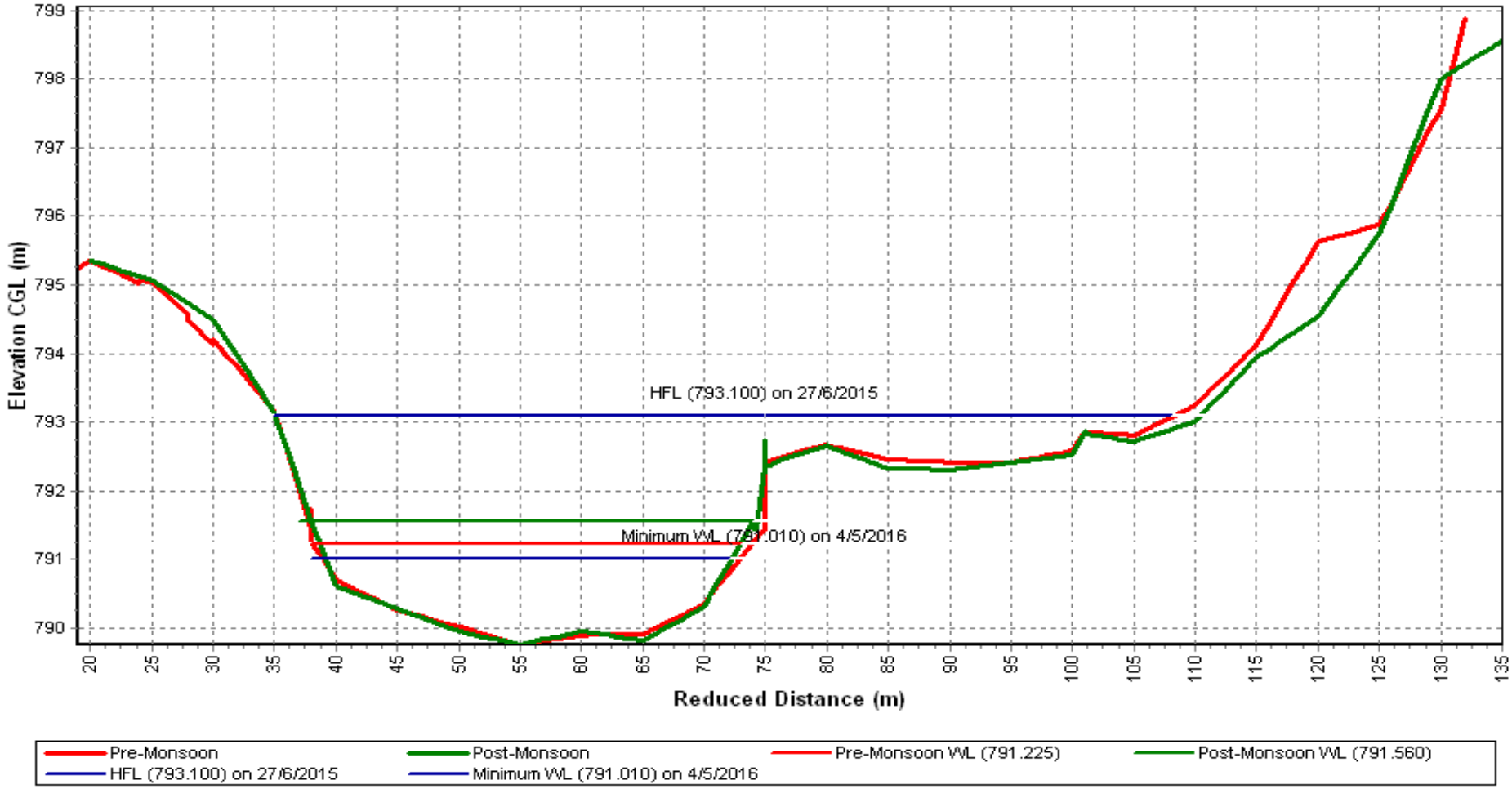
Sub-Division : SWR SD No 2, Kochi



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1)
Local River : Periyar

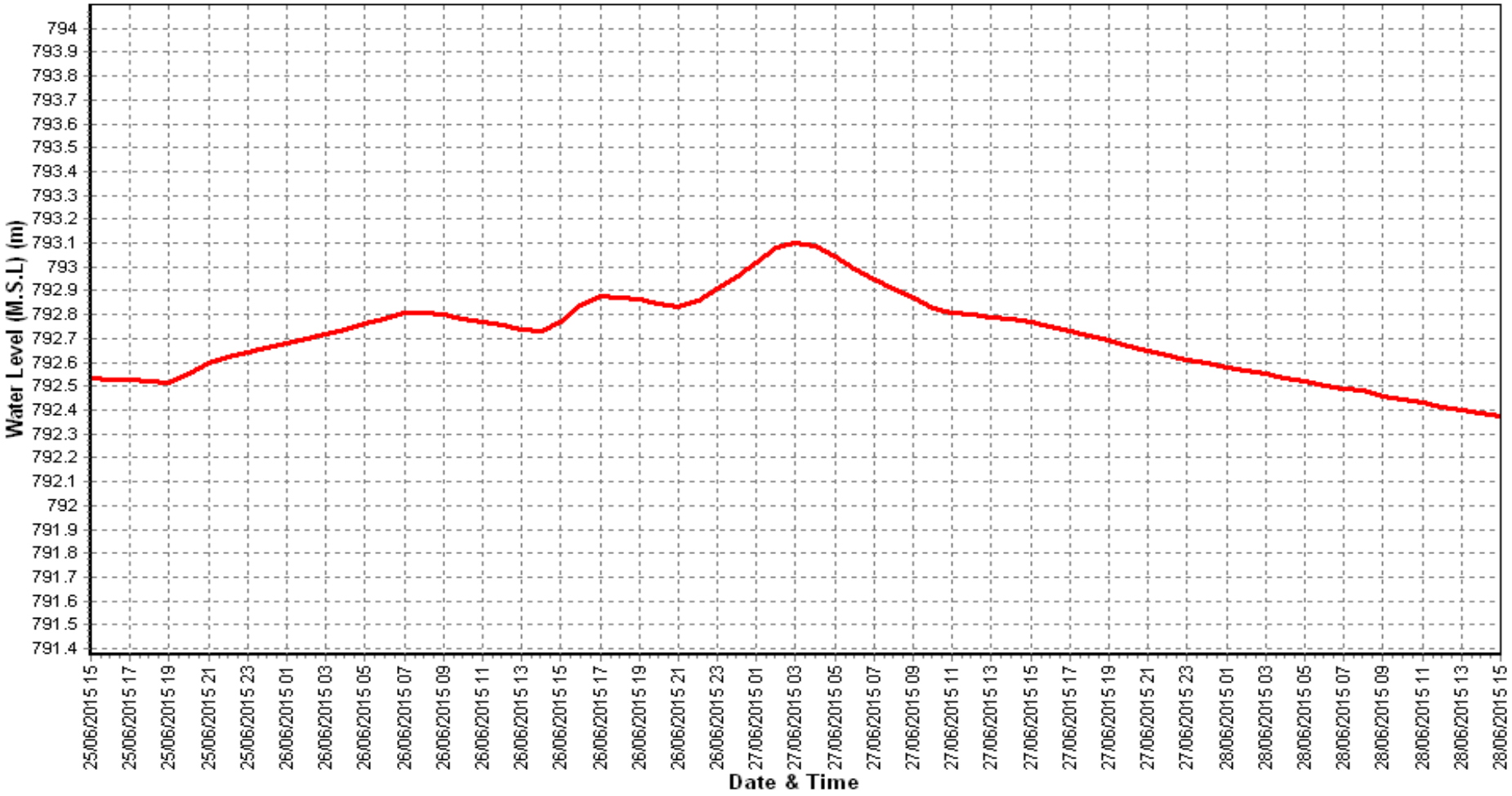
Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

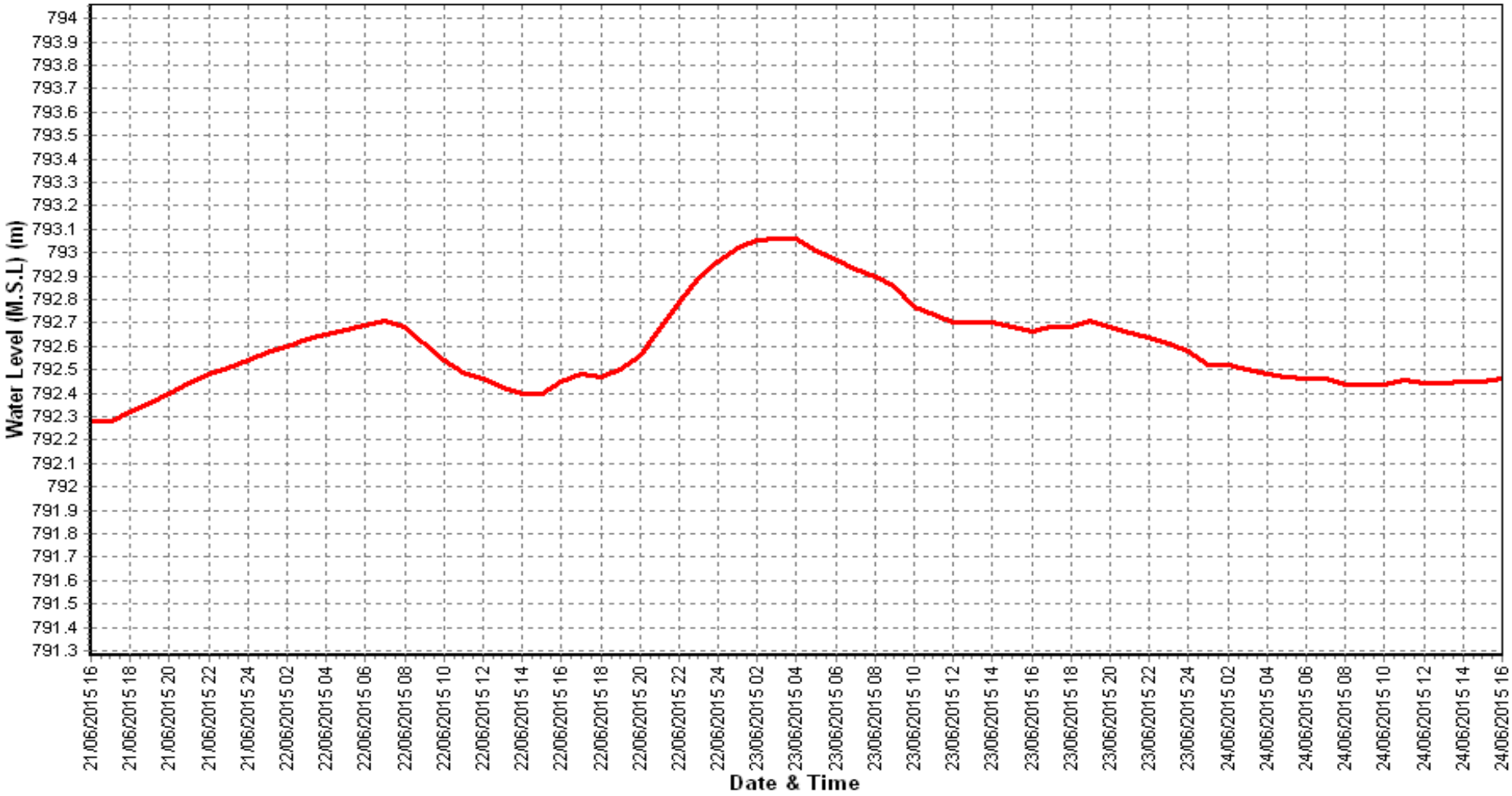
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

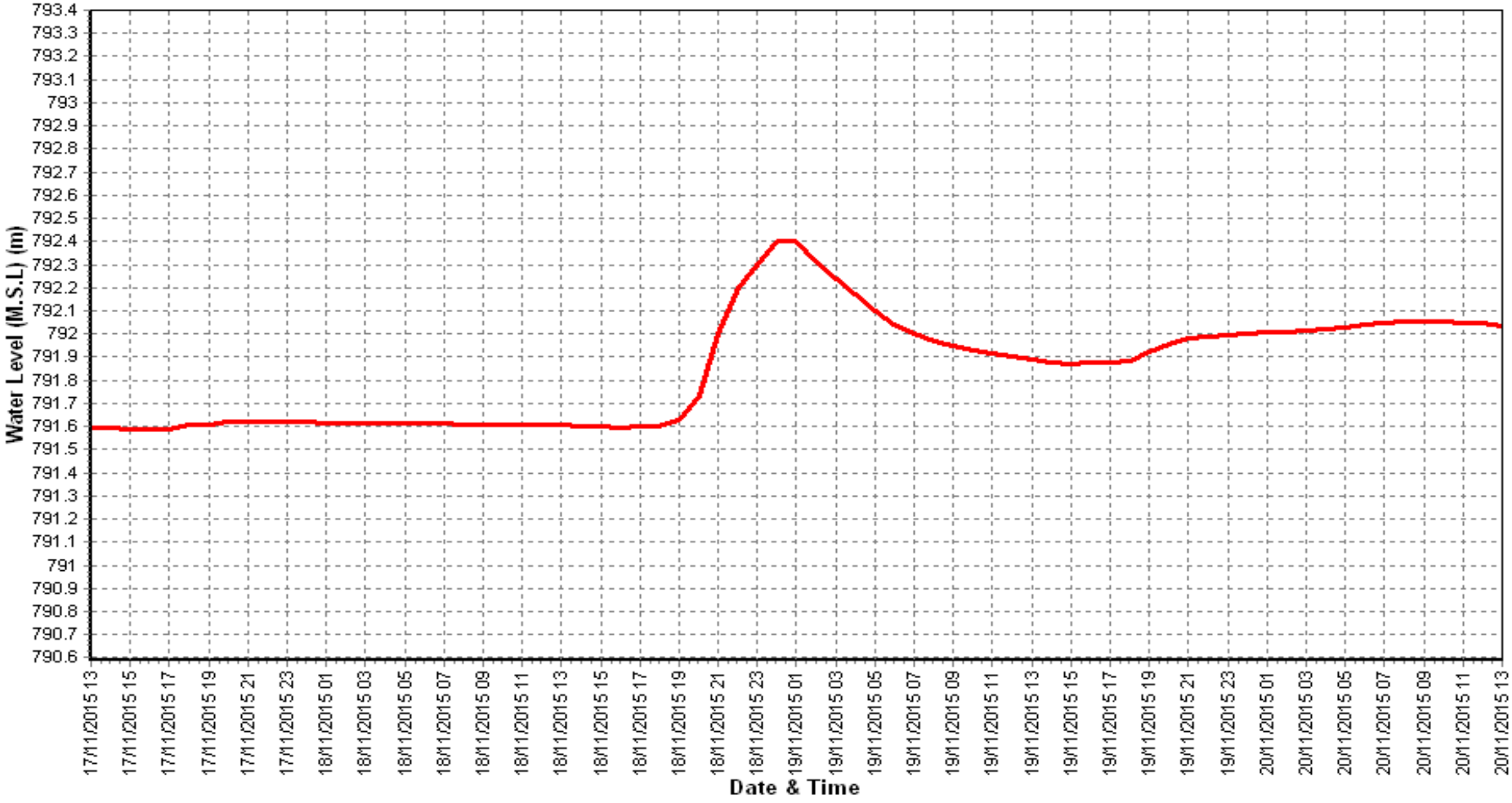


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : VANDIPERIYAR (KS000U1) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**RAMAMANGALAM**	**Code**	:	**KM000I2**
State	:	Kerala	District		Ernakulam
Basin	:	WFR South of Tapi	Independent River	:	Muvattupuzha
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Muvattupuzha
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 2, Kochi
Drainage Area	:	1208 Sq. Km.	Bank	:	Left
Latitude	:	09°56'37"	Longitude	:	76°28'42"
Zero of Gauge (m)	:	0.000 (m.s.l)	24/02/1978		
		Opening Date	Closing Date		
Gauge	:	24/02/1978			
Discharge	:	25/04/1978			
Sediment	:	20/02/1979			
Water Quality	:	15/08/1978			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1978-1979	900.5	7.003	29/07/1978	36.40	2.025	12/03/1979
1979-1980	725.6	6.465	04/08/1979	38.90	1.950	19/03/1980
1980-1981	809.9	6.855	03/07/1980	38.60	1.910	28/04/1981
1981-1982	1048	7.305	28/07/1981	42.40	1.980	03/05/1982
1982-1983	568.8	5.460	19/06/1982	15.00	1.430	04/04/1983
1983-1984	940.5	6.693	21/08/1983	21.80	1.560	24/03/1984
1984-1985	1178	7.420	18/06/1984	22.10	1.530	08/04/1985
1985-1986	1304	8.300	28/06/1985	32.50	1.640	16/02/1986
1986-1987	1102	7.943	11/08/1986	12.50	1.230	06/04/1987
1987-1988	743.3	6.023	26/08/1987	16.55	1.220	15/02/1988
1988-1989	616.0	5.900	05/08/1988	25.00	1.230	20/05/1989
1989-1990	766.0	7.028	28/07/1989	38.00	1.360	29/01/1990
1990-1991	595.5	5.620	16/06/1990	43.25	1.390	25/03/1991
1991-1992	891.5	6.702	29/07/1991	46.08	1.443	06/05/1992
1992-1993	1068	7.481	29/07/1992	57.23	1.557	18/01/1993
1993-1994	927.9	6.282	17/07/1993	58.14	1.517	14/03/1994
1994-1995	1273	7.560	03/08/1994	64.27	1.580	27/02/1995
1995-1996	750.6	5.715	01/07/1995	18.44	0.965	15/05/1996
1996-1997	837.2	6.400	22/07/1996	30.00	1.000	22/05/1997

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1997-1998	1197	7.090	25/07/1997	20.00	0.880	22/06/1997
1998-1999	1084	6.250	13/10/1998	58.00	1.200	15/02/1999
1999-2000	755.2	5.290	21/10/1999	52.20	1.130	22/05/2000
2000-2001	1021	6.540	26/08/2000	29.98	0.780	18/11/2000
2001-2002	1450	7.550	09/07/2001	47.83	0.880	22/04/2002
2002-2003	1221	6.870	18/08/2002	23.18	0.630	21/01/2003
2003-2004	932.0	5.670	08/10/2003	19.08	0.560	10/03/2004
2004-2005	943.7	5.945	06/08/2004	32.65	0.700	26/03/2005
2005-2006	1207	7.200	02/08/2005	47.23	0.985	19/12/2005
2006-2007	673.0	5.215	24/06/2006	28.68	0.590	11/12/2006
2007-2008	1139	6.850	18/07/2007	43.67	0.780	04/01/2008
2008-2009	685.7	4.885	09/09/2008	21.28	0.620	05/01/2009
2009-2010	917.0	5.490	19/07/2009	38.47	0.750	08/02/2010
2010-2011	1161	6.380	13/06/2010	36.63	0.700	27/12/2010
2011-2012	794.3	5.670	08/08/2011	39.03	0.650	12/03/2012
2012-2013	1200	6.240	18/08/2012	10.25	0.630	12/01/2013
2013-2014	1909	8.210	06/08/2013	30.30	0.545	17/03/2014
2014-2015	917.1	5.970	02/08/2014	34.01	0.575	07/01/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.345	148.3	2.425	262.9	1.435	154.5	1.000	99.53	3.245	350.0	1.580	162.2 *
2	0.985	101.0	2.255	242.2	1.350	135.7 *	1.445	151.9	2.410	271.2 *	1.650	160.8
3	0.945	97.83	1.915	199.2	1.250	123.6	1.000	95.46	1.965	212.7	1.300	120.0
4	1.035	111.4	1.705	179.6	1.355	138.8	1.500	159.0	2.160	236.3 *	1.545	159.2
5	1.035	111.0	1.560	159.8 *	1.530	149.8	2.150	227.7	1.745	178.7	2.185	244.1
6	0.990	101.6	1.770	189.6	1.560	164.0	2.560	293.0 *	2.180	223.5	2.100	213.6
7	0.970	95.70 *	1.525	162.6	1.325	134.2	2.575	296.7	1.675	169.0	2.035	206.1
8	0.945	90.36	1.475	155.1	1.255	134.0	2.345	257.4	1.930	208.3	2.970	355.6 *
9	1.030	104.4	2.070	233.8	1.280	127.9 *	1.895	193.9	1.790	187.5	2.085	217.8
10	0.875	83.31	1.875	201.4	1.305	135.0	1.675	174.7	1.785	187.0	1.750	182.9 *
11	0.845	84.53	1.950	215.1	1.625	181.8	1.595	161.8	1.750	182.9 *	1.460	147.5
12	1.520	161.4	1.990	213.6 *	2.095	243.2	1.465	151.2	1.560	168.4	1.275	121.7
13	1.180	117.2 *	1.605	176.7	2.960	367.5	1.350	135.7 *	2.000	225.6	1.980	204.9
14	1.140	113.0 *	1.445	156.1	2.255	249.4	1.245	130.1	2.150	221.5	1.500	152.8 *
15	1.075	105.1	1.560	169.0	2.030	218.8 *	1.330	137.2	1.545	141.4	1.350	135.7 *
16	1.410	149.3	2.015	225.9	2.130	232.2 *	1.105	104.4	1.740	168.1	1.090	99.38
17	1.305	136.7	1.815	199.4	1.705	178.8	1.395	137.7	1.750	178.2	1.090	101.3
18	1.305	133.0	3.100	376.3 *	1.940	199.1	1.625	155.1	1.150	114.0 *	1.225	115.5
19	1.490	163.2	2.790	327.6 *	2.075	228.3	1.585	156.1	1.600	158.8	1.115	104.1
20	1.720	192.3	2.850	318.8	1.680	173.2	1.500	152.8 *	1.235	114.6	1.670	176.6
21	1.490	151.6 *	2.660	305.9	1.560	170.4	1.100	106.4	1.330	132.2	1.540	157.5
22	1.765	200.2	3.570	442.5	1.625	169.8	1.310	129.4	1.410	140.8	1.210	120.4 *
23	1.925	228.3	2.770	307.9	1.560	159.8 *	1.465	154.9	1.320	132.3 *	1.110	112.1
24	2.205	253.9	2.585	305.7	1.460	148.1 *	1.370	137.9 *	1.430	144.7 *	1.020	98.94
25	2.115	239.6	2.560	296.1	1.320	127.9	1.885	217.6	1.780	186.6 *	0.970	95.70 *
26	2.820	337.8	2.130	232.2 *	1.255	119.1	1.750	197.9	1.255	110.7	0.890	74.50
27	4.870	740.9	2.050	217.1	1.450	147.0 *	2.690	312.4 *	1.065	96.66	1.020	100.7
28	4.960	715.9 *	1.775	194.2	1.200	119.3 *	2.390	281.0	1.010	90.26	1.135	108.3
29	3.590	417.2	1.645	177.5	1.120	110.9 *	2.350	263.4	1.395	134.9	1.130	111.9 *
30	3.140	348.8	1.735	188.6	1.090	107.8 *	3.365	389.2	1.225	117.3	0.955	87.58
31			1.645	171.6	0.970	90.73			1.545	157.1		
Ten-Daily Mean												
I Ten-Daily	1.015	104.5	1.858	198.6	1.364	139.8	1.815	194.9	2.088	222.4	1.920	202.2
II Ten-Daily	1.299	135.6	2.112	237.8	2.049	227.2	1.420	142.2	1.648	167.3	1.375	135.9
III Ten-Daily	2.888	363.4	2.284	258.1	1.328	133.7	1.967	219.0	1.342	131.2	1.098	106.8
Monthly												
Min.	0.845	83.31	1.445	155.1	0.970	90.73	1.000	95.46	1.010	90.26	0.890	74.50
Max.	4.960	740.9	3.570	442.5	2.960	367.5	3.365	389.2	3.245	350.0	2.970	355.6
Mean	1.734	201.2	2.091	232.4	1.573	165.8	1.734	185.4	1.682	172.3	1.465	148.3

Annual Runoff in MCM = 4008 Annual Runoff in mm = 3318

Peak Observed Discharge = 740.9 cumecs on 27/06/2015 Corres. Water Level :4.87 m

Lowest Observed Discharge = 32.83 cumecs on 03/02/2016 Corres. Water Level :0.51 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	0.875	79.72	0.590	41.16	0.635	43.80	0.840	48.52	0.960	73.82	0.900	68.21 *
2	1.315	145.2	0.620	43.69	0.600	41.56	0.880	52.59	0.980	74.85	0.775	46.94
3	1.800	184.1 *	0.620	41.03 *	0.510	32.83	0.950	62.37	1.000	79.05 *	0.915	75.07
4	2.195	240.3	0.610	40.15 *	0.540	36.70	0.925	58.82	0.925	69.23	0.930	75.88
5	1.215	120.4	0.600	45.18	0.595	45.29	0.985	67.47	0.980	76.88	0.930	75.47
6	1.080	88.12 *	0.630	41.92 *	0.710	55.36	0.990	77.94 *	0.980	78.82	0.945	74.99
7	1.030	82.41 *	0.640	44.73	0.590	38.42 *	0.910	69.27 *	0.980	78.73	0.835	63.45
8	1.010	97.96	0.660	47.92	0.585	42.73	0.905	56.63	0.930	70.28	0.790	56.96 *
9	0.865	76.57	0.670	45.52 *	0.665	48.69	0.975	67.15	1.000	84.98	0.780	47.88
10	0.900	83.55	0.700	48.30 *	0.710	57.18	0.985	74.42	0.840	61.98 *	0.730	44.39
11	0.870	79.38	0.650	45.87	0.760	59.12	1.010	76.68	0.780	52.48	0.835	61.11
12	0.925	82.41	0.680	46.44 *	0.760	57.66	1.030	74.19	0.820	53.17	0.783	49.25
13	1.560	149.4 *	0.710	49.23 *	0.940	78.36	1.060	85.82 *	0.785	47.77	0.700	42.60
14	2.075	240.3	0.730	51.37	0.780	55.97 *	0.845	48.79	0.820	59.96 *	0.800	52.92
15	2.120	242.2	0.760	54.01 *	0.800	59.86	0.915	57.50	0.890	62.56	0.810	58.95 *
16	2.400	270.6	0.720	46.11	0.700	44.37	1.010	76.06	0.880	60.78	0.800	57.95 *
17	1.810	185.9	0.710	49.23 *	0.700	44.24	1.030	78.13	0.940	72.48 *	0.800	52.30
18	1.265	124.7	0.690	43.02	0.745	51.34	1.010	76.19	0.795	54.55	0.805	54.41
19	1.070	97.55	0.585	36.99	0.785	47.93	0.985	72.59	0.815	54.73	0.810	54.86
20	1.150	96.34 *	0.590	42.68	0.790	46.52	1.000	79.05 *	0.870	65.07 *	0.890	70.69
21	0.965	86.78	0.615	46.00	1.020	81.28 *	0.920	62.35	0.970	78.14	0.880	66.11 *
22	0.840	74.17	0.655	47.02	0.850	51.86	0.860	51.61	0.870	64.76	0.830	60.97 *
23	0.750	58.15	0.750	59.52	0.935	72.01	0.915	63.15	0.875	63.31	0.790	50.21
24	0.720	50.18 *	0.680	46.44 *	0.950	73.41	0.980	71.86	0.940	72.48 *	0.760	45.85
25	0.780	55.97 *	0.650	46.71	0.940	73.22	0.990	77.94 *	0.925	69.89	0.880	68.73
26	0.700	55.61	0.740	52.08 *	0.660	48.56	0.850	51.18	0.935	70.43	1.155	111.0
27	0.700	48.30 *	0.960	90.32	0.930	69.00	0.850	63.01 *	1.100	93.37	0.935	79.44
28	0.680	56.20	0.840	67.62	0.870	65.07 *	0.800	45.50	0.960	72.83	0.955	83.60
29	0.655	50.26	0.635	42.41	0.830	48.84	0.935	73.15	0.930	73.57	1.160	97.53 *
30	0.645	45.76	0.635	43.10			0.970	78.92	0.940	74.11	1.150	106.3
31	0.615	41.13	0.650	43.71 *			0.935	73.10			1.190	117.1
Ten-Daily Mean												
I Ten-Daily	1.229	119.8	0.634	43.96	0.614	44.26	0.934	63.52	0.958	74.86	0.853	62.92
II Ten-Daily	1.525	156.9	0.683	46.50	0.776	54.54	0.989	72.50	0.840	58.35	0.803	55.50
III Ten-Daily	0.732	56.59	0.710	53.18	0.887	64.80	0.910	64.71	0.944	73.29	0.971	80.62
Monthly												
Min.	0.615	41.13	0.585	36.99	0.510	32.83	0.800	45.50	0.780	47.77	0.700	42.60
Max.	2.400	270.6	0.960	90.32	1.020	81.28	1.060	85.82	1.100	93.37	1.190	117.1
Mean	1.148	109.3	0.677	48.05	0.755	54.18	0.943	66.84	0.914	68.84	0.879	66.81

Peak Computed Discharge = 715.9 cumecs on 28/06/2015 **Corres. Water Level :4.96 m**

Lowest Computed Discharge = 38.42 cumecs on 07/02/2016 **Corres. Water Level :0.59 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

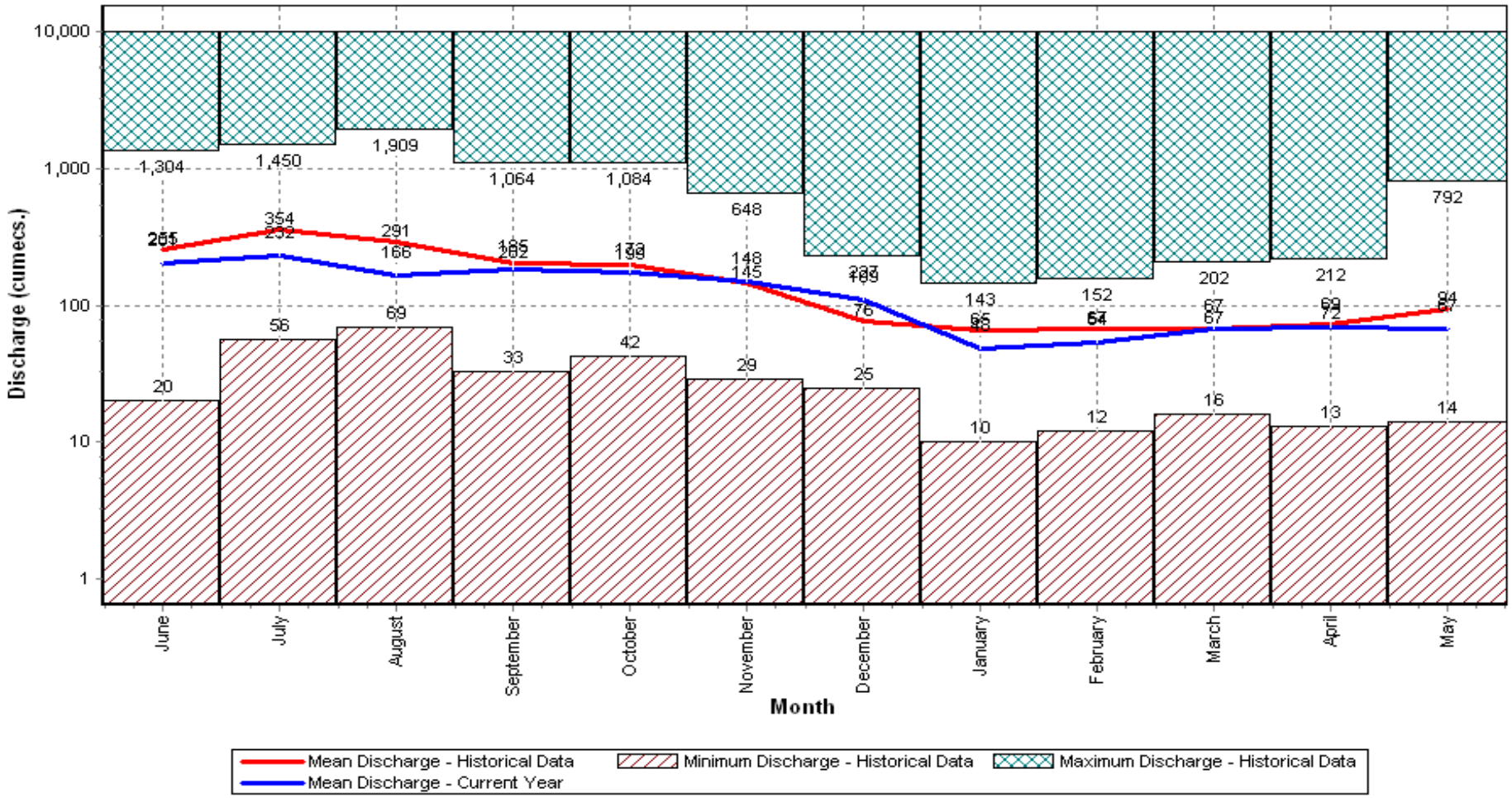
*:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Data considered : 1978-2016** **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWR SD No 2, Kochi**



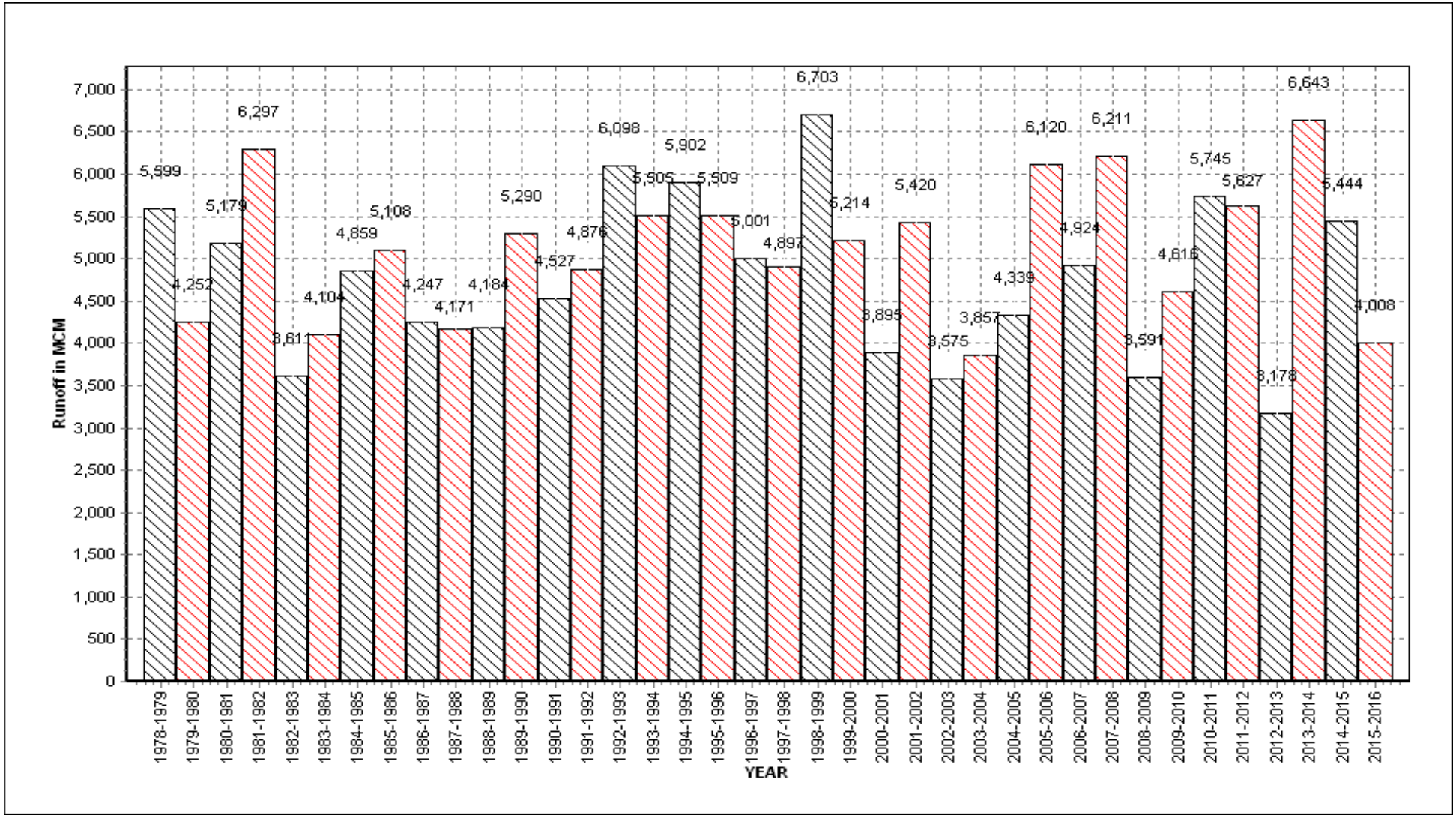
Annual Runoff Values for the period: 1978 - 2016

Station Name : RAMAMANGALAM (KM000I2)

Division : SWR Division, Kochi

Local River : Muvattupuzha

Sub-Division : SWR SD No 2, Kochi

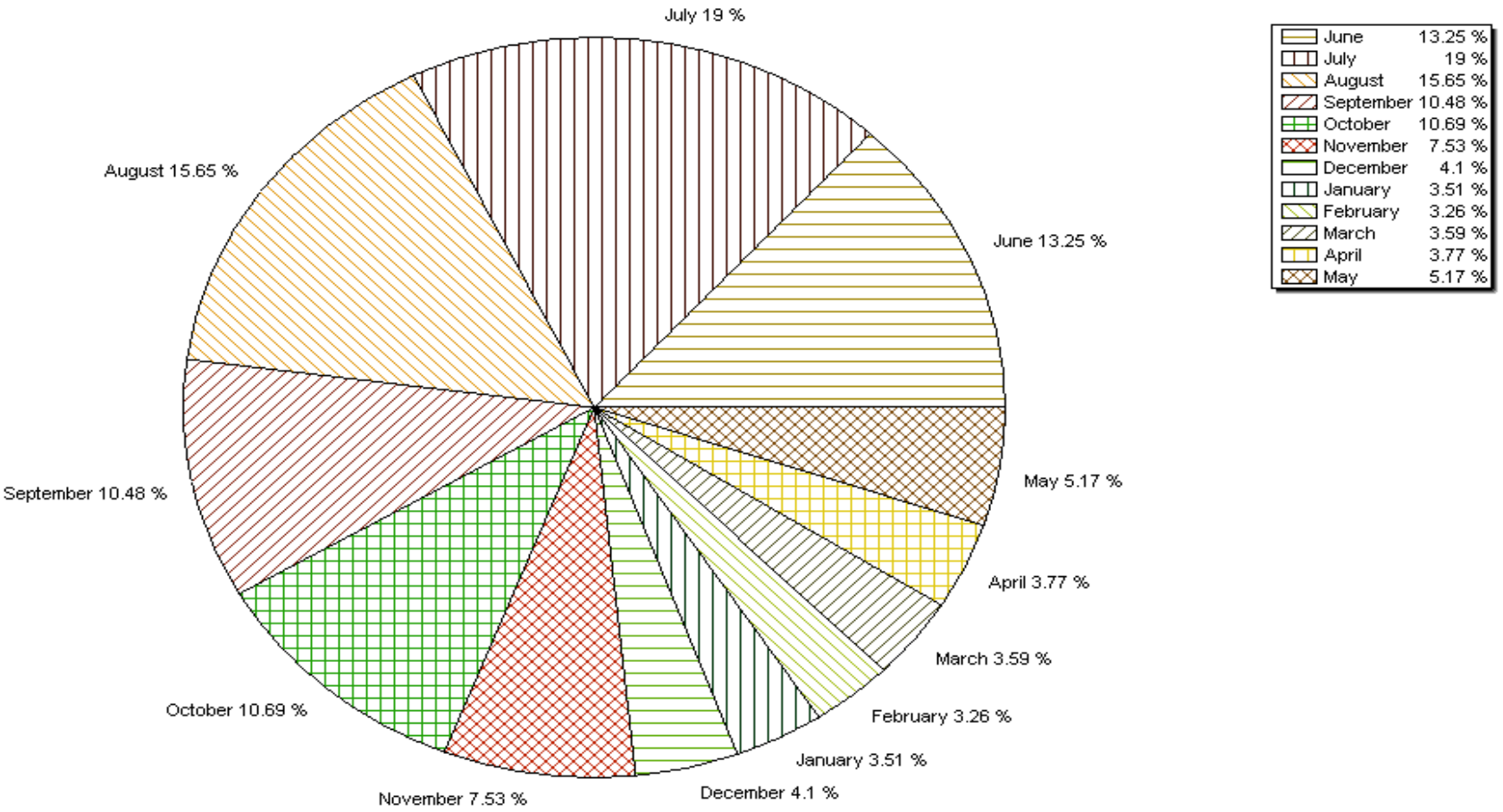


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1978-2015

Station Name : RAMAMANGALAM (KM000I2)
Local River : Muvattupuzha

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



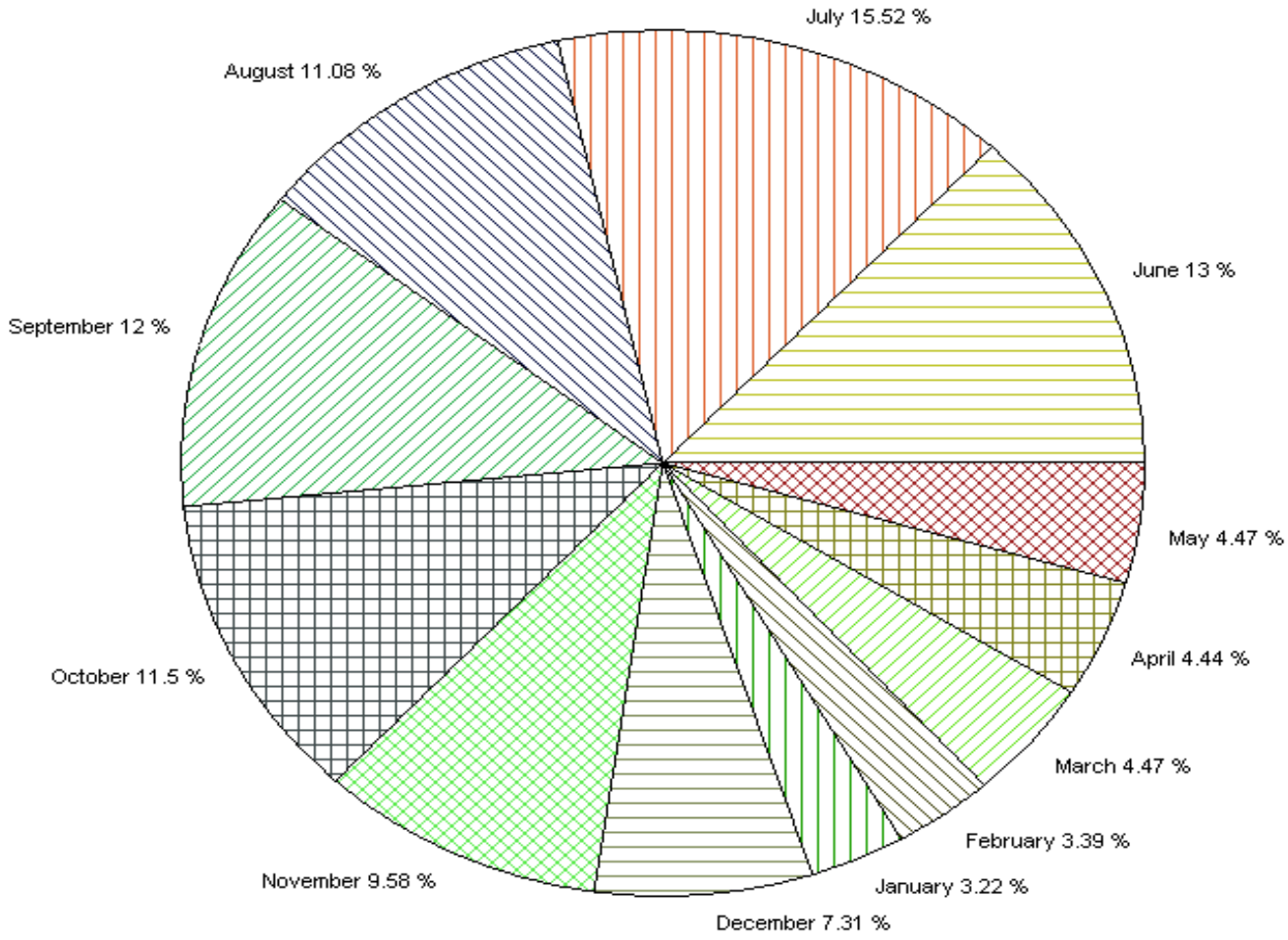
Monthly Runoff for the Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2)

Local River : Muvattupuzha

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

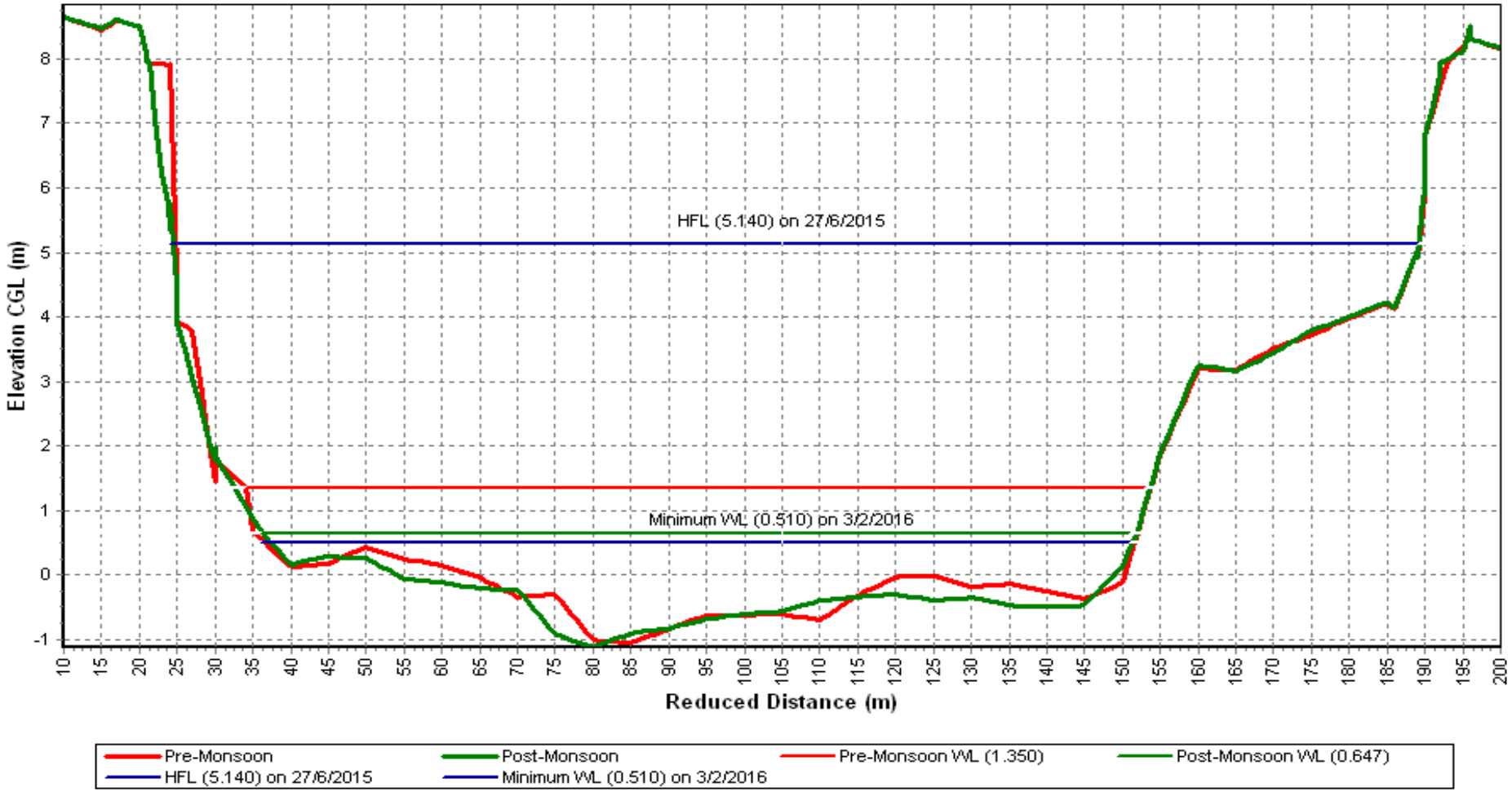


June	13 %
July	15.52 %
August	11.08 %
September	12 %
October	11.5 %
November	9.58 %
December	7.31 %
January	3.22 %
February	3.39 %
March	4.47 %
April	4.44 %
May	4.47 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWR SD No 2, Kochi**



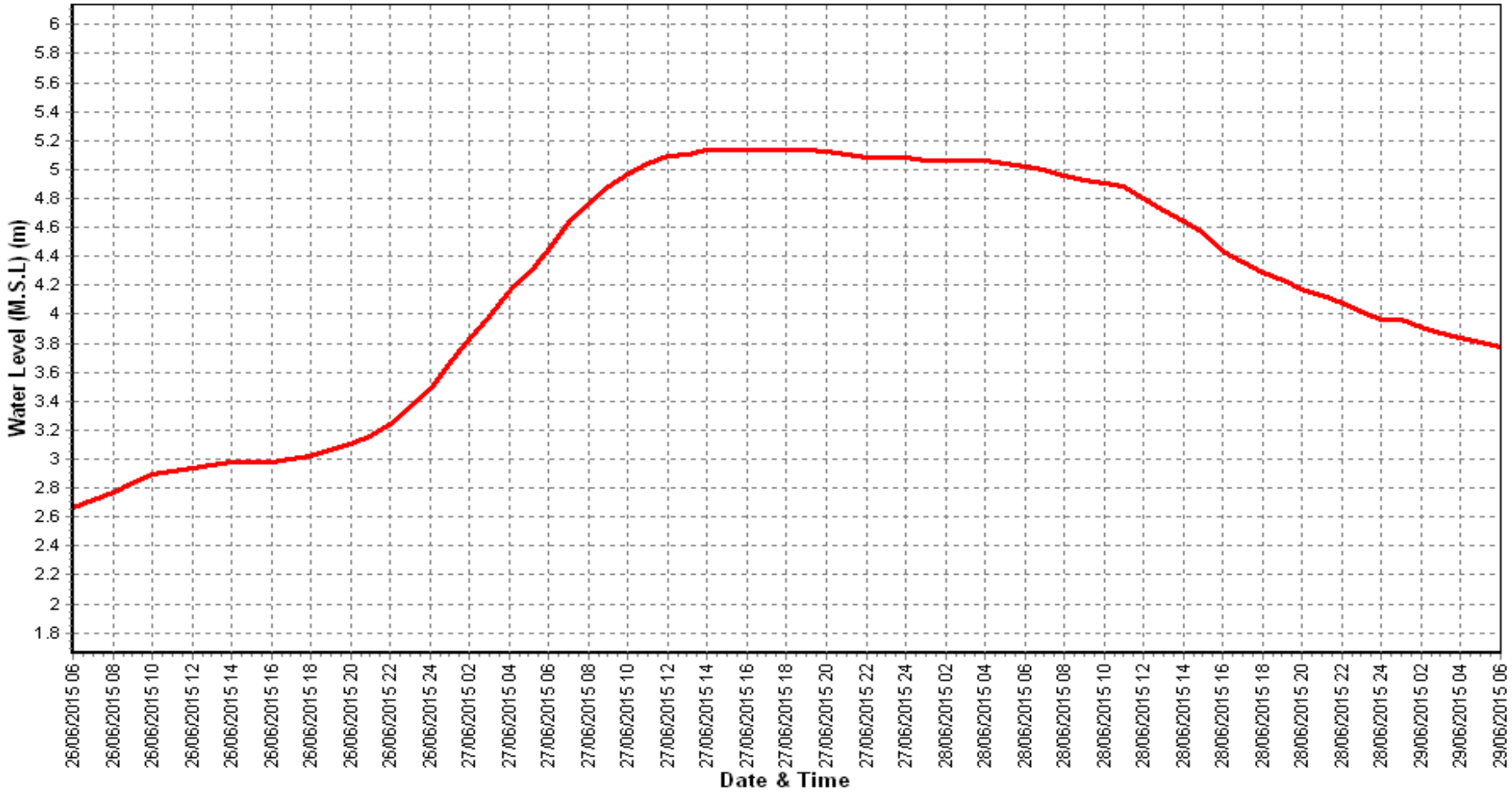
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2)

Division : SWR Division, Kochi

Local River : Muvattupuzha

Sub-Division : SWR SD No 2, Kochi

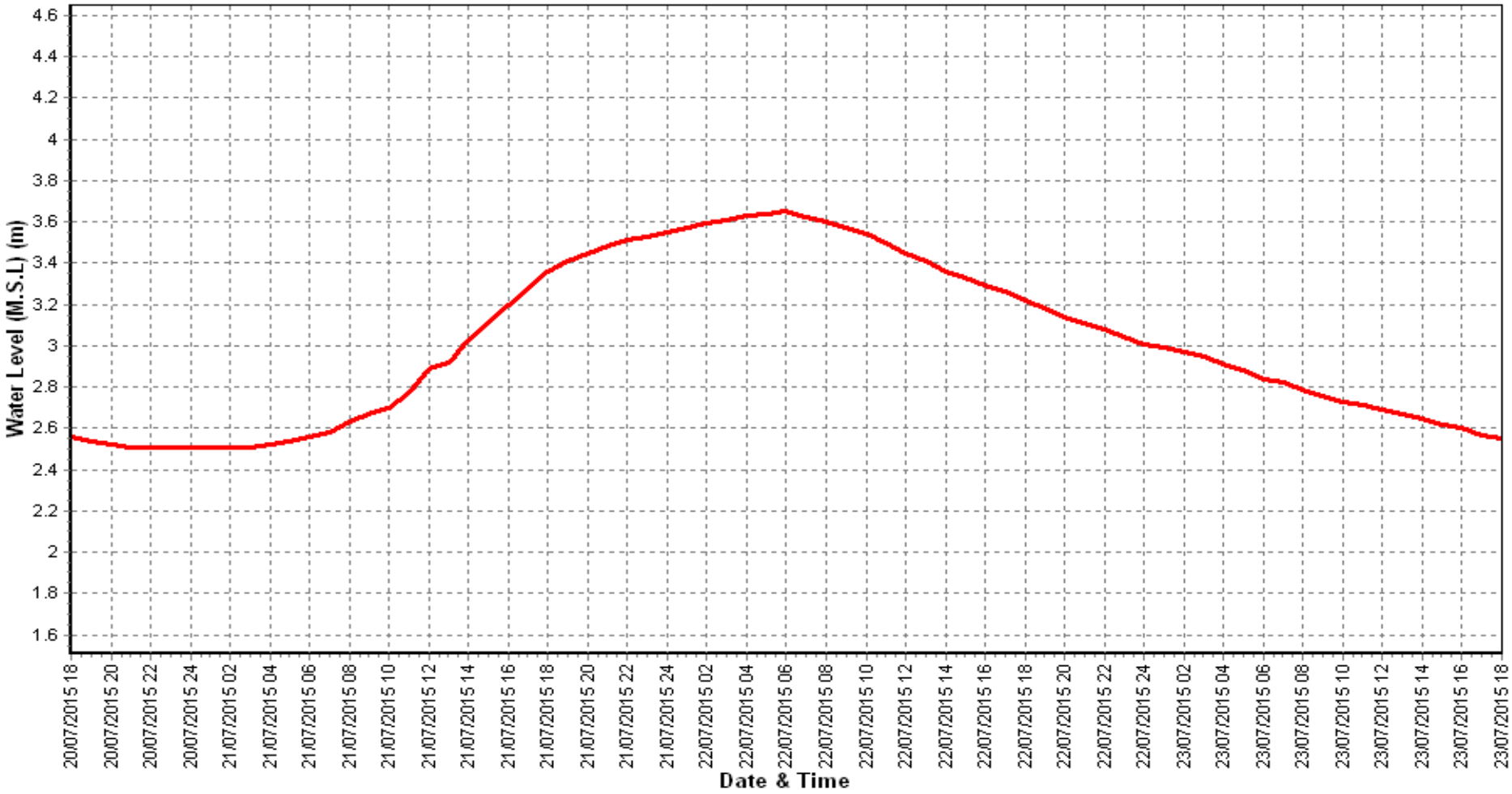


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

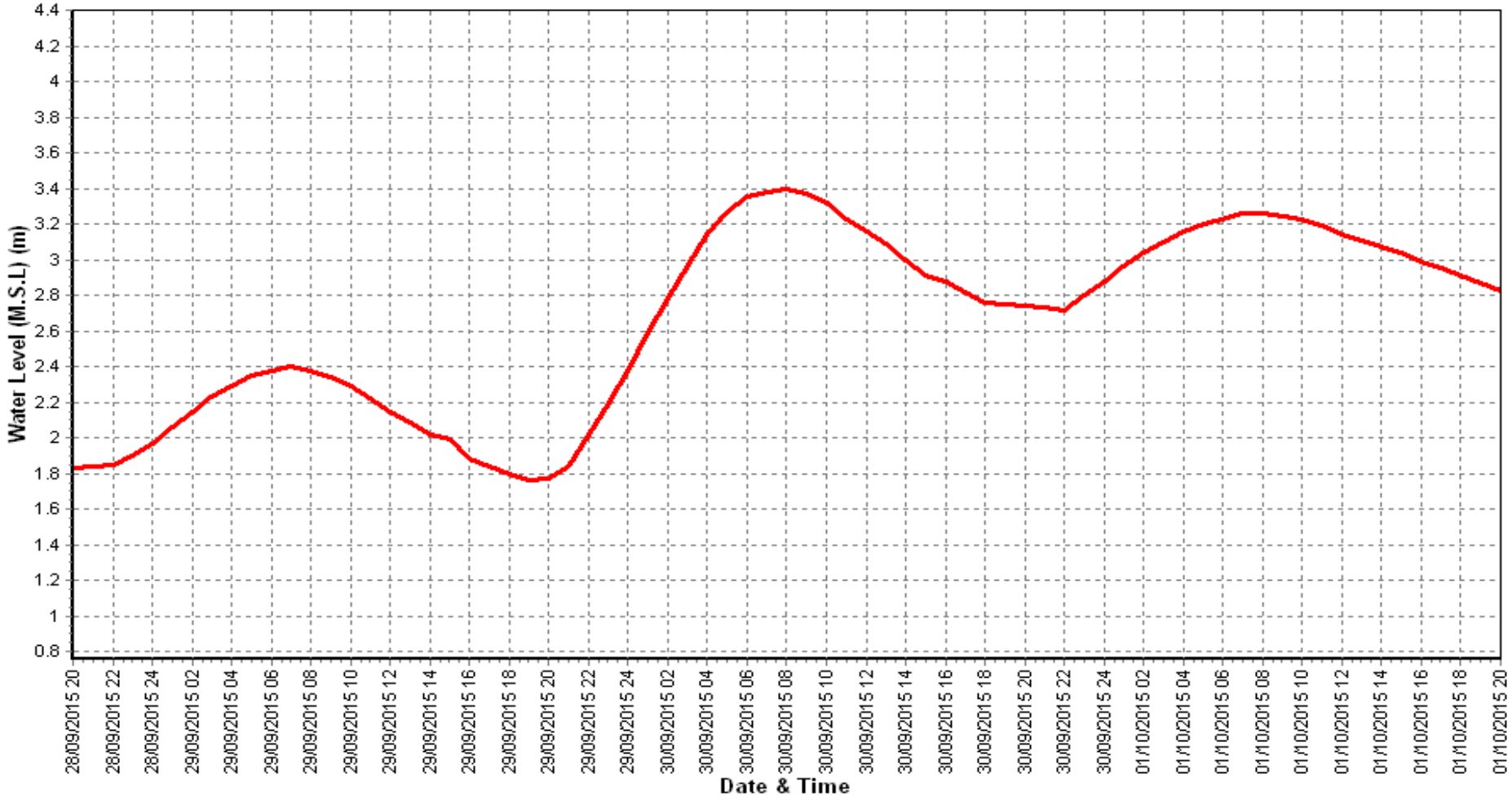
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : RAMAMANGALAM (KM000I2)

Division : SWR Division, Kochi

Local River : Muvattupuzha

Sub-Division : SWR SD No 2, Kochi



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: KALAMPUR**		**Code**	**: KMA00C6**	
State	: Kerala		District	Ernakulam	
Basin	: WFR South of Tapi		Independent River	: Muvattupuzha	
Tributary	: Kaliyar		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kaliyar	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 405 Sq. Km.		Bank	: Right	
Latitude	: 09°59'26"		Longitude	: 76°37'56"	
Zero of Gauge (m)	: 89.535 (Arb.) 5.000 (m.s.l)		29/11/1985 01/02/1988	- 31/01/1988	
	Opening Date		Closing Date		
Gauge	: 29/11/1985				
Discharge	: 23/06/1986				
Sediment	: 01/06/1988				
Water Quality	: 01/06/1988				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1987-1988	249.8	94.955	26/08/1987	0.220	7.285	05/04/1988
1988-1989	362.1	12.440	04/08/1988	0.000	7.255	19/02/1989
1989-1990	397.0	12.930	24/07/1989	0.000	7.145	02/03/1990
1990-1991	266.6	11.025	16/06/1990	0.000	7.260	20/02/1991
1991-1992	312.7	12.260	29/07/1991	0.000	7.312	11/02/1992
1992-1993	438.0	13.478	29/07/1992	0.000	7.335	13/02/1993
1993-1994	282.9	11.625	04/08/1993	0.000	7.398	05/03/1994
1994-1995	439.1	13.293	03/08/1994	0.000	7.345	20/01/1995
1995-1996	294.1	11.653	12/07/1995	0.000	7.350	27/01/1996
1996-1997	388.0	12.800	21/07/1996	0.000	7.535	28/01/1997
1997-1998	493.1	13.835	24/07/1997	0.000	7.385	07/02/1998
1998-1999	377.3	12.065	12/10/1998	0.000	7.370	01/06/1998
1999-2000	336.0	11.340	24/10/1999	0.000	7.300	01/02/2000
2000-2001	500.6	12.645	26/08/2000	0.000	7.450	16/01/2001
2001-2002	805.5	14.800	09/07/2001	0.000	7.325	05/02/2002
2002-2003	443.5	12.130	18/08/2002	0.000	7.375	23/01/2003
2003-2004	290.5	11.410	08/10/2003	0.000	7.480	19/12/2003
2004-2005	334.7	11.970	04/08/2004	0.000	7.400	29/12/2004

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2005-2006	692.6	13.670	07/09/2005	0.000	7.380	24/01/2006
2006-2007	320.3	11.260	16/07/2006	0.000	7.330	20/02/2007
2007-2008	680.3	13.650	17/07/2007	0.000	7.590	02/01/2008
2008-2009	235.7	11.290	31/08/2008	0.000	9.000	10/12/2008
2009-2010	424.7	12.680	18/07/2009	0.000	7.870	05/03/2010
2010-2011	611.6	13.460	13/06/2010	0.000	8.340	11/12/2010
2011-2012	277.3	11.775	19/07/2011	0.000	8.590	14/12/2011
2012-2013	493.3	12.495	18/08/2012	0.000	7.850	01/06/2012
2013-2014	763.3	14.650	05/08/2013	0.000	8.270	01/06/2013
2014-2015	359.4	12.115	04/08/2014	0.000	7.630	04/01/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	8.400	16.46	9.825	85.56	9.000	38.94	8.270	16.51	9.885	99.90	8.740	31.21 *
2	7.970	5.724	9.650	63.30	8.880	32.42 *	8.220	14.77	9.640	74.84 *	9.170	45.20
3	7.860	5.149	9.480	48.41	8.970	40.72	8.180	13.33	9.580	68.44	8.810	33.47
4	8.450	17.17	9.470	48.36	9.040	41.85	8.740	28.31	9.580	68.40 *	9.570	63.61
5	8.480	19.07	9.320	37.16 *	9.200	49.33	9.010	46.91	9.500	58.83	10.250	122.3
6	8.160	10.10	9.720	73.62	9.170	44.05	9.550	61.29 *	9.470	50.02	9.565	60.26
7	8.030	7.647 *	9.460	49.72	9.015	41.47	9.315	48.39	9.485	52.52	9.655	67.31
8	7.950	5.919	9.470	48.80	8.965	41.05	9.435	52.86	9.230	46.44	9.840	68.53 *
9	8.440	14.22	9.775	77.98	9.100	43.20 *	9.060	44.16	9.360	50.45	9.625	66.92
10	8.080	10.01	9.745	77.60	9.055	41.77	9.020	39.47	9.145	41.53	9.470	53.60 *
11	8.000	8.095	9.760	79.50	9.680	73.27	8.880	33.24	9.000	39.91 *	9.235	38.58
12	8.500	17.39	9.810	83.67 *	10.060	122.1	8.780	30.19	9.100	38.54	9.100	37.53
13	8.200	10.06	9.605	61.60	10.650	218.2	8.630	25.68 *	9.360	49.16	9.535	59.23
14	8.440	17.24 *	9.410	47.77	9.910	102.7	8.500	21.64	9.240	46.80	9.200	38.55
15	8.430	16.31	9.515	51.56	9.760	87.23 *	8.430	15.26	8.870	33.55	9.000	37.61 *
16	8.980	34.80	9.635	65.76	9.870	96.39 *	8.510	21.57	8.720	30.33	8.870	35.47
17	8.650	28.13	9.600	66.12	9.700	73.61	9.035	39.32	8.925	37.43	8.780	30.32
18	9.425	52.41	10.180	130.9 *	9.600	68.25	8.880	32.84	8.630	27.90 *	8.960	37.01
19	9.200	48.07	10.130	123.9 *	9.440	53.08	8.870	32.19	8.885	37.01	9.130	41.12
20	9.455	54.79	10.080	110.6	9.345	50.50	8.760	29.97 *	8.610	28.73	8.970	36.67
21	9.390	56.80 *	10.425	175.2	9.090	40.05	8.590	26.24	8.510	26.56	8.795	30.48
22	9.910	98.26	10.455	182.1	9.535	56.92	8.460	18.84	9.035	42.05	8.560	25.51 *
23	10.015	109.4	10.140	128.6	9.160	46.47 *	8.380	17.54	8.520	24.81 *	8.510	25.61
24	9.885	95.35	10.695	193.1	9.025	41.27	8.330	16.80 *	8.890	36.07 *	8.665	31.04
25	9.850	93.57	9.980	112.5	8.890	34.24	9.465	60.90	9.100	43.60 *	8.510	24.30 *
26	10.395	155.3	9.810	91.33 *	8.710	30.91	10.245	183.1	9.095	44.82	8.345	23.69
27	11.740	215.6	9.750	76.28	8.680	28.49	9.700	81.63 *	8.680	30.62	8.270	18.17
28	10.700	214.6 *	9.620	69.61	8.580	24.10 *	9.755	86.13	8.580	27.73	8.550	25.01
29	10.190	133.0	9.520	57.71	8.480	22.69	9.630	74.13	8.935	39.89	8.310	19.81 *
30	10.030	117.7	9.390	49.33	8.410	19.02 *	9.765	88.41	8.620	28.29	8.455	21.64
31			9.180	43.74	8.340	17.68			9.025	37.80		
Ten-Daily Mean												
I Ten-Daily	8.182	11.15	9.592	61.05	9.040	41.48	8.880	36.60	9.488	61.14	9.470	61.24
II Ten-Daily	8.728	28.73	9.773	82.14	9.802	94.53	8.728	28.19	8.934	36.94	9.078	39.21
III Ten-Daily	10.210	129.0	9.906	107.2	8.809	32.90	9.232	65.37	8.817	34.75	8.497	24.53
Monthly												
Min.	7.860	5.149	9.180	37.16	8.340	17.68	8.180	13.33	8.510	24.81	8.270	18.17
Max.	11.740	215.6	10.695	193.1	10.650	218.2	10.245	183.1	9.885	99.90	10.250	122.3
Mean	9.040	56.28	9.761	84.24	9.204	55.55	8.947	43.39	9.071	43.97	9.015	41.66

Annual Runoff in MCM = 951 Annual Runoff in mm = 2347

Peak Observed Discharge = 218.2 cumecs on 13/08/2015 Corres. Water Level :10.65 m

Lowest Observed Discharge = 0.000 cumecs on 10/01/2016 Corres. Water Level :8.33 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	8.325	19.84	8.510	7.091	8.240	0.000	8.220	0.000	8.070	0.000	8.160	0.000
2	9.415	53.04	8.480	6.875	8.240	0.000	8.140	0.000	8.100	0.000	8.110	0.000
3	9.780	65.25 *	8.450	5.323 *	8.200	0.000	8.120	0.000	8.080	0.000	8.070	0.000
4	9.570	57.03 *	8.430	4.892 #	8.180	0.000	8.080	0.000	8.070	0.000	8.110	0.000
5	9.050	38.56 *	8.390	4.142	8.140	0.000	7.960	0.000	8.040	0.000	8.170	0.000
6	8.850	32.21 *	8.390	4.112	8.140	0.000	7.990	0.000	8.080	0.000	8.240	0.000
7	8.710	28.03 *	8.370	4.015	8.170	0.000	8.010	0.000	8.110	0.000	8.200	0.000
8	8.750	27.61	8.350	2.834	8.210	0.000	8.090	0.000	8.120	0.000	8.250	0.000
9	8.600	25.20	8.350	2.821	8.200	0.000	8.100	0.000	8.160	0.000	8.190	0.000
10	8.470	20.74	8.330	0.000	8.220	0.000	8.130	0.000	8.120	0.000	8.120	0.000
11	8.400	21.42	8.380	0.000	8.540	0.000	8.100	0.000	8.210	0.000	8.230	0.000
12	8.350	19.66	8.370	0.000	8.510	0.000	8.100	0.000	8.210	0.000	8.160	0.000
13	9.140	41.56 *	8.350	0.000	8.500	0.000	8.120	0.000	8.160	0.000	8.130	0.000
14	9.595	55.55	8.340	0.000	8.390	0.000	8.150	0.000	8.140	0.000	8.500	0.000
15	9.430	50.98	8.360	0.000	8.330	0.000	8.220	0.000	8.225	0.000	8.420	0.000
16	9.540	54.41	8.360	0.000	8.260	0.000	8.210	0.000	8.240	0.000	8.450	0.000
17	8.970	40.87	8.350	0.000	8.220	0.000	8.460	0.000	8.220	0.000	8.410	0.000
18	8.765	28.93	8.400	0.000	8.210	0.000	8.340	0.000	8.180	0.000	8.570	0.000
19	8.650	25.41	8.460	0.000	8.210	0.000	8.300	0.000	8.100	0.000	8.700	0.000
20	8.680	27.17 *	8.410	0.000	8.190	0.000	8.250	0.000	8.100	0.000	9.130	0.000
21	8.530	22.65	8.430	0.000	8.300	0.000	8.130	0.000	8.270	0.000	8.800	0.000
22	8.390	18.02	8.450	0.000	8.290	0.000	7.770	0.000	8.230	0.000	8.600	0.000
23	8.330	17.22	8.430	0.000	8.250	0.000	7.540	0.000	8.150	0.000	8.150	0.000
24	8.270	16.40 *	8.410	0.000	8.210	0.000	7.600	0.000	8.150	0.000	8.140	0.000
25	8.270	16.40 *	8.360	0.000	8.200	0.000	7.800	0.000	8.140	0.000	8.180	0.000
26	8.170	13.82	8.340	0.000	8.180	0.000	7.960	0.000	8.110	0.000	9.150	25.87
27	8.100	12.57 *	8.560	0.000	8.160	0.000	8.050	0.000	8.140	0.000	8.530	7.184 #
28	8.100	11.28	8.480	0.000	8.140	0.000	7.990	0.000	8.190	0.000	9.165	29.37
29	8.060	12.15	8.340	0.000	8.200	0.000	7.940	0.000	8.160	0.000	8.990	21.70 *
30	8.580	7.957	8.270	0.000			8.170	0.000	8.180	0.000	9.150	28.78
31	8.550	9.417	8.250	0.000			8.110	0.000			8.980	19.47
Ten-Daily Mean												
I Ten-Daily	8.952	36.75	8.405	4.211	8.194	0.000	8.084	0.000	8.095	0.000	8.162	0.000
II Ten-Daily	8.952	36.60	8.378	0.000	8.336	0.000	8.225	0.000	8.178	0.000	8.470	0.000
III Ten-Daily	8.305	14.35	8.393	0.000	8.214	0.000	7.915	0.000	8.172	0.000	8.712	12.03
Monthly												
Min.	8.060	7.957	8.250	0.000	8.140	0.000	7.540	0.000	8.040	0.000	8.070	0.000
Max.	9.780	65.25	8.560	7.091	8.540	0.000	8.460	0.000	8.270	0.000	9.165	29.37
Mean	8.722	28.75	8.392	1.358	8.249	0	8.069	0	8.148	0	8.457	4.27

Peak Computed Discharge = 214.6 cumecs on 28/06/2015 **Corres. Water Level :10.7 m**

Lowest Computed Discharge = 5.323 cumecs on 03/01/2016 **Corres. Water Level :8.45 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

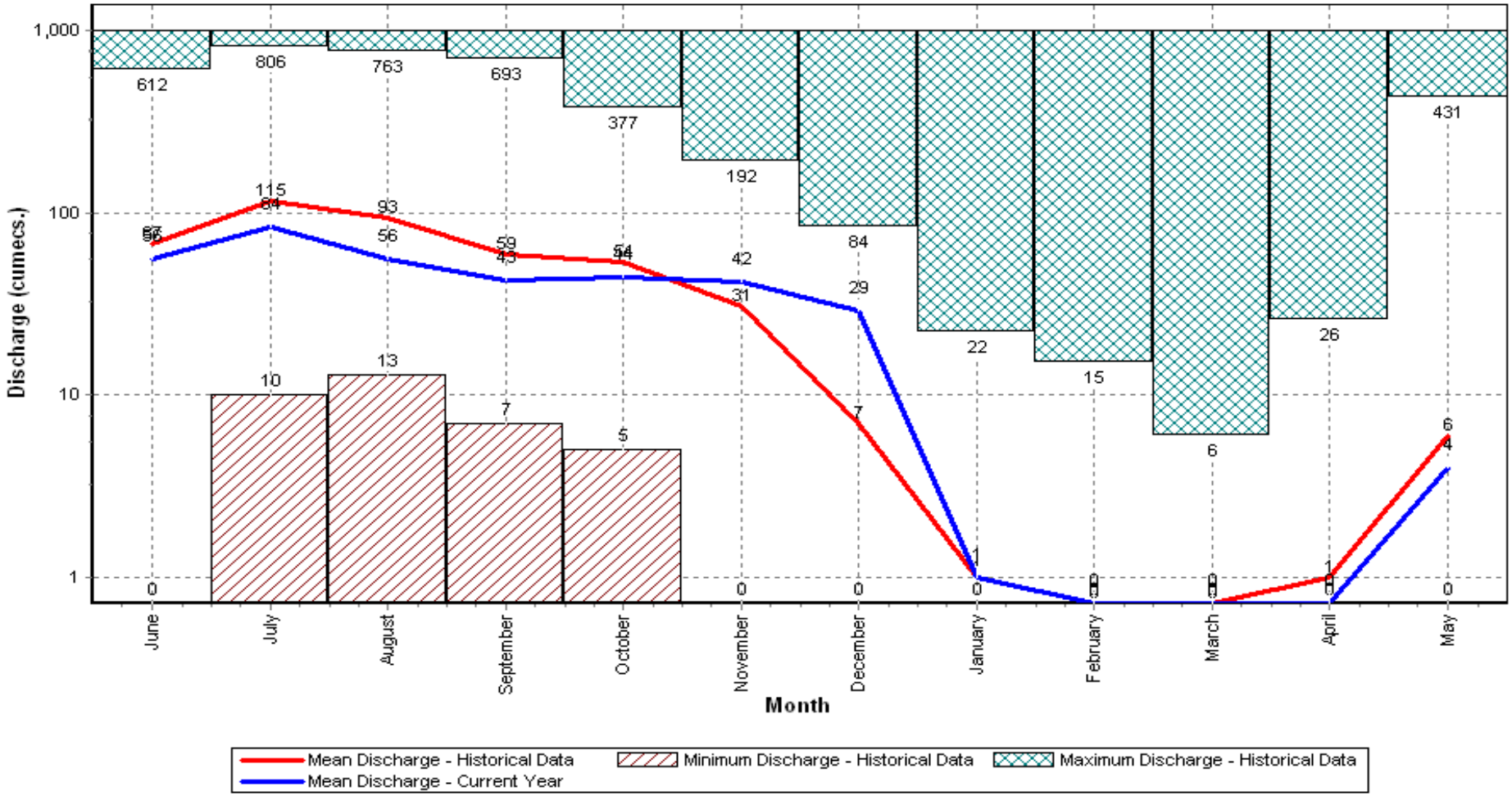
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KALAMPUR (KMA00C6) | **Data considered : 1987-2016** | **Division : SWR Division, Kochi**

Local River : Kaliyar | **Sub-Division : SWR SD No 2, Kochi**



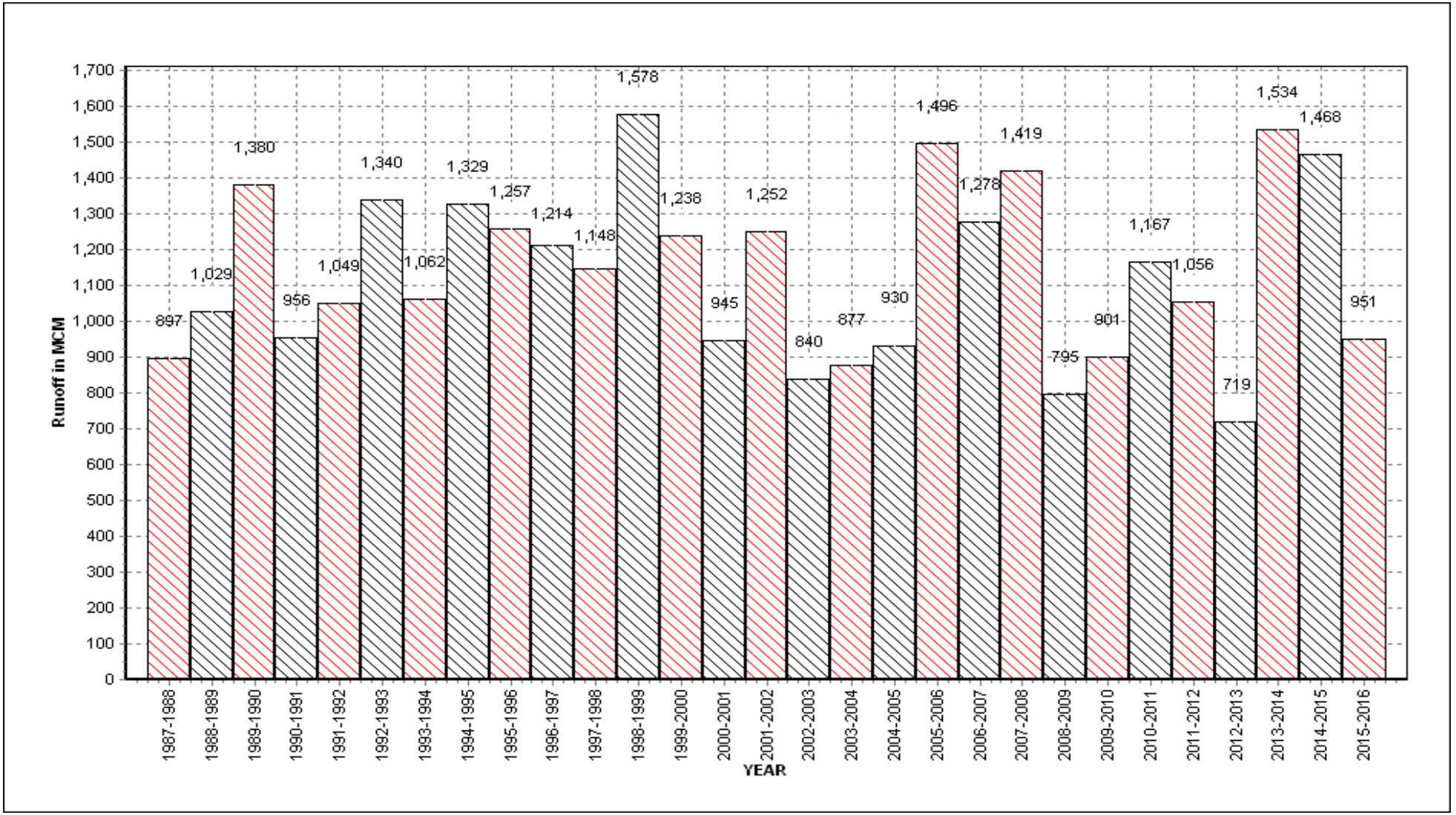
Annual Runoff Values for the period: 1987 - 2016

Station Name : KALAMPUR (KMA00C6)

Local River : Kaliyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



Note: Missing values have not been considered while arriving at Annual Runoff

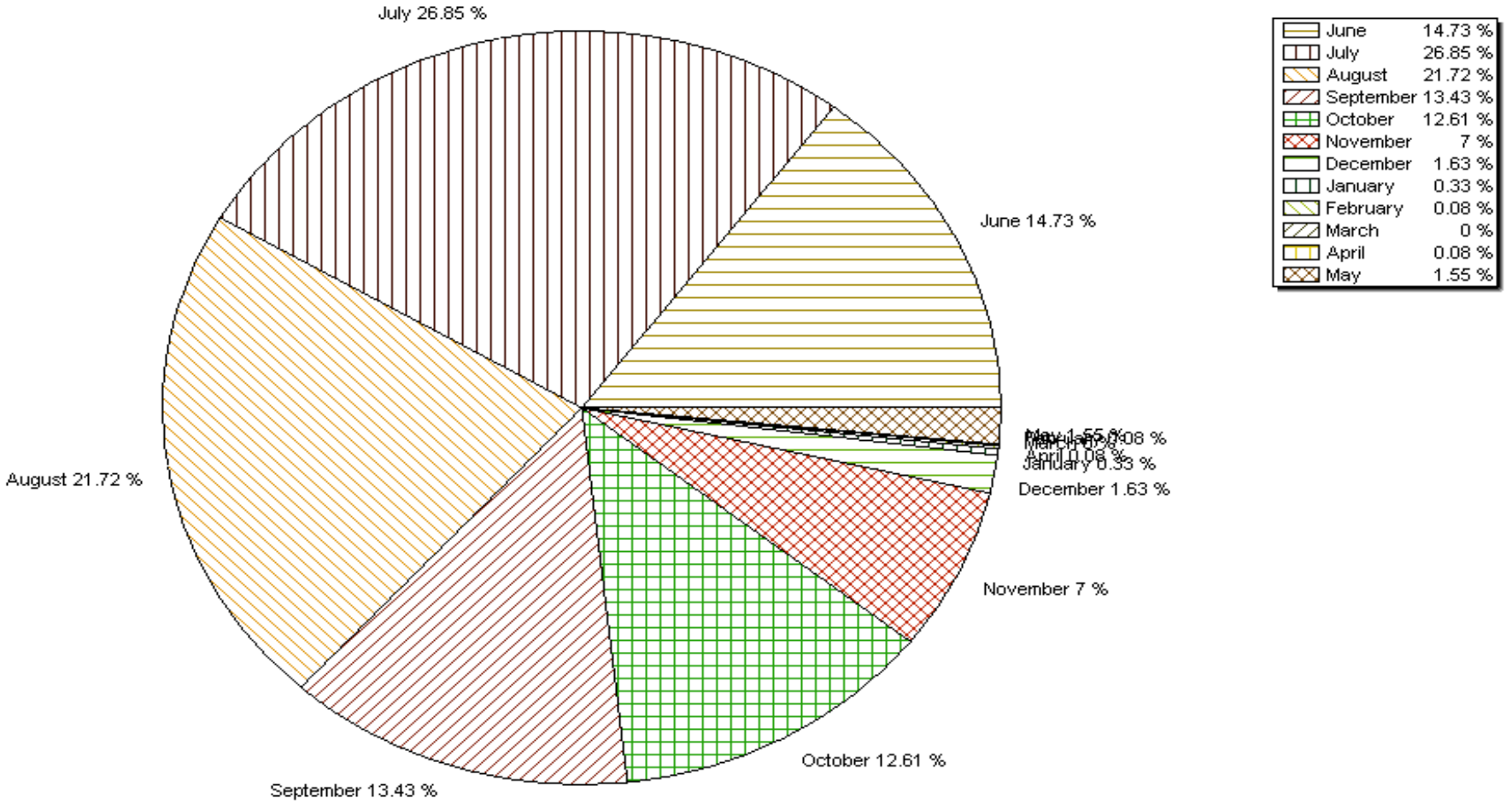
Monthly Average Runoff based on period : 1987-2015

Station Name : KALAMPUR (KMA00C6)

Local River : Kaliyar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi



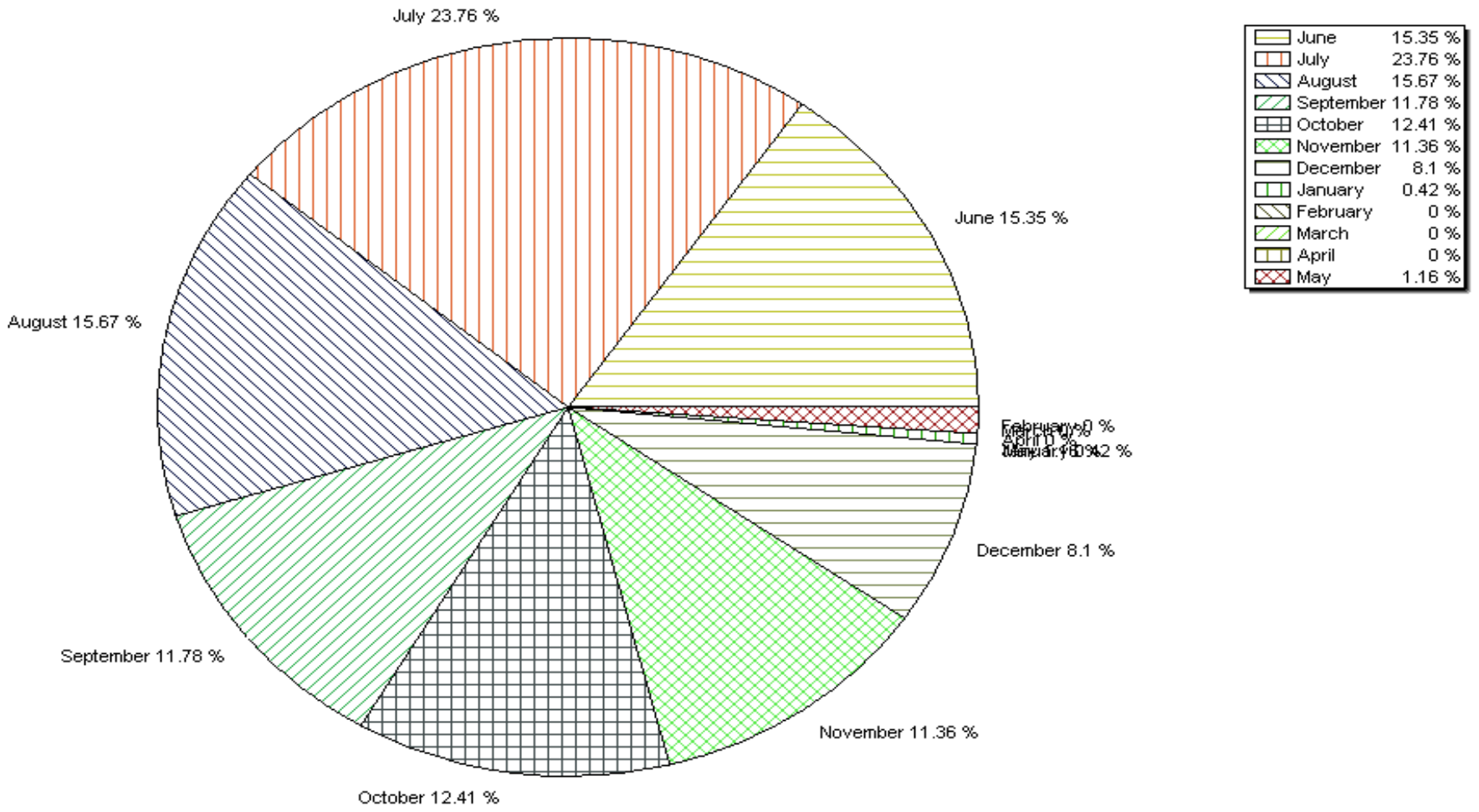
Monthly Runoff for the Year : 2015-2016

Station Name : KALAMPUR (KMA00C6)

Local River : Kaliyar

Division : SWR Division, Kochi

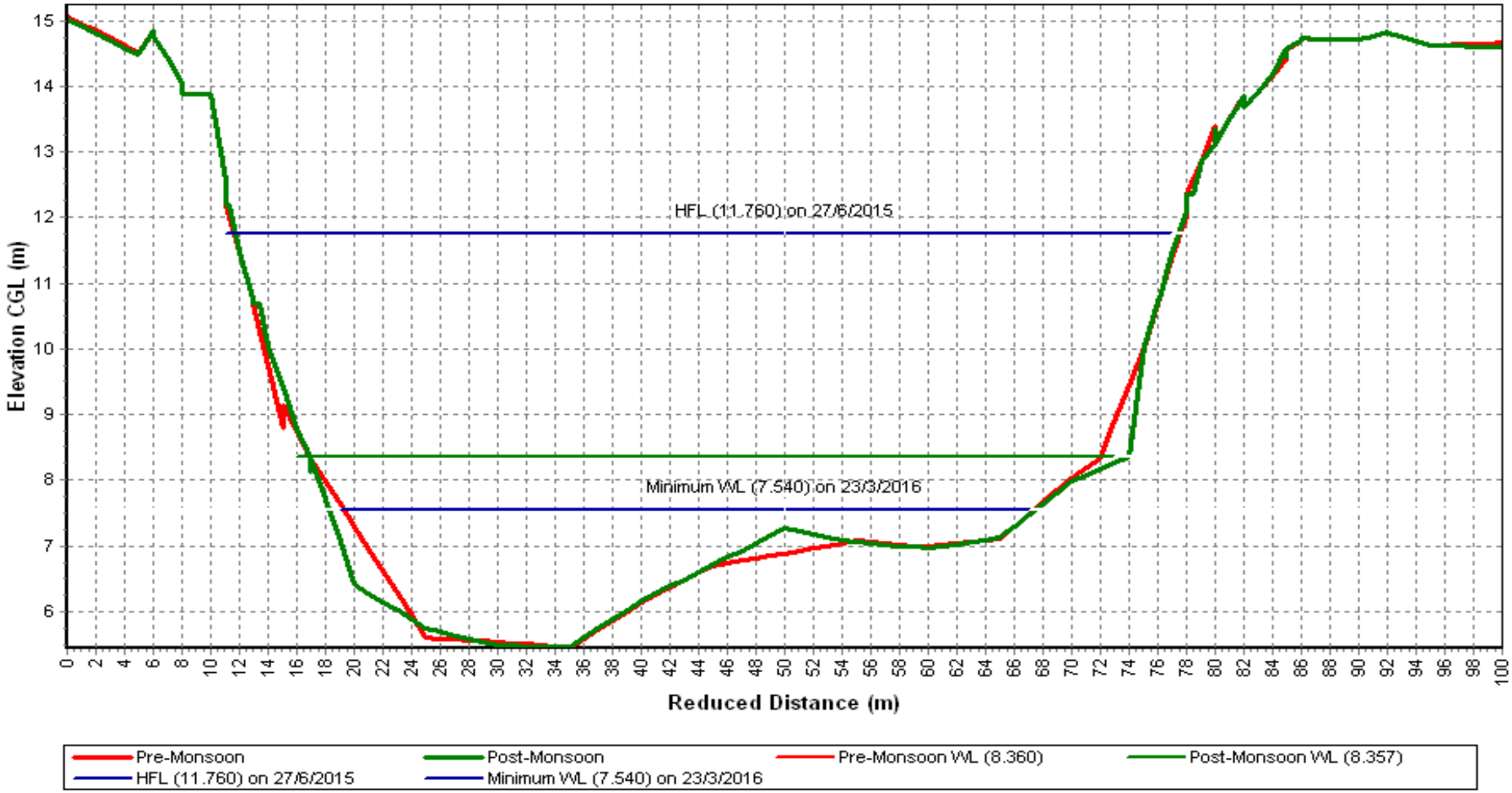
Sub-Division : SWR SD No 2, Kochi



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

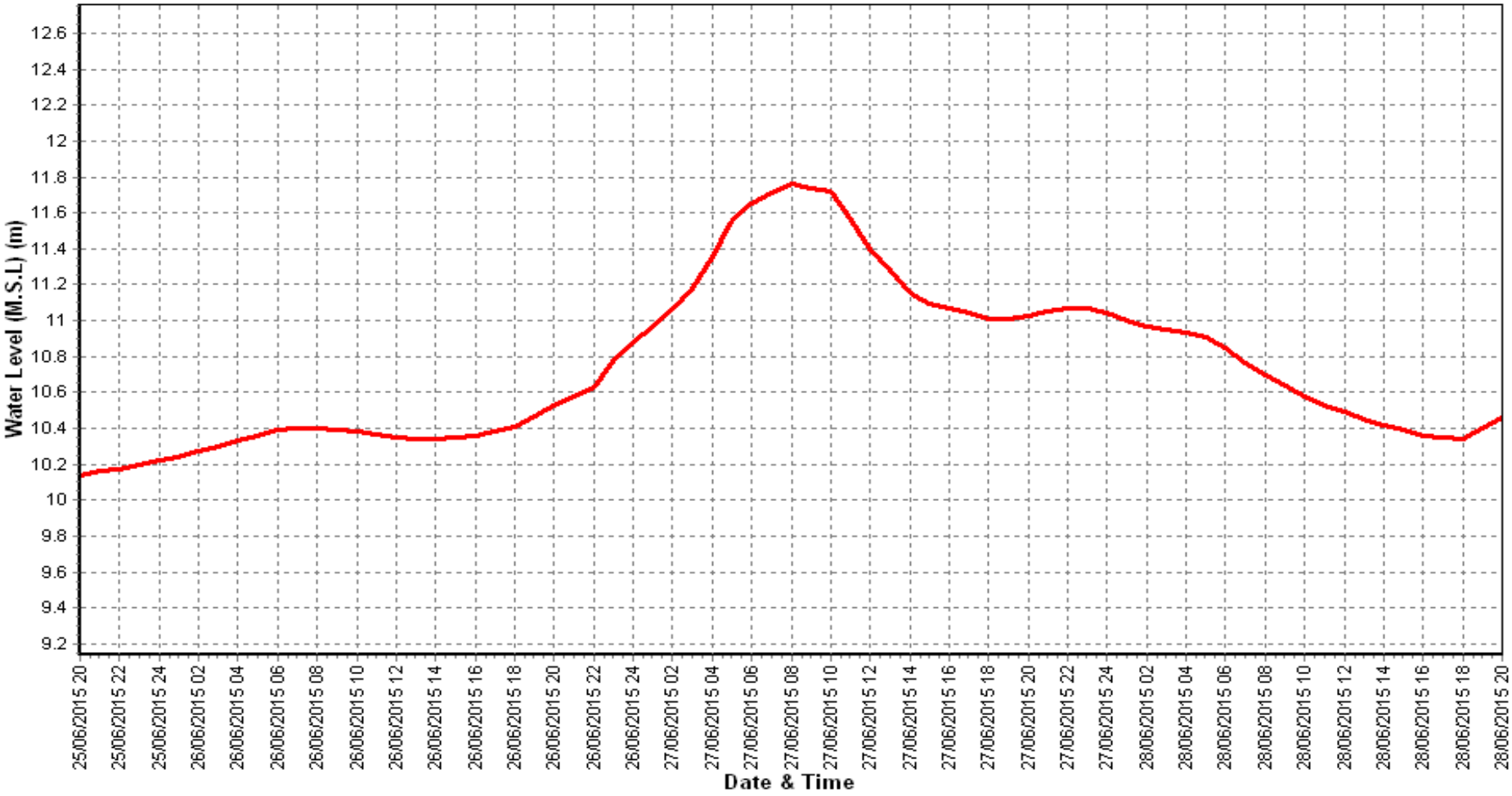
Local River : Kaliyar **Sub-Division : SWR SD No 2, Kochi**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

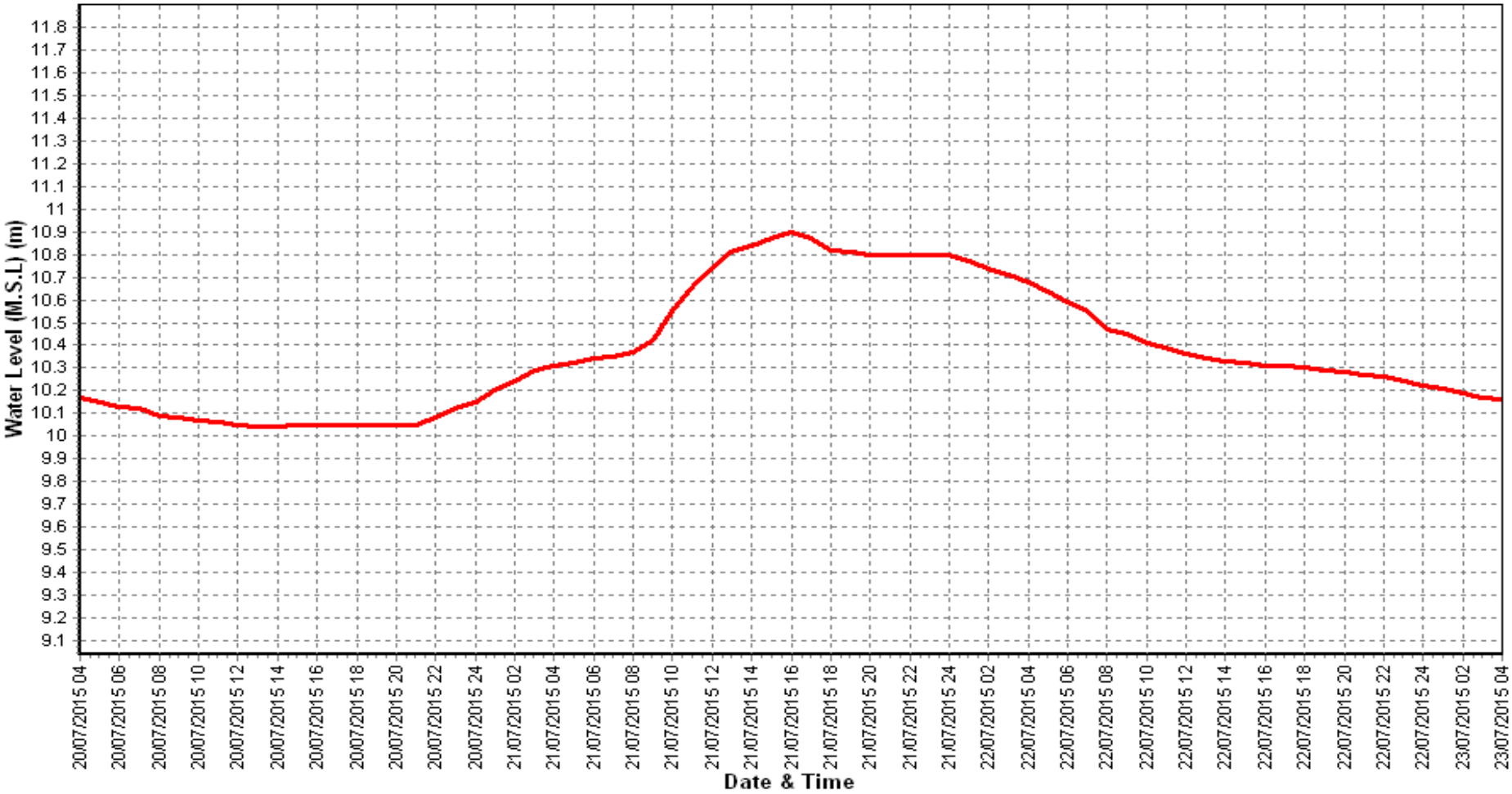
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KALAMPUR (KMA00C6)

Division : SWR Division, Kochi

Local River : Kaliyar

Sub-Division : SWR SD No 2, Kochi

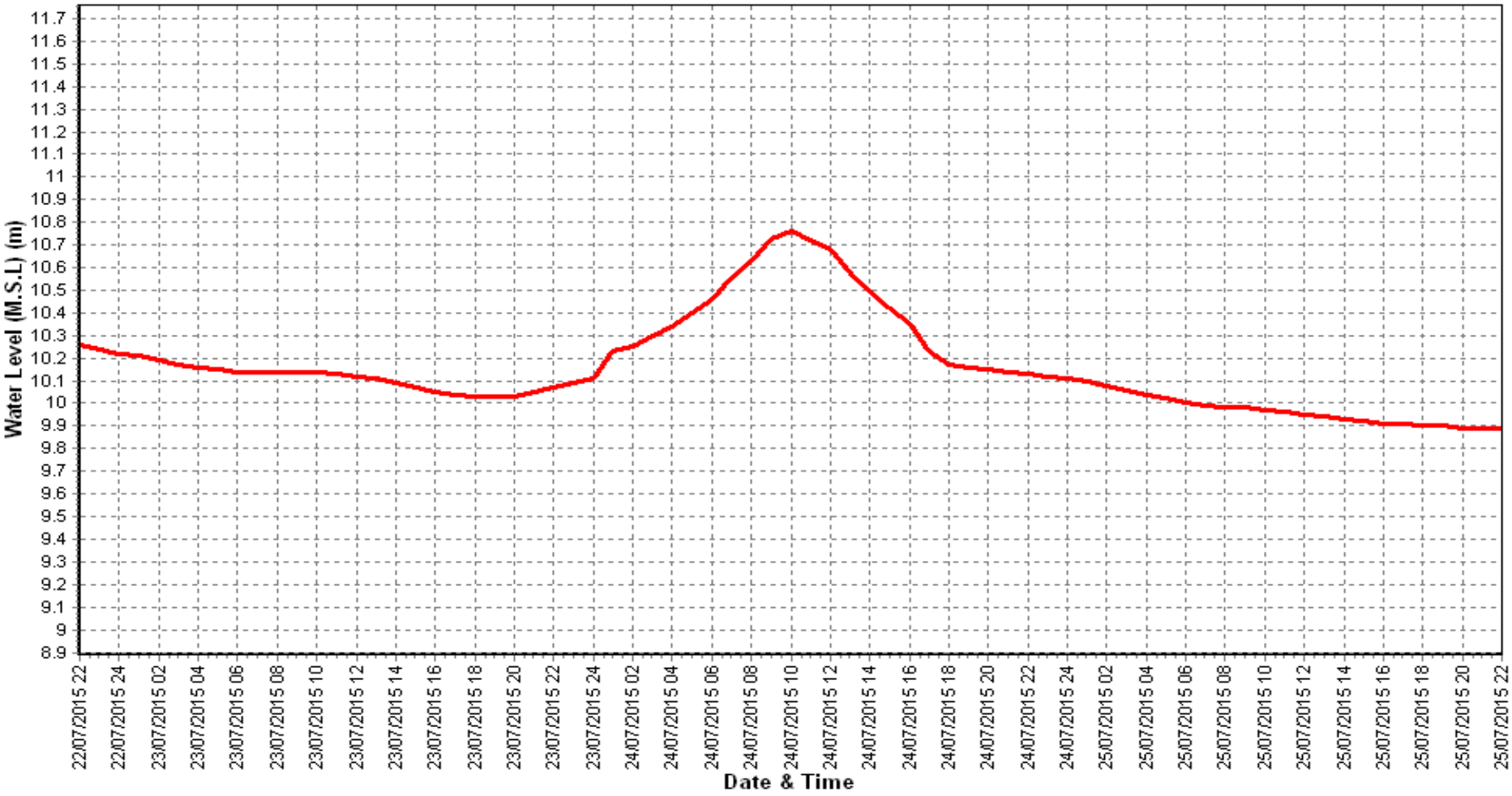


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: KIDANGOOR**		**Code**	**: KT000L3**	
State	: Kerala		District	Kottayam	
Basin	: WFR South of Tapi		Independent River	: Meenachil	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Meenachil	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 2, Kochi	
Drainage Area	: 615 Sq. Km.		Bank	: Left	
Latitude	: 09°40'30"		Longitude	: 76°36'10"	
Zero of Gauge (m)	: -1.184 (m.s.l) -1.200 (m.s.l)		01/06/1985 01/06/1988	- 31/05/1988	
	Opening Date		Closing Date		
Gauge	: 01/06/1985				
Discharge	: 02/07/1985				
Sediment	: 01/06/1987				
Water Quality	: 02/06/1986				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	565.0	6.996	09/08/1986	0.000	0.596	02/02/1987
1987-1988	300.7	4.987	26/08/1987	0.212	0.526	09/02/1988
1988-1989	350.8	5.205	03/09/1988	0.000	0.525	19/02/1989
1989-1990	384.0	5.915	21/09/1989	0.000	0.340	18/02/1990
1990-1991	352.2	4.700	16/06/1990	0.000	0.370	03/02/1991
1991-1992	622.5	6.678	08/06/1991	0.000	0.345	19/01/1992
1992-1993	630.4	5.942	10/10/1992	0.153	0.190	18/02/1993
1993-1994	483.8	5.730	08/06/1993	0.000	0.220	21/03/1994
1994-1995	819.9	7.900	03/08/1994	0.000	0.145	01/02/1995
1995-1996	458.0	6.120	30/07/1995	0.000	0.190	01/02/1996
1996-1997	466.0	6.270	29/09/1996	0.000	0.290	27/01/1997
1997-1998	530.4	6.500	25/07/1997	0.000	0.180	08/02/1998
1998-1999	568.0	6.600	29/06/1998	0.000	0.115	01/03/1999
1999-2000	557.7	6.410	08/06/1999	0.000	0.120	01/02/2000
2000-2001	505.2	7.120	26/08/2000	0.000	0.160	17/12/2000
2001-2002	690.2	7.775	09/07/2001	0.000	0.190	07/01/2002
2002-2003	563.7	6.500	18/08/2002	0.000	0.130	01/01/2003
2003-2004	422.0	4.530	23/06/2003	0.000	0.130	28/12/2003

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2004-2005	464.5	5.710	06/06/2004	0.000	0.180	24/12/2004
2005-2006	679.8	7.170	07/09/2005	0.000	0.330	25/01/2006
2006-2007	491.6	5.945	01/06/2006	0.000	0.110	11/01/2007
2007-2008	706.2	7.485	23/06/2007	0.000	0.310	04/01/2008
2008-2009	594.4	6.115	08/09/2008	0.000	0.260	10/01/2009
2009-2010	465.7	5.610	18/07/2009	0.000	0.280	24/01/2010
2010-2011	533.7	6.050	13/06/2010	0.000	0.290	07/02/2011
2011-2012	547.8	6.120	02/06/2011	0.000	0.240	31/01/2012
2012-2013	503.6	6.100	18/08/2012	0.000	0.200	09/01/2013
2013-2014	674.5	7.180	06/08/2013	0.000	0.230	16/01/2014
2014-2015	577.2	6.830	04/08/2014	0.000	0.190	07/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.180	31.54	3.060	157.9	1.055	28.27	0.900	18.33	4.280	160.9	3.260	110.1 *
2	0.905	14.62	2.385	92.02	0.960	19.62 *	0.848	17.13	3.290	111.5 *	2.848	74.04
3	0.840	14.11	1.920	68.01	0.920	16.55	0.800	16.30	2.580	85.47	2.360	58.21
4	1.295	40.82	1.710	61.82	1.310	34.19	0.780	13.00	2.410	72.98 *	2.240	73.51
5	1.500	48.60	1.470	43.52 *	1.410	41.17	1.340	31.36	2.985	98.35	3.255	99.22
6	1.310	31.46	1.445	40.23	1.330	32.49	2.760	132.3 *	3.410	121.0	2.435	75.95
7	1.150	27.67 *	1.325	35.15	1.370	34.27	3.470	195.9 #	2.765	82.41	2.700	62.53
8	1.005	27.46	1.260	33.47	1.405	41.08	2.760	132.3 #	2.260	63.06	3.520	122.6 *
9	1.110	24.04	1.360	38.77	1.450	42.45 *	2.235	70.28	2.240	63.20	3.265	107.0
10	0.990	22.65	1.600	62.12	1.365	36.27	1.905	61.29	2.220	66.24	2.630	82.00 *
11	0.900	14.56	1.590	54.38	1.468	36.03	1.630	66.60	2.380	71.78 *	2.170	65.26
12	1.055	24.64	1.610	51.29 *	1.663	61.18	1.565	61.80	2.158	62.16	1.785	54.64
13	1.135	25.10	1.503	44.93	2.630	135.5	1.380	38.78 *	2.000	60.48	2.040	64.10
14	0.980	20.42 *	1.320	37.94	2.290	102.0	1.450	41.67	2.230	66.73	1.630	51.63
15	1.090	24.16	1.353	38.76	2.040	78.15 *	1.383	38.65	1.930	54.59	1.390	36.83 *
16	1.305	33.71	1.513	44.43	2.000	75.47 *	1.300	31.86	1.650	45.12 #	1.315	38.35
17	1.380	39.44	1.415	39.18	1.693	61.05	1.410	37.33	2.180	78.78	1.280	27.53
18	1.405	40.68	2.120	83.61 *	1.630	49.67	1.540	47.34 #	1.740	48.14 *	1.195	25.80
19	1.615	57.32	2.400	103.9 *	3.800	228.6 *	1.440	31.34	1.793	50.51	1.660	53.40
20	2.500	112.7	2.455	119.9	2.660	124.1 *	1.420	40.86 *	1.690	48.58	1.410	33.92
21	2.200	89.22 *	2.815	147.8	2.140	85.00 *	1.360	39.04	1.590	43.15 #	1.300	27.68
22	2.270	91.84	2.795	141.2	2.150	95.81	1.395	34.14	1.825	52.02	1.220	31.78 *
23	2.420	116.2	2.950	169.2	1.900	68.93 *	1.300	33.37	2.240	66.29 *	1.040	23.67
24	2.395	112.1	3.350	186.6	1.633	38.25	1.210	30.43 *	1.910	54.05 *	1.660	50.54
25	2.260	109.2	2.650	129.8	1.525	35.51	1.450	34.61	2.060	59.49 *	1.450	38.69 *
26	3.265	166.7	2.220	90.65 *	1.340	32.35	2.570	80.89	2.000	63.24	1.220	27.46
27	5.005	347.4	1.890	61.50	1.270	33.29 *	2.640	82.42 *	1.715	50.94	1.118	23.05
28	5.680	450.2 *	1.608	60.01	1.170	28.58 *	2.970	72.17	1.600	50.91	1.500	45.49
29	4.598	266.9	1.395	36.33	1.080	29.08	2.488	73.11	1.840	61.99	1.450	38.69 *
30	3.863	181.6	1.320	34.01	1.000	21.23 *	3.595	141.0	1.870	61.79	1.350	36.57
31			1.190	32.07	0.940	19.03			2.155	76.22		
Ten-Daily Mean												
I Ten-Daily	1.128	28.30	1.753	63.30	1.257	32.64	1.780	68.82	2.844	92.51	2.851	86.52
II Ten-Daily	1.336	39.28	1.728	61.83	2.187	95.18	1.452	43.62	1.975	58.69	1.587	45.15
III Ten-Daily	3.396	193.1	2.198	99.01	1.468	44.28	2.098	62.12	1.891	58.19	1.331	34.36
Monthly												
Min.	0.840	14.11	1.190	32.07	0.920	16.55	0.780	13.00	1.590	43.15	1.040	23.05
Max.	5.680	450.2	3.350	186.6	3.800	228.6	3.595	195.9	4.280	160.9	3.520	122.6
Mean	1.954	86.9	1.903	75.5	1.632	56.94	1.776	58.19	2.226	69.42	1.923	55.34

Annual Runoff in MCM = 1192 Annual Runoff in mm = 1939

Peak Observed Discharge = 347.4 cumecs on 27/06/2015 Corres. Water Level :5.005 m

Lowest Observed Discharge = 0.000 cumecs on 02/02/2016 Corres. Water Level :0.27 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.195	32.96	0.550	6.089	0.300	0.343	0.260	0.000	0.250	0.000	0.240	0.000
2	1.705	62.61	0.570	6.081	0.270	0.000	0.250	0.000	0.240	0.000	0.230	0.000
3	1.660	52.41	0.550	5.500 *	0.280	0.000	0.270	0.000	0.220	0.000	0.230	0.000
4	1.590	53.28	0.520	5.653	0.280	0.000	0.280	0.000	0.200	0.000	0.210	0.000
5	1.400	40.57	0.500	5.236	0.280	0.000	0.280	0.000	0.180	0.000	0.300	0.000
6	1.290	34.17 *	0.510	3.789	0.270	0.000	0.270	0.000	0.170	0.000	0.320	0.000
7	1.210	33.04	0.500	4.698	0.270	0.000	0.270	0.000	0.150	0.000	0.250	0.000
8	1.150	31.18	0.470	3.359	0.250	0.000	0.270	0.000	0.150	0.000	0.300	0.000
9	1.050	24.92	0.450	3.638 #	0.230	0.000	0.270	0.000	0.150	0.000	0.380	0.000
10	0.980	22.00	0.430	3.312 *	0.230	0.000	0.270	0.000	0.140	0.000	0.370	0.000
11	0.900	17.09	0.400	2.295	0.270	0.000	0.280	0.000	0.300	0.000	0.380	0.000
12	0.880	16.96	0.358	1.808	0.250	0.000	0.290	0.000	0.410	0.000	0.370	0.000
13	0.830	17.91 *	0.370	1.769	0.270	0.000	0.290	0.000	0.370	0.000	0.440	0.000
14	2.010	59.24	0.370	1.701	0.260	0.000	0.290	0.000	0.350	0.000	0.460	0.000
15	2.490	77.46	0.420	2.177	0.260	0.000	0.310	0.000	0.340	0.000	0.560	1.929 *
16	2.365	76.57	0.360	1.547	0.270	0.000	0.300	0.000	0.320	0.000	0.800	4.269 *
17	1.840	66.66	0.350	0.542 *	0.250	0.000	0.400	0.000	0.310	0.000	0.730	13.30
18	1.475	43.96	0.340	0.587	0.240	0.000	0.350	0.000	0.350	0.000	1.380	43.54
19	1.345	36.84	0.330	0.466	0.240	0.000	0.340	0.000	0.360	0.000	1.120	31.78
20	1.220	28.00 *	0.340	0.476	0.260	0.000	0.350	0.000	0.370	0.000	1.050	27.37
21	1.120	19.83	0.340	0.498	0.250	0.000	0.340	0.000	0.370	0.000	1.090	25.76 *
22	1.005	16.38	0.380	0.697 #	0.260	0.000	0.310	0.000	0.360	0.000	0.800	16.43 *
23	0.950	15.54	0.360	0.480	0.270	0.000	0.340	0.000	0.350	0.000	0.730	13.53
24	0.890	14.73 *	0.350	0.542 *	0.280	0.000	0.330	0.000	0.340	0.000	0.650	11.39
25	0.810	12.15 *	0.370	0.660	0.280	0.000	0.330	0.000	0.330	0.000	1.400	41.93
26	0.730	10.47	0.390	0.752 *	0.320	0.000	0.320	0.000	0.320	0.000	1.940	49.82
27	0.670	8.244 *	0.370	0.682	0.290	0.000	0.300	0.000	0.290	0.000	1.390	35.50
28	0.640	9.062	0.340	0.515	0.280	0.000	0.300	0.000	0.270	0.000	1.600	40.72
29	0.620	8.900	0.330	0.448 #	0.260	0.000	0.270	0.000	0.260	0.000	1.610	46.15 *
30	0.590	6.932	0.320	0.316			0.260	0.000	0.250	0.000	1.325	34.94
31	0.550	6.106	0.310	0.361 *			0.250	0.000			2.065	69.30
Ten-Daily Mean												
I Ten-Daily	1.323	38.71	0.505	4.736	0.266	0.034	0.269	0.000	0.185	0.000	0.283	0.000
II Ten-Daily	1.536	44.07	0.364	1.337	0.257	0.000	0.320	0.000	0.348	0.000	0.729	12.22
III Ten-Daily	0.780	11.67	0.351	0.541	0.277	0.000	0.305	0.000	0.314	0.000	1.327	35.04
Monthly												
Min.	0.550	6.106	0.310	0.316	0.230	0.000	0.250	0.000	0.140	0.000	0.210	0.000
Max.	2.490	77.46	0.570	6.089	0.320	0.343	0.400	0.000	0.410	0.000	2.065	69.30
Mean	1.199	30.84	0.405	2.151	0.266	0.012	0.298	0	0.282	0	0.797	16.38

Peak Computed Discharge = 450.2 cumecs on 28/06/2015 **Corres. Water Level :5.68 m**

Lowest Computed Discharge = 0.361 cumecs on 31/01/2016 **Corres. Water Level :0.31 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

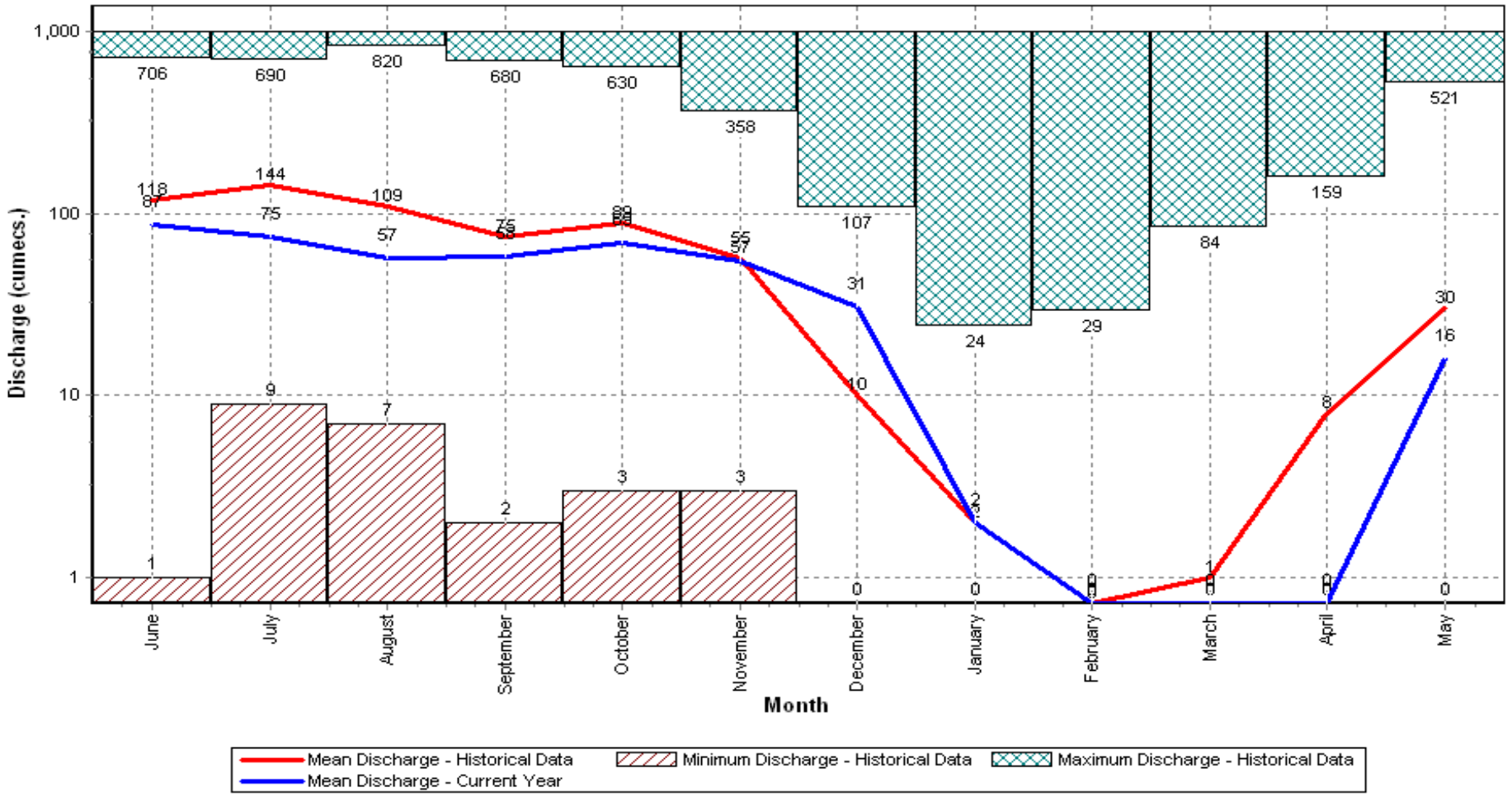
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KIDANGOOR (KT000L3) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Meenachil | **Sub-Division : SWR SD No 2, Kochi**



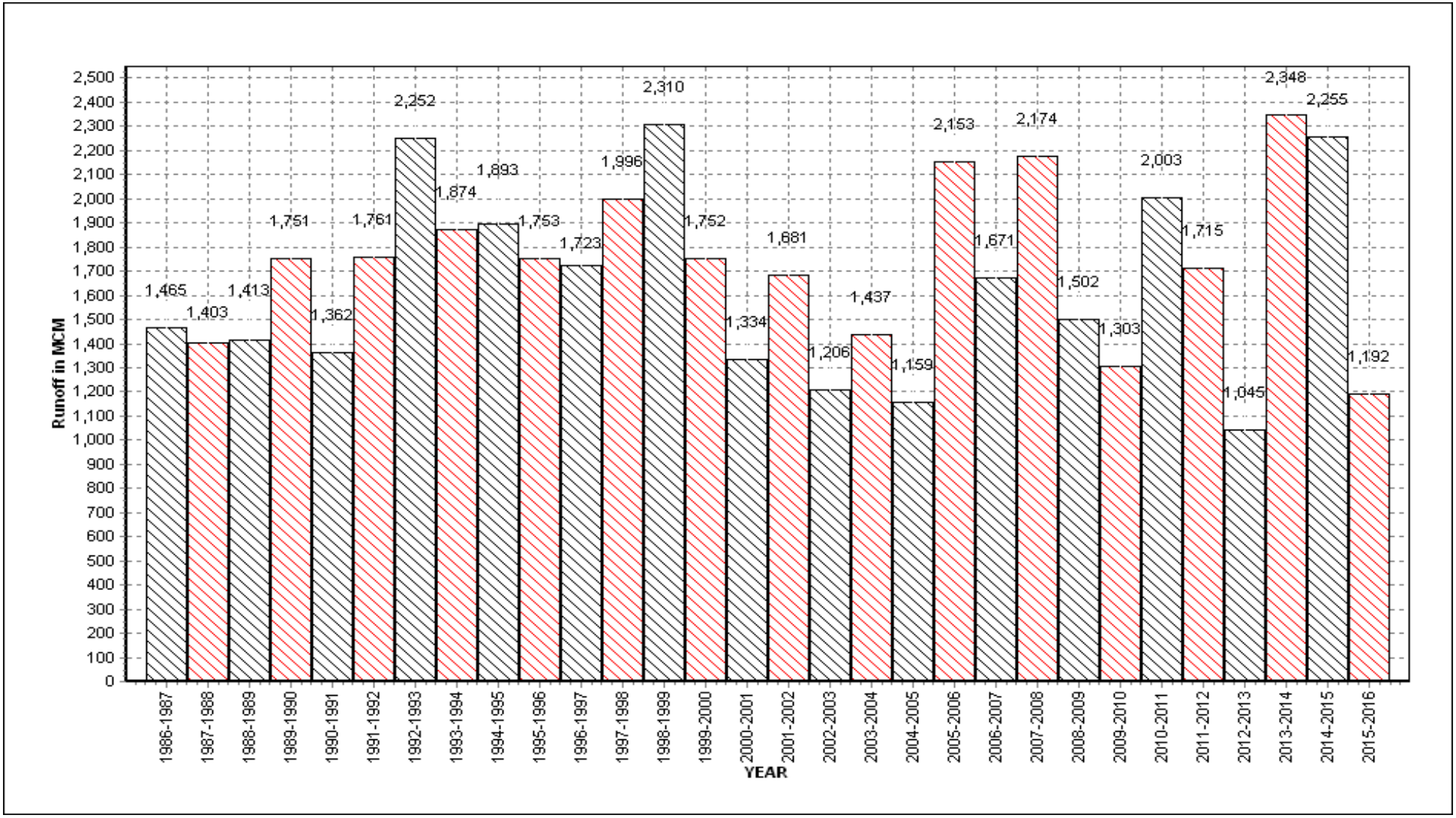
Annual Runoff Values for the period: 1986 - 2016

Station Name : KIDANGOOR (KT000L3)

Local River : Meenachil

Division : SWR Division, Kochi

Sub-Division : SWR SD No 2, Kochi

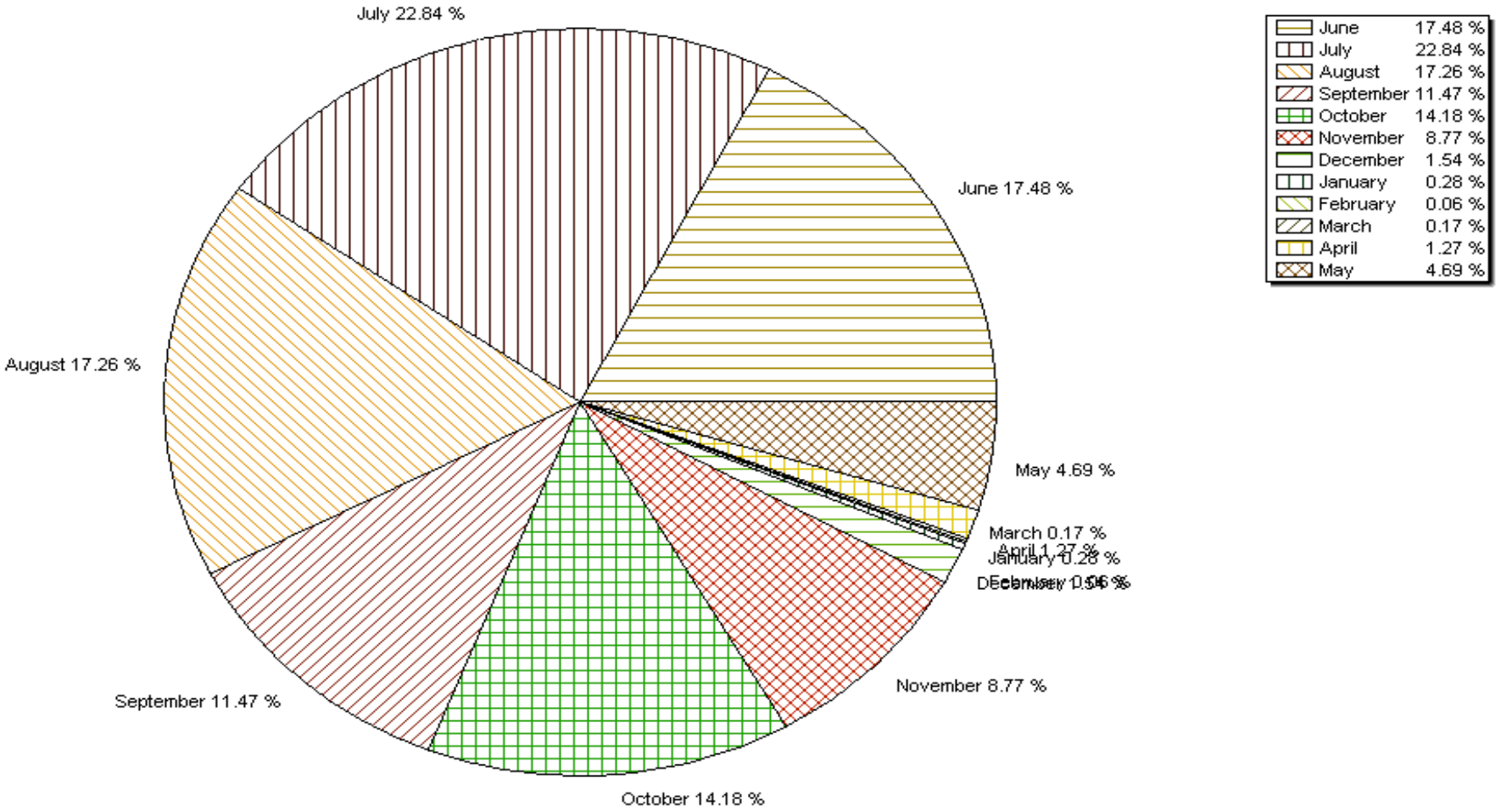


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : KIDANGOOR (KT000L3)
Local River : Meenachil

Division : SWR Division, Kochi
Sub-Division : SWR SD No 2, Kochi



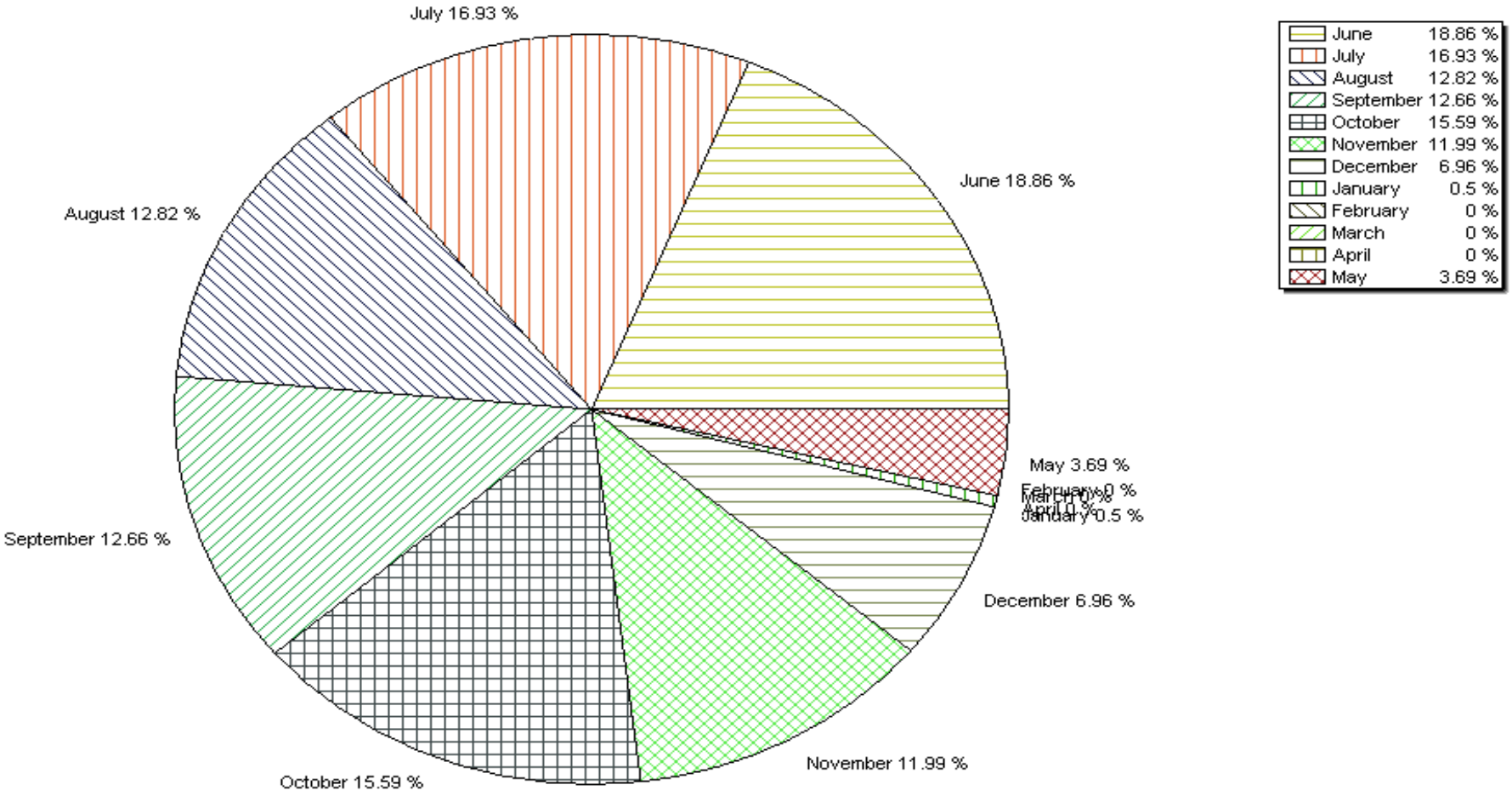
Monthly Runoff for the Year : 2015-2016

Station Name : KIDANGOOR (KT000L3)

Local River : Meenachil

Division : SWR Division, Kochi

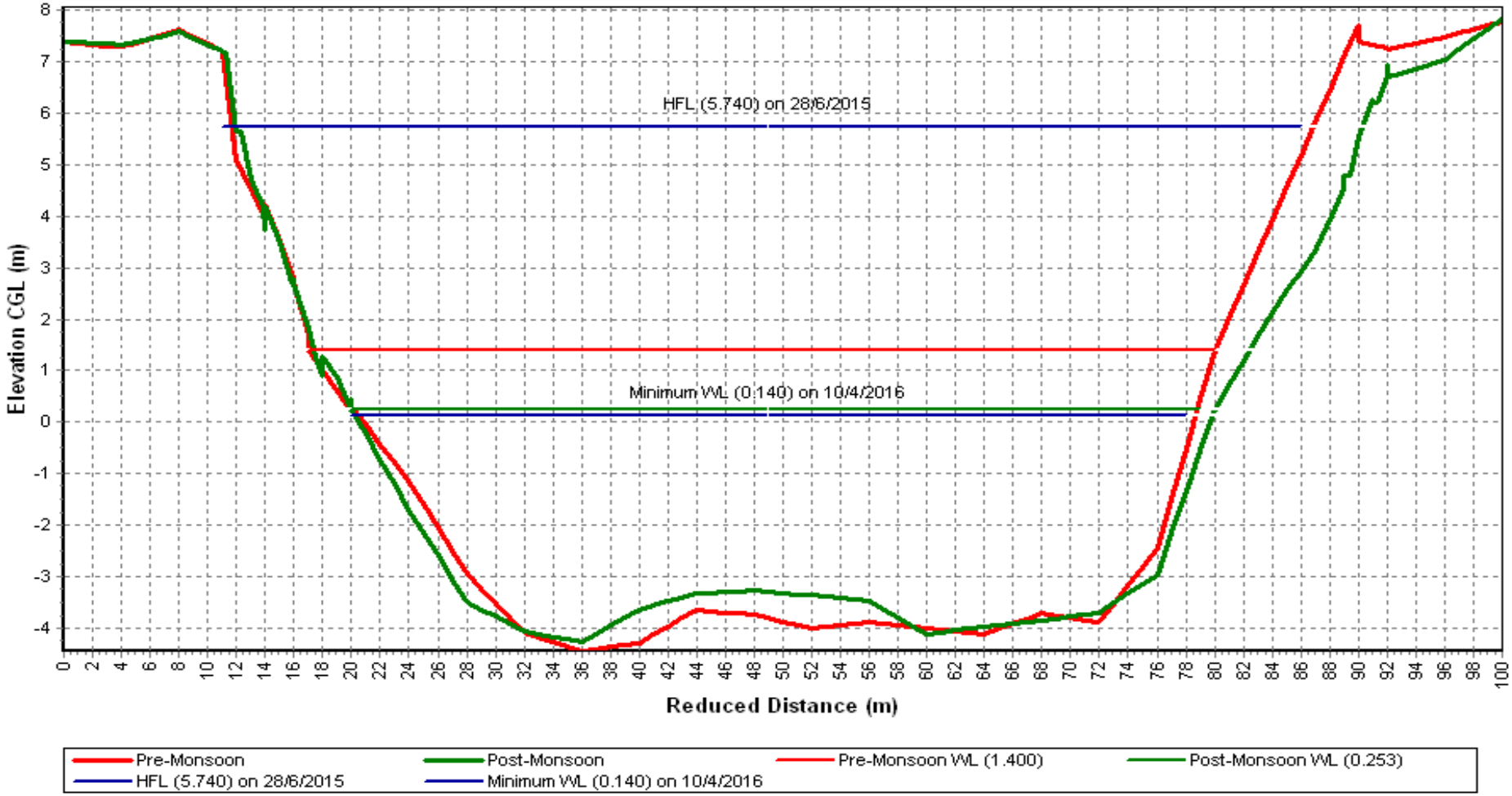
Sub-Division : SWR SD No 2, Kochi



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

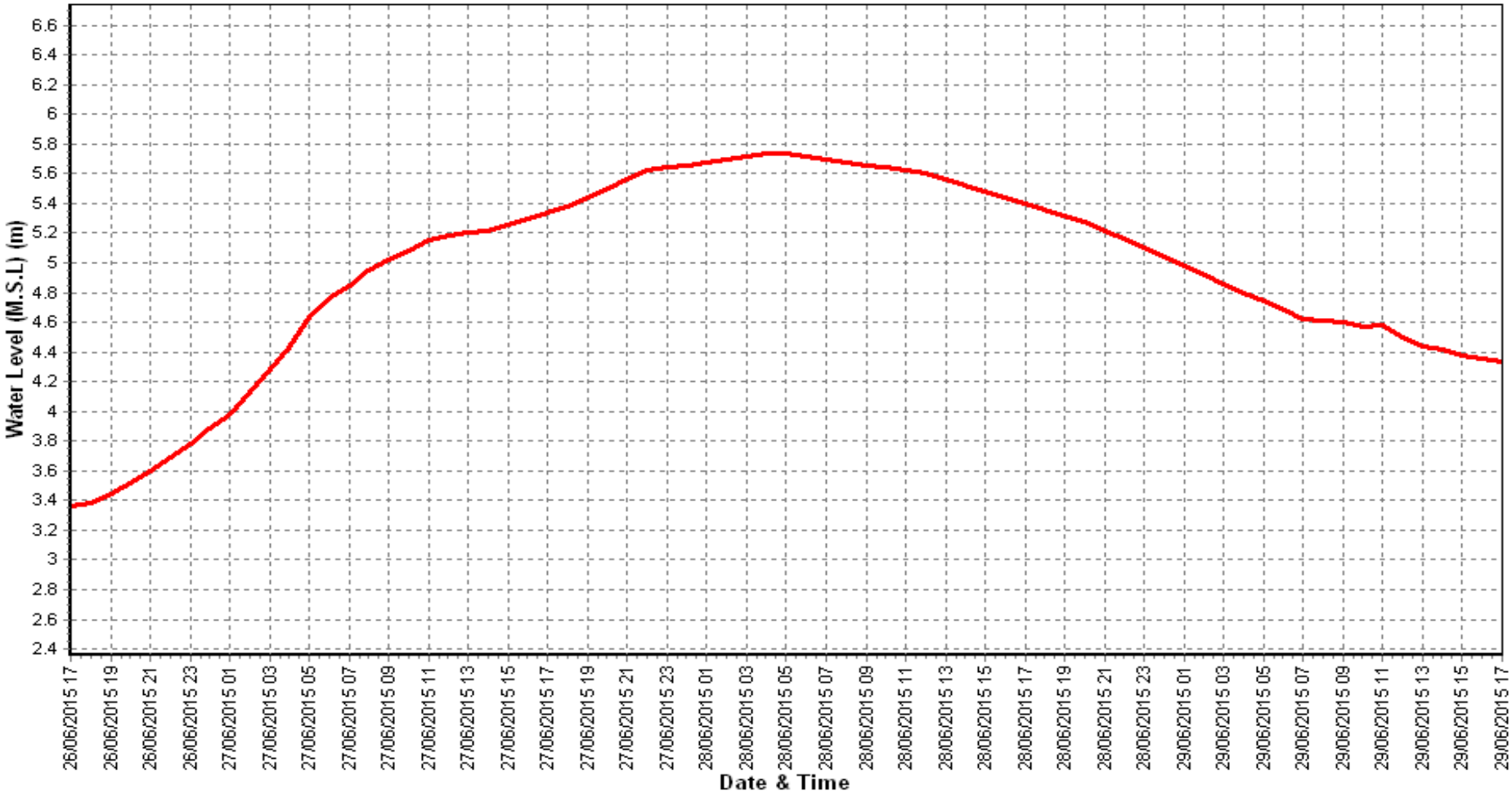
Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**

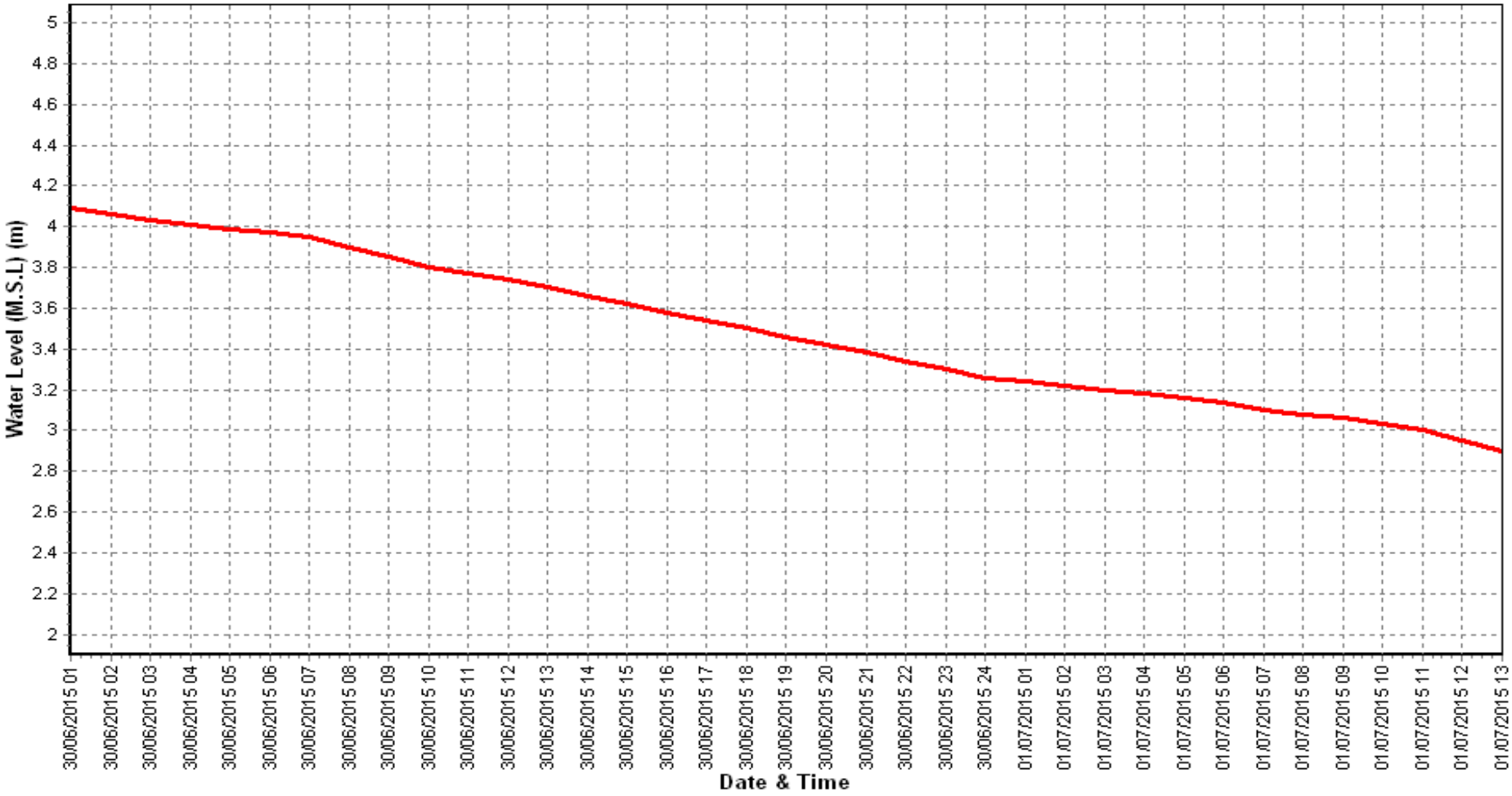


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWR SD No 2, Kochi**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**KALLOOPPARA**	**Code**	:	**KYB00F2**
State	:	Kerala	District		Pathanamthitta
Basin	:	WFR South of Tapi	Independent River	:	Pamba
Tributary	:	Manimala	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Manimala
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 1, Trivandrum
Drainage Area	:	731 Sq. Km.	Bank	:	Right
Latitude	:	09°24'13"	Longitude	:	76°39'01"
Zero of Gauge (m)	:	0.000 (m.s.l)	01/06/1985		
		Opening Date	Closing Date		
Gauge	:	01/06/1985			
Discharge	:	19/06/1985			
Sediment	:	19/05/1986			
Water Quality	:	02/06/1986			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	692.8	8.735	09/08/1986	0.000	2.095	01/06/1986
1987-1988	373.3	6.225	26/08/1987	0.000	1.730	07/02/1988
1988-1989	328.5	5.485	01/07/1988	0.000	1.510	08/02/1989
1989-1990	523.4	6.930	20/09/1989	0.000	1.370	08/02/1990
1990-1991	390.0	5.920	04/11/1990	0.000	1.300	03/02/1991
1991-1992	639.7	7.583	09/06/1991	0.302	1.298	31/01/1992
1992-1993	701.6	7.706	11/10/1992	0.043	1.163	31/01/1993
1993-1994	650.3	7.742	08/06/1993	0.919	1.170	22/03/1994
1994-1995	848.3	9.050	03/08/1994	0.000	1.020	14/02/1995
1995-1996	627.1	7.475	31/07/1995	0.000	0.945	19/02/1996
1996-1997	524.9	6.700	18/10/1996	0.000	0.940	23/02/1997
1997-1998	570.0	6.955	25/07/1997	0.000	0.990	20/02/1998
1998-1999	558.5	7.585	29/06/1998	0.000	0.710	01/04/1999
1999-2000	534.4	7.100	08/06/1999	0.400	0.545	03/02/2000
2000-2001	888.5	8.420	26/08/2000	0.000	0.490	23/03/2001
2001-2002	785.6	8.425	09/07/2001	0.000	0.550	26/02/2002
2002-2003	469.9	5.925	17/08/2002	0.000	0.520	29/01/2003
2003-2004	307.5	4.420	25/06/2003	0.000	0.765	01/01/2004
2004-2005	362.9	5.515	05/08/2004	0.000	0.700	02/01/2005

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2005-2006	699.1	7.295	05/09/2005	0.000	0.700	12/02/2006
2006-2007	511.5	6.115	01/06/2006	0.000	0.830	30/01/2007
2007-2008	747.9	7.615	23/06/2007	0.000	0.810	13/01/2008
2008-2009	559.8	6.335	08/09/2008	0.000	0.970	13/10/2008
2009-2010	464.9	5.990	18/07/2009	0.000	0.930	08/01/2010
2010-2011	686.4	7.215	14/06/2010	0.000	0.790	19/02/2011
2011-2012	585.2	6.560	08/08/2011	0.000	0.815	05/02/2012
2012-2013	436.6	6.025	18/08/2012	0.000	0.800	07/01/2013
2013-2014	699.9	7.240	06/08/2013	0.000	0.840	07/01/2014
2014-2015	732.7	7.440	24/08/2014	0.000	0.820	29/01/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.150	14.14 #	3.325	159.1	1.790	42.23	1.380	25.74	3.915	212.3	3.040	110.2 *
2	1.120	13.43 #	2.840	82.47	1.720	32.14 *	1.350	24.75	3.240	127.0 *	2.878	100.1
3	1.080	12.50 #	2.500	78.80	1.615	32.36	1.393	26.16	2.840	86.36	2.613	78.85
4	1.400	22.72	2.373	60.24	1.750	38.41	1.290	16.07	3.310	133.2 *	2.383	61.20
5	1.965	50.41	2.185	53.47 *	1.955	48.63	2.513	72.26	2.870	100.5	3.435	152.4
6	1.933	48.82	2.240	61.31	2.150	52.25	2.920	100.8 *	3.550	174.2	2.975	104.6
7	1.820	36.20 *	2.120	55.96	2.168	53.14	3.105	120.5	3.145	120.4	3.035	110.8
8	1.640	33.57	2.040	51.59	2.065	49.13	2.655	78.70	2.735	81.99	3.790	180.5 *
9	1.675	36.12	2.128	56.12	2.060	47.11 *	2.540	68.13	2.885	97.80	3.465	162.3
10	1.605	32.05	2.273	59.80	2.085	46.83	2.393	60.52	3.775	196.3	2.970	104.7 *
11	1.535	29.12	2.255	61.83	2.315	56.70	2.360	58.63	3.310	133.2 *	2.673	77.51
12	2.290	60.52	2.255	57.24 *	2.855	83.20	2.180	53.38	3.033	110.3	2.413	63.88
13	2.305	61.69	2.328	64.32	3.388	162.3	2.070	47.61 *	3.005	106.8	2.628	79.80
14	2.660	82.06 *	2.200	40.72	3.365	159.6	1.920	45.42	3.450	139.1	2.563	77.88
15	2.155	57.26	2.120	38.39	3.220	125.3 *	1.810	26.89	3.015	105.3	2.280	58.63 *
16	2.195	59.18	2.195	40.21	3.030	109.4 *	1.805	29.16	2.660	76.94	2.313	61.10
17	2.375	60.23	2.118	38.35	2.683	86.38	2.070	49.14	2.593	74.04	2.165	53.44
18	2.558	81.51	2.750	88.29 *	2.495	61.56	2.398	60.92	2.450	68.54 *	2.065	39.42
19	2.600	85.02	3.420	143.3 *	3.480	160.7	2.325	57.47	2.885	100.0	2.215	57.06
20	3.225	153.9	3.075	113.9	2.875	87.83	2.390	64.94 *	2.633	80.02	2.125	49.19
21	3.020	108.6 *	3.165	120.4	2.683	81.44	2.443	64.03	2.435	64.29	2.235	57.46
22	2.815	80.19	3.153	119.7	2.495	71.32	2.265	44.43	2.583	78.73	2.000	44.23 *
23	2.988	108.6	3.065	110.1	2.320	60.88 *	2.095	44.00	2.930	101.6 *	1.920	47.05
24	3.090	119.0	3.239	130.4	2.183	54.72	1.990	43.76 *	3.620	162.8 *	1.860	30.59
25	2.908	84.85	3.120	124.6	2.085	47.61	2.800	80.32	3.450	146.1 *	1.830	36.62 *
26	3.435	167.9	2.710	85.49 *	1.975	49.47	3.095	120.0	3.405	150.4	1.850	29.69
27	4.915	336.0	2.530	61.97	1.823	43.58	2.920	100.8 *	2.915	102.0	1.660	24.61
28	5.840	483.9 *	2.303	56.28	1.740	32.93 *	2.923	88.41	2.688	78.22	1.580	21.69
29	4.885	330.0	2.143	51.70	1.630	33.08	2.613	77.37	2.635	79.07	1.670	30.21 *
30	4.080	217.3	2.013	47.53	1.550	25.87 *	3.310	142.1	2.700	84.50	1.605	22.42
31			1.898	44.01	1.470	27.39			3.135	122.0		
Ten-Daily Mean												
I Ten-Daily	1.539	30.00	2.402	71.89	1.936	44.22	2.154	59.37	3.227	133.0	3.058	116.6
II Ten-Daily	2.390	73.05	2.471	68.66	2.970	109.3	2.133	49.35	2.903	99.43	2.344	61.79
III Ten-Daily	3.798	203.6	2.667	86.57	1.996	48.03	2.645	80.53	2.954	106.3	1.821	34.46
Monthly												
Min.	1.080	12.50	1.898	38.35	1.470	25.87	1.290	16.07	2.435	64.29	1.580	21.69
Max.	5.840	483.9	3.420	159.1	3.480	162.3	3.310	142.1	3.915	212.3	3.790	180.5
Mean	2.575	102.2	2.519	76.06	2.291	66.57	2.311	63.08	3.026	112.7	2.408	70.94

Annual Runoff in MCM = 1516 Annual Runoff in mm = 2073

Peak Observed Discharge = 336.0 cumecs on 27/06/2015 Corres. Water Level :4.915 m

Lowest Observed Discharge = 0.000 cumecs on 01/02/2016 Corres. Water Level :1.33 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.540	19.83 *	1.020	5.311	1.330	0.000	0.870	0.000	1.530	0.000	1.380	0.000
2	1.500	18.41 *	0.970	4.746	1.400	0.000	0.840	0.000	1.500	0.000	1.400	0.000
3	1.470	17.37 *	0.940	4.134 *	1.450	0.000	0.810	0.000	1.470	0.000	1.350	0.000
4	1.900	35.17 *	0.930	6.128	1.500	0.000	0.780	0.000	1.440	0.000	1.330	0.000
5	1.790	30.01 *	0.920	5.938	1.540	0.000	0.760	0.000	1.410	0.000	1.320	0.000
6	1.650	24.04 *	0.910	5.756	1.560	0.000	0.750	0.000	1.370	0.000	1.310	0.000
7	1.550	21.31	0.900	5.674	1.570	0.000	0.740	0.000	1.340	0.000	1.290	0.000
8	1.480	18.47	0.890	5.475	1.570	0.000	0.730	0.000	1.270	0.000	1.280	0.000
9	1.420	17.41	0.880	5.223	1.540	0.000	0.720	0.000	1.230	0.000	1.300	0.000
10	1.350	13.12	0.870	5.109 *	1.520	0.000	0.710	0.000	1.200	0.000	1.620	17.93 *
11	1.280	11.12	0.860	3.985	1.480	0.000	0.700	0.000	1.170	0.000	1.810	25.79 *
12	1.290	11.42	0.830	3.463	1.410	0.000	0.700	0.000	1.150	0.000	2.050	37.56 *
13	1.420	15.72 *	0.840	3.607	1.340	0.000	0.710	0.000	1.180	0.000	2.020	35.97 *
14	2.690	80.89	0.830	3.472	1.300	0.000	0.720	0.000	1.220	0.000	1.940	31.91 *
15	3.540	167.9	0.820	2.359	1.260	0.000	0.710	0.000	1.240	0.000	1.880	29.01 *
16	3.175	118.3	0.820	2.367	1.220	0.000	0.700	0.000	1.270	0.000	1.910	30.44 *
17	2.735	92.14	0.810	2.099 *	1.160	0.000	1.100	0.000	1.310	0.000	1.970	33.41 *
18	2.410	63.81	0.800	1.956	1.110	0.000	1.650	0.000	1.350	0.000	3.145	119.9
19	2.150	53.68	0.800	1.700	1.070	0.000	1.750	0.000	1.360	0.000	2.780	92.59
20	2.020	41.30 *	0.800	1.680	1.030	0.000	1.750	0.000	1.380	0.000	2.440	62.71
21	1.870	31.61	0.800	1.681	1.020	0.000	1.720	0.000	1.400	0.000	2.300	51.95 *
22	1.790	28.88	0.800	1.661	1.010	0.000	1.710	0.000	1.380	0.000	2.170	44.20 *
23	1.630	24.31	0.795	1.474	1.000	0.000	1.720	0.000	1.370	0.000	2.080	38.34
24	1.520	19.11 *	0.800	1.725 *	0.980	0.000	1.700	0.000	1.370	0.000	2.080	28.06
25	1.440	16.37 *	0.820	2.291	0.960	0.000	1.690	0.000	1.370	0.000	2.340	55.03
26	1.360	13.23	0.810	2.099 *	0.930	0.000	1.670	0.000	1.390	0.000	4.030	205.4
27	1.300	12.10 *	0.800	1.754	0.910	0.000	1.650	0.000	1.400	0.000	3.130	116.1
28	1.230	9.976	0.850	3.976 #	0.890	0.000	1.640	0.000	1.380	0.000	2.850	96.00
29	1.160	8.101	0.990	1.820	0.880	0.000	1.600	0.000	1.370	0.000	2.710	80.14 *
30	1.110	7.466	0.990	1.760			1.580	0.000	1.360	0.000	2.485	64.52
31	1.080	7.006	1.140	4.144 *			1.550	0.000			2.740	88.89
Ten-Daily Mean												
I Ten-Daily	1.565	21.51	0.923	5.349	1.498	0.000	0.771	0.000	1.376	0.000	1.358	1.793
II Ten-Daily	2.271	65.63	0.821	2.669	1.238	0.000	1.049	0.000	1.263	0.000	2.195	49.93
III Ten-Daily	1.408	16.20	0.872	2.217	0.953	0.000	1.657	0.000	1.379	0.000	2.629	78.96
Monthly												
Min.	1.080	7.006	0.795	1.474	0.880	0.000	0.700	0.000	1.150	0.000	1.280	0.000
Max.	3.540	167.9	1.140	6.128	1.570	0.000	1.750	0.000	1.530	0.000	4.030	205.4
Mean	1.737	33.86	0.872	3.373	1.239	0	1.175	0	1.339	0	2.079	44.7

Peak Computed Discharge = 483.9 cumecs on 28/06/2015 **Corres. Water Level :5.84 m**

Lowest Computed Discharge = 1.725 cumecs on 24/01/2016 **Corres. Water Level :0.8 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

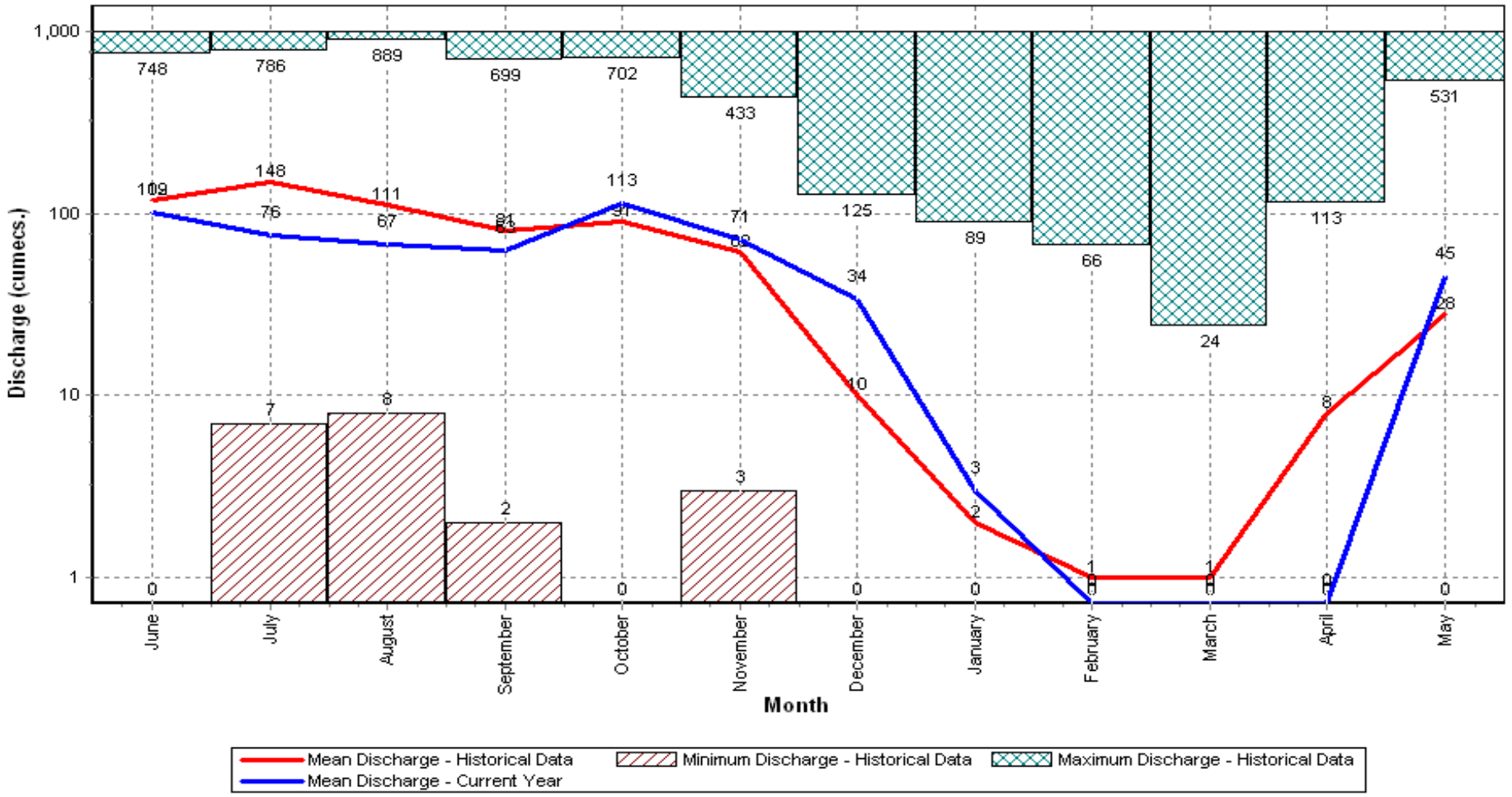
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

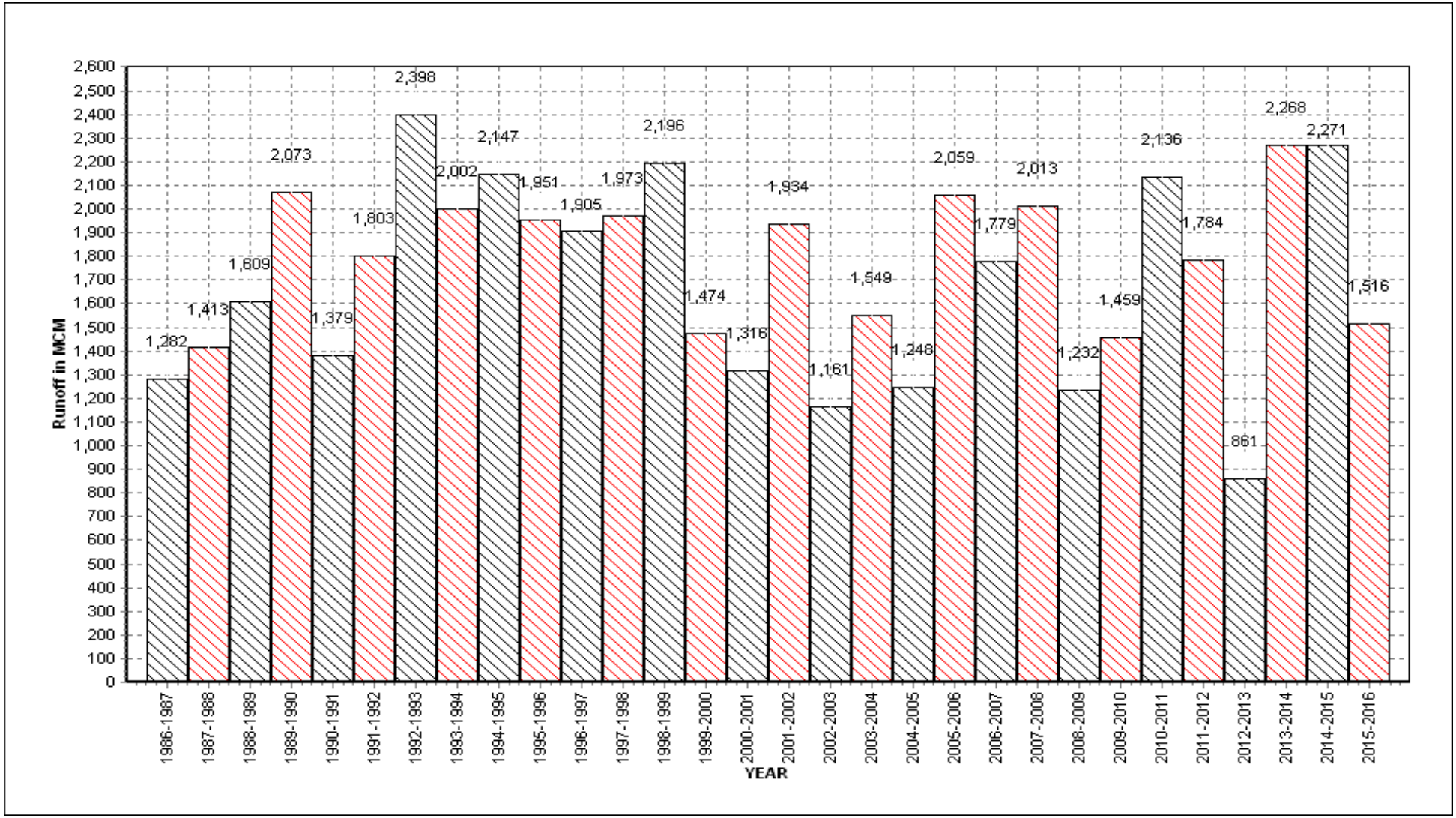
Local River : Manimala | **Sub-Division : SWR SD No 1, Trivandrum**



Annual Runoff Values for the period: 1986 - 2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWR SD No 1, Trivandrum**

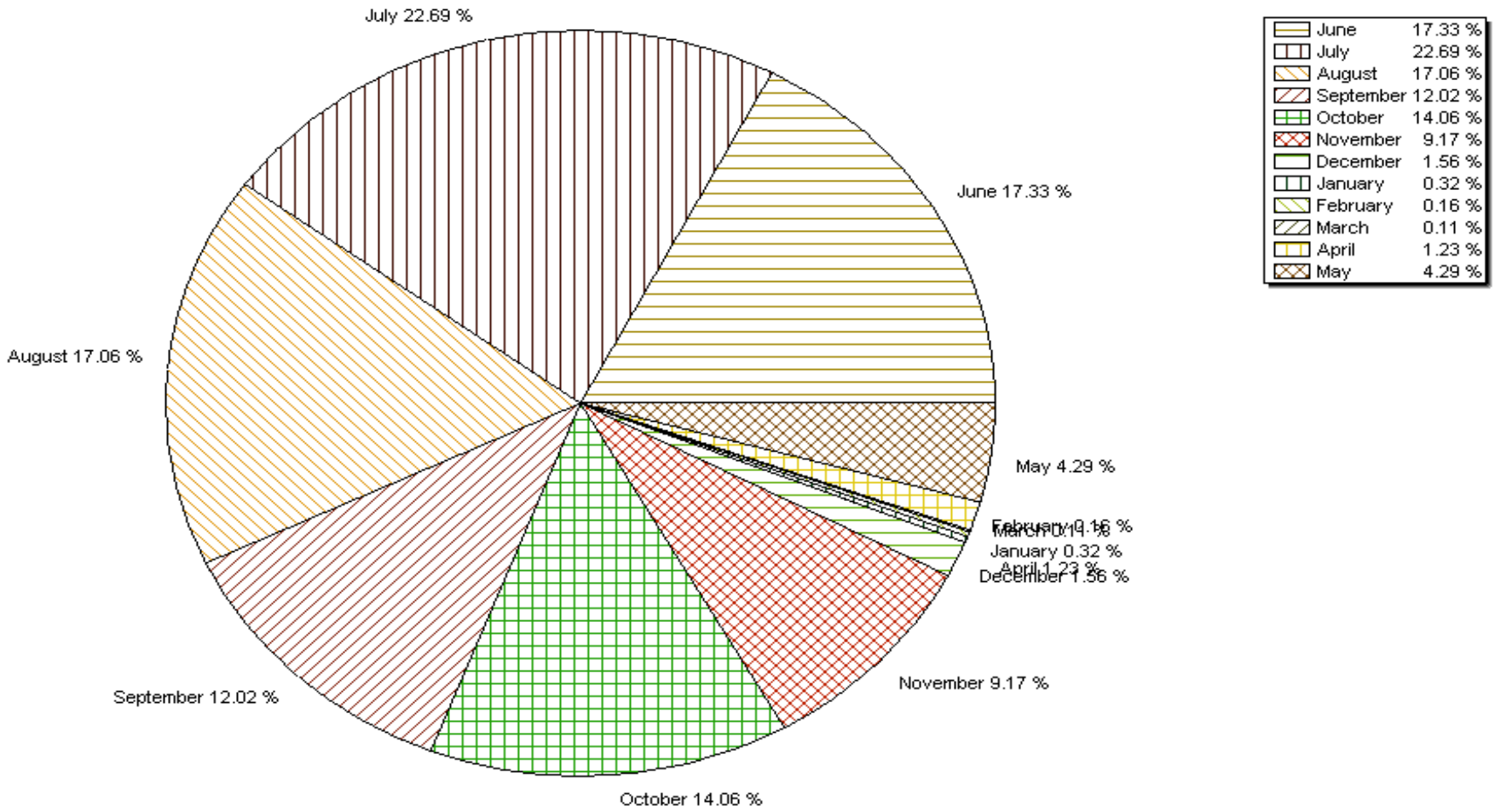


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2015

Station Name : KALLOOPPARA (KYB00F2)
Local River : Manimala

Division : SWR Division, Kochi
Sub-Division : SWR SD No 1, Trivandrum



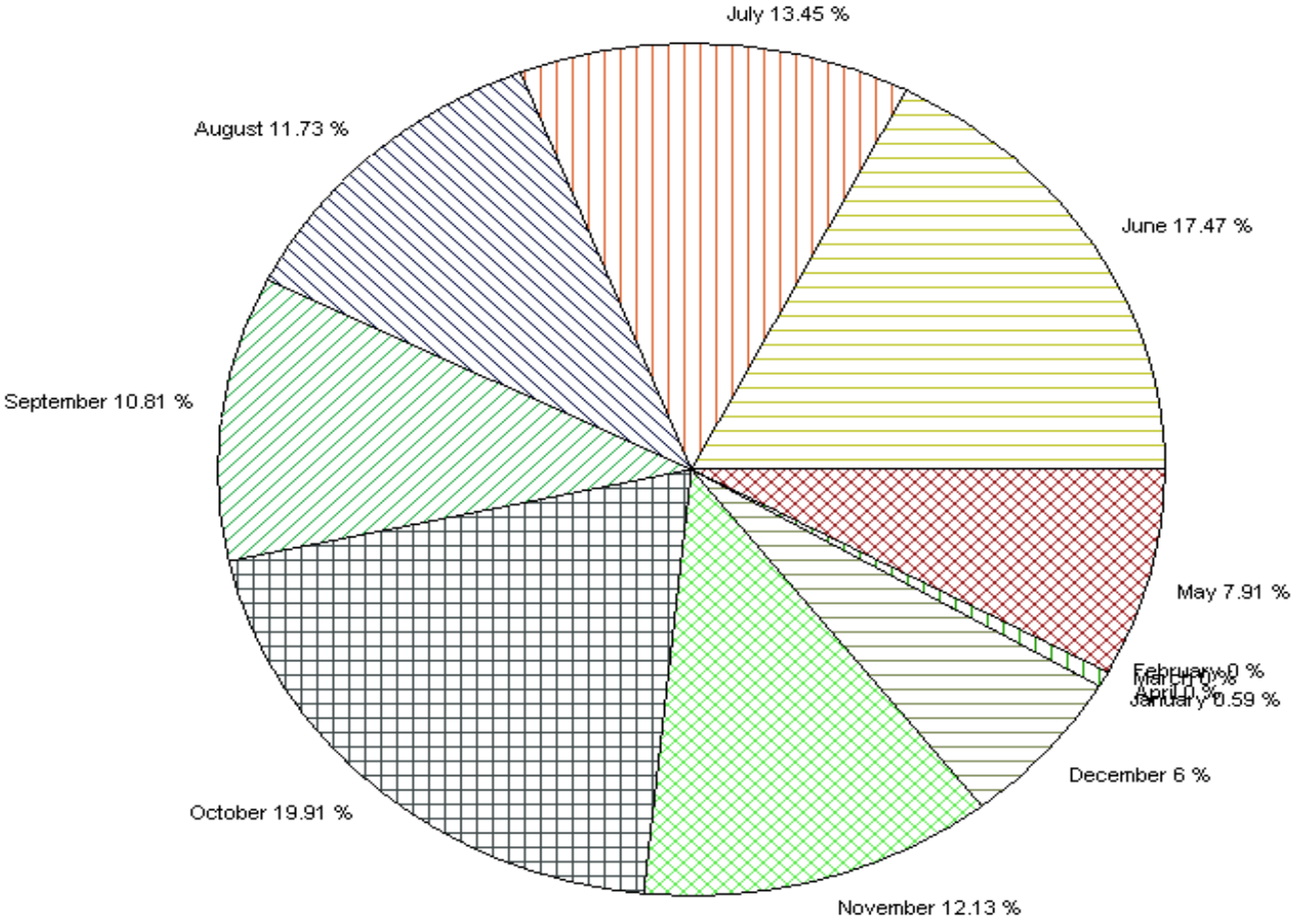
Monthly Runoff for the Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2)

Local River : Manimala

Division : SWR Division, Kochi

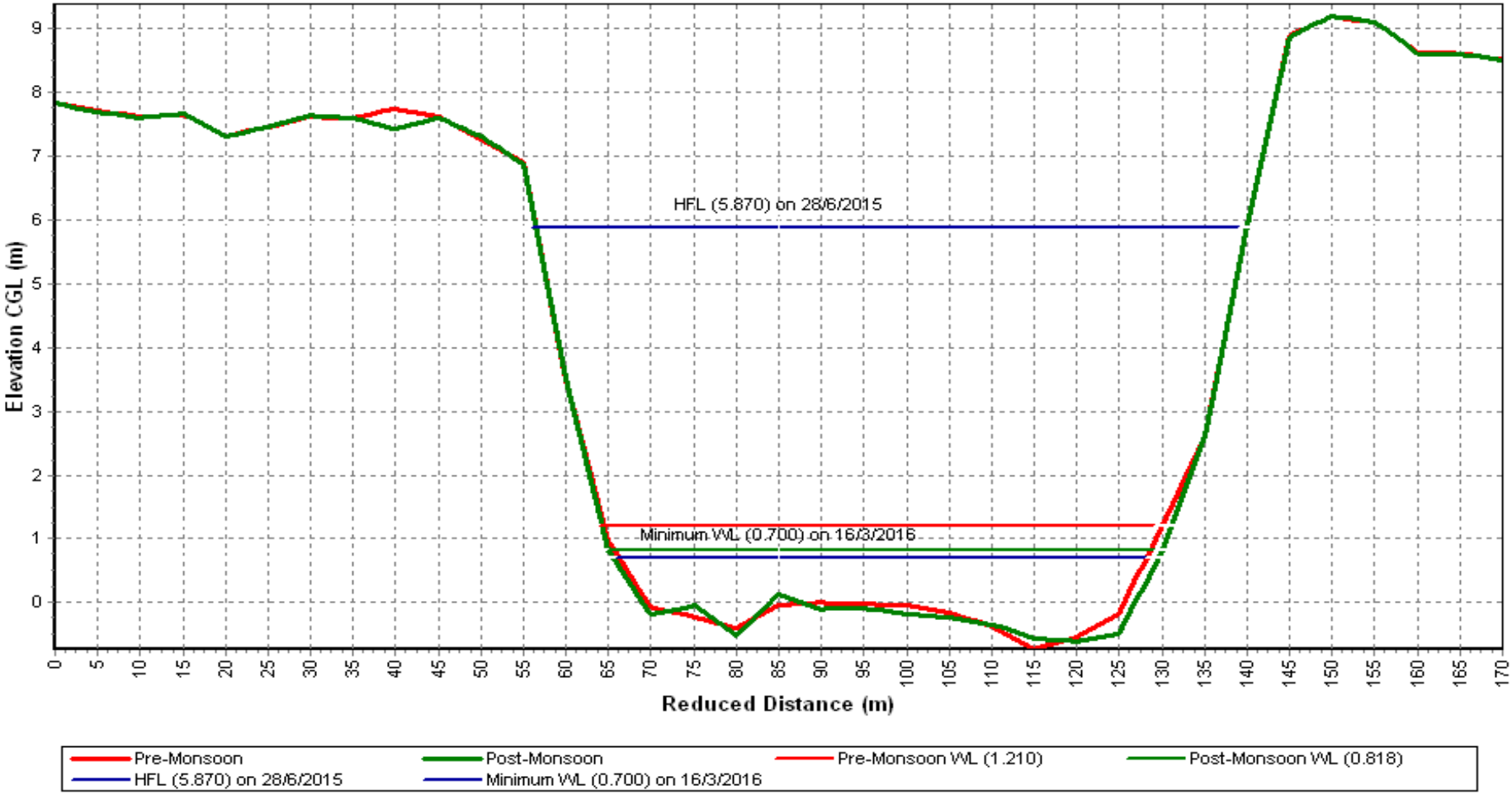
Sub-Division : SWR SD No 1, Trivandrum



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2)
Local River : Manimala

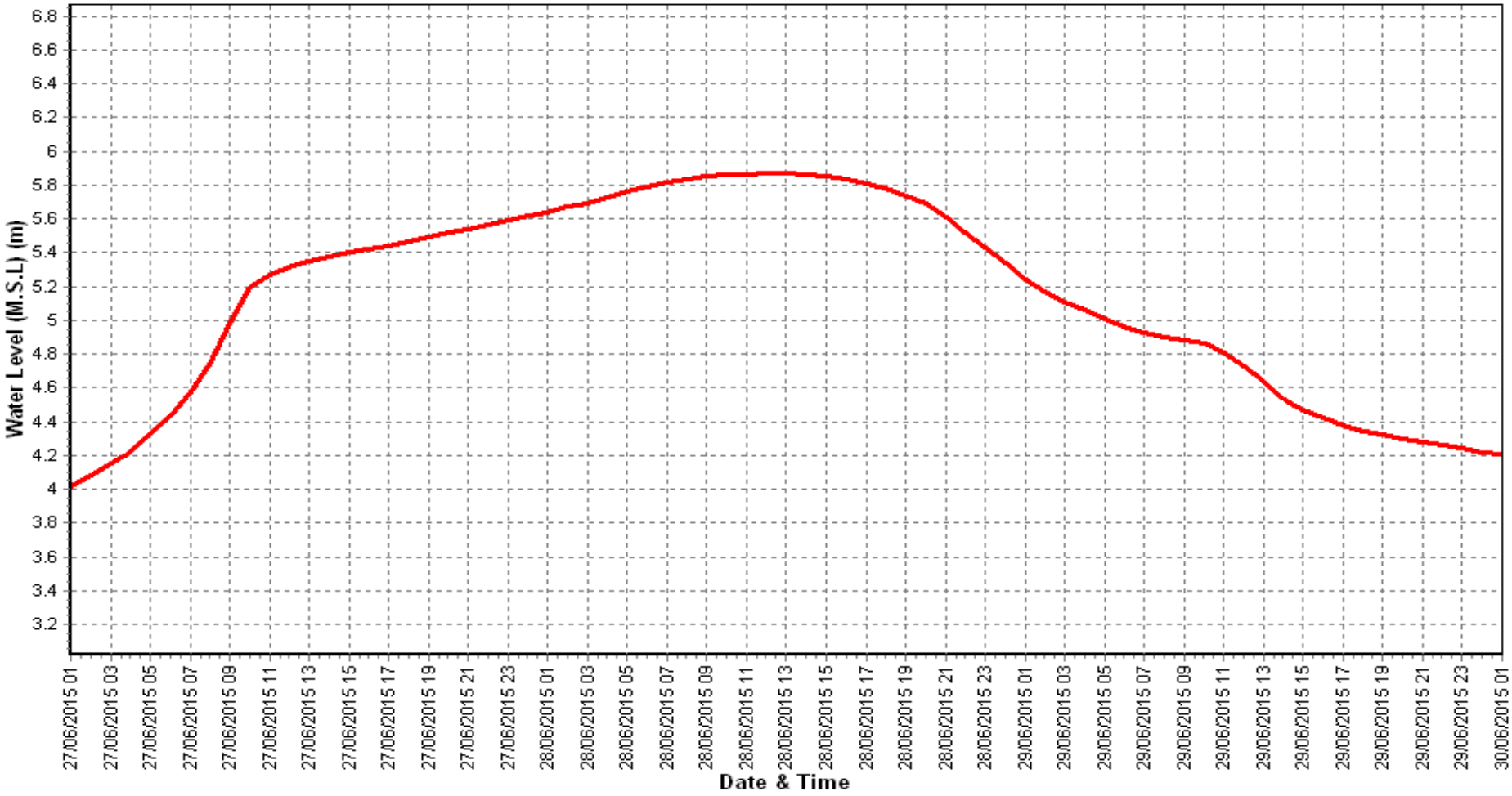
Division : SWR Division, Kochi
Sub-Division : SWR SD No 1, Trivandrum



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWR SD No 1, Trivandrum**

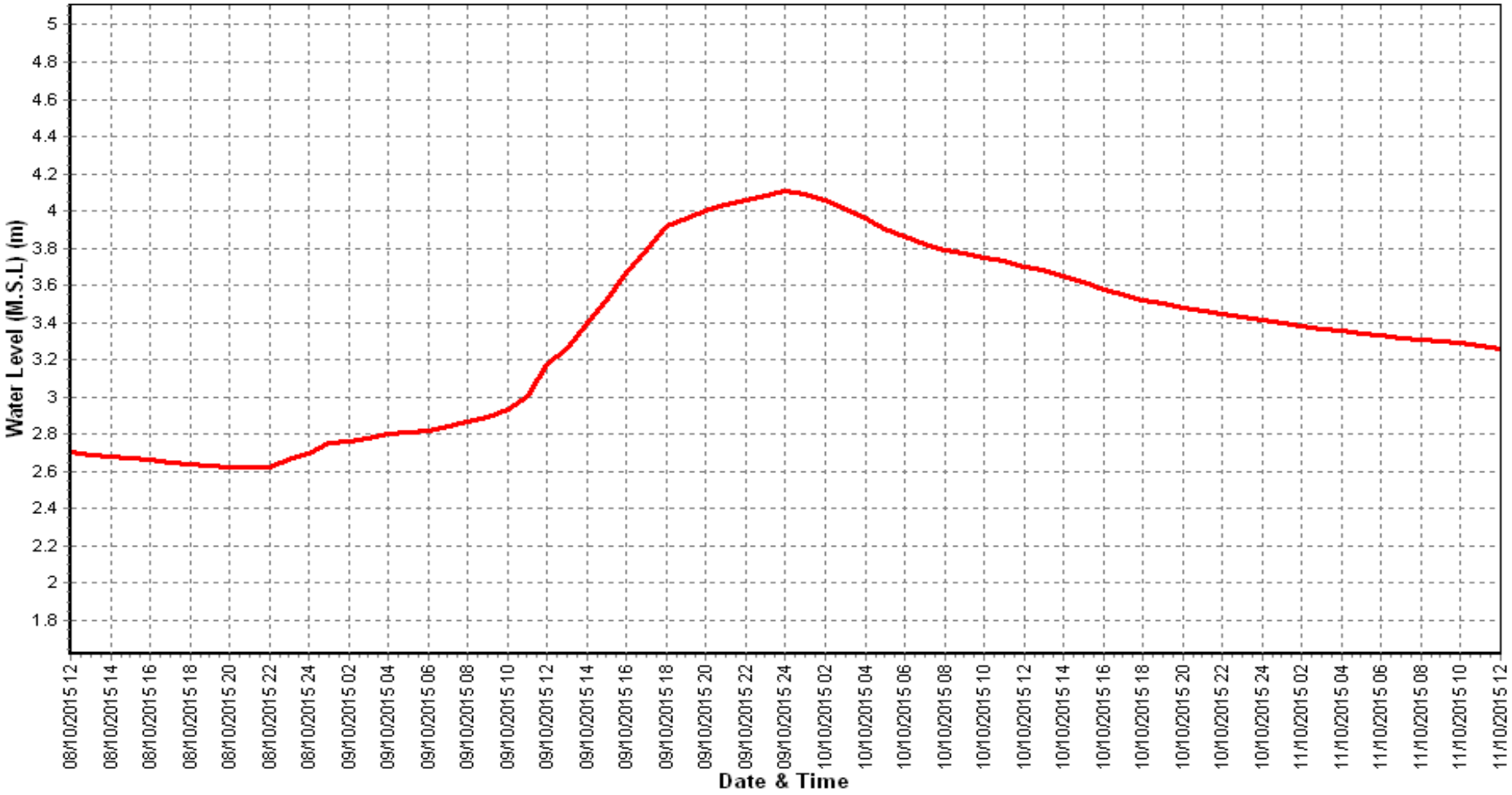


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWR SD No 1, Trivandrum**



Time Span: 72 Hrs

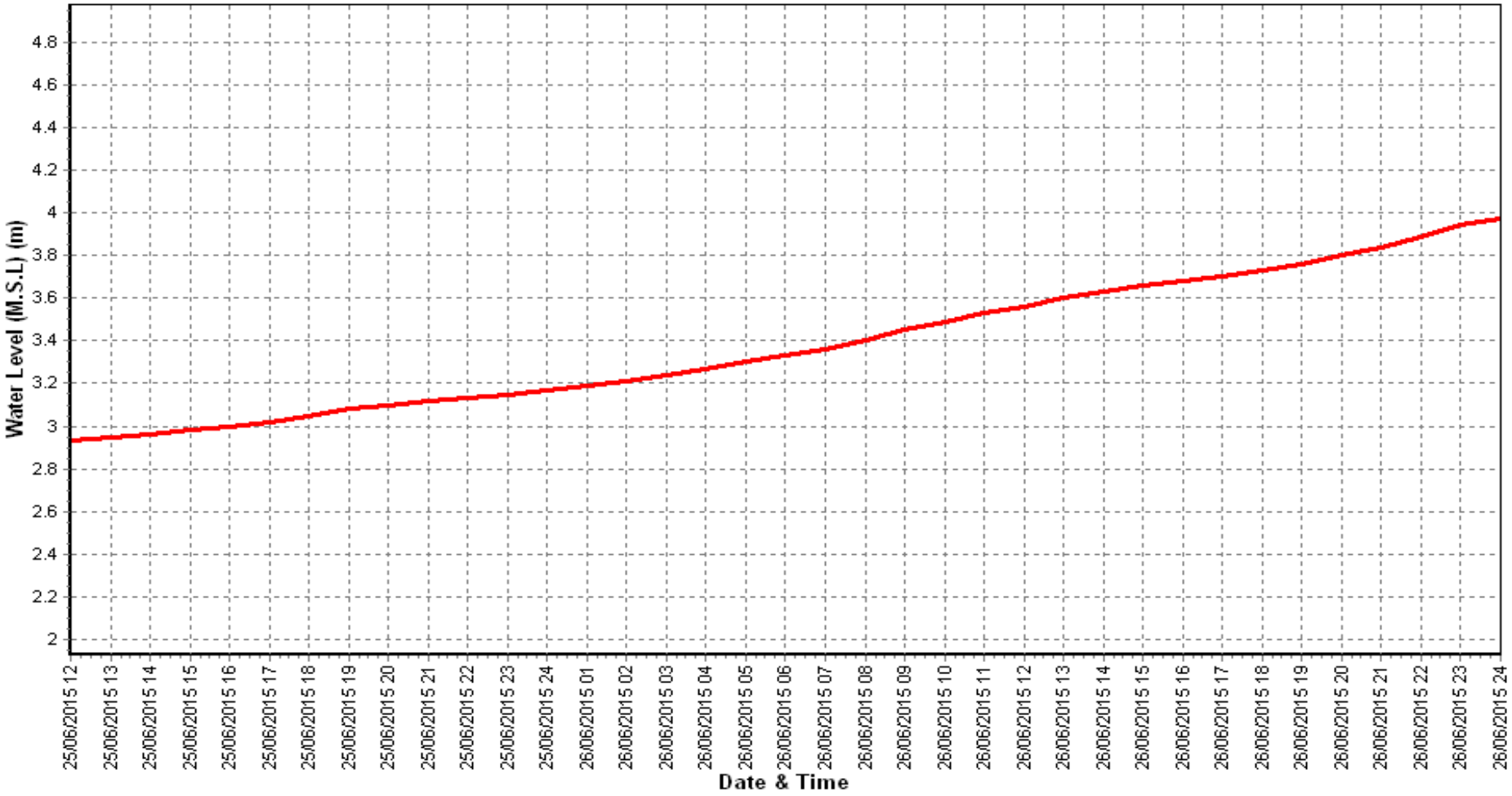
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KALLOOPPARA (KYB00F2)

Division : SWR Division, Kochi

Local River : Manimala

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**MALAKKARA**	**Code**	:	**KY000J4**
State	:	Kerala	District		Pathanamthitta
Basin	:	WFR South of Tapi	Independent River	:	Pamba
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Pamba
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 1, Trivandrum
Drainage Area	:	1713 Sq. Km.	Bank	:	Left
Latitude	:	09°19'57"	Longitude	:	76°39'47"
Zero of Gauge (m)	:	-1.000 (m.s.l)	20/05/1984		
		Opening Date	Closing Date		
Gauge	:	20/05/1984			
Discharge	:	19/06/1985			
Sediment	:	18/06/1986			
Water Quality	:	01/07/1986			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1986-1987	1570	7.560	09/08/1986	6.200	0.525	12/02/1987
1987-1988	747.4	4.980	26/08/1987	4.842	0.380	23/02/1988
1988-1989	628.9	4.450	18/07/1988	9.362	0.290	04/04/1989
1989-1990	1243	6.200	24/07/1989	5.342	0.063	05/03/1990
1990-1991	822.0	4.980	04/11/1990	5.250	-0.125	29/03/1991
1991-1992	1134	6.081	08/06/1991	1.222	-0.397	13/04/1992
1992-1993	1464	6.802	10/10/1992	7.866	-0.240	06/04/1993
1993-1994	883.1	4.894	04/07/1993	16.65	0.033	28/03/1994
1994-1995	1988	7.710	03/08/1994	2.279	-0.040	17/02/1995
1995-1996	1068	5.943	31/07/1995	0.000	0.050	11/02/1996
1996-1997	770.2	4.828	26/07/1996	0.000	0.110	20/01/1997
1997-1998	1088	5.785	24/07/1997	0.000	0.020	06/02/1998
1998-1999	1170	6.720	12/10/1998	0.000	0.040	08/04/1999
1999-2000	836.7	5.420	08/06/1999	0.000	0.140	15/03/2000
2000-2001	1340	7.380	26/08/2000	0.000	0.010	01/06/2000
2001-2002	1212	7.790	10/07/2001	0.000	0.260	15/12/2001
2002-2003	601.1	4.300	18/08/2002	0.000	0.100	26/09/2002
2003-2004	578.8	4.115	08/10/2003	0.000	0.010	01/06/2003
2004-2005	925.8	5.240	05/08/2004	0.000	-0.010	12/02/2005

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2005-2006	1215	6.450	05/09/2005	0.000	0.090	01/03/2006
2006-2007	606.5	4.350	17/08/2006	0.000	0.015	02/02/2007
2007-2008	1127	6.510	17/07/2007	0.000	0.080	28/01/2008
2008-2009	662.7	4.605	28/07/2008	0.000	0.040	01/06/2008
2009-2010	832.8	5.040	03/10/2009	0.000	0.010	18/03/2010
2010-2011	994.1	5.360	16/08/2010	0.000	0.140	31/01/2011
2011-2012	783.3	4.700	02/06/2011	0.000	0.240	26/12/2011
2012-2013	920.3	5.035	18/08/2012	0.000	0.200	06/06/2012
2013-2014	1220	5.850	05/08/2013	0.000	0.200	24/12/2013
2014-2015	930.6	5.450	04/08/2014	0.000	0.110	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	0.320	53.29 *	2.565	347.3	0.635	98.42	0.290	50.70 #	2.520	338.1	1.160	143.1 *
2	0.270	49.01 *	1.890	230.8	0.520	71.70 *	0.360	56.81 #	1.790	229.5 *	1.060	102.3
3	0.340	55.04 *	1.520	189.4	0.435	70.51	0.280	49.85 #	1.655	223.5	0.965	94.04
4	0.560	75.62 *	1.295	179.2	0.530	73.96	0.390	45.56	1.390	172.9 *	0.860	91.41
5	0.620	73.24	1.260	155.8 *	0.715	104.9	0.540	71.75	1.445	175.7	2.235	295.5
6	0.465	59.00	1.065	142.6	1.025	144.0	0.800	100.7 *	2.490	319.7	1.640	228.2
7	0.450	65.03 *	0.870	115.4	0.795	109.7	1.110	143.1	1.980	255.8	2.130	280.8
8	0.345	40.35	0.740	106.6	0.670	100.9	0.990	133.9	1.620	216.8	2.100	277.4 *
9	0.540	67.54	0.760	107.1	0.600	79.62 *	0.900	123.6	1.500	183.9	2.040	264.1
10	0.490	58.27	0.855	113.6	0.655	93.05	1.005	138.8	2.225	295.2	1.650	209.0 *
11	0.445	54.37	0.850	113.0	1.150	142.4	0.890	122.6	1.940	252.3 *	1.270	178.9
12	0.880	114.6	0.880	109.6 *	1.725	221.1	0.730	106.0	2.440	321.8	1.055	106.6
13	0.875	114.1	0.750	107.1	2.390	302.9	0.660	85.75 *	1.935	252.3	1.250	139.9
14	0.670	86.79 *	0.720	106.2	2.270	287.4	0.650	94.01	2.020	264.1	1.265	173.2
15	0.500	58.61	0.690	93.22	2.250	301.7 *	0.460	57.58	1.770	235.6	1.170	144.3 *
16	0.570	68.25	0.610	73.53	1.850	238.5 *	0.590	73.63	1.400	174.0	0.970	125.3
17	0.650	74.36	0.710	97.04	1.560	185.3	0.865	111.6	1.200	135.3	0.880	116.4
18	0.775	94.19	2.050	269.5 *	1.775	230.0	1.095	130.5	1.050	129.5 *	0.795	111.4
19	0.780	88.91	2.090	275.8 *	1.820	233.9	1.000	120.1	0.975	122.8	1.440	177.4
20	1.740	219.1	1.955	242.5	1.430	173.1	1.070	132.0 *	1.015	132.6	0.970	125.5
21	1.520	190.7 *	2.110	242.5	1.210	137.8	0.860	110.7	0.815	111.4	0.940	121.8
22	1.330	179.8	2.165	282.7	1.225	143.0	0.870	108.9	0.900	123.7	0.790	99.61 *
23	1.590	188.8	1.875	227.9	1.040	128.3 *	0.760	105.8	1.130	139.3 *	0.735	114.2
24	1.740	222.1	1.730	267.0	0.890	124.7	0.740	94.19 *	1.280	158.4 *	0.720	109.8
25	1.490	186.7	1.970	272.6	0.870	111.6	1.200	135.1	1.370	170.2 *	0.720	92.05 *
26	2.395	307.2	1.640	207.6 *	0.840	113.1	1.060	125.4	1.180	136.5	0.600	79.62 #
27	3.805	560.1	1.245	167.1	0.655	89.71	1.230	151.9 *	1.110	140.2	0.665	74.52
28	3.920	619.9 *	1.060	157.4	0.570	76.61 *	1.990	247.6	0.900	123.5	0.660	89.37
29	3.740	546.0	0.870	114.6	0.550	72.61	1.760	227.6	1.010	120.3	0.720	92.05 *
30	3.115	412.8	0.790	110.0	0.470	66.91 *	2.460	315.2	1.160	143.7	0.400	47.81
31			0.695	104.1	0.480	57.27			1.040	104.3		
Ten-Daily Mean												
I Ten-Daily	0.440	59.64	1.282	168.8	0.658	94.68	0.666	91.48	1.862	241.1	1.584	198.6
II Ten-Daily	0.789	97.33	1.131	148.8	1.822	231.6	0.801	103.4	1.574	202.0	1.106	139.9
III Ten-Daily	2.464	341.4	1.468	195.8	0.800	102.0	1.293	162.2	1.081	133.8	0.695	92.08
Monthly												
Min.	0.270	40.35	0.610	73.53	0.435	57.27	0.280	45.56	0.815	104.3	0.400	47.81
Max.	3.920	619.9	2.565	347.3	2.390	302.9	2.460	315.2	2.520	338.1	2.235	295.5
Mean	1.231	166.1	1.299	171.9	1.084	141.4	0.920	119	1.492	190.4	1.128	143.5

Annual Runoff in MCM = 2921 Annual Runoff in mm = 1705

Peak Observed Discharge = 560.1 cumecs on 27/06/2015 Corres. Water Level :3.805 m

Lowest Observed Discharge = 0.000 cumecs on 01/01/2016 Corres. Water Level :0.16 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	0.360	96.28 *	0.160	0.000	0.050	0.000	0.050	0.000	0.040	0.000	0.110	0.000
2	0.450	101.3 *	0.110	0.000	0.060	0.000	0.050	0.000	0.050	0.000	0.050	0.000
3	0.430	100.1 *	0.160	30.16 *	0.080	0.000	0.060	0.000	0.030	0.000	0.170	31.92
4	0.580	108.7 *	0.230	30.43	0.090	0.000	0.050	0.000	0.010	0.000	0.240	37.47 #
5	0.400	98.48 *	0.290	42.79	0.090	0.000	0.040	0.000	0.020	0.000	0.140	31.98
6	0.440	100.7 *	0.295	42.48	0.080	0.000	0.060	0.000	0.020	0.000	0.130	31.89
7	0.410	99.03 *	0.305	42.25	0.050	0.000	0.050	0.000	0.020	0.000	0.150	32.51
8	0.580	100.7	0.251	31.34	0.020	0.000	0.050	0.000	0.020	0.000	0.180	31.93 *
9	0.495	110.9	0.235	30.67	0.050	0.000	0.060	0.000	0.020	0.000	0.200	33.37
10	0.485	107.1	0.150	29.29 *	0.050	0.000	0.060	0.000	0.050	0.000	0.210	35.59
11	0.465	101.2	0.100	0.000	0.090	0.000	0.060	0.000	0.200	33.27	0.180	31.07
12	0.475	105.5	0.110	0.000	0.080	0.000	0.080	0.000	0.210	35.15	0.150	29.11
13	0.670	113.9 *	0.150	0.000	0.090	0.000	0.100	0.000	0.180	32.64	0.110	0.000
14	0.555	115.7	0.200	0.000	0.100	0.000	0.070	0.000	0.140	0.000	0.120	0.000
15	1.160	143.9	0.200	0.000	0.080	0.000	0.100	0.000	0.110	0.000	0.140	28.43 *
16	1.595	191.8	0.150	0.000	0.100	0.000	0.220	35.58 #	0.130	0.000	0.160	30.16 *
17	1.135	141.2	0.140	0.000	0.080	0.000	0.200	33.74 #	0.150	0.000	0.315	47.20
18	0.900	105.5	0.100	0.000	0.090	0.000	0.170	31.04 #	0.200	30.46	1.800	250.3
19	0.720	94.01	0.120	0.000	0.080	0.000	0.160	28.69	0.175	28.58	0.975	120.1
20	0.550	71.18 *	0.180	35.06	0.090	0.000	0.170	31.04 *	0.200	33.74 *	0.635	88.19
21	0.425	69.10	0.150	0.000	0.080	0.000	0.160	28.91	0.245	33.15	0.450	59.41 *
22	0.540	72.25	0.190	0.000	0.060	0.000	0.110	0.000	0.190	29.42	0.300	43.34 *
23	0.500	71.35	0.180	0.000	0.040	0.000	0.160	28.66	0.185	29.21	0.150	29.29 #
24	0.470	61.70 *	0.160	0.000	0.060	0.000	0.130	0.000	0.180	31.93 *	0.150	29.29 #
25	0.400	53.84 *	0.100	0.000	0.080	0.000	0.130	0.000	0.175	26.57	0.420	71.03
26	0.255	41.96	0.100	0.000	0.100	0.000	0.120	0.000	0.185	29.34	0.990	120.8
27	0.350	48.48 *	0.120	0.000	0.070	0.000	0.130	0.000	0.160	31.30	0.690	92.84
28	0.260	42.77	0.140	0.000	0.050	0.000	0.120	0.000	0.150	0.000	0.610	85.03
29	0.210	41.36	0.140	0.000	0.060	0.000	0.080	0.000	0.120	0.000	0.430	57.16 *
30	0.240	40.99	0.120	0.000			0.070	0.000	0.120	0.000	0.310	46.05
31	0.305	45.34	0.090	0.000			0.040	0.000			0.560	72.40 #
Ten-Daily Mean												
I Ten-Daily	0.463	102.3	0.219	27.94	0.062	0.000	0.053	0.000	0.028	0.000	0.158	26.67
II Ten-Daily	0.823	118.4	0.145	3.506	0.088	0.000	0.133	16.01	0.170	19.39	0.458	62.46
III Ten-Daily	0.360	53.56	0.135	0.000	0.067	0.000	0.114	5.234	0.171	21.09	0.460	64.24
Monthly												
Min.	0.210	40.99	0.090	0.000	0.020	0.000	0.040	0.000	0.010	0.000	0.050	0.000
Max.	1.595	191.8	0.305	42.79	0.100	0.000	0.220	35.58	0.245	35.15	1.800	250.3
Mean	0.542	90.2	0.165	10.14	0.072	0	0.100	7.021	0.123	13.49	0.362	51.55

Peak Computed Discharge = 619.9 cumecs on 28/06/2015 **Corres. Water Level :3.92 m**

Lowest Computed Discharge = 28.43 cumecs on 15/05/2016 **Corres. Water Level :0.14 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

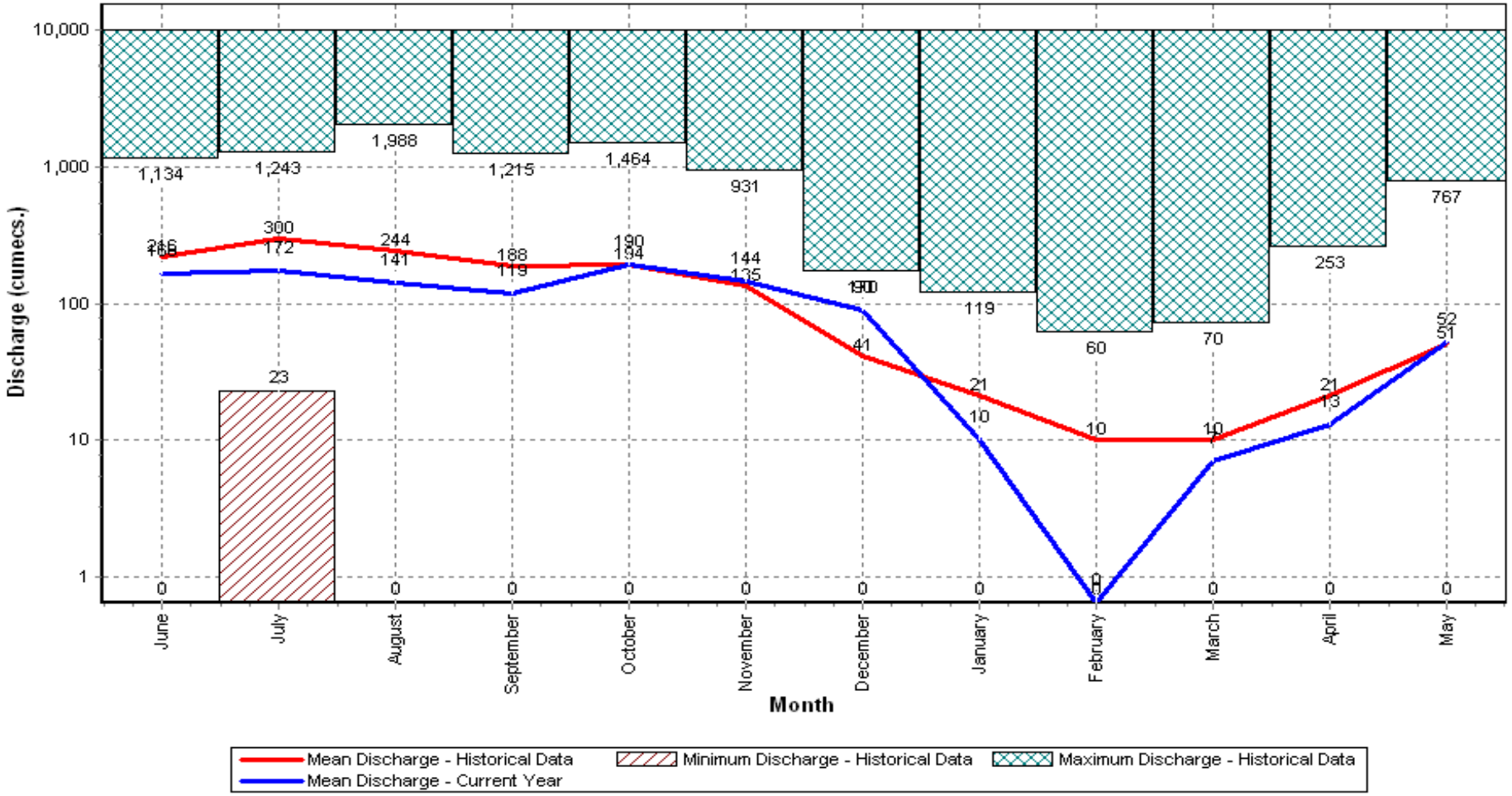
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : MALAKKARA (KY000J4) | **Data considered : 1986-2016** | **Division : SWR Division, Kochi**

Local River : Pamba | **Sub-Division : SWR SD No 1, Trivandrum**



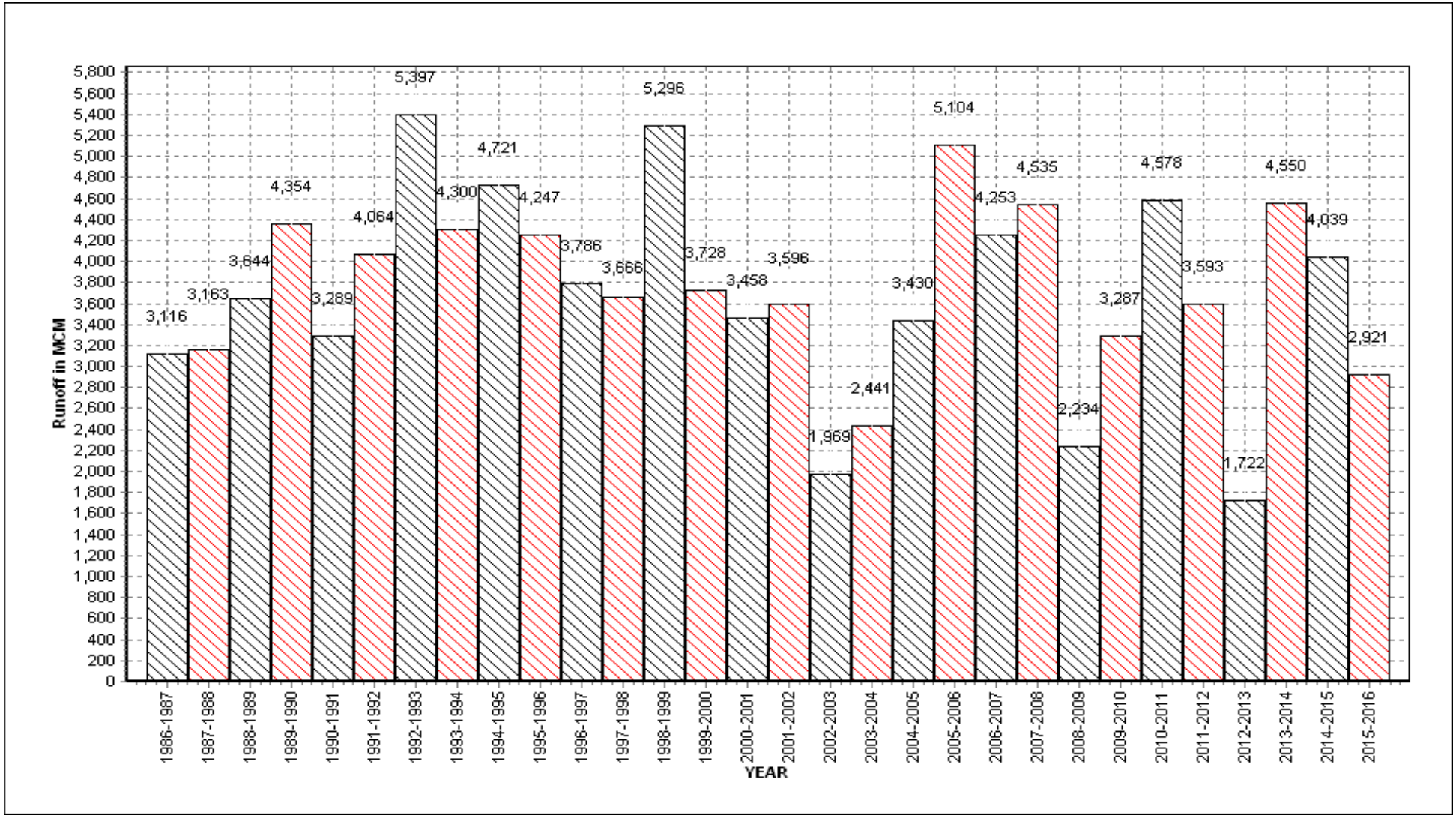
Annual Runoff Values for the period: 1986 - 2016

Station Name : MALAKKARA (KY000J4)

Division : SWR Division, Kochi

Local River : Pamba

Sub-Division : SWR SD No 1, Trivandrum



Note: Missing values have not been considered while arriving at Annual Runoff

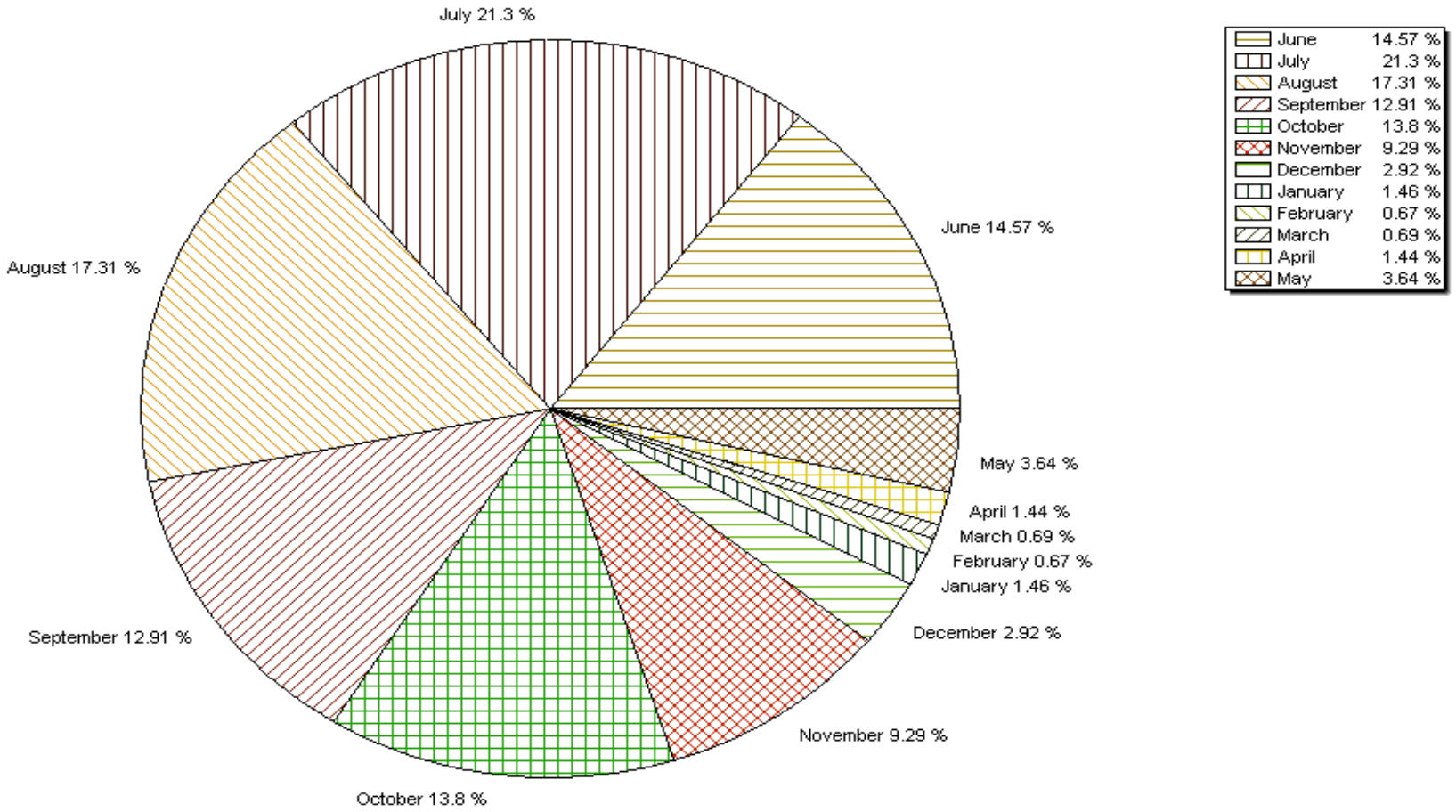
Monthly Average Runoff based on period : 1986-2015

Station Name : MALAKKARA (KY000J4)

Local River : Pamba

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



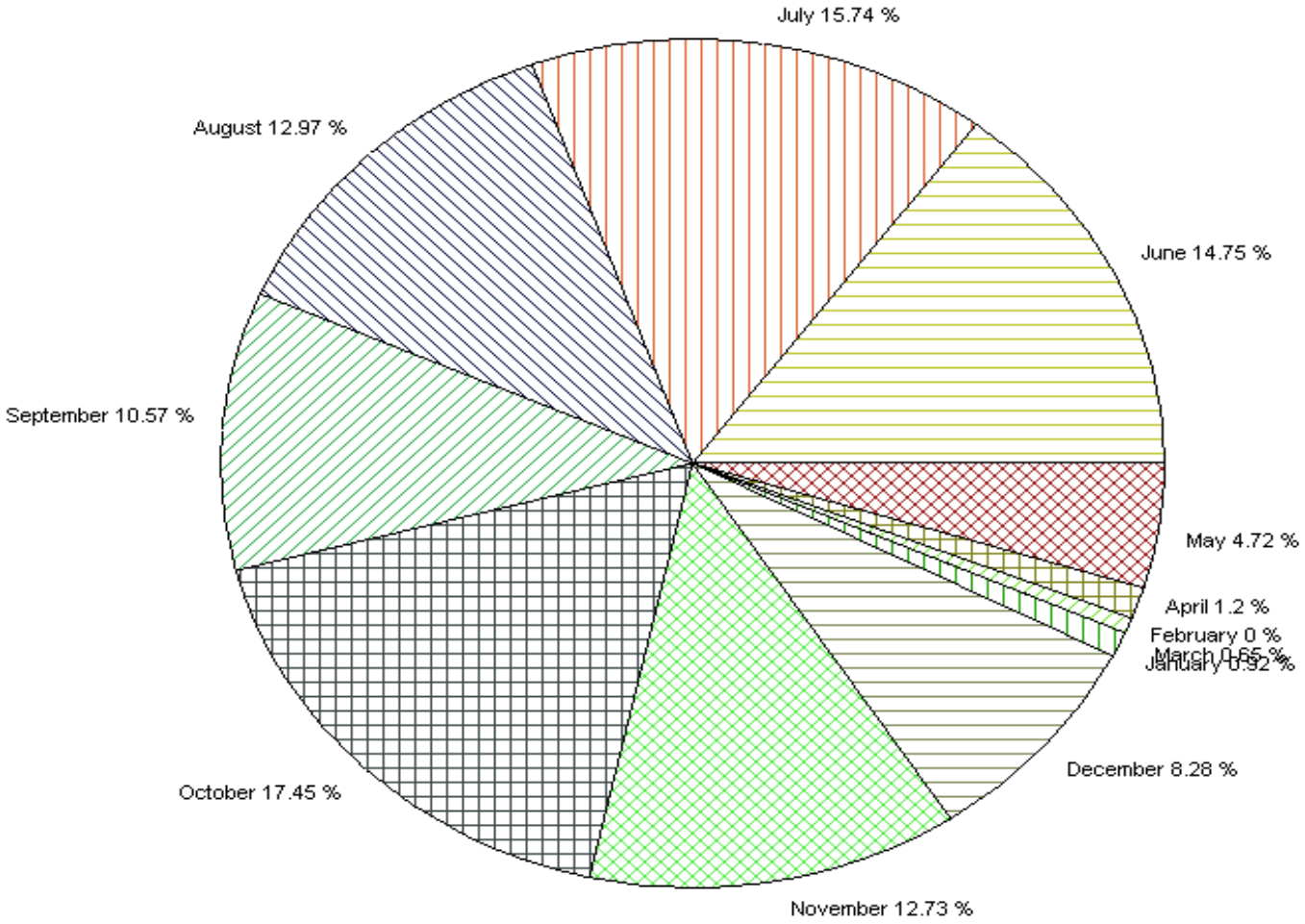
Monthly Runoff for the Year : 2015-2016

Station Name : MALAKKARA (KY000J4)

Local River : Pamba

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



June	14.75 %
July	15.74 %
August	12.97 %
September	10.57 %
October	17.45 %
November	12.73 %
December	8.28 %
January	0.92 %
February	0 %
March	0.65 %
April	1.2 %
May	4.72 %

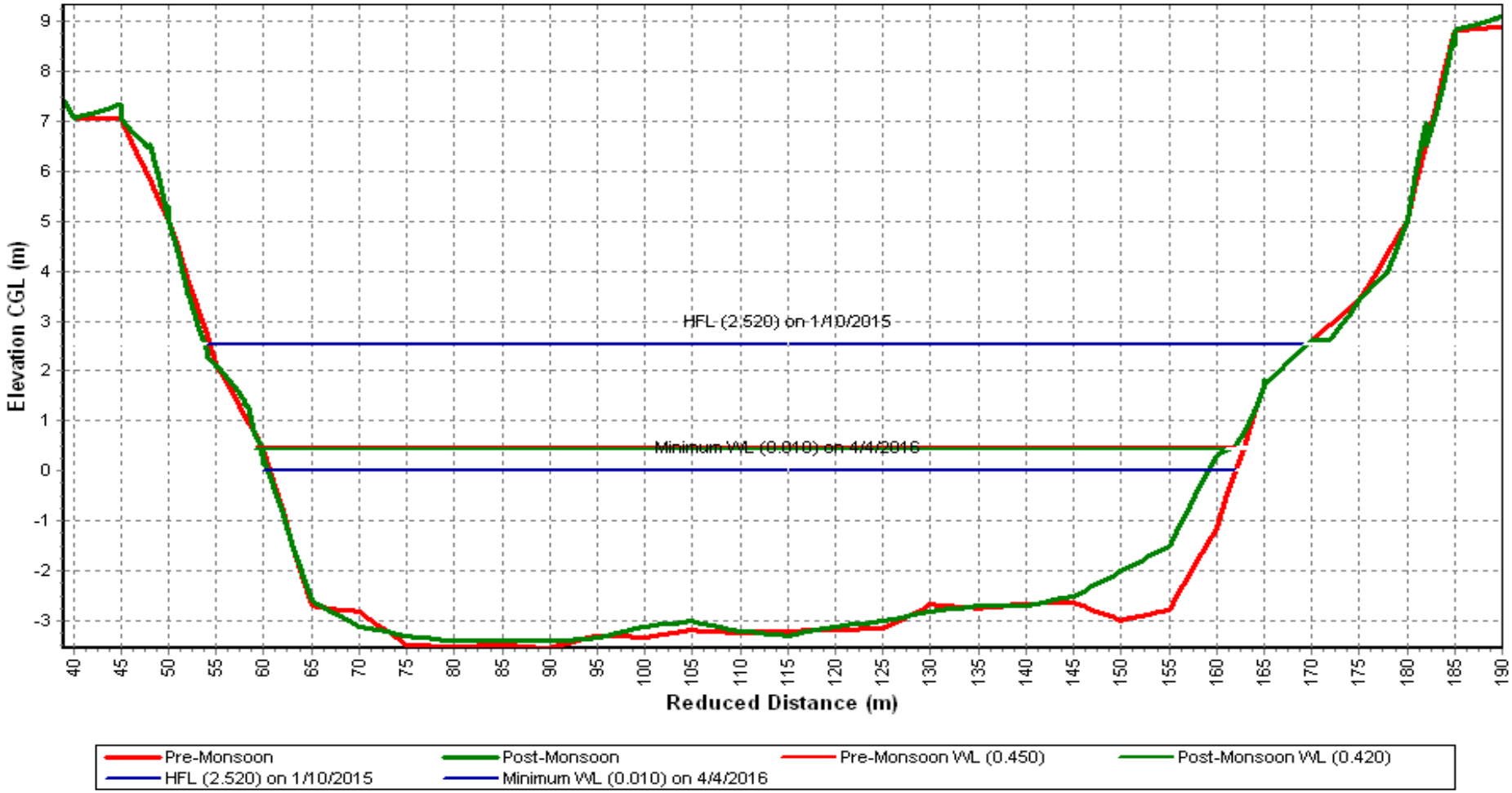
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : MALAKKARA (KY000J4)

Local River : Pamba

Division : SWR Division, Kochi

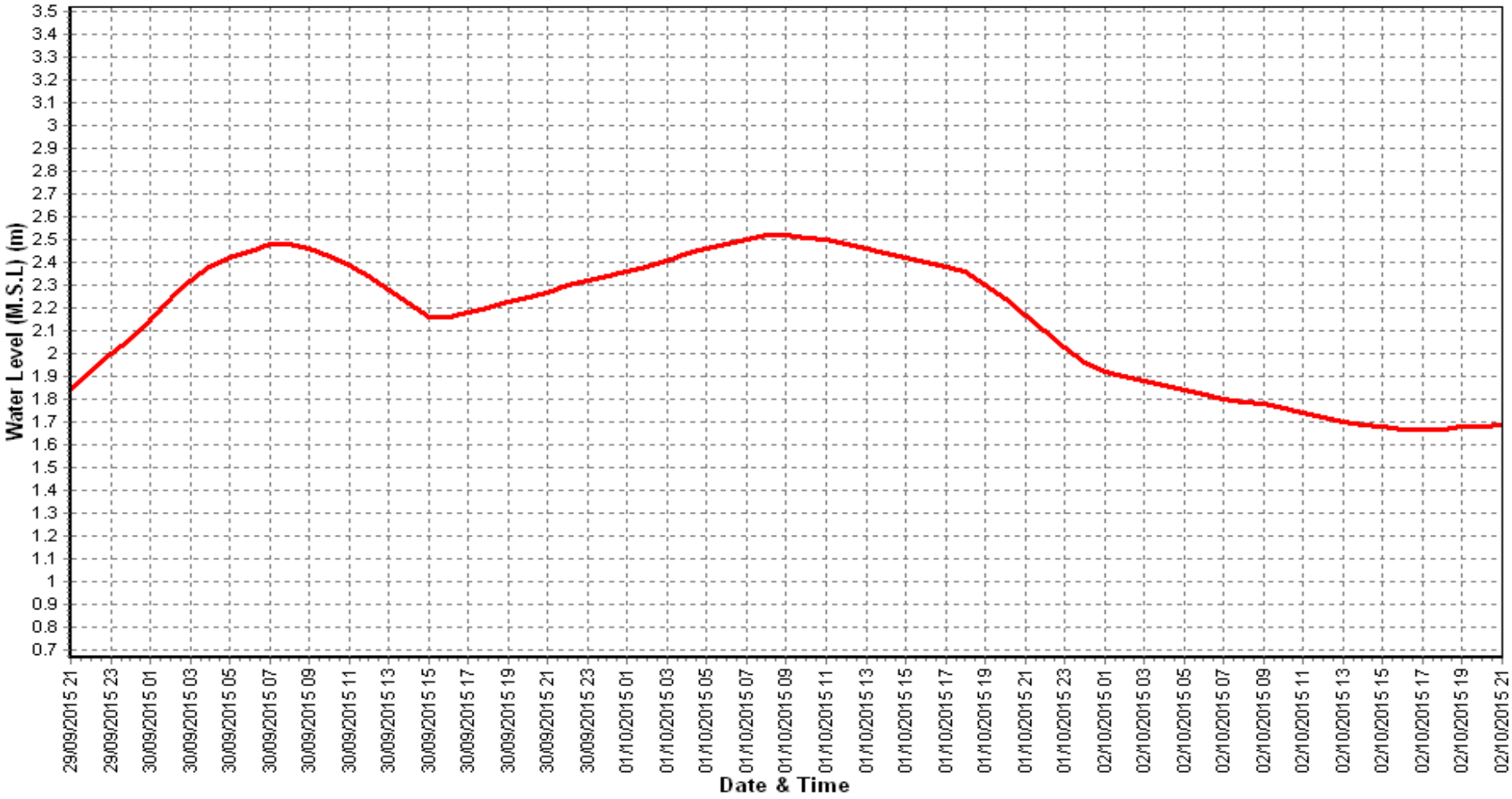
Sub-Division : SWR SD No 1, Trivandrum



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWR SD No 1, Trivandrum**



Time Span: 72 Hrs

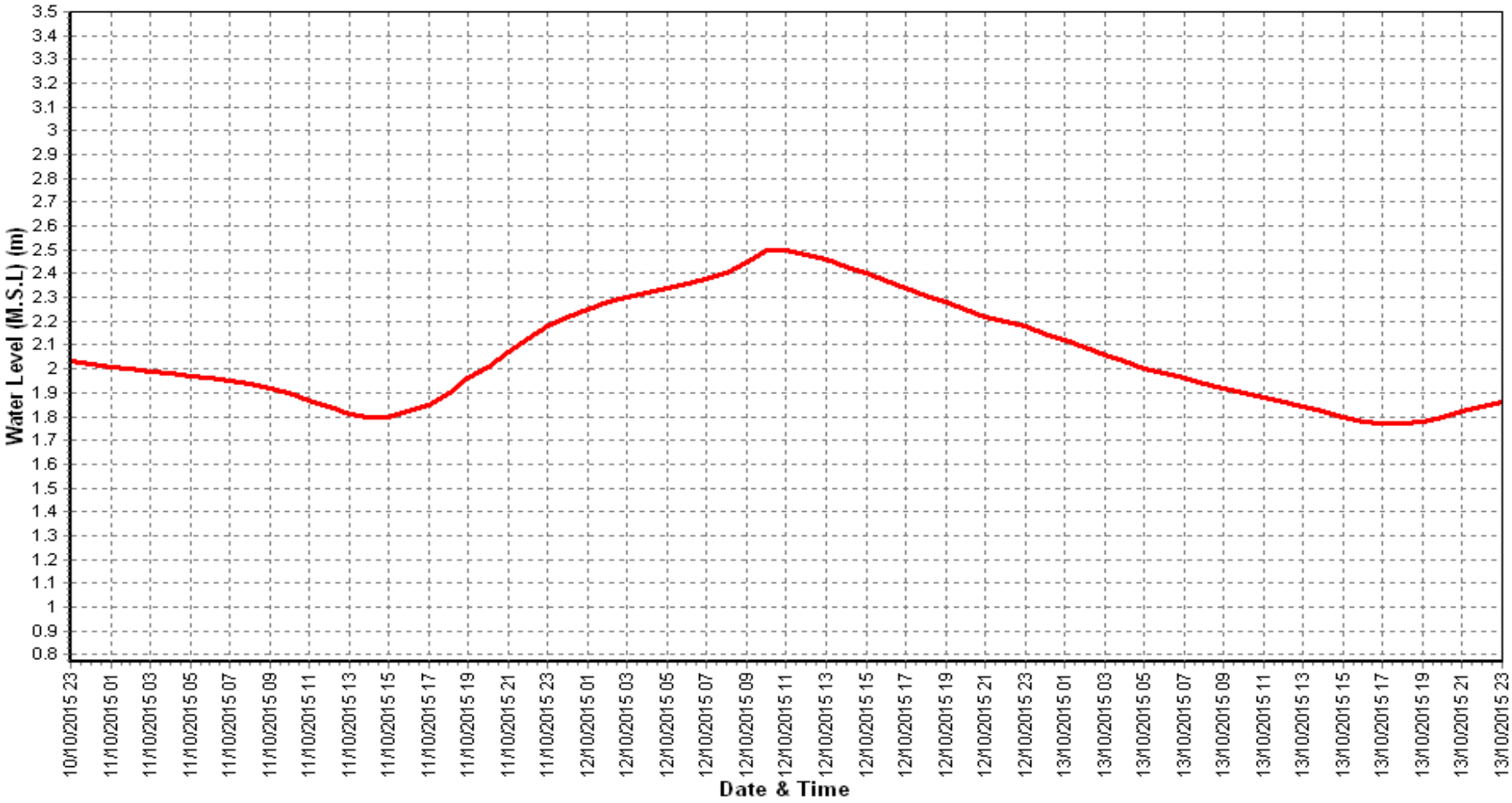
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : MALAKKARA (KY000J4)

Division : SWR Division, Kochi

Local River : Pamba

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

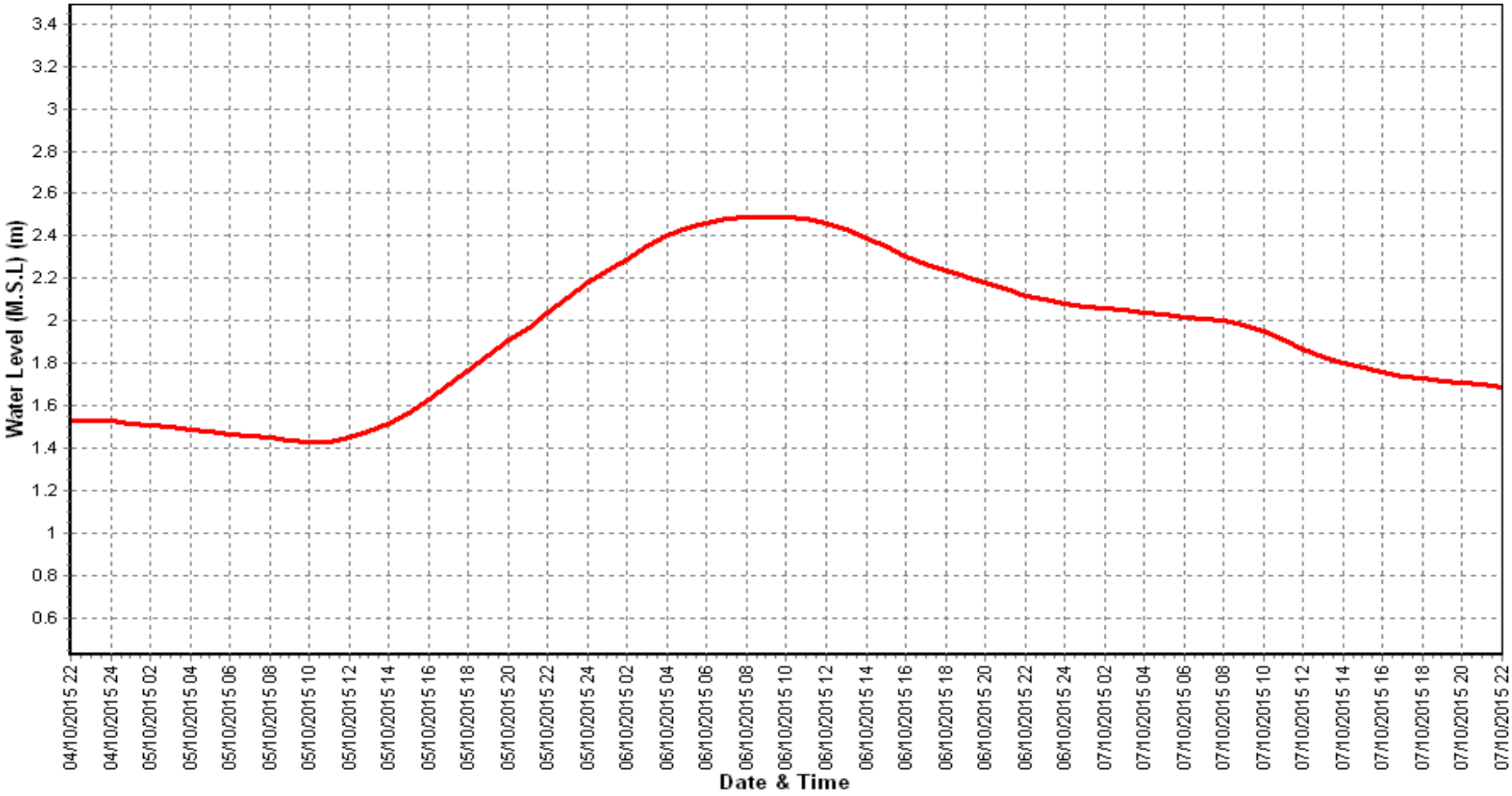
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : MALAKKARA (KY000J4)

Division : SWR Division, Kochi

Local River : Pamba

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**THUMPAMON**	**Code**	:	**KYA00J4**
State	:	Kerala	District		Pathanamthitta
Basin	:	WFR South of Tapi	Independent River	:	Pamba
Tributary	:	Achankovil	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Achankovil
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 1, Trivandrum
Drainage Area	:	810 Sq. Km.	Bank	:	Right
Latitude	:	09°13'30"	Longitude	:	76°42'52"
Zero of Gauge (m)	:	5.000 (m.s.l)	21/12/1977		
		Opening Date	Closing Date		
Gauge	:	21/12/1977			
Discharge	:	28/01/1978			
Sediment	:	23/03/1981			
Water Quality	:	15/10/1978			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1978-1979	680.0	13.735	07/11/1978	0.100	7.145	30/03/1979
1979-1980	255.0	10.500	11/07/1979	0.100	6.765	26/03/1980
1980-1981	269.9	10.760	04/07/1980	0.300	6.775	08/03/1981
1981-1982	429.9	11.775	22/09/1981	0.100	6.815	02/03/1982
1982-1983	152.0	9.560	08/08/1982	0.000	6.595	07/03/1983
1983-1984	382.2	11.388	21/08/1983	0.000	6.600	04/06/1983
1984-1985	204.7	9.950	04/10/1984	0.200	6.300	18/05/1985
1985-1986	426.0	11.900	27/06/1985	0.200	6.025	02/04/1986
1986-1987	504.6	12.170	10/08/1986	0.000	6.025	15/03/1987
1987-1988	232.6	9.590	26/08/1987	0.250	6.090	03/04/1988
1988-1989	231.1	9.510	19/07/1988	0.000	6.000	06/03/1989
1989-1990	346.6	10.800	24/07/1989	0.050	5.800	29/04/1990
1990-1991	304.5	10.400	04/11/1990	0.300	5.850	29/03/1991
1991-1992	572.3	12.516	09/06/1991	0.548	5.885	29/01/1992
1992-1993	699.0	13.146	15/11/1992	0.783	6.095	07/02/1993
1993-1994	400.6	11.147	07/06/1993	0.493	5.755	26/03/1994
1994-1995	720.6	12.690	03/08/1994	0.668	5.775	10/03/1995
1995-1996	375.5	10.340	31/07/1995	0.200	5.555	31/03/1996
1996-1997	379.9	10.010	19/10/1996	0.299	5.420	19/03/1997

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1997-1998	297.8	9.800	24/07/1997	0.000	5.310	28/03/1998
1998-1999	800.0	12.570	13/10/1998	1.048	5.420	05/03/1999
1999-2000	547.5	11.250	09/06/1999	0.701	5.300	03/02/2000
2000-2001	575.9	11.660	26/08/2000	0.111	5.120	01/04/2001
2001-2002	677.5	12.775	10/07/2001	0.000	5.170	25/02/2002
2002-2003	171.1	8.653	31/10/2002	0.000	5.480	04/01/2003
2003-2004	297.6	9.540	08/10/2003	0.000	5.460	01/06/2003
2004-2005	265.9	9.060	19/06/2004	0.000	5.540	23/12/2004
2005-2006	404.3	11.100	02/08/2005	0.000	5.530	01/02/2006
2006-2007	302.6	9.530	30/10/2006	0.000	5.620	01/01/2007
2007-2008	578.6	11.895	18/07/2007	0.000	5.620	07/06/2007
2008-2009	229.6	8.970	08/09/2008	0.000	5.620	29/12/2008
2009-2010	301.9	10.060	03/10/2009	0.000	5.620	01/06/2009
2010-2011	505.6	11.020	23/11/2010	0.000	5.690	29/01/2011
2011-2012	225.2	9.120	06/06/2011	0.000	5.700	28/12/2011
2012-2013	225.2	9.415	18/08/2012	0.000	5.650	01/06/2012
2013-2014	336.3	10.065	27/06/2013	0.000	5.650	01/06/2013
2014-2015	520.6	11.530	24/08/2014	0.000	6.620	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	6.735	7.588 *	7.725	89.83	6.880	15.22	6.770	11.70	7.783	97.70	7.990	111.2 *
2	6.680	5.587	7.460	64.75	6.905	17.90 *	6.750	10.41	7.430	57.44 *	7.770	91.33 *
3	6.650	3.860	7.283	44.32	6.840	14.48	6.748	10.39	7.268	47.53	7.550	71.83
4	7.093	29.14	7.268	43.45	6.865	14.69	6.710	7.621	7.270	43.81 *	7.510	67.98
5	7.085	27.57	7.120	32.23 *	6.830	14.18	6.960	22.15	7.343	54.76	9.153	223.8
6	6.930	18.12	7.120	30.45	6.910	16.83	7.300	46.27 *	7.573	74.28	8.130	128.7
7	6.850	13.24 *	7.030	24.10	6.835	14.27	7.195	37.97	7.410	60.65	8.185	134.6
8	6.825	11.70	6.970	20.89	6.805	13.77	7.138	34.92	7.290	49.82	8.030	114.9 *
9	7.000	21.64	6.935	18.20	6.800	12.02 *	7.065	26.36	7.605	75.62	8.115	127.5
10	6.875	14.82	6.950	20.12	6.790	12.44	7.113	34.96	8.120	118.7	7.800	93.96 *
11	6.810	11.30	6.968	22.39	6.895	17.82	7.080	26.45	7.780	91.36 *	7.573	74.41
12	6.885	15.16	7.010	24.54 *	6.920	18.42	7.010	21.29	7.550	71.13	7.420	62.45
13	6.870	14.30	6.970	22.61	7.175	33.12	7.020	25.21 *	7.560	71.38	8.060	122.6
14	6.850	13.24 *	6.920	17.60	7.213	43.76	6.940	19.46	7.800	98.93	7.675	84.96
15	6.810	11.30	6.905	16.32	7.210	39.04 *	6.930	19.31	7.585	73.05	7.480	64.26 *
16	6.885	15.18	6.955	20.25	7.150	34.45 *	6.928	17.34	7.370	56.83	7.645	81.17
17	6.820	11.47	6.898	17.11	7.100	32.18	7.078	27.22	7.245	42.55	7.440	62.98
18	6.860	13.43	7.265	43.41 *	7.445	61.96	7.160	36.61	7.160	35.20 *	7.325	55.25
19	6.855	13.53	7.320	47.94 *	7.705	84.25	7.045	25.76	7.150	32.70	7.720	87.00
20	6.928	17.64	7.240	40.89	7.400	56.04	7.150	34.45 *	7.125	34.44	7.545	71.93
21	6.950	18.99 *	7.280	41.97	7.270	49.68	7.080	27.48	7.073	29.00	7.355	54.17
22	6.960	20.78	7.290	44.97	7.280	47.59	6.998	24.88	7.400	59.04	7.260	42.35 *
23	7.010	24.75	7.240	40.89	7.210	39.04 *	6.933	18.62	7.110	31.50 *	7.200	34.54
24	7.115	29.56	7.288	42.29	7.110	33.90	6.890	17.01 *	7.530	66.58 *	7.170	31.48
25	7.138	30.53	7.330	44.06	7.045	25.89	7.415	60.73	7.630	76.17 *	7.150	32.77 *
26	7.343	44.83	7.205	38.65 *	6.990	24.53	7.698	85.30	7.688	84.10	7.060	25.91
27	7.798	91.63	7.170	30.32	6.940	20.17	7.460	60.13 *	7.365	56.82	7.020	22.61
28	8.930	236.8 *	7.080	25.85	6.890	17.01 *	7.380	57.01	7.215	36.68	7.093	28.51
29	8.195	120.2	7.015	24.40	6.855	15.25	7.428	62.46	7.370	55.83	7.050	24.92 *
30	8.163	116.9	6.960	19.83	6.830	13.62 *	7.625	79.98	7.970	105.2	7.015	22.34
31			6.920	17.54	6.800	13.21			7.915	99.19		
Ten-Daily Mean												
I Ten-Daily	6.872	15.33	7.186	38.83	6.846	14.58	6.975	24.28	7.509	68.03	8.023	116.6
II Ten-Daily	6.857	13.65	7.045	27.30	7.221	42.10	7.034	25.31	7.432	60.76	7.588	76.70
III Ten-Daily	7.560	73.50	7.162	33.71	7.020	27.26	7.290	49.36	7.479	63.65	7.137	31.96
Monthly												
Min.	6.650	3.860	6.898	16.32	6.790	12.02	6.710	7.621	7.073	29.00	7.015	22.34
Max.	8.930	236.8	7.725	89.83	7.705	84.25	7.698	85.30	8.120	118.7	9.153	223.8
Mean	7.096	34.16	7.132	33.3	7.029	27.96	7.100	32.98	7.474	64.13	7.583	75.08

Annual Runoff in MCM = 809 Annual Runoff in mm = 999

Peak Observed Discharge = 223.8 cumecs on 05/11/2015 Corres. Water Level :9.1525 m

Lowest Observed Discharge = 0.000 cumecs on 11/01/2016 Corres. Water Level :6.615 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	7.070	28.64 *	6.740	8.752	6.105	0.000	5.400	0.000	6.585	0.000	6.420	0.000
2	6.985	22.49 *	6.690	5.994	6.030	0.000	5.450	0.000	6.530	0.000	6.590	0.000
3	6.970	21.46 *	6.680	5.379 *	5.940	0.000	5.450	0.000	6.420	0.000	6.550	1.110 #
4	7.065	28.27 *	6.660	4.371	5.925	0.000	5.440	0.000	6.340	0.000	6.523	0.000
5	6.945	19.78 *	6.655	4.623	5.885	0.000	5.430	0.000	6.300	0.000	6.470	0.000
6	6.940	19.45 *	6.650	4.246	5.830	0.000	5.460	0.000	6.360	0.000	6.480	0.000
7	7.010	24.24 *	6.640	3.975	5.820	0.000	5.510	0.000	6.240	0.000	6.585	0.000
8	6.990	21.69	6.635	1.555	5.845	0.000	5.520	0.000	6.140	0.000	6.560	0.000
9	7.000	22.36	6.630	3.468 #	5.810	0.000	5.580	0.000	5.870	0.000	6.500	0.000
10	6.930	16.77	6.625	3.294 *	5.820	0.000	5.590	0.000	6.720	7.115 *	6.440	0.000
11	6.900	16.46	6.615	0.000	5.790	0.000	5.590	0.000	6.625	3.001	6.610	0.000
12	6.905	16.46	6.615	0.000	5.835	0.000	5.600	0.000	6.575	0.000	6.770	9.254
13	6.850	13.88 *	6.605	0.000	5.880	0.000	5.690	0.000	6.525	0.000	6.770	9.225
14	6.975	20.24	6.600	0.000	5.870	0.000	5.790	0.000	6.460	0.000	6.940	22.37
15	7.008	21.94	6.595	0.000	5.840	0.000	5.780	0.000	6.345	0.000	6.850	13.88 *
16	7.530	67.75	6.580	0.000	5.815	0.000	5.890	0.000	6.355	0.000	6.830	12.73 *
17	7.195	38.64	6.580	0.000	5.765	0.000	6.445	0.000	6.230	0.000	6.880	15.05
18	7.040	24.66	6.570	0.000	5.740	0.000	6.450	0.000	6.555	0.000	8.370	148.5
19	6.970	20.03	6.565	0.000	5.710	0.000	6.310	0.000	6.460	0.000	7.390	58.19
20	6.960	20.78 *	6.570	0.000	5.670	0.000	6.180	0.000	6.220	0.000	7.145	36.62
21	6.935	17.29	6.555	0.000	5.650	0.000	6.160	0.000	6.485	0.000	7.090	30.17 *
22	6.890	15.91	6.530	0.000	5.630	0.000	5.965	0.000	6.565	0.000	6.900	16.89 *
23	6.890	15.85	6.525	0.000	5.600	0.000	5.260	0.000	6.510	0.000	6.830	13.64
24	6.870	15.06 *	6.500	0.000	5.490	0.000	6.490	0.000	6.440	0.000	6.780	9.335
25	6.800	11.09 *	6.475	0.000	5.440	0.000	6.300	0.000	6.340	0.000	6.900	20.93
26	6.770	9.557	6.410	0.000	5.450	0.000	6.090	0.000	6.215	0.000	6.930	22.28
27	6.760	9.021 *	6.330	0.000	5.450	0.000	5.950	0.000	6.080	0.000	6.920	20.65
28	6.740	8.783	6.280	0.000	5.430	0.000	5.940	0.000	6.020	0.000	6.940	22.42
29	6.730	8.423	6.285	0.000	5.410	0.000	5.840	0.000	6.130	0.000	6.880	15.66 *
30	6.730	8.287	6.255	0.000			6.620	2.596	6.560	0.000	6.810	11.86
31	6.730	8.252	6.210	0.000			6.630	2.691			6.950	22.95
Ten-Daily Mean												
I Ten-Daily	6.990	22.52	6.660	4.566	5.901	0.000	5.483	0.000	6.351	0.712	6.512	0.111
II Ten-Daily	7.033	26.09	6.590	0.000	5.791	0.000	5.973	0.000	6.435	0.300	7.055	32.59
III Ten-Daily	6.804	11.59	6.396	0.000	5.506	0.000	6.113	0.481	6.335	0.000	6.903	18.80
Monthly												
Min.	6.730	8.252	6.210	0.000	5.410	0.000	5.260	0.000	5.870	0.000	6.420	0.000
Max.	7.530	67.75	6.740	8.752	6.105	0.000	6.630	2.691	6.720	7.115	8.370	148.5
Mean	6.938	19.79	6.544	1.473	5.741	0	5.865	0.171	6.373	0.337	6.826	17.22

Peak Computed Discharge = 236.8 cumecs on 28/06/2015 **Corres. Water Level :8.93 m**

Lowest Computed Discharge = 3.294 cumecs on 10/01/2016 **Corres. Water Level :6.625 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

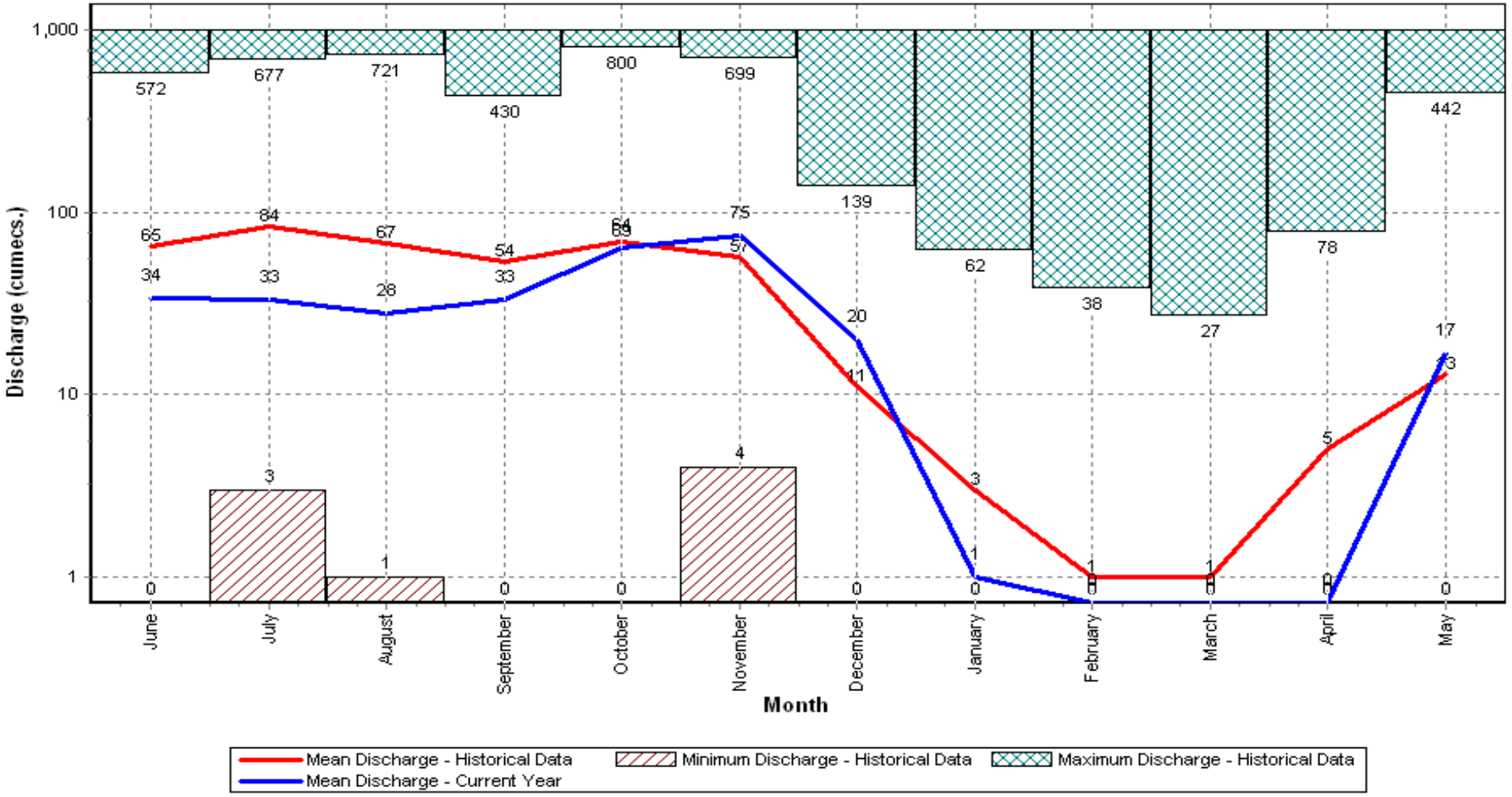
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : THUMPAMON (KYA00J4) | **Data considered : 1978-2016** | **Division : SWR Division, Kochi**

Local River : Achankovil | **Sub-Division : SWR SD No 1, Trivandrum**



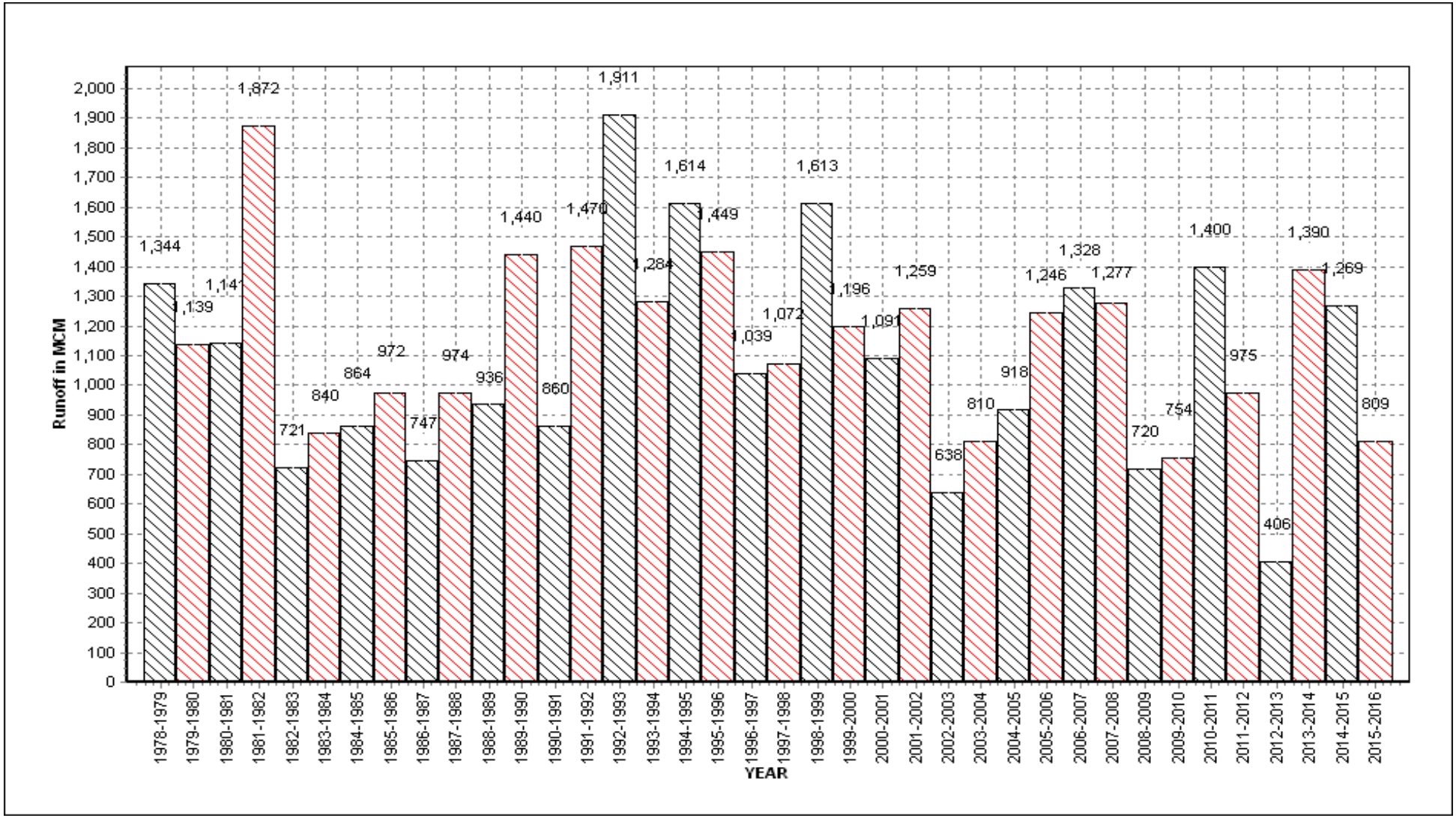
Annual Runoff Values for the period: 1978 - 2016

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Note: Missing values have not been considered while arriving at Annual Runoff

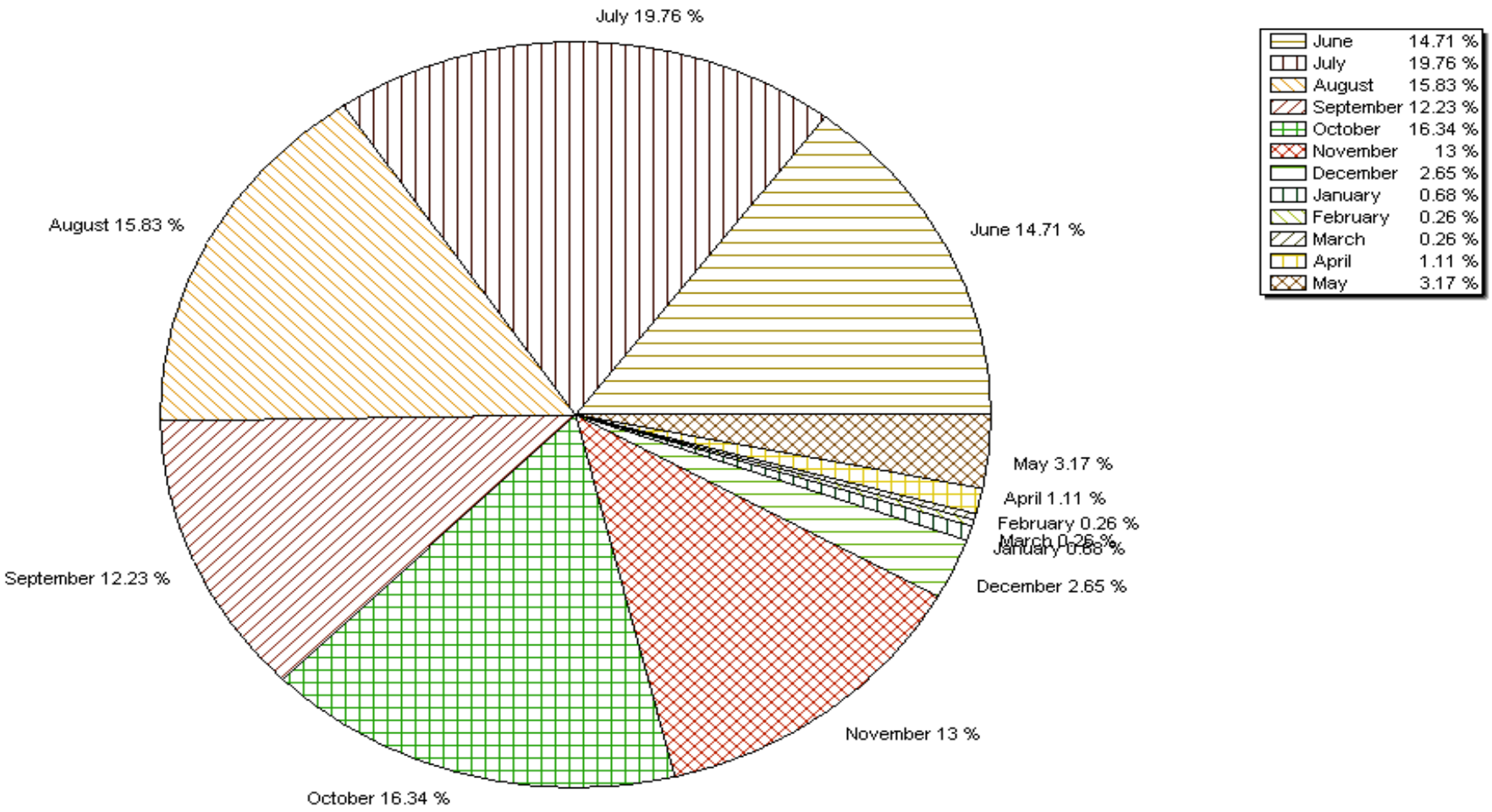
Monthly Average Runoff based on period : 1978-2015

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



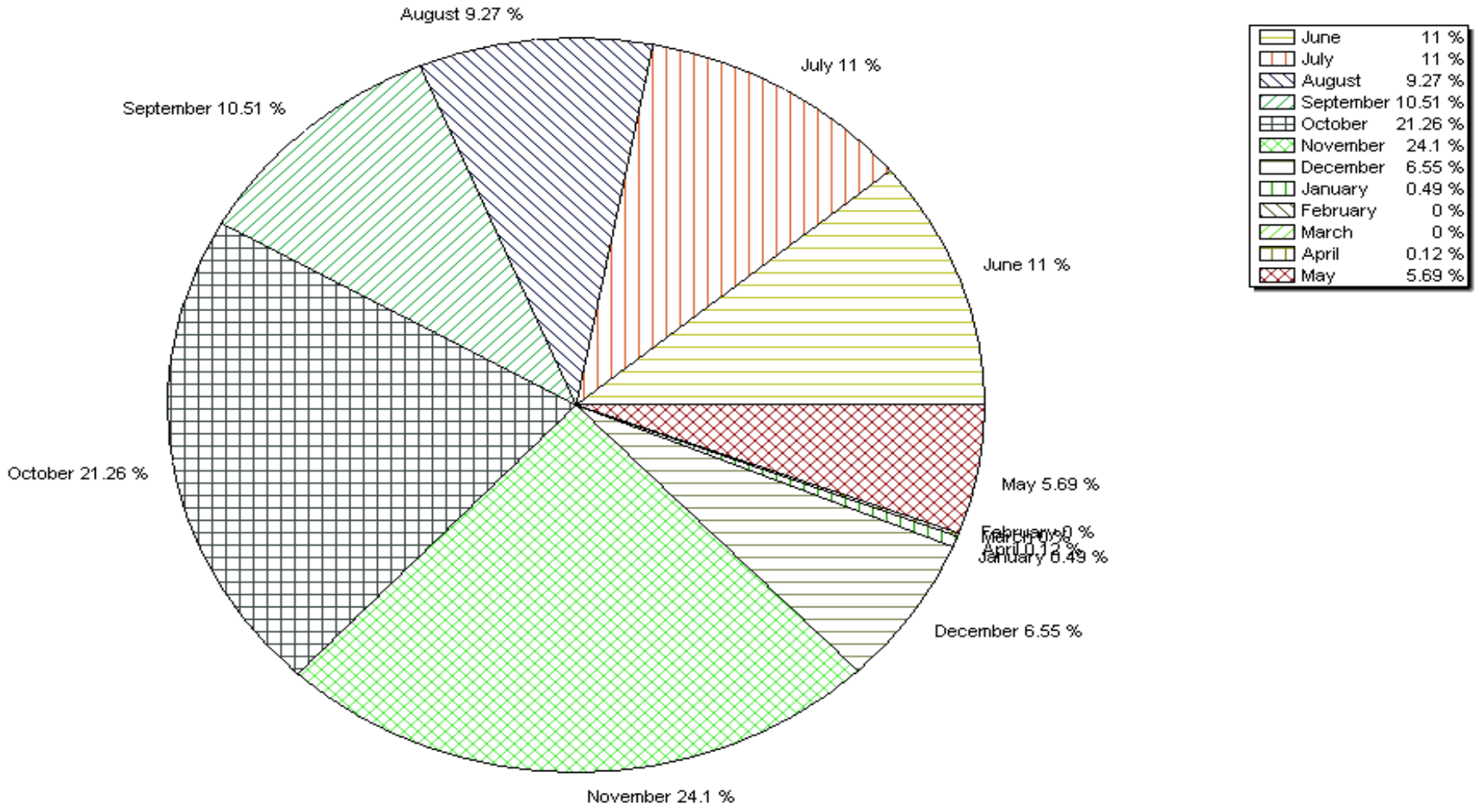
Monthly Runoff for the Year : 2015-2016

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



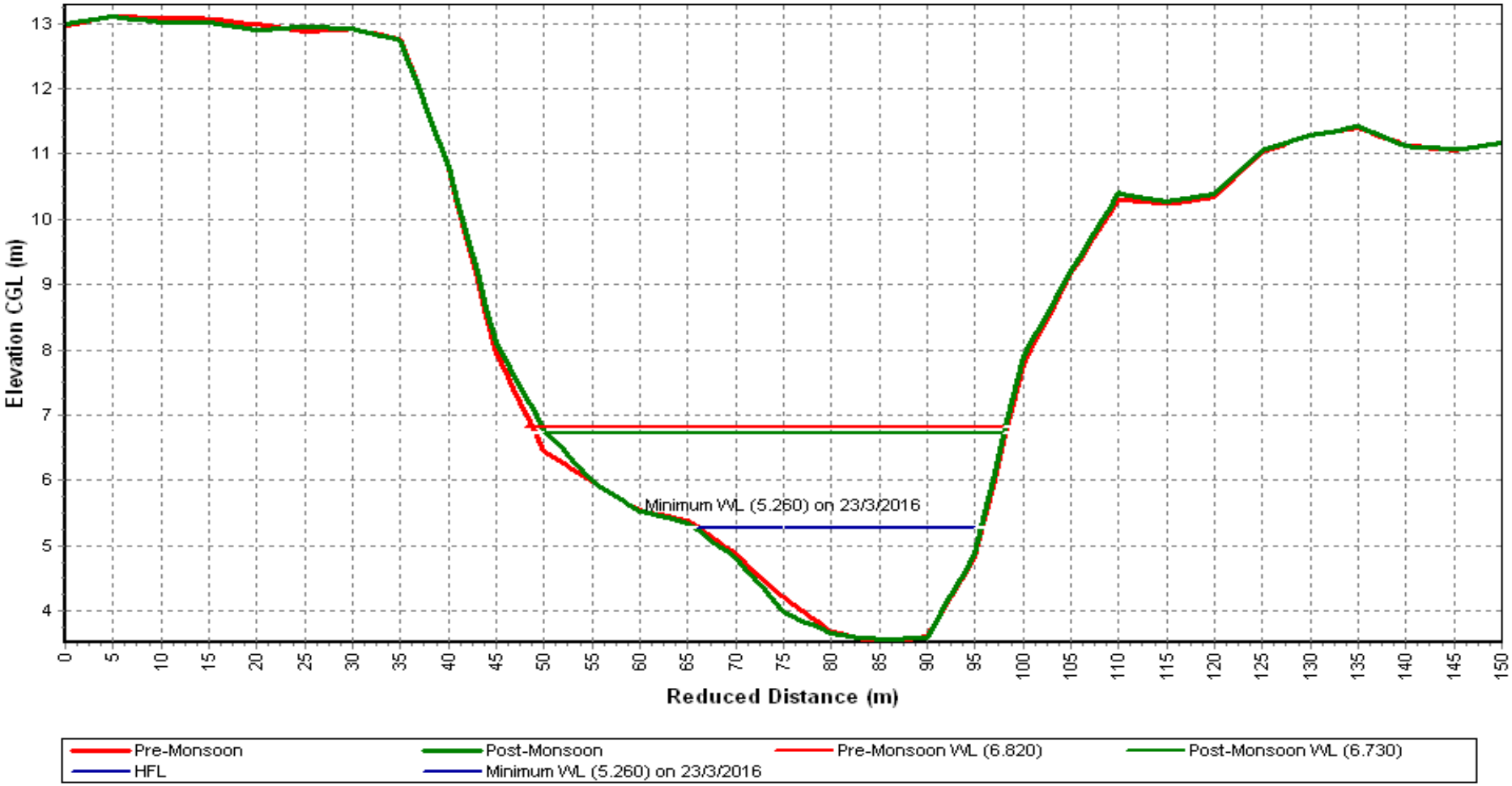
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : THUMPAMON (KYA00J4)

Division : SWR Division, Kochi

Local River : Achankovil

Sub-Division : SWR SD No 1, Trivandrum



HISTORY SHEET

Water Year : 2015-2016

Site	**: PATTAZHY**		**Code**	**: KD000G4**	
State	: Kerala		District	Quilon	
Basin	: WFR South of Tapi		Independent River	: Kallada	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Kallada	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 1, Trivandrum	
Drainage Area	: 1210 Sq. Km.		Bank	: Right	
Latitude	: 09°04'22"		Longitude	: 76°45'40"	
Zero of Gauge (m)	: 3.000 (m.s.l) -2.000 (m.s.l)		20/04/1978 01/06/2005	- 31/05/2005	
	Opening Date		Closing Date		
Gauge	: 20/04/1978				
Discharge	: 20/04/1978				
Sediment	: 25/09/1980				
Water Quality	: 15/10/1978				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1978-1979	1130	13.340	07/11/1978	0.500	3.790	08/04/1979
1979-1980	453.5	8.943	20/11/1979	0.500	3.645	30/03/1980
1980-1981	226.2	6.843	04/07/1980	1.100	3.685	29/05/1981
1981-1982	464.0	9.040	22/09/1981	0.400	3.620	22/03/1982
1982-1983	192.9	6.560	10/11/1982	0.100	3.555	14/04/1983
1983-1984	448.8	8.875	20/08/1983	0.200	3.550	09/06/1983
1984-1985	399.9	8.483	04/10/1984	0.500	3.710	12/03/1985
1985-1986	247.6	7.058	01/07/1985	0.200	3.630	23/03/1986
1986-1987	210.8	6.643	09/08/1986	0.300	3.580	15/02/1987
1987-1988	264.1	6.918	27/06/1987	0.250	3.490	03/04/1988
1988-1989	270.3	6.720	03/09/1988	0.900	3.455	19/02/1989
1989-1990	488.2	8.465	23/07/1989	0.000	3.315	27/04/1990
1990-1991	581.9	8.840	04/11/1990	1.851	3.280	23/04/1991
1991-1992	482.7	8.411	08/06/1991	1.178	3.103	16/01/1992
1992-1993	2367	13.702	15/11/1992	0.998	2.957	11/04/1993
1993-1994	345.8	7.198	17/07/1993	0.417	2.888	01/02/1994
1994-1995	850.6	11.340	03/08/1994	6.837	2.920	21/02/1995
1995-1996	246.0	5.990	31/07/1995	1.875	2.340	21/05/1996

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1996-1997	223.6	5.710	13/10/1996	1.765	2.160	17/03/1997
1997-1998	223.0	5.700	22/10/1997	2.103	2.150	05/06/1997
1998-1999	746.1	10.610	13/10/1998	4.896	2.100	02/03/1999
1999-2000	367.0	6.905	18/10/1999	1.600	1.650	23/01/2000
2000-2001	417.7	7.720	28/09/2000	1.958	1.500	29/03/2001
2001-2002	333.3	6.780	09/07/2001	2.293	1.300	12/05/2002
2002-2003	221.1	5.200	09/11/2002	3.646	1.470	10/03/2003
2003-2004	160.3	4.410	06/05/2004	3.658	1.400	06/02/2004
2004-2005	164.5	4.850	05/08/2004	3.483	1.060	25/01/2005
2005-2006	250.8	4.600	14/09/2005	1.256	1.270	22/02/2006
2006-2007	301.5	6.130	30/10/2006	2.179	1.580	19/05/2007
2007-2008	322.9	7.650	17/07/2007	0.449	1.550	06/06/2007
2008-2009	103.6	4.200	07/09/2008	4.888	1.330	11/02/2009
2009-2010	253.4	5.970	10/11/2009	2.882	1.800	05/11/2009
2010-2011	502.6	7.530	04/10/2010	8.771	1.120	25/01/2011
2011-2012	174.9	3.800	08/11/2011	6.248	1.170	28/05/2012
2012-2013	118.3	3.110	01/09/2012	0.524	0.920	17/01/2013
2013-2014	265.0	5.020	17/10/2013	3.626	1.300	12/02/2014
2014-2015	563.3	8.800	23/08/2014	1.428	1.160	19/02/2015

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	2.080	33.33	3.000	89.61	2.050	31.37	1.780	14.59	2.020	29.70	2.470	53.59 *
2	1.960	27.86	2.820	69.44	2.020	29.74 *	1.490	7.770	1.840	21.75 *	2.650	67.40
3	1.890	25.26	2.430	52.42	2.290	44.30	1.340	5.025	1.780	17.04	2.290	47.94 *
4	2.690	73.96	2.400	49.12	2.400	48.22	1.310	5.303	1.840	21.75 *	2.420	51.20
5	2.410	50.62	2.390	48.97 *	2.400	48.81	1.800	18.80	1.990	28.02	3.530	103.3
6	2.200	48.44	2.300	45.76	2.380	47.23	1.790	19.71 *	2.490	56.30	2.580	62.68
7	2.100	33.59 *	2.000	29.92	2.320	45.51	2.150	33.52	2.070	30.09	3.230	92.80
8	2.170	38.31	2.130	35.69	2.300	45.11	2.130	30.30	1.950	25.08	3.380	116.5 *
9	2.270	44.20	2.120	35.36	2.300	43.96 *	1.860	21.63	3.050	94.56	2.810	72.64
10	2.080	33.45	2.150	37.17	2.300	44.54	1.800	17.42	3.150	98.52	2.600	61.43 *
11	2.020	30.38	2.210	42.61	2.350	46.48	1.900	26.39	2.500	55.36 *	2.440	54.51
12	2.000	29.36	2.200	38.64 *	2.340	46.78	1.780	15.72	2.310	45.75	2.520	58.21
13	1.980	28.07	2.090	33.78	2.380	48.33	1.690	15.84 *	3.050	93.85	4.090	166.4
14	2.070	32.13 *	2.050	31.28	2.290	45.37	1.620	14.36	3.000	89.49	2.820	73.41
15	2.000	29.55	2.030	31.00	2.350	46.72 *	1.570	12.88	2.550	59.40	2.580	60.19 *
16	2.130	34.21	2.080	32.94	2.340	46.16 *	1.810	18.98	2.230	42.99	2.990	83.53
17	2.040	31.69	2.040	31.32	2.320	46.02	2.290	45.14	2.090	35.01	2.440	54.76
18	2.110	33.91	2.420	50.68 *	2.650	66.51	2.170	37.61	2.000	28.81 *	2.340	49.48
19	2.270	42.82	2.380	48.40 *	2.490	52.95	1.980	27.43	2.020	29.55	2.360	51.23
20	2.020	30.49	2.280	44.71	2.390	48.17	2.000	28.81 *	2.000	28.52	2.160	38.38
21	1.770	18.91 *	2.350	46.92	2.070	29.25	2.000	29.12	1.890	24.55	1.930	27.31
22	2.080	32.92	2.320	46.01	1.950	28.31	1.860	21.30	1.840	21.68	2.080	32.61 *
23	2.050	32.27	2.040	31.21	1.780	19.30 *	1.800	18.06	1.760	18.51 *	2.000	28.21
24	2.000	29.47	2.530	57.07	1.700	15.36	1.740	17.74 *	2.180	37.61 *	2.160	38.01
25	2.110	34.37	2.320	46.76	1.650	12.64	2.000	28.89	2.600	61.43 *	2.200	38.64 *
26	2.455	52.98	2.280	42.88 *	1.650	12.62	1.860	21.57	2.200	41.79	2.160	37.68
27	3.270	102.0	2.300	45.33	1.490	7.716	1.810	20.51 *	1.980	27.18	2.130	36.07
28	5.680	335.0	2.180	37.33	1.480	8.830 *	1.960	26.36	1.890	22.08	2.250	42.71
29	3.420	107.7	2.140	35.77	1.800	19.95	1.960	26.15	2.010	28.62	2.400	49.54 *
30	3.570	129.0	2.100	34.14	1.820	20.92 *	2.120	34.72	2.650	68.06	2.120	35.90
31			2.070	31.71	1.840	20.32			4.510	204.2		
Ten-Daily Mean												
I Ten-Daily	2.185	40.90	2.374	49.35	2.276	42.88	1.745	17.41	2.218	42.28	2.796	72.95
II Ten-Daily	2.064	32.26	2.178	38.54	2.390	49.35	1.881	24.32	2.375	50.87	2.674	69.01
III Ten-Daily	2.841	87.46	2.239	41.37	1.748	17.75	1.911	24.44	2.319	50.52	2.143	36.67
Monthly												
Min.	1.770	18.91	2.000	29.92	1.480	7.716	1.310	5.025	1.760	17.04	1.930	27.31
Max.	5.680	335.0	3.000	89.61	2.650	66.51	2.290	45.14	4.510	204.2	4.090	166.4
Mean	2.363	53.54	2.263	43.03	2.125	36.05	1.846	22.05	2.305	47.98	2.538	59.54

Annual Runoff in MCM = 1068 Annual Runoff in mm = 882

Peak Observed Discharge = 335.0 cumecs on 28/06/2015 Corres. Water Level :5.68 m

Lowest Observed Discharge = 0.000 cumecs on 05/02/2016 Corres. Water Level :0.84 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	2.130	34.01 *	1.800	18.13	1.350	4.440	1.390	5.934	1.600	12.03	1.440	6.919 *
2	2.100	32.39 *	1.900	25.91	1.350	4.361	1.400	6.386	1.570	11.32	1.400	5.756
3	2.170	36.23 *	1.870	21.32 *	1.350	4.420	1.370	5.581	1.540	9.546 *	1.430	7.274
4	2.700	72.52 *	1.890	25.55	1.350	4.369	1.370	5.744	1.480	8.026	1.400	5.720
5	2.200	37.94 *	1.890	25.46	0.840	0.000	1.400	5.930	1.450	6.775	1.400	5.741
6	2.170	36.23 *	1.890	25.80	0.700	0.000	1.370	5.337 *	1.430	6.337	1.440	7.082
7	2.100	31.70	1.780	17.51	1.570	10.42 *	1.400	5.989 *	1.430	6.168	1.420	6.796
8	2.450	57.88	1.570	12.30	1.370	5.935	1.430	6.593	1.400	5.897	1.500	8.443 *
9	2.480	62.31	1.360	6.140	1.370	5.963	1.400	5.909	1.480	7.913	1.620	11.99
10	2.440	55.10	1.380	5.550 *	1.300	5.066	1.600	11.79	1.540	9.546 *	1.480	7.816
11	2.420	50.57	1.360	5.786	1.450	7.194	1.660	12.12	1.480	7.892	1.770	17.25 #
12	2.450	57.22	1.350	4.412	1.420	6.510	1.780	16.27	1.450	6.939	1.920	16.76
13	2.700	72.52 *	1.350	4.568	1.540	10.91	1.600	11.33 *	1.430	6.237	1.770	17.25 #
14	2.420	51.18	1.350	4.539	1.450	7.162 *	1.540	10.88	1.420	6.445 *	2.500	57.32 #
15	2.520	59.41	1.320	4.144	1.660	13.29	1.480	7.330	1.480	7.865	2.680	70.91 *
16	2.650	69.84	1.320	4.259	1.660	13.13	1.750	15.25	1.570	11.37	2.400	50.40 *
17	2.520	59.49	1.300	3.964 *	1.660	12.85	1.480	7.317	1.460	7.410 *	2.300	31.35
18	2.420	50.66	1.470	7.578	1.370	5.911	1.470	7.136	1.340	5.083	3.780	225.1
19	2.420	54.40	1.350	4.386	1.610	11.58	1.430	6.500	1.250	3.112 #	3.000	121.5
20	2.420	51.75 *	1.350	4.458	1.370	5.877	1.430	6.680 *	1.310	4.147 *	3.000	124.7
21	2.380	51.04	1.450	7.101	1.350	4.923 *	1.430	6.478	1.320	4.670	3.000	98.77 *
22	2.380	51.07	1.350	5.046	1.320	4.464	1.430	6.486	1.480	7.913	2.170	36.23 *
23	2.350	49.42	1.350	5.224	1.320	3.998	1.540	10.84	1.460	7.580	2.750	76.63
24	2.350	47.12 *	1.320	4.335 *	1.320	4.835	1.450	7.068	1.440	6.919 *	3.050	115.8
25	2.350	47.12 *	1.280	3.204	1.310	4.429	1.440	6.919 *	1.420	6.833	3.380	119.5
26	2.350	48.81	1.270	3.440 *	1.340	5.170	1.430	6.460	1.420	6.860	3.300	110.6
27	2.350	47.12 *	1.260	2.417	1.340	5.075	1.420	6.445 *	1.420	6.881	3.120	93.68
28	2.280	43.40	1.250	2.326	1.330	4.527 *	1.430	6.451	1.430	7.088	3.150	94.80
29	2.160	38.47	1.350	4.450	1.350	5.340	1.480	8.053	1.420	6.823	3.250	123.8 *
30	2.260	40.59	1.350	4.420			1.660	13.05	1.480	7.822	3.200	92.68
31	2.290	42.35	1.340	4.723 *			1.480	7.731			3.450	122.3
Ten-Daily Mean												
I Ten-Daily	2.294	45.63	1.733	18.37	1.255	4.497	1.413	6.519	1.492	8.356	1.453	7.354
II Ten-Daily	2.494	57.70	1.352	4.809	1.519	9.441	1.562	10.08	1.419	6.650	2.512	73.26
III Ten-Daily	2.318	46.05	1.325	4.244	1.331	4.751	1.472	7.816	1.429	6.939	3.075	98.62
Monthly												
Min.	2.100	31.70	1.250	2.326	0.700	0.000	1.370	5.337	1.250	3.112	1.400	5.720
Max.	2.700	72.52	1.900	25.91	1.660	13.29	1.780	16.27	1.600	12.03	3.780	225.1
Mean	2.367	49.67	1.465	8.983	1.370	6.281	1.482	8.128	1.447	7.315	2.370	61

Peak Computed Discharge = 123.8 cumecs on 29/05/2016 **Corres. Water Level :3.25 m**

Lowest Computed Discharge = 3.440 cumecs on 26/01/2016 **Corres. Water Level :1.27 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

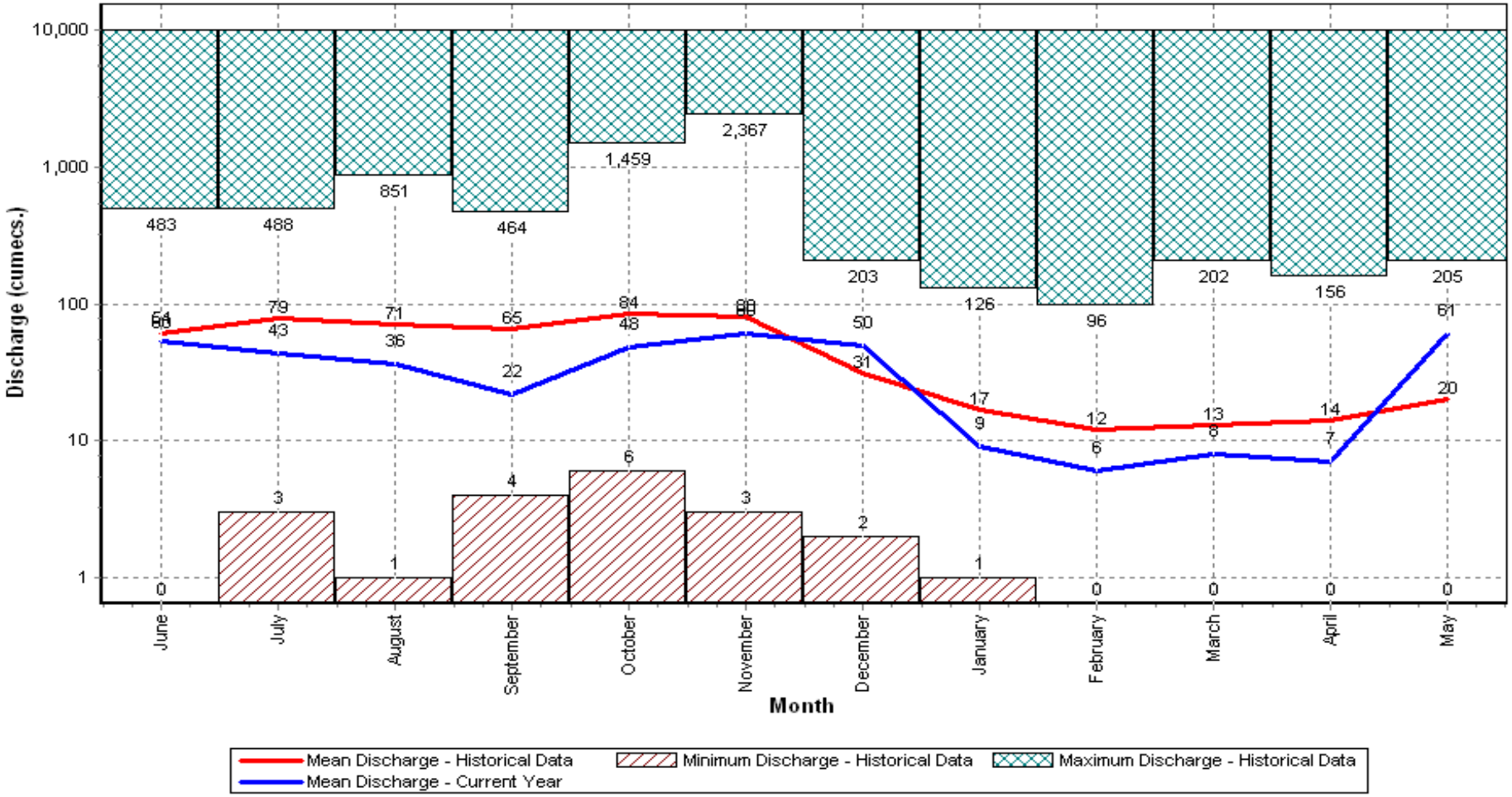
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : PATTAZHY (KD000G4) | **Data considered : 1978-2016** | **Division : SWR Division, Kochi**

Local River : Kallada | **Sub-Division : SWR SD No 1, Trivandrum**



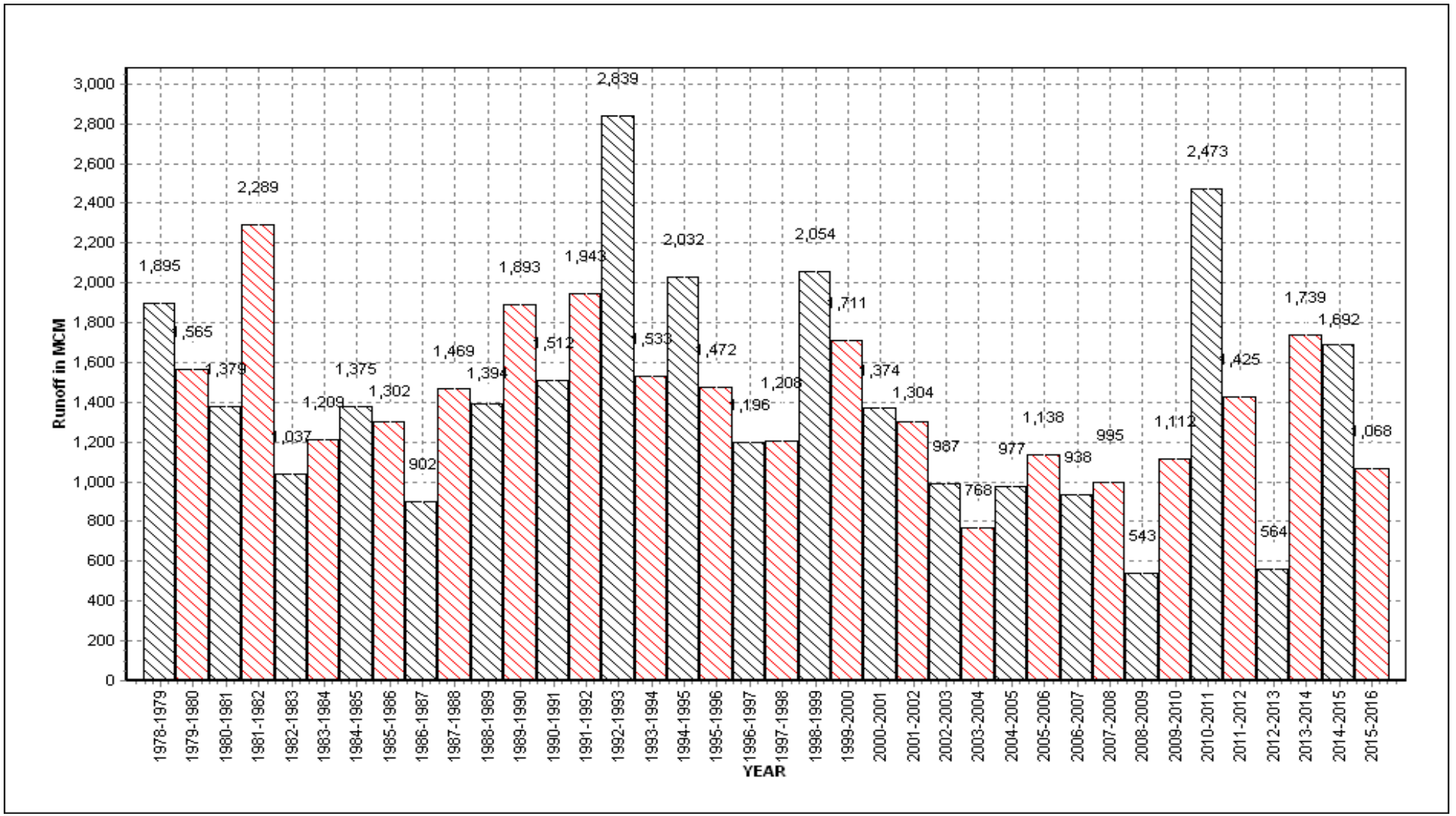
Annual Runoff Values for the period: 1978 - 2016

Station Name : PATTAZHY (KD000G4)

Local River : Kallada

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Note: Missing values have not been considered while arriving at Annual Runoff

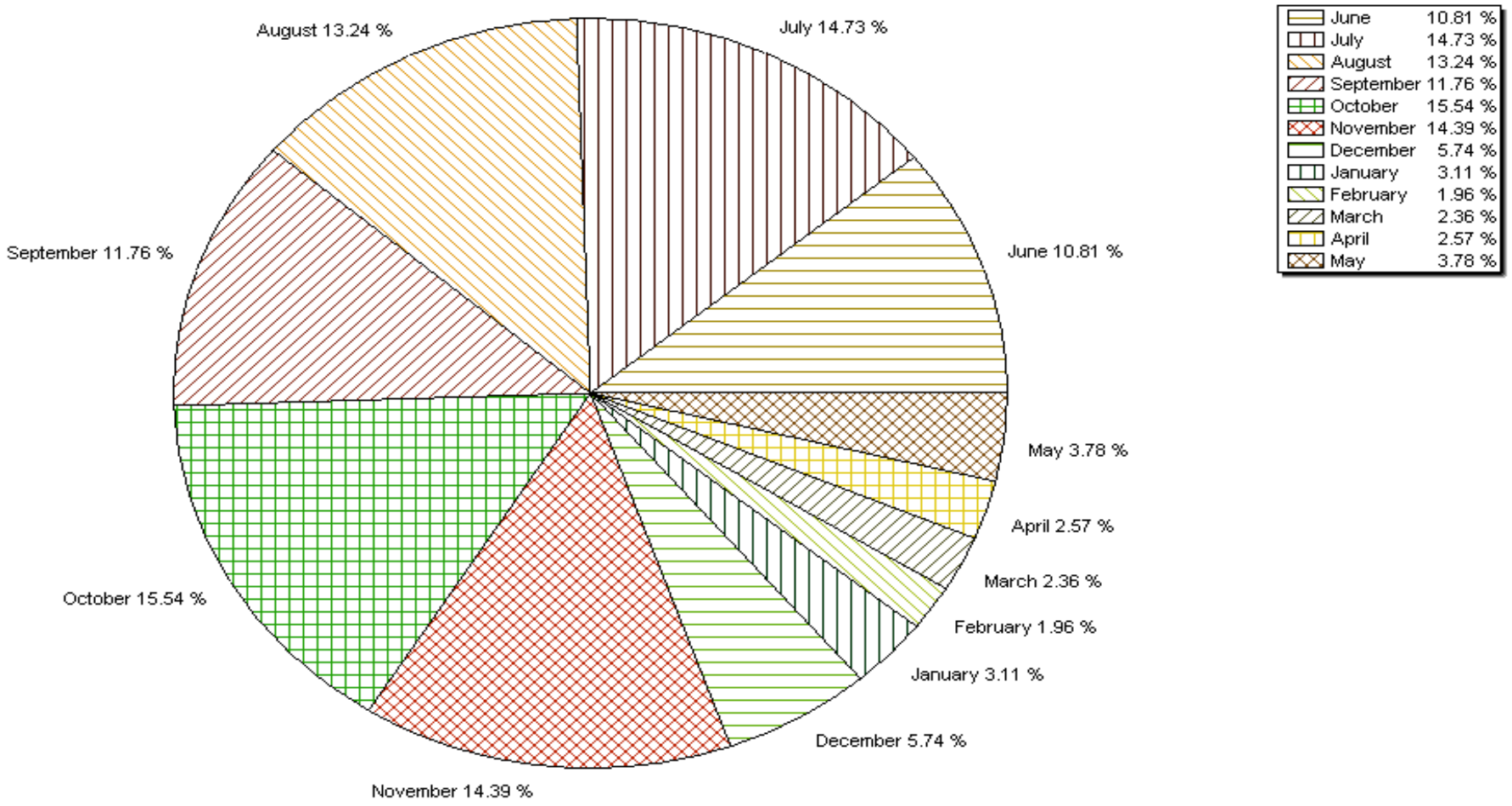
Monthly Average Runoff based on period : 1978-2015

Station Name : PATTAZHY (KD000G4)

Local River : Kallada

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



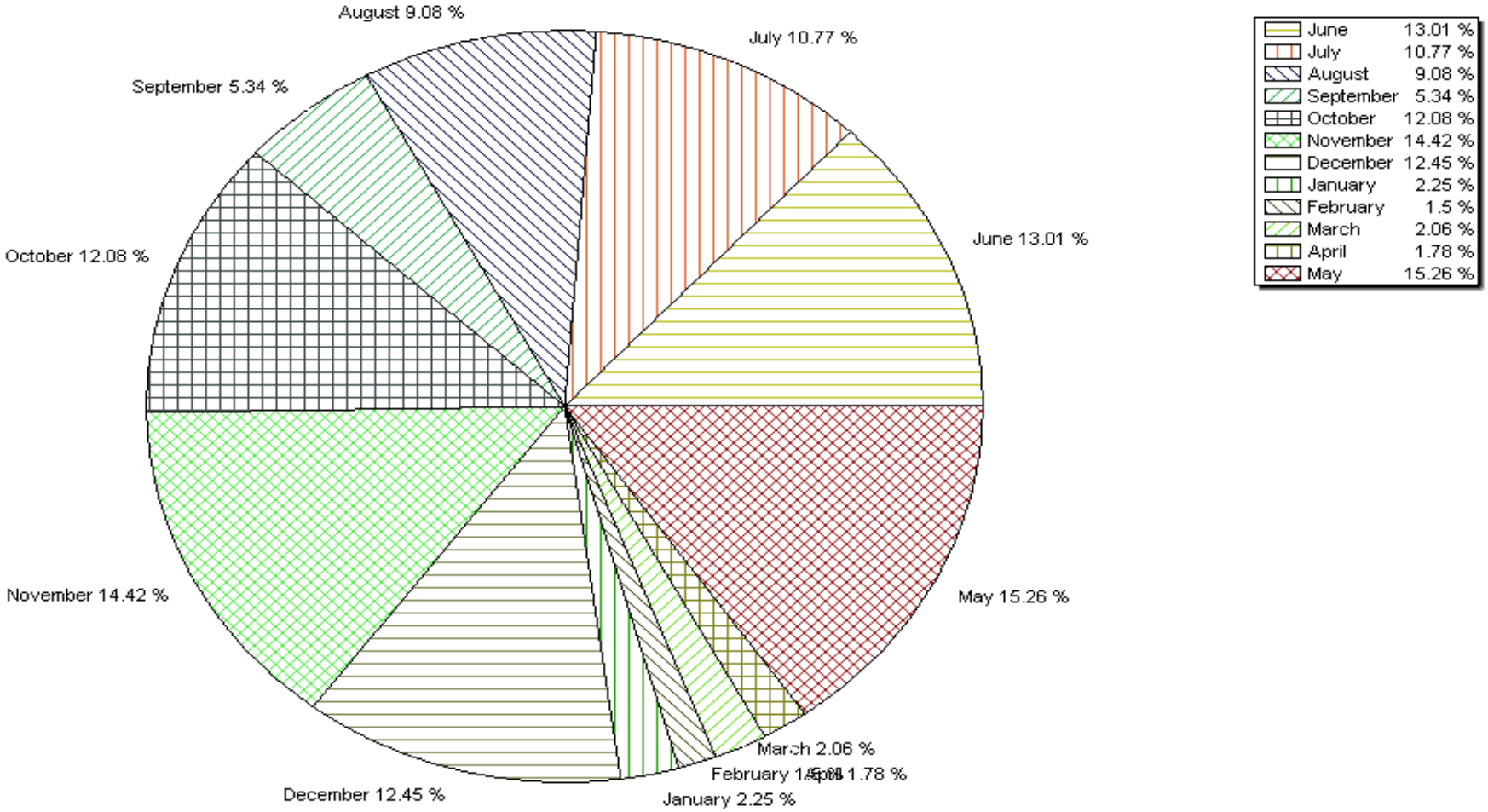
Monthly Runoff for the Year : 2015-2016

Station Name : PATTAZHY (KD000G4)

Local River : Kallada

Division : SWR Division, Kochi

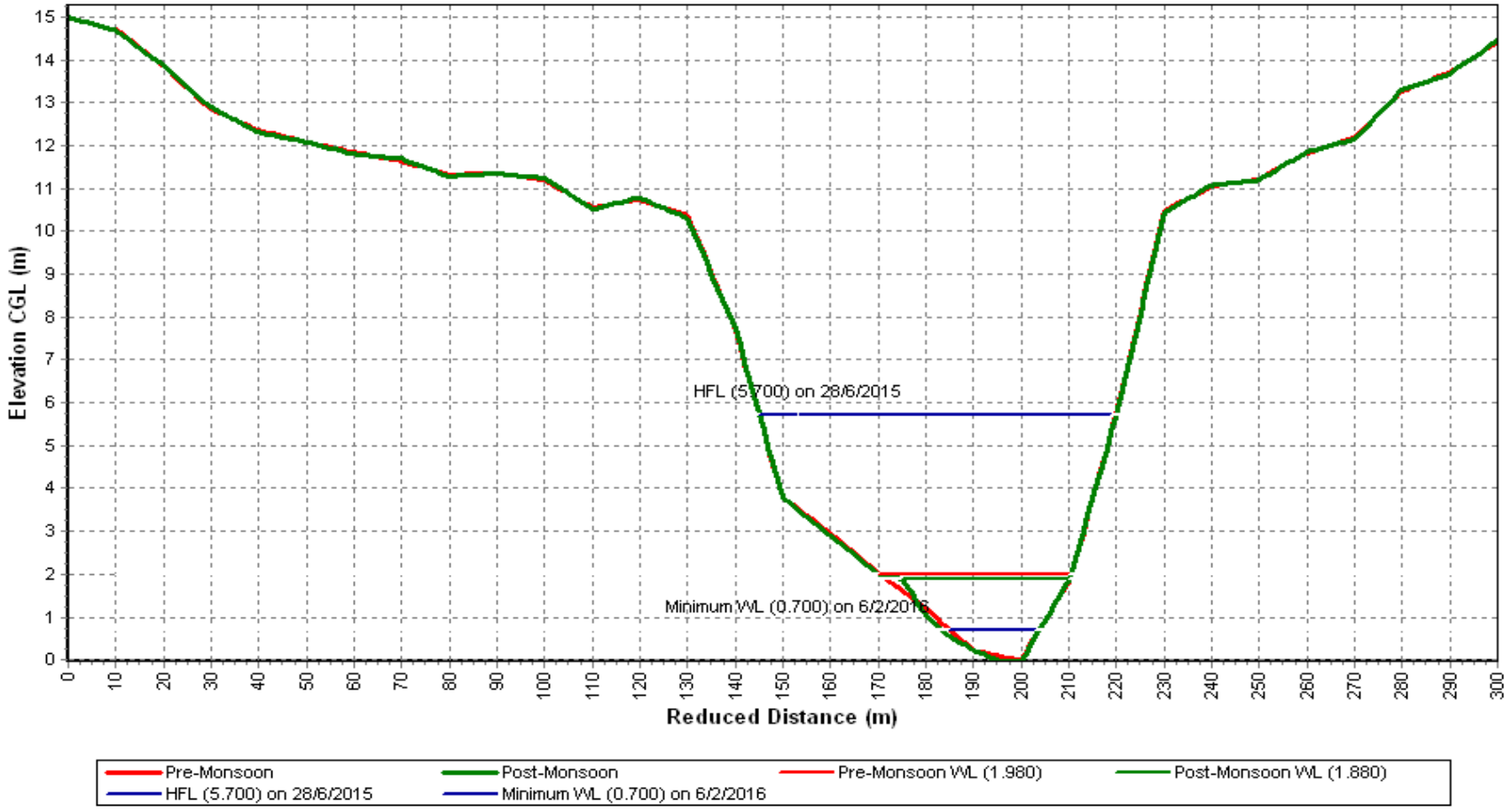
Sub-Division : SWR SD No 1, Trivandrum



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : PATTAZHY (KD000G4)
Local River : Kallada

Division : SWR Division, Kochi
Sub-Division : SWR SD No 1, Trivandrum



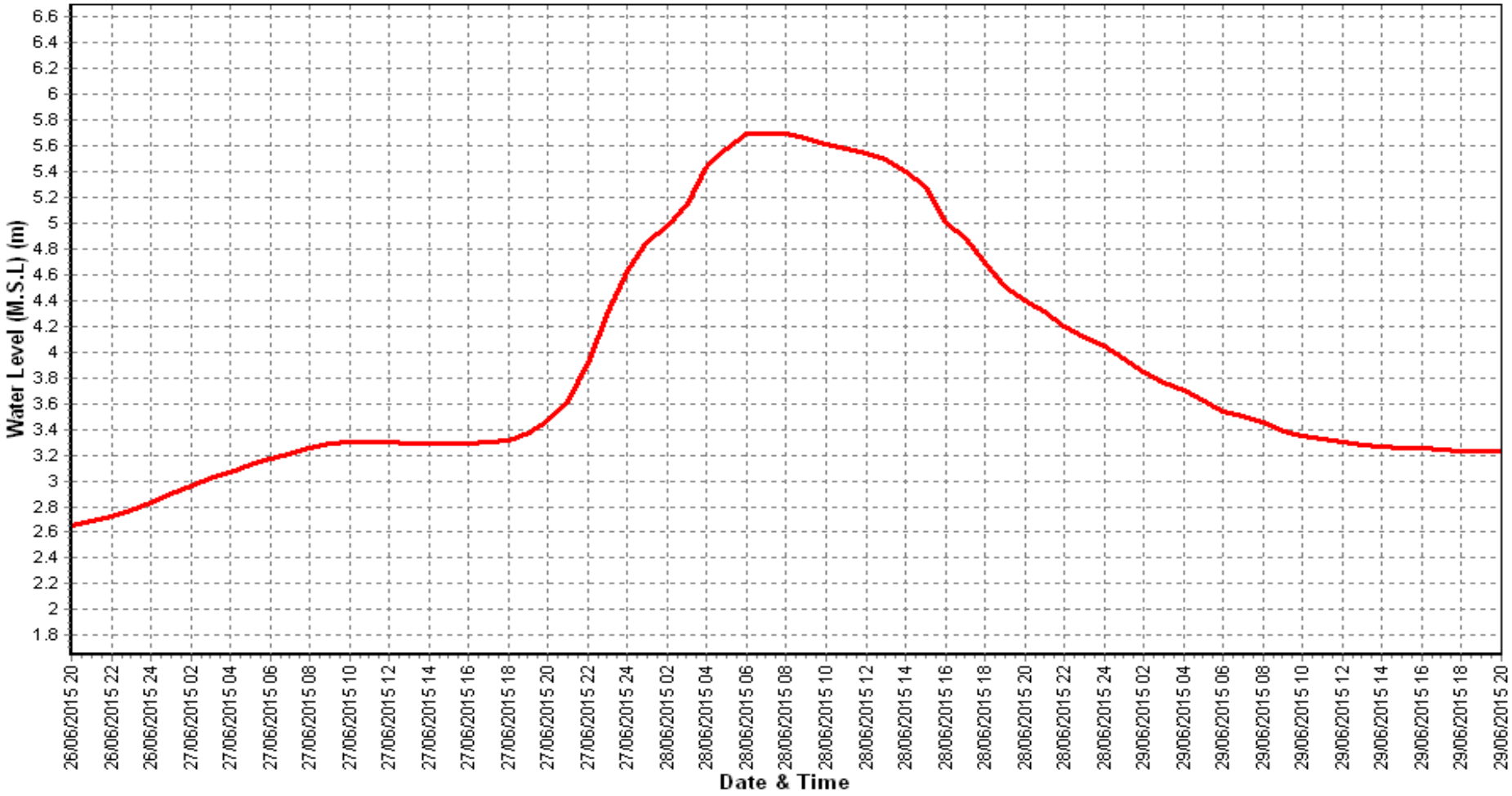
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : PATTAZHY (KD000G4)

Local River : Kallada

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

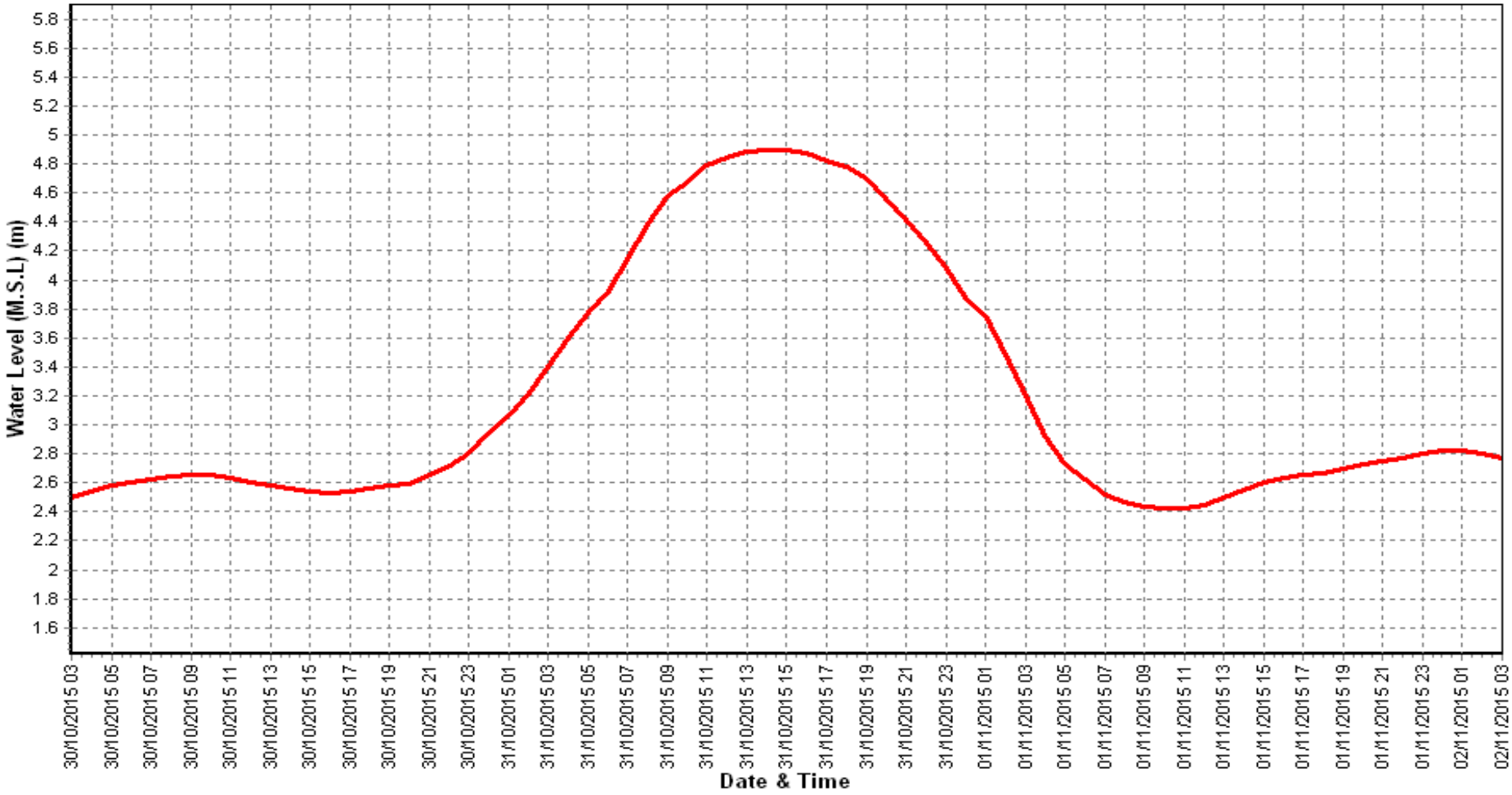
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : PATTAZHY (KD000G4)

Division : SWR Division, Kochi

Local River : Kallada

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

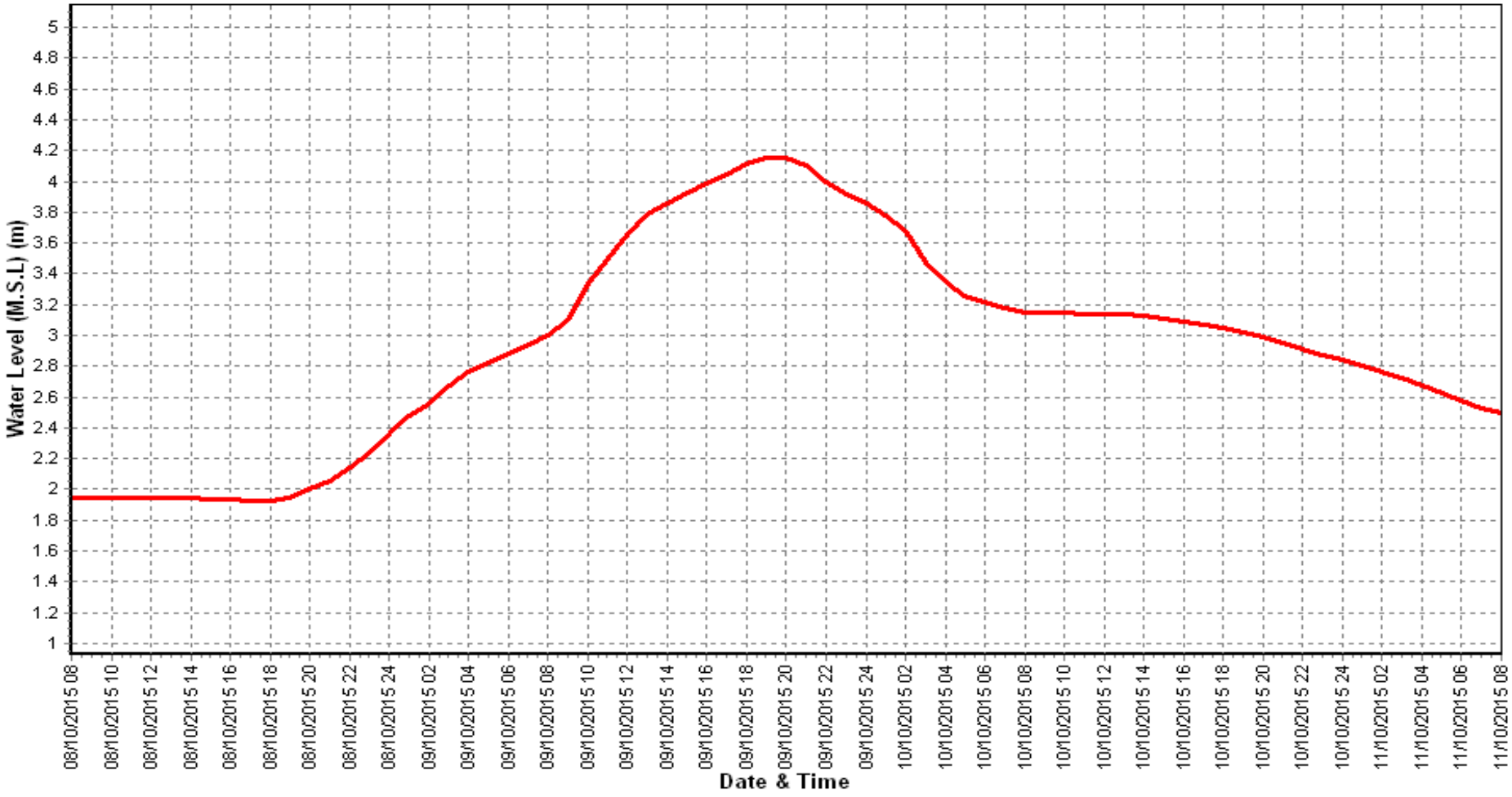
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : PATTAZHY (KD000G4)

Division : SWR Division, Kochi

Local River : Kallada

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	**: AYILAM**		**Code**	**: KV000G3**	
State	: Kerala		District	Thiruvananthapuram	
Basin	: WFR South of Tapi		Independent River	: Vamanapuram	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Vamanapuram	
Division	: SWR Division, Kochi		Sub-Division	: SWR SD No 1, Trivandrum	
Drainage Area	: 540 Sq. Km.		Bank	: Left	
Latitude	: 08°42'54"		Longitude	: 76°51'00"	
Zero of Gauge (m)	: 0.000 (m.s.l)		01/06/1978		
	Opening Date		Closing Date		
Gauge	: 01/06/1978				
Discharge	: 18/12/1978				
Sediment	: 26/12/1978				
Water Quality	: 02/01/1979				

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1979-1980	169.9	4.878	17/11/1979	0.300	1.260	25/03/1980
1980-1981	227.1	5.633	17/11/1980	0.500	0.725	29/05/1981
1981-1982	268.5	5.735	05/06/1981	0.000	0.300	02/03/1982
1982-1983	196.3	4.570	09/06/1982	0.000	0.050	14/01/1983
1983-1984	93.50	2.653	23/09/1983	0.000	0.930	01/06/1983
1984-1985	298.5	5.490	03/10/1984	0.000	0.370	11/03/1985
1985-1986	141.1	3.915	24/06/1985	0.000	0.790	24/02/1986
1986-1987	185.3	4.298	08/08/1986	0.000	0.410	09/01/1987
1987-1988	138.5	3.700	24/09/1987	0.000	0.870	16/03/1988
1988-1989	165.5	4.070	03/09/1988	0.000	0.625	21/01/1989
1989-1990	213.6	4.335	22/07/1989	0.000	0.330	01/02/1990
1990-1991	305.4	6.275	04/11/1990	0.000	0.380	02/02/1991
1991-1992	251.3	5.522	08/06/1991	1.137	0.283	28/05/1992
1992-1993	974.8	10.367	10/10/1992	0.301	0.230	26/01/1993
1993-1994	365.1	6.204	11/11/1993	0.242	0.353	08/02/1994
1994-1995	340.7	6.945	03/08/1994	0.000	0.490	25/01/1995
1995-1996	116.5	3.245	31/07/1995	0.000	0.490	06/01/1996
1996-1997	506.3	7.095	18/10/1996	0.000	0.400	10/01/1997
1997-1998	326.3	5.700	16/09/1997	0.000	0.370	01/06/1997

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1998-1999	500.3	8.310	12/10/1998	0.000	0.440	26/02/1999
1999-2000	272.5	5.500	17/10/1999	0.600	0.300	17/04/2000
2000-2001	341.4	5.432	26/08/2000	0.000	0.805	01/06/2000
2001-2002	360.1	5.852	09/07/2001	0.000	0.480	16/01/2002
2002-2003	204.0	3.840	09/11/2002	0.000	0.360	16/01/2003
2003-2004	207.7	3.975	07/10/2003	0.000	0.730	01/06/2003
2004-2005	220.7	4.105	30/05/2005	0.000	0.690	15/01/2005
2005-2006	296.2	5.193	12/12/2005	0.000	0.560	01/02/2006
2006-2007	287.2	4.920	30/10/2006	0.000	0.250	17/01/2007
2007-2008	323.3	5.243	17/07/2007	0.000	0.360	03/01/2008
2008-2009	223.1	4.100	25/10/2008	0.000	0.520	01/06/2008
2009-2010	331.4	5.480	02/10/2009	0.000	0.490	01/06/2009
2010-2011	522.0	8.030	04/10/2010	0.000	0.700	30/01/2011
2011-2012	252.3	4.785	31/12/2011	0.000	1.050	01/06/2011
2012-2013	33.59	2.470	21/10/2012	0.000	1.200	01/06/2012
2013-2014	163.9	3.100	20/10/2013	0.000	1.235	01/06/2013
2014-2015	399.1	7.310	23/08/2014	0.000	1.250	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	1.655	16.30	2.050	32.72 #	1.500	10.97	1.330	0.000	2.060	41.29	3.100	83.53
2	1.530	8.184 #	1.865	31.90	1.510	12.12 *	1.330	0.000	1.890	25.88 *	2.390	49.09 *
3	1.430	4.535	1.780	21.52 #	1.460	10.26	1.320	0.000	1.770	22.21	2.300	40.79
4	1.960	35.81	1.635	16.98	1.420	7.948	1.300	0.000	1.870	25.07 *	2.240	36.65
5	1.645	16.51	1.540	13.07 *	1.420	7.730	1.800	22.29 #	1.765	22.39	4.060	134.4
6	1.530	8.184 #	1.600	12.06	1.530	12.39	3.310	104.2 *	1.755	21.57	2.495	50.79
7	1.510	7.269 *	1.610	15.69	1.420	7.638	2.310	50.89	1.700	19.82	2.440	49.28
8	1.440	4.223	1.520	11.99	1.385	0.000	2.045	40.76	1.600	15.52	2.430	51.17 *
9	1.675	17.06	1.515	11.84	1.380	0.000	1.935	30.32	4.170	148.9	3.570	98.43
10	1.520	7.720 #	1.545	11.56	1.410	9.159 #	1.970	34.39	3.325	96.34	2.800	71.83 *
11	1.450	4.277	1.615	15.24	1.400	8.880 #	1.890	29.95	2.500	54.88 *	2.345	41.99
12	1.380	0.000	1.730	19.64 *	1.400	8.880 #	2.130	41.93	2.230	40.86	2.245	37.73
13	1.350	0.000	1.530	10.44	1.400	8.880 #	1.880	25.47 *	3.095	84.39	2.460	49.53
14	1.350	0.000	1.510	9.953	1.380	6.627	1.720	21.16	2.440	50.53	2.305	41.31
15	1.430	4.108	1.515	10.01	1.400	8.880 *	1.600	15.13	2.095	40.32	2.210	40.13 *
16	1.410	4.007	1.483	9.734	1.520	12.44 *	1.860	29.51	2.050	37.32	2.115	33.83
17	1.480	5.405	1.480	10.88	1.370	0.000	2.010	39.17	1.905	27.78	2.050	31.08
18	1.440	4.043	1.720	19.27 *	1.840	23.86 #	2.025	39.84	1.790	21.90 *	1.880	27.77
19	1.600	15.35	1.590	14.70 *	1.840	23.86 #	1.885	30.16	1.790	22.32	2.240	36.84
20	1.540	11.16	1.600	15.67	1.550	12.89	1.860	24.66 *	1.900	28.26	1.950	29.96
21	1.550	13.39 *	1.520	12.02	1.520	12.02	1.840	27.78	1.675	19.91	1.900	28.73
22	1.520	11.39	1.555	13.34	1.510	10.89	1.735	21.45	1.650	18.85	1.830	23.47 *
23	1.520	11.44	1.540	12.68	1.480	11.20 *	1.650	17.26	1.670	17.46 *	1.750	22.43
24	1.505	9.820	2.965	71.61	1.400	8.880 #	1.690	18.18 *	2.130	36.36 *	1.820	24.07
25	1.550	11.71	2.080	41.66	1.370	0.000	1.950	34.20	1.790	21.90 *	1.760	20.76 *
26	1.865	31.08	1.700	18.54 *	1.350	0.000	1.750	21.67	1.870	26.93	1.670	20.49
27	2.790	62.15	1.690	17.26	1.340	0.000	1.770	21.14 *	1.750	22.43	1.610	18.62
28	5.710	307.6 *	1.600	14.90	1.340	0.000	1.800	22.29 #	1.650	18.84	1.900	28.90
29	2.790	64.31	1.545	12.75	1.340	0.000	1.850	28.93	1.750	22.59	1.800	22.29 *
30	2.400	53.11	1.530	12.43	1.340	0.000	2.540	52.81	2.825	63.06	1.700	21.47
31			1.510	11.66	1.330	0.000			4.225	148.5		
Ten-Daily Mean												
I Ten-Daily	1.589	12.58	1.666	17.93	1.444	7.823	1.865	28.29	2.190	43.90	2.782	66.60
II Ten-Daily	1.443	4.835	1.577	13.55	1.510	11.52	1.886	29.70	2.180	40.86	2.180	37.02
III Ten-Daily	2.320	57.60	1.749	21.71	1.393	3.908	1.858	26.57	2.090	37.89	1.774	23.12
Monthly												
Min.	1.350	0.000	1.480	9.734	1.330	0.000	1.300	0.000	1.600	15.52	1.610	18.62
Max.	5.710	307.6	2.965	71.61	1.840	23.86	3.310	104.2	4.225	148.9	4.060	134.4
Mean	1.784	25.01	1.667	17.86	1.447	7.626	1.869	28.18	2.151	40.79	2.245	42.25

Annual Runoff in MCM = 507 Annual Runoff in mm = 938

Peak Observed Discharge = 148.9 cumecs on 09/10/2015 Corres. Water Level :4.17 m

Lowest Observed Discharge = 0.000 cumecs on 12/06/2015 Corres. Water Level :1.38 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.710	19.46 *	1.370	0.000	1.230	0.000	1.180	0.000	0.850	0.000	0.750	0.000
2	1.650	17.06 *	1.370	0.000	1.230	0.000	1.180	0.000	0.800	0.000	0.700	0.000
3	2.000	32.54 *	1.380	0.000	1.230	0.000	1.180	0.000	0.750	0.000	0.650	0.000
4	2.100	37.58 *	1.380	0.000	1.240	0.000	1.180	0.000	0.710	0.000	0.630	0.000
5	1.750	21.13 *	1.380	0.000	1.230	0.000	1.170	0.000	0.650	0.000	0.580	0.000
6	1.700	19.06 *	1.380	0.000	1.230	0.000	1.170	0.000	0.610	0.000	0.500	0.000
7	1.750	21.13 *	1.380	0.000	1.230	0.000	1.170	0.000	0.550	0.000	0.460	0.000
8	1.750	22.62	1.398	7.586	1.230	0.000	1.170	0.000	0.530	0.000	0.440	0.000
9	1.800	24.22	1.400	7.771	1.230	0.000	1.170	0.000	0.540	0.000	0.400	0.000
10	1.650	20.99	1.370	0.000	1.230	0.000	1.160	0.000	0.540	0.000	0.330	0.000
11	1.650	20.72	1.320	0.000	1.280	0.000	1.160	0.000	0.540	0.000	0.330	0.000
12	1.640	20.36	1.330	0.000	1.280	0.000	1.160	0.000	0.530	0.000	0.330	0.000
13	1.620	15.90 *	1.330	0.000	1.230	0.000	1.160	0.000	0.530	0.000	1.200	0.000
14	1.650	20.99	1.320	0.000	1.230	0.000	1.180	0.000	0.530	0.000	1.200	0.000
15	2.200	36.92	1.330	0.000	1.230	0.000	1.180	0.000	0.570	0.000	1.220	0.000
16	2.200	37.08	1.330	0.000	1.220	0.000	1.180	0.000	0.630	0.000	1.250	0.000
17	1.800	24.00	1.330	0.000	1.220	0.000	1.170	0.000	0.600	0.000	1.290	0.000
18	1.700	21.57	1.320	0.000	1.220	0.000	1.170	0.000	0.550	0.000	1.950	35.41
19	1.670	21.14	1.300	0.000	1.220	0.000	1.170	0.000	0.600	0.000	1.750	22.38
20	1.650	17.06 *	1.300	0.000	1.210	0.000	1.170	0.000	0.640	0.000	2.930	64.30
21	1.580	15.07	1.310	0.000	1.210	0.000	1.170	0.000	0.700	0.000	2.600	66.26 *
22	1.570	14.24	1.270	0.000	1.200	0.000	1.170	0.000	0.830	0.000	2.000	32.54 *
23	1.560	13.26	1.260	0.000	1.200	0.000	1.170	0.000	0.880	0.000	1.450	11.13
24	1.520	12.25 *	1.250	0.000	1.200	0.000	1.160	0.000	0.910	0.000	1.400	7.694
25	1.520	12.25 *	1.260	0.000	1.200	0.000	1.160	0.000	0.940	0.000	1.410	7.791
26	1.500	11.44	1.260	0.000	1.190	0.000	1.160	0.000	0.930	0.000	1.940	31.23
27	1.500	11.56 *	1.250	0.000	1.190	0.000	1.160	0.000	0.930	0.000	1.520	13.58
28	1.450	8.503	1.250	0.000	1.180	0.000	1.160	0.000	0.920	0.000	1.550	14.05
29	1.460	8.513	1.260	0.000	1.180	0.000	1.050	0.000	0.850	0.000	1.520	12.25 *
30	1.480	8.758	1.240	0.000			0.950	0.000	0.800	0.000	1.420	7.927
31	1.430	6.918	1.240	0.000			0.870	0.000			1.450	10.90
Ten-Daily Mean												
I Ten-Daily	1.786	23.58	1.381	1.536	1.231	0.000	1.173	0.000	0.653	0.000	0.544	0.000
II Ten-Daily	1.778	23.57	1.321	0.000	1.234	0.000	1.170	0.000	0.572	0.000	1.345	12.21
III Ten-Daily	1.506	11.16	1.259	0.000	1.194	0.000	1.107	0.000	0.869	0.000	1.660	19.58
Monthly												
Min.	1.430	6.918	1.240	0.000	1.180	0.000	0.870	0.000	0.530	0.000	0.330	0.000
Max.	2.200	37.58	1.400	7.771	1.280	0.000	1.180	0.000	0.940	0.000	2.930	66.26
Mean	1.684	19.17	1.318	0.495	1.221	0	1.149	0	0.698	0	1.198	10.89

Peak Computed Discharge = 307.6 cumecs on 28/06/2015 **Corres. Water Level :5.71 m**

Lowest Computed Discharge = 7.269 cumecs on 07/06/2015 **Corres. Water Level :1.51 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

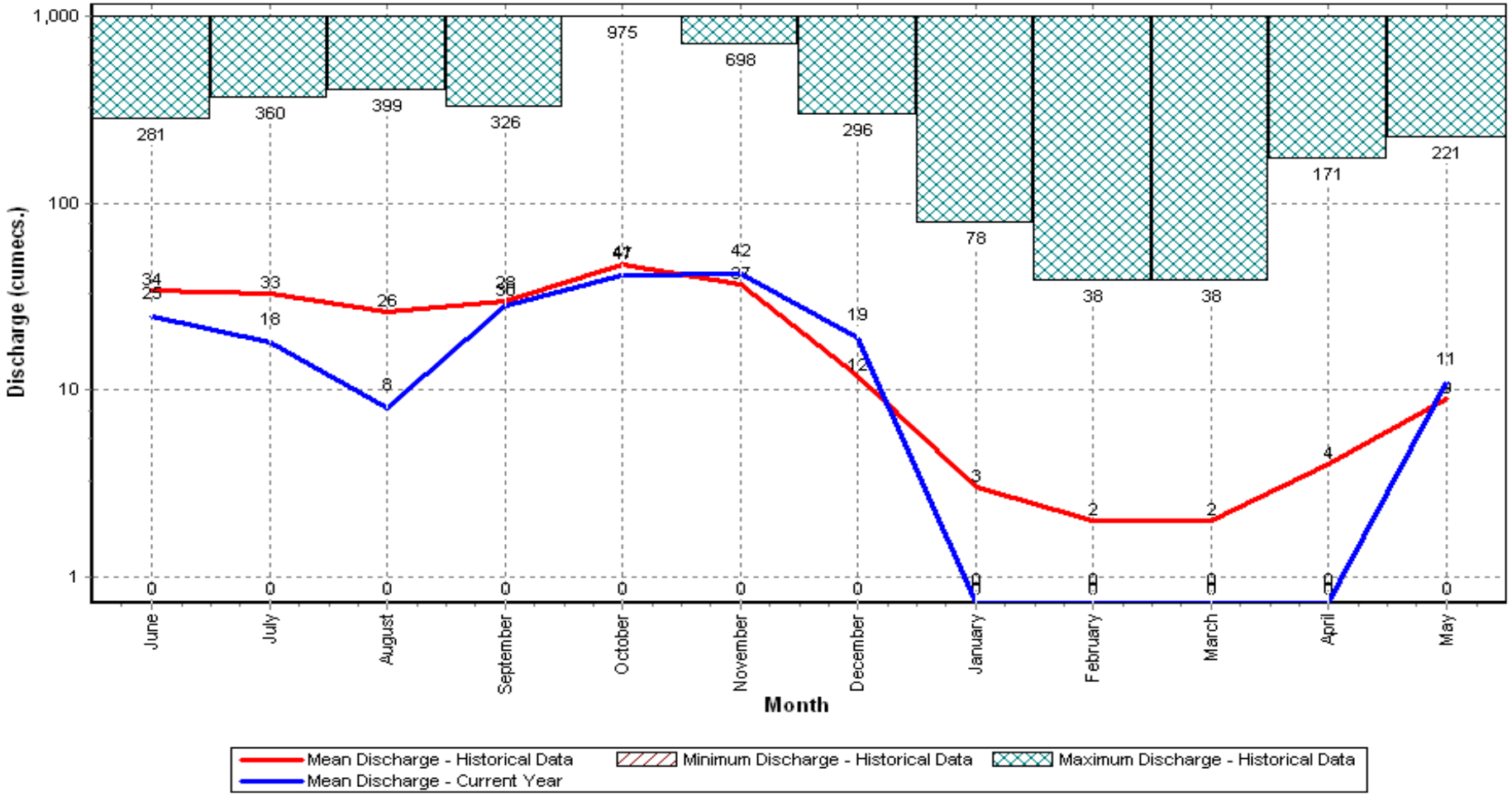
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : AYILAM (KV000G3) | **Data considered : 1979-2016** | **Division : SWR Division, Kochi**

Local River : Vamanapuram | **Sub-Division : SWR SD No 1, Trivandrum**



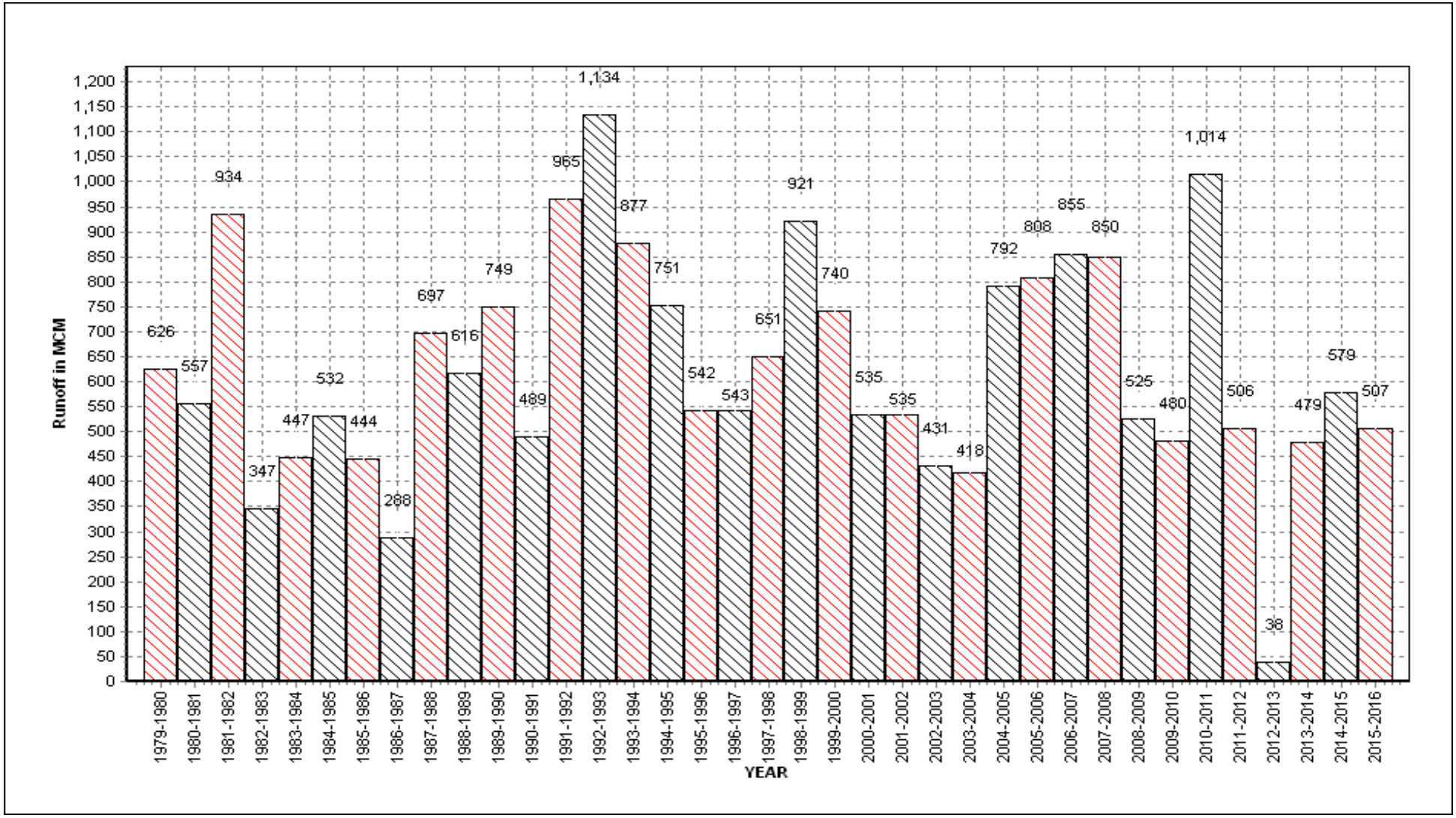
Annual Runoff Values for the period: 1979 - 2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum

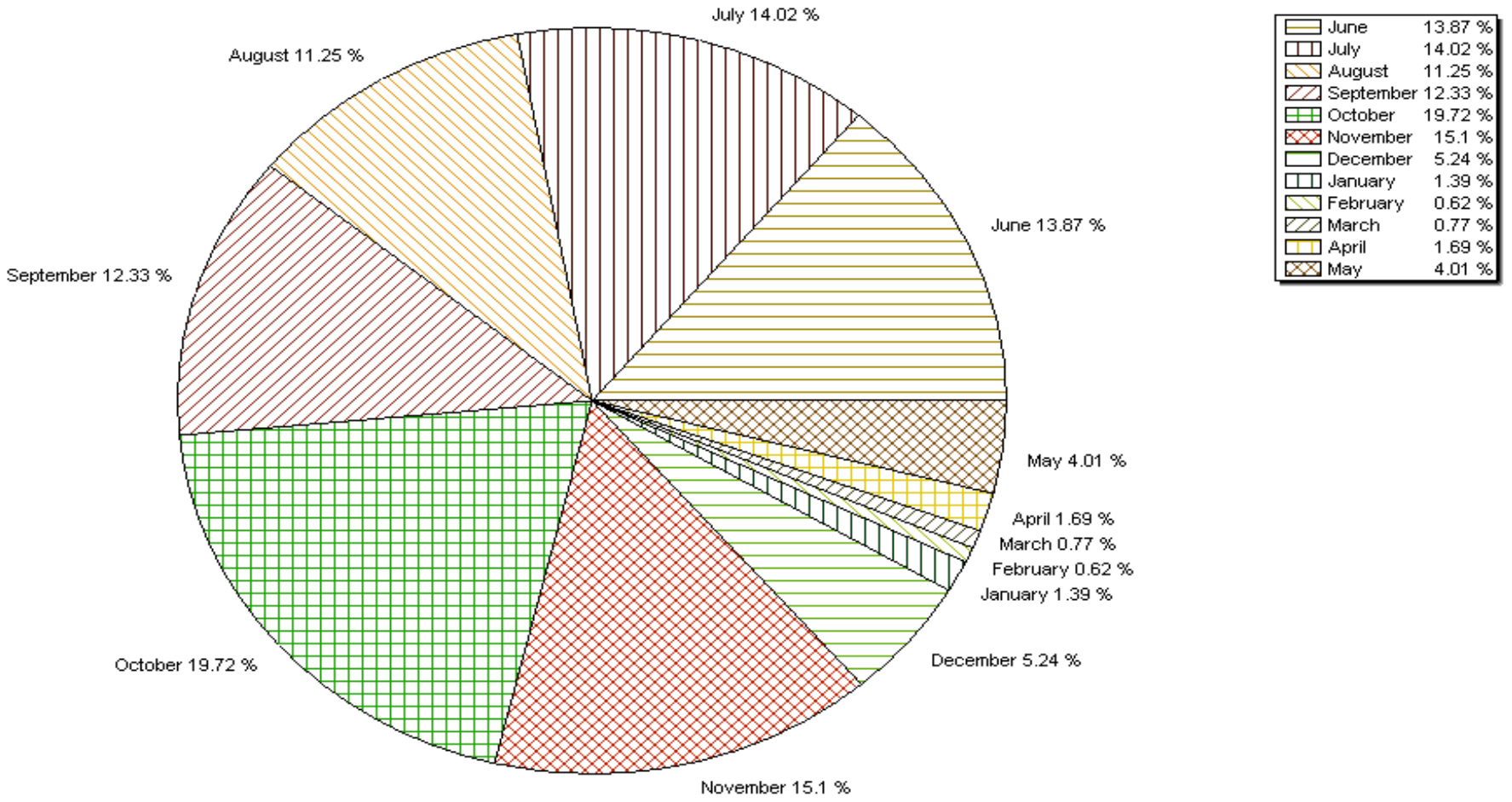


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1979-2015

Station Name : AYILAM (KV000G3)
Local River : Vamanapuram

Division : SWR Division, Kochi
Sub-Division : SWR SD No 1, Trivandrum



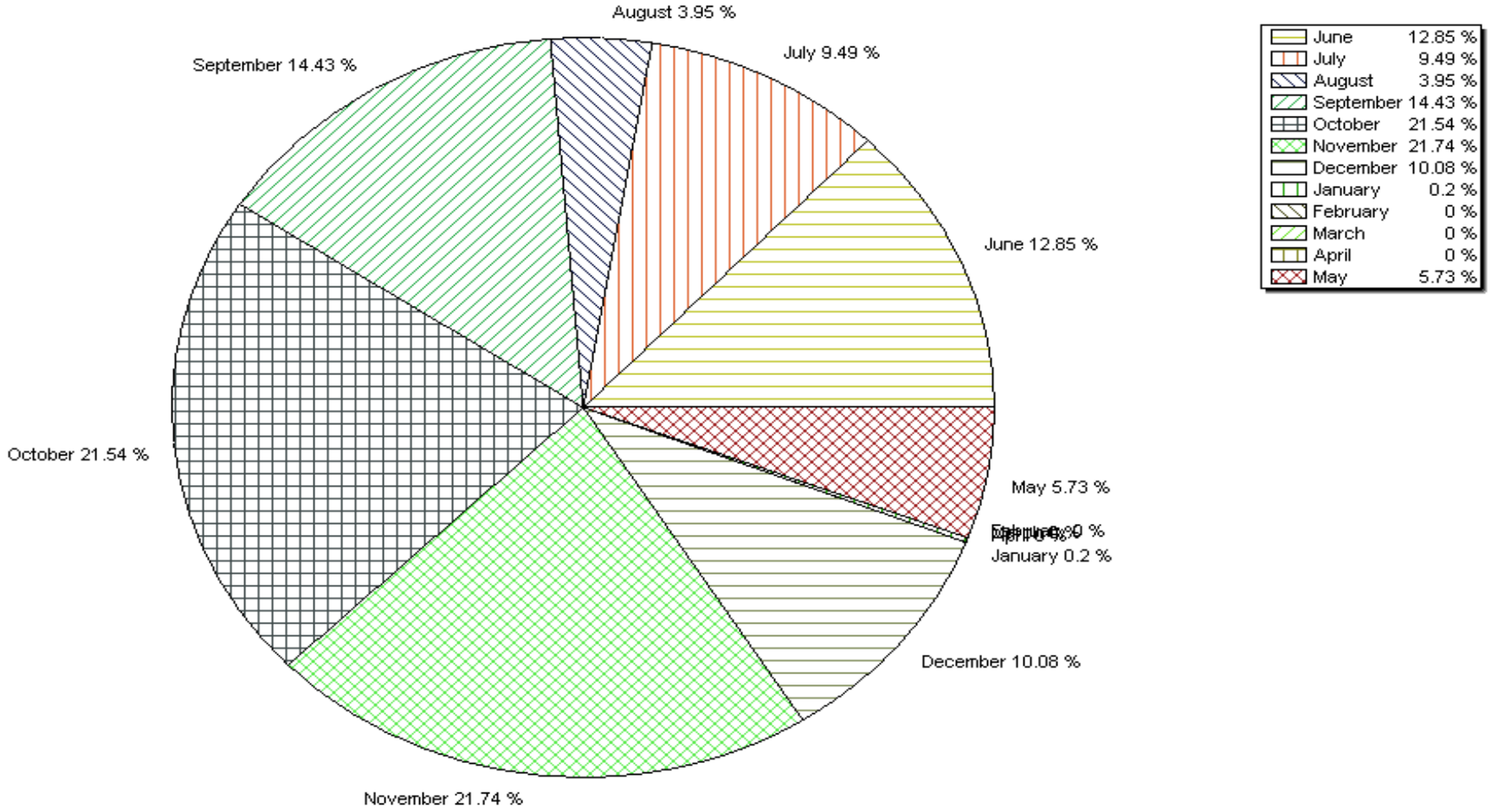
Monthly Runoff for the Year : 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



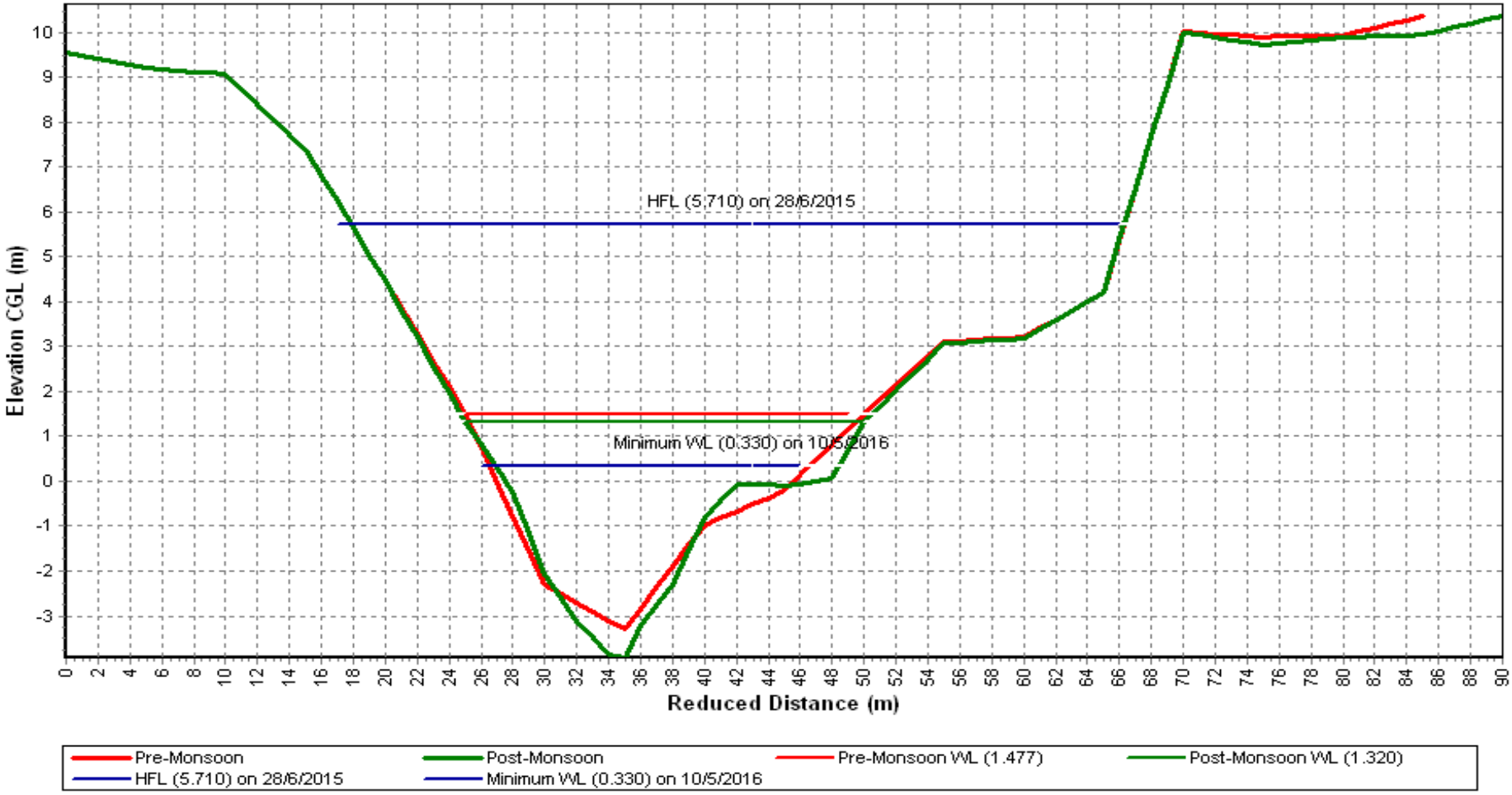
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



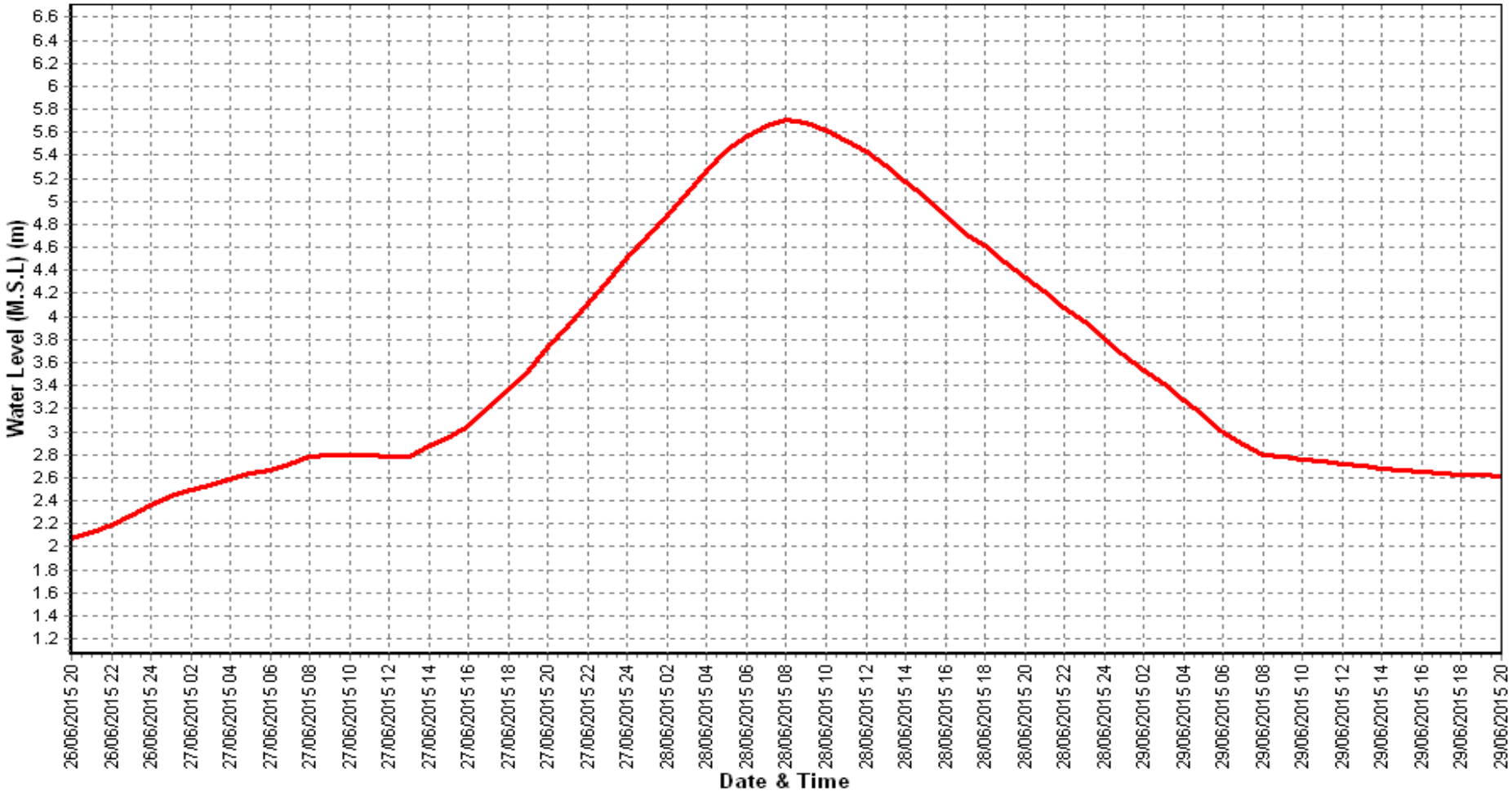
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

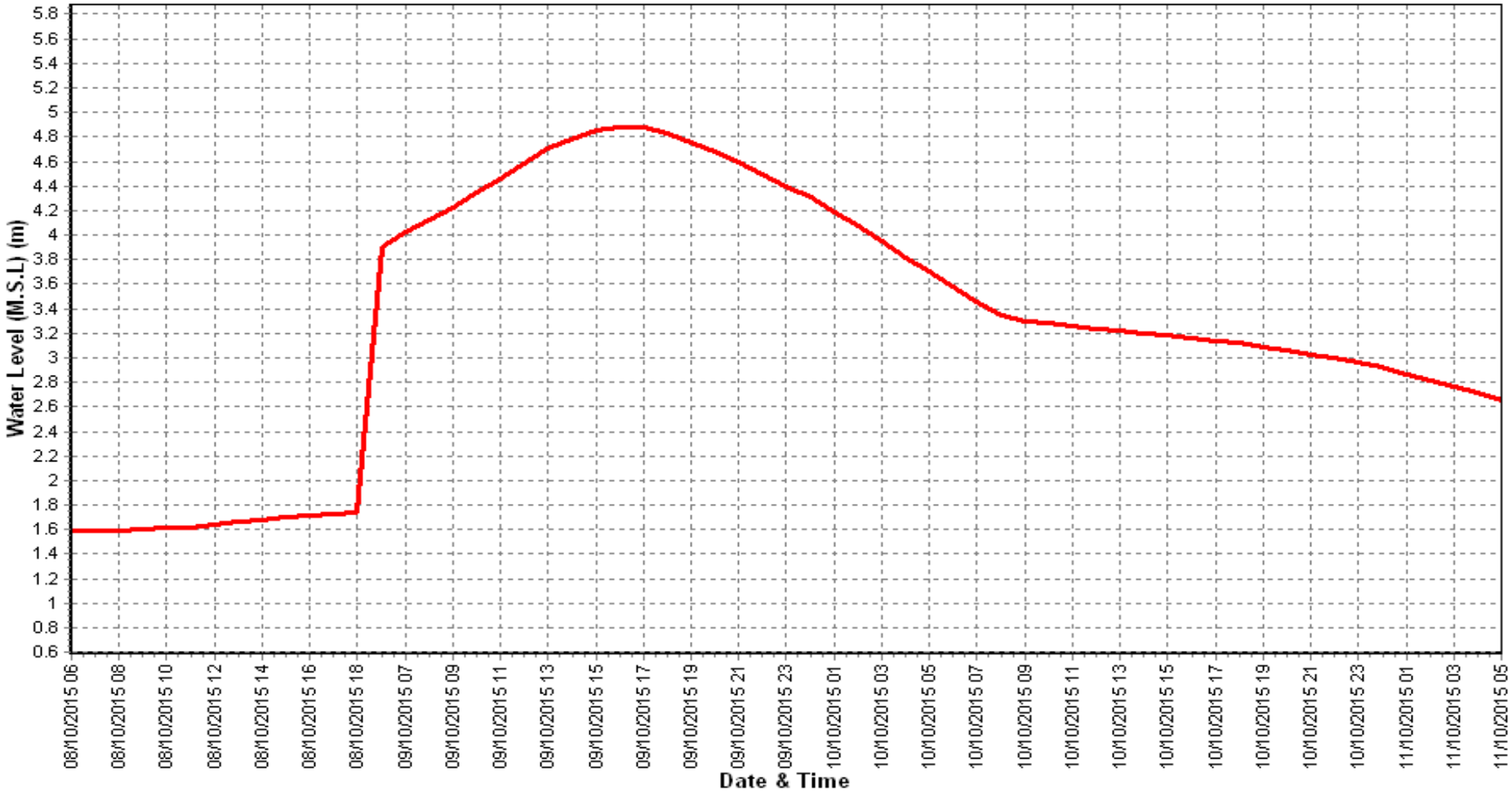
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

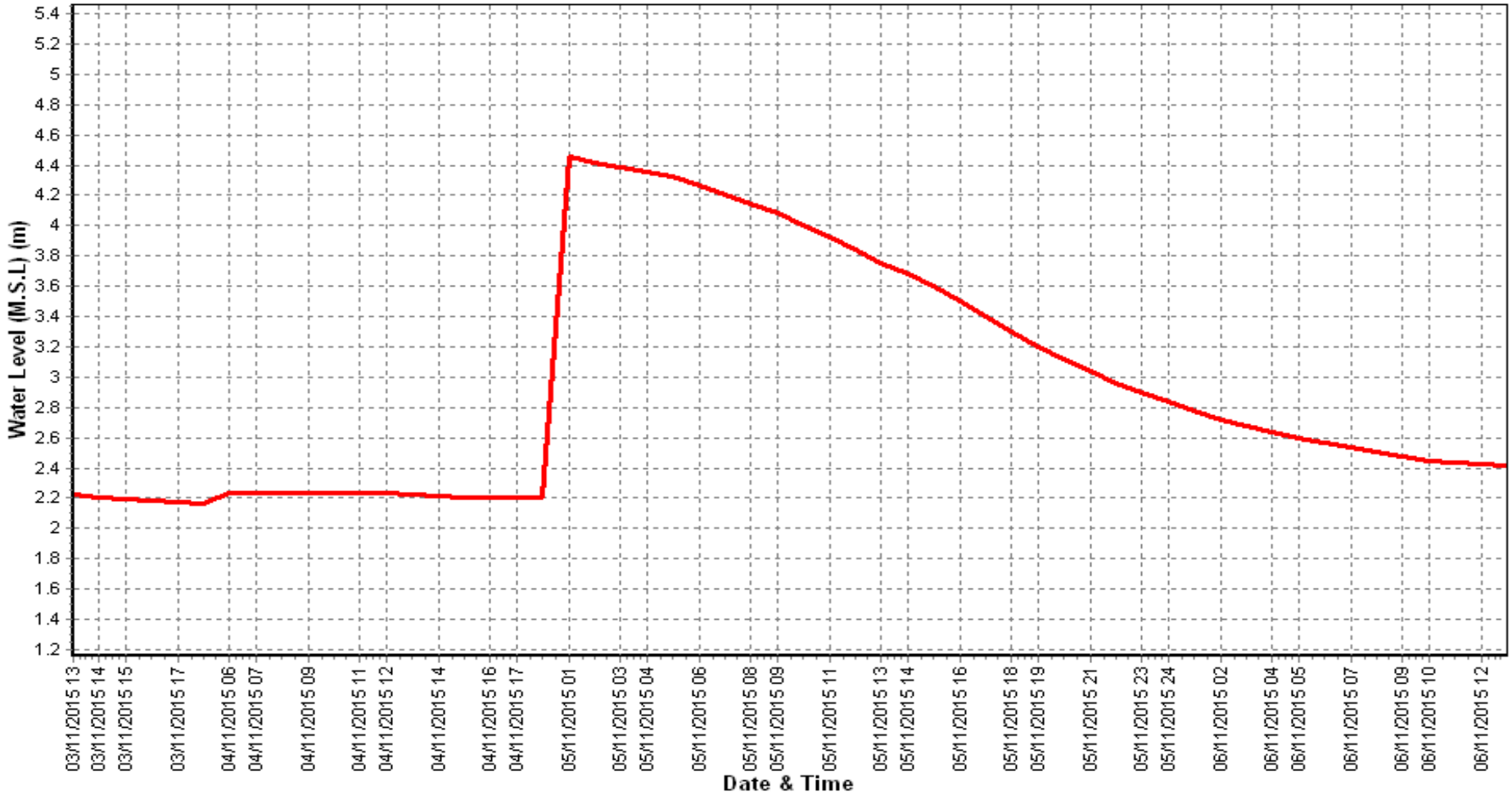
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**KUZHITHURAI**	**Code**	:	**KF000E1**
State	:	Tamil Nadu	District		Kanyakumari
Basin	:	WFR South of Tapi	Independent River	:	Thambraparni
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Thambraparni
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 1, Trivandrum
Drainage Area	:	841 Sq. Km.	Bank	:	Right
Latitude	:	08°18'21"	Longitude	:	77°11'50"
Zero of Gauge (m)	:	0.000 (m.s.l)	26/11/1997		
		Opening Date	Closing Date		
Gauge	:	26/11/1997			
Discharge	:	01/11/2000			
Sediment	:				
Water Quality	:	02/12/2002			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2001-2002	43.81	2.870	25/09/2001	0.000	1.040	21/06/2001
2002-2003	46.14	2.470	31/10/2002	0.000	0.910	01/06/2002
2003-2004	34.62	2.300	06/05/2004	0.000	1.095	01/06/2003
2004-2005	31.63	2.198	28/09/2004	0.000	1.350	01/06/2004
2005-2006	39.52	2.233	25/11/2005	0.000	1.290	01/06/2005
2006-2007	241.2	4.715	30/10/2006	0.000	1.545	01/06/2006
2007-2008	181.4	3.700	07/11/2007	0.000	0.795	01/06/2007
2008-2009	154.5	3.475	25/10/2008	0.000	1.395	01/06/208
2009-2010	18.53	1.575	21/11/2009	0.000	0.820	01/06/2009
2010-2011	525.5	8.830	08/12/2010	0.000	0.965	01/06/2010
2011-2012	49.98	1.750	27/11/2011	0.000	0.710	01/06/2011
2012-2013	0.000	1.255	03/09/2012	0.000	1.210	01/06/2012
2013-2014	0.000	1.340	01/06/2013	0.000	1.340	01/06/2013
2014-2015	75.48	2.840	18/05/2015	0.000	0.910	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUZHITHURAI (KF000E1) **Division : SWR Division, Kochi**

Local River : Thambraparni **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	0.800	8.419	2.130	51.66	0.500	4.497	0.570	4.557	1.050	16.93	2.160	50.01 *
2	1.000	13.65 *	1.850	41.43	0.500	3.680 *	0.580	4.980	1.090	15.87 *	2.410	44.34
3	0.800	9.145 *	1.560	30.78	0.520	4.744	0.550	4.660	0.990	13.41 *	2.400	59.35 #
4	1.683	35.84	1.280	23.35	0.530	4.844	0.540	4.218	0.910	11.54 *	1.850	36.70
5	1.220	21.61	1.130	16.89 *	0.560	5.347	0.540	4.127	0.850	8.947	1.790	36.74 *
6	1.050	11.25	1.080	16.51	0.560	5.279	0.980	13.17 *	0.800	9.145 *	1.680	33.82
7	0.940	12.23 *	1.000	13.19	0.580	5.422	0.820	7.725	0.740	7.920 *	1.680	33.45
8	0.920	9.865	0.910	12.07	0.570	4.800 *	0.740	7.322	0.750	8.120 *	1.720	34.39 *
9	1.030	12.42	0.860	9.046	0.570	4.800 *	0.810	7.568	3.600	125.6	2.750	81.72
10	0.890	9.974	0.840	9.379	0.580	5.282	1.000	13.71	1.800	37.08 *	2.590	67.13 *
11	0.830	8.351	0.830	8.642	0.595	6.034	1.060	18.59	1.430	25.26 *	1.950	41.46
12	0.890	8.978	0.840	9.995 *	0.610	6.024	1.270	22.76	1.220	19.28 *	1.570	32.59
13	1.000	12.91	0.790	8.362	0.590	6.166	0.900	11.32 *	1.550	28.92 *	1.740	35.06 #
14	1.070	15.37 *	0.760	6.683	0.610	7.027	0.770	7.603	2.070	46.65 *	1.950	41.81
15	0.980	10.29	0.730	7.169	0.600	5.311 *	0.720	7.210	1.400	24.37 *	2.340	56.96 *
16	0.900	9.985	0.720	7.194	0.590	5.139 *	0.760	6.529	1.720	36.79	2.630	62.42
17	0.820	8.418	0.710	6.723	0.580	5.529	0.910	12.09	1.320	25.77	1.850	41.76
18	0.780	6.789	0.840	9.995 *	0.860	11.54	0.890	10.98	1.160	17.68 *	1.400	24.10
19	0.890	11.01	0.780	8.730 *	1.030	15.45	0.840	8.952	1.400	24.37 *	1.410	23.87
20	0.840	8.418	0.740	10.15	0.790	8.752	1.050	14.87 *	1.260	20.38 *	1.950	49.91
21	0.810	9.355 *	0.720	7.860	0.720	7.262	0.950	10.94	1.120	16.64 *	1.970	51.12
22	0.900	9.168	0.700	7.222	0.700	6.948	0.820	8.445	1.040	14.62 *	1.740	35.06 *
23	0.890	9.283	0.680	7.046	0.690	6.947 *	0.770	6.623	1.110	16.38 *	1.570	32.20
24	1.560	29.23 #	0.680	6.951	0.670	6.874	0.720	7.525 *	1.420	24.96 *	1.570	32.09
25	2.600	75.69	0.680	7.113	0.650	6.066	0.910	10.57	1.740	35.06 *	1.460	26.16 *
26	2.220	58.71	0.650	6.201 *	0.620	5.723	0.930	10.29	1.410	23.99	1.300	23.88
27	2.280	58.83	0.630	6.481	0.600	5.433	0.780	8.730 *	1.170	18.40	1.470	24.52
28	4.600	162.2	0.600	5.599	0.590	5.139 *	1.250	22.12	1.070	17.51	1.350	23.54
29	3.040	88.77	0.560	5.258	0.590	5.402	1.025	12.84	1.590	30.40	1.490	27.07 *
30	2.590	65.77	0.540	5.351	0.580	4.968 *	1.260	22.63	1.250	21.97	1.270	22.76
31			0.520	4.600	0.570	4.993			2.570	61.79		
Ten-Daily Mean												
I Ten-Daily	1.033	14.44	1.264	22.43	0.547	4.869	0.713	7.203	1.258	25.45	2.103	47.76
II Ten-Daily	0.900	10.05	0.774	8.364	0.686	7.697	0.917	12.09	1.453	26.95	1.879	40.99
III Ten-Daily	2.149	56.70	0.633	6.335	0.635	5.978	0.942	12.07	1.408	25.61	1.519	29.84
Monthly												
Min.	0.780	6.789	0.520	4.600	0.500	3.680	0.540	4.127	0.740	7.920	1.270	22.76
Max.	4.600	162.2	2.130	51.66	1.030	15.45	1.270	22.76	3.600	125.6	2.750	81.72
Mean	1.361	27.06	0.882	12.18	0.623	6.175	0.857	10.45	1.374	25.99	1.834	39.53

Annual Runoff in MCM = 425 Annual Runoff in mm = 505

Peak Observed Discharge = 162.2 cumecs on 28/06/2015 Corres. Water Level :4.6 m

Lowest Observed Discharge = 0.000 cumecs on 14/03/2016 Corres. Water Level :0.39 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : KUZHITHURAI (KF000E1) **Division : SWR Division, Kochi**

Local River : Thambraparni **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	1.180	16.73 *	0.720	5.940	0.640	5.166	0.590	3.384	0.190	0.000	0.150	0.000
2	1.170	16.45 *	0.710	6.320	0.620	5.005	0.570	1.221 #	0.180	0.000	0.150	0.000
3	1.610	30.88 *	0.710	6.136 *	0.610	4.731	0.560	1.257	0.170	0.000	0.140	0.000
4	1.570	29.39 *	0.700	5.755	0.600	4.664	0.550	1.088	0.160	0.000	0.130	0.000
5	1.310	20.56 *	0.690	5.824	0.600	4.515	0.540	0.909	0.180	0.000	0.140	0.000
6	1.270	19.34 *	0.690	6.601	0.610	4.950	0.530	0.979 *	0.250	0.000	0.170	0.000
7	1.470	25.81 *	0.690	6.574	0.610	4.547 *	0.550	1.096 *	0.300	0.000	0.180	0.000
8	1.560	33.57	0.690	6.463	0.610	4.678	0.550	1.096 #	0.310	0.000	0.180	0.000
9	2.790	91.06	0.690	6.138	0.620	5.603	0.560	1.158 #	0.320	0.000	0.190	0.000
10	1.830	43.33	0.690	5.800 *	0.630	5.894	0.540	1.037 #	0.480	0.000	0.200	0.000
11	1.400	23.78	0.680	5.988	0.640	6.469	0.530	1.202	0.440	0.000	0.200	0.000
12	2.030	48.05	0.670	5.473 *	0.640	5.771	0.530	0.843	0.400	0.000	0.220	0.000
13	2.070	50.72 *	0.640	5.362	0.620	5.330	0.510	0.867 *	0.340	0.000	0.240	0.000
14	1.400	22.81	0.630	5.739	0.610	4.547 *	0.390	0.000	0.280	0.000	0.270	0.000
15	1.200	14.58	0.630	5.514	0.600	4.294	0.390	0.000	0.250	0.000	0.330	0.000
16	1.410	20.25	0.630	5.660	0.590	4.179	0.380	0.000	0.200	0.000	0.380	0.000
17	1.190	14.66	0.630	4.846 *	0.590	4.029	0.350	0.000	0.180	0.000	0.400	0.372 #
18	0.920	10.45	0.640	5.642	0.590	4.048	0.330	0.000	0.160	0.000	1.280	9.521
19	0.910	9.834	0.640	4.918	0.580	3.442	0.300	0.000	0.160	0.000	1.130	7.346
20	1.440	24.78 *	0.640	4.999 *	0.570	3.047	0.270	0.000	0.160	0.000	2.750	91.59
21	1.540	30.28	0.640	4.999 *	0.570	3.978 *	0.240	0.000	0.160	0.000	1.890	47.35 *
22	0.970	9.960	0.640	5.214	0.570	3.216	0.230	0.000	0.140	0.000	1.320	24.29 *
23	0.830	8.352 *	0.640	4.933	0.570	3.053	0.230	0.000	0.140	0.000	1.040	14.53
24	0.790	7.576 *	0.640	4.999 *	0.570	3.204	0.260	0.000	0.140	0.000	0.890	10.59
25	0.770	7.202 *	0.630	4.982	0.750	6.203	0.240	0.000	0.140	0.000	0.830	9.674
26	0.750	6.837 *	0.630	4.846 *	0.630	4.343	0.240	0.000	0.150	0.000	0.790	8.766
27	0.750	6.837 *	0.630	4.881	0.600	4.201	0.220	0.000	0.150	0.000	0.720	6.762
28	0.750	6.837 *	0.640	5.015	0.570	3.978 *	0.200	0.000	0.150	0.000	0.690	6.367
29	0.752	6.248	0.630	5.590	0.570	3.115	0.200	0.000	0.150	0.000	0.600	4.304 *
30	0.740	6.196	0.630	5.291			0.200	0.000	0.150	0.000	0.500	2.664
31	0.730	6.151	0.640	4.999 *			0.190	0.000			0.510	2.541
Ten-Daily Mean												
I Ten-Daily	1.576	32.71	0.698	6.155	0.615	4.975	0.554	1.323	0.254	0.000	0.163	0.000
II Ten-Daily	1.397	23.99	0.643	5.414	0.603	4.516	0.398	0.291	0.257	0.000	0.720	10.88
III Ten-Daily	0.852	9.316	0.635	5.068	0.600	3.921	0.223	0.000	0.147	0.000	0.889	12.53
Monthly												
Min.	0.730	6.151	0.630	4.846	0.570	3.047	0.190	0.000	0.140	0.000	0.130	0.000
Max.	2.790	91.06	0.720	6.601	0.750	6.469	0.590	3.384	0.480	0.000	2.750	91.59
Mean	1.261	21.6	0.658	5.53	0.606	4.49	0.386	0.521	0.219	0	0.600	7.957

Peak Computed Discharge = 67.13 cumecs on 10/11/2015 **Corres. Water Level :2.59 m**

Lowest Computed Discharge = 0.867 cumecs on 13/03/2016 **Corres. Water Level :0.51 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

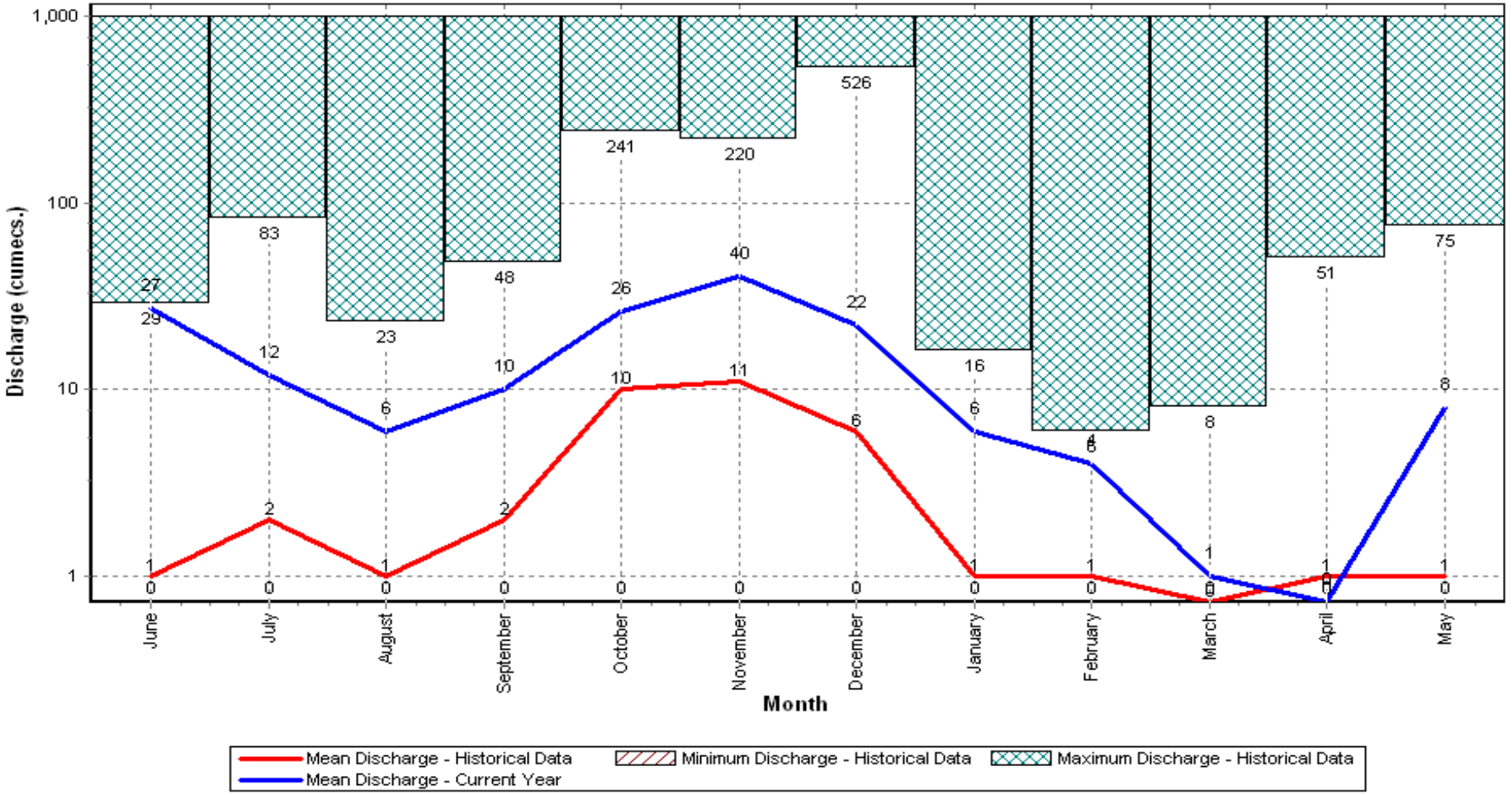
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1) | **Data considered : 2001-2016** | **Division : SWR Division, Kochi**

Local River : Thambraparni | **Sub-Division : SWR SD No 1, Trivandrum**



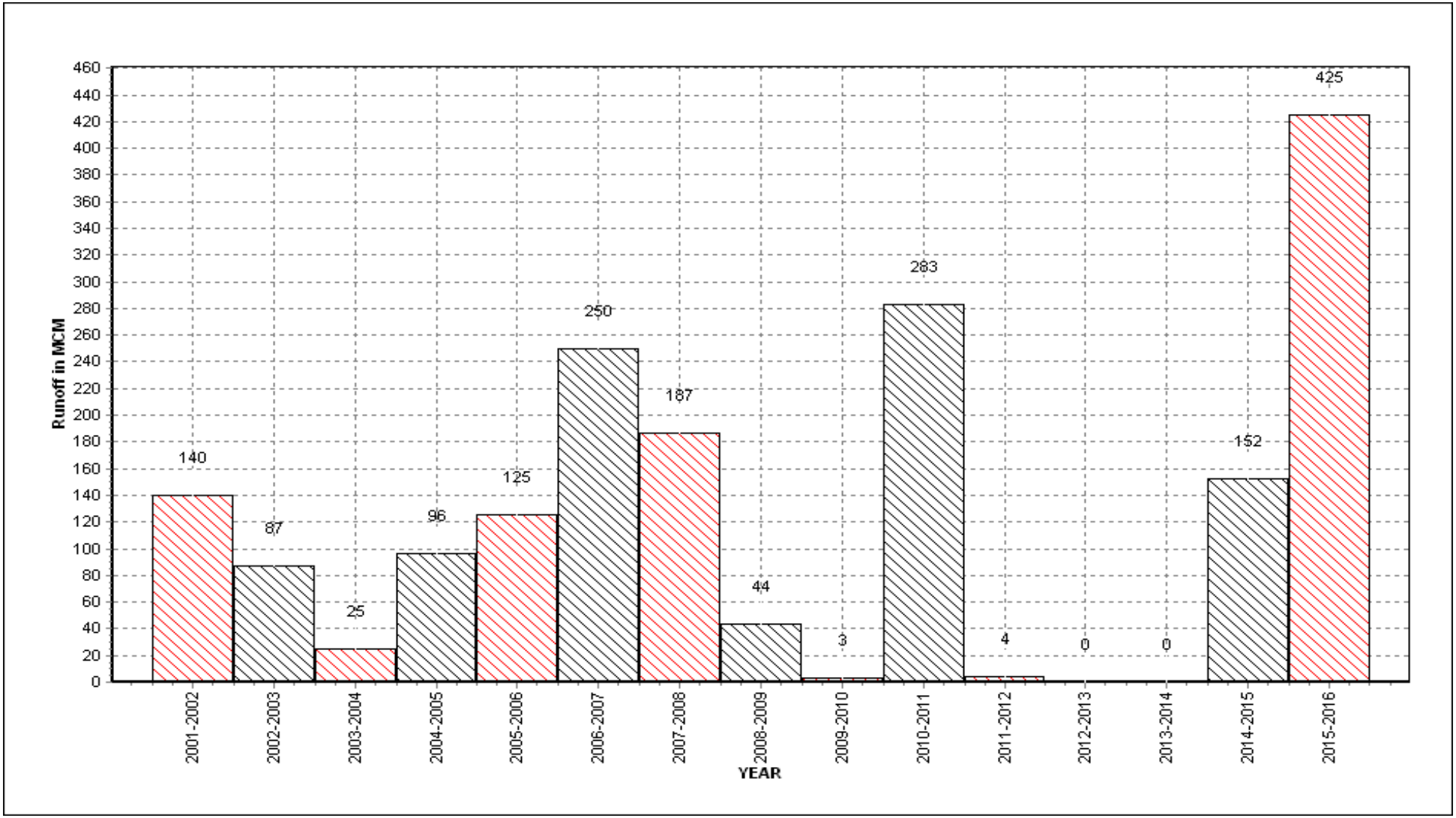
Annual Runoff Values for the period: 2001 - 2016

Station Name : KUZHITHURAI (KF000E1)

Local River : Thambraparni

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum

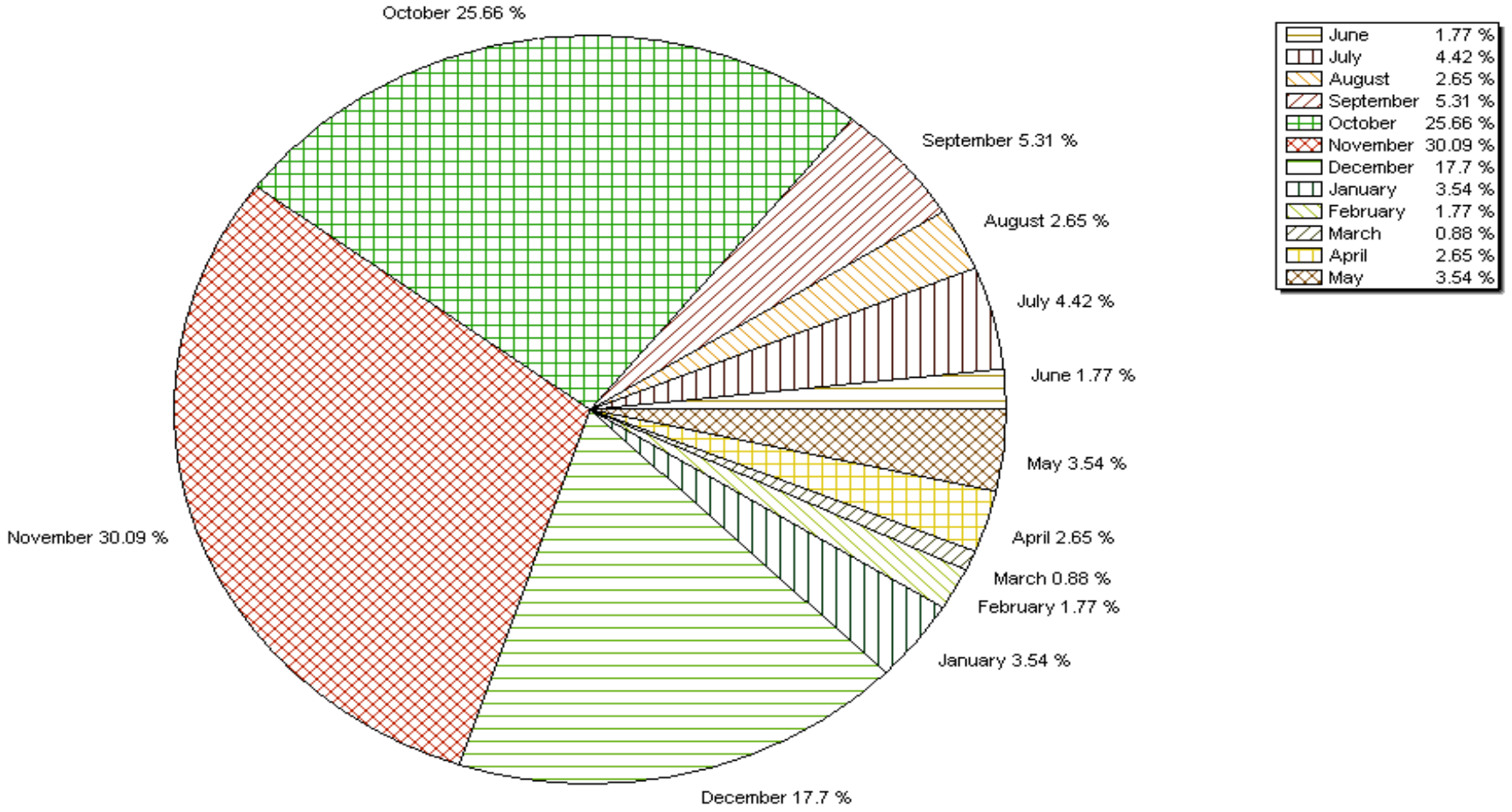


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2001-2015

Station Name : KUZHITHURAI (KF000E1)
Local River : Thambraparni

Division : SWR Division, Kochi
Sub-Division : SWR SD No 1, Trivandrum



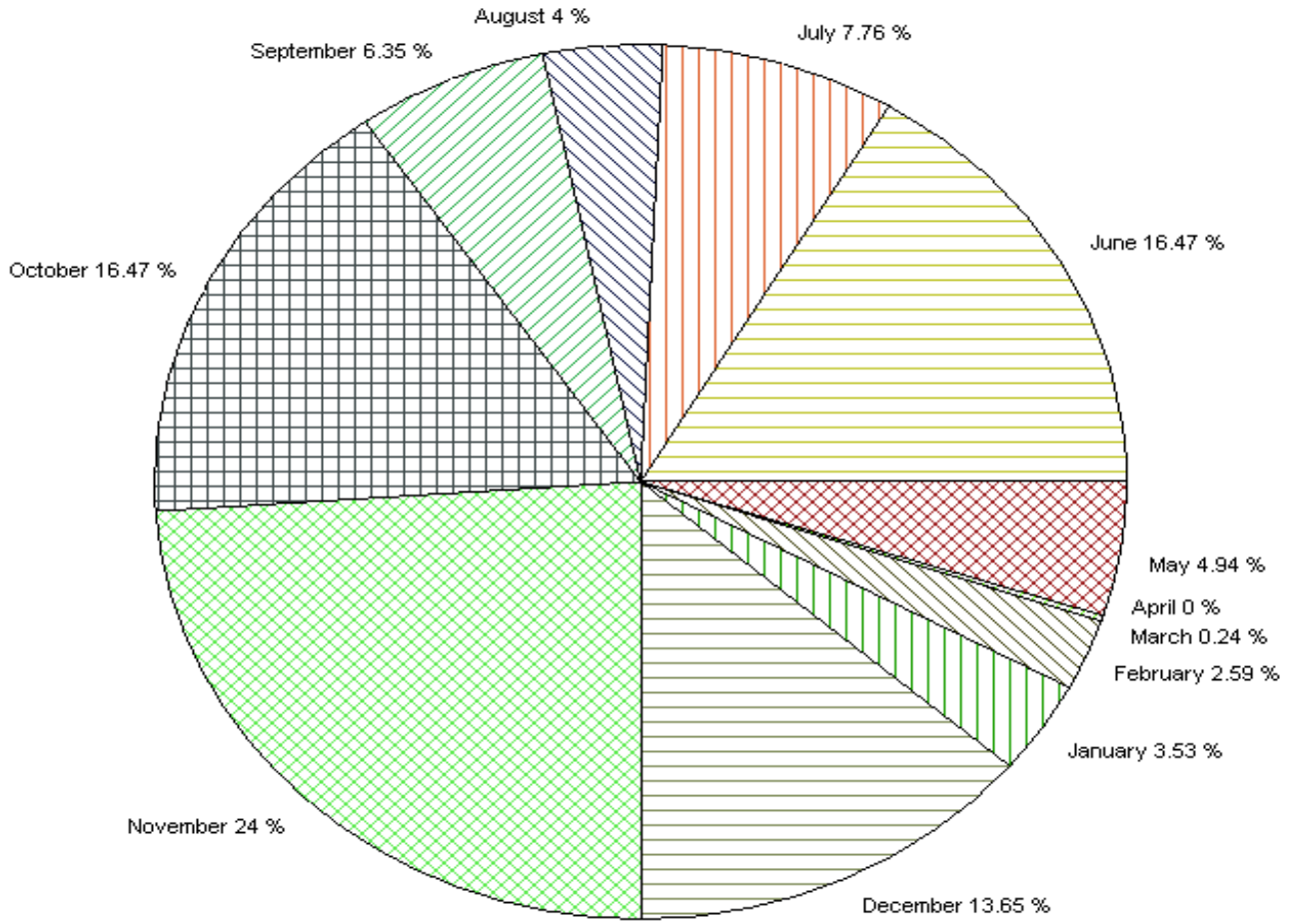
Monthly Runoff for the Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1)

Local River : Thambraparni

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



June	16.47 %
July	7.76 %
August	4 %
September	6.35 %
October	16.47 %
November	24 %
December	13.65 %
January	3.53 %
February	2.59 %
March	0.24 %
April	0 %
May	4.94 %

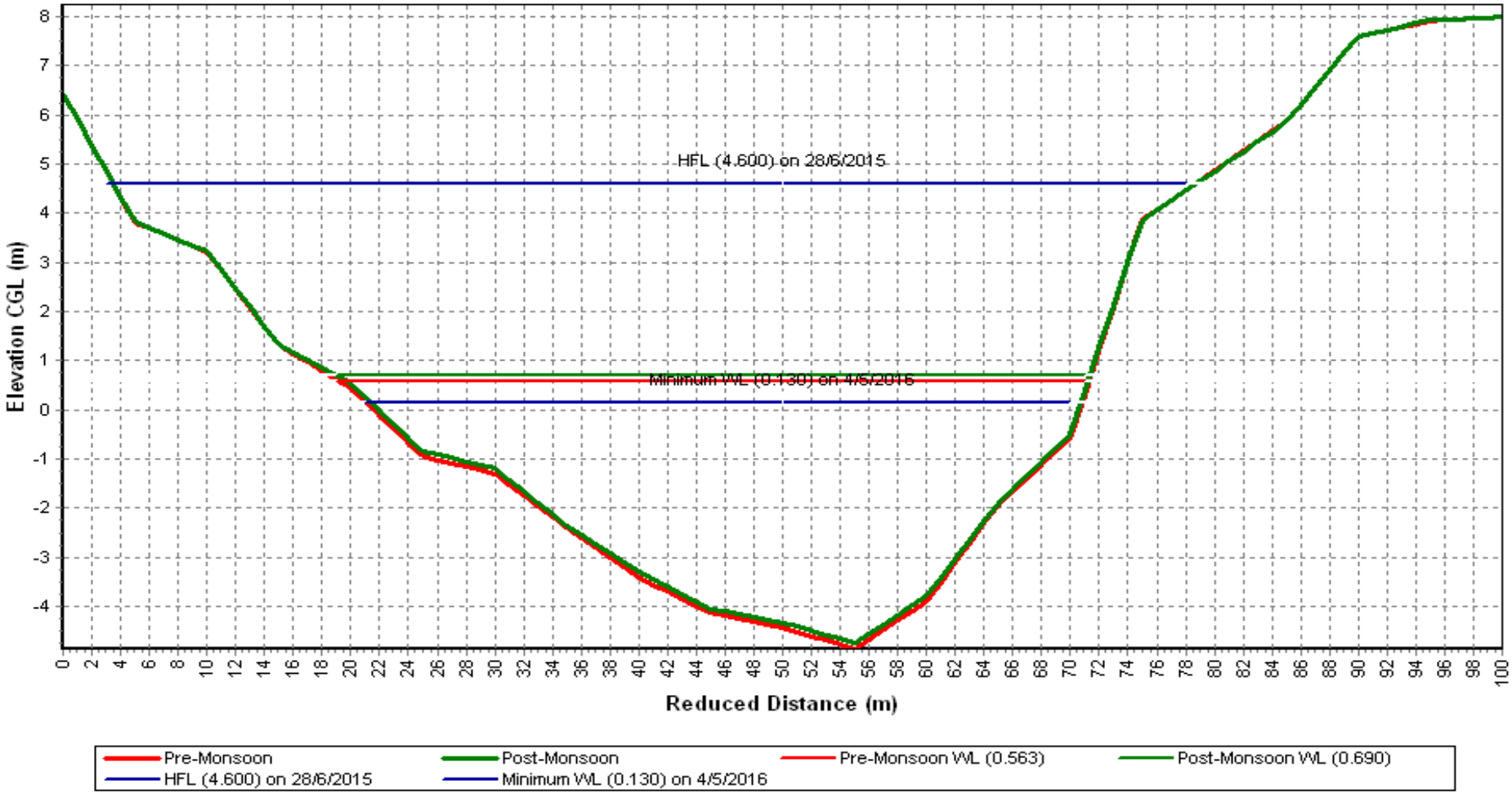
Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1)

Local River : Thambraparni

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



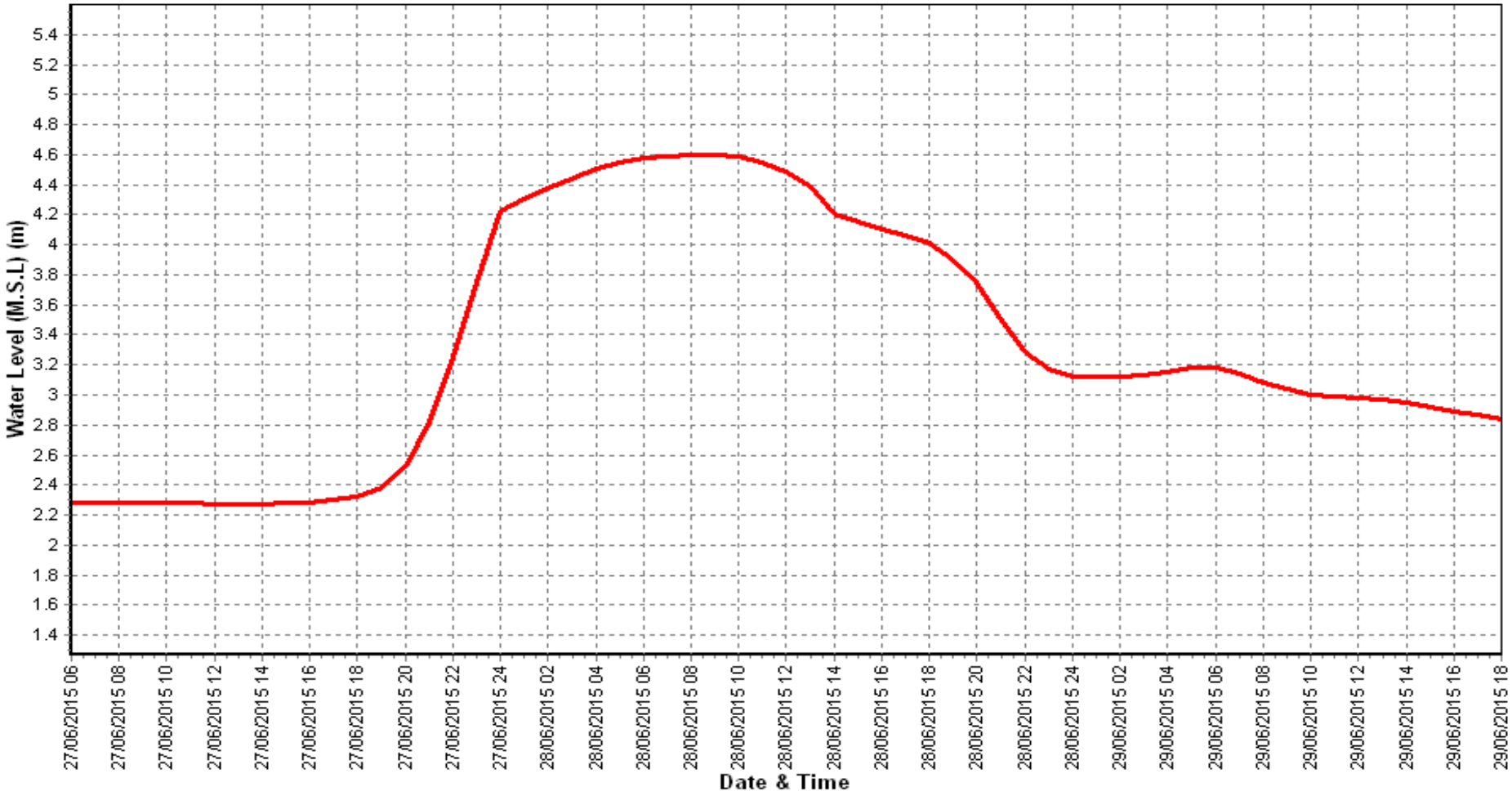
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1)

Local River : Thambraparni

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

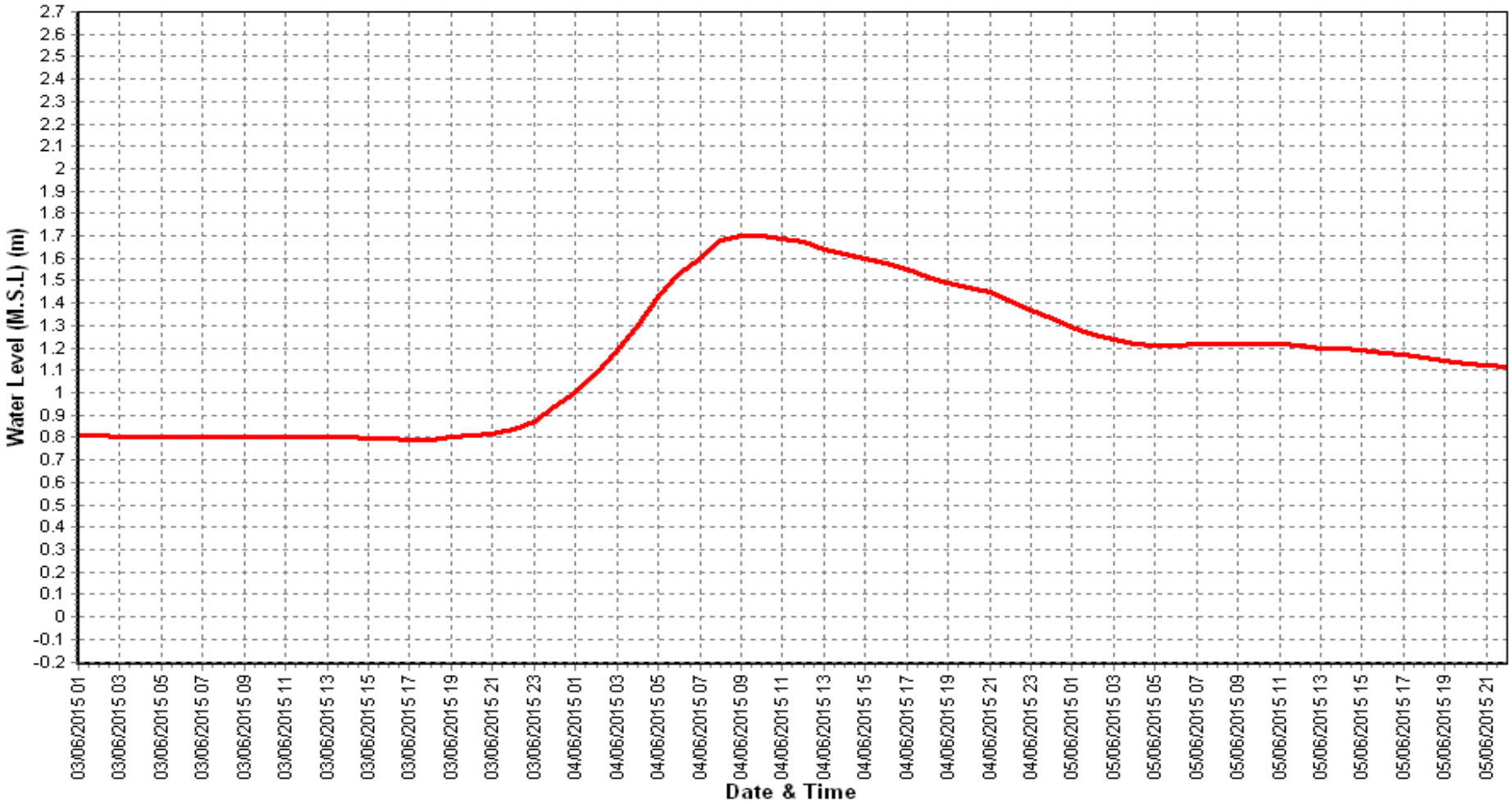
Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1)

Division : SWR Division, Kochi

Local River : Thambraparni

Sub-Division : SWR SD No 1, Trivandrum

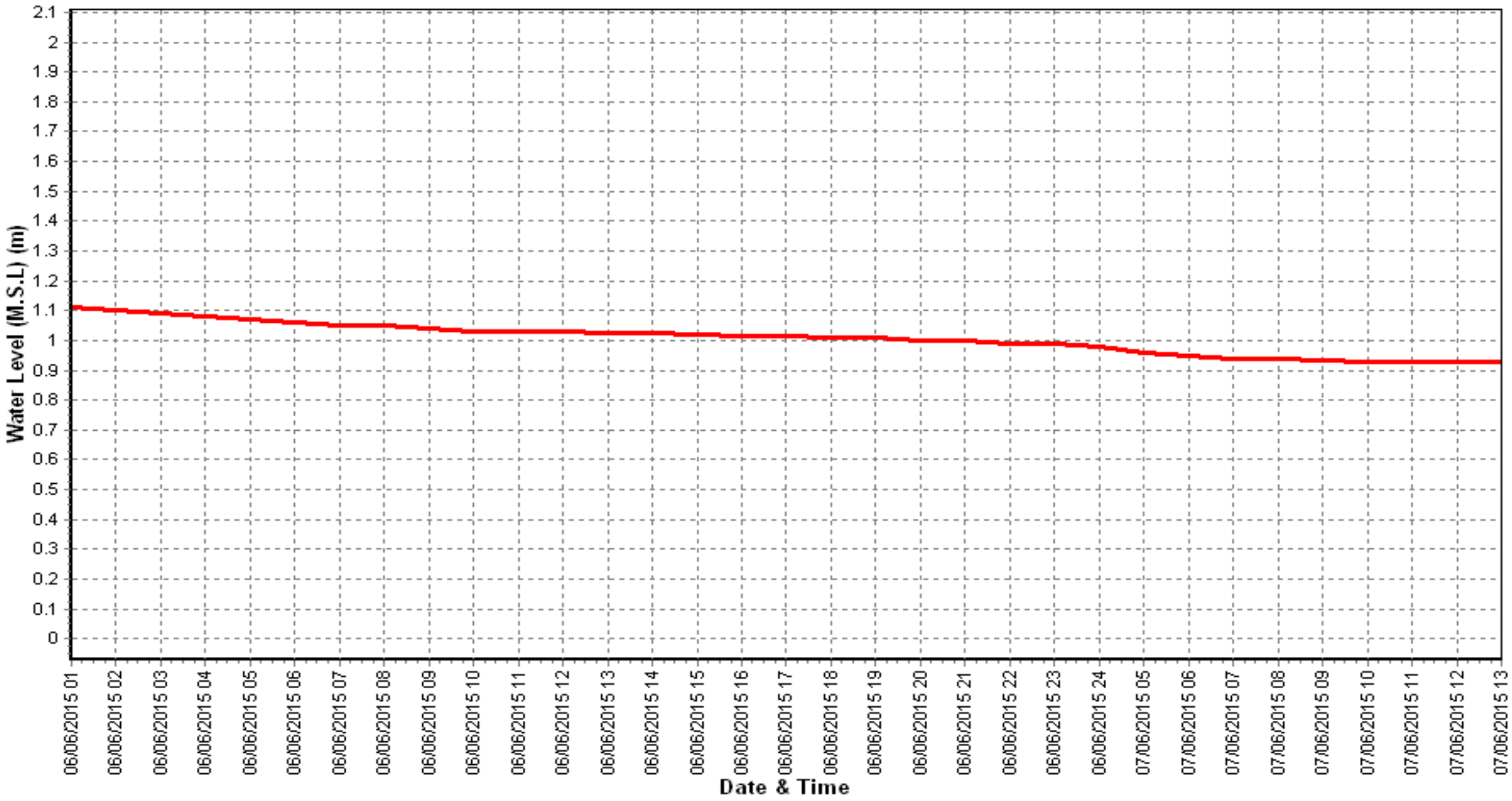


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : KUZHITHURAI (KF000E1) **Division : SWR Division, Kochi**

Local River : Thambraparni **Sub-Division : SWR SD No 1, Trivandrum**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2015-2016

Site	:	**ASHRAMAM**	**Code**	:	**KE000G2**
State	:	Tamil Nadu	District		Kanyakumari
Basin	:	WFR South of Tapi	Independent River	:	Pazhayar
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Pazhayar
Division	:	SWR Division, Kochi	Sub-Division	:	SWR SD No 1, Trivandrum
Drainage Area	:	258 Sq. Km.	Bank	:	Right
Latitude	:	08°09'33"	Longitude	:	77°27'32"
Zero of Gauge (m)	:	1.000 (m.s.l)	01/04/1996		
		Opening Date	Closing Date		
Gauge	:	01/04/1996			
Discharge	:	21/09/1999			
Sediment	:				
Water Quality	:	02/12/2002			

Annual Maximum / Minimum discharge with corresponding Water Level (m.s.l)

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2000-2001	91.58	4.525	25/08/2000	0.000	2.060	01/06/2000
2001-2002	63.65	3.990	09/07/2001	0.000	2.245	01/06/2001
2002-2003	120.4	4.855	09/11/2002	0.000	2.280	01/06/2002
2003-2004	45.17	3.535	06/05/2004	0.000	2.200	01/06/2003
2004-2005	68.80	4.190	28/09/2004	0.000	2.355	01/06/2004
2005-2006	103.9	4.500	13/11/2005	0.000	2.430	03/06/2005
2006-2007	79.28	4.295	29/10/2006	0.000	2.420	02/06/2006
2007-2008	51.73	3.700	07/11/2007	0.000	2.440	01/06/2007
2008-2009	119.3	4.783	25/10/2008	0.000	2.105	01/06/2008
2009-2010	134.6	4.310	15/11/2009	0.000	2.330	01/06/2009
2010-2011	169.3	5.675	09/12/2010	0.000	2.280	01/06/2010
2011-2012	113.4	4.945	08/11/2011	0.000	2.050	01/06/2011
2012-2013	59.83	3.900	20/10/2012	0.000	2.050	01/06/2012
2013-2014	82.28	4.460	09/05/2014	0.000	2.220	01/06/2013
2014-2015	118.6	4.960	20/05/2015	0.000	2.200	01/06/2014

Q : Observed / Computed Discharge
WL : Corresponding Water Level(m.s.l)

Stage-Discharge Data for the period 2015 - 2016

Station Name : ASHRAMAM (KE000G2) **Division : SWR Division, Kochi**

Local River : Pazhayar **Sub-Division : SWR SD No 1, Trivandrum**

Day	Jun		Jul		Aug		Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q	W.L	Q
1	2.270	0.000	3.050	18.02 #	2.170	0.000	2.120	0.000	2.760	8.895 *	3.850	48.63 *
2	2.290	0.000	2.810	9.067 #	2.140	0.000	2.120	0.000	2.680	6.928 *	4.420	78.34
3	2.250	0.000	2.580	2.630	2.150	0.000	2.120	0.000	2.800	9.939 *	3.870	44.25
4	2.260	0.000	2.450	0.000	2.150	0.000	2.130	0.000	2.630	5.785 *	3.320	27.95
5	2.240	0.000	2.300	0.000	2.130	0.000	2.160	0.000	2.240	0.000	3.530	35.89
6	2.215	0.000	2.080	0.000	2.120	0.000	2.170	0.000	2.250	0.000	3.240	25.74
7	2.180	0.000	2.100	0.000	2.110	0.000	2.170	0.000	2.210	0.000	3.120	26.93
8	2.200	0.000	2.020	0.000	2.110	0.000	2.180	0.000	2.300	0.000	3.100	21.97 *
9	2.215	0.000	2.060	0.000	2.100	0.000	2.200	0.000	4.900	103.7 *	3.470	36.46
10	2.180	0.000	2.120	0.000	2.110	0.000	2.720	5.805	3.830	47.73 *	3.140	23.70 *
11	2.165	0.000	2.120	0.000	2.110	0.000	2.960	16.51	3.180	21.63 *	2.880	13.34 #
12	2.125	0.000	2.140	0.000	2.120	0.000	2.800	8.769 #	2.830	10.75 *	2.780	9.933 #
13	2.110	0.000	2.130	0.000	2.100	0.000	2.620	4.351 *	2.980	15.10 *	3.100	25.02
14	2.210	0.000	2.140	0.000	2.080	0.000	2.540	3.202	3.530	34.83 *	3.010	20.91
15	2.210	0.000	2.130	0.000	2.080	0.000	2.340	0.000	2.970	14.79 *	2.890	13.70 *
16	2.240	0.000	2.140	0.000	2.090	0.000	2.480	2.174	2.960	14.49 *	2.930	18.05
17	2.230	0.000	2.220	0.000	2.090	0.000	2.500	2.338	2.870	11.86 *	2.780	9.933 #
18	2.230	0.000	2.330	0.000	2.140	0.000	2.650	5.124	3.890	50.47 *	2.720	8.421
19	2.260	0.000	2.320	0.000	2.160	0.000	2.400	1.449	3.540	31.21	3.240	30.50
20	2.250	0.000	2.320	0.000	2.170	0.000	2.350	0.774 *	3.300	24.42	3.470	38.44
21	2.280	0.000	2.300	0.000	2.190	0.000	2.320	0.000	2.950	14.19 #	2.960	16.86
22	2.440	0.000	2.250	0.000	2.190	0.000	2.270	0.000	2.800	12.78	2.630	5.519 *
23	2.570	2.529	2.200	0.000	2.190	0.000	2.220	0.000	3.580	36.88 *	2.710	6.210
24	2.900	12.01 #	2.220	0.000	2.220	0.000	2.210	0.000	3.540	35.24 *	2.680	5.621
25	3.165	26.43	2.220	0.000	2.160	0.000	2.800	8.769 #	3.180	21.63 *	2.620	5.258 *
26	3.410	40.24	2.210	0.000	2.120	0.000	2.700	5.891	2.960	14.49 *	2.540	3.209
27	3.410	38.67	2.220	0.000	2.100	0.000	2.420	1.385 *	2.840	11.02 *	2.280	0.000
28	3.470	42.71 *	2.250	0.000	2.120	0.000	2.510	2.936	2.840	11.02 *	2.130	0.000
29	3.650	55.48	2.220	0.000	2.120	0.000	2.480	2.656	2.950	14.19 *	3.160	24.57 *
30	3.325	31.82	2.200	0.000	2.130	0.000	2.970	14.79 *	3.830	49.26	2.780	12.29
31			2.190	0.000	2.130	0.000			3.910	56.83		
Ten-Daily Mean												
I Ten-Daily	2.230	0.000	2.357	2.972	2.129	0.000	2.209	0.580	2.860	18.30	3.506	36.99
II Ten-Daily	2.203	0.000	2.199	0.000	2.114	0.000	2.564	4.469	3.205	22.95	2.980	18.82
III Ten-Daily	3.062	24.99	2.225	0.000	2.152	0.000	2.490	3.643	3.216	25.23	2.649	7.954
Monthly												
Min.	2.110	0.000	2.020	0.000	2.080	0.000	2.120	0.000	2.210	0.000	2.130	0.000
Max.	3.650	55.48	3.050	18.02	2.220	0.000	2.970	16.51	4.900	103.7	4.420	78.34
Mean	2.498	8.33	2.259	0.959	2.132	0	2.421	2.897	3.098	22.26	3.045	21.25

Annual Runoff in MCM = 147 Annual Runoff in mm = 570

Peak Observed Discharge = 78.34 cumecs on 02/11/2015 Corres. Water Level :4.42 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2015 Corres. Water Level :2.27 m

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2015 - 2016

Station Name : ASHRAMAM (KE000G2) **Division : SWR Division, Kochi**

Local River : Pazhayar **Sub-Division : SWR SD No 1, Trivandrum**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	2.800	0.000	2.280	0.000	2.270	0.000	2.400	0.000	2.280	0.000	2.060	0.000
2	2.810	0.000	2.310	0.000	2.270	0.000	2.390	0.000	2.290	0.000	2.060	0.000
3	2.720	0.000	2.340	0.000	2.310	0.000	2.400	0.000	2.260	0.000	2.050	0.000
4	2.830	0.000	2.290	0.000	2.350	0.000	2.390	0.000	2.240	0.000	2.040	0.000
5	2.690	0.000	2.250	0.000	2.370	0.000	2.450	0.000	2.250	0.000	2.070	0.000
6	2.620	0.000	2.240	0.000	2.360	0.000	2.420	0.000	2.240	0.000	2.040	0.000
7	2.590	0.000	2.260	0.000	2.380	0.000	2.400	0.000	2.240	0.000	2.040	0.000
8	2.770	0.000	2.270	0.000	2.370	0.000	2.390	0.000	2.250	0.000	2.100	0.000
9	3.180	0.000	2.290	0.000	2.390	0.000	2.510	2.806	2.260	0.000	2.070	0.000
10	2.830	0.000	2.270	0.000	2.420	0.000	2.620	4.258	2.350	0.000	2.280	0.000
11	2.830	0.000	2.270	0.000	2.440	0.000	2.450	0.000	2.250	0.000	2.350	0.000
12	2.840	0.000	2.320	0.000	2.450	0.000	2.380	0.000	2.230	0.000	2.370	0.000
13	2.770	0.000	2.330	0.000	2.420	0.000	2.370	0.000	2.220	0.000	2.320	0.000
14	2.700	0.000	2.350	0.000	2.430	0.000	2.390	0.000	2.210	0.000	2.270	0.000
15	2.700	0.000	2.320	0.000	2.450	0.000	2.380	0.000	2.190	0.000	2.260	0.000
16	2.740	0.000	2.350	0.000	2.450	0.000	2.380	0.000	2.170	0.000	2.230	0.000
17	2.510	0.000	2.330	0.000	2.430	0.000	2.370	0.000	2.160	0.000	2.200	0.000
18	2.510	0.000	2.340	0.000	2.420	0.000	2.390	0.000	2.190	0.000	2.550	0.000
19	2.520	0.000	2.330	0.000	2.450	0.000	2.350	0.000	2.210	0.000	2.310	0.000
20	3.350	0.000	2.320	0.000	2.350	0.000	2.320	0.000	2.200	0.000	2.800	0.000
21	2.900	0.000	2.320	0.000	2.320	0.000	2.300	0.000	2.220	0.000	3.000	0.000
22	2.580	0.000	2.330	0.000	2.340	0.000	2.290	0.000	2.210	0.000	2.640	0.000
23	2.530	0.000	2.330	0.000	2.420	0.000	2.260	0.000	2.200	0.000	2.530	0.000
24	2.380	0.000	2.380	0.000	2.450	0.000	2.240	0.000	2.220	0.000	2.480	0.000
25	2.350	0.000	2.350	0.000	2.460	0.000	2.230	0.000	2.230	0.000	2.320	0.000
26	2.250	0.000	2.330	0.000	2.450	0.000	2.200	0.000	2.240	0.000	2.350	0.000
27	2.230	0.000	2.280	0.000	2.470	0.000	2.180	0.000	2.240	0.000	2.320	0.000
28	2.220	0.000	2.280	0.000	2.470	0.000	2.170	0.000	2.180	0.000	2.380	0.000
29	2.210	0.000	2.310	0.000	2.420	0.000	2.260	0.000	2.160	0.000	2.410	0.000
30	2.220	0.000	2.300	0.000			2.290	0.000	2.080	0.000	2.380	0.000
31	2.230	0.000	2.280	0.000			2.270	0.000			2.320	0.000
Ten-Daily Mean												
I Ten-Daily	2.784	0.000	2.280	0.000	2.349	0.000	2.437	0.706	2.266	0.000	2.081	0.000
II Ten-Daily	2.747	0.000	2.326	0.000	2.429	0.000	2.378	0.000	2.203	0.000	2.366	0.000
III Ten-Daily	2.373	0.000	2.317	0.000	2.422	0.000	2.245	0.000	2.198	0.000	2.466	0.000
Monthly												
Min.	2.210	0.000	2.240	0.000	2.270	0.000	2.170	0.000	2.080	0.000	2.040	0.000
Max.	3.350	0.000	2.380	0.000	2.470	0.000	2.620	4.258	2.350	0.000	3.000	0.000
Mean	2.626	0	2.308	0	2.399	0	2.350	0.228	2.222	0	2.310	0

Peak Computed Discharge = 103.7 cumecs on 09/10/2015 **Corres. Water Level :4.9 m**

Lowest Computed Discharge = 0.774 cumecs on 20/09/2015 **Corres. Water Level :2.35 m**

Q: Observed/Computed Discharge in cumecs

WL:Corresponding Mean Water Level(m.s.l) in m

*:Computed Discharge

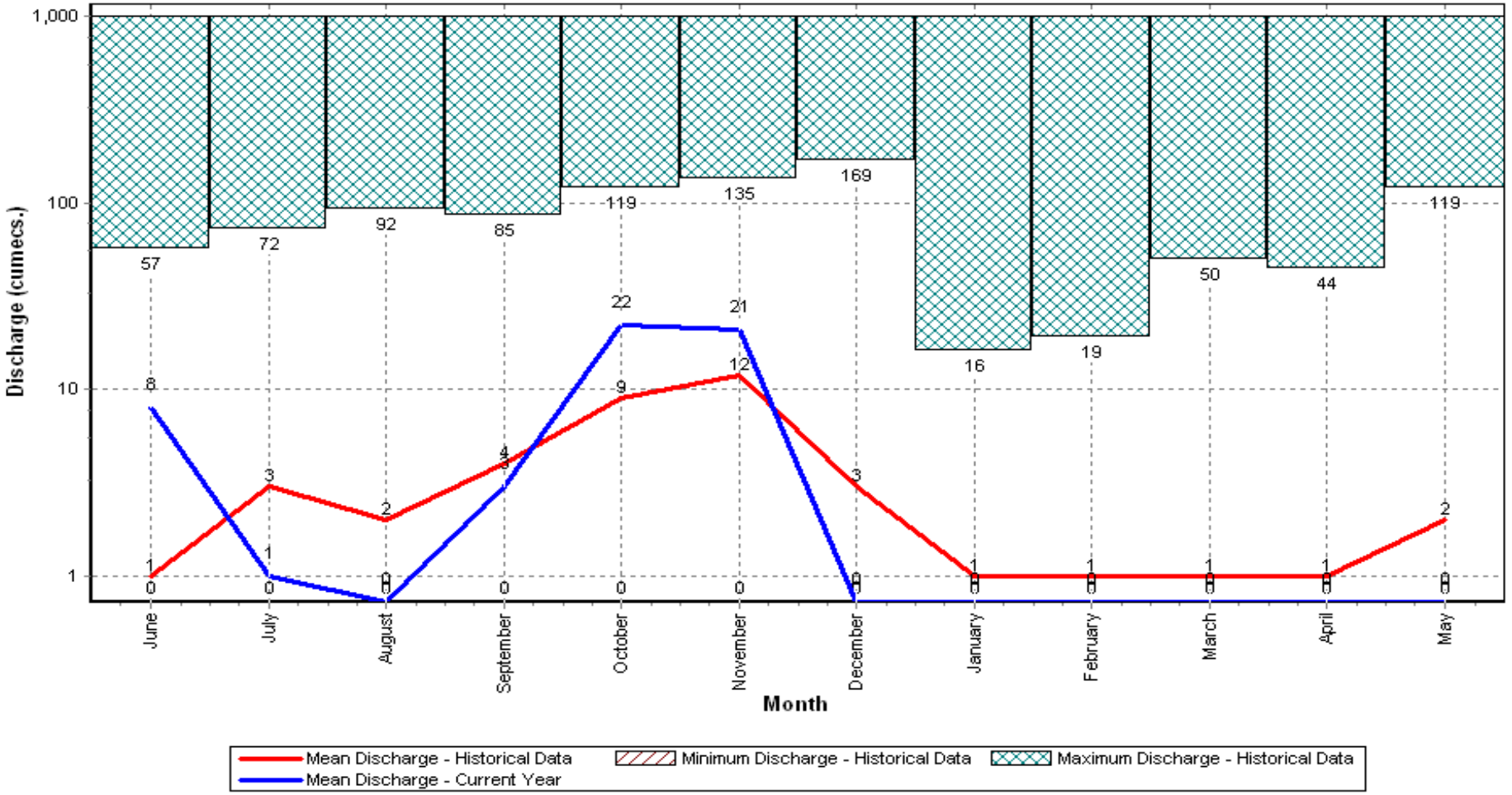
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2015-2016

Station Name : ASHRAMAM (KE000G2) | **Data considered : 2000-2016** | **Division : SWR Division, Kochi**

Local River : Pazhayar | **Sub-Division : SWR SD No 1, Trivandrum**



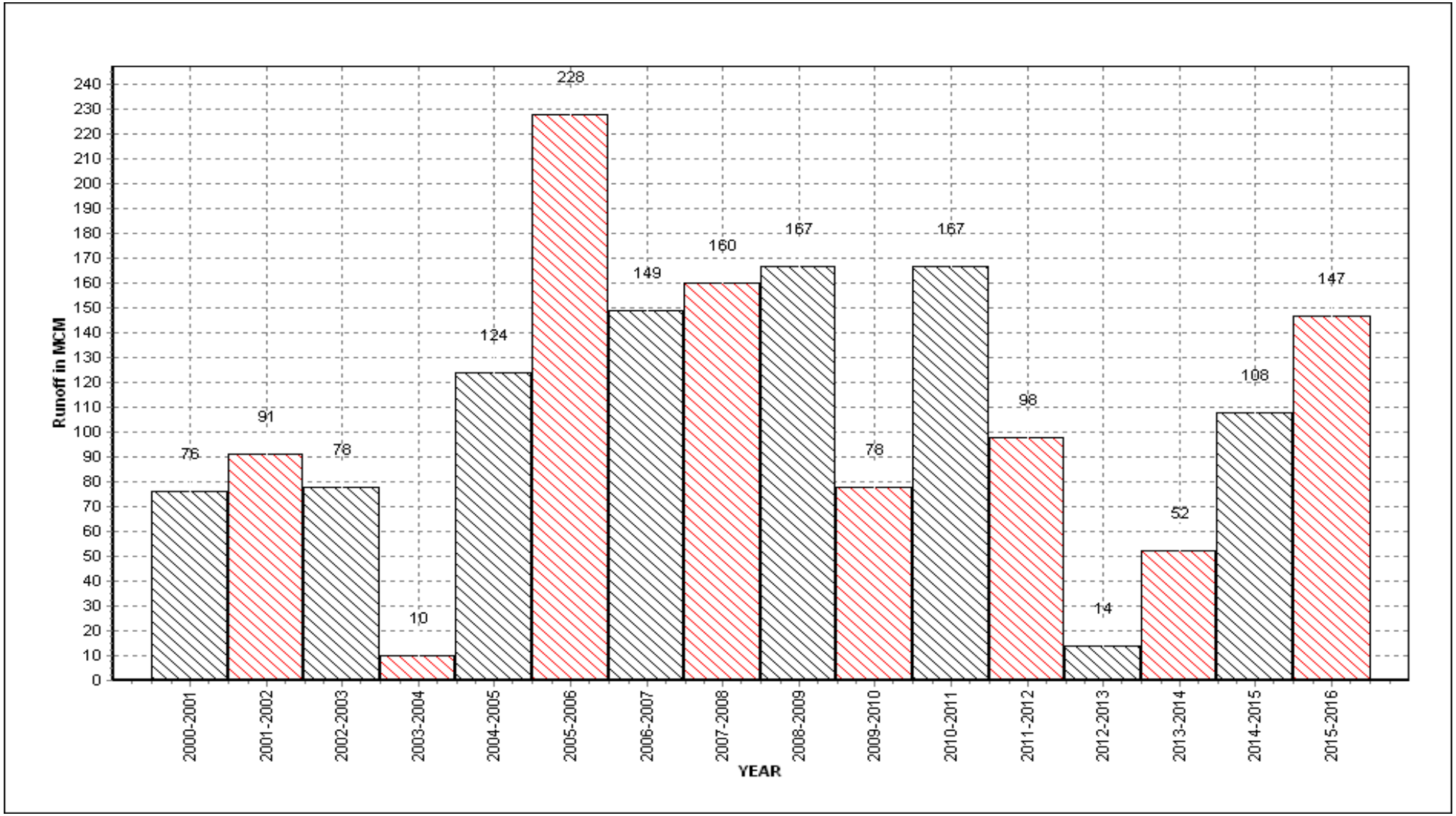
Annual Runoff Values for the period: 2000 - 2016

Station Name : ASHRAMAM (KE000G2)

Division : SWR Division, Kochi

Local River : Pazhayar

Sub-Division : SWR SD No 1, Trivandrum



Note: Missing values have not been considered while arriving at Annual Runoff

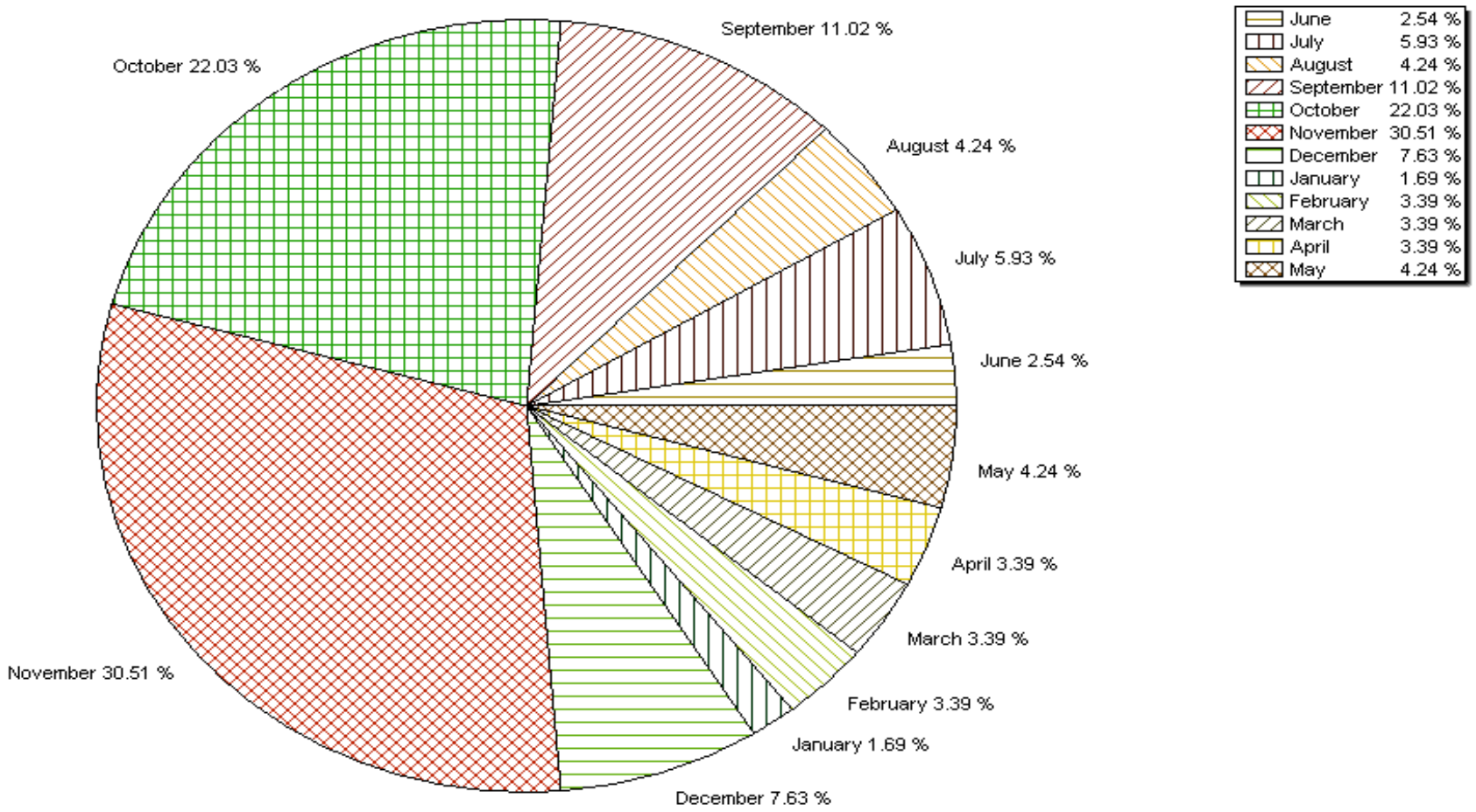
Monthly Average Runoff based on period : 2000-2015

Station Name : ASHRAMAM (KE000G2)

Local River : Pazhayar

Division : SWR Division, Kochi

Sub-Division : SWR SD No 1, Trivandrum



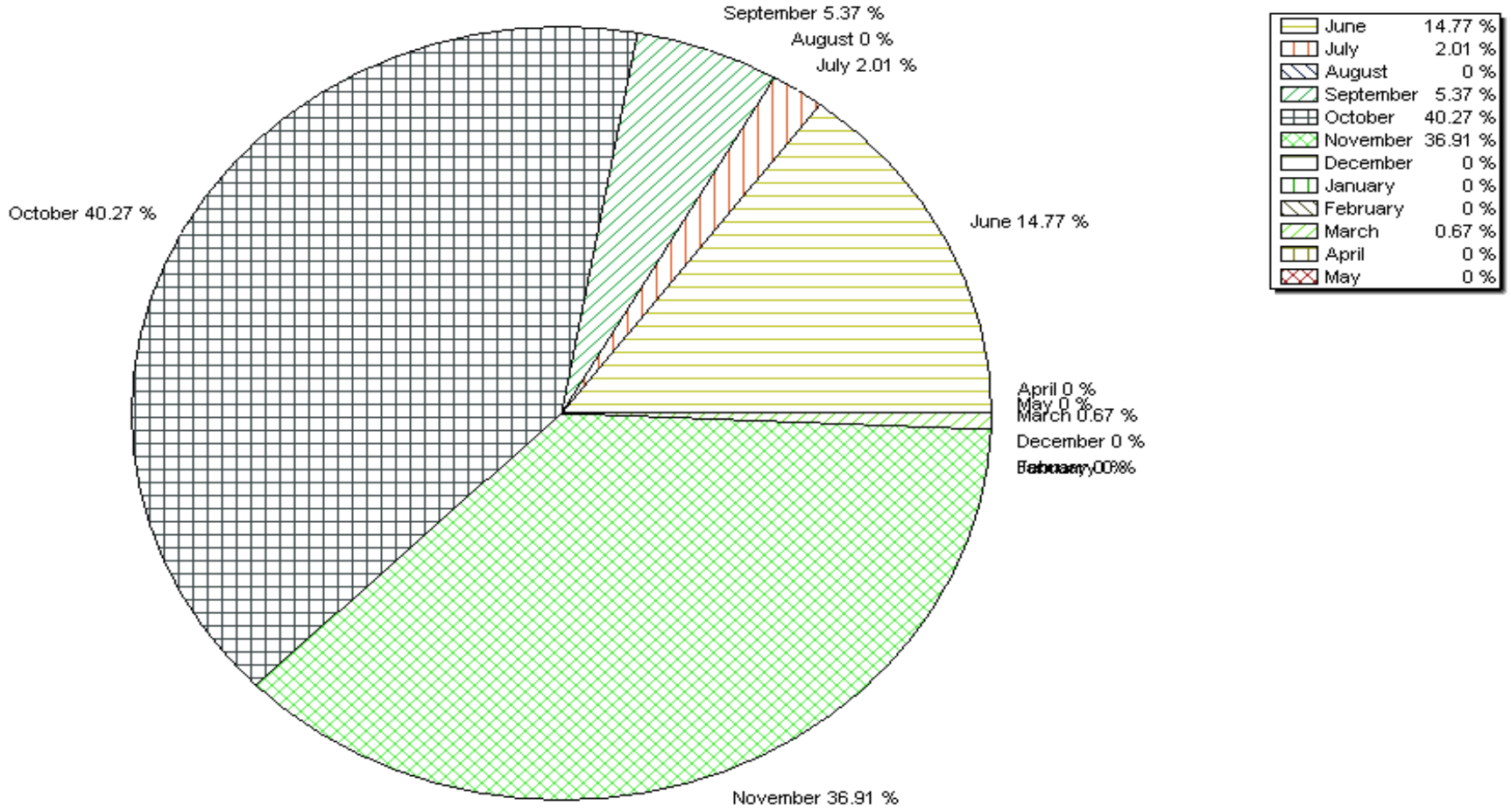
Monthly Runoff for the Year : 2015-2016

Station Name : ASHRAMAM (KE000G2)

Local River : Pazhayar

Division : SWR Division, Kochi

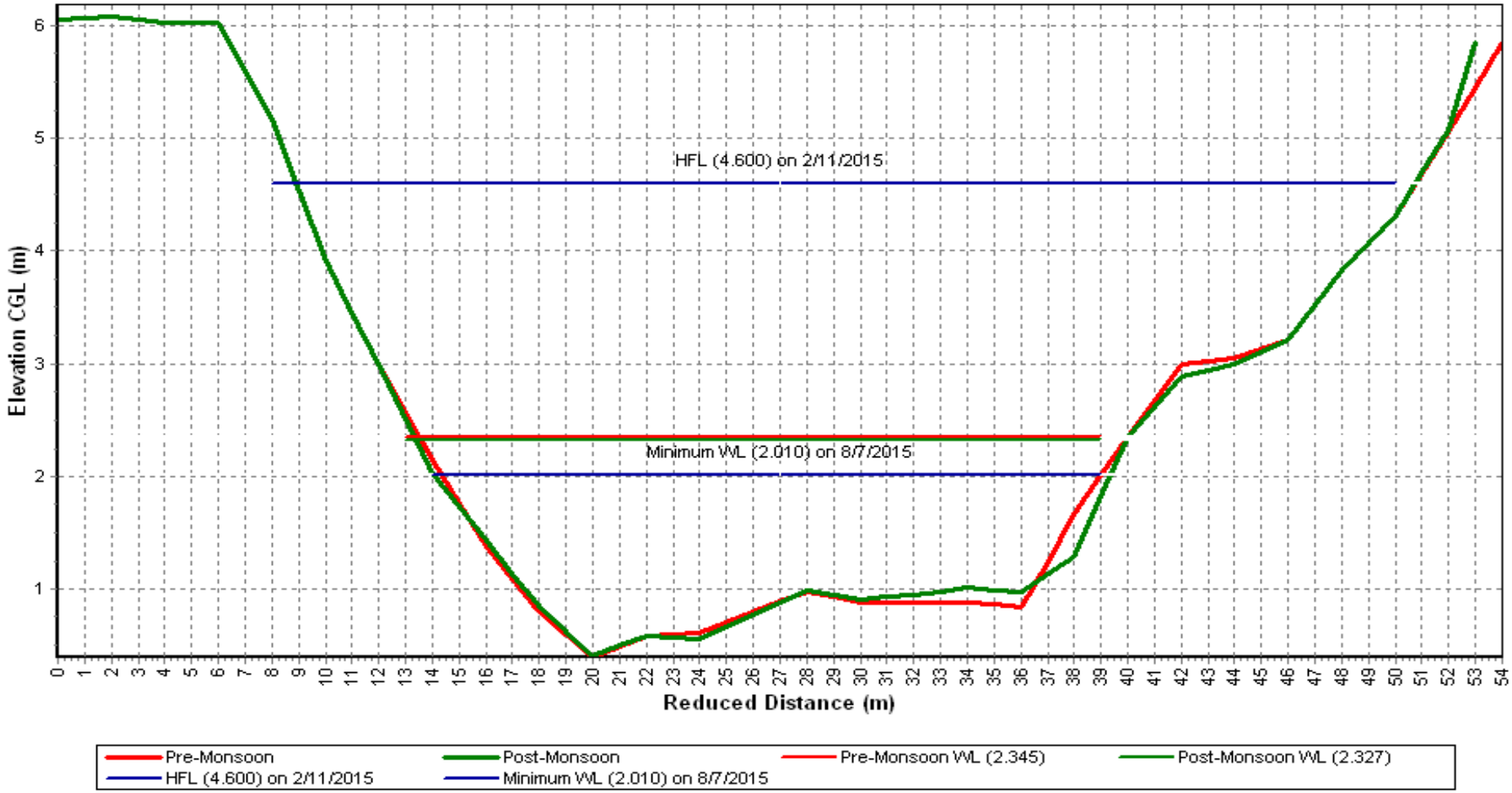
Sub-Division : SWR SD No 1, Trivandrum



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2015-2016

Station Name : ASHRAMAM (KE000G2) **Division : SWR Division, Kochi**

Local River : Pazhayar **Sub-Division : SWR SD No 1, Trivandrum**



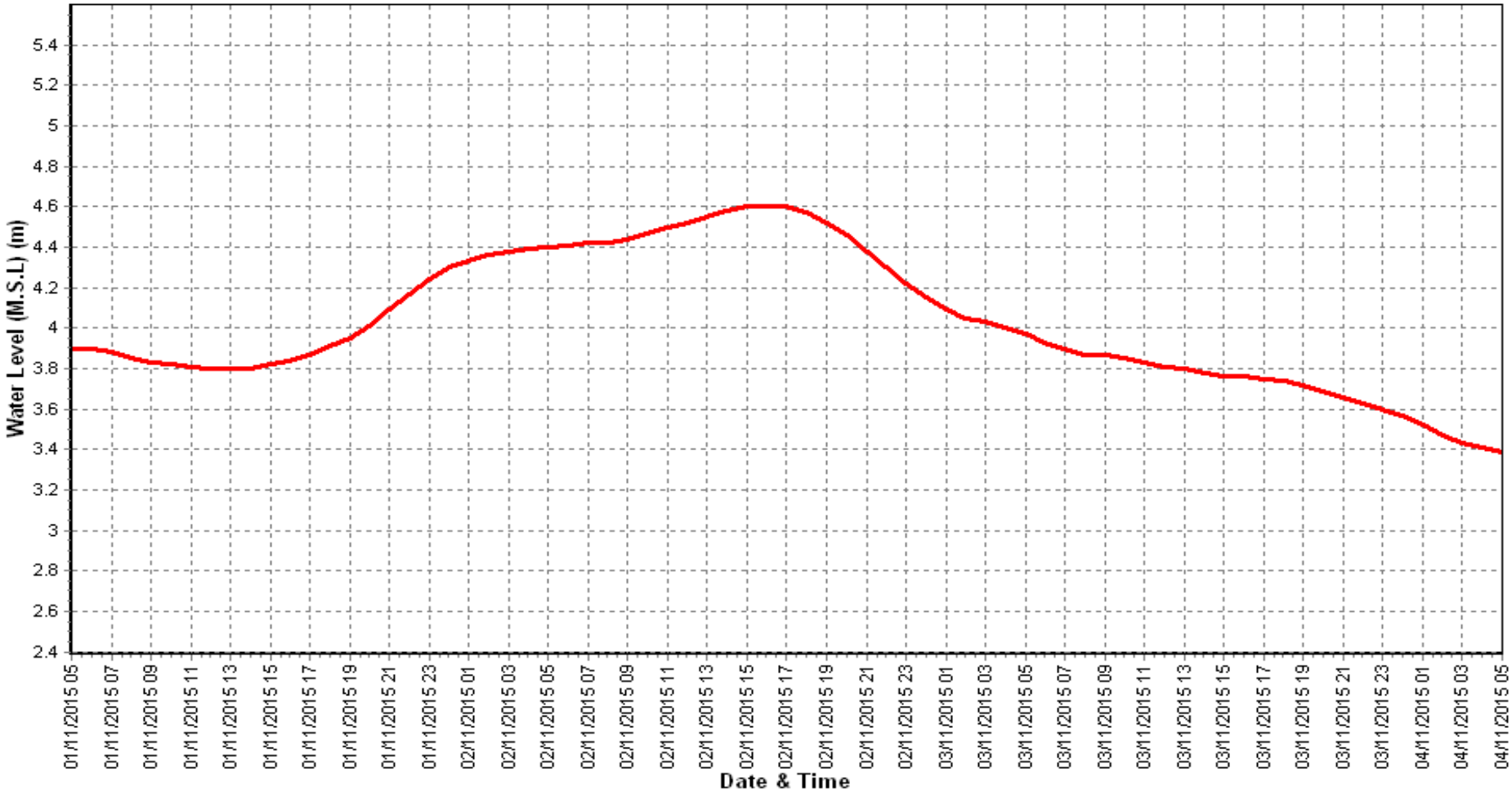
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2015-2016

Station Name : ASHRAMAM (KE000G2)

Division : SWR Division, Kochi

Local River : Pazhayar

Sub-Division : SWR SD No 1, Trivandrum

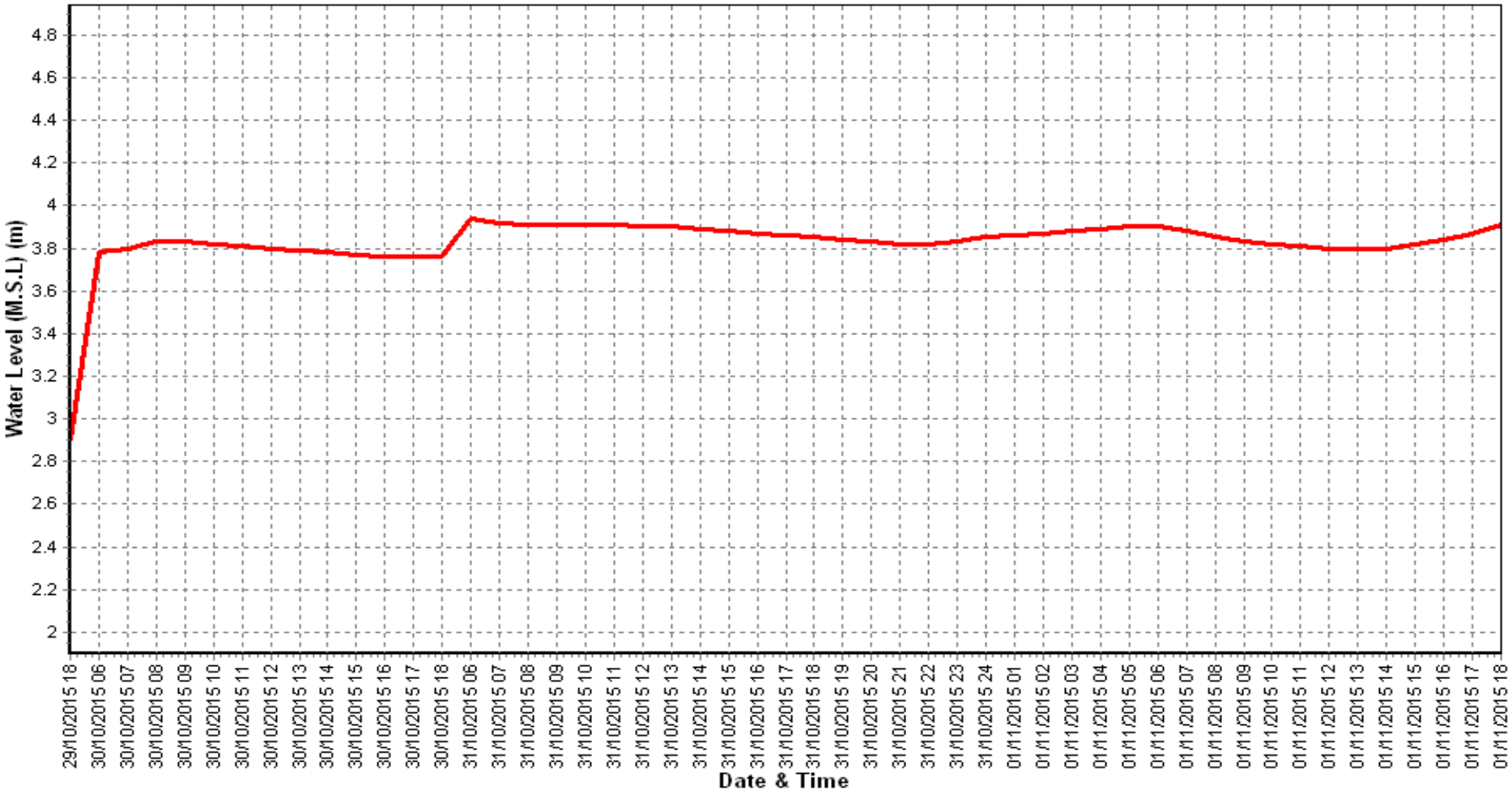


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2015-2016

Station Name : ASHRAMAM (KE000G2) **Division : SWR Division, Kochi**

Local River : Pazhayar **Sub-Division : SWR SD No 1, Trivandrum**



Time Span: 72 Hrs

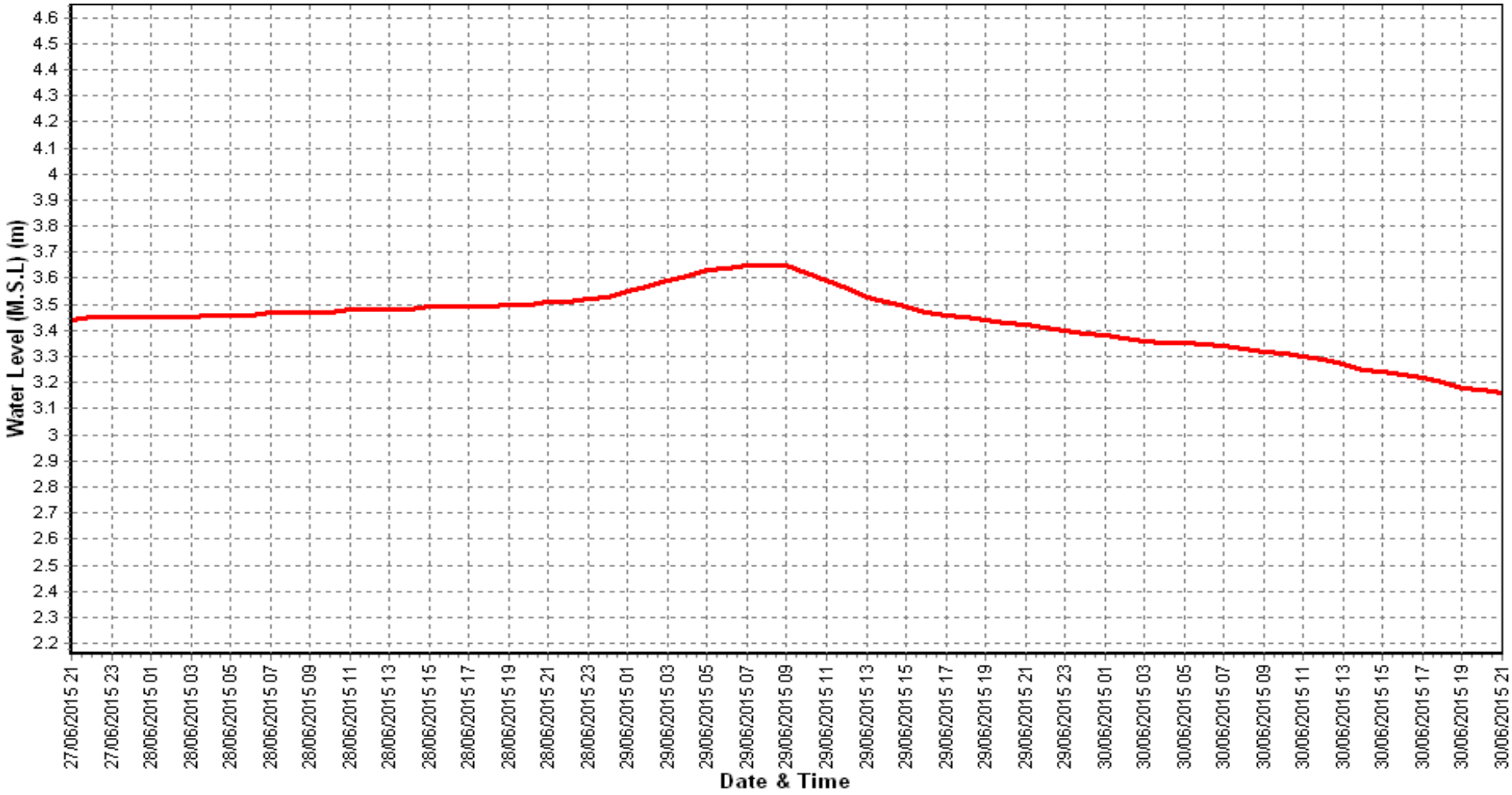
Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2015-2016

Station Name : ASHRAMAM (KE000G2)

Division : SWR Division, Kochi

Local River : Pazhayar

Sub-Division : SWR SD No 1, Trivandrum



Time Span: 72 Hrs

ANNEXURE-II

DETAILS OF IMPORTANT PROJECTS IN MANDOVI BASIN

Sl.No.	Name of Project	River	Status	Capacity in MCM		Utilisation in MCM
				Gross	Live	
1.	Mandovi Irrigation Project	Mandovi	Completed	111.19	107.75	--
2.	Anjunem Project	Guleli (Vaivanta)	Completed			

ANNEXURE-III

DETAILS OF IMPORTANT PROJECTS IN BHARATHAPUZHA BASIN

Sl.No.	Name of Project	River	Status	Capacity in MCM		Utilisation in MCM
				Gross	Live	
1.	Kanhirapuzha Regulator	Kanhirapuzha	Completed	70.83	70.21	*
2.	Cheerakuzhy Regulator	Gayathripuzha	Completed			
3.	Mangalam Dam	Cherukimnupuzha	Completed	25.49	25.34	*
4.	Pothundi Dam	Ayalurpuzha	Completed	50.91	43.89	*
5.	Malampuzha Reservoir	Malampuzha	Completed	228.40	226.00	*
6.	Walayar Reservoir	Walayar	Completed	18.90	18.40	*
7.	Chulliyar Dam	Chulliyar	Completed	--	--	--
8.	Meenakara Dam	Meenakarapuzha	Completed	--	--	--
9.	Chitturpuzha Regulator	Chitturpuzha	Completed	Diversion scheme		*
10.	Aliyar Reservoir	Aliyar	Completed	109.43	109.43	
11.	Upper Aliyar Dam	Aliyar	Completed			
12.	Nallar Scheme	Nallar	Completed			
13.	Thirumurthi Reservoir	Palar	Completed	58.40	49.39	

NOTE: '*' - Release through canal are to be collected from the Project itself for utilisation purpose. The specified figure for utilisation is not readily available in CE, Irrigation office, Thiruvananthapuram.

ANNEXURE-IV

DETAILS OF IMPORTANT PROJECTS IN PERIYAR BASIN

Sl.No.	Name of Project	River	Status	Capacity in MCM		Utilisation in MCM
				Gross	Live	
1.	Periyar Valley Project	Periyar	Completed	443.5	299.35	--
2.	Chalakudy Diversion Scheme	Chalakudy	Completed			*
3.	Edamalayar Irrigation Scheme	Edamalayar	On Going	1,089.80	1,017.80	1,824.00
4.	Pallivasal Hydel Project	Mudirepuzha	Completed	63.00	63.00	155.40
5.	Sengulam Hydel Project	Mudirepuzha	Completed	49.85	49.00	230.10
6.	Penniar Hydel Project	Penniar	Completed			
7.	Neriamangalam Hydel Project	Mudirepuzha	Completed	6.80	5.49	732.00
8.	Idukky Hydel Project	Periyar and Cherutheni	Completed	1,996.30	1,459.50	2,027.90

ANNEXURE-V

DETAILS OF IMPORTANT PROJECTS IN PAMBA BASIN

Sl.No.	Name of Project	River	Status	Capacity in MCM		Utilisation in MCM
				Gross	Live	
1.	Pambar Irrigation Project	Kakkad	Completed	Barrage		*
2.	Sabarigiri Hydel Project	Pamba and Kakki	Completed	487.3	471.68	1,046.8

NOTE: `*' - Release through canal are to be collected from the Project itself for utilisation purpose. The specified figure for utilisation is not readily available in CE, Irrigation office, Thiruvananthapuram.

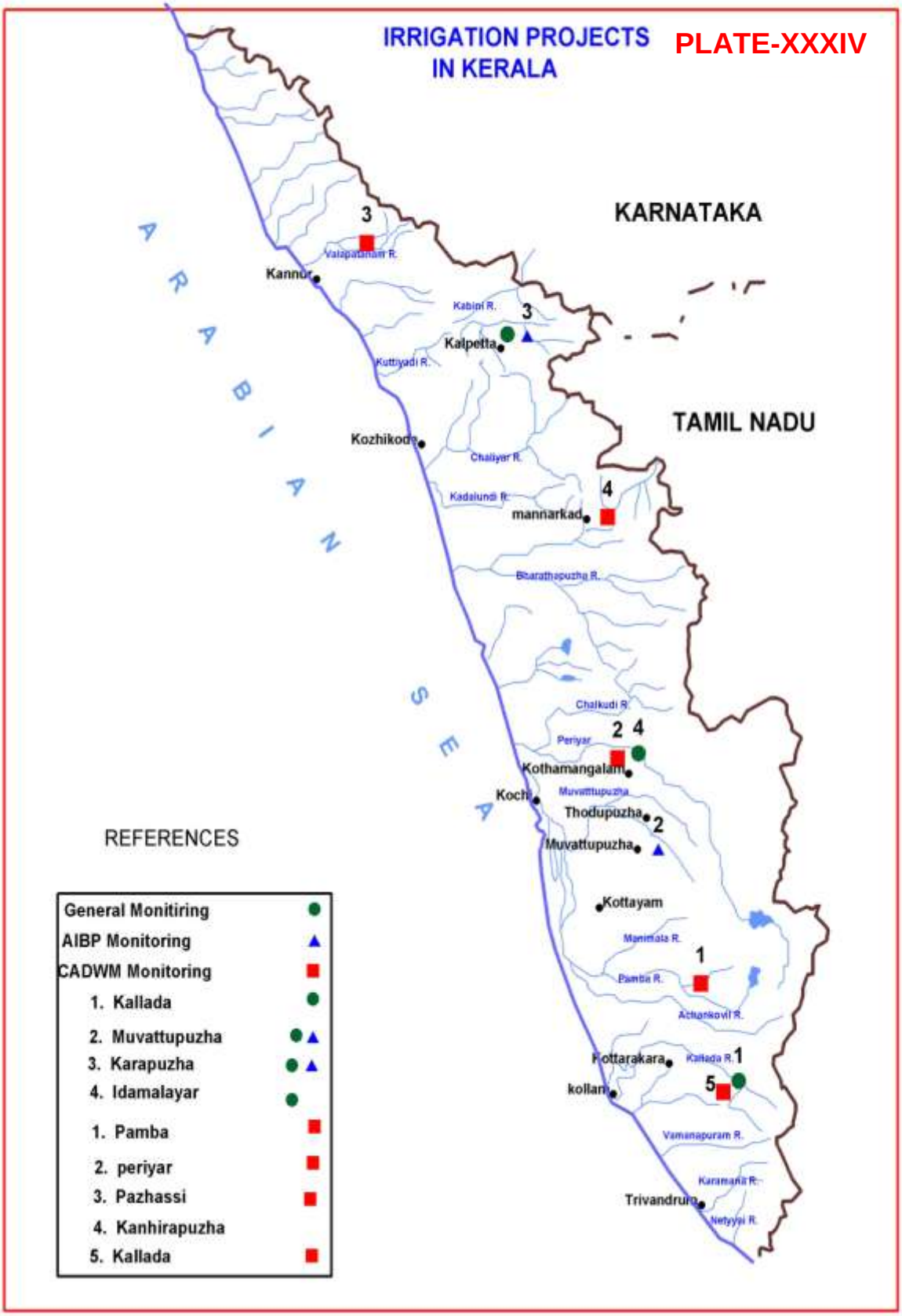

IRRIGATION PROJECTS
IN KERALA
PLATE-XXXIV
KARNATAKA
TAMIL NADU
ARABIAN SEA
Valapattanam R.
Kannur
Kabini R.
Kalpetta
Kuttiyadi R.
Kozhikode
Chaliyar R.
Kadalundi R.
mannarkad
Bharathapuzha R.
Chalkudi R.
Periyar
Kothamangalam
Kochi
Muvattupuzha
Thodupuzha
Muvattupuzha
Kottayam
Manimala R.
Pamba R.
Achankovil R.
Kallada R.
Pottarakara
kollam
Vamanapuram R.
Karamana R.
Trivandrum
Nettyiyi R.
REFERENCES
General Monitiring
AIBP Monitoring
CADWM Monitoring
1. Kallada
2. Muvattupuzha
3. Karapuzha
4. Idamalayar
1. Pamba
2. periyar
3. Pazhassi
4. Kanhirapuzha
5. Kallada

PLATE-XXXV

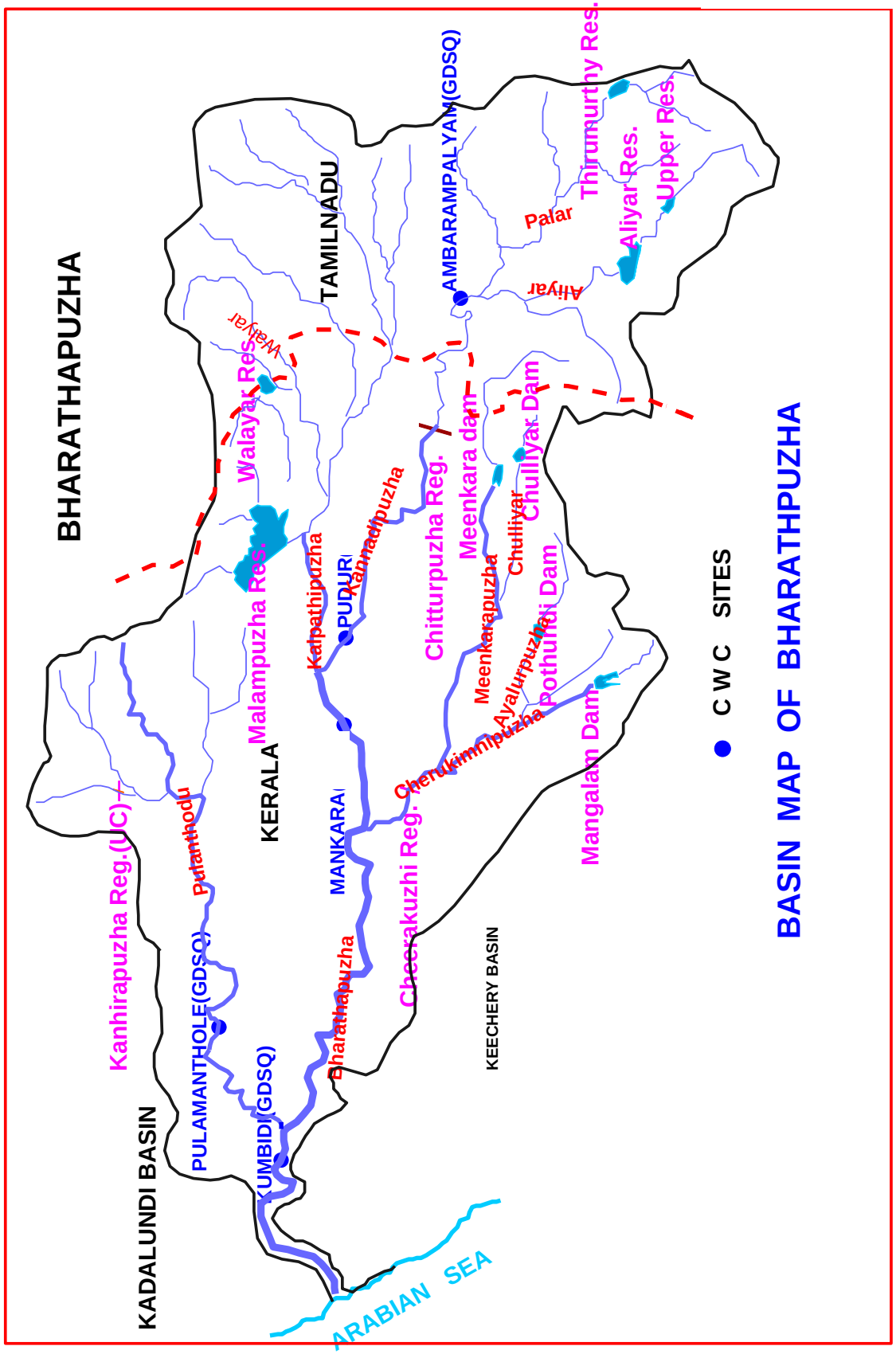

BHARATHAPUZHA
KERALA
TAMILNADU
KADALUNDI BASIN
KEECHERY BASIN
AMBARAMPALYAM(GDSQ)
PULAMANTHOLE(GDSQ)
KUMBIDI(GDSQ)
MANKARA
PUDUR
Kanhirapuzha Reg.(UC)
Pulanthodu
Walayar
Walayar Res.
Malampuzha Res.
Kalpathipuzha
Kannadipuzha
Chitturpuzha Reg.
Meenkara dam
Chulliyar
Chulliyar Dam
Meenkarapuzha
Ayalurpuzha
Cherukimnipuzha
Pothundi Dam
Mangalam Dam
Cheerakuzhi Reg.
Bharathapuzha
Palar
Aliyar
Thirumurthy Res.
Aliyar Res.
Upper Res.
ARABIAN SEA
C W C SITES
BASIN MAP OF BHARATHPUZHA

PLATE-XXXVI

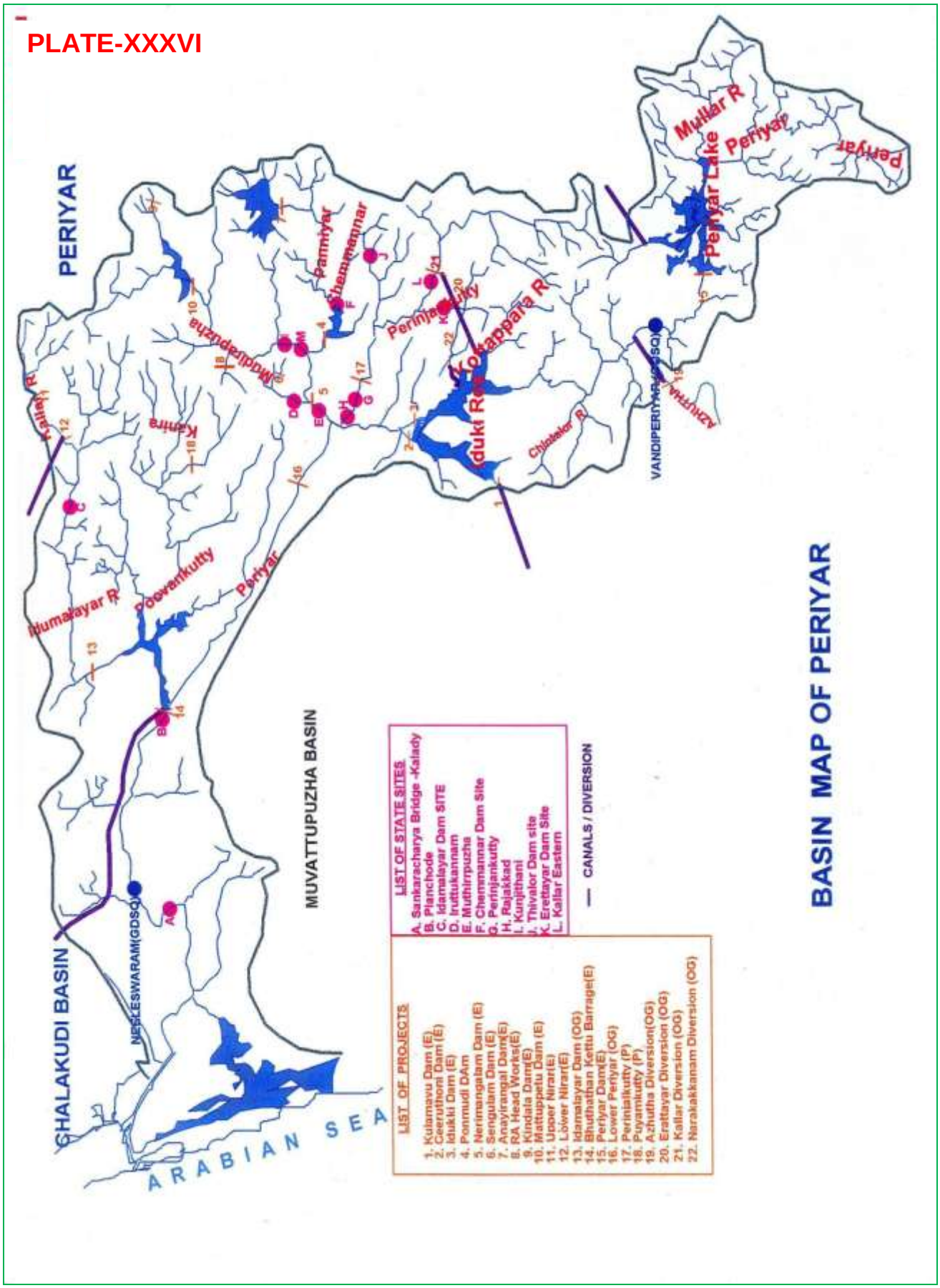
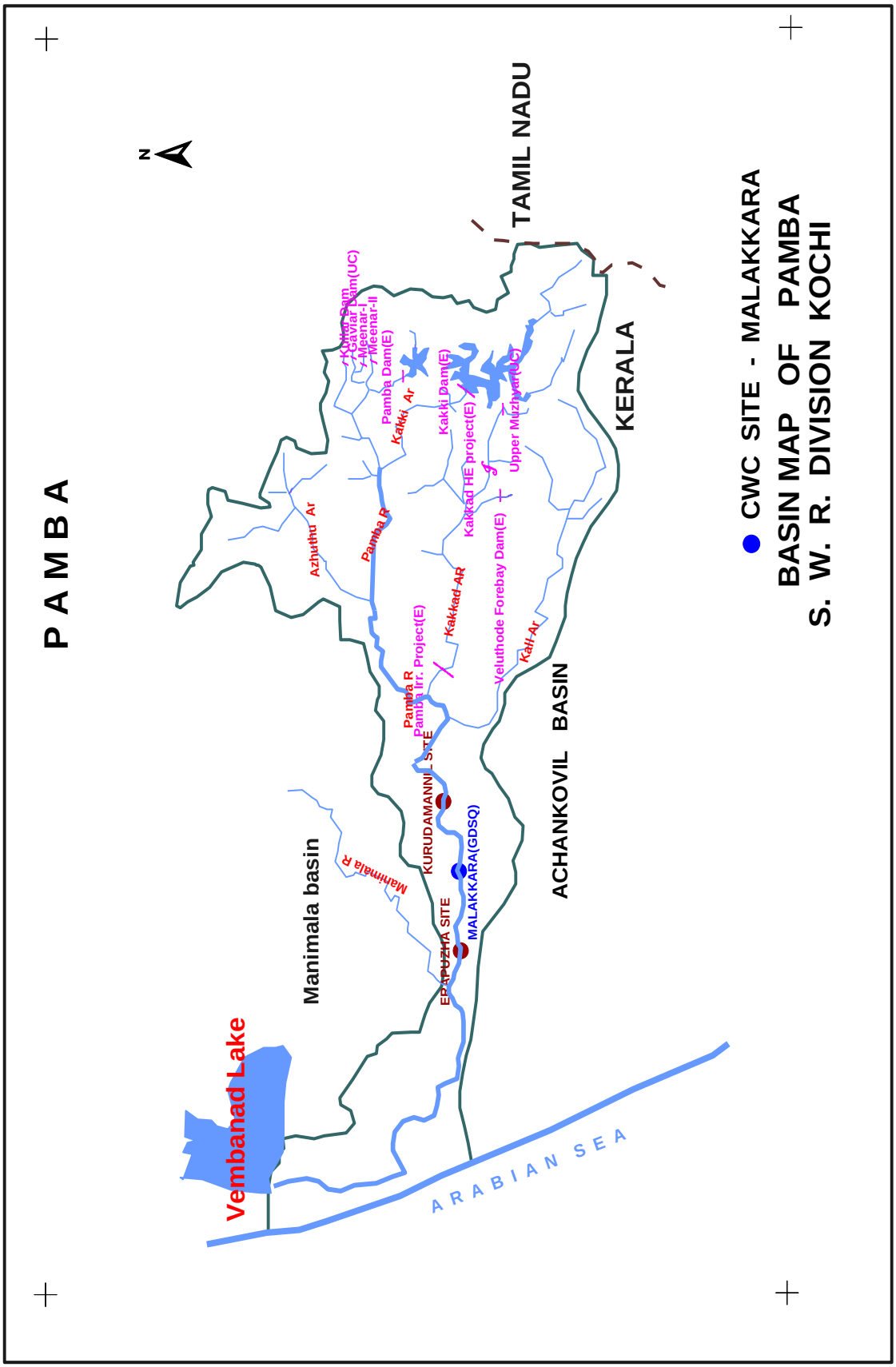

PERIYAR
MUVATTUPUZHA BASIN
CHALAKUDI BASIN
ARABIAN SEA
Mullar R
Periyar
Periyar Lake
Pamiyar
Chenmannar
Perinjankutty
Kokappara R
Idukki Reservoir
Chinnakar R
VANDIPERIYAR(GDSQ)
AZHUTHA
Kaliyar R
Kanjira
Muvattupuzha
Idumalayar R
Poovankutty
Periyar
NEELESWARAM(GDSQ)
LIST OF STATE SITES
A. Sankaracharya Bridge -Kalady
B. Planchode
C. Idamalayar Dam SITE
D. Iruttukannam
E. Muthirrpuzha
F. Chennamannar Dam Site
G. Perinjankutty
H. Rajakkad
I. Kunjithani
J. Thivalor Dam site
K. Erattayar Dam Site
L. Kallar Eastern
— CANALS / DIVERSION
LIST OF PROJECTS
1. Kulamavu Dam (E)
2. Ceeruthoni Dam (E)
3. Idukki Dam (E)
4. Ponmudi DAm
5. Nerimangalam Dam (E)
6. Sengulam Dam (E)
7. Anayirangal Dam(E)
8. RA Head Works(E)
9. Kindala Dam(E)
10. Mattuppetu Dam (E)
11. Upper Nirar(E)
12. Lower Nirar(E)
13. Idamalayar Dam (OG)
14. Bhuthathan Kettu Barrage(E)
15. Periyar Dam(E)
16. Lower Periyar (OG)
17. Periyalkutty (P)
18. Puyamkutty (P)
19. Azhutha Diversion(OG)
20. Erattayar Diversion (OG)
21. Kallar Diversion (OG)
22. Narakakkanam Diversion (OG)
BASIN MAP OF PERIYAR

PLATE-XXXVII



(केवल कार्यालय उपयोग हेतु)
(FOR OFFICE USE ONLY)

वार्षिक जल पुस्तिका
WATER YEAR BOOK
(जून 2015 – मई 2016)
(JUNE 2015 – MAY 2016)
पश्चिम प्रवाही नदियाँ बेसिन
WEST FLOWING RIVERS BASIN
निलंबित गाद आँकड़ा
Suspended Sediment Data

कावेरी एवं दक्षिणी नदियाँ परिमण्डल, बेंगलूरु
CAUVERY & SOUTHERN RIVERS CIRCLE, BENGALURU
कावेरी एवं दक्षिणी नदियाँ संगठन, कोयंबतूर
CAUVERY & SOUTHERN RIVERS ORGANISATION, COIMBATORE

मार्च - 2017
MARCH – 2017

C O N T E N T S

SUSPENDED SEDIMENT & BED MATERIAL DATA

Sl.No.	CHAPTER	PAGE No.
1.	Ulhas at Badlapur	492-500
2.	Kal at Mangaon	501-505
3.	Nethravathi at Bantwal	506-514
4.	Payaswani at Erinjipuzha	515-523
5.	Valapatanam at Perumannu	524-532
6.	Kuttyadi at Kuttyadi	533-541
7.	Chaliyar at Kuniyil	542-550
8.	Kadalundi at Karathodu	551-559
9.	Bharathapuzha at Kumbidi	560-568
10.	Pulanthodu at Pulamanthole	568-577
11.	Bharathapuzha at Mankara	578-585
12.	Bharathapuzha at Pudur	587-593
13.	Aliyar at Ambarampalayam	594-601
14.	Chalakudi at Arangaly	602-610
15.	Periyar at Neeleswaram	611-619
16.	Muvattupuzha at Ramamangalam	620-628
17.	Kaliyar at Kalampur	629-637
18.	Meenachil at Kidangoor	638-646
19.	Manimala at Kallooppara	647-655
20.	Pamba at Malakkara	656-664
21.	Achankovil at Thumpamon	665-673
22.	Kallada at Pattazhy	674-682
23.	Vamanapuram at Ayilam	683-691

Annual Sediment Load for period : 2014-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2014-2015	-	5402	5402*	2754
2015-2016	28391	1553	29945	1723

***Sediment Observation Started on 22.12.2014**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	1.520	0.000	0.000	0.027	0.027	4	32.19	0.000	0.000	0.020	0.020	57	265.1	0.000	0.000	0.017	0.017	382
2	10.85	0.000	0.000	0.023	0.023	21	29.37	0.000	0.000	0.021	0.021	52	213.3	0.000	0.000	0.017	0.017	314
3	13.35	0.000	0.000	0.022	0.022	26	27.56	0.000	0.000	0.021	0.021	49	119.0	0.000	0.000	0.018	0.018	185
4	16.98	0.000	0.000	0.022	0.022	32	32.67	0.000	0.000	0.020	0.020	58	128.3	0.000	0.000	0.018	0.018	198
5	11.51	0.000	0.000	0.023	0.023	22	29.37	0.000	0.000	0.021	0.021	52	122.7	0.000	0.000	0.018	0.018	190
6	17.80	0.000	0.000	0.022	0.022	33	10.02	0.000	0.000	0.023	0.023	20	134.1	0.000	0.000	0.018	0.018	206
7	14.48	0.000	0.000	0.022	0.022	28	21.28	0.000	0.000	0.021	0.021	39	113.5	0.000	0.000	0.018	0.018	177
8	1.450	0.000	0.000	0.027	0.027	3	25.81	0.000	0.000	0.021	0.021	46	120.8	0.000	0.000	0.018	0.018	188
9	15.13	0.000	0.000	0.022	0.022	29	32.19	0.000	0.000	0.020	0.020	57	128.3	0.000	0.000	0.018	0.018	198
10	17.90	0.000	0.000	0.022	0.022	33	31.24	0.000	0.000	0.020	0.020	55	88.21	0.000	0.000	0.019	0.019	141
11	20.12	0.000	0.000	0.021	0.021	37	35.14	0.000	0.000	0.020	0.020	61	74.53	0.000	0.000	0.019	0.019	121
12	17.90	0.000	0.000	0.022	0.022	33	37.18	0.000	0.000	0.020	0.020	65	96.30	0.000	0.000	0.018	0.018	153
13	15.80	0.000	0.000	0.022	0.022	30	11.42	0.000	0.000	0.023	0.023	22	88.21	0.000	0.000	0.019	0.019	141
14	17.18	0.000	0.000	0.022	0.022	32	17.90	0.000	0.000	0.022	0.022	33	68.81	0.000	0.000	0.019	0.019	113
15	3.385	0.000	0.000	0.025	0.025	7	33.16	0.000	0.000	0.020	0.020	58	122.7	0.000	0.000	0.018	0.018	190
16	22.47	0.000	0.000	0.021	0.021	41	35.14	0.000	0.000	0.020	0.020	61	128.3	0.000	0.000	0.018	0.018	198
17	28.46	0.000	0.000	0.021	0.021	51	32.19	0.000	0.000	0.020	0.020	57	101.3	0.000	0.000	0.018	0.018	160
18	32.19	0.000	0.000	0.020	0.020	57	50.59	0.000	0.000	0.020	0.020	85	130.2	0.000	0.000	0.018	0.018	201
19	47.05	0.000	0.000	0.020	0.020	80	68.81	0.000	0.000	0.019	0.019	113	113.5	0.000	0.000	0.018	0.018	177
20	78.96	0.000	0.000	0.019	0.019	128	104.7	0.000	0.000	0.018	0.018	165	65.50	0.000	0.000	0.019	0.019	108
21	39.27	0.000	0.000	0.020	0.020	68	860.2	0.000	0.000	0.015	0.015	1107	61.00	0.000	0.000	0.019	0.019	101
22	191.8	0.000	0.000	0.017	0.017	285	820.1	0.000	0.000	0.015	0.015	1061	84.76	0.000	0.000	0.019	0.019	136
23	208.4	0.000	0.000	0.017	0.017	307	412.0	0.000	0.000	0.016	0.016	569	64.68	0.000	0.000	0.019	0.019	107
24	759.2	0.000	0.000	0.015	0.015	989	446.6	0.000	0.000	0.016	0.016	612	63.33	0.000	0.000	0.019	0.019	105
25	316.4	0.000	0.000	0.016	0.016	448	325.4	0.000	0.000	0.016	0.016	460	103.0	0.000	0.000	0.018	0.018	163
26	156.4	0.000	0.000	0.018	0.018	237	429.1	0.000	0.000	0.016	0.016	590	301.7	0.000	0.000	0.016	0.016	429
27	96.30	0.000	0.000	0.018	0.018	153	287.3	0.000	0.000	0.017	0.017	411	264.4	0.000	0.000	0.017	0.017	381
28	47.05	0.000	0.000	0.020	0.020	80	233.3	0.000	0.000	0.017	0.017	340	193.9	0.000	0.000	0.017	0.017	288
29	35.14	0.000	0.000	0.020	0.020	61	501.1	0.000	0.000	0.016	0.016	679	305.0	0.000	0.000	0.016	0.016	434
30	28.46	0.000	0.000	0.021	0.021	51	640.3	0.000	0.000	0.015	0.015	848	182.6	0.000	0.000	0.017	0.017	273
31							276.1	0.000	0.000	0.017	0.017	396	136.1	0.000	0.000	0.018	0.018	209
Ten Daily Mean																		
Ten Daily I	12.10	0.000	0.000	0.023	0.023	23	27.17	0.000	0.000	0.021	0.021	49	143.3	0.000	0.000	0.018	0.018	218
Ten Daily II	28.35	0.000	0.000	0.021	0.021	50	42.63	0.000	0.000	0.020	0.020	72	98.95	0.000	0.000	0.018	0.018	156
Ten Daily III	187.8	0.000	0.000	0.018	0.018	268	475.6	0.000	0.000	0.016	0.016	643	160.0	0.000	0.000	0.018	0.018	239
Monthly																		
Total						3408						8282						6370

Annual Sediment Load (Metric Tonnes) : 29945

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	117.2	0.000	0.000	0.018	0.018	183	29.10	0.000	0.000	0.021	0.021	52	23.28	0.000	0.000	0.021	0.021	42
2	99.63	0.000	0.000	0.018	0.018	158	30.76	0.000	0.000	0.021	0.021	55	7.738	0.000	0.000	0.023	0.023	16
3	63.60	0.000	0.000	0.019	0.019	105	99.13	0.000	0.000	0.018	0.018	157	13.84	0.000	0.000	0.022	0.022	26
4	48.63	0.000	0.000	0.020	0.020	82	233.3	0.000	0.000	0.017	0.017	340	28.46	0.000	0.000	0.021	0.021	51
5	46.05	0.000	0.000	0.020	0.020	78	150.1	0.000	0.000	0.018	0.018	229	20.12	0.000	0.000	0.021	0.021	37
6	35.14	0.000	0.000	0.020	0.020	61	94.65	0.000	0.000	0.018	0.018	151	24.95	0.000	0.000	0.021	0.021	45
7	26.68	0.000	0.000	0.021	0.021	48	43.67	0.000	0.000	0.020	0.020	75	23.28	0.000	0.000	0.021	0.021	42
8	34.14	0.000	0.000	0.020	0.020	60	25.70	0.000	0.000	0.021	0.021	46	15.13	0.000	0.000	0.022	0.022	29
9	27.56	0.000	0.000	0.021	0.021	49	17.40	0.000	0.000	0.022	0.022	33	7.738	0.000	0.000	0.023	0.023	16
10	65.50	0.000	0.000	0.019	0.019	108	23.96	0.000	0.000	0.021	0.021	43	10.85	0.000	0.000	0.023	0.023	21
11	105.2	0.000	0.000	0.018	0.018	166	24.11	0.000	0.000	0.021	0.021	44	24.11	0.000	0.000	0.021	0.021	44
12	78.50	0.000	0.000	0.019	0.019	127	33.16	0.000	0.000	0.020	0.020	58	15.72	0.000	0.000	0.022	0.022	30
13	146.1	0.000	0.000	0.018	0.018	223	43.07	0.000	0.000	0.020	0.020	74	10.50	0.000	0.000	0.023	0.023	21
14	126.4	0.000	0.000	0.018	0.018	196	38.22	0.000	0.000	0.020	0.020	66	11.71	0.000	0.000	0.022	0.022	23
15	196.5	0.000	0.000	0.017	0.017	291	31.17	0.000	0.000	0.020	0.020	55	12.60	0.000	0.000	0.022	0.022	24
16	158.5	0.000	0.000	0.018	0.018	240	48.03	0.000	0.000	0.020	0.020	82	6.377	0.000	0.000	0.024	0.024	13
17	284.5	0.000	0.000	0.017	0.017	407	35.35	0.000	0.000	0.020	0.020	62	3.076	0.000	0.000	0.026	0.026	7
18	413.0	0.000	0.000	0.016	0.016	570	32.19	0.000	0.000	0.020	0.020	57	12.00	0.000	0.000	0.022	0.022	23
19	814.5	0.000	0.000	0.015	0.015	1054	16.49	0.000	0.000	0.022	0.022	31	15.71	0.000	0.000	0.022	0.022	30
20	602.9	0.000	0.000	0.015	0.015	803	36.15	0.000	0.000	0.020	0.020	63	13.42	0.000	0.000	0.022	0.022	26
21	310.5	0.000	0.000	0.016	0.016	441	28.46	0.000	0.000	0.021	0.021	51	9.910	0.000	0.000	0.023	0.023	20
22	233.3	0.000	0.000	0.017	0.017	340	13.52	0.000	0.000	0.022	0.022	26	10.02	0.000	0.000	0.023	0.023	20
23	256.9	0.000	0.000	0.017	0.017	371	9.220	0.000	0.000	0.023	0.023	18	83.52	0.000	0.000	0.019	0.019	134
24	258.3	0.000	0.000	0.017	0.017	373	20.12	0.000	0.000	0.021	0.021	37	35.14	0.000	0.000	0.020	0.020	61
25	115.3	0.000	0.000	0.018	0.018	180	28.01	0.000	0.000	0.021	0.021	50	13.84	0.000	0.000	0.022	0.022	26
26	80.77	0.000	0.000	0.019	0.019	130	12.00	0.000	0.000	0.022	0.022	23	4.265	0.000	0.000	0.025	0.025	9
27	73.08	0.000	0.000	0.019	0.019	119	16.49	0.000	0.000	0.022	0.022	31	10.77	0.000	0.000	0.023	0.023	21
28	60.67	0.000	0.000	0.019	0.019	101	24.11	0.000	0.000	0.021	0.021	44	13.97	0.000	0.000	0.022	0.022	27
29	47.63	0.000	0.000	0.020	0.020	81	30.50	0.000	0.000	0.021	0.021	54	17.90	0.000	0.000	0.022	0.022	33
30	40.34	0.000	0.000	0.020	0.020	70	22.10	0.000	0.000	0.021	0.021	40	7.270	0.000	0.000	0.024	0.024	15
31							20.00	0.000	0.000	0.021	0.021	37						
Ten Daily Mean																		
Ten Daily I	56.41	0.000	0.000	0.020	0.020	93	74.78	0.000	0.000	0.020	0.020	118	17.54	0.000	0.000	0.022	0.022	33
Ten Daily II	292.6	0.000	0.000	0.017	0.017	408	33.79	0.000	0.000	0.020	0.020	59	12.52	0.000	0.000	0.023	0.023	24
Ten Daily III	147.7	0.000	0.000	0.018	0.018	221	20.41	0.000	0.000	0.021	0.021	37	20.66	0.000	0.000	0.022	0.022	37
Monthly																		
Total						7217						2183						932

Annual Sediment Load (Metric Tonnes) : 29945

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	3.076	0.000	0.000	0.026	0.026	7	6.200	0.000	0.000	0.022	0.022	12	2.503	0.000	0.000	0.026	0.026	6
2	15.13	0.000	0.000	0.022	0.022	29	1.850	0.000	0.000	0.029	0.029	5	1.988	0.000	0.000	0.027	0.027	5
3	12.71	0.000	0.000	0.022	0.022	25	1.753	0.000	0.000	0.027	0.027	4	7.738	0.000	0.000	0.023	0.023	16
4	14.72	0.000	0.000	0.022	0.022	28	3.708	0.000	0.000	0.025	0.025	8	6.600	0.000	0.000	0.022	0.022	12
5	11.95	0.000	0.000	0.022	0.022	23	8.717	0.000	0.000	0.023	0.023	17	6.800	0.000	0.000	0.022	0.022	13
6	16.49	0.000	0.000	0.022	0.022	31	4.765	0.000	0.000	0.025	0.025	10	9.855	0.000	0.000	0.021	0.021	18
7	5.542	0.000	0.000	0.024	0.024	12	1.440	0.000	0.000	0.025	0.025	3	10.85	0.000	0.000	0.023	0.023	21
8	4.398	0.000	0.000	0.025	0.025	9	4.813	0.000	0.000	0.028	0.028	12	2.238	0.000	0.000	0.026	0.026	5
9	15.80	0.000	0.000	0.022	0.022	30	7.211	0.000	0.000	0.025	0.025	15	1.753	0.000	0.000	0.027	0.027	4
10	10.30	0.000	0.000	0.023	0.023	20	1.988	0.000	0.000	0.027	0.027	5	6.816	0.000	0.000	0.024	0.024	14
11	9.100	0.000	0.000	0.023	0.023	18	1.753	0.000	0.000	0.027	0.027	4	6.844	0.000	0.000	0.022	0.022	13
12	20.12	0.000	0.000	0.021	0.021	37	3.076	0.000	0.000	0.026	0.026	7	7.747	0.000	0.000	0.021	0.021	14
13	9.754	0.000	0.000	0.023	0.023	19	4.046	0.000	0.000	0.025	0.025	9	10.83	0.000	0.000	0.022	0.022	21
14	4.765	0.000	0.000	0.025	0.025	10	9.046	0.000	0.000	0.021	0.021	17	11.42	0.000	0.000	0.023	0.023	22
15	2.783	0.000	0.000	0.026	0.026	6	1.450	0.000	0.000	0.025	0.025	3	5.146	0.000	0.000	0.024	0.024	11
16	9.229	0.000	0.000	0.023	0.023	18	1.600	0.000	0.000	0.027	0.027	4	3.076	0.000	0.000	0.026	0.026	7
17	5.570	0.000	0.000	0.024	0.024	12	5.146	0.000	0.000	0.024	0.024	11	9.754	0.000	0.000	0.023	0.023	19
18	6.100	0.000	0.000	0.025	0.025	13	1.988	0.000	0.000	0.027	0.027	5	4.518	0.000	0.000	0.028	0.028	11
19	9.132	0.000	0.000	0.026	0.026	21	1.326	0.000	0.000	0.028	0.028	3	8.233	0.000	0.000	0.021	0.021	15
20	6.377	0.000	0.000	0.024	0.024	13	5.542	0.000	0.000	0.024	0.024	12	4.673	0.000	0.000	0.028	0.028	11
21	3.708	0.000	0.000	0.025	0.025	8	8.102	0.000	0.000	0.027	0.027	19	8.220	0.000	0.000	0.023	0.023	17
22	1.869	0.000	0.000	0.027	0.027	4	6.822	0.000	0.000	0.027	0.027	16	4.046	0.000	0.000	0.025	0.025	9
23	7.738	0.000	0.000	0.023	0.023	16	1.620	0.000	0.000	0.026	0.026	4	0.796	0.000	0.000	0.029	0.029	2
24	6.816	0.000	0.000	0.024	0.024	14	4.765	0.000	0.000	0.025	0.025	10	4.765	0.000	0.000	0.025	0.025	10
25	8.220	0.000	0.000	0.023	0.023	17	1.753	0.000	0.000	0.027	0.027	4	4.169	0.000	0.000	0.027	0.027	10
26	1.550	0.000	0.000	0.027	0.027	4	1.532	0.000	0.000	0.027	0.027	4	1.950	0.000	0.000	0.028	0.028	5
27	4.398	0.000	0.000	0.025	0.025	9	2.503	0.000	0.000	0.026	0.026	6	9.074	0.000	0.000	0.022	0.022	17
28	4.765	0.000	0.000	0.025	0.025	10	2.238	0.000	0.000	0.026	0.026	5	5.952	0.000	0.000	0.024	0.024	12
29	1.532	0.000	0.000	0.027	0.027	4	1.430	0.000	0.000	0.025	0.025	3	1.988	0.000	0.000	0.027	0.027	5
30	7.270	0.000	0.000	0.024	0.024	15	7.358	0.000	0.000	0.025	0.025	16						
31	1.750	0.000	0.000	0.027	0.027	4	6.377	0.000	0.000	0.024	0.024	13						
Ten Daily Mean																		
Ten Daily I	11.01	0.000	0.000	0.023	0.023	21	4.245	0.000	0.000	0.026	0.026	9	5.714	0.000	0.000	0.024	0.024	11
Ten Daily II	8.293	0.000	0.000	0.024	0.024	17	3.497	0.000	0.000	0.025	0.025	7	7.224	0.000	0.000	0.024	0.024	14
Ten Daily III	4.510	0.000	0.000	0.025	0.025	9	4.045	0.000	0.000	0.026	0.026	9	4.551	0.000	0.000	0.025	0.025	10
Monthly Total						485						264						344

Annual Sediment Load (Metric Tonnes) : 29945

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Badlapur (WU000P8) **Division : Upper Krishna Divn, Pune**

Local River : Ulhas **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	4.220	0.000	0.000	0.025	0.025	9	8.115	0.000	0.000	0.021	0.021	15	0.000	0.000	0.000	0.000	0.000	0
2	9.754	0.000	0.000	0.023	0.023	19	4.300	0.000	0.000	0.023	0.023	8	0.000	0.000	0.000	0.000	0.000	0
3	9.211	0.000	0.000	0.022	0.022	18	9.754	0.000	0.000	0.023	0.023	19	0.000	0.000	0.000	0.000	0.000	0
4	4.531	0.000	0.000	0.028	0.028	11	5.952	0.000	0.000	0.024	0.024	12	0.000	0.000	0.000	0.000	0.000	0
5	0.900	0.000	0.000	0.030	0.030	2	1.326	0.000	0.000	0.028	0.028	3	0.000	0.000	0.000	0.000	0.000	0
6	2.503	0.000	0.000	0.026	0.026	6	6.377	0.000	0.000	0.024	0.024	13	0.000	0.000	0.000	0.000	0.000	0
7	1.532	0.000	0.000	0.027	0.027	4	1.410	0.000	0.000	0.025	0.025	3	0.000	0.000	0.000	0.000	0.000	0
8	1.753	0.000	0.000	0.027	0.027	4	8.220	0.000	0.000	0.023	0.023	17	0.000	0.000	0.000	0.000	0.000	0
9	6.816	0.000	0.000	0.024	0.024	14	6.529	0.000	0.000	0.023	0.023	13	0.000	0.000	0.000	0.000	0.000	0
10	8.468	0.000	0.000	0.021	0.021	15	6.816	0.000	0.000	0.024	0.024	14	0.000	0.000	0.000	0.000	0.000	0
11	8.328	0.000	0.000	0.022	0.022	16	5.952	0.000	0.000	0.024	0.024	12	0.000	0.000	0.000	0.000	0.000	0
12	9.885	0.000	0.000	0.022	0.022	19	1.135	0.000	0.000	0.028	0.028	3	0.000	0.000	0.000	0.000	0.000	0
13	6.816	0.000	0.000	0.024	0.024	14	5.542	0.000	0.000	0.024	0.024	12	0.000	0.000	0.000	0.000	0.000	0
14	2.783	0.000	0.000	0.026	0.026	6	6.163	0.000	0.000	0.024	0.024	13	0.000	0.000	0.000	0.000	0.000	0
15	1.532	0.000	0.000	0.027	0.027	4	7.000	0.000	0.000	0.021	0.021	13	0.000	0.000	0.000	0.000	0.000	0
16	4.398	0.000	0.000	0.025	0.025	9	11.34	0.000	0.000	0.023	0.023	23	0.000	0.000	0.000	0.000	0.000	0
17	4.562	0.000	0.000	0.028	0.028	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	1.800	0.000	0.000	0.028	0.028	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	5.991	0.000	0.000	0.025	0.025	13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	1.988	0.000	0.000	0.027	0.027	5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.958	0.000	0.000	0.029	0.029	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.210	0.000	0.000	0.033	0.033	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	3.076	0.000	0.000	0.026	0.026	7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.796	0.000	0.000	0.029	0.029	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	4.765	0.000	0.000	0.025	0.025	10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	4.782	0.000	0.000	0.028	0.028	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	2.783	0.000	0.000	0.026	0.026	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	5.542	0.000	0.000	0.024	0.024	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	1.326	0.000	0.000	0.028	0.028	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	4.907	0.000	0.000	0.030	0.030	13							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	4.969	0.000	0.000	0.025	0.025	10	5.880	0.000	0.000	0.024	0.024	12	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	4.808	0.000	0.000	0.025	0.025	10	3.713	0.000	0.000	0.014	0.014	7	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	2.649	0.000	0.000	0.025	0.025	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						269						192						0

Annual Sediment Load (Metric Tonnes) : 29945

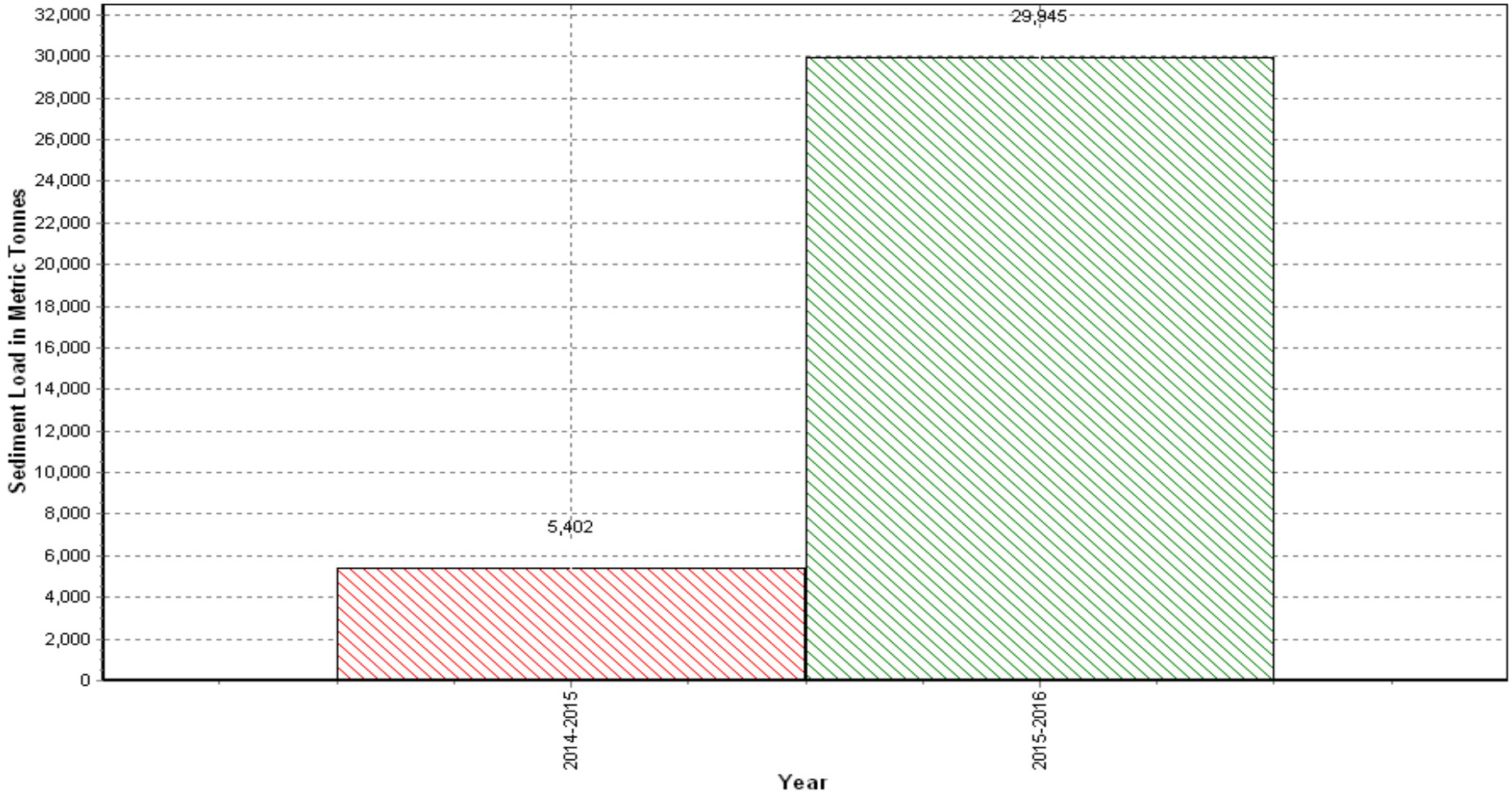
Annual Sediment Load for the period: 2014-2016

Station Name : Badlapur (WU000P8)

Local River : Ulhas

Division : Upper Krishna Divn, Pune

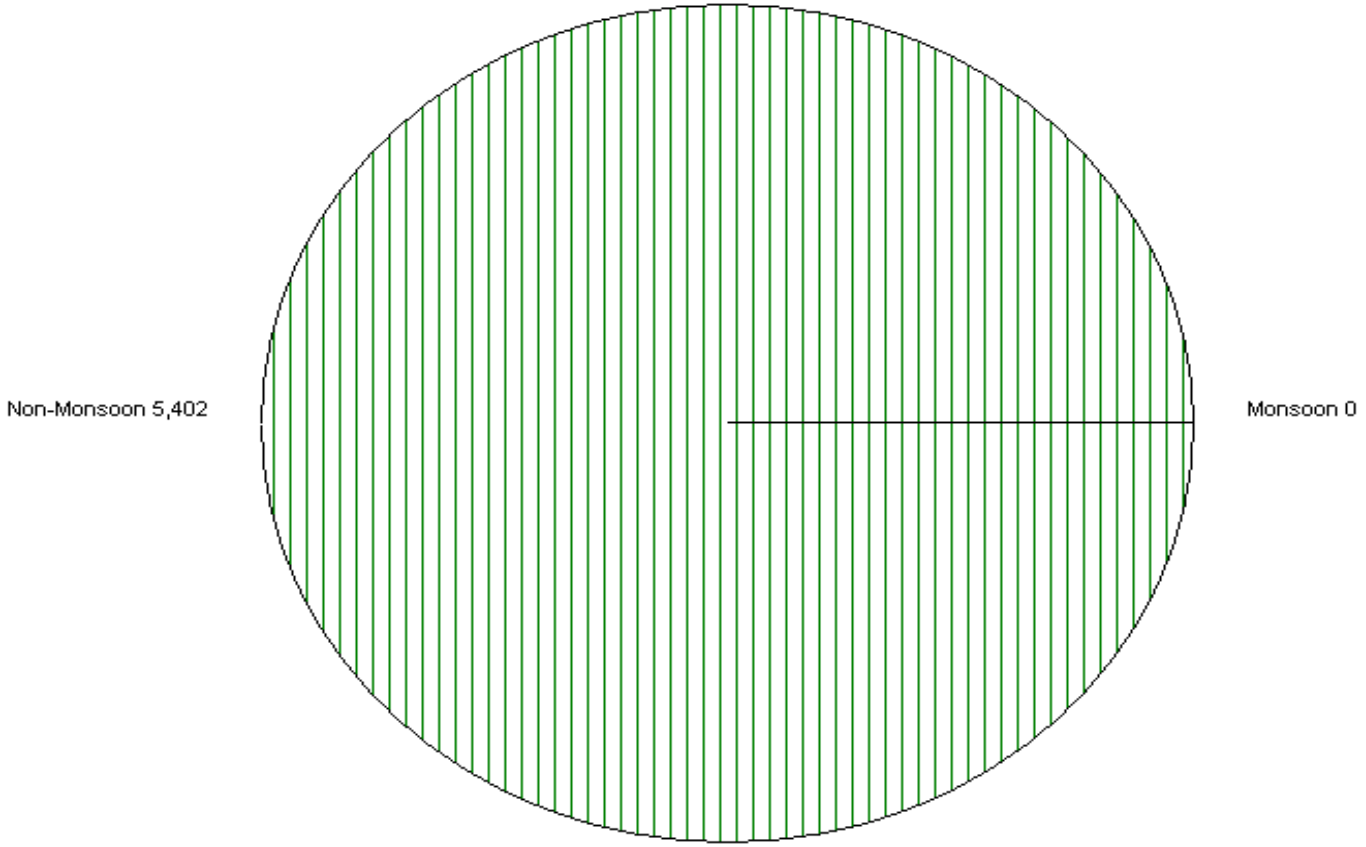
Sub-Division : Upper Krishna SD 3, Managaon



Seasonal Sediment Load for the period : 2014-2015

Station Name : Badlapur (WU000P8)
Local River : Ulhas

Division : Upper Krishna Divn, Pune
Sub-Division : Upper Krishna SD 3, Managaon



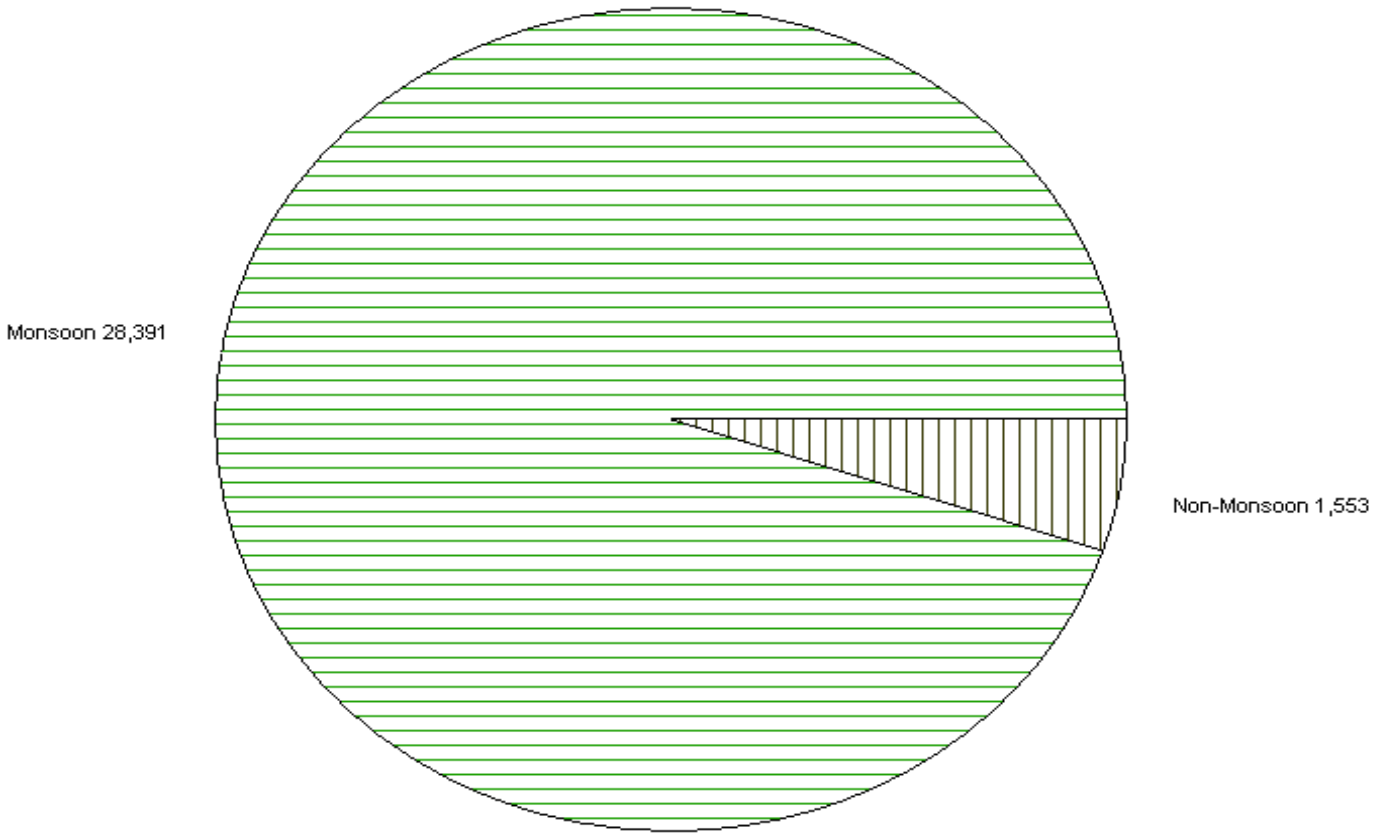
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Badlapur (WU000P8)

Local River : Ulhas

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 3, Managaon



BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015-16

SITE : **ULHAS AT BADLAPUR** CODE : **WU000P8**

MEASURING AUTHORITY : UKDn CROSS SECTION : Station gauge line

Post Monsoon Survey (Date 17/12/2015)

Discharge Observed : 5.57 cumec Water edge RB 90.5 m LB: 66.5 m

RB 176.50 m LB: 106.5m

Area of section : 42.58 MeanVelocity : 0.1308 m/sec

Wetted perimeter : 94.00 m Hydraulic Mean Depth : 0.4530 m

Sl. No	R.D.of sampling point in meters	R.L. of bed in meters	Mean diameter in mm	Remark
1	75	9.997	18.40	
2	125	9.477	24.38	Av.mean dia "m" = **24.72**
3	142	9.827	31.39	Silt factor "f" =1.76 $\sqrt{m}$ = **8.75**

Note i. Discharge observation was at station gauge line.

ii. River bed : Flowing water.

iii. Water flows in multi channels

Annual Sediment Load for period : 2014-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2015-2016	50590	0	50590	524

***Sediment Observation Started on 22.12.2014**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	41.96	0.000	0.000	0.093	0.093	337	84.90	0.000	0.000	0.082	0.082	604
2	0.000	0.000	0.000	0.000	0.000	0	31.41	0.000	0.000	0.098	0.098	265	59.47	0.000	0.000	0.087	0.087	450
3	0.000	0.000	0.000	0.000	0.000	0	15.37	0.000	0.000	0.110	0.110	146	37.80	0.000	0.000	0.095	0.095	309
4	0.000	0.000	0.000	0.000	0.000	0	14.65	0.000	0.000	0.111	0.111	141	31.12	0.000	0.000	0.098	0.098	263
5	0.000	0.000	0.000	0.000	0.000	0	11.41	0.000	0.000	0.116	0.116	114	33.69	0.000	0.000	0.096	0.096	281
6	0.000	0.000	0.000	0.000	0.000	0	10.01	0.000	0.000	0.119	0.119	103	54.31	0.000	0.000	0.089	0.089	417
7	0.000	0.000	0.000	0.000	0.000	0	8.133	0.000	0.000	0.123	0.123	86	41.79	0.000	0.000	0.093	0.093	336
8	0.000	0.000	0.000	0.000	0.000	0	9.003	0.000	0.000	0.121	0.121	94	56.87	0.000	0.000	0.088	0.088	433
9	0.000	0.000	0.000	0.000	0.000	0	9.817	0.000	0.000	0.119	0.119	101	52.80	0.000	0.000	0.089	0.089	407
10	0.000	0.000	0.000	0.000	0.000	0	8.618	0.000	0.000	0.122	0.122	91	50.80	0.000	0.000	0.063	0.063	276
11	0.000	0.000	0.000	0.000	0.000	0	12.88	0.000	0.000	0.114	0.114	126	45.03	0.000	0.000	0.092	0.092	357
12	0.000	0.000	0.000	0.000	0.000	0	12.03	0.000	0.000	0.115	0.115	120	44.10	0.000	0.000	0.072	0.072	275
13	0.000	0.000	0.000	0.000	0.000	0	11.34	0.000	0.000	0.116	0.116	114	36.45	0.000	0.000	0.095	0.095	300
14	0.000	0.000	0.000	0.000	0.000	0	15.57	0.000	0.000	0.110	0.110	148	45.24	0.000	0.000	0.069	0.069	271
15	0.000	0.000	0.000	0.000	0.000	0	13.02	0.000	0.000	0.113	0.113	128	58.94	0.000	0.000	0.088	0.088	446
16	0.000	0.000	0.000	0.000	0.000	0	11.20	0.000	0.000	0.116	0.116	113	43.63	0.000	0.000	0.092	0.092	348
17	0.000	0.000	0.000	0.000	0.000	0	16.30	0.000	0.000	0.109	0.109	154	42.21	0.000	0.000	0.067	0.067	246
18	0.000	0.000	0.000	0.000	0.000	0	24.04	0.000	0.000	0.102	0.102	212	38.20	0.000	0.000	0.094	0.094	311
19	81.88	0.000	0.000	0.073	0.073	518	27.82	0.000	0.000	0.100	0.100	239	27.04	0.000	0.000	0.100	0.100	234
20	168.1	0.000	0.000	0.071	0.071	1033	48.58	0.000	0.000	0.091	0.091	380	15.59	0.000	0.000	0.128	0.128	173
21	200.0	0.000	0.000	0.063	0.063	1096	50.14	0.000	0.000	0.090	0.090	390	16.51	0.000	0.000	0.109	0.109	155
22	390.2	0.000	0.000	0.081	0.081	2718	216.3	0.000	0.000	0.070	0.070	1311	19.46	0.000	0.000	0.073	0.073	122
23	96.01	0.000	0.000	0.069	0.069	572	119.9	0.000	0.000	0.078	0.078	804	24.04	0.000	0.000	0.102	0.102	212
24	240.0	0.000	0.000	0.082	0.082	1691	110.3	0.000	0.000	0.079	0.079	751	32.64	0.000	0.000	0.097	0.097	273
25	89.76	0.000	0.000	0.087	0.087	677	154.9	0.000	0.000	0.074	0.074	994	28.60	0.000	0.000	0.099	0.099	245
26	60.25	0.000	0.000	0.095	0.095	494	92.24	0.000	0.000	0.081	0.081	647	72.01	0.000	0.000	0.085	0.085	527
27	37.10	0.000	0.000	0.100	0.100	319	57.72	0.000	0.000	0.088	0.088	439	44.56	0.000	0.000	0.092	0.092	354
28	27.82	0.000	0.000	0.112	0.112	268	84.88	0.000	0.000	0.082	0.082	604	67.86	0.000	0.000	0.042	0.042	246
29	14.35	0.000	0.000	0.086	0.086	106	69.87	0.000	0.000	0.085	0.085	514	55.95	0.000	0.000	0.086	0.086	416
30	65.87	0.000	0.000	0.086	0.086	489	96.65	0.000	0.000	0.081	0.081	672	47.41	0.000	0.000	0.091	0.091	373
31							163.3	0.000	0.000	0.074	0.074	1039	46.78	0.000	0.000	0.067	0.067	270
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	16.04	0.000	0.000	0.113	0.113	148	50.35	0.000	0.000	0.088	0.088	378
Ten Daily II	24.99	0.000	0.000	0.014	0.014	155	19.28	0.000	0.000	0.109	0.109	173	39.64	0.000	0.000	0.090	0.090	296
Ten Daily III	122.1	0.000	0.000	0.086	0.086	843	110.6	0.000	0.000	0.080	0.080	742	41.44	0.000	0.000	0.086	0.086	290
Monthly																		
Total						9982						11375						9930

Annual Sediment Load (Metric Tonnes) : 50590

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8) **Division : Upper Krishna Divn, Pune**

Local River : Kal **Sub-Division : Upper Krishna SD 3, Managaon**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	39.98	0.000	0.000	0.094	0.094	323	8.675	0.000	0.000	0.086	0.086	64	0.000	0.000	0.000	0.000	0.000	0
2	23.80	0.000	0.000	0.064	0.064	132	33.47	0.000	0.000	0.097	0.097	279	0.000	0.000	0.000	0.000	0.000	0
3	22.59	0.000	0.000	0.103	0.103	201	22.40	0.000	0.000	0.142	0.142	275	0.000	0.000	0.000	0.000	0.000	0
4	17.47	0.000	0.000	0.108	0.108	163	70.88	0.000	0.000	0.085	0.085	520	0.000	0.000	0.000	0.000	0.000	0
5	13.75	0.000	0.000	0.112	0.112	134	37.97	0.000	0.000	0.142	0.142	467	0.000	0.000	0.000	0.000	0.000	0
6	11.20	0.000	0.000	0.116	0.116	113	36.05	0.000	0.000	0.095	0.095	297	0.000	0.000	0.000	0.000	0.000	0
7	9.501	0.000	0.000	0.146	0.146	120	18.57	0.000	0.000	0.127	0.127	203	0.000	0.000	0.000	0.000	0.000	0
8	8.636	0.000	0.000	0.114	0.114	85	17.14	0.000	0.000	0.108	0.108	160	0.000	0.000	0.000	0.000	0.000	0
9	14.09	0.000	0.000	0.095	0.095	115	14.05	0.000	0.000	0.112	0.112	136	0.000	0.000	0.000	0.000	0.000	0
10	27.04	0.000	0.000	0.100	0.100	234	12.03	0.000	0.000	0.115	0.115	120	0.000	0.000	0.000	0.000	0.000	0
11	101.1	0.000	0.000	0.080	0.080	698	12.60	0.000	0.000	0.114	0.114	124	0.000	0.000	0.000	0.000	0.000	0
12	70.88	0.000	0.000	0.085	0.085	520	31.31	0.000	0.000	0.176	0.176	477	0.000	0.000	0.000	0.000	0.000	0
13	58.94	0.000	0.000	0.088	0.088	446	14.65	0.000	0.000	0.111	0.111	141	0.000	0.000	0.000	0.000	0.000	0
14	55.49	0.000	0.000	0.085	0.085	406	11.15	0.000	0.000	0.184	0.184	177	0.000	0.000	0.000	0.000	0.000	0
15	52.16	0.000	0.000	0.163	0.163	732	7.659	0.000	0.000	0.124	0.124	82	0.000	0.000	0.000	0.000	0.000	0
16	55.41	0.000	0.000	0.913	0.913	4373	6.710	0.000	0.000	0.072	0.072	42	0.000	0.000	0.000	0.000	0.000	0
17	51.80	0.000	0.000	0.090	0.090	401	6.286	0.000	0.000	0.144	0.144	78	0.000	0.000	0.000	0.000	0.000	0
18	43.02	0.000	0.000	0.145	0.145	537	4.862	0.000	0.000	0.134	0.134	56	0.000	0.000	0.000	0.000	0.000	0
19	39.98	0.000	0.000	0.094	0.094	323	3.828	0.000	0.000	0.134	0.134	44	0.000	0.000	0.000	0.000	0.000	0
20	100.5	0.000	0.000	0.080	0.080	695	3.487	0.000	0.000	0.244	0.244	73	0.000	0.000	0.000	0.000	0.000	0
21	46.93	0.000	0.000	0.091	0.091	369	2.838	0.000	0.000	0.153	0.153	38	0.000	0.000	0.000	0.000	0.000	0
22	177.5	0.000	0.000	0.164	0.164	2519	1.741	0.000	0.000	0.160	0.160	24	0.000	0.000	0.000	0.000	0.000	0
23	81.50	0.000	0.000	0.052	0.052	368	1.487	0.000	0.000	0.164	0.164	21	0.000	0.000	0.000	0.000	0.000	0
24	46.45	0.000	0.000	0.091	0.091	366	1.029	0.000	0.000	0.175	0.175	16	0.000	0.000	0.000	0.000	0.000	0
25	31.81	0.000	0.000	0.097	0.097	268	0.826	0.000	0.000	0.182	0.182	13	0.000	0.000	0.000	0.000	0.000	0
26	23.31	0.000	0.000	0.103	0.103	207	0.640	0.000	0.000	0.190	0.190	11	0.000	0.000	0.000	0.000	0.000	0
27	18.12	0.000	0.000	0.107	0.107	168	0.398	0.000	0.000	0.206	0.206	7	0.000	0.000	0.000	0.000	0.000	0
28	14.20	0.000	0.000	0.115	0.115	141	0.204	0.000	0.000	0.231	0.231	4	0.000	0.000	0.000	0.000	0.000	0
29	11.75	0.000	0.000	0.115	0.115	117	0.065	0.000	0.000	0.281	0.281	2	0.000	0.000	0.000	0.000	0.000	0
30	9.735	0.000	0.000	0.092	0.092	78	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31							0.033	0.000	0.000	0.315	0.315	1						
Ten Daily Mean																		
Ten Daily I	18.81	0.000	0.000	0.105	0.105	162	27.12	0.000	0.000	0.111	0.111	252	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	62.93	0.000	0.000	0.182	0.182	913	10.25	0.000	0.000	0.144	0.144	130	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	46.14	0.000	0.000	0.103	0.103	460	0.842	0.000	0.000	0.187	0.187	12	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						15351						3951						0

Annual Sediment Load (Metric Tonnes) : 50590

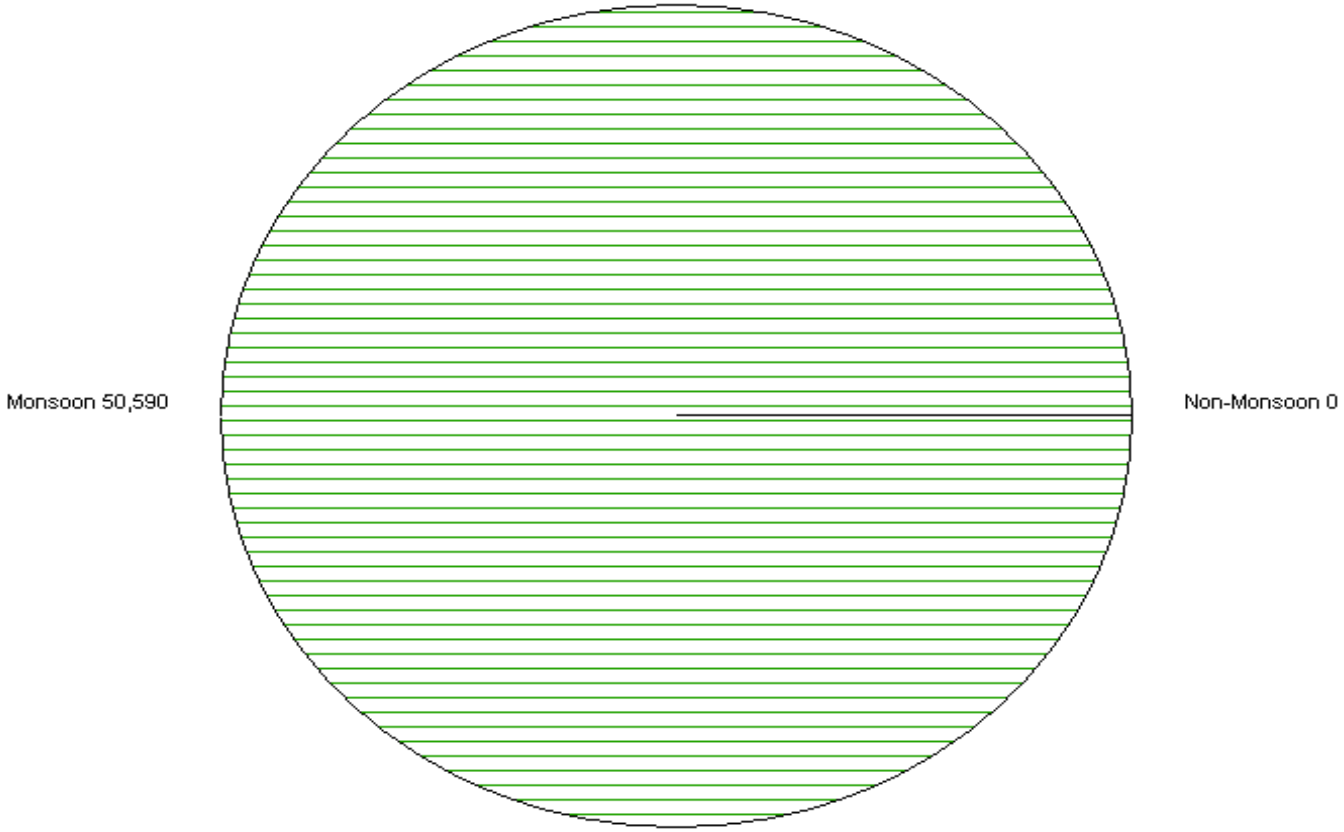
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Mangaon (Seasonal) (WMA00I8)

Division : Upper Krishna Divn, Pune

Local River : Kal

Sub-Division : Upper Krishna SD 3, Managaon



BED MATERIAL ANALYSIS DATA FOR THE YEAR 2015-16

SITE : **KAL AT MANGAON (SEASONAL)** CODE : **WMA00I8**
MEASURING AUTHORITY : UKDn CROSS SECTION : Station gauge line

Pre Monsoon Survey (Date 13/05/2015)

Discharge Observed : 0 cumec Water edge RB 180.00m LB : 279.50 m
Area of section : 89.20 MeanVelocity : 0.0000 m/sec
Wetted perimeter : 100.30 m Hydraulic Mean Depth : 0.8893 m

Sl. No.	R.D Sampling point in meters	R.L of bed in meters	Mean diameter in mm	Remark
1	225	3.450	4.79	Av.mean dia "m" = **5.46**
2	250	3.780	7.30	Silt factor, f" = 1.76√m
3	275	3.950	4.29	= **4.11**

Note i. Discharge observation was at station gauge line.
ii. River bed : Flowing water.

Monsoon Survey (Date)

Discharge Observed : --- cumec Water edge RB --- m LB : --- m
Area of section : --- MeanVelocity : --- m/sec
Wetted perimeter : --- m Hydraulic Mean Depth : --- m

Sl. No.	R.D Sampling point in meters	R.L of bed in meters	Mean diameter in mm	Remark
Survey not conducted				

Note :-

Post Monsoon Survey (Date 15/12/2015)

Discharge Observed : 0 cumec Water edge RB 180.0 m LB :280.00 m
Area of section : 90.03 MeanVelocity : 0.0000 m/se
Wetted perimeter : 100.33 m Hydraulic Mean Depth : 0.8973 m

Sl. No.	R.D Sampling point in meters	R.L of bed in meters	Mean diameter in mm	Remark
1	205	3.450	14.02	Av.mean dia "m" = **9.15**
2	230	3.900	6.19	Silt factor, f" = 1.76√m
3	275	3.585	7.24	= **5.32**

Note i. Discharge observation was at station gauge line.
ii. River bed : Flowing water.

Annual Sediment Load for period : 1973-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1973-1974	1610171	6397	1616567	11815
1974-1975	2085899	3222	2089121	12613
1975-1976	2021559	3086	2024645	15698
1976-1977	891833	9365	901197	8332
1977-1978	1031018	9464	1040482	12860
1978-1979	3129481	8393	3137874	16189
1979-1980	1339866	9038	1348904	10260
1980-1981	1614787	4473	1619261	16586
1981-1982	1933785	3355	1937140	14669
1982-1983	1068017	1992	1070009	10662
1983-1984	1346970	7425	1354395	11482
1984-1985	1220504	2945	1223450	10820
1985-1986	650693	1521	652214	9466
1986-1987	1062228	2331	1064559	9732
1987-1988	626882	3874	630756	6711
1988-1989	955353	1946	957300	9168
1989-1990	758310	19711	778021	9485
1990-1991	1041864	1517	1043381	12412
1991-1992	1086399	2844	1089243	11127
1992-1993	1041627	1724	1043351	12674
1993-1994	700163	1817	701979	9577
1994-1995	1530304	7284	1537588	15075
1995-1996	1334517	1202	1335719	10023
1996-1997	1249069	1841	1250910	10053
1997-1998	2795454	14072	2809525	12073
1998-1999	2034175	2245	2036420	12486
1999-2000	1349182	1181	1350362	10972
2000-2001	321684	339	322024	9250
2001-2002	359444	346	359789	8607
2002-2003	441835	171	442006	6402
2003-2004	650489	181	650670	7660
2004-2005	883156	0	883156*	8754
2005-2006	1645644	25482	1671126	12314
2006-2007	Sediment Observation Not Done			13644
2007-2008	Sediment Observation Not Done			14952
2008-2009	Sediment Observation Not Done			10979
2009-2010	Sediment Observation Not Done			11907
2010-2011	Sediment Observation Not Done			11966
2011-2012	0	1397	1397	12152
2012-2013	477029	152	477180	9287
2013-2014	824092	917	825009	13171
2014-2015	727821	1012	728834	10868
2015-2016	224738	2373	227111	7070

*** Partial Data**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	100.4	0.000	0.000	0.010	0.010	83	407.4	0.000	0.000	0.015	0.016	556	474.4	0.000	0.001	0.018	0.019	771
2	0.000	0.000	0.000	0.000	0.000	0	405.8	0.000	0.000	0.015	0.015	536	435.3	0.000	0.001	0.013	0.014	523
3	0.000	0.000	0.000	0.000	0.000	0	398.9	0.000	0.000	0.009	0.009	300	421.9	0.000	0.001	0.010	0.011	390
4	0.000	0.000	0.000	0.000	0.000	0	283.2	0.000	0.000	0.010	0.010	240	657.3	0.001	0.001	0.028	0.030	1675
5	0.000	0.000	0.000	0.000	0.000	0	296.7	0.000	0.000	0.010	0.010	264	601.3	0.000	0.001	0.018	0.019	972
6	0.000	0.000	0.000	0.000	0.000	0	249.5	0.000	0.000	0.005	0.005	99	929.7	0.001	0.001	0.020	0.022	1735
7	0.000	0.000	0.000	0.000	0.000	0	243.1	0.000	0.000	0.004	0.004	84	1031	0.001	0.002	0.052	0.054	4828
8	0.000	0.000	0.000	0.000	0.000	0	279.6	0.000	0.000	0.003	0.003	82	1371	0.001	0.003	0.078	0.082	9666
9	0.000	0.000	0.000	0.000	0.000	0	1365	0.001	0.001	0.034	0.036	4234	991.4	0.001	0.002	0.050	0.052	4471
10	0.000	0.000	0.000	0.000	0.000	0	1044	0.001	0.001	0.022	0.024	2192	909.1	0.001	0.002	0.035	0.037	2906
11	3.668	0.000	0.000	0.015	0.015	5	1028	0.000	0.001	0.023	0.025	2185	1337	0.001	0.002	0.038	0.041	4713
12	172.3	0.000	0.000	0.016	0.016	240	1271	0.001	0.001	0.026	0.028	3020	1243	0.001	0.001	0.029	0.031	3308
13	264.0	0.000	0.000	0.016	0.016	363	798.6	0.000	0.001	0.019	0.020	1352	1124	0.000	0.001	0.010	0.011	1107
14	136.9	0.000	0.000	0.027	0.027	319	502.4	0.000	0.000	0.008	0.008	365	1100	0.000	0.001	0.023	0.024	2271
15	142.8	0.000	0.000	0.027	0.027	328	769.9	0.001	0.001	0.029	0.031	2055	1083	0.000	0.001	0.022	0.024	2199
16	97.59	0.000	0.000	0.016	0.016	135	576.8	0.000	0.001	0.011	0.012	578	1088	0.000	0.001	0.025	0.026	2453
17	87.24	0.000	0.000	0.023	0.023	174	757.0	0.001	0.002	0.037	0.039	2551	714.4	0.000	0.001	0.014	0.015	926
18	162.5	0.000	0.000	0.013	0.013	185	1944	0.001	0.002	0.094	0.097	16275	615.8	0.000	0.001	0.015	0.016	862
19	174.0	0.000	0.001	0.044	0.046	687	2086	0.001	0.003	0.100	0.105	18852	542.4	0.000	0.001	0.022	0.024	1101
20	505.9	0.001	0.001	0.023	0.024	1062	2159	0.002	0.004	0.104	0.109	20314	616.2	0.001	0.001	0.023	0.024	1288
21	645.4	0.001	0.001	0.013	0.015	848	1260	0.001	0.001	0.024	0.026	2809	427.8	0.000	0.002	0.024	0.026	965
22	894.4	0.001	0.001	0.049	0.051	3941	1075	0.001	0.001	0.046	0.048	4495	606.4	0.000	0.001	0.021	0.023	1179
23	942.4	0.001	0.001	0.044	0.046	3778	1115	0.001	0.001	0.018	0.019	1850	615.0	0.001	0.000	0.023	0.024	1259
24	1152	0.001	0.003	0.064	0.068	6728	1027	0.001	0.001	0.025	0.027	2378	527.6	0.000	0.000	0.014	0.014	625
25	1168	0.001	0.001	0.039	0.040	4067	776.3	0.001	0.001	0.034	0.036	2441	412.0	0.000	0.000	0.013	0.013	477
26	2136	0.001	0.001	0.041	0.043	7973	712.7	0.001	0.001	0.017	0.020	1201	374.6	0.000	0.000	0.015	0.015	473
27	1269	0.001	0.003	0.116	0.120	13124	625.8	0.000	0.001	0.016	0.017	935	372.5	0.000	0.000	0.010	0.010	312
28	816.2	0.001	0.002	0.034	0.037	2595	607.5	0.000	0.001	0.018	0.019	987	404.7	0.000	0.000	0.009	0.009	318
29	524.3	0.001	0.001	0.024	0.025	1151	502.4	0.000	0.001	0.014	0.015	642	364.3	0.000	0.000	0.010	0.010	318
30	575.1	0.000	0.001	0.014	0.015	765	462.4	0.000	0.000	0.007	0.007	272	300.1	0.000	0.000	0.008	0.008	210
31							474.6	0.000	0.000	0.011	0.011	431	324.3	0.000	0.000	0.009	0.009	244
Ten Daily Mean																		
Ten Daily I	10.04	0.000	0.000	0.001	0.001	8	497.3	0.000	0.000	0.013	0.013	859	782.2	0.001	0.001	0.032	0.034	2794
Ten Daily II	174.7	0.000	0.000	0.022	0.022	350	1189	0.001	0.001	0.045	0.047	6755	946.4	0.000	0.001	0.022	0.024	2023
Ten Daily III	1012	0.001	0.002	0.044	0.046	4497	785.3	0.000	0.001	0.021	0.022	1676	429.9	0.000	0.000	0.014	0.015	580
Monthly																		
Total						48551						94576						54545

Annual Sediment Load (Metric Tonnes) : 227111

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	277.7	0.000	0.000	0.008	0.008	180	359.7	0.000	0.000	0.030	0.030	939	151.4	0.000	0.000	0.006	0.006	80
2	255.1	0.000	0.000	0.006	0.006	123	365.2	0.000	0.000	0.009	0.009	281	657.1	0.003	0.006	0.093	0.102	5796
3	237.3	0.000	0.000	0.005	0.005	111	213.8	0.000	0.000	0.008	0.008	146	525.3	0.002	0.005	0.074	0.082	3717
4	229.0	0.000	0.000	0.004	0.004	73	328.4	0.000	0.000	0.011	0.011	298	558.3	0.002	0.006	0.079	0.087	4192
5	249.1	0.000	0.000	0.005	0.005	112	276.8	0.000	0.000	0.010	0.010	232	338.5	0.001	0.001	0.032	0.034	991
6	249.9	0.000	0.000	0.005	0.005	112	385.0	0.000	0.000	0.007	0.007	220	183.7	0.000	0.000	0.010	0.010	163
7	270.8	0.000	0.000	0.006	0.006	138	265.1	0.000	0.000	0.008	0.008	188	181.8	0.000	0.000	0.010	0.010	157
8	423.3	0.000	0.000	0.007	0.007	263	258.8	0.000	0.000	0.006	0.006	130	137.2	0.000	0.000	0.007	0.007	81
9	335.7	0.000	0.000	0.010	0.010	296	247.5	0.000	0.000	0.005	0.005	103	150.1	0.000	0.000	0.008	0.008	109
10	268.7	0.000	0.000	0.015	0.015	348	243.8	0.000	0.000	0.021	0.021	449	104.8	0.000	0.000	0.005	0.005	48
11	268.2	0.000	0.000	0.006	0.006	144	246.7	0.000	0.000	0.022	0.022	460	119.8	0.000	0.000	0.005	0.005	50
12	227.6	0.000	0.000	0.005	0.005	104	188.2	0.000	0.000	0.010	0.010	156	131.4	0.000	0.000	0.004	0.004	50
13	209.3	0.000	0.000	0.010	0.010	172	239.0	0.000	0.000	0.014	0.014	285	105.8	0.000	0.000	0.005	0.005	48
14	210.2	0.000	0.000	0.007	0.007	131	231.9	0.000	0.000	0.011	0.011	214	112.2	0.000	0.000	0.013	0.013	129
15	238.5	0.000	0.000	0.005	0.005	97	195.2	0.000	0.000	0.007	0.007	125	111.5	0.000	0.000	0.013	0.013	126
16	330.4	0.000	0.000	0.004	0.004	103	139.2	0.000	0.000	0.005	0.005	58	90.23	0.000	0.000	0.011	0.011	83
17	243.5	0.000	0.000	0.010	0.010	200	142.2	0.000	0.000	0.007	0.007	80	83.88	0.000	0.000	0.010	0.010	72
18	230.9	0.000	0.000	0.008	0.008	160	135.9	0.000	0.000	0.006	0.006	65	103.5	0.000	0.000	0.012	0.012	108
19	285.2	0.000	0.000	0.006	0.006	138	144.0	0.000	0.000	0.004	0.004	51	62.21	0.000	0.000	0.007	0.007	38
20	357.7	0.000	0.000	0.006	0.006	192	135.6	0.000	0.000	0.006	0.006	64	54.99	0.000	0.000	0.007	0.007	32
21	344.8	0.000	0.000	0.006	0.006	179	126.0	0.000	0.000	0.006	0.006	64	96.77	0.000	0.000	0.010	0.010	79
22	200.7	0.000	0.000	0.007	0.007	116	167.6	0.000	0.000	0.007	0.007	106	127.2	0.000	0.000	0.010	0.010	110
23	247.6	0.000	0.000	0.006	0.006	124	147.4	0.000	0.000	0.007	0.007	89	60.37	0.000	0.000	0.021	0.021	110
24	227.3	0.000	0.000	0.007	0.007	128	122.3	0.000	0.000	0.006	0.006	60	51.51	0.000	0.000	0.008	0.008	37
25	185.8	0.000	0.000	0.008	0.008	128	134.6	0.000	0.000	0.006	0.006	64	85.98	0.000	0.000	0.008	0.008	60
26	245.8	0.000	0.000	0.008	0.008	174	103.2	0.000	0.000	0.005	0.005	44	96.77	0.000	0.000	0.010	0.010	79
27	177.3	0.000	0.000	0.007	0.007	110	98.69	0.000	0.000	0.005	0.005	44	53.32	0.000	0.000	0.007	0.007	30
28	331.1	0.000	0.000	0.005	0.005	129	106.7	0.000	0.000	0.005	0.005	50	83.88	0.000	0.000	0.008	0.008	60
29	202.7	0.000	0.000	0.007	0.007	121	267.5	0.000	0.000	0.008	0.008	190	90.23	0.000	0.000	0.008	0.008	65
30	263.6	0.000	0.000	0.010	0.010	230	350.1	0.000	0.000	0.009	0.009	260	79.75	0.000	0.000	0.008	0.008	55
31							218.4	0.000	0.000	0.009	0.009	160						
Ten Daily Mean																		
Ten Daily I	279.7	0.000	0.000	0.007	0.007	176	294.4	0.000	0.000	0.011	0.011	298	298.8	0.001	0.002	0.033	0.035	1533
Ten Daily II	260.2	0.000	0.000	0.007	0.007	144	179.8	0.000	0.000	0.009	0.009	156	97.55	0.000	0.000	0.009	0.009	74
Ten Daily III	242.7	0.000	0.000	0.007	0.007	144	167.5	0.000	0.000	0.007	0.007	103	82.58	0.000	0.000	0.010	0.010	69
Monthly																		
Total						4635						5673						16758

Annual Sediment Load (Metric Tonnes) : 227111

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	59.10	0.000	0.000	0.012	0.012	60	177.4	0.000	0.000	0.003	0.003	40	0.000	0.000	0.000	0.000	0.000	0
2	54.75	0.000	0.000	0.010	0.010	47	147.3	0.000	0.000	0.003	0.003	37	0.000	0.000	0.000	0.000	0.000	0
3	95.06	0.000	0.000	0.012	0.012	101	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	92.41	0.000	0.000	0.008	0.008	64	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	91.86	0.000	0.000	0.007	0.007	57	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	46.84	0.000	0.000	0.006	0.006	24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	95.34	0.000	0.000	0.012	0.012	101	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	70.97	0.000	0.000	0.006	0.006	34	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	35.74	0.000	0.000	0.010	0.010	31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	73.49	0.000	0.000	0.006	0.006	36	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	38.58	0.000	0.000	0.006	0.006	21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	85.29	0.000	0.000	0.008	0.008	60	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	85.29	0.000	0.000	0.008	0.008	60	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	54.42	0.000	0.000	0.007	0.007	32	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	71.34	0.000	0.000	0.004	0.004	26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	90.25	0.000	0.000	0.008	0.008	65	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	34.91	0.000	0.000	0.005	0.005	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	75.79	0.000	0.000	0.005	0.005	29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	26.05	0.000	0.000	0.004	0.004	10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	41.52	0.000	0.000	0.006	0.006	20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	33.84	0.000	0.000	0.005	0.005	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	32.20	0.000	0.000	0.005	0.005	13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	32.39	0.000	0.000	0.004	0.004	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	31.82	0.000	0.000	0.005	0.005	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	17.31	0.000	0.000	0.003	0.003	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	44.68	0.000	0.000	0.004	0.004	15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	22.09	0.000	0.000	0.004	0.004	7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	20.99	0.000	0.000	0.003	0.003	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	21.81	0.000	0.000	0.004	0.004	8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	34.91	0.000	0.000	0.004	0.004	12	0.000	0.000	0.000	0.000	0.000	0						
31	34.91	0.000	0.000	0.004	0.004	12	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	71.56	0.000	0.000	0.009	0.009	55	32.47	0.000	0.000	0.001	0.001	8	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	60.34	0.000	0.000	0.006	0.006	34	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	29.72	0.000	0.000	0.004	0.004	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						1009						77						0

Annual Sediment Load (Metric Tonnes) : 227111

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : Bantwal (WN000G9) **Division : Cauvery Division, Bangalore**

Local River : Netravathi **Sub-Division : SWRSD-III, Mangalore**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	568.7	0.000	0.000	0.010	0.010	472	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	62.55	0.000	0.000	0.009	0.009	49	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	147.3	0.000	0.000	0.012	0.012	149	0.000	0.000	0.000	0.000	0.000	0
22	264.4	0.000	0.000	0.022	0.022	507	119.9	0.000	0.000	0.011	0.011	110	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5.721	0.000	0.000	0.002	0.002	1
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	56.87	0.000	0.000	0.001	0.001	47	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	6.255	0.000	0.000	0.001	0.001	5	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	24.04	0.000	0.000	0.002	0.002	46	26.72	0.000	0.000	0.002	0.002	26	0.520	0.000	0.000	0.000	0.000	0
Monthly																		
Total						507						780						1

Annual Sediment Load (Metric Tonnes) : 227111

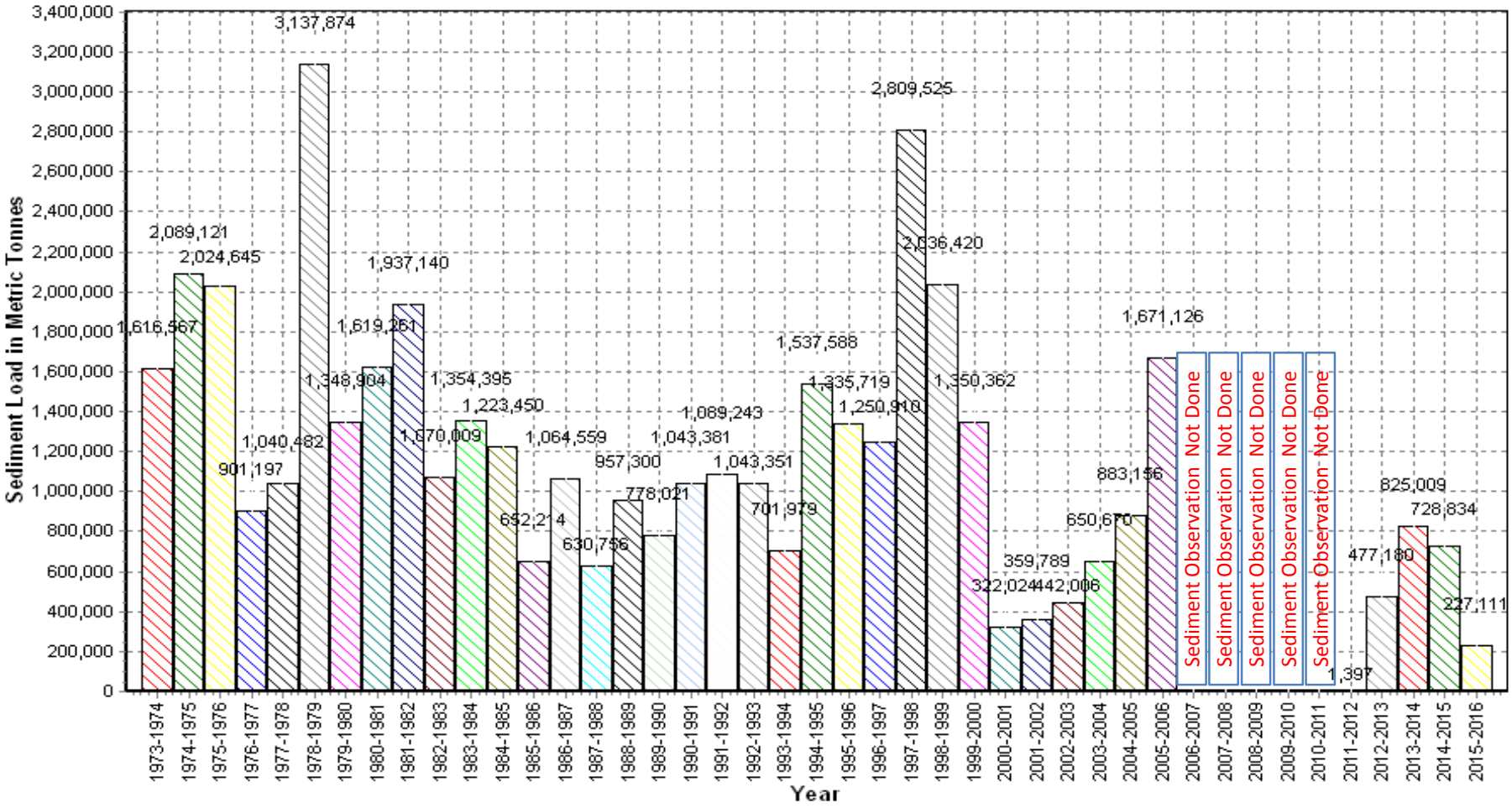
Annual Sediment Load for the period: 1973-2016

Station Name : Bantwal (WN000G9)

Local River : Netravathi

Division : Cauvery Division, Bangalore

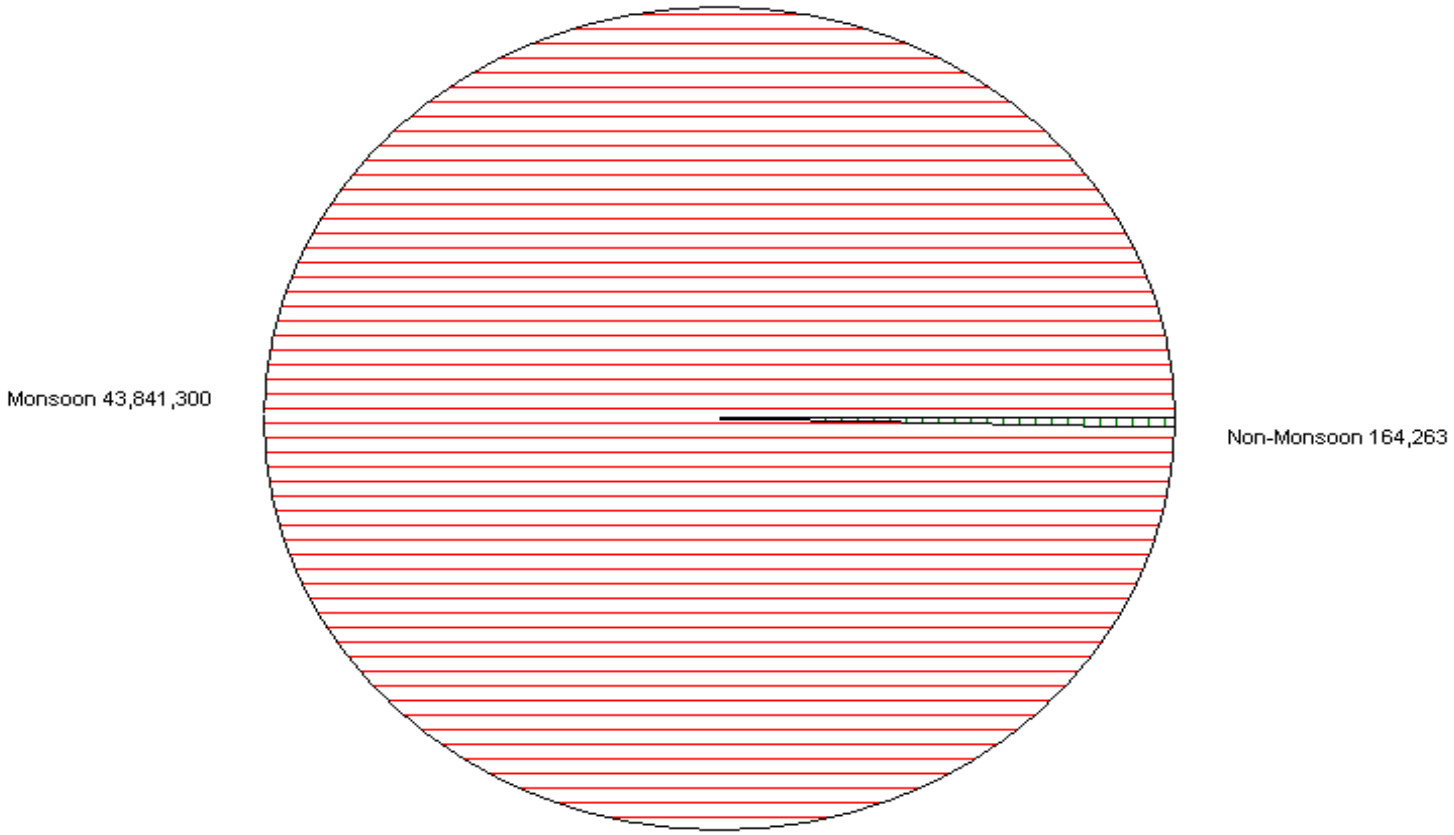
Sub-Division : SWRSD-III, Mangalore



Seasonal Sediment Load for the period : 1973-2015

Station Name : Bantwal (WN000G9)
Local River : Netravathi

Division : Cauvery Division, Bangalore
Sub-Division : SWRSD-III, Mangalore



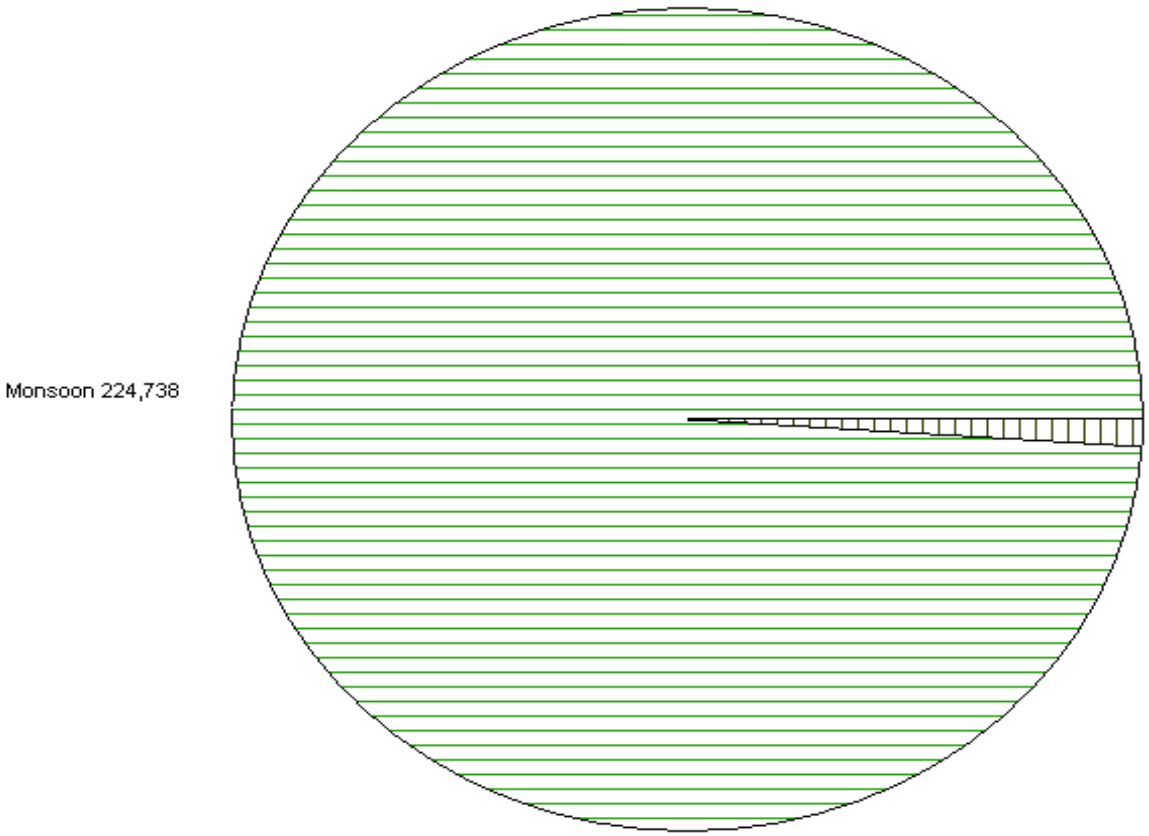
Seasonal Sediment Load for the Year: 2015-2016

Station Name : Bantwal (WN000G9)

Local River : Netravathi

Division : Cauvery Division, Bangalore

Sub-Division : SWRSD-III, Mangalore



BED MATERIAL ANALYSIS DATA

RIVER : Netravathi **CODE NO. :** WN000G9

SITE : BANTWAL **CROSS SECTION :** SGL

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (FTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015							DATE OF COLLECTION										
1																	
2																	
3							Sample not collected										
4																	
5																	
POSTMONSOON 2015							DATE OF COLLECTION		11-12-2015								
1	60	-	1.210	2.070	0.860	60	Discharge observed at Perm. Section, i.e. 85 m D/s of S/G Line		19.00	5.21							
2	120	-	0.910	2.070	1.160	60			18.00	4.48							
3	180	-	1.940	2.070	0.130	60			19.00	5.09							
4	240	-	1.890	2.070	0.180	60			16.00	5.32	291.000	0.497	0.2632	0.00004	38.58	21.00	4.95
5	300	-	1.490	2.0.70	0.580	60			21.00	4.66							
PREMONSOON 2016							DATE OF COLLECTION		12-05-2016								
1	60	-	1.170	1.170	0.00	60	Discharge observation not conducted due to Backwater & Pooling effect at S/G Section		18.50	6.88							
2	120	-	0.850	1.170	0.32	60			25.00	3.57							
3	180	1.540	1.540	--	--	60			23.00	6.13	100.99	0.290	-	-	-	25.00	5.20
4	240	2.390	2.390	--	--	60			17.00	5.62							
5	300	2.100	2.100	--	--	60			13.00	3.81							

Annual Sediment Load for period : 1988-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1988-1989	140200	653	140853	1543
1989-1990	318922	1457	320378	2332
1990-1991	278510	964	279474	2798
1991-1992	344075	1053	345127	2832
1992-1993	365137	1043	366180	2794
1993-1994	148695	1745	150440	1863
1994-1995	403112	1175	404287	3301
1995-1996	197955	629	198585	1948
1996-1997	183983	863	184845	2488
1997-1998	207496	1524	209019	2522
1998-1999	130892	1790	132681	2481
1999-2000	266535	748	267283	2271
2000-2001	118814	760	119574	1817
2001-2002	119908	1314	121222	2133
2002-2003	82422	724	83146	1371
2003-2004	111715	2073	113788	1881
2004-2005	120737	489	121227	1840
2005-2006	180627	8977	189604	2305
2006-2007	Sediment Observation Not Done			2348
2007-2008	Sediment Observation Not Done			3031
2008-2009	107708	576	108284	1767
2009-2010	146599	1514	148112	2022
2010-2011	166985	1523	168508	2353
2011-2012	144712	1185	145896	2782
2012-2013	85837	891	86727	1694
2013-2014	140276	2499	142774	3143
2014-2015	268859	1365	270225	2619
2015-2016	109886	1169	111055	1765

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	1.012	0.000	0.000	0.023	0.023	2	89.91	0.006	0.009	0.017	0.032	245	106.2	0.009	0.024	0.008	0.041	379
2	0.869	0.009	0.001	0.013	0.022	2	76.04	0.004	0.007	0.012	0.023	153	132.0	0.013	0.022	0.100	0.135	1537
3	3.735	0.000	0.000	0.021	0.021	7	72.97	0.004	0.007	0.009	0.021	130	110.2	0.008	0.012	0.008	0.029	275
4	8.258	0.000	0.007	0.013	0.019	14	73.85	0.004	0.007	0.009	0.019	123	221.1	0.015	0.026	0.055	0.096	1832
5	22.11	0.010	0.001	0.021	0.032	62	82.76	0.004	0.007	0.009	0.021	148	188.9	0.013	0.015	0.006	0.033	545
6	16.50	0.011	0.017	0.053	0.080	113	72.18	0.004	0.006	0.008	0.017	109	253.0	0.015	0.023	0.054	0.092	2000
7	12.58	0.006	0.009	0.041	0.055	60	49.54	0.003	0.006	0.004	0.014	59	294.9	0.017	0.026	0.032	0.074	1896
8	6.497	0.000	0.000	0.022	0.022	12	61.03	0.004	0.006	0.006	0.016	82	285.6	0.016	0.025	0.028	0.069	1700
9	3.969	0.000	0.000	0.021	0.021	7	101.8	0.007	0.013	0.022	0.041	364	241.5	0.014	0.021	0.023	0.058	1214
10	6.325	0.000	0.000	0.019	0.019	10	173.9	0.010	0.015	0.039	0.064	957	255.2	0.014	0.022	0.022	0.058	1285
11	7.506	0.000	0.000	0.018	0.018	11	231.6	0.015	0.030	0.054	0.100	1993	294.2	0.021	0.036	0.024	0.080	2033
12	13.94	0.002	0.004	0.028	0.034	41	339.2	0.022	0.038	0.069	0.129	3769	291.8	0.021	0.037	0.020	0.078	1954
13	13.90	0.002	0.004	0.032	0.038	45	241.2	0.015	0.023	0.042	0.080	1659	295.1	0.021	0.036	0.016	0.073	1864
14	16.03	0.002	0.003	0.019	0.024	34	184.5	0.013	0.014	0.016	0.044	697	231.2	0.015	0.028	0.015	0.058	1154
15	19.94	0.002	0.003	0.009	0.014	24	256.3	0.014	0.026	0.054	0.094	2077	253.3	0.016	0.029	0.014	0.059	1287
16	19.63	0.002	0.003	0.021	0.025	43	170.9	0.015	0.023	0.014	0.052	762	330.8	0.020	0.038	0.019	0.077	2195
17	19.15	0.002	0.002	0.012	0.016	26	206.0	0.013	0.021	0.016	0.050	886	241.4	0.014	0.026	0.012	0.052	1083
18	22.69	0.002	0.003	0.038	0.043	83	704.8	0.028	0.043	0.057	0.128	7813	193.2	0.012	0.020	0.006	0.038	633
19	23.07	0.002	0.003	0.005	0.010	19	634.8	0.025	0.039	0.052	0.116	6335	177.0	0.011	0.019	0.006	0.037	563
20	107.8	0.002	0.003	0.079	0.083	775	772.9	0.025	0.039	0.064	0.128	8568	138.1	0.012	0.018	0.006	0.036	431
21	155.5	0.002	0.004	0.071	0.077	1040	532.2	0.028	0.044	0.074	0.146	6709	114.1	0.009	0.015	0.006	0.030	296
22	178.7	0.003	0.005	0.052	0.060	918	380.6	0.023	0.042	0.029	0.093	3071	99.43	0.008	0.014	0.006	0.028	236
23	157.9	0.003	0.007	0.040	0.050	675	359.1	0.023	0.041	0.040	0.104	3223	122.2	0.008	0.013	0.014	0.035	374
24	200.0	0.004	0.008	0.036	0.048	828	255.9	0.023	0.039	0.026	0.088	1955	142.8	0.008	0.012	0.022	0.043	527
25	163.4	0.004	0.006	0.024	0.034	480	198.1	0.022	0.037	0.021	0.079	1357	127.0	0.007	0.014	0.013	0.035	380
26	230.4	0.007	0.012	0.028	0.046	916	183.1	0.019	0.029	0.019	0.067	1052	104.0	0.007	0.010	0.007	0.025	220
27	282.5	0.007	0.012	0.074	0.093	2270	230.3	0.022	0.031	0.024	0.076	1518	102.6	0.008	0.012	0.011	0.031	273
28	197.1	0.007	0.011	0.051	0.069	1178	230.1	0.019	0.032	0.020	0.071	1418	138.7	0.011	0.016	0.013	0.039	472
29	103.8	0.007	0.011	0.025	0.043	382	168.9	0.019	0.023	0.009	0.051	750	102.4	0.008	0.012	0.008	0.028	243
30	133.4	0.007	0.009	0.040	0.056	642	136.8	0.018	0.023	0.009	0.049	584	84.70	0.008	0.011	0.008	0.027	195
31							122.0	0.016	0.024	0.009	0.049	511	63.49	0.007	0.010	0.008	0.025	135
Ten Daily Mean																		
Ten Daily I	8.186	0.003	0.003	0.025	0.031	29	85.40	0.005	0.008	0.013	0.027	237	208.9	0.013	0.022	0.034	0.069	1266
Ten Daily II	26.37	0.002	0.003	0.026	0.030	110	374.2	0.019	0.030	0.044	0.092	3456	244.6	0.016	0.029	0.014	0.059	1320
Ten Daily III	180.3	0.005	0.008	0.044	0.057	933	254.3	0.021	0.033	0.026	0.079	2013	109.2	0.008	0.013	0.011	0.031	305
Monthly																		
Total						10719						59076						29211

Annual Sediment Load (Metric Tonnes) : 111055

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	82.53	0.007	0.009	0.007	0.023	161	117.2	0.009	0.011	0.014	0.033	336	49.72	0.005	0.006	0.010	0.020	87
2	63.45	0.007	0.008	0.005	0.019	106	140.4	0.012	0.016	0.018	0.046	556	90.44	0.008	0.009	0.024	0.041	321
3	48.84	0.006	0.008	0.004	0.019	79	73.52	0.008	0.011	0.011	0.029	184	43.36	0.002	0.002	0.013	0.017	65
4	54.62	0.005	0.007	0.007	0.019	91	78.35	0.008	0.010	0.017	0.035	237	40.90	0.002	0.003	0.018	0.023	80
5	49.61	0.006	0.008	0.006	0.020	85	76.00	0.007	0.008	0.022	0.038	248	83.21	0.002	0.002	0.039	0.043	309
6	59.88	0.007	0.009	0.011	0.027	139	123.0	0.008	0.014	0.037	0.058	621	47.87	0.005	0.008	0.048	0.062	254
7	54.01	0.006	0.008	0.013	0.027	124	88.69	0.008	0.010	0.023	0.041	315	31.07	0.005	0.009	0.009	0.023	62
8	70.21	0.007	0.009	0.007	0.022	133	63.00	0.007	0.009	0.016	0.032	173	30.28	0.005	0.009	0.008	0.023	59
9	66.45	0.006	0.008	0.022	0.037	210	81.35	0.007	0.009	0.013	0.029	204	21.92	0.004	0.007	0.005	0.017	31
10	60.64	0.006	0.008	0.005	0.019	100	68.48	0.007	0.008	0.011	0.026	156	27.44	0.004	0.007	0.008	0.019	45
11	49.15	0.006	0.008	0.005	0.018	77	60.95	0.007	0.008	0.012	0.027	142	28.92	0.004	0.005	0.009	0.019	46
12	48.84	0.006	0.009	0.006	0.021	90	59.92	0.007	0.009	0.015	0.031	158	25.41	0.004	0.006	0.008	0.019	41
13	45.96	0.006	0.009	0.007	0.022	87	57.49	0.007	0.009	0.014	0.030	148	27.80	0.006	0.011	0.011	0.027	66
14	44.80	0.007	0.009	0.008	0.023	91	80.74	0.008	0.011	0.015	0.035	243	36.29	0.004	0.009	0.012	0.025	78
15	40.41	0.009	0.009	0.006	0.025	86	48.35	0.009	0.013	0.015	0.036	152	25.41	0.004	0.009	0.013	0.026	57
16	44.37	0.008	0.010	0.003	0.022	83	47.78	0.006	0.008	0.009	0.023	94	23.02	0.006	0.012	0.018	0.036	72
17	39.64	0.009	0.011	0.007	0.027	92	44.34	0.006	0.008	0.008	0.022	82	25.97	0.006	0.010	0.007	0.022	50
18	46.38	0.007	0.010	0.006	0.023	90	40.61	0.006	0.007	0.008	0.022	76	24.69	0.005	0.008	0.010	0.023	49
19	50.93	0.008	0.010	0.015	0.033	147	41.06	0.006	0.008	0.010	0.024	86	20.42	0.004	0.006	0.011	0.021	37
20	50.69	0.008	0.010	0.009	0.027	116	36.98	0.007	0.008	0.011	0.026	84	19.84	0.005	0.007	0.010	0.022	37
21	53.64	0.008	0.010	0.003	0.022	100	40.07	0.007	0.008	0.005	0.020	68	33.18	0.007	0.011	0.017	0.034	97
22	41.52	0.009	0.010	0.003	0.021	76	53.69	0.008	0.009	0.004	0.021	97	21.01	0.005	0.008	0.010	0.023	42
23	34.07	0.008	0.009	0.007	0.025	73	34.84	0.006	0.006	0.003	0.014	43	19.27	0.006	0.009	0.009	0.024	40
24	38.08	0.009	0.010	0.009	0.027	90	32.51	0.005	0.005	0.003	0.013	38	17.45	0.007	0.011	0.010	0.028	42
25	33.73	0.007	0.008	0.009	0.024	70	30.28	0.005	0.005	0.003	0.013	33	41.48	0.016	0.021	0.028	0.064	228
26	37.26	0.008	0.009	0.004	0.021	66	30.35	0.006	0.005	0.003	0.014	36	25.35	0.009	0.011	0.018	0.038	83
27	34.84	0.004	0.005	0.004	0.013	39	31.37	0.017	0.004	0.003	0.024	65	18.71	0.008	0.010	0.018	0.036	59
28	87.51	0.008	0.009	0.009	0.026	193	23.78	0.005	0.005	0.005	0.015	30	18.15	0.007	0.009	0.017	0.033	51
29	87.76	0.008	0.008	0.011	0.026	199	43.50	0.004	0.003	0.007	0.013	50	18.15	0.006	0.009	0.016	0.031	49
30	118.1	0.009	0.012	0.011	0.031	318	49.23	0.005	0.004	0.005	0.014	58	16.03	0.005	0.008	0.013	0.026	36
31							54.10	0.006	0.008	0.004	0.018	83						
Ten Daily Mean																		
Ten Daily I	61.02	0.006	0.008	0.009	0.023	123	91.00	0.008	0.011	0.018	0.037	303	46.62	0.004	0.006	0.018	0.029	131
Ten Daily II	46.12	0.007	0.009	0.007	0.024	96	51.82	0.007	0.009	0.012	0.027	126	25.78	0.005	0.008	0.011	0.024	53
Ten Daily III	56.65	0.008	0.009	0.007	0.024	122	38.52	0.007	0.005	0.004	0.016	55	22.88	0.008	0.010	0.016	0.034	73
Monthly																		
Total						3412						4894						2574

Annual Sediment Load (Metric Tonnes) : 111055

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	35.10	0.005	0.008	0.015	0.028	85	7.454	0.001	0.004	0.013	0.017	11	2.651	0.000	0.000	0.008	0.008	2
2	23.65	0.004	0.006	0.011	0.021	44	7.116	0.001	0.003	0.012	0.016	10	2.688	0.000	0.000	0.009	0.009	2
3	42.77	0.007	0.011	0.021	0.039	143	7.126	0.001	0.003	0.012	0.016	10	2.766	0.000	0.000	0.009	0.009	2
4	25.00	0.005	0.007	0.014	0.026	57	6.446	0.000	0.004	0.009	0.013	7	2.378	0.000	0.000	0.008	0.008	2
5	22.89	0.004	0.007	0.011	0.022	43	7.541	0.000	0.002	0.010	0.013	8	2.379	0.000	0.000	0.008	0.008	2
6	20.33	0.004	0.007	0.012	0.024	41	7.958	0.000	0.003	0.011	0.013	9	2.084	0.000	0.000	0.007	0.007	1
7	18.74	0.005	0.008	0.014	0.027	43	7.720	0.000	0.003	0.010	0.013	9	2.643	0.000	0.000	0.009	0.009	2
8	18.49	0.004	0.000	0.012	0.016	26	6.904	0.000	0.002	0.009	0.011	7	2.490	0.000	0.000	0.009	0.009	2
9	17.95	0.004	0.005	0.014	0.022	34	6.690	0.000	0.002	0.009	0.011	6	2.091	0.000	0.000	0.009	0.009	2
10	15.87	0.004	0.005	0.016	0.025	34	6.117	0.000	0.002	0.008	0.010	5	2.210	0.000	0.000	0.009	0.009	2
11	16.26	0.004	0.004	0.018	0.026	37	7.316	0.000	0.000	0.010	0.010	6	2.362	0.000	0.000	0.010	0.010	2
12	16.42	0.004	0.004	0.009	0.017	25	6.219	0.000	0.000	0.009	0.009	5	2.360	0.000	0.000	0.010	0.010	2
13	14.40	0.004	0.005	0.010	0.018	23	5.825	0.000	0.000	0.008	0.008	4	2.285	0.000	0.000	0.010	0.010	2
14	10.63	0.004	0.004	0.009	0.016	15	5.421	0.000	0.000	0.008	0.008	4	1.786	0.000	0.000	0.007	0.007	1
15	11.86	0.003	0.003	0.010	0.017	17	5.281	0.000	0.000	0.008	0.008	3	1.616	0.000	0.000	0.009	0.009	1
16	15.29	0.004	0.004	0.013	0.022	29	5.208	0.000	0.000	0.007	0.007	3	1.869	0.000	0.000	0.014	0.014	2
17	21.77	0.006	0.006	0.019	0.031	58	5.089	0.000	0.000	0.007	0.007	3	1.244	0.000	0.000	0.009	0.009	1
18	15.74	0.004	0.005	0.014	0.023	31	4.648	0.000	0.000	0.007	0.007	3	1.850	0.000	0.000	0.014	0.014	2
19	14.31	0.004	0.004	0.012	0.020	25	4.537	0.000	0.000	0.007	0.007	3	1.432	0.000	0.000	0.011	0.011	1
20	10.05	0.003	0.003	0.009	0.014	13	4.075	0.000	0.000	0.006	0.006	2	1.137	0.000	0.000	0.009	0.009	1
21	11.42	0.002	0.002	0.010	0.015	15	4.432	0.000	0.000	0.007	0.007	3	1.404	0.000	0.000	0.011	0.011	1
22	11.01	0.002	0.003	0.015	0.020	19	4.006	0.000	0.000	0.006	0.006	2	0.997	0.000	0.000	0.011	0.011	1
23	9.816	0.002	0.003	0.013	0.018	15	3.609	0.000	0.000	0.006	0.006	2	1.163	0.000	0.000	0.016	0.016	2
24	9.114	0.002	0.002	0.012	0.017	13	4.169	0.000	0.000	0.007	0.007	2	0.837	0.000	0.000	0.011	0.011	1
25	8.962	0.002	0.002	0.012	0.016	13	3.926	0.000	0.000	0.006	0.006	2	0.506	0.000	0.000	0.007	0.007	0
26	8.664	0.002	0.002	0.012	0.016	12	4.074	0.000	0.000	0.009	0.009	3	0.845	0.000	0.000	0.012	0.012	1
27	8.517	0.002	0.002	0.012	0.016	11	3.736	0.000	0.000	0.008	0.008	3	0.858	0.000	0.000	0.012	0.012	1
28	8.772	0.002	0.003	0.017	0.022	16	2.944	0.000	0.000	0.007	0.007	2	0.725	0.000	0.000	0.010	0.010	1
29	8.648	0.001	0.004	0.015	0.020	15	2.833	0.000	0.000	0.006	0.006	2	0.838	0.000	0.000	0.014	0.014	1
30	8.681	0.001	0.004	0.015	0.020	15	2.991	0.000	0.000	0.007	0.007	2						
31	9.525	0.001	0.005	0.016	0.022	18	3.027	0.000	0.000	0.007	0.007	2						
Ten Daily Mean																		
Ten Daily I	24.08	0.005	0.006	0.014	0.025	55	7.107	0.000	0.003	0.010	0.013	8	2.438	0.000	0.000	0.008	0.008	2
Ten Daily II	14.67	0.004	0.004	0.012	0.021	27	5.362	0.000	0.000	0.008	0.008	4	1.794	0.000	0.000	0.010	0.010	2
Ten Daily III	9.375	0.002	0.003	0.013	0.018	15	3.613	0.000	0.000	0.007	0.007	2	0.908	0.000	0.000	0.011	0.011	1
Monthly																		
Total						982						143						42

Annual Sediment Load (Metric Tonnes) : 111055

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ERINJIPUZHA (KP000C3) **Division : SWR Division, Kochi**

Local River : Payaswani **Sub-Division : Chaliyar SD, Calicut**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.813	0.000	0.000	0.011	0.011	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.758	0.000	0.000	0.010	0.010	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.545	0.000	0.000	0.007	0.007	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.376	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.343	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.252	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.312	0.000	0.000	0.004	0.004	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.314	0.000	0.000	0.004	0.004	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.240	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.185	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.148	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.105	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.051	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.032	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.414	0.000	0.000	0.006	0.006	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.034	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						3						0						0

Annual Sediment Load (Metric Tonnes) : 111055

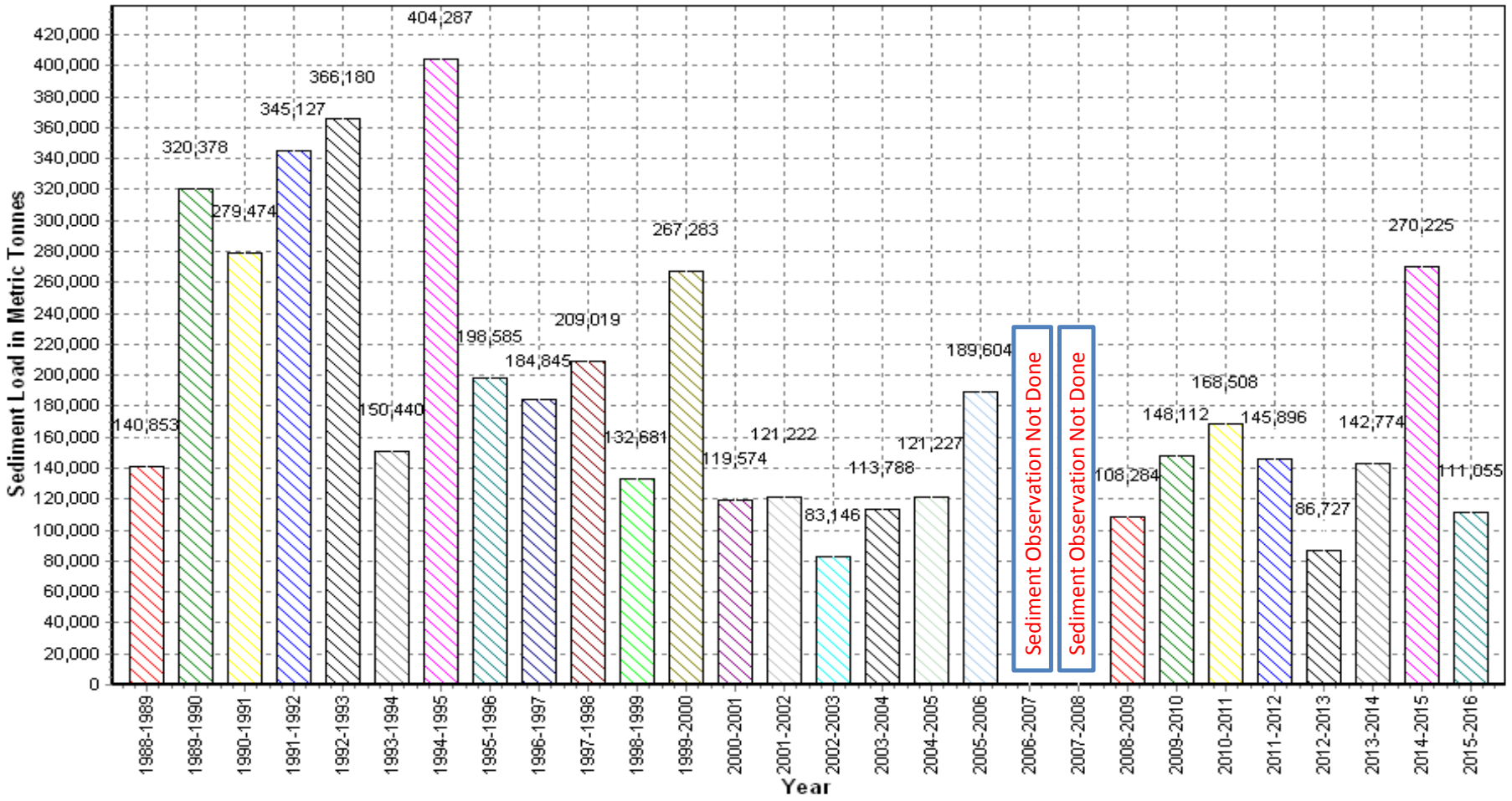
Annual Sediment Load for the period: 1988-2016

Station Name : ERINJIPUZHA (KP000C3)

Local River : Payaswani

Division : SWR Division, Kochi

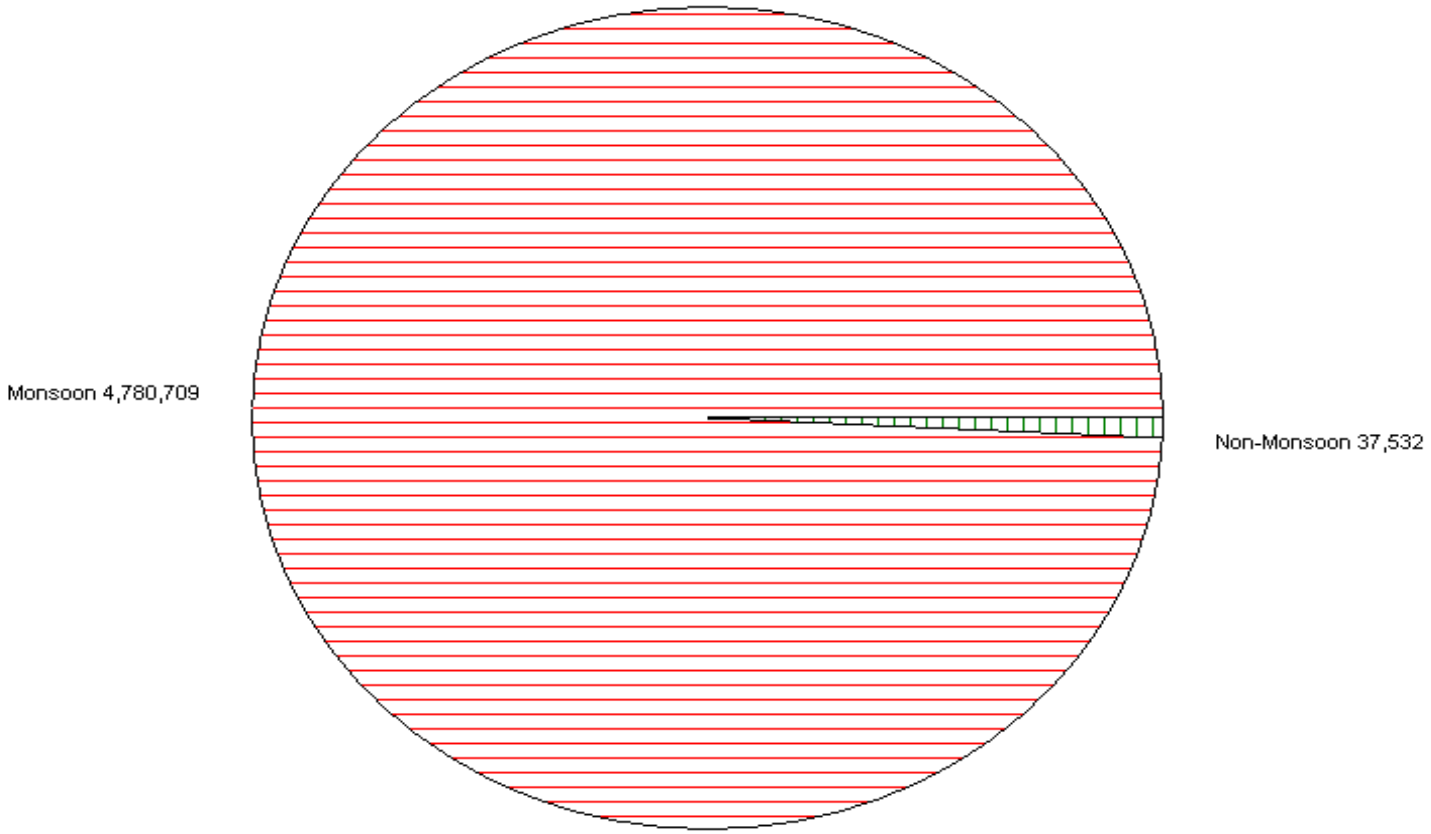
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1988-2015

Station Name : ERINJIPUZHA (KP000C3)
Local River : Payaswani

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



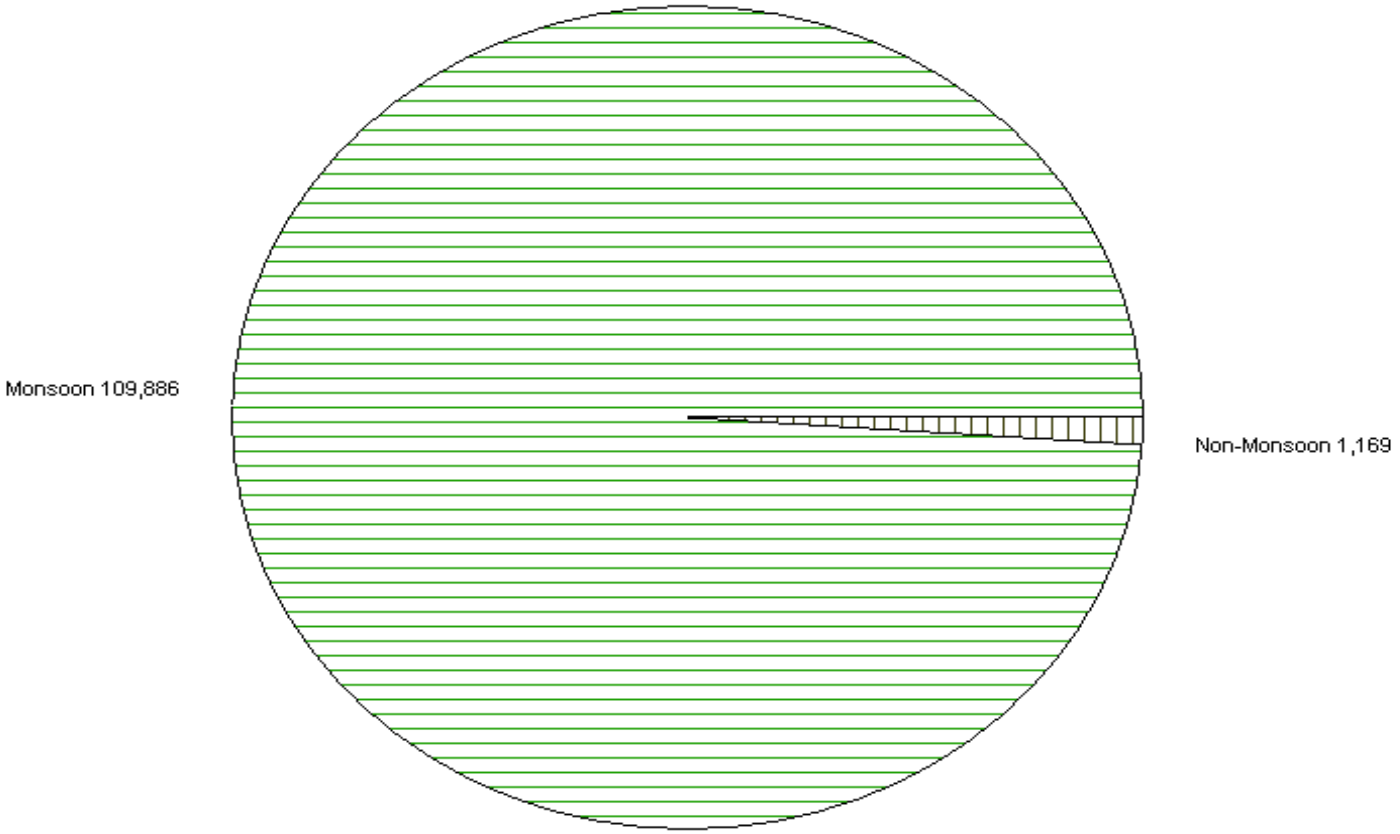
Seasonal Sediment Load for the Year: 2015-2016

Station Name : ERINJIPUZHA (KP000C3)

Local River : Payaswani

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Payaswani* **CODE NO. :** *KPOOOC3*

SITE : *Erinjipuzha* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED								Bed Material Composition		GENERAL DATA OF THE RIVER					Bed Material Composition	
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**07.10.2015**						
1	60	-	12.430	14.930	2.50	5.00	0.378	0.9828	25.0	3.98							
2	85	-	12.140	14.930	2.79	5.00	0.166	0.4698	22.0	3.52	99.80	2.9068	0.3057	0.00010	88.68	25.0	3.61
3	105	-	10.970	14.930	3.96	5.00	0.576	2.2810	22.0	3.33							
POST MONSOON 2015									**DATE OF COLLECTION**		**22.12.2015**						
1	60	-	12.320	14.020	1.70	5.00	NIL	No flow	6.30	0.66							
2	85	-	12.010	14.020	2.01	5.00	0.144	0.2894	22.0	3.02	95.58	2.1128	0.0540	0.00005	10.91	25.0	2.37
3	105	-	11.000	14.020	3.02	5.00	NIL	No flow	25.0	3.42							
PREMONSOON 2016									**DATE OF COLLECTION**		**10.05.2016**						
1	60	12.350	-	11.150	Dry	5.00	NIL	NIL	6.30	0.55							
2	85	12.045	-	11.150	Dry	5.00	NIL	NIL	6.30	0.68	6.30	NIL	NIL	NIL	NIL	6.30	0.65
3	105	-	11.150	11.150	0.00	5.00	NIL	NIL	6.30	0.72							

Annual Sediment Load for period : 1986-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1986-1987	84667	801	85468	2801
1987-1988	66371	1566	67936	1904
1988-1989	272789	913	273703	3056
1989-1990	178853	1195	180048	3084
1990-1991	273924	1130	275054	3694
1991-1992	270385	774	271160	3636
1992-1993	469398	969	470367	4742
1993-1994	209483	1164	210647	3355
1994-1995	410839	1002	411841	4688
1995-1996	229820	945	230765	3272
1996-1997	262140	1251	263390	3568
1997-1998	395481	2086	397567	4166
1998-1999	231770	6289	238059	4310
1999-2000	235464	512	235976	3976
2000-2001	162311	8916	171227	2906
2001-2002	153046	749	153796	3028
2002-2003	136541	529	137071	2978
2003-2004	54369	7923	62292	2608
2004-2005	281367	591	281958	3657
2005-2006	358417	29954	388371	4850
2006-2007	Sediment Observation Not Done			4743
2007-2008	Sediment Observation Not Done			5539
2008-2009	91009	1172	92181	3093
2009-2010	240961	1582	242543	3603
2010-2011	103508	1976	105483	3247
2011-2012	131195	1223	132418	4074
2012-2013	95357	729	96085	2894
2013-2014	250627	1340	251967	5374
2014-2015	180539	2010	182550	4655
2015-2016	77250	1179	78429	2466

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	1.956	0.000	0.000	0.000	0.000	0	192.5	0.000	0.000	0.009	0.009	156	126.4	0.000	0.000	0.007	0.007	72
2	1.946	0.000	0.000	0.000	0.000	0	178.2	0.000	0.000	0.013	0.013	206	117.2	0.000	0.000	0.011	0.011	115
3	1.876	0.000	0.000	0.000	0.000	0	158.9	0.000	0.000	0.013	0.013	176	113.7	0.000	0.000	0.013	0.013	131
4	1.831	0.000	0.000	0.000	0.000	0	139.2	0.000	0.000	0.006	0.006	72	134.9	0.000	0.000	0.018	0.018	204
5	2.197	0.000	0.000	0.000	0.000	0	131.1	0.000	0.000	0.007	0.007	80	157.1	0.000	0.005	0.018	0.023	314
6	99.34	0.000	0.000	0.014	0.014	118	99.38	0.000	0.000	0.011	0.011	93	156.5	0.000	0.006	0.012	0.019	250
7	4.025	0.000	0.000	0.014	0.014	5	84.95	0.000	0.000	0.010	0.010	74	176.1	0.000	0.006	0.020	0.026	399
8	3.900	0.000	0.000	0.014	0.014	5	107.5	0.000	0.000	0.010	0.010	89	283.1	0.000	0.000	0.032	0.032	775
9	2.464	0.000	0.000	0.015	0.015	3	263.2	0.000	0.006	0.024	0.029	669	211.2	0.000	0.005	0.010	0.015	270
10	2.688	0.000	0.000	0.013	0.013	3	249.3	0.000	0.000	0.012	0.012	256	226.6	0.000	0.004	0.015	0.018	360
11	3.251	0.000	0.000	0.013	0.013	4	262.2	0.000	0.008	0.013	0.020	462	292.5	0.000	0.005	0.015	0.019	488
12	54.14	0.000	0.000	0.013	0.013	60	230.7	0.000	0.000	0.019	0.019	375	368.2	0.003	0.005	0.017	0.026	824
13	11.30	0.000	0.000	0.012	0.012	12	267.7	0.000	0.000	0.018	0.018	419	335.0	0.000	0.002	0.015	0.017	504
14	11.56	0.000	0.000	0.012	0.012	12	259.4	0.000	0.005	0.017	0.021	477	256.4	0.000	0.002	0.012	0.014	312
15	8.784	0.000	0.000	0.012	0.012	9	170.7	0.000	0.000	0.007	0.007	103	281.0	0.000	0.002	0.011	0.012	301
16	34.56	0.000	0.000	0.017	0.017	50	126.7	0.000	0.000	0.010	0.010	107	276.9	0.000	0.002	0.011	0.013	304
17	24.77	0.000	0.002	0.017	0.019	42	331.3	0.000	0.003	0.013	0.016	469	213.8	0.000	0.003	0.014	0.017	316
18	63.89	0.000	0.004	0.018	0.021	116	719.0	0.020	0.002	0.030	0.052	3218	241.8	0.004	0.006	0.042	0.051	1074
19	26.66	0.003	0.004	0.022	0.029	66	584.2	0.000	0.002	0.024	0.026	1333	204.9	0.000	0.003	0.020	0.023	398
20	110.0	0.000	0.002	0.019	0.021	196	639.6	0.000	0.002	0.027	0.029	1581	152.2	0.000	0.000	0.010	0.010	135
21	133.7	0.000	0.003	0.025	0.028	322	359.2	0.000	0.003	0.012	0.015	456	131.9	0.000	0.000	0.007	0.007	83
22	460.1	0.006	0.011	0.112	0.128	5077	284.9	0.000	0.000	0.019	0.019	475	135.2	0.000	0.000	0.010	0.010	113
23	1296	0.005	0.013	0.093	0.111	12415	374.9	0.000	0.000	0.017	0.017	547	152.9	0.000	0.004	0.017	0.021	273
24	700.2	0.004	0.011	0.049	0.064	3866	528.3	0.000	0.000	0.013	0.013	580	147.0	0.000	0.003	0.014	0.017	216
25	840.9	0.005	0.013	0.042	0.060	4359	354.1	0.000	0.000	0.012	0.012	355	147.1	0.000	0.000	0.012	0.012	155
26	1147	0.005	0.009	0.054	0.068	6701	283.0	0.000	0.000	0.011	0.011	267	123.3	0.000	0.000	0.010	0.010	108
27	1116	0.004	0.007	0.038	0.049	4754	255.9	0.000	0.000	0.011	0.011	234	104.2	0.000	0.000	0.010	0.010	94
28	496.8	0.000	0.007	0.153	0.160	6851	244.9	0.000	0.000	0.011	0.011	241	116.0	0.000	0.000	0.012	0.012	123
29	339.8	0.000	0.006	0.015	0.022	631	185.5	0.000	0.000	0.009	0.009	136	99.75	0.000	0.000	0.010	0.010	84
30	293.3	0.000	0.000	0.012	0.012	291	157.9	0.000	0.000	0.004	0.004	52	94.33	0.000	0.000	0.011	0.011	91
31							141.2	0.000	0.000	0.005	0.005	56	96.92	0.000	0.000	0.011	0.011	88
Ten Daily Mean																		
Ten Daily I	12.22	0.000	0.000	0.007	0.007	13	160.4	0.000	0.001	0.012	0.012	187	170.3	0.000	0.003	0.016	0.018	289
Ten Daily II	34.89	0.000	0.001	0.015	0.017	57	359.2	0.002	0.002	0.018	0.022	854	262.3	0.001	0.003	0.017	0.020	466
Ten Daily III	682.4	0.003	0.008	0.059	0.070	4527	288.2	0.000	0.000	0.011	0.011	309	122.6	0.000	0.001	0.011	0.012	130
Monthly Total						45969						13815						8975

Annual Sediment Load (Metric Tonnes) : 78429

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	148.1	0.000	0.000	0.009	0.009	119	85.75	0.000	0.000	0.016	0.016	115	5.414	0.000	0.000	0.014	0.014	7
2	132.8	0.000	0.000	0.013	0.013	150	89.07	0.000	0.000	0.033	0.033	253	6.579	0.000	0.000	0.012	0.012	7
3	122.2	0.000	0.000	0.011	0.011	119	85.10	0.000	0.000	0.012	0.012	89	6.771	0.000	0.000	0.011	0.011	7
4	92.16	0.000	0.000	0.010	0.010	81	95.40	0.000	0.002	0.017	0.018	152	61.73	0.000	0.000	0.014	0.014	75
5	84.76	0.000	0.000	0.009	0.009	63	119.1	0.000	0.006	0.027	0.033	339	69.20	0.000	0.000	0.012	0.012	72
6	91.15	0.000	0.000	0.009	0.009	69	269.6	0.000	0.008	0.030	0.038	885	57.42	0.000	0.000	0.008	0.008	37
7	122.3	0.000	0.000	0.009	0.009	96	180.9	0.000	0.007	0.019	0.026	405	37.93	0.000	0.000	0.010	0.010	32
8	123.5	0.000	0.000	0.011	0.011	122	111.9	0.000	0.000	0.010	0.010	99	12.98	0.000	0.000	0.010	0.010	11
9	140.4	0.000	0.000	0.010	0.010	115	148.0	0.000	0.000	0.012	0.012	152	10.70	0.000	0.000	0.010	0.010	9
10	112.1	0.000	0.000	0.010	0.010	94	178.8	0.000	0.000	0.011	0.011	173	13.65	0.000	0.000	0.017	0.017	20
11	127.3	0.000	0.000	0.008	0.008	85	151.5	0.000	0.000	0.011	0.011	147	11.39	0.000	0.000	0.011	0.011	11
12	99.88	0.000	0.000	0.016	0.016	140	128.2	0.000	0.000	0.011	0.011	124	26.25	0.000	0.000	0.010	0.010	23
13	91.15	0.000	0.000	0.012	0.012	91	89.51	0.000	0.000	0.010	0.010	77	27.99	0.000	0.000	0.012	0.012	28
14	87.12	0.000	0.000	0.009	0.009	70	91.99	0.000	0.000	0.010	0.010	83	43.68	0.000	0.000	0.013	0.013	48
15	72.77	0.000	0.000	0.006	0.006	38	86.42	0.000	0.000	0.007	0.007	55	113.6	0.000	0.000	0.016	0.016	156
16	77.57	0.000	0.000	0.014	0.014	97	27.80	0.000	0.000	0.007	0.007	18	99.24	0.000	0.000	0.015	0.015	131
17	130.2	0.000	0.000	0.012	0.012	137	119.6	0.000	0.000	0.008	0.008	84	68.25	0.000	0.000	0.017	0.017	100
18	98.57	0.000	0.000	0.012	0.012	98	62.84	0.000	0.000	0.009	0.009	50	13.47	0.000	0.000	0.017	0.017	20
19	108.9	0.000	0.000	0.011	0.011	102	60.49	0.000	0.000	0.009	0.009	48	5.397	0.000	0.000	0.013	0.013	6
20	97.57	0.000	0.000	0.010	0.010	82	38.31	0.000	0.000	0.006	0.006	20	6.750	0.000	0.000	0.015	0.015	9
21	121.9	0.000	0.000	0.012	0.012	127	37.98	0.000	0.000	0.010	0.010	34	8.362	0.000	0.000	0.013	0.013	9
22	96.25	0.000	0.000	0.011	0.011	91	38.13	0.000	0.000	0.011	0.011	37	8.845	0.000	0.000	0.013	0.013	10
23	81.77	0.000	0.000	0.017	0.017	123	56.32	0.000	0.000	0.003	0.003	16	9.933	0.000	0.000	0.012	0.012	10
24	71.58	0.000	0.000	0.012	0.012	75	53.22	0.000	0.000	0.001	0.001	4	9.379	0.000	0.000	0.010	0.010	8
25	64.13	0.000	0.000	0.008	0.008	47	49.49	0.000	0.000	0.002	0.002	9	12.66	0.000	0.000	0.010	0.010	11
26	76.76	0.000	0.000	0.012	0.012	80	41.92	0.000	0.000	0.008	0.008	29	96.16	0.000	0.003	0.016	0.019	155
27	86.00	0.000	0.002	0.021	0.023	172	24.63	0.000	0.000	0.009	0.009	19	61.50	0.000	0.004	0.014	0.018	96
28	123.7	0.003	0.006	0.060	0.069	734	26.96	0.000	0.000	0.006	0.006	14	22.83	0.000	0.004	0.013	0.016	32
29	128.9	0.000	0.003	0.015	0.019	209	27.78	0.000	0.000	0.008	0.008	18	3.978	0.000	0.000	0.013	0.013	5
30	95.85	0.000	0.000	0.020	0.020	164	5.124	0.000	0.000	0.007	0.007	3	5.004	0.000	0.000	0.017	0.017	7
31							6.781	0.000	0.000	0.007	0.007	4						
Ten Daily Mean																		
Ten Daily I	116.9	0.000	0.000	0.010	0.010	103	136.4	0.000	0.002	0.019	0.021	266	28.24	0.000	0.000	0.012	0.012	28
Ten Daily II	99.09	0.000	0.000	0.011	0.011	94	85.67	0.000	0.000	0.009	0.009	70	41.60	0.000	0.000	0.014	0.014	53
Ten Daily III	94.68	0.000	0.001	0.019	0.020	182	33.49	0.000	0.000	0.007	0.007	17	23.87	0.000	0.001	0.013	0.014	34
Monthly Total						3788						3552						1151

Annual Sediment Load (Metric Tonnes) : 78429

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	17.21	0.000	0.000	0.010	0.010	15	2.232	0.000	0.000	0.009	0.009	2	1.968	0.000	0.000	0.012	0.012	2
2	22.48	0.000	0.000	0.010	0.010	20	2.294	0.000	0.000	0.007	0.007	1	1.894	0.000	0.000	0.012	0.012	2
3	22.48	0.000	0.000	0.010	0.010	20	20.97	0.000	0.000	0.018	0.018	33	1.885	0.000	0.000	0.012	0.012	2
4	22.18	0.000	0.000	0.010	0.010	20	1.630	0.000	0.000	0.015	0.015	2	1.905	0.000	0.000	0.012	0.012	2
5	13.82	0.000	0.000	0.010	0.010	12	1.213	0.000	0.000	0.015	0.015	2	1.910	0.000	0.000	0.012	0.012	2
6	68.29	0.000	0.000	0.012	0.012	70	1.204	0.000	0.000	0.015	0.015	2	1.900	0.000	0.000	0.012	0.012	2
7	59.70	0.000	0.000	0.012	0.012	59	1.446	0.000	0.000	0.015	0.015	2	7.763	0.000	0.000	0.017	0.017	11
8	6.437	0.000	0.000	0.010	0.010	6	1.403	0.000	0.000	0.015	0.015	2	8.165	0.000	0.000	0.017	0.017	12
9	6.620	0.000	0.000	0.010	0.010	6	10.40	0.000	0.000	0.015	0.015	13	7.877	0.000	0.000	0.017	0.017	11
10	7.358	0.000	0.000	0.010	0.010	6	13.82	0.000	0.000	0.014	0.014	17	1.208	0.000	0.000	0.012	0.012	1
11	1.981	0.000	0.000	0.013	0.013	2	13.84	0.000	0.000	0.014	0.014	17	1.169	0.000	0.000	0.012	0.012	1
12	2.084	0.000	0.000	0.013	0.013	2	2.682	0.000	0.000	0.114	0.114	26	1.135	0.000	0.000	0.012	0.012	1
13	2.116	0.000	0.000	0.013	0.013	2	2.998	0.000	0.000	0.111	0.111	29	1.133	0.000	0.000	0.012	0.012	1
14	1.944	0.000	0.000	0.013	0.013	2	2.926	0.000	0.000	0.112	0.112	28	0.941	0.000	0.000	0.011	0.011	1
15	2.003	0.000	0.000	0.012	0.012	2	2.832	0.000	0.000	0.113	0.113	28	1.115	0.000	0.000	0.012	0.012	1
16	2.169	0.000	0.000	0.010	0.010	2	15.09	0.000	0.000	0.003	0.003	4	8.137	0.000	0.000	0.125	0.125	88
17	2.468	0.000	0.000	0.007	0.007	1	14.84	0.000	0.000	0.005	0.005	7	7.965	0.000	0.000	0.128	0.128	88
18	2.166	0.000	0.000	0.010	0.010	2	1.557	0.000	0.000	0.012	0.012	2	3.729	0.000	0.000	0.060	0.060	19
19	2.258	0.000	0.000	0.009	0.009	2	1.277	0.000	0.000	0.017	0.017	2	0.869	0.000	0.000	0.019	0.019	1
20	2.231	0.000	0.000	0.009	0.009	2	1.221	0.000	0.000	0.018	0.018	2	0.814	0.000	0.000	0.021	0.021	1
21	2.132	0.000	0.000	0.010	0.010	2	1.295	0.000	0.000	0.017	0.017	2	0.861	0.000	0.000	0.019	0.019	1
22	2.163	0.000	0.000	0.011	0.011	2	4.926	0.000	0.000	0.055	0.055	23	0.822	0.000	0.000	0.021	0.021	1
23	2.177	0.000	0.000	0.011	0.011	2	9.234	0.000	0.000	0.100	0.100	80	0.811	0.000	0.000	0.021	0.021	1
24	2.231	0.000	0.000	0.012	0.012	2	11.87	0.000	0.000	0.127	0.127	130	0.803	0.000	0.000	0.020	0.020	1
25	2.231	0.000	0.000	0.012	0.012	2	1.452	0.000	0.000	0.014	0.014	2	0.807	0.000	0.000	0.020	0.020	1
26	1.972	0.000	0.000	0.008	0.008	1	1.023	0.000	0.000	0.016	0.016	1	0.779	0.000	0.000	0.020	0.020	1
27	2.116	0.000	0.000	0.010	0.010	2	1.226	0.000	0.000	0.015	0.015	2	0.599	0.000	0.000	0.018	0.018	1
28	2.104	0.000	0.000	0.010	0.010	2	1.243	0.000	0.000	0.015	0.015	2	0.509	0.000	0.000	0.017	0.017	1
29	2.147	0.000	0.000	0.010	0.010	2	2.494	0.000	0.000	0.010	0.010	2	0.589	0.000	0.000	0.018	0.018	1
30	2.158	0.000	0.000	0.009	0.009	2	7.016	0.000	0.000	0.035	0.035	21						
31	2.188	0.000	0.000	0.009	0.009	2	9.192	0.000	0.000	0.048	0.048	38						
Ten Daily Mean																		
Ten Daily I	24.66	0.000	0.000	0.010	0.010	23	5.661	0.000	0.000	0.014	0.014	8	3.647	0.000	0.000	0.013	0.013	5
Ten Daily II	2.142	0.000	0.000	0.011	0.011	2	5.926	0.000	0.000	0.052	0.052	14	2.701	0.000	0.000	0.041	0.041	20
Ten Daily III	2.147	0.000	0.000	0.010	0.010	2	4.634	0.000	0.000	0.041	0.041	28	0.731	0.000	0.000	0.019	0.019	1
Monthly Total						274						523						262

Annual Sediment Load (Metric Tonnes) : 78429

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PERUMANNU (KA000K8) **Division : SWR Division, Kochi**

Local River : Valapatnam **Sub-Division : Chaliyar SD, Calicut**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.600	0.000	0.000	0.017	0.017	1	0.519	0.000	0.000	0.023	0.023	1	0.475	0.000	0.000	0.028	0.028	1
2	0.544	0.000	0.000	0.023	0.023	1	0.495	0.000	0.000	0.021	0.021	1	0.492	0.000	0.000	0.028	0.028	1
3	0.534	0.000	0.000	0.030	0.030	1	0.522	0.000	0.000	0.023	0.023	1	0.434	0.000	0.000	0.024	0.024	1
4	0.601	0.000	0.000	0.017	0.017	1	0.524	0.000	0.000	0.023	0.023	1	0.498	0.000	0.000	0.028	0.028	1
5	0.568	0.000	0.000	0.021	0.021	1	0.535	0.000	0.000	0.022	0.022	1	0.384	0.000	0.000	0.020	0.020	1
6	0.566	0.000	0.000	0.021	0.021	1	0.450	0.000	0.000	0.030	0.030	1	0.495	0.000	0.000	0.028	0.028	1
7	0.566	0.000	0.000	0.021	0.021	1	0.460	0.000	0.000	0.029	0.029	1	0.426	0.000	0.000	0.023	0.023	1
8	0.572	0.000	0.000	0.020	0.020	1	0.461	0.000	0.000	0.029	0.029	1	0.475	0.000	0.000	0.027	0.027	1
9	0.542	0.000	0.000	0.019	0.019	1	0.527	0.000	0.000	0.029	0.029	1	0.422	0.000	0.000	0.023	0.023	1
10	0.582	0.000	0.000	0.021	0.021	1	0.522	0.000	0.000	0.023	0.023	1	0.427	0.000	0.000	0.007	0.007	0
11	0.573	0.000	0.000	0.020	0.020	1	0.485	0.000	0.000	0.027	0.027	1	0.460	0.000	0.000	0.008	0.008	0
12	0.584	0.000	0.000	0.021	0.021	1	0.514	0.000	0.000	0.026	0.026	1	0.503	0.000	0.000	0.010	0.010	0
13	0.583	0.000	0.000	0.021	0.021	1	0.500	0.000	0.000	0.026	0.026	1	0.569	0.000	0.000	0.012	0.012	1
14	0.537	0.000	0.000	0.018	0.018	1	0.522	0.000	0.000	0.026	0.026	1	0.452	0.000	0.000	0.008	0.008	0
15	0.576	0.000	0.000	0.023	0.023	1	0.533	0.000	0.000	0.026	0.026	1	0.475	0.000	0.000	0.009	0.009	0
16	0.627	0.000	0.000	0.025	0.025	1	0.522	0.000	0.000	0.026	0.026	1	0.475	0.000	0.000	0.009	0.009	0
17	0.609	0.000	0.000	0.024	0.024	1	0.522	0.000	0.000	0.026	0.026	1	0.501	0.000	0.000	0.026	0.026	1
18	0.597	0.000	0.000	0.022	0.022	1	0.549	0.000	0.000	0.026	0.026	1	0.453	0.000	0.000	0.001	0.001	0
19	0.590	0.000	0.000	0.024	0.024	1	0.543	0.000	0.000	0.026	0.026	1	0.507	0.000	0.000	0.029	0.029	1
20	0.600	0.000	0.000	0.026	0.026	1	0.490	0.000	0.000	0.030	0.030	1	0.503	0.000	0.000	0.027	0.027	1
21	0.565	0.000	0.000	0.022	0.022	1	0.519	0.000	0.000	0.028	0.028	1	0.490	0.000	0.000	0.020	0.020	1
22	0.565	0.000	0.000	0.022	0.022	1	0.512	0.000	0.000	0.028	0.028	1	0.490	0.000	0.000	0.020	0.020	1
23	0.572	0.000	0.000	0.021	0.021	1	0.485	0.000	0.000	0.030	0.030	1	0.512	0.000	0.000	0.032	0.032	1
24	0.580	0.000	0.000	0.019	0.019	1	0.475	0.000	0.000	0.031	0.031	1	0.513	0.000	0.000	0.032	0.032	1
25	0.522	0.000	0.000	0.028	0.028	1	0.513	0.000	0.000	0.028	0.028	1	0.557	0.000	0.000	0.035	0.035	2
26	0.399	0.000	0.000	0.046	0.046	2	0.491	0.000	0.000	0.028	0.028	1	0.395	0.000	0.000	0.023	0.023	1
27	0.522	0.000	0.000	0.028	0.028	1	0.491	0.000	0.000	0.028	0.028	1	0.513	0.000	0.000	0.032	0.032	1
28	0.544	0.000	0.000	0.025	0.025	1	0.484	0.000	0.000	0.028	0.028	1	0.473	0.000	0.000	0.029	0.029	1
29	0.549	0.000	0.000	0.029	0.029	1	0.534	0.000	0.000	0.028	0.028	1	1.600	0.000	0.000	0.108	0.108	15
30	0.536	0.000	0.000	0.029	0.029	1	0.449	0.000	0.000	0.028	0.028	1	1.040	0.000	0.000	0.069	0.069	6
31	0.508	0.000	0.000	0.023	0.023	1							0.849	0.000	0.000	0.055	0.055	4
Ten Daily Mean																		
Ten Daily I	0.567	0.000	0.000	0.021	0.021	1	0.502	0.000	0.000	0.025	0.025	1	0.453	0.000	0.000	0.024	0.024	1
Ten Daily II	0.588	0.000	0.000	0.022	0.022	1	0.518	0.000	0.000	0.026	0.026	1	0.490	0.000	0.000	0.014	0.014	1
Ten Daily III	0.533	0.000	0.000	0.026	0.026	1	0.495	0.000	0.000	0.028	0.028	1	0.676	0.000	0.000	0.041	0.041	3
Monthly																		
Total						35						35						50

Annual Sediment Load (Metric Tonnes) : 78429

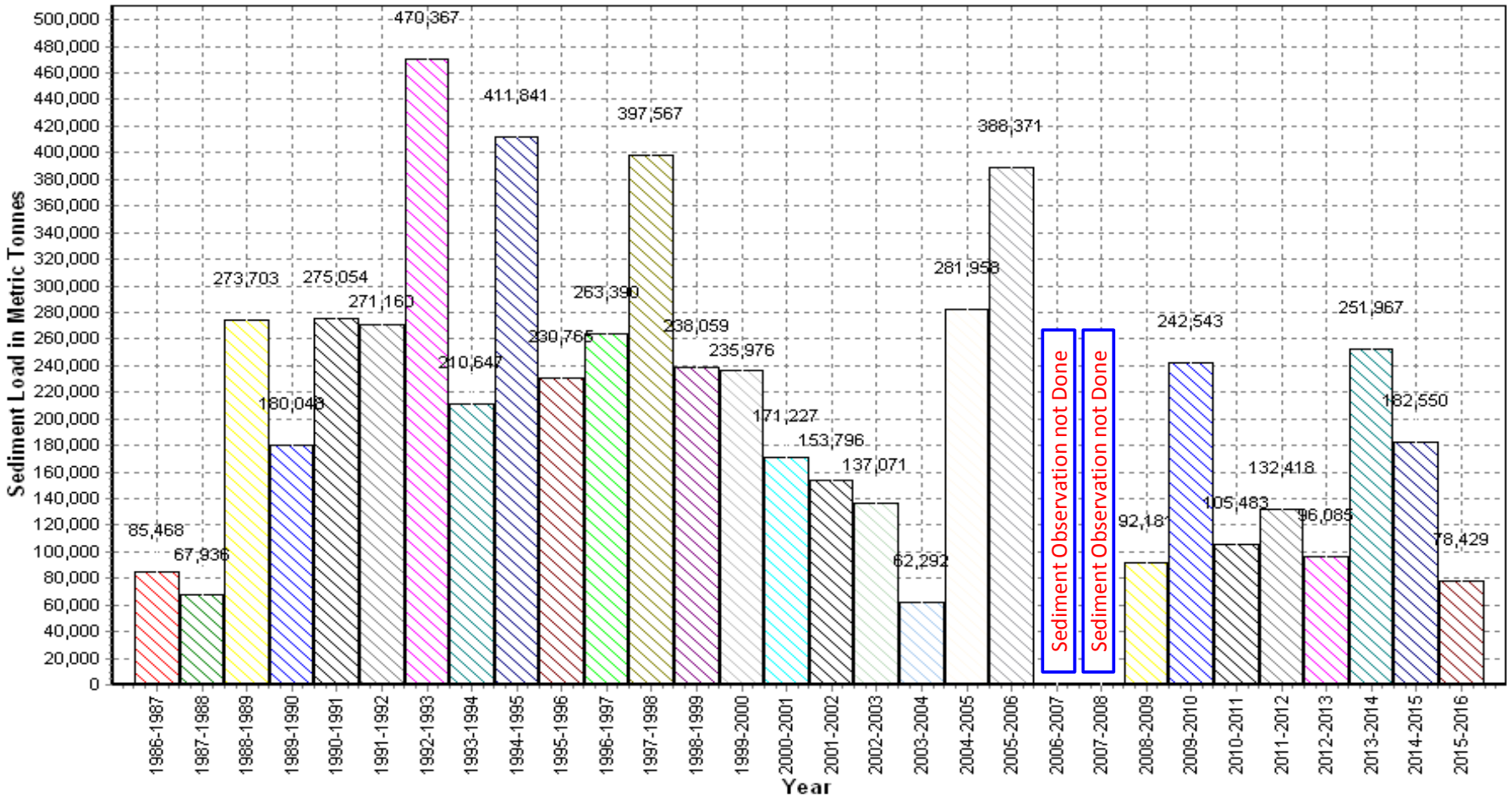
Annual Sediment Load for the period: 1986-2016

Station Name : PERUMANNU (KA000K8)

Local River : Valapatnam

Division : SWR Division, Kochi

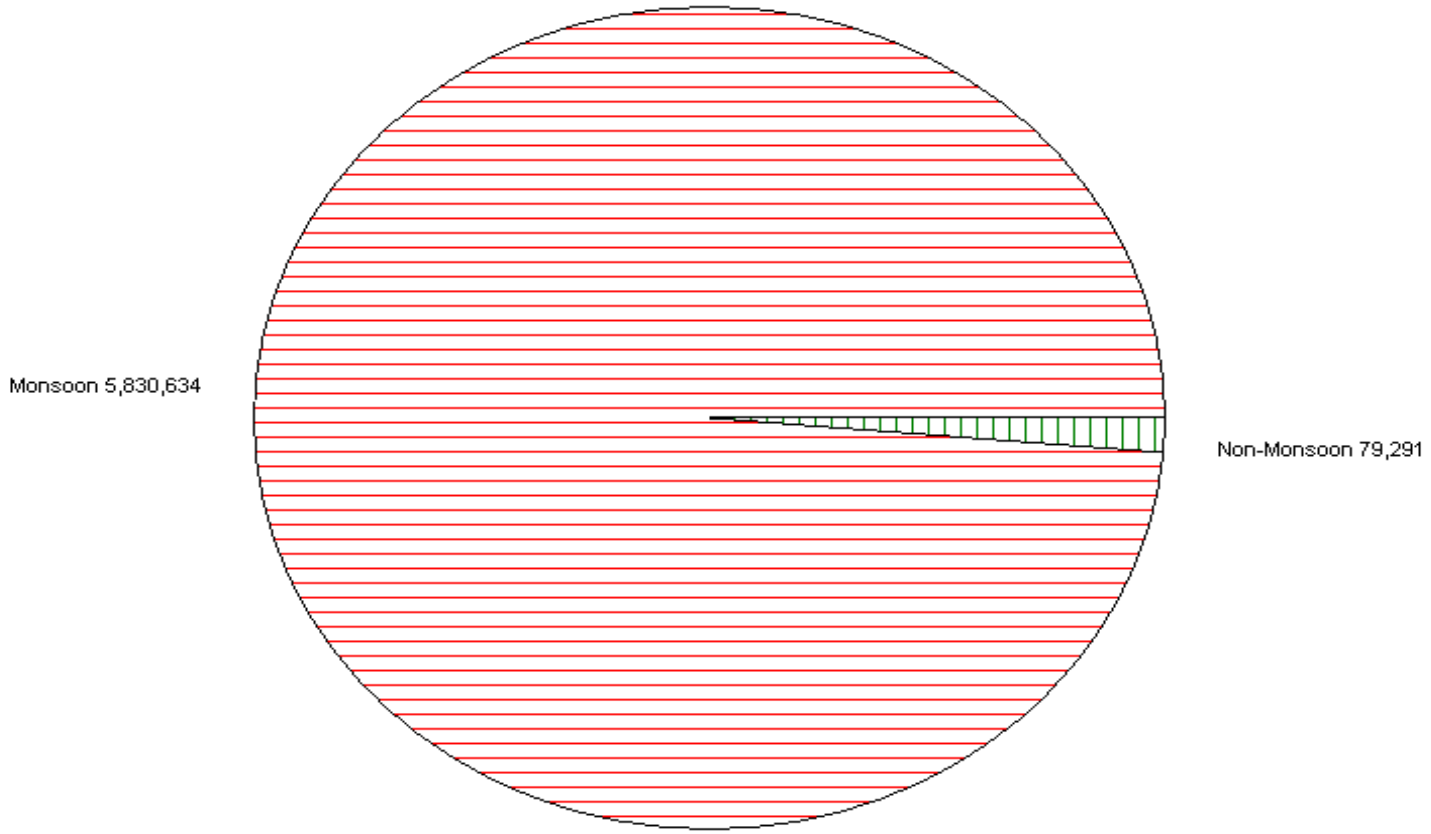
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1986-2015

Station Name : PERUMANNU (KA000K8)
Local River : Valapatnam

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



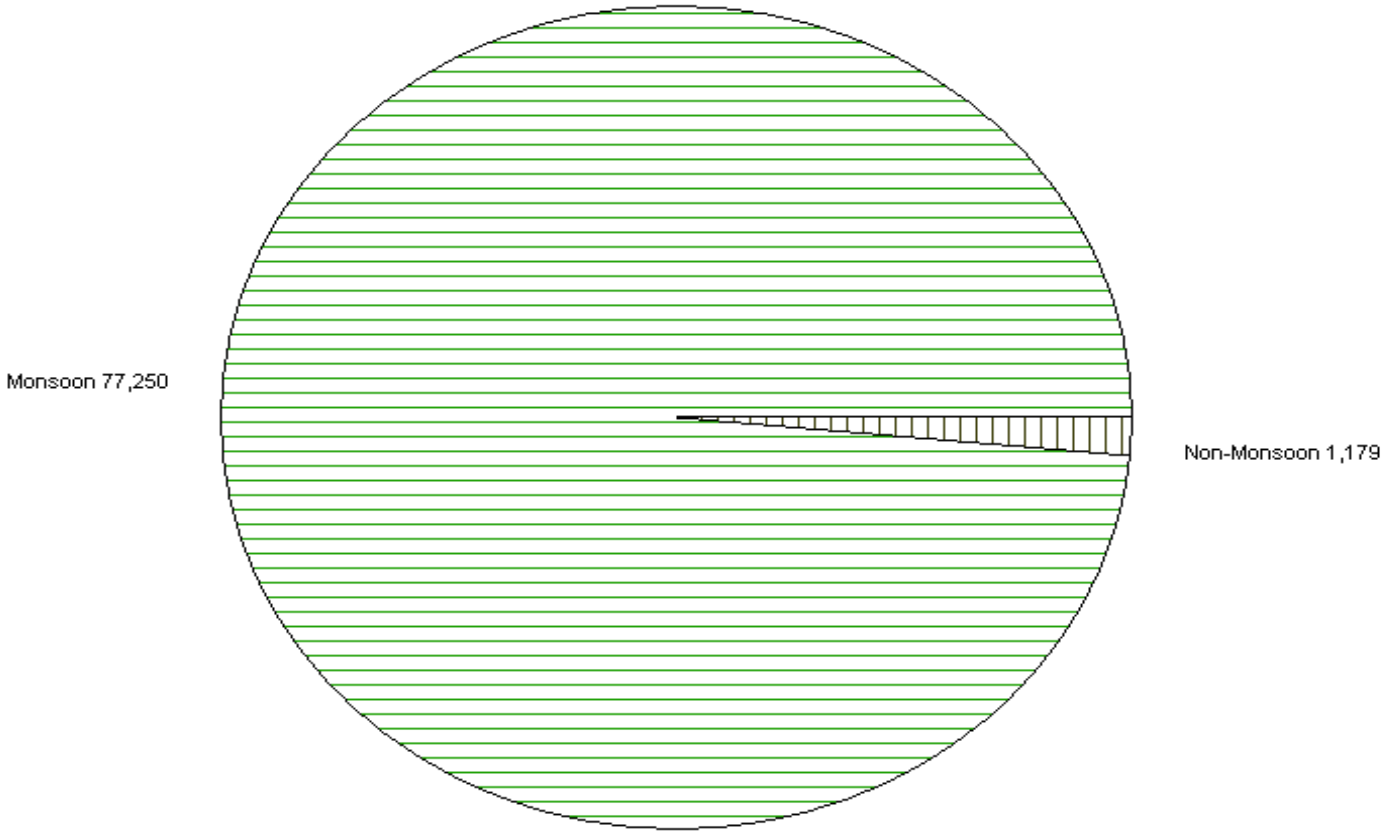
Seasonal Sediment Load for the Year: 2015-2016

Station Name : PERUMANNU (KA000K8)

Local River : Valapatnam

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Valapatanam* **CODE NO. :** *KAOOOK8*

SITE : *Perumannu* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015							**DATE OF COLLECTION**		**26.09.2015**								
1	35	-	5.800	8.020	2.22		No flow	-	23.0	3.60							
2	70	-	5.140	8.020	2.88	109	0.539	1.5523	22.0	3.29	109.62	2.33	0.3005	0.00008	76.76	23.0	2.47
3	105	-	6.540	8.020	1.48		No flow	-	6.30	0.51							
POSTMONSOON 2015							**DATE OF COLLECTION**		**28.11.2015**								
1	35	-	5.750	7.190	1.44		No flow		23.0	3.82							
2	70	-	5.150	7.190	2.04	90	0.312	0.6365	15.0	2.43	90.49	1.85	0.1366	0.00005	22.84	23.0	2.22
3	105	-	6.550	7.190	0.64		No flow		6.30	0.42							
PREMONSOON 2016							**DATE OF COLLECTION**		**27.05.2016**								
1	35	-	5.620	6.140	0.52		NIL		6.30	0.92							
2	70	-	5.240	6.140	0.90	77.5	NIL	0.513	6.30	1.00	77.77	0.98	0.0067	0.00002	0.513	10.0	1.19
3	105	6.200	-	6.140	Dry		NIL		10.0	1.65							

Annual Sediment Load for period : 2013-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2013-2014	16203	116	16319	1807
2014-2015	142301	325	142627	1557
2015-2016	Sediment Obsevation not Done	104	104	956

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	12.31						91.64						38.27					
2	12.91						82.18						36.44					
3	10.64						78.96						30.41					
4	24.05						72.90						39.23					
5	30.27		SEDIMENT OBSERVATION NOT DONE				74.86		SEDIMENT OBSERVATION NOT DONE				31.51		SEDIMENT OBSERVATION NOT DONE			
6	26.06						79.17						42.74					
7	20.67						74.30						54.11					
8	23.08						102.0						59.43					
9	16.18						101.2						64.48					
10	13.66						83.12						47.14					
11	13.51						73.75						98.06					
12	13.87						84.22						104.2					
13	15.07						64.03						110.2					
14	25.55						62.85						112.7					
15	14.20						64.81						92.33					
16	14.53						51.61						101.6					
17	29.06						59.94						80.72					
18	26.99						221.4						84.78					
19	28.29						215.7						95.62					
20	95.06						201.2						77.20					
21	85.82						129.8						63.38					
22	92.97						115.5						67.65					
23	159.3						134.6						50.04					
24	153.5						247.2						44.18					
25	234.3						120.4						43.88					
26	419.3						93.98						39.01					
27	318.3						89.79						40.56					
28	432.4						82.08						39.39					
29	166.6						56.88						38.16					
30	114.1						46.68						30.81					
31							39.88						30.78					
Ten Daily Mean																		
Ten Daily I	18.98						84.03						44.37					
Ten Daily II	27.61						110.0						95.75					
Ten Daily III	217.7						105.2						44.35					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 1143

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	29.49						49.63						17.49					
2	30.63						48.09						29.96					
3	30.47						17.59						21.71					
4	30.92						17.05						20.38					
5	38.86		SEDIMENT OBSERVATION NOT DONE				37.34		SEDIMENT OBSERVATION NOT DONE				20.60		SEDIMENT OBSERVATION NOT DONE			
6	45.54						39.00						16.77					
7	59.00						43.16						15.45					
8	139.8						50.87						12.91					
9	63.94						103.9						9.569					
10	52.63						73.94						10.28					
11	37.33						49.38						11.03					
12	36.21						48.44						11.03					
13	30.81						41.00						31.64					
14	29.14						40.07						9.414					
15	20.87						33.32						7.883					
16	27.70						31.97						7.402					
17	20.63						31.92						7.034					
18	19.30						29.20						5.674					
19	17.64						24.90						5.574					
20	18.38						23.97						6.833					
21	19.66						23.78						7.825					
22	14.82						23.89						7.242					
23	13.31						22.09						4.991					
24	12.14						20.67						7.984					
25	12.79						20.20						8.210					
26	56.70						17.17						6.691					
27	48.09						21.55						5.283					
28	59.48						20.64						11.16					
29	58.16						19.88						5.448					
30	51.45						20.27						4.354					
31							19.53											
Ten Daily Mean																		
Ten Daily I	52.13						48.06						17.51					
Ten Daily II	25.80						35.42						10.35					
Ten Daily III	34.66						20.88						6.918					
Monthly Total																		

Annual Sediment Load (Metric Tonnes) : 1143

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.853	0.000	0.000	0.000	0.000	0	15.93	0.000	0.000	0.001	0.001	2	36.31	0.000	0.000	0.000	0.000	1
2	5.561	0.000	0.000	0.000	0.000	0	2.262	0.000	0.000	0.000	0.000	0	13.83	0.000	0.000	0.000	0.000	0
3	4.644	0.000	0.000	0.000	0.000	0	2.322	0.000	0.000	0.000	0.000	0	14.68	0.000	0.000	0.000	0.000	1
4	4.212	0.000	0.000	0.000	0.000	0	1.934	0.000	0.000	0.000	0.000	0	13.60	0.000	0.000	0.001	0.001	1
5	4.002	0.000	0.000	0.000	0.000	0	1.840	0.000	0.000	0.000	0.000	0	12.22	0.000	0.000	0.001	0.001	1
6	4.002	0.000	0.000	0.000	0.000	0	1.847	0.000	0.000	0.000	0.000	0	5.629	0.000	0.000	0.000	0.000	0
7	3.797	0.000	0.000	0.000	0.000	0	1.788	0.000	0.000	0.000	0.000	0	6.801	0.000	0.000	0.000	0.000	0
8	3.773	0.000	0.000	0.000	0.000	0	1.781	0.000	0.000	0.000	0.000	0	6.096	0.000	0.000	0.000	0.000	0
9	3.708	0.000	0.000	0.000	0.000	0	1.727	0.000	0.000	0.000	0.000	0	6.731	0.000	0.000	0.000	0.000	0
10	3.613	0.000	0.000	0.000	0.000	0	2.001	0.000	0.000	0.000	0.000	0	6.651	0.000	0.000	0.000	0.000	0
11	3.590	0.000	0.000	0.000	0.000	0	1.741	0.000	0.000	0.000	0.000	0	7.206	0.000	0.000	0.000	0.000	0
12	3.886	0.000	0.000	0.000	0.000	0	1.627	0.000	0.000	0.002	0.002	0	6.985	0.000	0.000	0.000	0.000	0
13	3.209	0.000	0.000	0.000	0.000	0	1.673	0.000	0.000	0.003	0.003	0	7.037	0.000	0.000	0.000	0.000	0
14	4.228	0.000	0.000	0.000	0.000	0	1.678	0.000	0.000	0.003	0.003	0	6.801	0.000	0.000	0.000	0.000	0
15	4.341	0.000	0.000	0.000	0.000	0	1.712	0.000	0.000	0.004	0.004	1	6.602	0.000	0.000	0.000	0.000	0
16	4.249	0.000	0.000	0.000	0.000	0	1.765	0.000	0.000	0.004	0.004	1	6.828	0.000	0.000	0.000	0.000	0
17	3.496	0.000	0.000	0.000	0.000	0	2.001	0.000	0.000	0.004	0.004	1	6.859	0.000	0.000	0.000	0.000	0
18	21.53	0.000	0.000	0.000	0.000	1	1.746	0.000	0.000	0.004	0.004	1	4.867	0.000	0.000	0.000	0.000	0
19	20.64	0.000	0.000	0.000	0.000	0	2.663	0.000	0.000	0.003	0.003	1	6.144	0.000	0.000	0.000	0.000	0
20	18.97	0.000	0.000	0.000	0.000	0	2.663	0.000	0.000	0.002	0.002	0	7.046	0.000	0.000	0.000	0.000	0
21	20.58	0.000	0.000	0.000	0.000	0	2.191	0.000	0.000	0.001	0.001	0	2.159	0.000	0.000	0.000	0.000	0
22	20.47	0.000	0.000	0.000	0.000	1	1.735	0.000	0.000	0.001	0.001	0	11.59	0.000	0.000	0.000	0.000	0
23	20.45	0.000	0.000	0.000	0.000	1	2.017	0.000	0.000	0.000	0.000	0	11.68	0.000	0.000	0.001	0.001	1
24	17.80	0.000	0.000	0.000	0.000	0	2.001	0.000	0.000	0.000	0.000	0	3.902	0.000	0.000	0.000	0.000	0
25	17.41	0.000	0.000	0.000	0.000	0	1.957	0.000	0.000	0.000	0.000	0	3.756	0.000	0.000	0.000	0.000	0
26	17.59	0.000	0.000	0.000	0.000	0	2.001	0.000	0.000	0.000	0.000	0	3.595	0.000	0.000	0.000	0.000	0
27	16.66	0.000	0.000	0.000	0.000	0	1.796	0.000	0.000	0.000	0.000	0	3.603	0.000	0.000	0.000	0.000	0
28	17.45	0.000	0.000	0.000	0.000	1	1.981	0.000	0.000	0.000	0.000	0	3.597	0.000	0.000	0.000	0.000	0
29	17.47	0.000	0.000	0.001	0.001	1	2.061	0.000	0.000	0.000	0.000	0	3.769	0.000	0.000	0.000	0.000	0
30	17.59	0.000	0.000	0.001	0.001	1	2.058	0.000	0.000	0.000	0.000	0						
31	17.21	0.000	0.000	0.001	0.001	1	2.159	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	4.316	0.000	0.000	0.000	0.000	0	3.344	0.000	0.000	0.000	0.000	0	12.25	0.000	0.000	0.000	0.000	0
Ten Daily II	8.813	0.000	0.000	0.000	0.000	0	1.927	0.000	0.000	0.003	0.003	0	6.638	0.000	0.000	0.000	0.000	0
Ten Daily III	18.24	0.000	0.000	0.000	0.000	1	1.996	0.000	0.000	0.000	0.000	0	5.295	0.000	0.000	0.000	0.000	0
Monthly																		
Total						10						7						7

Annual Sediment Load (Metric Tonnes) : 1143

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUTTYADI (KK000N2) **Division : SWR Division, Kochi**

Local River : Kuttyadi **Sub-Division : Chaliyar SD, Calicut**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	3.829	0.000	0.000	0.000	0.000	0	2.045	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.005	0.005	1
2	16.25	0.000	0.000	0.001	0.001	2	2.107	0.000	0.000	0.000	0.000	0	2.413	0.000	0.000	0.005	0.005	1
3	15.42	0.000	0.000	0.001	0.001	2	2.159	0.000	0.000	0.000	0.000	0	2.279	0.000	0.000	0.004	0.004	1
4	5.679	0.000	0.000	0.001	0.001	0	2.094	0.000	0.000	0.000	0.000	0	2.289	0.000	0.000	0.003	0.003	1
5	2.198	0.000	0.000	0.000	0.000	0	2.001	0.000	0.000	0.003	0.003	0	2.540	0.000	0.000	0.003	0.003	1
6	2.322	0.000	0.000	0.000	0.000	0	2.487	0.000	0.000	0.005	0.005	1	3.201	0.000	0.000	0.004	0.004	1
7	2.159	0.000	0.000	0.000	0.000	0	2.008	0.000	0.000	0.005	0.005	1	2.624	0.000	0.000	0.003	0.003	1
8	2.218	0.000	0.000	0.000	0.000	0	1.863	0.000	0.000	0.005	0.005	1	2.623	0.000	0.000	0.003	0.003	1
9	2.163	0.000	0.000	0.000	0.000	0	1.911	0.000	0.000	0.005	0.005	1	2.616	0.000	0.000	0.003	0.003	1
10	2.159	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.005	0.005	1	2.484	0.000	0.000	0.003	0.003	1
11	2.161	0.000	0.000	0.000	0.000	0	1.979	0.000	0.000	0.007	0.007	1	2.463	0.000	0.000	0.003	0.003	1
12	2.164	0.000	0.000	0.000	0.000	0	2.012	0.000	0.000	0.007	0.007	1	2.402	0.000	0.000	0.003	0.003	1
13	2.159	0.000	0.000	0.000	0.000	0	2.026	0.000	0.000	0.007	0.007	1	2.457	0.000	0.000	0.003	0.003	1
14	2.155	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.006	0.006	1	2.464	0.000	0.000	0.003	0.003	1
15	2.074	0.000	0.000	0.000	0.000	0	1.984	0.000	0.000	0.007	0.007	1	2.437	0.000	0.000	0.003	0.003	1
16	2.085	0.000	0.000	0.000	0.000	0	1.949	0.000	0.000	0.007	0.007	1	2.623	0.000	0.000	0.003	0.003	1
17	2.074	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.006	0.006	1	2.320	0.000	0.000	0.003	0.003	1
18	2.078	0.000	0.000	0.000	0.000	0	2.025	0.000	0.000	0.007	0.007	1	2.434	0.000	0.000	0.003	0.003	1
19	2.101	0.000	0.000	0.000	0.000	0	2.094	0.000	0.000	0.005	0.005	1	2.415	0.000	0.000	0.003	0.003	1
20	2.159	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.003	0.003	0	3.381	0.000	0.000	0.005	0.005	1
21	1.973	0.000	0.000	0.000	0.000	0	2.107	0.000	0.000	0.003	0.003	1	3.427	0.000	0.000	0.005	0.005	1
22	2.290	0.000	0.000	0.000	0.000	0	2.086	0.000	0.000	0.003	0.003	1	5.868	0.000	0.000	0.008	0.008	4
23	2.005	0.000	0.000	0.000	0.000	0	2.168	0.000	0.000	0.002	0.002	0	2.933	0.000	0.000	0.004	0.004	1
24	2.088	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.006	0.006	1	2.661	0.000	0.000	0.004	0.004	1
25	2.159	0.000	0.000	0.000	0.000	0	2.134	0.000	0.000	0.014	0.014	3	2.646	0.000	0.000	0.004	0.004	1
26	2.173	0.000	0.000	0.000	0.000	0	2.102	0.000	0.000	0.009	0.009	2	4.017	0.000	0.000	0.006	0.006	2
27	2.159	0.000	0.000	0.000	0.000	0	1.700	0.000	0.000	0.007	0.007	1	3.590	0.000	0.000	0.005	0.005	2
28	1.928	0.000	0.000	0.000	0.000	0	2.132	0.000	0.000	0.007	0.007	1	6.259	0.000	0.000	0.009	0.009	5
29	2.352	0.000	0.000	0.000	0.000	0	2.093	0.000	0.000	0.006	0.006	1	6.717	0.000	0.000	0.013	0.013	7
30	2.015	0.000	0.000	0.000	0.000	0	2.159	0.000	0.000	0.007	0.007	1	3.560	0.000	0.000	0.005	0.005	2
31	2.045	0.000	0.000	0.000	0.000	0							6.652	0.000	0.000	0.012	0.012	7
Ten Daily Mean																		
Ten Daily I	5.440	0.000	0.000	0.000	0.000	0	2.037	0.000	0.000	0.003	0.003	0	2.477	0.000	0.000	0.004	0.004	1
Ten Daily II	2.121	0.000	0.000	0.000	0.000	0	1.917	0.000	0.000	0.006	0.006	1	2.540	0.000	0.000	0.003	0.003	1
Ten Daily III	2.108	0.000	0.000	0.000	0.000	0	2.038	0.000	0.000	0.006	0.006	1	4.394	0.000	0.000	0.007	0.007	3
Monthly																		
Total						6						27						48

Annual Sediment Load (Metric Tonnes) : 1143

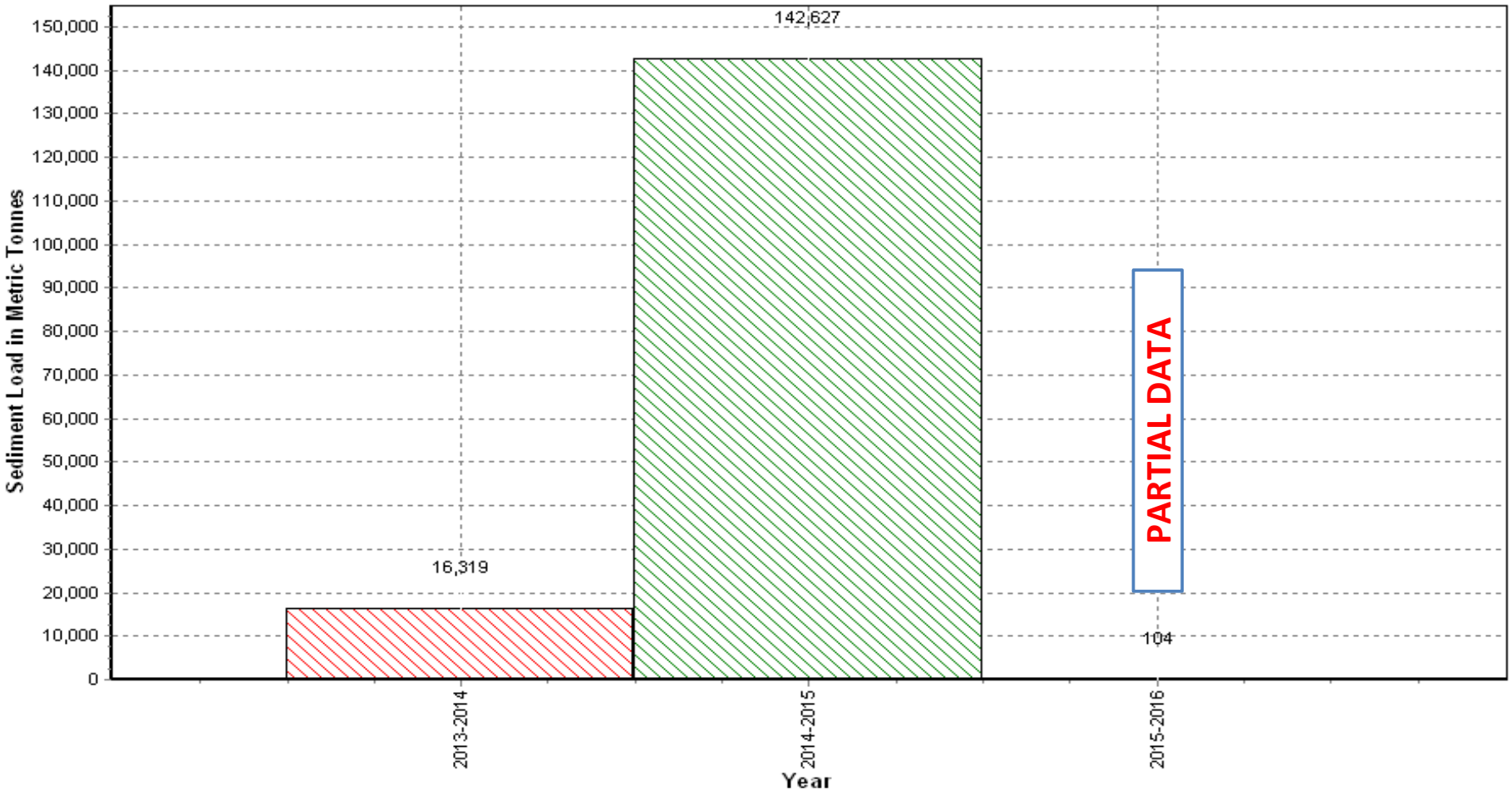
Annual Sediment Load for the period: 2013-2016

Station Name : KUTTYADI (KK000N2)

Local River : Kuttyadi

Division : SWR Division, Kochi

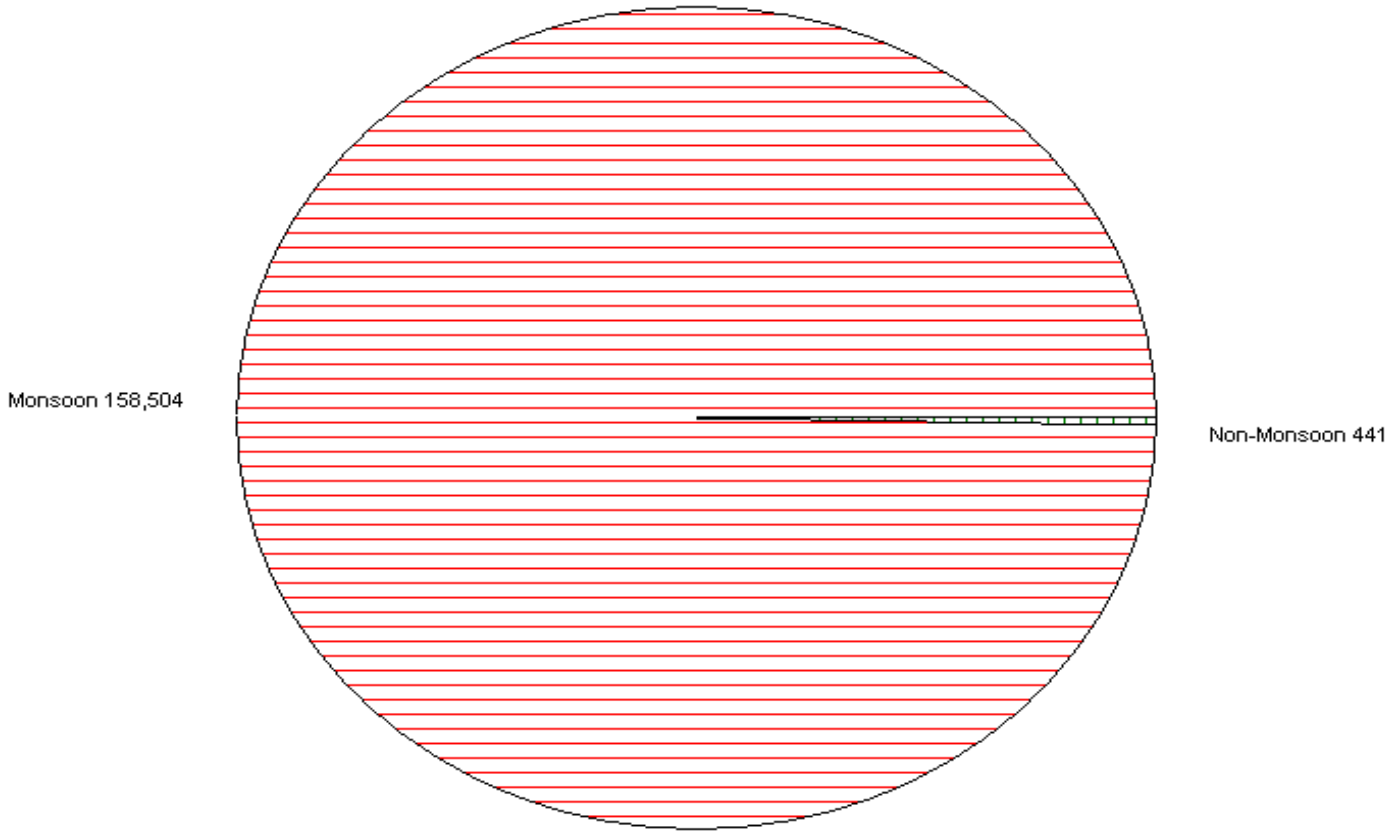
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 2013-2015

Station Name : KUTTYADI (KK000N2)
Local River : Kuttyadi

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



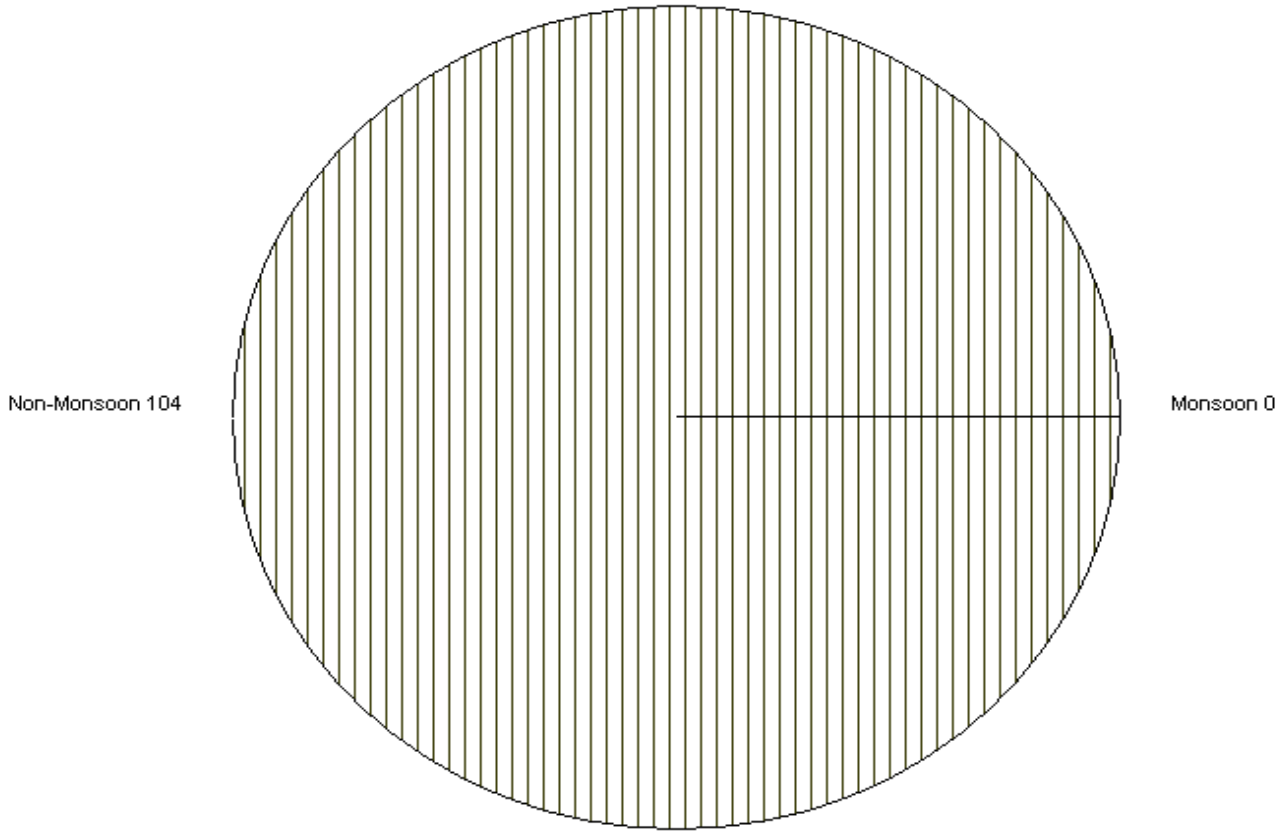
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KUTTYADI (KK000N2)

Local River : Kuttyadi

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Kuttyadi* **CODE NO. :** *KK000N2*

SITE : *Kuttyadi* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED								Bed Material Composition		GENERAL DATA OF THE RIVER					Bed Material Composition	
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015							DATE OF COLLECTION		03.08.2015								
							Samples not collected										
POSTMONSOON 2015							DATE OF COLLECTION		05.01.2016								
1	35	-	0.320	0.640	0.32				14.0	3.69							
2	50	-	(-)0.290	0.640	0.93	36.80	-	1.840	16.0	3.78	37.079	0.7732	0.0642	0.00005	1.840	20.0	3.90
3	65	-	0.020	0.640	0.62				20.0	4.22							
PREMONSOON 2016							DATE OF COLLECTION		26.05.2016								
1	35	-	0.320	0.690	0.37				15.0	3.89							
2	50	-	(-)0.290	0.690	0.98	36.80	-	4.017	14.0	3.71	36.91	0.8293	0.1312	0.00005	4.017	20.0	4.00
3	65	-	0.020	0.690	0.67				20.0	4.41							

Annual Sediment Load for period : 1981-2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1981-1982	839947	4617	844565	5580
1982-1983	334220	1719	335939	3268
1983-1984	550979	4324	555303	4373
1984-1985	609274	3979	613254	4796
1985-1986	271602	2438	274040	3440
1986-1987	277131	2358	279489	3360
1987-1988	149729	6359	156088	2158
1988-1989	458789	1576	460364	4058
1989-1990	321746	12371	334117	3399
1990-1991	287934	1680	289614	3262
1991-1992	761358	2935	764293	4325
1992-1993	812527	2408	814936	5539
1993-1994	324716	2543	327258	3941
1994-1995	516051	3314	519366	6060
1995-1996	271512	1417	272929	3852
1996-1997	346795	5780	352575	3940
1997-1998	333688	3619	337307	4617
1998-1999	300859	15095	315954	5775
1999-2000	Sediment Observation Not Done			4853
2000-2001	Sediment Observation Not Done			3406
2001-2002	124630	5627	130257	3628
2002-2003	67221	0	67221	2104
2003-2004	49072	5116	54188	2127
2004-2005	244257	168	244425	3817
2005-2006	314514	42356	356870	6161
2006-2007	Sediment Observation Not Done			5111
2007-2008	Sediment Observation Not Done			6996
2008-2009	110538	Sed. Obsn Not Done	110538	3189
2009-2010	255927	1334	257262	4477
2010-2011	171578	1272	172850	3870
2011-2012	254642	1102	255745	5105
2012-2013	118185	0	118185	2819
2013-2014	823691	1892	825583	5814
2014-2015	298465	0	298465	4616
2015-2016	128923	0	128923	2542

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	177.6	0.000	0.000	0.021	0.021	324	98.66	0.000	0.000	0.009	0.009	78
2	0.000	0.000	0.000	0.000	0.000	0	159.6	0.000	0.000	0.027	0.027	376	100.0	0.000	0.000	0.006	0.006	53
3	0.000	0.000	0.000	0.000	0.000	0	150.2	0.000	0.000	0.029	0.029	375	91.99	0.000	0.000	0.025	0.025	197
4	0.000	0.000	0.000	0.000	0.000	0	124.4	0.000	0.000	0.012	0.012	127	142.5	0.000	0.000	0.028	0.028	340
5	0.000	0.000	0.000	0.000	0.000	0	97.11	0.000	0.000	0.013	0.013	107	113.9	0.000	0.000	0.027	0.027	267
6	0.000	0.000	0.000	0.000	0.000	0	136.7	0.000	0.000	0.023	0.023	267	119.8	0.000	0.000	0.027	0.027	279
7	0.000	0.000	0.000	0.000	0.000	0	129.0	0.000	0.000	0.038	0.038	423	79.88	0.000	0.000	0.022	0.022	149
8	0.000	0.000	0.000	0.000	0.000	0	136.7	0.000	0.000	0.044	0.044	525	85.54	0.000	0.000	0.030	0.030	218
9	0.000	0.000	0.000	0.000	0.000	0	279.3	0.000	0.000	0.062	0.062	1489	98.28	0.000	0.000	0.055	0.055	464
10	0.000	0.000	0.000	0.000	0.000	0	201.3	0.000	0.000	0.036	0.036	626	80.34	0.000	0.000	0.019	0.019	133
11	0.000	0.000	0.000	0.000	0.000	0	212.8	0.000	0.000	0.027	0.027	495	109.5	0.000	0.000	0.021	0.021	197
12	0.000	0.000	0.000	0.000	0.000	0	224.5	0.000	0.000	0.029	0.029	564	168.7	0.000	0.000	0.020	0.020	294
13	0.000	0.000	0.000	0.000	0.000	0	132.5	0.000	0.000	0.012	0.012	138	175.9	0.000	0.000	0.030	0.030	458
14	0.000	0.000	0.000	0.000	0.000	0	122.8	0.000	0.000	0.037	0.037	389	147.8	0.000	0.000	0.026	0.026	336
15	0.000	0.000	0.000	0.000	0.000	0	118.4	0.000	0.000	0.017	0.017	176	137.9	0.000	0.000	0.025	0.025	297
16	0.000	0.000	0.000	0.000	0.000	0	203.6	0.000	0.000	0.025	0.025	434	139.9	0.000	0.000	0.025	0.025	305
17	0.000	0.000	0.000	0.000	0.000	0	190.1	0.000	0.000	0.024	0.024	393	81.98	0.000	0.000	0.017	0.017	121
18	0.000	0.000	0.000	0.000	0.000	0	473.8	0.001	0.002	0.040	0.043	1764	194.0	0.000	0.000	0.117	0.117	1968
19	0.000	0.000	0.000	0.000	0.000	0	416.4	0.001	0.002	0.037	0.039	1410	215.4	0.000	0.000	0.092	0.092	1711
20	0.000	0.000	0.000	0.000	0.000	0	640.7	0.002	0.003	0.049	0.055	3017	143.8	0.000	0.000	0.050	0.050	615
21	0.000	0.000	0.000	0.000	0.000	0	335.4	0.000	0.000	0.014	0.014	414	119.0	0.000	0.000	0.011	0.011	113
22	807.0	0.003	0.021	0.152	0.176	12292	313.9	0.000	0.000	0.014	0.014	369	121.6	0.000	0.000	0.019	0.019	198
23	1539	0.006	0.018	0.115	0.138	18408	324.8	0.000	0.000	0.018	0.018	494	114.3	0.000	0.000	0.033	0.033	321
24	1345	0.003	0.010	0.093	0.105	12209	338.2	0.000	0.000	0.030	0.030	888	118.5	0.000	0.000	0.025	0.025	252
25	1307	0.004	0.018	0.082	0.104	11690	328.3	0.000	0.000	0.028	0.028	800	112.7	0.000	0.000	0.020	0.020	198
26	1360	0.001	0.005	0.054	0.061	7118	241.4	0.000	0.000	0.016	0.016	336	122.6	0.000	0.000	0.016	0.016	169
27	1163	0.001	0.005	0.055	0.061	6148	283.3	0.000	0.000	0.013	0.013	308	120.0	0.000	0.000	0.026	0.026	273
28	770.3	0.001	0.004	0.044	0.048	3221	135.8	0.000	0.000	0.016	0.016	191	123.3	0.000	0.000	0.025	0.025	263
29	400.5	0.000	0.002	0.034	0.036	1256	100.0	0.000	0.000	0.014	0.014	124	109.8	0.000	0.000	0.022	0.022	209
30	253.3	0.000	0.002	0.014	0.016	357	78.99	0.000	0.000	0.019	0.019	132	102.1	0.000	0.000	0.021	0.021	181
31							107.3	0.000	0.000	0.018	0.018	167	120.1	0.000	0.000	0.022	0.022	226
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	159.2	0.000	0.000	0.030	0.030	464	101.1	0.000	0.000	0.025	0.025	218
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	273.6	0.000	0.001	0.030	0.031	878	151.5	0.000	0.000	0.042	0.042	630
Ten Daily III	894.5	0.002	0.008	0.064	0.075	7270	235.2	0.000	0.000	0.018	0.018	384	116.7	0.000	0.000	0.022	0.022	218
Monthly Total						72700						17644						10881

Annual Sediment Load (Metric Tonnes) : 128923

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	127.5	0.000	0.000	0.021	0.021	230	276.4	0.000	0.000	0.040	0.040	951	63.55	0.000	0.000	0.024	0.024	131
2	125.7	0.000	0.000	0.018	0.018	200	83.11	0.000	0.000	0.044	0.044	317	88.87	0.000	0.000	0.031	0.031	234
3	134.9	0.000	0.000	0.020	0.020	237	53.34	0.000	0.000	0.045	0.045	206	47.83	0.000	0.000	0.033	0.033	137
4	126.2	0.000	0.000	0.021	0.021	225	51.59	0.000	0.000	0.045	0.045	200	57.35	0.000	0.000	0.051	0.051	254
5	121.5	0.000	0.000	0.026	0.026	268	71.33	0.000	0.000	0.044	0.044	274	52.47	0.000	0.000	0.058	0.058	262
6	181.7	0.000	0.000	0.033	0.033	521	306.6	0.000	0.000	0.081	0.081	2141	75.89	0.000	0.000	0.034	0.034	223
7	384.8	0.000	0.000	0.059	0.059	1968	119.6	0.000	0.000	0.040	0.040	410	82.19	0.000	0.000	0.031	0.031	219
8	288.6	0.000	0.000	0.067	0.067	1666	94.54	0.000	0.000	0.027	0.027	221	78.03	0.000	0.000	0.038	0.038	255
9	213.6	0.000	0.000	0.057	0.057	1052	159.9	0.000	0.000	0.031	0.031	432	79.90	0.000	0.000	0.035	0.035	240
10	137.7	0.000	0.000	0.019	0.019	226	229.3	0.000	0.000	0.036	0.036	707	71.75	0.000	0.000	0.025	0.025	154
11	121.6	0.000	0.000	0.018	0.018	184	136.2	0.000	0.000	0.025	0.025	298	71.70	0.000	0.000	0.025	0.025	154
12	103.3	0.000	0.000	0.028	0.028	249	89.88	0.000	0.000	0.020	0.020	156	76.55	0.000	0.000	0.020	0.020	135
13	97.10	0.000	0.000	0.031	0.031	263	127.6	0.000	0.000	0.039	0.039	432	76.70	0.000	0.000	0.052	0.052	341
14	105.9	0.000	0.000	0.026	0.026	242	132.1	0.000	0.000	0.030	0.030	344	90.87	0.000	0.000	0.036	0.036	280
15	91.92	0.000	0.000	0.034	0.034	272	89.10	0.000	0.000	0.029	0.029	225	77.45	0.000	0.000	0.035	0.035	234
16	56.52	0.000	0.000	0.023	0.023	112	51.59	0.000	0.000	0.036	0.036	160	74.00	0.000	0.000	0.035	0.035	222
17	79.98	0.000	0.000	0.026	0.026	182	68.38	0.000	0.000	0.025	0.025	148	71.66	0.000	0.000	0.016	0.016	102
18	80.91	0.000	0.000	0.026	0.026	183	99.32	0.000	0.000	0.006	0.006	47	78.62	0.000	0.000	0.029	0.029	196
19	60.79	0.000	0.000	0.031	0.031	161	84.65	0.000	0.000	0.015	0.015	108	84.01	0.000	0.000	0.022	0.022	157
20	72.44	0.000	0.000	0.014	0.014	86	74.65	0.000	0.000	0.022	0.022	140	96.60	0.000	0.000	0.033	0.033	279
21	70.40	0.000	0.000	0.017	0.017	102	72.93	0.000	0.000	0.024	0.024	150	104.7	0.000	0.000	0.025	0.025	227
22	50.04	0.000	0.000	0.021	0.021	91	60.40	0.000	0.000	0.024	0.024	127	124.5	0.000	0.000	0.025	0.025	270
23	96.91	0.000	0.000	0.022	0.022	181	56.35	0.000	0.000	0.024	0.024	119	70.96	0.000	0.000	0.025	0.025	154
24	133.3	0.000	0.000	0.022	0.022	253	54.88	0.000	0.000	0.025	0.025	116	76.29	0.000	0.000	0.021	0.021	138
25	150.8	0.000	0.000	0.022	0.022	289	51.99	0.000	0.000	0.025	0.025	111	75.71	0.000	0.000	0.021	0.021	140
26	185.6	0.000	0.000	0.023	0.023	362	51.24	0.000	0.000	0.025	0.025	109	72.31	0.000	0.000	0.024	0.024	149
27	153.8	0.000	0.000	0.022	0.022	296	52.83	0.000	0.000	0.028	0.028	128	76.29	0.000	0.000	0.049	0.049	323
28	545.2	0.000	0.000	0.027	0.027	1272	77.67	0.000	0.000	0.019	0.019	130	74.57	0.000	0.000	0.051	0.051	328
29	172.4	0.000	0.000	0.023	0.023	335	64.68	0.000	0.000	0.032	0.032	180	80.99	0.000	0.000	0.044	0.044	306
30	94.54	0.000	0.000	0.014	0.014	117	61.49	0.000	0.000	0.027	0.027	141	80.99	0.000	0.000	0.044	0.044	306
31							52.46	0.000	0.000	0.021	0.021	95						
Ten Daily Mean																		
Ten Daily I	184.2	0.000	0.000	0.034	0.034	659	144.6	0.000	0.000	0.043	0.043	586	69.78	0.000	0.000	0.036	0.036	211
Ten Daily II	87.05	0.000	0.000	0.026	0.026	193	95.35	0.000	0.000	0.025	0.025	206	79.82	0.000	0.000	0.030	0.030	210
Ten Daily III	165.3	0.000	0.000	0.021	0.021	330	59.72	0.000	0.000	0.025	0.025	128	83.73	0.000	0.000	0.033	0.033	234
Monthly																		
Total						11825						9322						6551

Annual Sediment Load (Metric Tonnes) : 128923

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						0						0						0

Annual Sediment Load (Metric Tonnes) : 128923

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUNIYIL (KB000J3) **Division : SWR Division, Kochi**

Local River : Chaliyar **Sub-Division : Chaliyar SD, Calicut**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						0						0						0

Annual Sediment Load (Metric Tonnes) : 128923

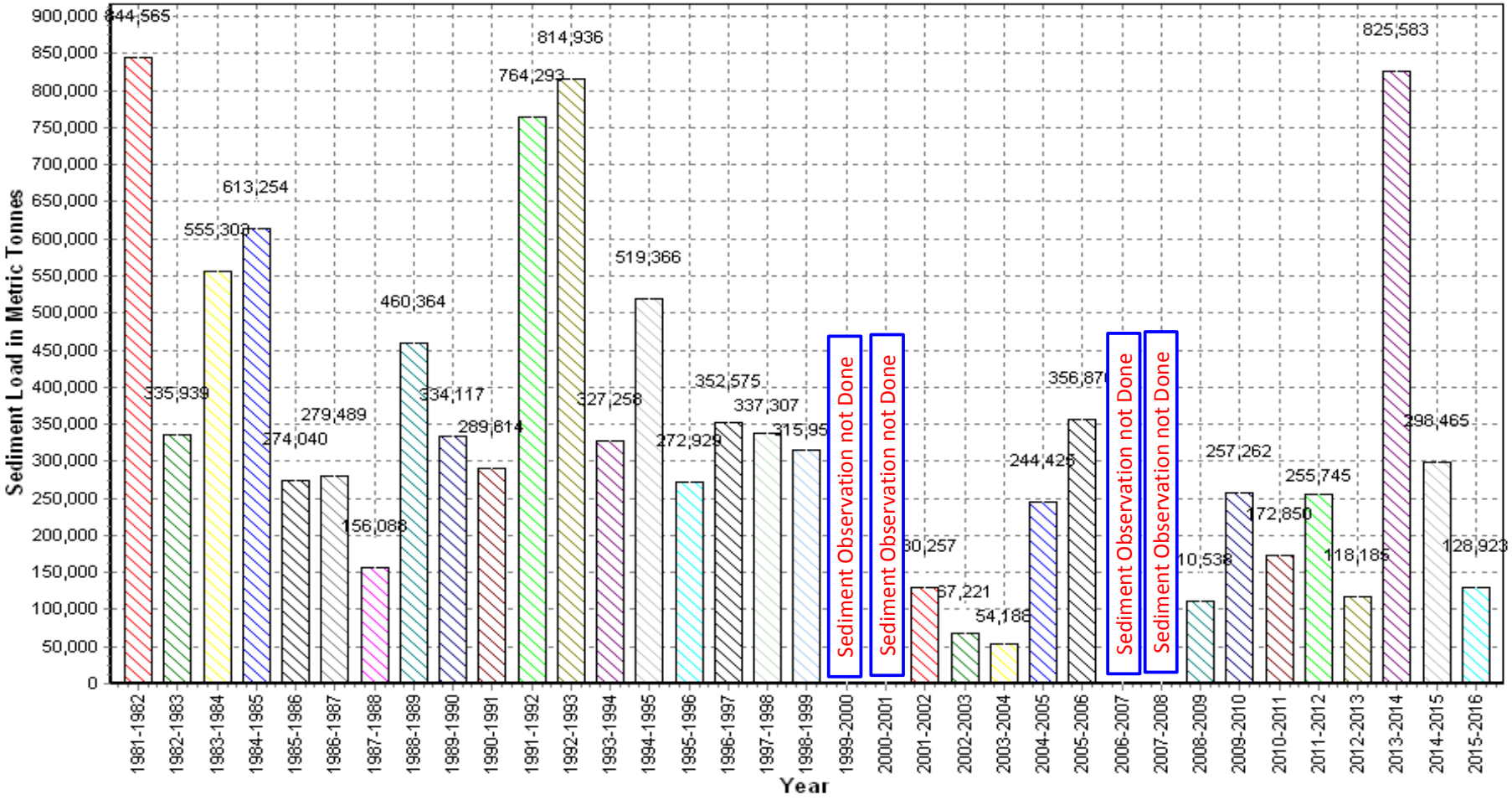
Annual Sediment Load for the period: 1981-2016

Station Name : KUNIYIL (KB000J3)

Local River : Chaliyar

Division : SWR Division, Kochi

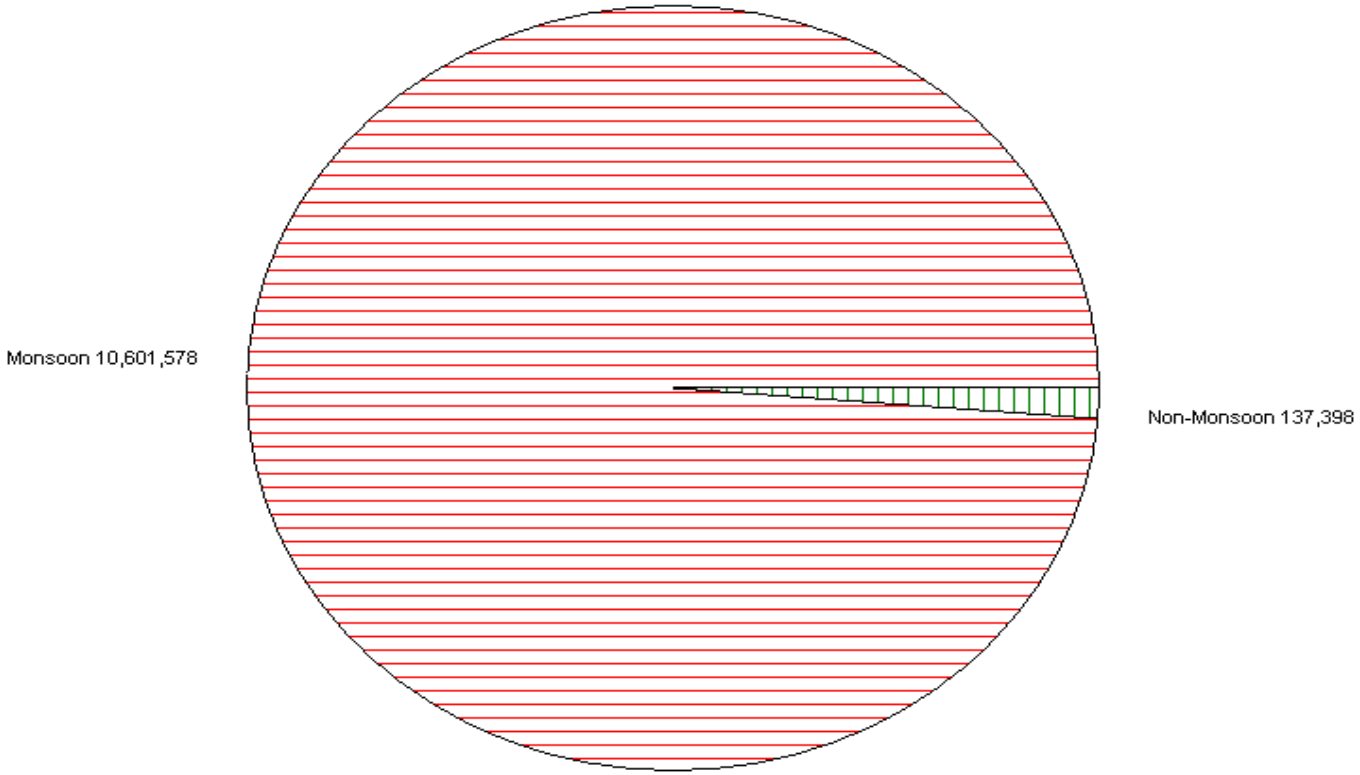
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1981-2015

Station Name : KUNIYIL (KB000J3)
Local River : Chaliyar

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



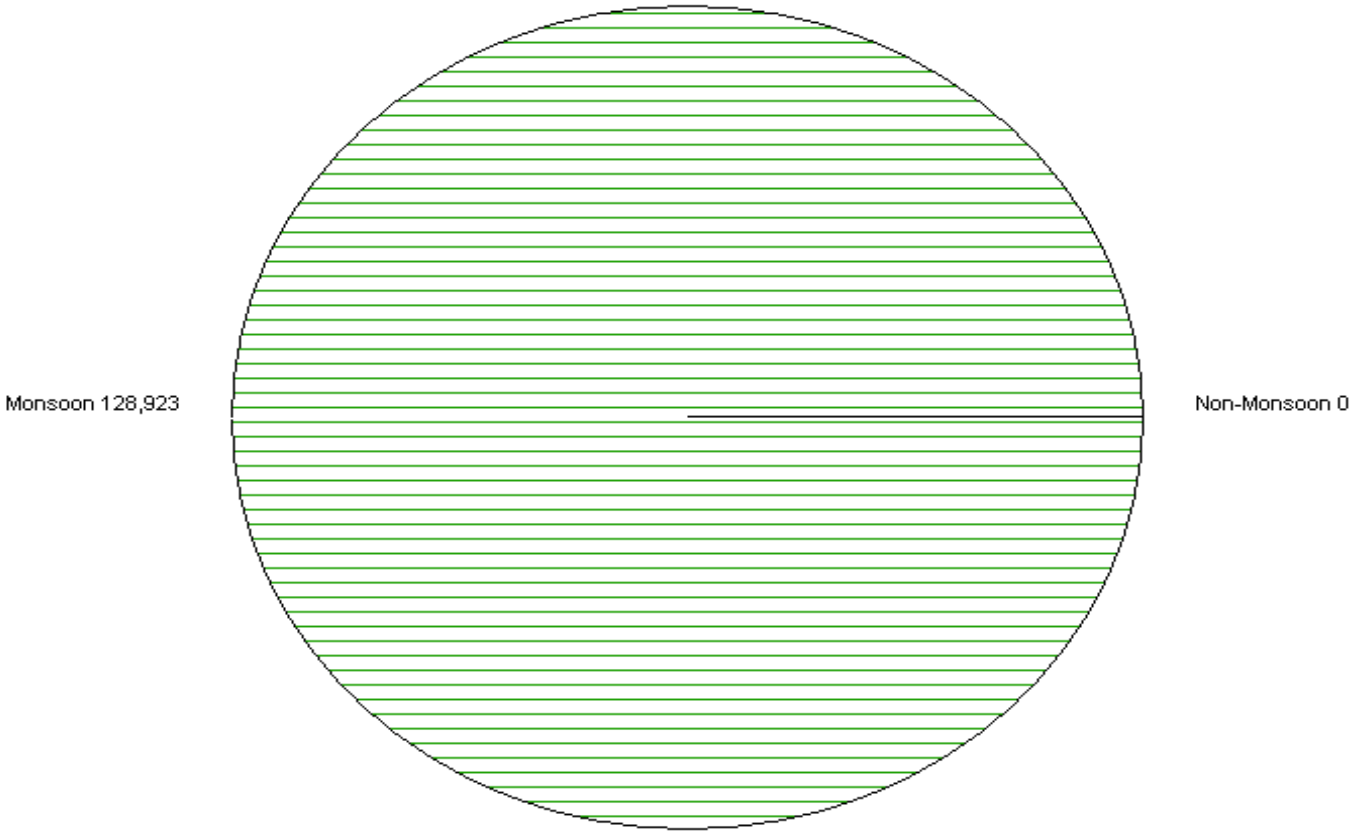
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KUNIYIL (KB000J3)

Local River : Chaliyar

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Chaliyar* **CODE NO. :** *KBOOOJ3*

SITE : *Kuniyil* **CROSS SECTION :** *SGL*

	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
									Bed Material Composition							Bed Material Composition	
SL. NO.	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015						**DATE OF COLLECTION**					**22.09.2015**						
1	50	-	0.500	1.740	1.24		NIL	NIL	8.00	0.16							
2	80	-	(-)1.900	1.740	3.64		0.115	4.186	18.0	3.52							
3	120	-	(-)2.260	1.740	4.00	144	0.127	5.080	15.0	2.55	145.07	3.6160	0.0953	0.00005	50.00	18.0	1.92
4	150	-	(-)2.700	1.740	4.44		0.130	5.772	6.3	3.09							
5	180	-	(-)1.760	1.740	3.50		NIL	NIL	6.3	0.30							
POSTMONSOON 2015						**DATE OF COLLECTION**					**05.12.2015**						
1	50	-	0.390	1.920	1.53				6.3	3.16							
2	80	-	(-)1.930	1.920	3.85				25.0	4.52							
3	120	-	(-) 2.300	1.920	4.22	144	-	-	6.3	2.94	Due to closure of shutters of Regulator cum bridge no flow and hence no observation.					25.0	3.35
4	150	-	(-) 2.770	1.920	4.69				6.3	1.93							
5	180	-	(-) 2.960	1.920	4.88				22.0	4.20							
PREMONSOON 2016						**DATE OF COLLECTION**					**27.04.2016**						
1	50	-	(-)0.490	1.670	2.16				6.3	2.41							
2	80	-	(-)1.810	1.670	3.48				22.0	3.85	Due to closure of shutters of Regulator cum bridge no flow and hence no observation.					22.0	3.23
3	120	-	(-)2.250	1.670	3.92	144	-	-	6.3	2.80							
4	150	-	(-)2.700	1.670	4.37				6.3	3.06							
5	180	-	(-)1.540	1.670	3.21				22.0	4.02							

Annual Sediment Load for period : 1989-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1989-1990	59148	418	59566	1033
1990-1991	59038	214	59252	1059
1991-1992	105287	379	105666	1543
1992-1993	127133	1042	128175	1815
1993-1994	64857	1373	66230	1105
1994-1995	151405	792	152197	1937
1995-1996	76760	584	77344	1239
1996-1997	53082	497	53579	1024
1997-1998	112555	1225	113779	1560
1998-1999	74661	2093	76754	1195
1999-2000	Sediment Observation Not Done			1518
2000-2001	39843	4189	44032	806
2001-2002	68818	293	69111	1001
2002-2003	45382	321	45704	859
2003-2004	20500	80	20580	573
2004-2005	51847	33	51880	964
2005-2006	61033	4232	65265	1404
2006-2007	Sediment Observation Not Done			1996
2007-2008	Sediment Observation Not Done			2638
2008-2009	Sediment Observation Not Done			894
2009-2010	Sediment Observation Not Done			1399
2010-2011	52570	688	53259	1282
2011-2012	59609	260	59869	1437
2012-2013	19125	0	19125	619
2013-2014	51511	311	51823	1671
2014-2015	113047	978	114025	1854
2015-2016	29452	207	29659	815

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	110.9	0.000	0.003	0.012	0.015	142	39.28	0.000	0.000	0.010	0.010	35
2	6.630	0.000	0.000	0.006	0.006	4	81.26	0.000	0.002	0.015	0.017	117	33.94	0.000	0.000	0.011	0.011	31
3	0.000	0.000	0.000	0.000	0.000	0	73.07	0.000	0.000	0.009	0.009	54	33.58	0.000	0.000	0.011	0.011	30
4	0.000	0.000	0.000	0.000	0.000	0	61.61	0.000	0.000	0.005	0.005	27	44.64	0.000	0.000	0.014	0.014	54
5	18.83	0.000	0.000	0.089	0.089	145	46.67	0.000	0.000	0.006	0.006	24	34.75	0.000	0.000	0.016	0.016	47
6	12.58	0.000	0.000	0.013	0.013	14	49.08	0.000	0.000	0.005	0.005	22	30.81	0.000	0.000	0.010	0.010	27
7	6.630	0.000	0.000	0.038	0.038	22	42.50	0.000	0.000	0.013	0.013	48	34.25	0.000	0.000	0.013	0.013	38
8	0.000	0.000	0.000	0.000	0.000	0	50.82	0.000	0.001	0.016	0.017	74	72.36	0.000	0.002	0.032	0.033	208
9	0.000	0.000	0.000	0.000	0.000	0	135.4	0.000	0.002	0.076	0.078	909	44.85	0.000	0.000	0.018	0.019	72
10	4.837	0.000	0.000	0.045	0.045	19	113.1	0.000	0.001	0.050	0.051	500	39.98	0.000	0.000	0.016	0.016	55
11	6.316	0.000	0.000	0.017	0.017	9	55.50	0.000	0.000	0.014	0.014	69	57.60	0.000	0.000	0.020	0.020	98
12	4.526	0.000	0.000	0.018	0.018	7	50.39	0.000	0.000	0.011	0.011	49	112.4	0.000	0.003	0.035	0.038	368
13	14.10	0.000	0.000	0.022	0.022	27	45.40	0.000	0.000	0.008	0.008	32	137.1	0.001	0.003	0.020	0.025	290
14	11.34	0.000	0.000	0.034	0.034	34	37.81	0.000	0.000	0.009	0.009	30	104.5	0.000	0.001	0.021	0.023	203
15	10.26	0.000	0.000	0.039	0.039	35	35.46	0.000	0.000	0.009	0.009	28	71.52	0.000	0.000	0.016	0.017	103
16	5.165	0.000	0.000	0.066	0.066	29	59.93	0.000	0.000	0.016	0.016	82	57.47	0.000	0.000	0.014	0.014	71
17	12.59	0.000	0.000	0.037	0.037	40	49.34	0.000	0.000	0.018	0.018	78	53.70	0.000	0.000	0.014	0.014	63
18	16.06	0.000	0.000	0.050	0.050	69	99.14	0.000	0.001	0.029	0.030	256	68.21	0.000	0.000	0.023	0.023	133
19	17.88	0.000	0.000	0.028	0.028	43	140.6	0.000	0.002	0.038	0.040	481	119.9	0.000	0.002	0.026	0.028	289
20	44.60	0.000	0.004	0.044	0.048	185	145.1	0.002	0.002	0.039	0.042	529	83.55	0.000	0.002	0.024	0.026	185
21	42.47	0.000	0.004	0.044	0.048	176	111.3	0.000	0.002	0.017	0.019	181	55.77	0.000	0.001	0.034	0.035	170
22	72.30	0.000	0.004	0.045	0.049	305	104.0	0.000	0.002	0.019	0.021	186	69.96	0.000	0.002	0.028	0.029	176
23	136.2	0.000	0.003	0.107	0.110	1291	100.9	0.000	0.002	0.017	0.019	167	52.93	0.000	0.000	0.026	0.026	121
24	206.1	0.002	0.004	0.081	0.087	1553	138.0	0.002	0.003	0.033	0.038	457	58.60	0.000	0.001	0.027	0.029	146
25	237.5	0.002	0.004	0.062	0.067	1381	134.5	0.000	0.003	0.028	0.031	357	45.79	0.000	0.000	0.010	0.010	38
26	236.5	0.001	0.004	0.037	0.042	862	99.94	0.000	0.000	0.014	0.014	117	37.88	0.000	0.000	0.016	0.016	52
27	437.0	0.006	0.009	0.083	0.098	3696	115.0	0.000	0.001	0.020	0.021	208	32.34	0.000	0.000	0.023	0.023	64
28	349.1	0.000	0.007	0.060	0.068	2045	79.04	0.000	0.000	0.017	0.017	115	32.86	0.000	0.000	0.022	0.022	63
29	158.4	0.001	0.003	0.011	0.016	215	67.22	0.000	0.000	0.014	0.014	82	31.64	0.000	0.000	0.024	0.024	65
30	153.9	0.002	0.004	0.032	0.038	507	50.20	0.000	0.000	0.005	0.005	23	24.17	0.000	0.000	0.015	0.015	32
31							42.76	0.000	0.000	0.011	0.011	39	26.01	0.000	0.000	0.013	0.013	28
Ten Daily Mean																		
Ten Daily I	4.951	0.000	0.000	0.019	0.019	20	76.45	0.000	0.001	0.021	0.022	192	40.84	0.000	0.000	0.015	0.015	60
Ten Daily II	14.28	0.000	0.000	0.035	0.036	48	71.87	0.000	0.001	0.019	0.020	163	86.60	0.000	0.001	0.021	0.023	180
Ten Daily III	202.9	0.001	0.005	0.056	0.062	1203	94.80	0.000	0.001	0.018	0.019	176	42.54	0.000	0.000	0.022	0.022	87
Monthly																		
Total						12711						5483						3354

Annual Sediment Load (Metric Tonnes) : 29659

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	23.06	0.000	0.000	0.016	0.016	32	21.85	0.000	0.000	0.018	0.018	35	21.34	0.000	0.000	0.022	0.022	41
2	21.64	0.000	0.000	0.018	0.018	34	21.80	0.000	0.000	0.018	0.018	35	41.99	0.000	0.000	0.031	0.031	114
3	17.38	0.000	0.000	0.018	0.018	27	16.95	0.000	0.000	0.020	0.020	29	27.58	0.000	0.000	0.033	0.033	80
4	15.95	0.000	0.000	0.031	0.031	42	40.13	0.000	0.000	0.028	0.028	97	18.19	0.000	0.000	0.021	0.021	33
5	15.34	0.000	0.000	0.016	0.016	21	27.53	0.000	0.000	0.012	0.012	28	17.98	0.000	0.000	0.030	0.030	46
6	21.34	0.000	0.001	0.010	0.011	21	57.38	0.000	0.001	0.027	0.028	139	36.43	0.000	0.000	0.021	0.021	65
7	121.6	0.003	0.007	0.050	0.060	633	56.60	0.000	0.001	0.028	0.030	144	23.26	0.000	0.000	0.032	0.032	64
8	160.0	0.004	0.007	0.075	0.086	1185	35.73	0.000	0.000	0.022	0.022	69	41.29	0.000	0.001	0.042	0.044	155
9	108.1	0.000	0.003	0.037	0.040	376	48.50	0.000	0.000	0.038	0.038	160	38.28	0.000	0.002	0.032	0.033	109
10	97.34	0.000	0.002	0.037	0.039	331	101.8	0.001	0.003	0.040	0.045	393	36.71	0.000	0.001	0.030	0.030	96
11	68.34	0.000	0.000	0.025	0.025	147	84.36	0.000	0.003	0.044	0.047	341	31.97	0.000	0.000	0.025	0.025	70
12	57.40	0.000	0.000	0.023	0.023	112	50.73	0.000	0.002	0.040	0.042	183	27.17	0.000	0.000	0.031	0.031	73
13	49.14	0.000	0.000	0.016	0.016	70	46.23	0.000	0.002	0.027	0.029	115	23.07	0.000	0.000	0.026	0.026	52
14	44.31	0.000	0.000	0.011	0.011	44	66.27	0.002	0.004	0.047	0.053	302	32.65	0.000	0.000	0.019	0.019	54
15	34.95	0.000	0.000	0.022	0.022	67	43.72	0.000	0.000	0.042	0.042	158	25.63	0.000	0.000	0.023	0.023	50
16	28.05	0.000	0.000	0.011	0.011	26	38.03	0.000	0.000	0.026	0.026	84	18.08	0.000	0.000	0.026	0.026	40
17	29.97	0.000	0.000	0.010	0.010	27	35.74	0.000	0.000	0.019	0.019	57	15.35	0.000	0.000	0.024	0.024	32
18	23.95	0.000	0.000	0.013	0.013	27	29.43	0.000	0.000	0.021	0.021	52	18.80	0.000	0.000	0.020	0.020	33
19	22.61	0.000	0.000	0.012	0.012	23	23.34	0.000	0.000	0.023	0.023	46	23.17	0.000	0.000	0.015	0.015	31
20	24.65	0.000	0.000	0.012	0.012	24	20.54	0.000	0.000	0.021	0.021	36	23.01	0.000	0.000	0.037	0.037	73
21	35.95	0.000	0.000	0.016	0.016	49	24.00	0.000	0.000	0.019	0.019	40	18.52	0.000	0.000	0.046	0.046	74
22	22.36	0.000	0.000	0.017	0.017	32	20.15	0.000	0.000	0.029	0.029	50	14.22	0.000	0.000	0.029	0.029	35
23	20.62	0.000	0.000	0.016	0.016	28	21.11	0.000	0.000	0.035	0.035	63	9.924	0.000	0.000	0.011	0.011	10
24	16.90	0.000	0.000	0.013	0.013	18	18.63	0.000	0.000	0.031	0.031	49	11.72	0.000	0.000	0.010	0.010	10
25	16.58	0.000	0.000	0.012	0.012	17	16.27	0.000	0.000	0.027	0.027	38	10.26	0.000	0.000	0.016	0.016	14
26	15.24	0.000	0.000	0.006	0.006	7	14.01	0.000	0.000	0.028	0.028	33	0.000	0.000	0.000	0.000	0.000	0
27	14.42	0.000	0.000	0.005	0.005	7	13.96	0.000	0.000	0.026	0.026	31	0.000	0.000	0.000	0.000	0.000	0
28	20.97	0.000	0.000	0.008	0.008	14	13.05	0.000	0.000	0.017	0.017	19	0.000	0.000	0.000	0.000	0.000	0
29	22.68	0.000	0.000	0.023	0.023	45	12.41	0.000	0.000	0.022	0.022	24	10.80	0.000	0.000	0.022	0.022	20
30	20.39	0.000	0.000	0.012	0.012	21	16.06	0.000	0.000	0.020	0.020	27	0.000	0.000	0.000	0.000	0.000	0
31							17.21	0.000	0.000	0.030	0.030	45						
Ten Daily Mean																		
Ten Daily I	60.19	0.001	0.002	0.031	0.034	270	42.83	0.000	0.001	0.025	0.026	113	30.30	0.000	0.000	0.029	0.030	80
Ten Daily II	38.34	0.000	0.000	0.015	0.015	57	43.84	0.000	0.001	0.031	0.032	138	23.89	0.000	0.000	0.025	0.025	51
Ten Daily III	20.61	0.000	0.000	0.013	0.013	24	16.99	0.000	0.000	0.026	0.026	38	7.545	0.000	0.000	0.013	0.013	16
Monthly																		
Total						3507						2923						1474

Annual Sediment Load (Metric Tonnes) : 29659

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	21.62	0.000	0.000	0.028	0.028	53	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	25.07	0.000	0.000	0.032	0.032	69	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	24.20	0.000	0.000	0.028	0.028	59	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	12.14	0.000	0.000	0.024	0.024	26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	8.302	0.000	0.000	0.011	0.011	21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						207						0						0

Annual Sediment Load (Metric Tonnes) : 29659

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KARATHODU (KL000L7) **Division : SWR Division, Kochi**

Local River : Kadalundi **Sub-Division : Chaliyar SD, Calicut**

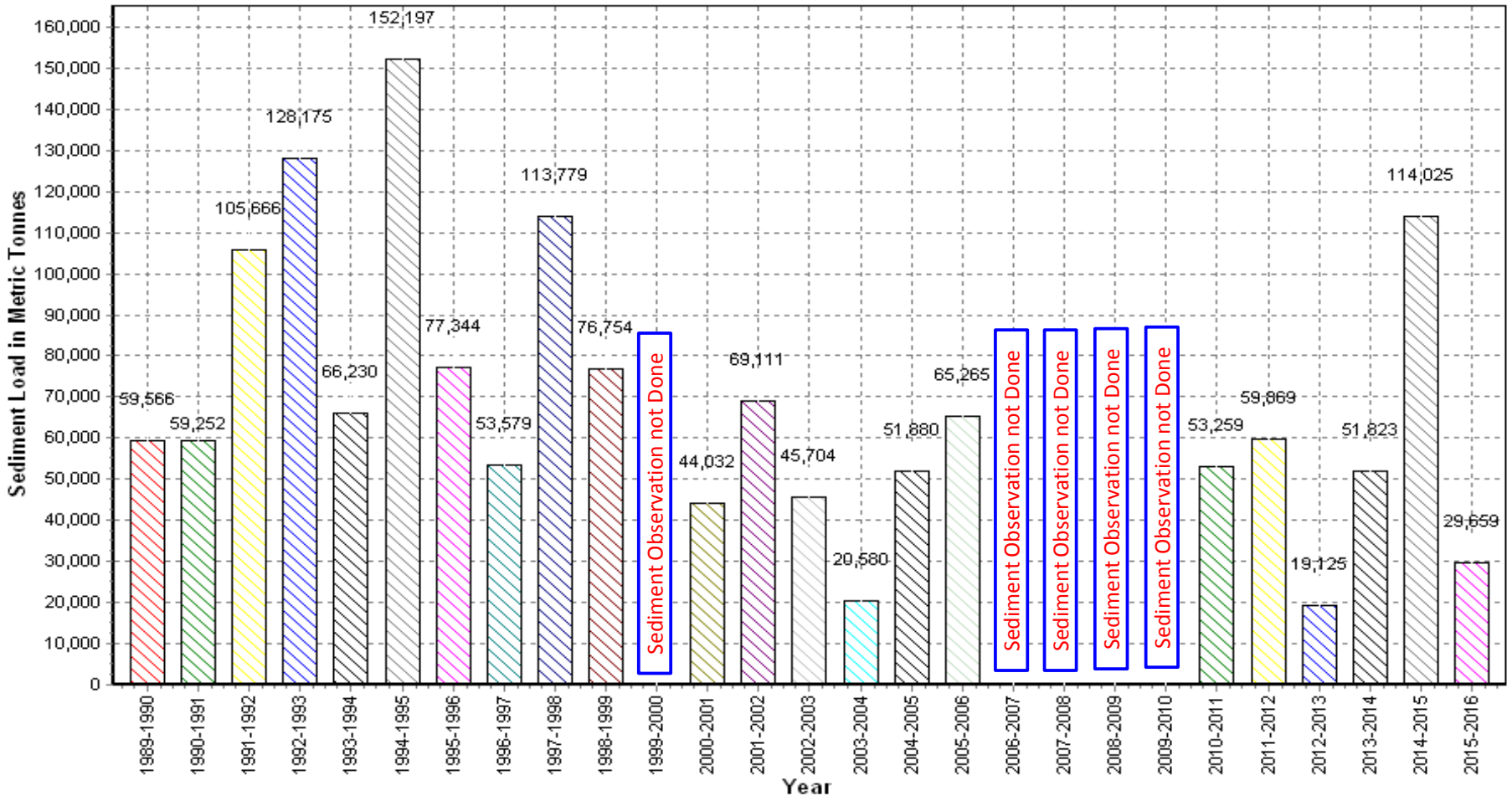
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
31	0.000	0.000	0.000	0.000	0.000	0							0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						0						0						0

Annual Sediment Load (Metric Tonnes) : 29659

Annual Sediment Load for the period: 1989-2016

Station Name : KARATHODU (KL000L7)
Local River : Kadalundi

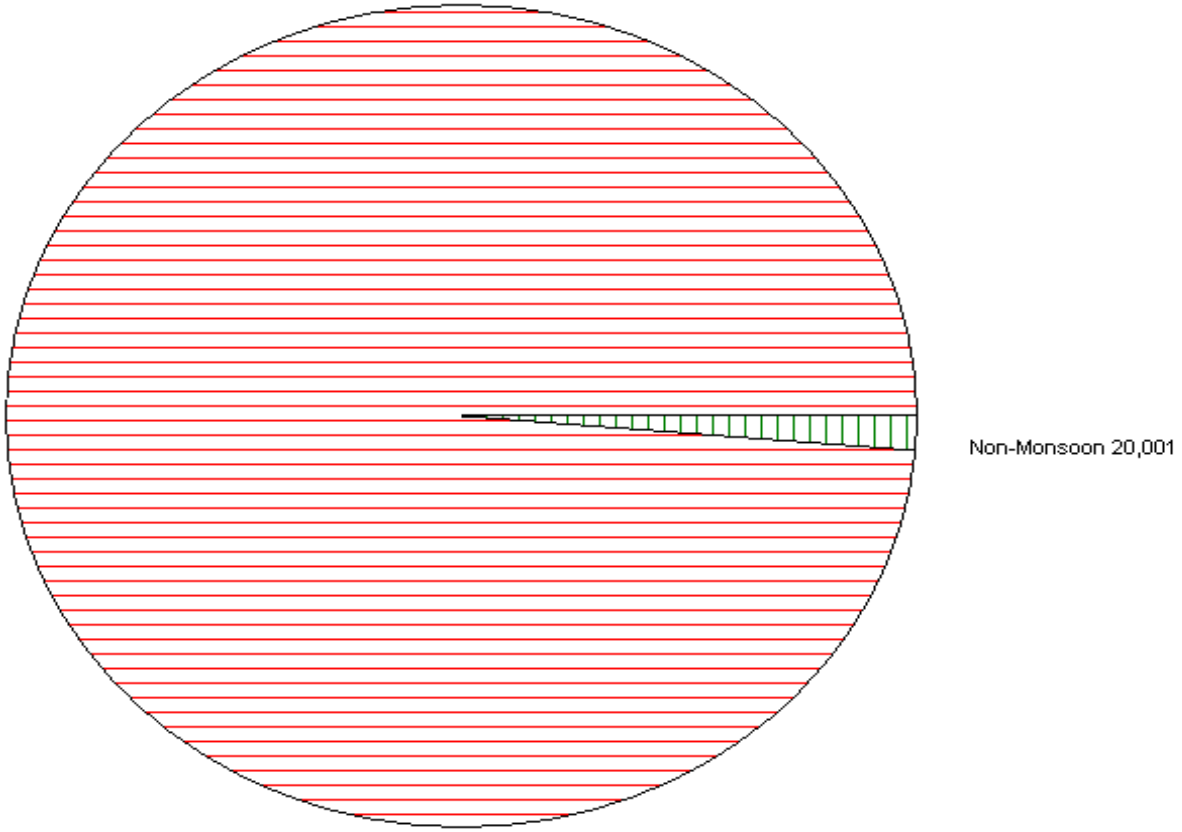
Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1989-2015

Station Name : KARATHODU (KL000L7)
Local River : Kadalundi

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



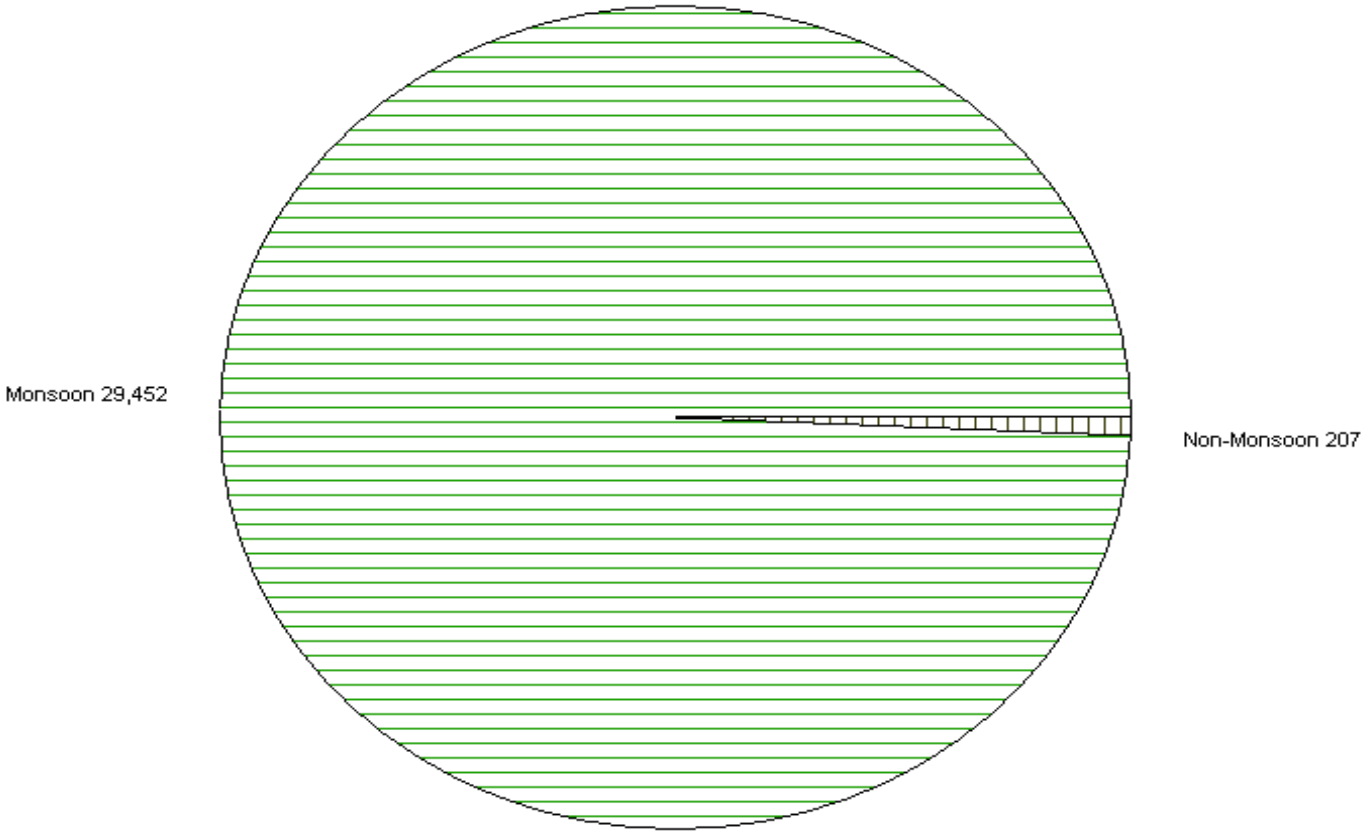
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KARATHODU (KL000L7)

Local River : Kadalundi

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Kadalundi* **CODE NO. :** *KLOOOL7*

SITE : *Karathodu* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**17.09.2015**						
1	45	-	(-)0.005	3.895	3.90		0.155		15.0	3.13							
2	60	-	(-)0.705	3.895	4.60	43.5	0.284	29.95	6.30	1.36	45.22	3.2839	0.2097	0.00015	29.95	15.0	2.42
3	75	-	2.095	3.895	1.80		NIL		10.0	2.76							
POSTMONSOON 2015									**DATE OF COLLECTION**		**26.11.2015**						
1	45	-	(-)0.175	3.445	3.62		NIL		14.0	1.06							
2	60	-	(-)0.725	3.445	4.18	42.0	0.071	2.516	8.0	0.94	43.52	3.0626	0.0196	0.00005	2.516	15.0	1.08
3	75	-	2.115	3.445	1.33		NIL		15.0	1.23							
PREMONSOON 2016									**DATE OF COLLECTION**		**24.05.2016**						
1	45	-	(-)0.175	2.135	2.310		NIL	NIL	8.0	2.60							
2	60	-	(-)0.725	2.135	2.860	40.0	NIL	NIL	10.0	3.07	NIL	NIL	NIL	NIL	NIL	10.0	2.82
3	75	-	1.785	2.135	0.350		NIL	NIL	8.0	2.79							

Annual Sediment Load for period : 1980-2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1980-1981	624334	4451	628785	5796
1981-1982	839037	4823	843860	6753
1982-1983	360913	973	361885	3466
1983-1984	306101	10929	317030	3789
1984-1985	435988	8399	444387	4028
1985-1986	442240	1546	443785	3973
1986-1987	354360	1552	355913	3556
1987-1988	144195	10621	154815	2699
1988-1989	275838	992	276830	4329
1989-1990	296488	4953	301441	4118
1990-1991	270147	2205	272352	3808
1991-1992	573815	2373	576187	5539
1992-1993	534309	5082	539391	6041
1993-1994	347719	5991	353710	3686
1994-1995	755985	13059	769044	6785
1995-1996	367290	3458	370748	4744
1996-1997	237537	3265	240802	3850
1997-1998	327387	5121	332508	4041
1998-1999	486281	35262	521543	5449
1999-2000	277126	3786	280913	3614
2000-2001	180853	10802	191656	2645
2001-2002	283903	6091	289994	4226
2002-2003	150072	3642	153714	2764
2003-2004	80583	7070	87653	2143
2004-2005	265648	2817	268465	3901
2005-2006	301562	32816	334378	5576
2006-2007	309073	5005	314078	6080
2007-2008	551366	19718	571085	8404
2008-2009	125737	3613	129350	2833
2009-2010	384806	4229	389035	4908
2010-2011	141630	6870	148501	5094
2011-2012	401223	3522	404745	5741
2012-2013	103635	514	104149	2245
2013-2014	287026	2085	289111	6008
2014-2015	637073	7951	645024	6340
2015-2016	204851	5768	210619	2848

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	24.04	0.000	0.000	0.015	0.015	31	332.2	0.001	0.003	0.059	0.063	1811	103.1	0.000	0.000	0.040	0.040	355
2	25.12	0.000	0.000	0.016	0.016	34	248.3	0.000	0.003	0.060	0.063	1354	94.97	0.000	0.000	0.039	0.039	318
3	15.36	0.000	0.000	0.009	0.009	12	196.5	0.000	0.002	0.061	0.063	1070	83.51	0.000	0.000	0.037	0.037	268
4	12.27	0.000	0.000	0.009	0.009	9	150.4	0.000	0.002	0.055	0.057	734	85.87	0.000	0.000	0.040	0.040	299
5	33.09	0.000	0.000	0.020	0.020	58	134.7	0.000	0.001	0.053	0.054	628	88.54	0.000	0.000	0.038	0.038	288
6	43.06	0.000	0.000	0.023	0.023	86	96.96	0.000	0.000	0.048	0.048	403	94.86	0.000	0.000	0.043	0.043	351
7	41.59	0.000	0.000	0.023	0.023	82	93.86	0.000	0.000	0.043	0.043	351	96.30	0.000	0.000	0.043	0.043	360
8	26.34	0.000	0.000	0.018	0.018	41	80.52	0.000	0.000	0.042	0.042	291	232.5	0.000	0.004	0.064	0.068	1366
9	24.61	0.000	0.000	0.016	0.016	35	212.0	0.000	0.003	0.066	0.069	1260	240.5	0.000	0.004	0.065	0.069	1432
10	33.67	0.000	0.000	0.023	0.023	66	277.7	0.000	0.005	0.068	0.073	1742	180.7	0.000	0.003	0.058	0.062	964
11	27.94	0.000	0.000	0.021	0.021	51	240.9	0.000	0.005	0.061	0.066	1369	183.8	0.000	0.004	0.060	0.064	1021
12	18.12	0.000	0.000	0.014	0.014	23	210.6	0.000	0.003	0.059	0.063	1137	271.3	0.000	0.005	0.065	0.069	1624
13	16.94	0.000	0.000	0.012	0.012	17	189.9	0.000	0.003	0.058	0.060	989	407.1	0.002	0.007	0.075	0.084	2962
14	27.17	0.000	0.000	0.016	0.016	38	101.0	0.000	0.000	0.041	0.041	360	365.6	0.001	0.005	0.069	0.075	2366
15	45.70	0.000	0.000	0.025	0.025	98	112.0	0.000	0.000	0.050	0.050	488	272.8	0.001	0.004	0.060	0.064	1511
16	22.74	0.000	0.000	0.018	0.018	36	130.3	0.000	0.002	0.047	0.048	545	180.8	0.000	0.003	0.050	0.054	836
17	57.80	0.000	0.000	0.028	0.028	140	99.06	0.000	0.000	0.037	0.037	315	144.8	0.000	0.003	0.046	0.049	617
18	46.23	0.000	0.000	0.024	0.024	95	248.3	0.001	0.003	0.003	0.007	146	168.0	0.000	0.003	0.050	0.054	779
19	69.07	0.000	0.000	0.032	0.032	189	504.4	0.002	0.007	0.009	0.019	811	197.1	0.000	0.004	0.061	0.064	1097
20	106.4	0.000	0.002	0.053	0.055	505	661.1	0.003	0.010	0.078	0.091	5215	338.3	0.000	0.005	0.072	0.077	2254
21	416.5	0.002	0.005	0.074	0.080	2893	410.1	0.002	0.610	0.069	0.681	24142	267.6	0.000	0.003	0.066	0.069	1593
22	321.1	0.001	0.004	0.068	0.073	2014	369.2	0.001	0.005	0.060	0.066	2099	200.2	0.000	0.003	0.060	0.063	1097
23	648.6	0.003	0.009	0.081	0.092	5156	420.9	0.002	0.007	0.073	0.082	2982	194.2	0.000	0.003	0.059	0.062	1039
24	638.4	0.003	0.007	0.078	0.088	4854	350.8	0.001	0.004	0.058	0.064	1925	172.9	0.000	0.003	0.053	0.057	844
25	624.1	0.002	0.007	0.073	0.082	4433	487.6	0.003	0.008	0.081	0.091	3834	177.6	0.000	0.003	0.057	0.060	927
26	633.9	0.003	0.008	0.085	0.096	5257	364.5	0.001	0.007	0.070	0.078	2450	124.4	0.000	0.001	0.043	0.045	478
27	1297	0.009	0.024	0.113	0.147	16460	310.6	0.000	0.006	0.066	0.072	1932	105.7	0.000	0.001	0.041	0.041	377
28	1131	0.008	0.020	0.103	0.131	12772	280.7	0.000	0.005	0.055	0.060	1443	101.0	0.000	0.000	0.040	0.040	353
29	550.4	0.002	0.006	0.066	0.074	3534	205.9	0.000	0.004	0.049	0.053	945	101.0	0.000	0.000	0.040	0.040	353
30	381.6	0.001	0.004	0.058	0.063	2081	148.3	0.000	0.002	0.039	0.041	529	94.97	0.000	0.000	0.039	0.039	323
31							116.4	0.000	0.000	0.037	0.037	368	85.51	0.000	0.000	0.038	0.038	279
Ten Daily Mean																		
Ten Daily I	27.92	0.000	0.000	0.017	0.017	45	182.3	0.000	0.002	0.055	0.057	964	130.1	0.000	0.001	0.047	0.048	600
Ten Daily II	43.81	0.000	0.000	0.024	0.025	119	249.8	0.001	0.003	0.044	0.048	1138	253.0	0.000	0.004	0.061	0.065	1507
Ten Daily III	664.3	0.003	0.009	0.080	0.093	5945	315.0	0.001	0.060	0.060	0.120	3877	147.7	0.000	0.002	0.049	0.050	697
Monthly																		
Total						61099						63669						28728

Annual Sediment Load (Metric Tonnes) : 210619

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	80.11	0.000	0.000	0.039	0.039	268	428.0	0.002	0.009	0.087	0.097	3594	51.23	0.000	0.000	0.033	0.033	146
2	57.57	0.000	0.000	0.030	0.030	151	267.2	0.001	0.005	0.063	0.069	1598	59.50	0.000	0.000	0.038	0.038	193
3	55.46	0.000	0.000	0.030	0.030	141	165.2	0.000	0.002	0.054	0.056	804	60.61	0.000	0.000	0.040	0.040	211
4	51.20	0.000	0.000	0.028	0.028	125	140.3	0.000	0.003	0.042	0.045	544	62.74	0.000	0.000	0.042	0.042	227
5	54.54	0.000	0.000	0.031	0.031	144	127.5	0.000	0.003	0.038	0.041	449	64.46	0.000	0.000	0.040	0.040	225
6	53.30	0.000	0.000	0.030	0.030	139	220.3	0.001	0.005	0.065	0.071	1342	232.4	0.000	0.007	0.065	0.072	1444
7	89.85	0.000	0.000	0.042	0.042	328	275.5	0.001	0.007	0.077	0.085	2018	345.7	0.002	0.010	0.074	0.086	2557
8	188.4	0.000	0.004	0.060	0.065	1050	192.6	0.000	0.004	0.060	0.064	1067	431.1	0.002	0.012	0.101	0.114	4261
9	226.6	0.000	0.006	0.069	0.075	1462	177.6	0.000	0.003	0.055	0.058	890	267.8	0.001	0.007	0.069	0.077	1784
10	164.3	0.000	0.003	0.054	0.058	816	274.9	0.001	0.006	0.068	0.075	1791	155.7	0.000	0.003	0.047	0.051	685
11	94.46	0.000	0.000	0.043	0.043	353	220.3	0.000	0.005	0.060	0.065	1233	134.5	0.000	0.001	0.053	0.055	633
12	100.8	0.000	0.000	0.048	0.048	414	190.7	0.000	0.004	0.058	0.061	1012	131.3	0.000	0.001	0.045	0.046	522
13	94.97	0.000	0.000	0.046	0.046	374	163.2	0.000	0.002	0.051	0.053	743	128.4	0.000	0.001	0.050	0.050	558
14	55.43	0.000	0.000	0.033	0.033	156	140.9	0.000	0.001	0.049	0.050	614	138.8	0.000	0.002	0.055	0.057	679
15	55.43	0.000	0.000	0.033	0.033	156	146.4	0.000	0.001	0.050	0.051	648	149.8	0.000	0.001	0.060	0.061	795
16	54.31	0.000	0.000	0.032	0.032	151	126.2	0.000	0.000	0.048	0.048	521	120.8	0.000	0.000	0.050	0.050	520
17	64.56	0.000	0.000	0.035	0.035	196	101.9	0.000	0.000	0.046	0.046	408	81.97	0.000	0.000	0.046	0.046	328
18	74.30	0.000	0.000	0.038	0.038	242	93.49	0.000	0.000	0.046	0.046	372	41.39	0.000	0.000	0.037	0.037	134
19	79.26	0.000	0.000	0.038	0.038	262	67.65	0.000	0.000	0.037	0.037	217	119.2	0.000	0.000	0.045	0.045	464
20	84.92	0.000	0.000	0.041	0.041	298	74.09	0.000	0.000	0.045	0.045	287	90.21	0.000	0.000	0.043	0.043	332
21	94.56	0.000	0.000	0.045	0.045	366	76.61	0.000	0.000	0.045	0.045	300	75.23	0.000	0.000	0.038	0.038	250
22	87.13	0.000	0.000	0.038	0.038	289	84.89	0.000	0.000	0.048	0.048	350	57.60	0.000	0.000	0.035	0.035	173
23	58.40	0.000	0.000	0.030	0.030	153	72.97	0.000	0.000	0.042	0.042	263	50.73	0.000	0.000	0.038	0.038	165
24	53.30	0.000	0.000	0.029	0.029	132	68.01	0.000	0.000	0.039	0.039	229	41.63	0.000	0.000	0.036	0.036	131
25	65.76	0.000	0.000	0.033	0.033	186	57.60	0.000	0.000	0.033	0.033	164	50.21	0.000	0.000	0.046	0.046	197
26	60.32	0.000	0.000	0.031	0.031	159	48.14	0.000	0.000	0.028	0.028	118	38.89	0.000	0.000	0.037	0.037	123
27	50.21	0.000	0.000	0.026	0.026	111	52.16	0.000	0.000	0.030	0.030	134	74.07	0.000	0.000	0.040	0.040	255
28	59.18	0.000	0.000	0.030	0.030	155	36.50	0.000	0.000	0.026	0.026	82	32.29	0.000	0.000	0.036	0.036	101
29	252.9	0.000	0.006	0.073	0.078	1711	41.34	0.000	0.000	0.028	0.028	98	25.12	0.000	0.000	0.046	0.046	99
30	118.5	0.000	0.000	0.048	0.048	488	42.88	0.000	0.000	0.029	0.029	108	31.08	0.000	0.000	0.036	0.036	96
31							41.79	0.000	0.000	0.027	0.027	99						
Ten Daily Mean																		
Ten Daily I	102.1	0.000	0.001	0.041	0.043	462	226.9	0.001	0.005	0.061	0.066	1410	173.1	0.001	0.004	0.055	0.059	1173
Ten Daily II	75.84	0.000	0.000	0.039	0.039	260	132.5	0.000	0.001	0.049	0.050	605	113.6	0.000	0.001	0.048	0.049	496
Ten Daily III	90.03	0.000	0.001	0.038	0.039	375	56.63	0.000	0.000	0.034	0.034	177	47.68	0.000	0.000	0.039	0.039	159
Monthly																		
Total						10976						22095						18285

Annual Sediment Load (Metric Tonnes) : 210619

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	32.89	0.000	0.000	0.038	0.038	108	23.37	0.000	0.000	0.030	0.030	60	12.00	0.000	0.000	0.016	0.016	16
2	33.06	0.000	0.000	0.029	0.029	81	20.10	0.000	0.000	0.025	0.025	44	12.12	0.000	0.000	0.014	0.014	14
3	51.73	0.000	0.000	0.041	0.041	181	19.64	0.000	0.000	0.025	0.025	42	10.52	0.000	0.000	0.012	0.012	11
4	43.12	0.000	0.000	0.039	0.039	146	15.26	0.000	0.000	0.020	0.020	26	10.65	0.000	0.000	0.012	0.012	11
5	34.43	0.000	0.000	0.037	0.037	109	13.20	0.000	0.000	0.017	0.017	20	11.87	0.000	0.000	0.013	0.013	14
6	32.37	0.000	0.000	0.034	0.034	95	12.18	0.000	0.000	0.016	0.016	17	11.69	0.000	0.000	0.013	0.013	13
7	40.67	0.000	0.000	0.042	0.042	147	10.65	0.000	0.000	0.014	0.014	13	10.54	0.000	0.000	0.012	0.012	11
8	41.55	0.000	0.000	0.042	0.042	152	15.31	0.000	0.000	0.020	0.020	26	11.52	0.000	0.000	0.011	0.011	11
9	92.93	0.000	0.000	0.045	0.045	363	16.28	0.000	0.000	0.021	0.021	30	6.624	0.000	0.000	0.007	0.007	4
10	70.42	0.000	0.000	0.039	0.039	238	12.97	0.000	0.000	0.017	0.017	19	7.184	0.000	0.000	0.007	0.007	4
11	82.63	0.000	0.000	0.044	0.044	312	11.67	0.000	0.000	0.015	0.015	15	6.122	0.000	0.000	0.006	0.006	3
12	46.49	0.000	0.000	0.040	0.040	161	5.814	0.000	0.000	0.007	0.007	4	0.000	0.000	0.000	0.000	0.000	0
13	44.27	0.000	0.000	0.036	0.036	138	7.846	0.000	0.000	0.010	0.010	7	0.000	0.000	0.000	0.000	0.000	0
14	51.95	0.000	0.000	0.040	0.040	181	8.255	0.000	0.000	0.010	0.010	7	0.000	0.000	0.000	0.000	0.000	0
15	81.45	0.000	0.000	0.044	0.044	306	6.764	0.000	0.000	0.008	0.008	5	0.000	0.000	0.000	0.000	0.000	0
16	109.9	0.000	0.000	0.051	0.051	481	6.335	0.000	0.000	0.008	0.008	4	0.000	0.000	0.000	0.000	0.000	0
17	91.40	0.000	0.000	0.048	0.048	375	10.54	0.000	0.000	0.013	0.013	12	0.000	0.000	0.000	0.000	0.000	0
18	47.83	0.000	0.000	0.039	0.039	162	11.12	0.000	0.000	0.013	0.013	13	0.000	0.000	0.000	0.000	0.000	0
19	43.00	0.000	0.000	0.036	0.036	135	10.12	0.000	0.000	0.012	0.012	11	0.000	0.000	0.000	0.000	0.000	0
20	44.27	0.000	0.000	0.042	0.042	159	10.25	0.000	0.000	0.013	0.013	11	0.000	0.000	0.000	0.000	0.000	0
21	32.37	0.000	0.000	0.031	0.031	85	15.92	0.000	0.000	0.020	0.020	27	0.000	0.000	0.000	0.000	0.000	0
22	33.06	0.000	0.000	0.031	0.031	89	15.44	0.000	0.000	0.019	0.019	25	0.000	0.000	0.000	0.000	0.000	0
23	33.06	0.000	0.000	0.031	0.031	89	14.72	0.000	0.000	0.018	0.018	23	0.000	0.000	0.000	0.000	0.000	0
24	35.88	0.000	0.000	0.034	0.034	105	14.28	0.000	0.000	0.018	0.018	22	0.000	0.000	0.000	0.000	0.000	0
25	33.06	0.000	0.000	0.031	0.031	89	14.62	0.000	0.000	0.018	0.018	23	0.000	0.000	0.000	0.000	0.000	0
26	31.58	0.000	0.000	0.034	0.034	92	13.83	0.000	0.000	0.018	0.018	21	0.000	0.000	0.000	0.000	0.000	0
27	32.37	0.000	0.000	0.035	0.035	98	13.78	0.000	0.000	0.018	0.018	21	0.000	0.000	0.000	0.000	0.000	0
28	30.66	0.000	0.000	0.034	0.034	89	13.68	0.000	0.000	0.017	0.017	21	0.000	0.000	0.000	0.000	0.000	0
29	18.25	0.000	0.000	0.028	0.028	44	11.06	0.000	0.000	0.014	0.014	13	0.000	0.000	0.000	0.000	0.000	0
30	24.06	0.000	0.000	0.030	0.030	63	12.95	0.000	0.000	0.016	0.016	18						
31	24.71	0.000	0.000	0.030	0.030	65	12.13	0.000	0.000	0.015	0.015	16						
Ten Daily Mean																		
Ten Daily I	47.32	0.000	0.000	0.039	0.039	162	15.89	0.000	0.000	0.020	0.020	30	10.47	0.000	0.000	0.012	0.012	11
Ten Daily II	64.32	0.000	0.000	0.042	0.042	241	8.871	0.000	0.000	0.011	0.011	9	0.612	0.000	0.000	0.001	0.001	0
Ten Daily III	29.92	0.000	0.000	0.032	0.032	82	13.86	0.000	0.000	0.017	0.017	21	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						4939						614						112

Annual Sediment Load (Metric Tonnes) : 210619

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KUMBIDI (KR000C9) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : Chaliyar SD, Calicut**

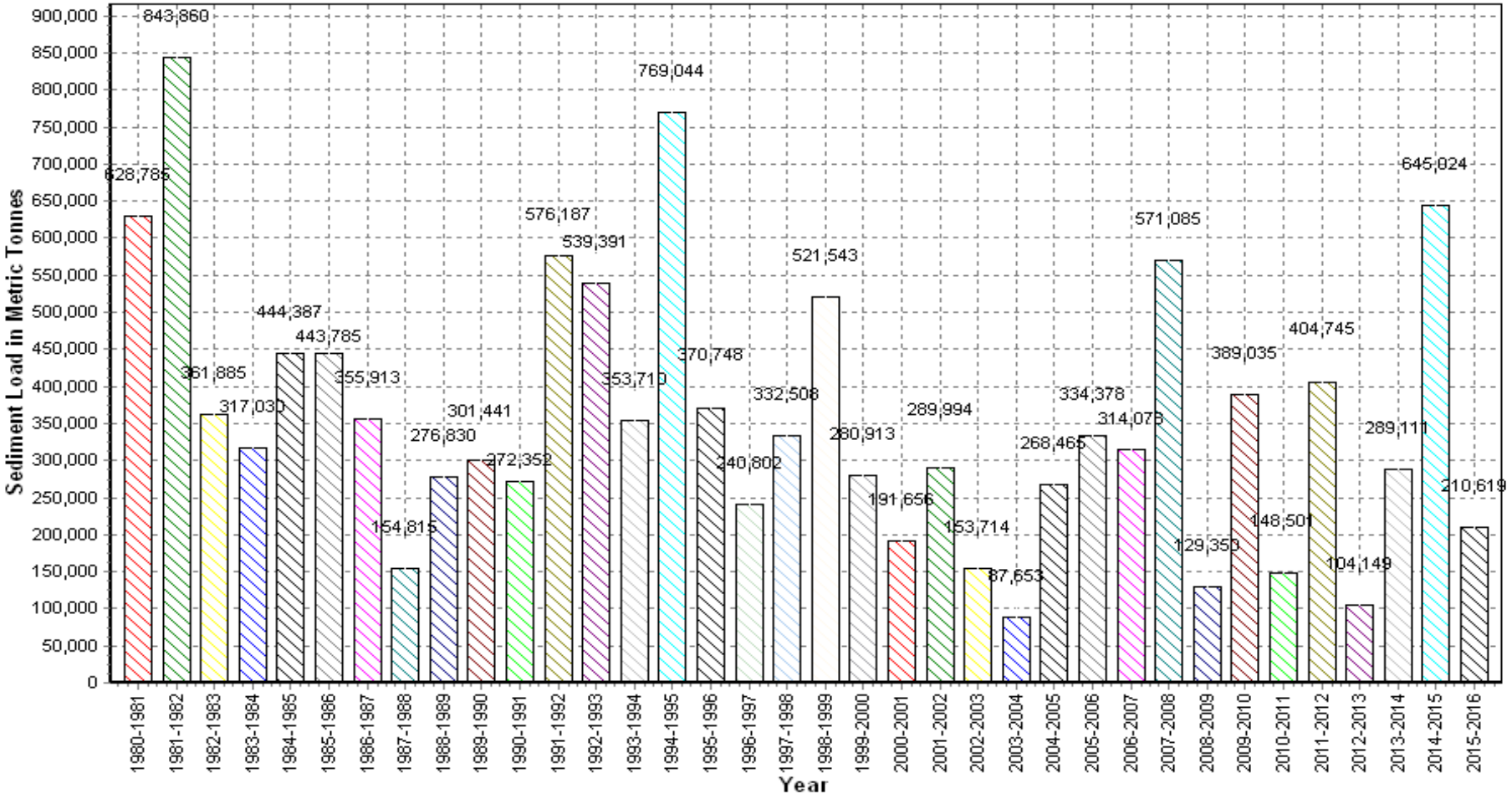
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	2.789	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	3.897	0.000	0.000	0.004	0.004	1	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	3.568	0.000	0.000	0.004	0.004	1	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	3.159	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	2.971	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	2.202	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	2.071	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	2.074	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	2.074	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.907	0.000	0.000	0.008	0.008	5
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.420	0.000	0.000	0.006	0.006	4
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.052	0.000	0.000	0.007	0.007	4
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.705	0.000	0.000	0.008	0.008	5
16	2.789	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0	8.034	0.000	0.000	0.008	0.008	6
17	2.504	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0	7.023	0.000	0.000	0.008	0.008	5
18	2.156	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0	6.432	0.000	0.000	0.007	0.007	4
19	2.074	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0	6.704	0.000	0.000	0.008	0.008	4
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.119	0.000	0.000	0.009	0.009	7
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.064	0.000	0.000	0.010	0.010	8
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.370	0.000	0.000	0.010	0.010	7
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.232	0.000	0.000	0.010	0.010	7
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	6.244	0.000	0.000	0.007	0.007	4
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	3.188	0.000	0.000	0.004	0.004	1
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.705	0.000	0.000	0.009	0.009	6
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	8.987	0.000	0.000	0.010	0.010	8
31	0.000	0.000	0.000	0.000	0.000	0							9.820	0.000	0.000	0.011	0.011	10
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	2.273	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.952	0.000	0.000	0.001	0.001	0	0.207	0.000	0.000	0.000	0.000	0	6.540	0.000	0.000	0.007	0.007	4
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5.601	0.000	0.000	0.006	0.006	5
Monthly																		
Total						2						6						94

Annual Sediment Load (Metric Tonnes) : 210619

Annual Sediment Load for the period: 1980-2016

Station Name : KUMBIDI (KR000C9)
Local River : Bharathapuzha

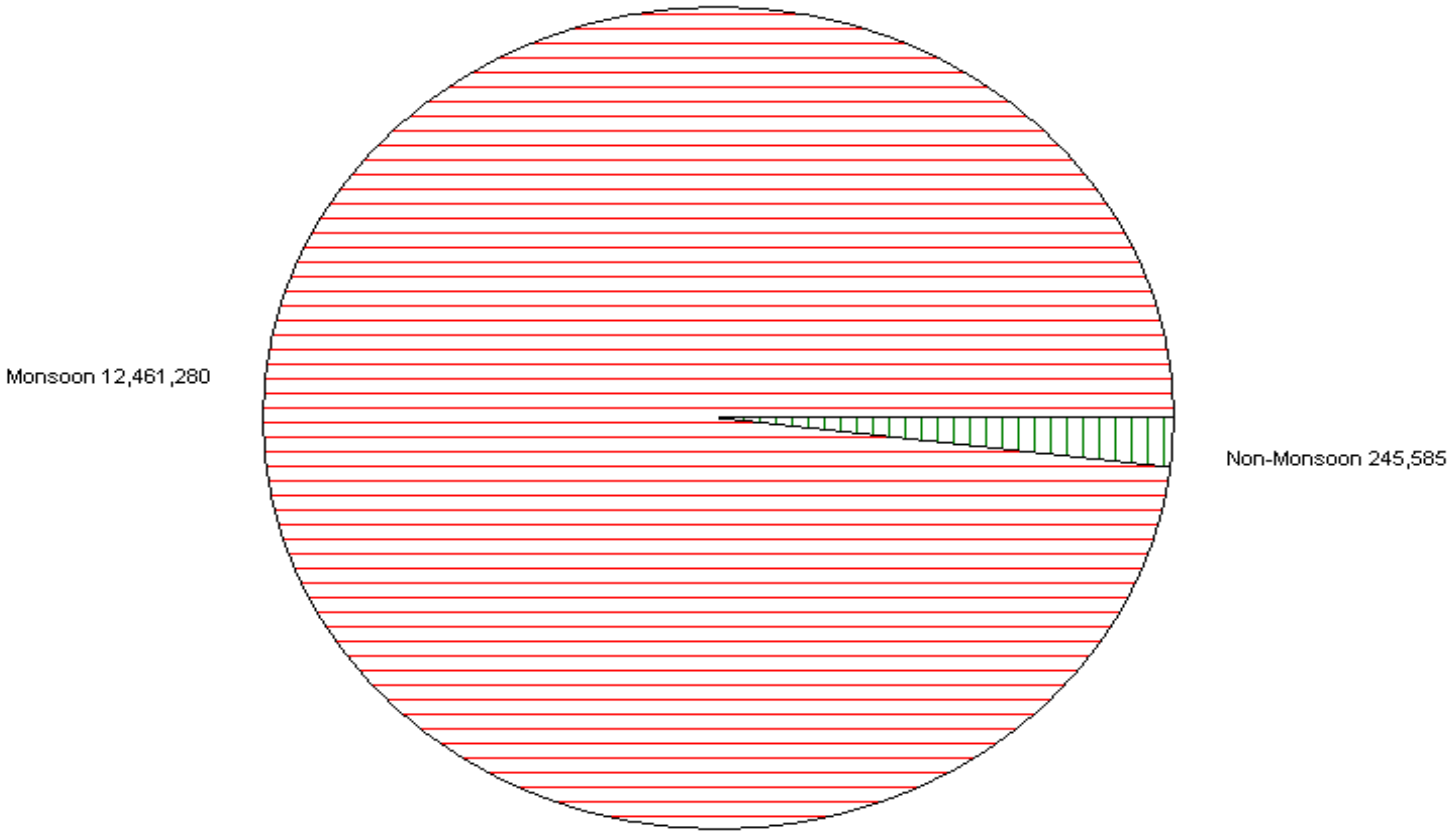
Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1980-2015

Station Name : KUMBIDI (KR000C9)
Local River : Bharathapuzha

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



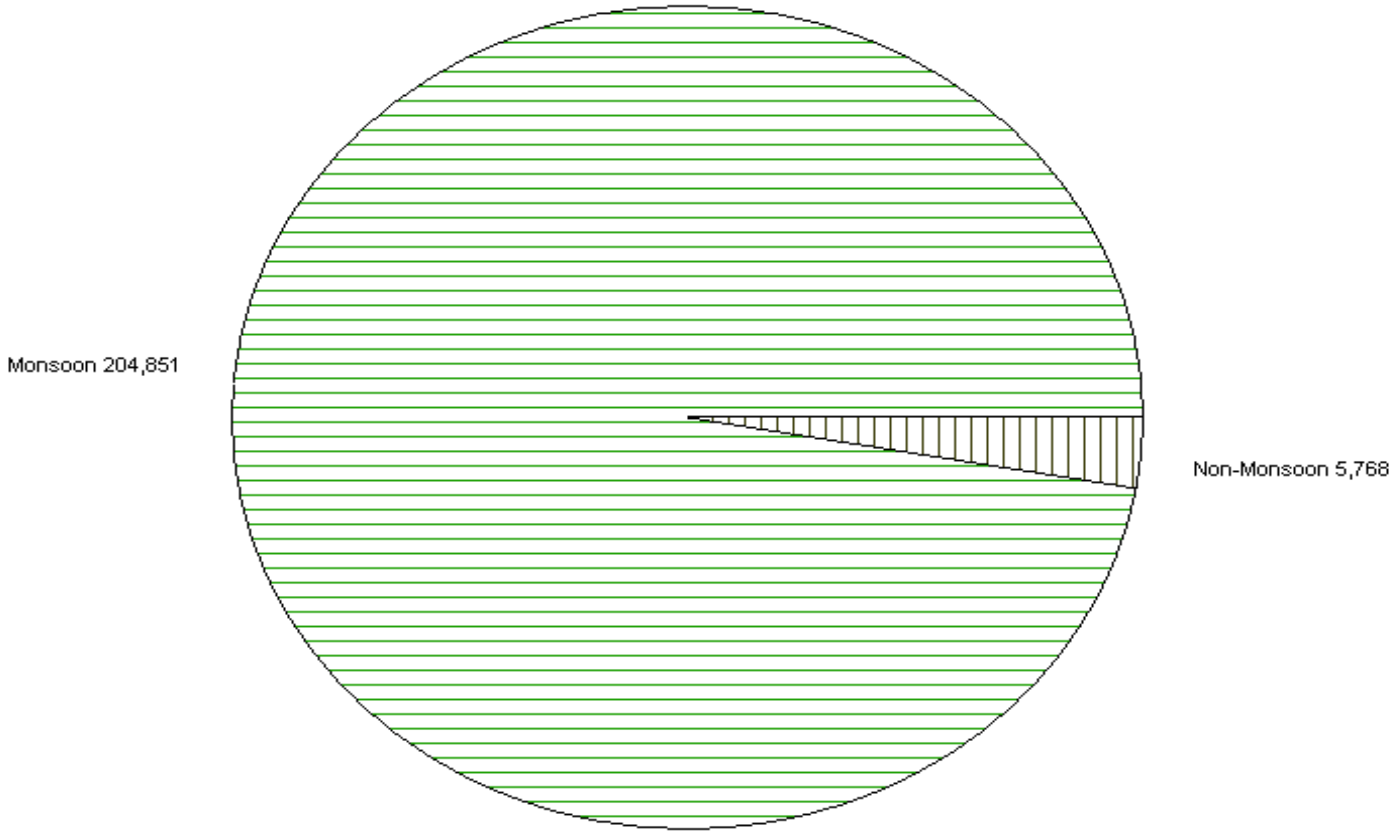
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KUMBIDI (KR000C9)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Bharathapuzha* **CODE NO. :** *KROOOC9*

SITE : *Kumbidi* **CROSS SECTION :** *SGL*

	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
									Bed Material Composition							Bed Material Composition	
SL. NO.	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									DATE OF COLLECTION		18.09.2015						
1	80	7.000	-	-	Dry	80.0	Nil		2.20	0.36							
2	160	6.670	-	-	Dry	80.0	Nil		6.0	0.42							
3	240	5.450	-	-	Dry	80.0	Nil	74.26	1.80	0.28	183.55	1.2044	0.3369	0.00008	74.26	6.30	0.63
4	320	5.160	-	-	Dry	80.0	Nil		6.30	1.02							
5	400	-	3.480	4.110	0.63	80.0	0.340		6.30	0.82							
6	480	-	2.350	4.110	1.76	80.0	0.361		6.00	0.86							
POSTMONSOON 2015									DATE OF COLLECTION		01.12.2015						
1	80	6.980	-	-	Dry	80.0	Nil		2.40	0.32							
2	160	6.660	-	-	Dry	80.0	Nil		2.20	0.29							
3	240	5.420	-	-	Dry	80.0	Nil	32.88	6.00	0.52	149.29	0.8872	0.2487	0.00005	32.88	6.30	0.48
4	320	5.140	-	-	Dry	80.0	Nil		5.50	0.49							
5	400	-	3.330	3.600	0.27	80.0	0.169		6.30	0.64							
6	480	-	2.290	3.600	1.31	80.0	0.366		6.30	0.59							
PREMONSOON 2016									DATE OF COLLECTION		13.05.2016						
1	80	6.960	-	-	Dry	80.0	Nil		2.00	0.38							
2	160	6.620	-	-	Dry	80.0	Nil		2.40	0.42							
3	240	5.440	-	-	Dry	80.0	Nil	6.870	6.00	0.72	116.22	0.6478	0.0914	0.0030	6.870	6.30	0.70
4	320	5.110	-	-	Dry	80.0	Nil		6.30	0.83							
5	400	3.370	-	-	Dry	80.0	Nil		6.30	0.97							
6	480	-	2.290	3.100	0.81	80.0	0.105		6.30	0.90							

Annual Sediment Load for period : 1986-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1986-1987	44878	398	45276	1634
1987-1988	40827	4386	45213	1046
1988-1989	137915	337	138252	1811
1989-1990	102706	5702	108408	1635
1990-1991	51842	300	52141	1275
1991-1992	118605	693	119297	1816
1992-1993	151031	3829	154859	2470
1993-1994	64866	1828	66694	1502
1994-1995	192583	2142	194726	2304
1995-1996	94190	603	94794	1729
1996-1997	83598	1693	85291	1606
1997-1998	121871	1821	123692	2005
1998-1999	116900	2996	119896	2196
1999-2000	78288	223	78512	1891
2000-2001	41560	1273	42833	1311
2001-2002	85513	975	86487	1624
2002-2003	53776	791	54568	1043
2003-2004	23229	3676	26906	778
2004-2005	89982	915	90896	1444
2005-2006	118615	10463	129079	2126
2006-2007	Sediment Obsevation Not Done			2176
2007-2008	Sediment Obsevation Not Done			2794
2008-2009	Sediment Obsevation Not Done			1252
2009-2010	109133	1685	110819	1805
2010-2011	112481	3338	115820	2174
2011-2012	103534	1459	104992	2237
2012-2013	18753	523	19276	906
2013-2014	51460	294	51754	2077
2014-2015	15952	268	16220	2051
2015-2016	10501	823	11323	938

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	6.724	0.000	0.000	0.012	0.012	7	104.7	0.000	0.000	0.016	0.016	143	23.39	0.000	0.000	0.007	0.007	14
2	7.496	0.000	0.000	0.011	0.011	7	81.32	0.000	0.000	0.011	0.011	77	29.13	0.000	0.000	0.009	0.009	23
3	8.159	0.000	0.000	0.011	0.011	8	64.81	0.000	0.000	0.014	0.014	77	22.93	0.000	0.000	0.008	0.008	15
4	34.90	0.000	0.000	0.010	0.010	30	40.90	0.000	0.000	0.012	0.012	42	46.09	0.000	0.000	0.014	0.014	54
5	12.30	0.000	0.000	0.009	0.009	10	36.80	0.000	0.000	0.011	0.011	35	25.89	0.000	0.000	0.009	0.009	19
6	11.89	0.000	0.000	0.009	0.009	10	33.13	0.000	0.000	0.010	0.010	29	38.56	0.000	0.000	0.007	0.007	25
7	8.159	0.000	0.000	0.011	0.011	8	19.24	0.000	0.000	0.013	0.013	22	30.16	0.000	0.000	0.010	0.010	26
8	7.174	0.000	0.000	0.011	0.011	7	34.39	0.000	0.000	0.012	0.012	35	76.40	0.000	0.000	0.037	0.037	242
9	12.30	0.000	0.000	0.009	0.009	10	94.29	0.000	0.003	0.014	0.018	143	44.83	0.000	0.000	0.018	0.018	71
10	10.31	0.000	0.000	0.010	0.010	9	53.59	0.000	0.003	0.009	0.012	56	29.30	0.000	0.000	0.009	0.009	24
11	7.978	0.000	0.000	0.011	0.011	8	57.21	0.000	0.000	0.003	0.003	15	47.13	0.000	0.000	0.013	0.013	53
12	9.880	0.000	0.000	0.010	0.010	9	53.51	0.000	0.000	0.004	0.004	18	91.30	0.000	0.004	0.016	0.020	155
13	12.59	0.000	0.000	0.009	0.009	10	32.33	0.000	0.000	0.009	0.009	26	92.96	0.000	0.004	0.014	0.018	147
14	15.36	0.000	0.000	0.008	0.008	10	42.59	0.000	0.000	0.008	0.008	31	65.24	0.000	0.000	0.013	0.013	75
15	17.77	0.000	0.000	0.007	0.007	10	49.20	0.000	0.000	0.010	0.010	42	43.93	0.000	0.000	0.009	0.009	33
16	17.95	0.000	0.000	0.007	0.007	10	87.80	0.000	0.000	0.010	0.010	74	82.16	0.000	0.000	0.017	0.017	121
17	19.06	0.000	0.000	0.006	0.006	10	51.57	0.000	0.000	0.010	0.010	46	47.05	0.000	0.000	0.009	0.009	38
18	15.11	0.000	0.000	0.008	0.008	10	170.0	0.000	0.002	0.009	0.012	169	61.47	0.000	0.000	0.012	0.012	61
19	19.01	0.000	0.000	0.009	0.009	15	208.4	0.000	0.003	0.009	0.012	214	135.4	0.000	0.004	0.015	0.019	221
20	103.7	0.000	0.003	0.006	0.010	87	197.2	0.000	0.003	0.009	0.012	201	67.64	0.000	0.004	0.011	0.015	88
21	68.61	0.000	0.003	0.006	0.009	55	111.0	0.000	0.002	0.009	0.011	101	48.24	0.000	0.001	0.008	0.009	38
22	209.8	0.000	0.005	0.006	0.011	199	113.8	0.000	0.002	0.009	0.011	106	78.75	0.000	0.003	0.011	0.015	99
23	345.4	0.000	0.008	0.010	0.018	528	101.6	0.000	0.003	0.008	0.010	91	55.21	0.000	0.001	0.012	0.013	61
24	206.6	0.000	0.005	0.008	0.013	225	111.2	0.000	0.003	0.008	0.011	109	47.49	0.000	0.000	0.012	0.012	50
25	283.1	0.000	0.003	0.009	0.011	279	134.0	0.000	0.003	0.009	0.012	140	28.50	0.000	0.000	0.011	0.011	28
26	232.4	0.000	0.005	0.007	0.013	253	75.28	0.000	0.003	0.008	0.011	70	23.59	0.000	0.000	0.010	0.010	20
27	401.2	0.002	0.006	0.008	0.017	572	79.53	0.000	0.003	0.008	0.011	74	22.60	0.000	0.000	0.010	0.010	20
28	182.3	0.001	0.001	0.008	0.010	158	64.40	0.000	0.003	0.008	0.011	59	25.49	0.000	0.000	0.010	0.010	21
29	142.4	0.000	0.000	0.008	0.008	94	53.75	0.000	0.000	0.008	0.008	36	27.65	0.000	0.000	0.009	0.009	22
30	94.54	0.000	0.000	0.006	0.006	48	48.55	0.000	0.000	0.008	0.008	34	32.19	0.000	0.000	0.008	0.008	23
31							38.11	0.000	0.000	0.007	0.007	24	19.47	0.000	0.000	0.011	0.011	18
Ten Daily Mean																		
Ten Daily I	11.94	0.000	0.000	0.010	0.010	10	56.32	0.000	0.001	0.012	0.013	66	36.67	0.000	0.000	0.013	0.013	51
Ten Daily II	23.84	0.000	0.000	0.008	0.008	18	94.98	0.000	0.001	0.008	0.009	84	73.43	0.000	0.002	0.013	0.014	99
Ten Daily III	216.6	0.000	0.004	0.008	0.011	241	84.64	0.000	0.002	0.008	0.010	77	37.20	0.000	0.000	0.010	0.011	36
Monthly																		
Total						2694						2339						1902

Annual Sediment Load (Metric Tonnes) : 11323

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	20.51	0.000	0.000	0.011	0.011	20	44.05	0.000	0.000	0.005	0.005	20	63.88	0.000	0.008	0.012	0.020	110
2	26.20	0.000	0.000	0.010	0.010	22	29.13	0.000	0.000	0.005	0.005	14	42.56	0.000	0.004	0.013	0.017	61
3	21.59	0.000	0.000	0.014	0.014	25	20.45	0.000	0.000	0.006	0.006	10	16.39	0.000	0.000	0.007	0.007	10
4	20.37	0.000	0.000	0.012	0.012	22	47.57	0.000	0.000	0.002	0.002	10	26.69	0.000	0.000	0.007	0.007	16
5	22.28	0.000	0.000	0.012	0.012	23	33.77	0.000	0.000	0.004	0.004	12	48.24	0.000	0.004	0.006	0.011	44
6	45.73	0.000	0.001	0.011	0.012	46	213.1	0.000	0.004	0.010	0.014	252	59.05	0.000	0.005	0.009	0.013	66
7	151.6	0.000	0.004	0.007	0.012	151	80.32	0.000	0.003	0.008	0.011	77	236.4	0.000	0.005	0.009	0.014	278
8	167.2	0.000	0.005	0.010	0.014	202	62.23	0.000	0.002	0.008	0.010	52	136.1	0.000	0.005	0.009	0.014	162
9	79.92	0.000	0.003	0.013	0.016	110	78.05	0.000	0.005	0.008	0.013	85	61.78	0.000	0.006	0.008	0.014	75
10	62.26	0.000	0.003	0.012	0.015	78	105.6	0.000	0.003	0.007	0.010	93	52.35	0.000	0.004	0.009	0.013	59
11	40.42	0.000	0.001	0.011	0.012	43	83.33	0.000	0.003	0.008	0.011	79	48.22	0.000	0.004	0.009	0.013	53
12	23.24	0.000	0.000	0.010	0.010	21	62.85	0.000	0.004	0.008	0.012	64	42.67	0.000	0.004	0.012	0.016	59
13	29.13	0.000	0.000	0.004	0.004	10	43.98	0.000	0.004	0.009	0.012	46	54.32	0.000	0.007	0.010	0.017	78
14	22.43	0.000	0.000	0.006	0.006	12	71.78	0.000	0.006	0.008	0.015	90	41.12	0.000	0.005	0.010	0.014	50
15	23.40	0.000	0.000	0.007	0.007	13	28.04	0.000	0.000	0.009	0.009	21	32.39	0.000	0.000	0.007	0.007	20
16	22.09	0.000	0.000	0.006	0.006	11	18.75	0.000	0.000	0.010	0.010	16	32.41	0.000	0.000	0.009	0.009	26
17	22.82	0.000	0.000	0.007	0.007	14	14.84	0.000	0.000	0.009	0.009	11	24.98	0.000	0.000	0.011	0.011	24
18	23.27	0.000	0.000	0.008	0.008	17	14.24	0.000	0.000	0.009	0.009	11	43.50	0.000	0.004	0.009	0.013	48
19	22.16	0.000	0.000	0.008	0.008	15	13.04	0.000	0.000	0.009	0.009	10	36.41	0.000	0.000	0.009	0.009	28
20	20.74	0.000	0.000	0.009	0.009	16	15.05	0.000	0.000	0.011	0.011	14	27.29	0.000	0.000	0.008	0.008	18
21	21.30	0.000	0.000	0.006	0.006	10	15.28	0.000	0.000	0.011	0.011	15	27.06	0.000	0.000	0.007	0.007	15
22	21.32	0.000	0.000	0.008	0.008	14	15.05	0.000	0.000	0.011	0.011	14	24.02	0.000	0.000	0.007	0.007	15
23	20.03	0.000	0.000	0.006	0.006	11	11.81	0.000	0.000	0.010	0.010	11	17.53	0.000	0.000	0.009	0.009	14
24	14.70	0.000	0.000	0.009	0.009	11	9.126	0.000	0.000	0.010	0.010	8	20.25	0.000	0.000	0.011	0.011	20
25	17.38	0.000	0.000	0.008	0.008	11	7.696	0.000	0.000	0.010	0.010	6	17.90	0.000	0.000	0.012	0.012	19
26	18.04	0.000	0.000	0.006	0.006	9	16.37	0.000	0.000	0.011	0.011	16	17.42	0.000	0.000	0.012	0.012	19
27	15.84	0.000	0.000	0.006	0.006	8	14.41	0.000	0.000	0.010	0.010	12	16.51	0.000	0.000	0.012	0.012	17
28	27.63	0.000	0.000	0.006	0.006	14	13.56	0.000	0.000	0.011	0.011	13	15.56	0.000	0.000	0.012	0.012	17
29	25.38	0.000	0.000	0.005	0.005	11	22.73	0.000	0.000	0.010	0.010	19	13.59	0.000	0.000	0.013	0.013	15
30	22.91	0.000	0.000	0.005	0.005	10	16.13	0.000	0.000	0.013	0.013	18	14.85	0.000	0.000	0.013	0.013	16
31							15.68	0.000	0.000	0.013	0.013	17						
Ten Daily Mean																		
Ten Daily I	61.77	0.000	0.001	0.011	0.013	70	71.43	0.000	0.002	0.006	0.008	62	74.34	0.000	0.004	0.009	0.013	88
Ten Daily II	24.97	0.000	0.000	0.008	0.008	17	36.59	0.000	0.002	0.009	0.010	36	38.33	0.000	0.002	0.009	0.012	40
Ten Daily III	20.45	0.000	0.000	0.006	0.006	11	14.35	0.000	0.000	0.011	0.011	13	18.47	0.000	0.000	0.011	0.011	17
Monthly																		
Total						980						1133						1452

Annual Sediment Load (Metric Tonnes) : 11323

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	15.82	0.000	0.000	0.012	0.012	17	5.621	0.000	0.000	0.013	0.013	6	2.466	0.000	0.000	0.010	0.010	2
2	14.05	0.000	0.000	0.013	0.013	16	5.017	0.000	0.000	0.012	0.012	5	2.649	0.000	0.000	0.011	0.011	2
3	13.83	0.000	0.000	0.013	0.013	16	4.936	0.000	0.000	0.012	0.012	5	2.429	0.000	0.000	0.010	0.010	2
4	14.22	0.000	0.000	0.014	0.014	17	4.462	0.000	0.000	0.012	0.012	5	2.404	0.000	0.000	0.010	0.010	2
5	13.98	0.000	0.000	0.014	0.014	17	4.196	0.000	0.000	0.012	0.012	4	2.336	0.000	0.000	0.010	0.010	2
6	11.49	0.000	0.000	0.014	0.014	13	4.016	0.000	0.000	0.012	0.012	4	2.251	0.000	0.000	0.010	0.010	2
7	12.24	0.000	0.000	0.014	0.014	14	4.188	0.000	0.000	0.011	0.011	4	2.431	0.000	0.000	0.010	0.010	2
8	12.14	0.000	0.000	0.016	0.016	16	4.083	0.000	0.000	0.012	0.012	4	2.096	0.000	0.000	0.010	0.010	2
9	11.25	0.000	0.000	0.014	0.014	14	4.049	0.000	0.000	0.011	0.011	4	1.978	0.000	0.000	0.010	0.010	2
10	11.08	0.000	0.000	0.013	0.013	12	4.936	0.000	0.000	0.011	0.011	5	2.032	0.000	0.000	0.010	0.010	2
11	10.34	0.000	0.000	0.013	0.013	11	3.328	0.000	0.000	0.012	0.012	3	1.375	0.000	0.000	0.010	0.010	1
12	10.25	0.000	0.000	0.013	0.013	11	3.352	0.000	0.000	0.011	0.011	3	1.078	0.000	0.000	0.010	0.010	1
13	15.40	0.000	0.000	0.011	0.011	15	3.318	0.000	0.000	0.011	0.011	3	1.017	0.000	0.000	0.009	0.009	1
14	27.78	0.000	0.000	0.008	0.008	19	3.234	0.000	0.000	0.011	0.011	3	1.242	0.000	0.000	0.010	0.010	1
15	54.76	0.000	0.005	0.009	0.015	69	3.142	0.000	0.000	0.011	0.011	3	2.032	0.000	0.000	0.010	0.010	2
16	38.36	0.000	0.000	0.009	0.009	30	3.152	0.000	0.000	0.011	0.011	3	1.941	0.000	0.000	0.010	0.010	2
17	17.92	0.000	0.000	0.010	0.010	16	3.064	0.000	0.000	0.011	0.011	3	0.996	0.000	0.000	0.009	0.009	1
18	16.92	0.000	0.000	0.018	0.018	26	3.117	0.000	0.000	0.011	0.011	3	2.318	0.000	0.000	0.010	0.010	2
19	14.36	0.000	0.000	0.019	0.019	24	3.057	0.000	0.000	0.011	0.011	3	2.569	0.000	0.000	0.010	0.010	2
20	11.49	0.000	0.000	0.015	0.015	15	3.197	0.000	0.000	0.011	0.011	3	2.515	0.000	0.000	0.010	0.010	2
21	12.74	0.000	0.000	0.017	0.017	19	3.331	0.000	0.000	0.011	0.011	3	2.431	0.000	0.000	0.010	0.010	2
22	10.42	0.000	0.000	0.016	0.016	14	3.407	0.000	0.000	0.011	0.011	3	2.865	0.000	0.000	0.011	0.011	3
23	9.653	0.000	0.000	0.015	0.015	13	3.495	0.000	0.000	0.011	0.011	3	3.146	0.000	0.000	0.011	0.011	3
24	7.441	0.000	0.000	0.014	0.014	9	3.509	0.000	0.000	0.011	0.011	3	3.224	0.000	0.000	0.011	0.011	3
25	6.913	0.000	0.000	0.013	0.013	8	3.326	0.000	0.000	0.011	0.011	3	2.274	0.000	0.000	0.010	0.010	2
26	8.158	0.000	0.000	0.014	0.014	10	3.064	0.000	0.000	0.011	0.011	3	1.174	0.000	0.000	0.010	0.010	1
27	5.897	0.000	0.000	0.013	0.013	6	2.669	0.000	0.000	0.011	0.011	2	1.149	0.000	0.000	0.010	0.010	1
28	6.964	0.000	0.000	0.013	0.013	8	2.725	0.000	0.000	0.011	0.011	2	0.996	0.000	0.000	0.009	0.009	1
29	6.440	0.000	0.000	0.013	0.013	7	2.611	0.000	0.000	0.011	0.011	2	1.015	0.000	0.000	0.009	0.009	1
30	5.993	0.000	0.000	0.013	0.013	7	2.537	0.000	0.000	0.010	0.010	2						
31	6.687	0.000	0.000	0.013	0.013	8	2.649	0.000	0.000	0.011	0.011	2						
Ten Daily Mean																		
Ten Daily I	13.01	0.000	0.000	0.014	0.014	15	4.550	0.000	0.000	0.012	0.012	5	2.307	0.000	0.000	0.010	0.010	2
Ten Daily II	21.76	0.000	0.001	0.013	0.013	24	3.196	0.000	0.000	0.011	0.011	3	1.708	0.000	0.000	0.010	0.010	1
Ten Daily III	7.937	0.000	0.000	0.014	0.014	10	3.029	0.000	0.000	0.011	0.011	3	2.031	0.000	0.000	0.010	0.010	2
Monthly																		
Total						495						108						52

Annual Sediment Load (Metric Tonnes) : 11323

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PULAMANTHOLE (KRA00G4) **Division : SWR Division, Kochi**

Local River : Pulanthodu **Sub-Division : Chaliyar SD, Calicut**

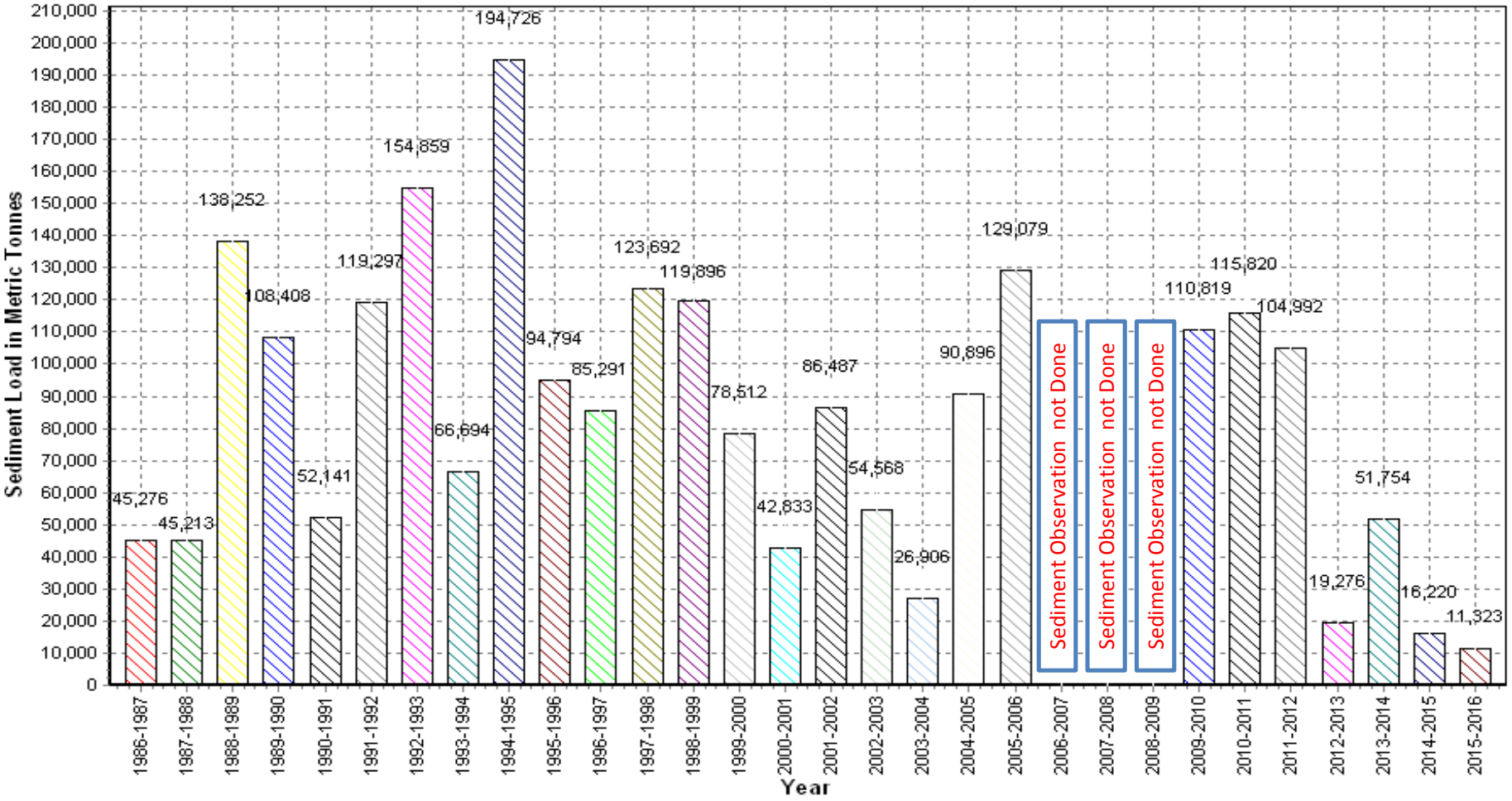
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	2.593	0.000	0.000	0.010	0.010	2	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	3.260	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	3.006	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	2.943	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	3.259	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	3.157	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0
10	2.341	0.000	0.000	0.010	0.010	2	2.431	0.000	0.000	0.010	0.010	2	0.000	0.000	0.000	0.000	0.000	0
11	2.585	0.000	0.000	0.010	0.010	2	2.014	0.000	0.000	0.010	0.010	2	6.388	0.000	0.000	0.013	0.013	7
12	2.564	0.000	0.000	0.010	0.010	2	0.000	0.000	0.000	0.000	0.000	0	6.793	0.000	0.000	0.013	0.013	8
13	3.914	0.000	0.000	0.011	0.011	4	0.000	0.000	0.000	0.000	0.000	0	7.643	0.000	0.000	0.014	0.014	9
14	4.706	0.000	0.000	0.012	0.012	5	0.000	0.000	0.000	0.000	0.000	0	4.943	0.000	0.000	0.012	0.012	5
15	4.207	0.000	0.000	0.012	0.012	4	0.000	0.000	0.000	0.000	0.000	0	2.431	0.000	0.000	0.010	0.010	2
16	3.635	0.000	0.000	0.011	0.011	3	0.000	0.000	0.000	0.000	0.000	0	3.138	0.000	0.000	0.011	0.011	3
17	2.480	0.000	0.000	0.010	0.010	2	0.000	0.000	0.000	0.000	0.000	0	4.868	0.000	0.000	0.012	0.012	5
18	1.275	0.000	0.000	0.010	0.010	1	0.000	0.000	0.000	0.000	0.000	0	3.151	0.000	0.000	0.011	0.011	3
19	0.848	0.000	0.000	0.009	0.009	1	0.000	0.000	0.000	0.000	0.000	0	3.103	0.000	0.000	0.011	0.011	3
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	11.63	0.000	0.000	0.016	0.016	16
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.64	0.000	0.000	0.018	0.018	21
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	5.664	0.000	0.000	0.012	0.012	6
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	3.277	0.000	0.000	0.011	0.011	3
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.797	0.000	0.000	0.010	0.010	2
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.489	0.000	0.000	0.010	0.010	1
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.822	0.000	0.000	0.014	0.014	9
31	0.000	0.000	0.000	0.000	0.000	0							11.77	0.000	0.000	0.016	0.016	17
Ten Daily Mean																		
Ten Daily I	0.234	0.000	0.000	0.001	0.001	0	2.065	0.000	0.000	0.007	0.007	2	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	2.621	0.000	0.000	0.010	0.010	2	0.201	0.000	0.000	0.001	0.001	0	5.408	0.000	0.000	0.012	0.012	6
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4.132	0.000	0.000	0.008	0.008	5
Monthly																		
Total						27						21						120

Annual Sediment Load (Metric Tonnes) : 11323

Annual Sediment Load for the period: 1986-2016

Station Name : PULAMANTHOLE (KRA00G4)
Local River : Pulanthodu

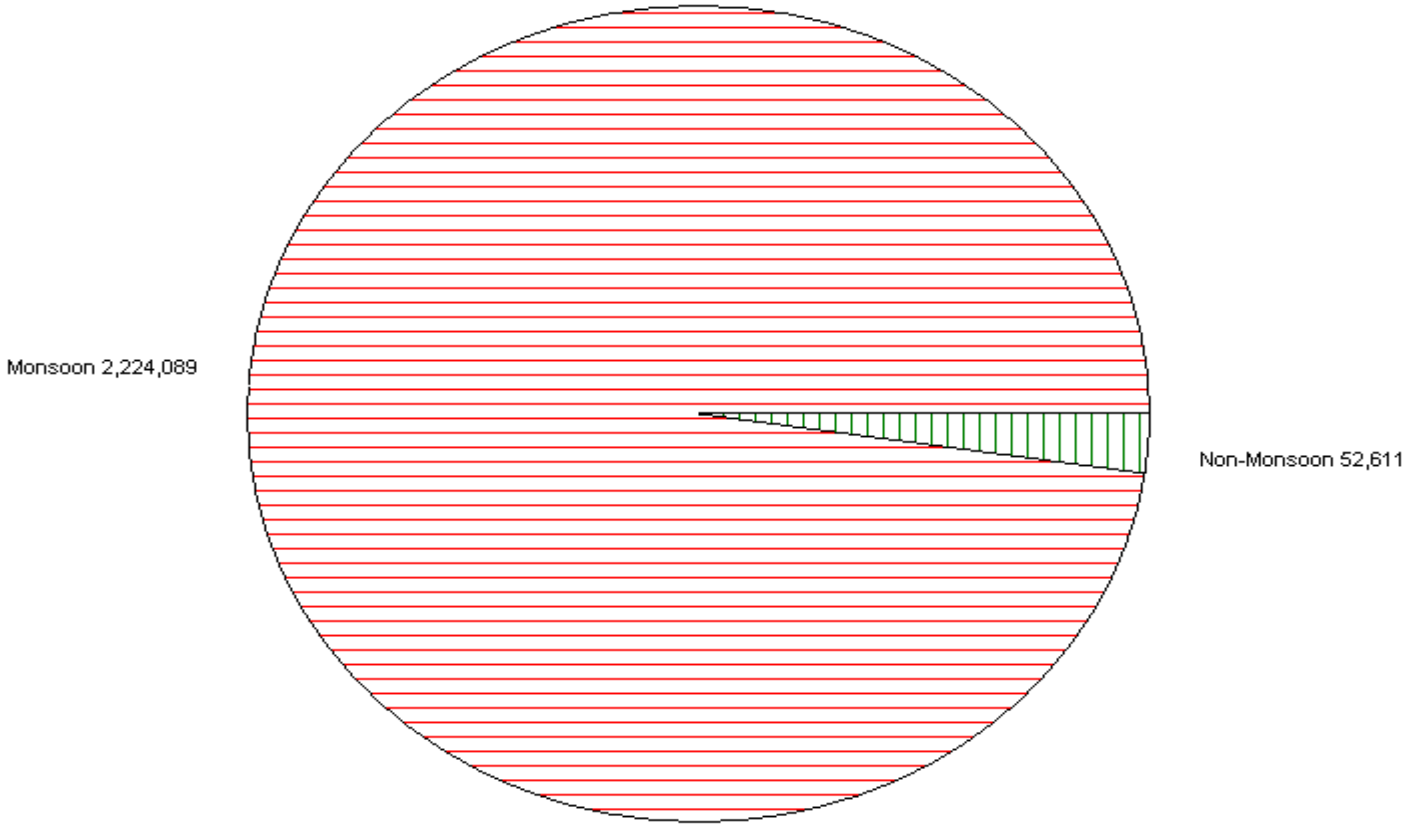
Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



Seasonal Sediment Load for the period : 1986-2015

Station Name : PULAMANTHOLE (KRA00G4)
Local River : Pulanthodu

Division : SWR Division, Kochi
Sub-Division : Chaliyar SD, Calicut



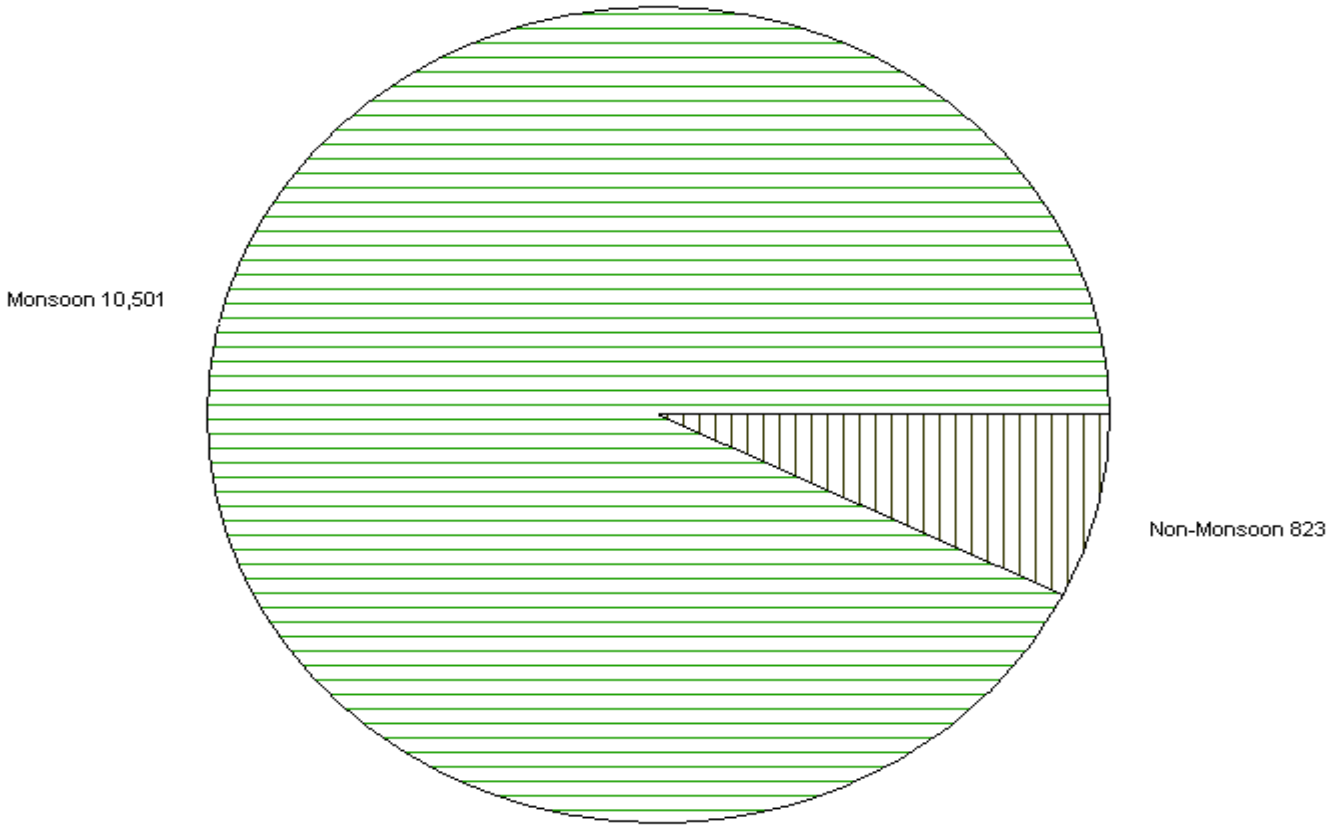
Seasonal Sediment Load for the Year: 2015-2016

Station Name : PULAMANTHOLE (KRA00G4)

Division : SWR Division, Kochi

Local River : Pulanthodu

Sub-Division : Chaliyar SD, Calicut



BED MATERIAL ANALYSIS DATA

RIVER : *Pulanthodu* **CODE NO. :** *KRA00G4*

SITE : *Pulamanthole* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**	**12.09.2015**							
1	60	-	11.115	13.235	2.12	40.0	Nil	Nil	6.3	2.12							
2	100	-	10.435	13.235	2.80	40.0	0.124	25.98	6.0	1.96	107.72	2.659	0.092	0.0017	25.98	15.0	2.32
3	140	-	9.635	13.235	3.60	40.0	Nil	Nil	15.0	2.88							
POSTMONSOON 2015									**DATE OF COLLECTION**	**16.12.2015**							
1	60	-	11.310	13.250	1.94	40.0	Nil	Nil	6.0	2.02							
2	100	-	10.570	13.250	2.68	40.0	0.177	38.07	6.0	2.38	107.71	2.558	0.140	0.0007	38.07	6.30	2.39
3	140	-	9.670	13.250	3.58	40.0	Nil	Nil	6.30	2.76							
PREMONSOON 2016									**DATE OF COLLECTION**	**24.05.2016**							
1	60	-	11.300	12.940	1.64	40.0	Nil	Nil	10.0	3.06							
2	100	-	10.500	12.940	2.44	40.0	Nil	2.847	12.0	2.96	107.40	2.287	0.0120	0.00002	2.847	12.0	2.38
3	140	-	9.550	12.940	3.39	40.0	Nil	Nil	6.0	1.12							

Annual Sediment Load for period : 2013-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2013-2014	11823*	1844	13667	821
2014-2015	64208	92713	156921	1029
2015-2016	17581	14961	32542	440

***Partial data**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.694	0.000	0.000	0.059	0.059	29	25.33	0.000	0.000	0.064	0.064	141	7.513	0.000	0.000	0.040	0.040	26
2	4.846	0.000	0.000	0.057	0.057	24	18.40	0.000	0.000	0.021	0.021	34	6.396	0.000	0.000	0.045	0.045	25
3	3.917	0.000	0.000	0.076	0.076	26	13.56	0.000	0.000	0.028	0.028	33	3.963	0.000	0.000	0.041	0.041	14
4	10.09	0.000	0.000	0.093	0.093	81	11.63	0.000	0.000	0.042	0.042	42	7.567	0.000	0.000	0.059	0.059	39
5	10.06	0.000	0.000	0.081	0.081	70	9.408	0.000	0.000	0.032	0.032	26	8.281	0.000	0.000	0.029	0.029	20
6	4.990	0.000	0.000	0.093	0.093	40	8.327	0.000	0.000	0.026	0.026	19	13.77	0.000	0.000	0.014	0.014	17
7	4.465	0.000	0.000	0.093	0.093	36	8.292	0.000	0.000	0.031	0.031	22	13.82	0.000	0.000	0.023	0.023	27
8	3.850	0.000	0.000	0.092	0.092	31	7.522	0.000	0.000	0.028	0.028	18	47.64	0.000	0.000	0.026	0.026	107
9	1.590	0.000	0.000	0.090	0.090	12	36.26	0.000	0.000	0.057	0.057	180	29.90	0.000	0.000	0.024	0.024	61
10	1.341	0.000	0.000	0.033	0.033	4	39.25	0.000	0.000	0.035	0.035	117	18.94	0.000	0.000	0.027	0.027	44
11	1.181	0.000	0.000	0.041	0.041	4	22.74	0.000	0.000	0.029	0.029	58	24.41	0.000	0.000	0.012	0.012	25
12	1.232	0.000	0.000	0.056	0.056	6	15.56	0.000	0.000	0.025	0.025	34	48.07	0.000	0.000	0.034	0.034	141
13	1.240	0.000	0.000	0.020	0.020	2	13.32	0.000	0.000	0.029	0.029	33	62.12	0.000	0.000	0.020	0.020	107
14	1.122	0.000	0.000	0.024	0.024	2	11.40	0.000	0.000	0.023	0.023	23	62.57	0.000	0.000	0.024	0.024	130
15	1.230	0.000	0.000	0.033	0.033	4	8.381	0.000	0.000	0.025	0.025	18	34.75	0.000	0.000	0.024	0.024	72
16	1.237	0.000	0.000	0.031	0.031	3	8.429	0.000	0.000	0.040	0.040	29	17.27	0.000	0.000	0.012	0.012	18
17	8.305	0.000	0.000	0.033	0.033	24	9.308	0.000	0.000	0.043	0.043	34	13.79	0.000	0.000	0.029	0.029	34
18	9.161	0.000	0.000	0.039	0.039	31	42.17	0.000	0.000	0.061	0.061	223	13.66	0.000	0.000	0.035	0.035	41
19	12.27	0.000	0.000	0.062	0.062	65	94.00	0.000	0.000	0.137	0.137	1109	62.81	0.000	0.000	0.076	0.076	414
20	114.4	0.000	0.000	0.037	0.037	369	56.75	0.000	0.000	0.054	0.054	262	33.20	0.000	0.000	0.029	0.029	84
21	89.80	0.000	0.000	0.044	0.044	344	46.80	0.000	0.000	0.059	0.059	239	25.43	0.000	0.000	0.027	0.027	60
22	80.77	0.000	0.000	0.059	0.059	412	32.76	0.000	0.000	0.047	0.047	133	18.59	0.000	0.000	0.029	0.029	46
23	123.0	0.000	0.000	0.065	0.065	685	25.99	0.000	0.000	0.031	0.031	71	17.27	0.000	0.000	0.024	0.024	36
24	119.8	0.000	0.000	0.063	0.063	651	25.51	0.000	0.000	0.054	0.054	120	25.46	0.000	0.000	0.032	0.032	71
25	129.1	0.000	0.000	0.084	0.084	934	25.47	0.000	0.000	0.047	0.047	104	25.70	0.000	0.000	0.036	0.036	79
26	146.9	0.000	0.000	0.090	0.090	1140	29.90	0.000	0.000	0.039	0.039	100	13.60	0.000	0.000	0.032	0.032	37
27	308.1	0.000	0.000	0.080	0.080	2130	33.41	0.000	0.000	0.029	0.029	83	13.57	0.000	0.000	0.055	0.055	64
28	151.9	0.000	0.000	0.055	0.055	721	23.10	0.000	0.000	0.046	0.046	92	10.73	0.000	0.000	0.046	0.046	42
29	60.53	0.000	0.000	0.053	0.053	279	15.20	0.000	0.000	0.034	0.034	45	8.354	0.000	0.000	0.039	0.039	28
30	44.41	0.000	0.000	0.047	0.047	182	11.63	0.000	0.000	0.033	0.033	33	8.178	0.000	0.000	0.035	0.035	25
31							8.528	0.000	0.000	0.035	0.035	25	8.382	0.000	0.000	0.079	0.079	57
Ten Daily Mean																		
Ten Daily I	5.084	0.000	0.000	0.077	0.077	35	17.80	0.000	0.000	0.036	0.036	63	15.78	0.000	0.000	0.033	0.033	38
Ten Daily II	15.14	0.000	0.000	0.038	0.038	51	28.21	0.000	0.000	0.046	0.046	182	37.27	0.000	0.000	0.029	0.029	107
Ten Daily III	125.4	0.000	0.000	0.064	0.064	748	25.30	0.000	0.000	0.041	0.041	95	15.93	0.000	0.000	0.039	0.039	50
Monthly Total						8339						3499						1992

Annual Sediment Load (Metric Tonnes) : 32542

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	7.470	0.000	0.000	0.058	0.058	38	48.32	0.000	0.000	0.052	0.052	217	7.692	0.000	0.000	0.014	0.014	9
2	3.947	0.000	0.000	0.043	0.043	15	22.93	0.000	0.000	0.038	0.038	74	7.204	0.000	0.000	0.013	0.013	8
3	4.066	0.000	0.000	0.098	0.098	34	12.95	0.000	0.000	0.049	0.049	54	7.255	0.000	0.000	0.006	0.006	4
4	3.066	0.000	0.000	0.039	0.039	10	9.665	0.000	0.000	0.050	0.050	42	7.359	0.000	0.000	0.022	0.022	14
5	3.066	0.000	0.000	0.025	0.025	7	8.761	0.000	0.000	0.064	0.064	49	37.68	0.000	0.000	0.088	0.088	286
6	6.606	0.000	0.000	0.020	0.020	11	11.35	0.000	0.000	0.072	0.072	71	99.33	0.000	0.000	0.040	0.040	340
7	13.57	0.000	0.000	0.026	0.026	30	12.77	0.000	0.000	0.062	0.062	69	82.10	0.000	0.000	0.074	0.074	525
8	25.74	0.000	0.000	0.042	0.042	92	12.82	0.000	0.000	0.040	0.040	44	51.60	0.000	0.000	0.056	0.056	251
9	22.88	0.000	0.000	0.046	0.046	91	8.775	0.000	0.000	0.023	0.023	18	29.03	0.000	0.000	0.047	0.047	118
10	18.45	0.000	0.000	0.029	0.029	45	8.808	0.000	0.000	0.034	0.034	26	21.04	0.000	0.000	0.014	0.014	26
11	12.49	0.000	0.000	0.018	0.018	19	7.258	0.000	0.000	0.031	0.031	20	17.35	0.000	0.000	0.044	0.044	66
12	12.51	0.000	0.000	0.027	0.027	29	7.524	0.000	0.000	0.037	0.037	24	15.62	0.000	0.000	0.052	0.052	70
13	8.905	0.000	0.000	0.019	0.019	15	4.204	0.000	0.000	0.041	0.041	15	23.88	0.000	0.000	0.027	0.027	55
14	7.632	0.000	0.000	0.016	0.016	11	5.233	0.000	0.000	0.034	0.034	15	21.26	0.000	0.000	0.024	0.024	44
15	7.614	0.000	0.000	0.020	0.020	13	3.917	0.000	0.000	0.031	0.031	11	15.58	0.000	0.000	0.014	0.014	19
16	7.575	0.000	0.000	0.019	0.019	12	1.909	0.000	0.000	0.035	0.035	6	10.69	0.000	0.000	0.005	0.005	5
17	8.689	0.000	0.000	0.019	0.019	15	1.522	0.000	0.000	0.034	0.034	4	10.02	0.000	0.000	0.020	0.020	17
18	12.54	0.000	0.000	0.017	0.017	19	2.099	0.000	0.000	0.038	0.038	7	22.34	0.000	0.000	0.034	0.034	65
19	11.34	0.000	0.000	0.035	0.035	34	1.036	0.000	0.000	0.012	0.012	1	22.76	0.000	0.000	0.030	0.030	59
20	11.85	0.000	0.000	0.029	0.029	30	1.154	0.000	0.000	0.026	0.026	3	11.73	0.000	0.000	0.019	0.019	19
21	11.26	0.000	0.000	0.021	0.021	21	3.790	0.000	0.000	0.022	0.022	7	10.04	0.000	0.000	0.014	0.014	12
22	7.487	0.000	0.000	0.022	0.022	14	1.525	0.000	0.000	0.026	0.026	3	7.204	0.000	0.000	0.010	0.010	6
23	7.540	0.000	0.000	0.025	0.025	16	1.855	0.000	0.000	0.043	0.043	7	8.333	0.000	0.000	0.011	0.011	8
24	6.820	0.000	0.000	0.030	0.030	18	1.217	0.000	0.000	0.028	0.028	3	7.849	0.000	0.000	0.022	0.022	15
25	4.107	0.000	0.000	0.026	0.026	9	1.036	0.000	0.000	0.024	0.024	2	6.733	0.000	0.000	0.009	0.009	5
26	4.139	0.000	0.000	0.053	0.053	19	0.719	0.000	0.000	0.025	0.025	2	20.89	0.000	0.000	0.018	0.018	32
27	5.208	0.000	0.000	0.031	0.031	14	0.489	0.000	0.000	0.027	0.027	1	9.415	0.000	0.000	0.018	0.018	14
28	11.41	0.000	0.000	0.039	0.039	39	0.487	0.000	0.000	0.044	0.044	2	7.799	0.000	0.000	0.019	0.019	13
29	12.73	0.000	0.000	0.035	0.035	39	0.072	0.000	0.000	0.092	0.092	1	6.966	0.000	0.000	0.019	0.019	11
30	12.81	0.000	0.000	0.038	0.038	42	4.816	0.000	0.000	0.024	0.024	10	8.436	0.000	0.000	0.025	0.025	18
31							6.733	0.000	0.000	0.020	0.020	12						
Ten Daily Mean																		
Ten Daily I	10.89	0.000	0.000	0.042	0.042	37	15.72	0.000	0.000	0.048	0.048	66	35.03	0.000	0.000	0.037	0.037	158
Ten Daily II	10.11	0.000	0.000	0.022	0.022	20	3.586	0.000	0.000	0.032	0.032	10	17.12	0.000	0.000	0.027	0.027	42
Ten Daily III	8.352	0.000	0.000	0.032	0.032	23	2.067	0.000	0.000	0.034	0.034	4	9.367	0.000	0.000	0.016	0.016	13
Monthly Total						800						817						2135

Annual Sediment Load (Metric Tonnes) : 32542

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	11.14	0.000	0.000	0.023	0.023	22	5.456	0.000	0.000	0.020	0.020	10	3.958	0.000	0.000	0.034	0.034	12
2	7.861	0.000	0.000	0.018	0.018	12	4.223	0.000	0.000	0.022	0.022	8	4.373	0.000	0.000	0.033	0.033	13
3	9.153	0.000	0.000	0.021	0.021	17	3.122	0.000	0.000	0.020	0.020	5	3.616	0.000	0.000	0.024	0.024	7
4	9.153	0.000	0.000	0.021	0.021	17	1.933	0.000	0.000	0.017	0.017	3	3.651	0.000	0.000	0.024	0.024	7
5	7.861	0.000	0.000	0.018	0.018	12	1.895	0.000	0.000	0.018	0.018	3	1.922	0.000	0.000	0.018	0.018	3
6	11.67	0.000	0.000	0.027	0.027	27	1.852	0.000	0.000	0.016	0.016	3	1.890	0.000	0.000	0.021	0.021	3
7	8.820	0.000	0.000	0.024	0.024	18	3.693	0.000	0.000	0.023	0.023	7	2.411	0.000	0.000	0.033	0.033	7
8	164.2	0.000	0.000	0.451	0.451	6398	3.512	0.000	0.000	0.025	0.025	7	1.142	0.000	0.000	0.024	0.024	2
9	126.4	0.000	0.000	0.347	0.347	3793	5.492	0.000	0.000	0.017	0.017	8	1.162	0.000	0.000	0.018	0.018	2
10	113.2	0.000	0.000	0.311	0.311	3042	5.849	0.000	0.000	0.016	0.016	8	1.610	0.000	0.000	0.020	0.020	3
11	39.32	0.000	0.000	0.108	0.108	367	7.236	0.000	0.000	0.017	0.017	11	1.083	0.000	0.000	0.018	0.018	2
12	20.66	0.000	0.000	0.057	0.057	101	7.574	0.000	0.000	0.022	0.022	14	1.043	0.000	0.000	0.017	0.017	2
13	17.67	0.000	0.000	0.049	0.049	74	7.305	0.000	0.000	0.019	0.019	12	0.832	0.000	0.000	0.015	0.015	1
14	9.524	0.000	0.000	0.027	0.027	22	6.909	0.000	0.000	0.021	0.021	13	0.671	0.000	0.000	0.012	0.012	1
15	20.66	0.000	0.000	0.047	0.047	84	5.542	0.000	0.000	0.015	0.015	7	0.834	0.000	0.000	0.015	0.015	1
16	20.66	0.000	0.000	0.047	0.047	84	4.812	0.000	0.000	0.016	0.016	7	0.379	0.000	0.000	0.013	0.013	0
17	9.834	0.000	0.000	0.018	0.018	15	4.603	0.000	0.000	0.014	0.014	6	0.853	0.000	0.000	0.016	0.016	1
18	9.267	0.000	0.000	0.013	0.013	11	5.608	0.000	0.000	0.016	0.016	8	0.851	0.000	0.000	0.015	0.015	1
19	8.204	0.000	0.000	0.019	0.019	13	6.708	0.000	0.000	0.019	0.019	11	0.173	0.000	0.000	0.014	0.014	0
20	7.554	0.000	0.000	0.017	0.017	11	5.706	0.000	0.000	0.018	0.018	9	0.492	0.000	0.000	0.014	0.014	1
21	7.607	0.000	0.000	0.018	0.018	12	5.040	0.000	0.000	0.020	0.020	9	0.461	0.000	0.000	0.015	0.015	1
22	7.060	0.000	0.000	0.022	0.022	14	4.645	0.000	0.000	0.026	0.026	10	0.435	0.000	0.000	0.016	0.016	1
23	6.558	0.000	0.000	0.012	0.012	7	6.409	0.000	0.000	0.028	0.028	16	0.400	0.000	0.000	0.015	0.015	1
24	5.332	0.000	0.000	0.013	0.013	6	5.849	0.000	0.000	0.029	0.029	15	0.364	0.000	0.000	0.016	0.016	0
25	4.373	0.000	0.000	0.010	0.010	4	5.995	0.000	0.000	0.033	0.033	17	0.338	0.000	0.000	0.015	0.015	0
26	5.849	0.000	0.000	0.014	0.014	7	5.849	0.000	0.000	0.036	0.036	18	0.350	0.000	0.000	0.015	0.015	0
27	4.373	0.000	0.000	0.010	0.010	4	4.234	0.000	0.000	0.030	0.030	11	0.315	0.000	0.000	0.017	0.017	0
28	4.373	0.000	0.000	0.010	0.010	4	4.111	0.000	0.000	0.030	0.030	11	0.380	0.000	0.000	0.021	0.021	1
29	5.849	0.000	0.000	0.014	0.014	7	6.246	0.000	0.000	0.030	0.030	16	0.330	0.000	0.000	0.019	0.019	1
30	5.849	0.000	0.000	0.014	0.014	7	6.981	0.000	0.000	0.026	0.026	16						
31	5.557	0.000	0.000	0.016	0.016	8	5.332	0.000	0.000	0.029	0.029	13						
Ten Daily Mean																		
Ten Daily I	46.95	0.000	0.000	0.126	0.126	1336	3.703	0.000	0.000	0.019	0.019	6	2.573	0.000	0.000	0.025	0.025	6
Ten Daily II	16.34	0.000	0.000	0.040	0.040	78	6.200	0.000	0.000	0.018	0.018	10	0.721	0.000	0.000	0.015	0.015	1
Ten Daily III	5.707	0.000	0.000	0.014	0.014	7	5.517	0.000	0.000	0.029	0.029	14	0.375	0.000	0.000	0.016	0.016	1
Monthly																		
Total						14220						309						73

Annual Sediment Load (Metric Tonnes) : 32542

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MANKARA (KR000K4) **Division : SWR Division, Kochi**

Local River : Bharathapuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.296	0.000	0.000	0.017	0.017	0	0.155	0.000	0.000	0.011	0.011	0	0.000	0.000	0.000	0.000	0.000	0
2	0.305	0.000	0.000	0.018	0.018	0	0.151	0.000	0.000	0.012	0.012	0	0.000	0.000	0.000	0.000	0.000	0
3	0.329	0.000	0.000	0.016	0.016	0	0.152	0.000	0.000	0.014	0.014	0	0.000	0.000	0.000	0.000	0.000	0
4	0.330	0.000	0.000	0.017	0.017	0	0.081	0.000	0.000	0.010	0.010	0	0.000	0.000	0.000	0.000	0.000	0
5	0.298	0.000	0.000	0.018	0.018	0	0.048	0.000	0.000	0.009	0.009	0	0.000	0.000	0.000	0.000	0.000	0
6	0.293	0.000	0.000	0.017	0.017	0	0.048	0.000	0.000	0.007	0.007	0	0.000	0.000	0.000	0.000	0.000	0
7	0.380	0.000	0.000	0.022	0.022	1	4.112	0.000	0.000	0.036	0.036	13	8.682	0.000	0.000	0.025	0.025	19
8	0.293	0.000	0.000	0.017	0.017	0	5.962	0.000	0.000	0.034	0.034	18	7.802	0.000	0.000	0.023	0.023	16
9	0.293	0.000	0.000	0.017	0.017	0	4.124	0.000	0.000	0.037	0.037	13	8.834	0.000	0.000	0.027	0.027	20
10	0.300	0.000	0.000	0.017	0.017	0	4.832	0.000	0.000	0.025	0.025	10	7.525	0.000	0.000	0.025	0.025	16
11	0.301	0.000	0.000	0.017	0.017	0	8.095	0.000	0.000	0.026	0.026	18	6.989	0.000	0.000	0.023	0.023	14
12	7.001	0.000	0.000	0.023	0.023	14	8.513	0.000	0.000	0.026	0.026	19	6.034	0.000	0.000	0.026	0.026	14
13	7.224	0.000	0.000	0.021	0.021	13	6.872	0.000	0.000	0.028	0.028	17	3.957	0.000	0.000	0.033	0.033	11
14	8.277	0.000	0.000	0.023	0.023	16	4.832	0.000	0.000	0.020	0.020	8	2.948	0.000	0.000	0.033	0.033	8
15	7.911	0.000	0.000	0.022	0.022	15	2.140	0.000	0.000	0.009	0.009	2	3.186	0.000	0.000	0.032	0.032	9
16	4.516	0.000	0.000	0.024	0.024	9	1.505	0.000	0.000	0.015	0.015	2	2.140	0.000	0.000	0.022	0.022	4
17	2.286	0.000	0.000	0.025	0.025	5	1.150	0.000	0.000	0.015	0.015	2	1.505	0.000	0.000	0.013	0.013	2
18	1.477	0.000	0.000	0.014	0.014	2	0.596	0.000	0.000	0.014	0.014	1	0.753	0.000	0.000	0.012	0.012	1
19	0.589	0.000	0.000	0.014	0.014	1	0.299	0.000	0.000	0.012	0.012	0	0.779	0.000	0.000	0.013	0.013	1
20	0.380	0.000	0.000	0.011	0.011	0	0.393	0.000	0.000	0.017	0.017	1	1.129	0.000	0.000	0.017	0.017	2
21	0.314	0.000	0.000	0.012	0.012	0	0.226	0.000	0.000	0.011	0.011	0	1.197	0.000	0.000	0.019	0.019	2
22	0.288	0.000	0.000	0.011	0.011	0	0.198	0.000	0.000	0.012	0.012	0	1.088	0.000	0.000	0.017	0.017	2
23	0.293	0.000	0.000	0.014	0.014	0	0.189	0.000	0.000	0.011	0.011	0	0.985	0.000	0.000	0.016	0.016	1
24	0.249	0.000	0.000	0.011	0.011	0	0.174	0.000	0.000	0.010	0.010	0	1.038	0.000	0.000	0.017	0.017	2
25	0.217	0.000	0.000	0.011	0.011	0	0.193	0.000	0.000	0.012	0.012	0	0.796	0.000	0.000	0.016	0.016	1
26	0.217	0.000	0.000	0.011	0.011	0	0.196	0.000	0.000	0.011	0.011	0	0.766	0.000	0.000	0.011	0.011	1
27	0.217	0.000	0.000	0.011	0.011	0	0.182	0.000	0.000	0.012	0.012	0	0.825	0.000	0.000	0.010	0.010	1
28	0.245	0.000	0.000	0.013	0.013	0	0.108	0.000	0.000	0.014	0.014	0	0.795	0.000	0.000	0.014	0.014	1
29	0.237	0.000	0.000	0.012	0.012	0	0.000	0.000	0.000	0.000	0.000	0	1.088	0.000	0.000	0.014	0.014	1
30	0.173	0.000	0.000	0.016	0.016	0	0.000	0.000	0.000	0.000	0.000	0	1.013	0.000	0.000	0.009	0.009	1
31	0.162	0.000	0.000	0.013	0.013	0							1.014	0.000	0.000	0.010	0.010	1
Ten Daily Mean																		
Ten Daily I	0.312	0.000	0.000	0.018	0.018	0	1.967	0.000	0.000	0.020	0.020	5	3.284	0.000	0.000	0.010	0.010	7
Ten Daily II	3.996	0.000	0.000	0.019	0.019	8	3.440	0.000	0.000	0.018	0.018	7	2.942	0.000	0.000	0.022	0.022	7
Ten Daily III	0.238	0.000	0.000	0.012	0.012	0	0.147	0.000	0.000	0.009	0.009	0	0.964	0.000	0.000	0.014	0.014	1
Monthly Total						83						125						149

Annual Sediment Load (Metric Tonnes) : 32542

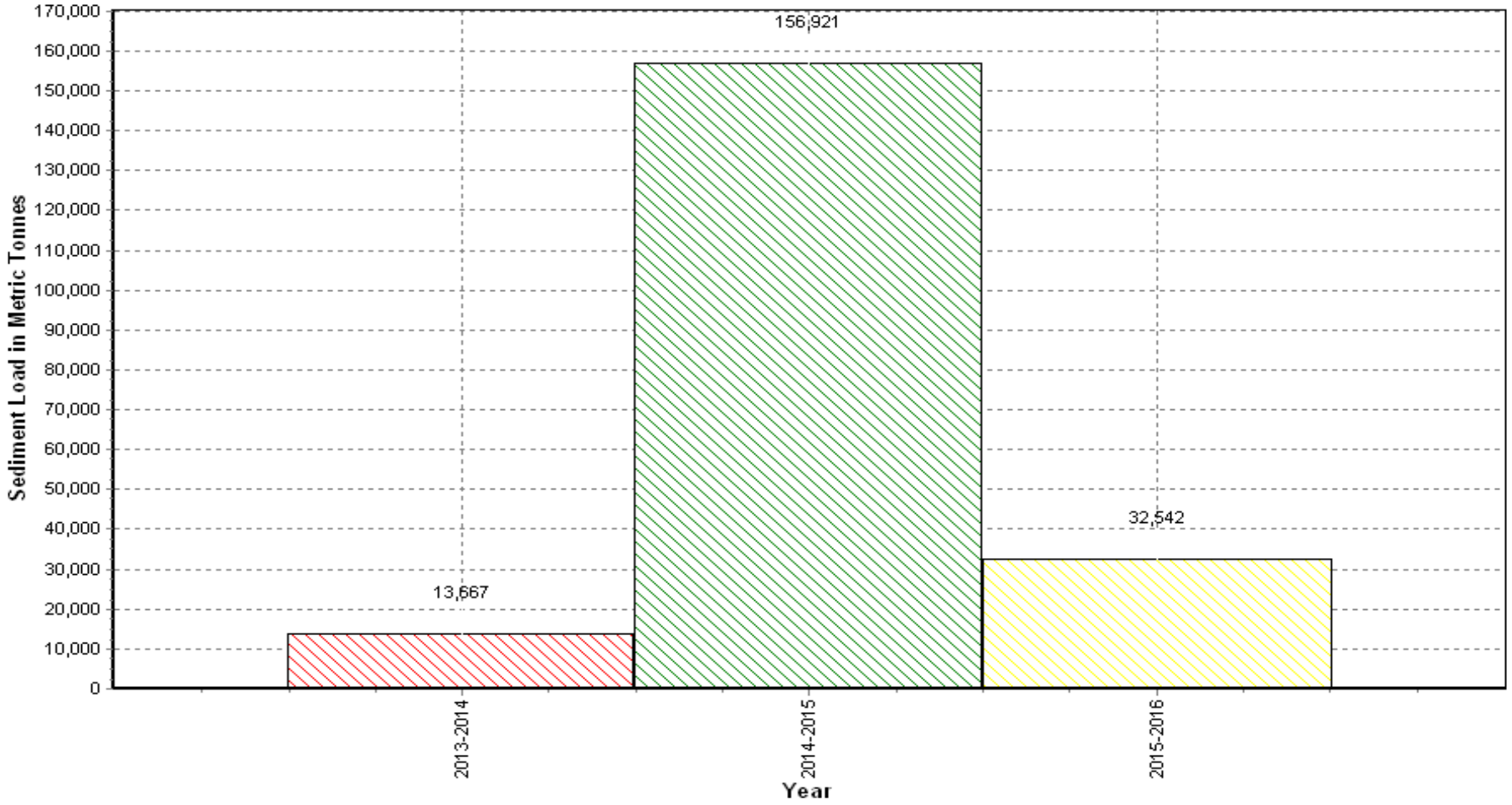
Annual Sediment Load for the period: 2013-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

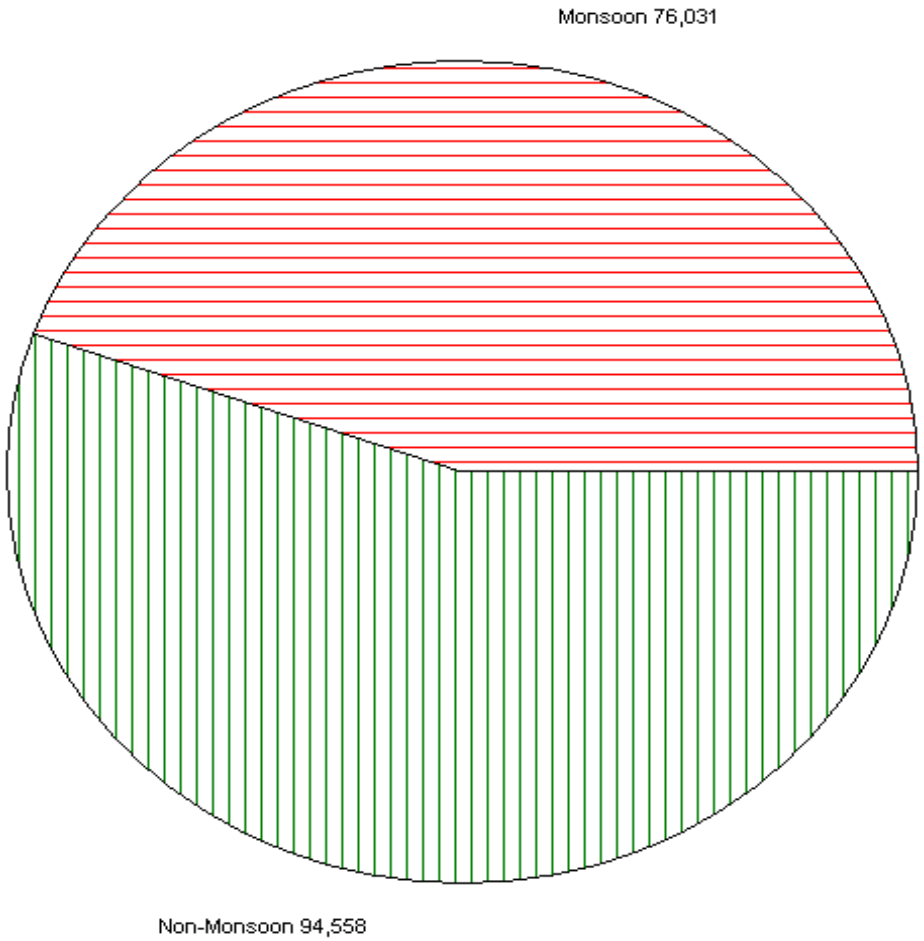
Sub-Division : SWRSD No.2, Kochi



Seasonal Sediment Load for the period : 2013-2015

Station Name : MANKARA (KR000K4)
Local River : Bharathapuzha

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



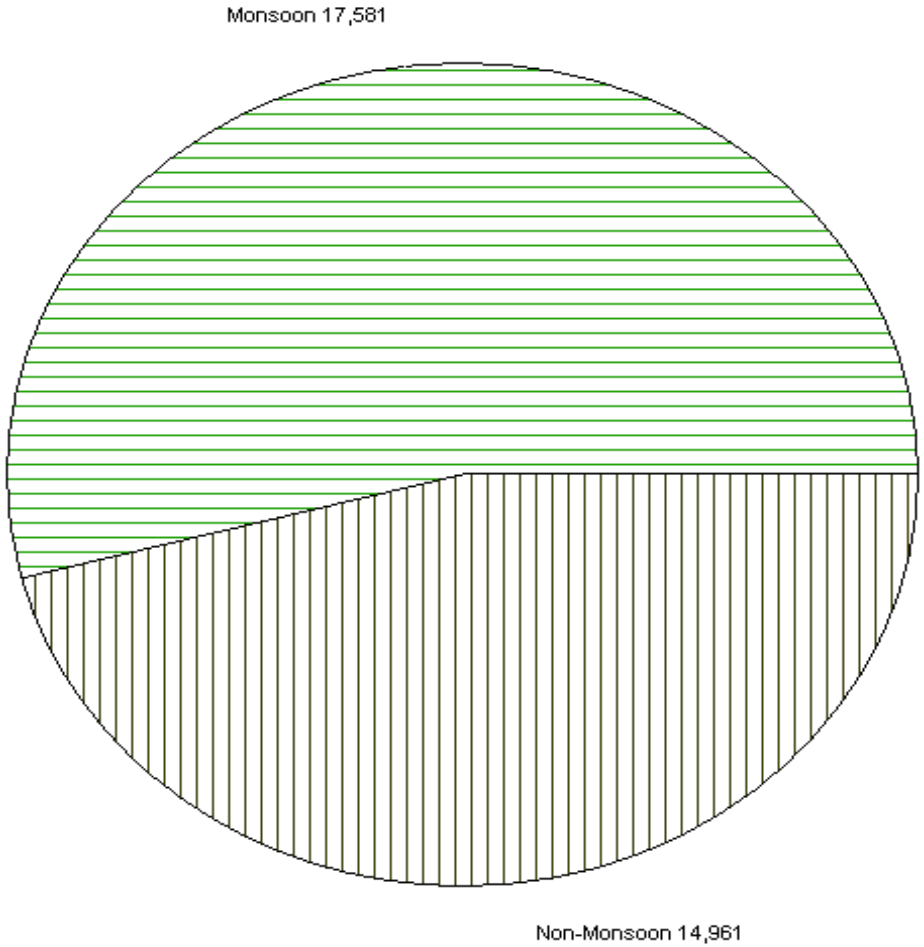
Seasonal Sediment Load for the Year: 2015-2016

Station Name : MANKARA (KR000K4)

Local River : Bharathapuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



Annual Sediment Load for period : 2013-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2013-2014	1094*	241	1335	321
2014-2015	9102	1283	10385	467
2015-2016	5526	759	6285	206

*** Partial Data**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	3.767	0.000	0.000	0.020	0.020	7	8.795	0.000	0.000	0.042	0.042	32	2.344	0.000	0.000	0.027	0.027	6
2	2.584	0.000	0.000	0.012	0.012	3	4.993	0.000	0.000	0.021	0.021	9	1.563	0.000	0.000	0.017	0.017	2
3	2.322	0.000	0.000	0.015	0.015	3	3.424	0.000	0.000	0.018	0.018	5	1.467	0.000	0.000	0.013	0.013	2
4	3.201	0.000	0.000	0.019	0.019	5	2.346	0.000	0.000	0.013	0.013	3	1.867	0.000	0.000	0.023	0.023	4
5	2.606	0.000	0.000	0.032	0.032	7	2.276	0.000	0.000	0.091	0.091	18	2.117	0.000	0.000	0.024	0.024	4
6	2.175	0.000	0.000	0.017	0.017	3	1.850	0.000	0.000	0.023	0.023	4	3.771	0.000	0.000	0.029	0.029	9
7	1.608	0.000	0.000	0.018	0.018	2	1.358	0.000	0.000	0.021	0.021	2	5.154	0.000	0.000	0.022	0.022	10
8	1.313	0.000	0.000	0.022	0.022	2	1.503	0.000	0.000	0.021	0.021	3	24.21	0.000	0.000	0.038	0.038	80
9	1.096	0.000	0.000	0.023	0.023	2	19.24	0.000	0.000	0.017	0.017	28	12.09	0.000	0.000	0.022	0.022	23
10	1.286	0.000	0.000	0.010	0.010	1	19.79	0.000	0.000	0.028	0.028	48	8.152	0.000	0.000	0.020	0.020	14
11	0.937	0.000	0.000	0.023	0.023	2	8.682	0.000	0.000	0.020	0.020	15	20.99	0.000	0.000	0.022	0.022	39
12	1.120	0.000	0.000	0.018	0.018	2	7.788	0.000	0.000	0.019	0.019	13	25.91	0.000	0.000	0.037	0.037	83
13	0.935	0.000	0.000	0.016	0.016	1	5.393	0.000	0.000	0.015	0.015	7	38.82	0.000	0.000	0.032	0.032	107
14	0.760	0.000	0.000	0.015	0.015	1	3.580	0.000	0.000	0.014	0.014	4	33.29	0.000	0.000	0.039	0.039	111
15	0.813	0.000	0.000	0.019	0.019	1	2.964	0.000	0.000	0.018	0.018	5	15.39	0.000	0.000	0.021	0.021	27
16	1.356	0.000	0.000	0.015	0.015	2	2.584	0.000	0.000	0.014	0.014	3	9.562	0.000	0.000	0.013	0.013	11
17	3.877	0.000	0.000	0.019	0.019	6	3.820	0.000	0.000	0.024	0.024	8	5.855	0.000	0.000	0.014	0.014	7
18	4.280	0.000	0.000	0.021	0.021	8	17.42	0.000	0.000	0.031	0.031	46	33.87	0.000	0.000	0.064	0.064	186
19	9.679	0.000	0.000	0.015	0.015	12	36.40	0.000	0.000	0.064	0.064	200	24.24	0.000	0.000	0.043	0.043	90
20	62.70	0.000	0.000	0.048	0.048	259	28.60	0.000	0.000	0.033	0.033	81	20.98	0.000	0.000	0.033	0.033	60
21	37.63	0.000	0.000	0.041	0.041	133	31.36	0.000	0.000	0.041	0.041	111	11.71	0.000	0.000	0.014	0.014	14
22	33.73	0.000	0.000	0.057	0.057	165	18.14	0.000	0.000	0.035	0.035	55	6.308	0.000	0.000	0.004	0.004	2
23	52.50	0.000	0.000	0.054	0.054	243	13.55	0.000	0.000	0.022	0.022	25	7.076	0.000	0.000	0.006	0.006	3
24	43.91	0.000	0.000	0.084	0.084	318	13.23	0.000	0.000	0.026	0.026	29	15.86	0.000	0.000	0.013	0.013	18
25	37.37	0.000	0.000	0.090	0.090	289	16.99	0.000	0.000	0.027	0.027	39	12.68	0.000	0.000	0.011	0.011	12
26	38.74	0.000	0.000	0.082	0.082	275	15.39	0.000	0.000	0.023	0.023	31	5.363	0.000	0.000	0.013	0.013	6
27	100.8	0.000	0.000	0.049	0.049	424	19.22	0.000	0.000	0.028	0.028	46	3.636	0.000	0.000	0.013	0.013	4
28	46.76	0.000	0.000	0.047	0.047	188	8.318	0.000	0.000	0.026	0.026	19	3.324	0.000	0.000	0.010	0.010	3
29	23.01	0.000	0.000	0.074	0.074	148	4.936	0.000	0.000	0.023	0.023	10	4.190	0.000	0.000	0.011	0.011	4
30	19.57	0.000	0.000	0.032	0.032	54	3.631	0.000	0.000	0.030	0.030	9	3.610	0.000	0.000	0.011	0.011	3
31							2.890	0.000	0.000	0.017	0.017	4	2.905	0.000	0.000	0.010	0.010	2
Ten Daily Mean																		
Ten Daily I	2.196	0.000	0.000	0.019	0.019	4	6.558	0.000	0.000	0.029	0.029	15	6.274	0.000	0.000	0.023	0.023	15
Ten Daily II	8.646	0.000	0.000	0.021	0.021	29	11.72	0.000	0.000	0.025	0.025	38	22.89	0.000	0.000	0.032	0.032	72
Ten Daily III	43.40	0.000	0.000	0.061	0.061	224	13.42	0.000	0.000	0.027	0.027	34	6.969	0.000	0.000	0.010	0.010	7
Monthly Total						2567						912						947

Annual Sediment Load (Metric Tonnes) : 6285

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	2.399	0.000	0.000	0.020	0.020	4	33.52	0.000	0.000	0.046	0.046	132	4.020	0.000	0.000	0.006	0.006	2
2	2.140	0.000	0.000	0.019	0.019	3	12.08	0.000	0.000	0.019	0.019	20	4.354	0.000	0.000	0.008	0.008	3
3	1.363	0.000	0.000	0.019	0.019	2	5.244	0.000	0.000	0.017	0.017	7	5.814	0.000	0.000	0.007	0.007	3
4	1.192	0.000	0.000	0.020	0.020	2	3.516	0.000	0.000	0.016	0.016	5	4.342	0.000	0.000	0.012	0.012	5
5	0.046	0.000	0.000	0.012	0.012	0	2.355	0.000	0.000	0.019	0.019	4	21.92	0.000	0.000	0.029	0.029	55
6	2.094	0.000	0.000	0.007	0.007	1	2.613	0.000	0.000	0.023	0.023	5	63.10	0.000	0.000	0.051	0.051	278
7	7.374	0.000	0.000	0.014	0.014	9	6.584	0.000	0.000	0.020	0.020	11	32.11	0.000	0.000	0.036	0.036	101
8	8.560	0.000	0.000	0.020	0.020	15	5.260	0.000	0.000	0.021	0.021	10	11.99	0.000	0.000	0.017	0.017	17
9	9.215	0.000	0.000	0.019	0.019	15	3.300	0.000	0.000	0.019	0.019	5	8.256	0.000	0.000	0.020	0.020	14
10	7.469	0.000	0.000	0.009	0.009	6	2.427	0.000	0.000	0.022	0.022	5	6.651	0.000	0.000	0.017	0.017	10
11	6.815	0.000	0.000	0.015	0.015	9	2.257	0.000	0.000	0.019	0.019	4	4.428	0.000	0.000	0.012	0.012	5
12	7.586	0.000	0.000	0.015	0.015	10	1.503	0.000	0.000	0.010	0.010	1	16.70	0.000	0.000	0.016	0.016	22
13	4.216	0.000	0.000	0.012	0.012	4	1.495	0.000	0.000	0.008	0.008	1	13.73	0.000	0.000	0.006	0.006	7
14	3.589	0.000	0.000	0.016	0.016	5	1.308	0.000	0.000	0.010	0.010	1	13.80	0.000	0.000	0.020	0.020	24
15	4.632	0.000	0.000	0.010	0.010	4	1.070	0.000	0.000	0.006	0.006	1	8.401	0.000	0.000	0.018	0.018	13
16	6.136	0.000	0.000	0.011	0.011	6	1.081	0.000	0.000	0.003	0.003	0	4.240	0.000	0.000	0.019	0.019	7
17	6.387	0.000	0.000	0.016	0.016	9	0.881	0.000	0.000	0.008	0.008	1	2.981	0.000	0.000	0.013	0.013	3
18	7.867	0.000	0.000	0.014	0.014	10	0.735	0.000	0.000	0.005	0.005	0	4.704	0.000	0.000	0.013	0.013	5
19	7.200	0.000	0.000	0.014	0.014	9	0.779	0.000	0.000	0.003	0.003	0	14.55	0.000	0.000	0.016	0.016	19
20	6.820	0.000	0.000	0.017	0.017	10	0.819	0.000	0.000	0.021	0.021	1	4.415	0.000	0.000	0.016	0.016	6
21	3.285	0.000	0.000	0.011	0.011	3	0.757	0.000	0.000	0.010	0.010	1	4.152	0.000	0.000	0.004	0.004	2
22	4.035	0.000	0.000	0.015	0.015	5	0.734	0.000	0.000	0.010	0.010	1	3.311	0.000	0.000	0.006	0.006	2
23	3.089	0.000	0.000	0.014	0.014	4	0.442	0.000	0.000	0.013	0.013	0	3.070	0.000	0.000	0.009	0.009	2
24	2.289	0.000	0.000	0.017	0.017	3	0.361	0.000	0.000	0.011	0.011	0	3.245	0.000	0.000	0.007	0.007	2
25	2.151	0.000	0.000	0.012	0.012	2	0.306	0.000	0.000	0.009	0.009	0	4.152	0.000	0.000	0.002	0.002	1
26	2.615	0.000	0.000	0.013	0.013	3	0.239	0.000	0.000	0.018	0.018	0	20.06	0.000	0.000	0.007	0.007	11
27	2.495	0.000	0.000	0.094	0.094	20	0.209	0.000	0.000	0.015	0.015	0	4.237	0.000	0.000	0.006	0.006	2
28	2.977	0.000	0.000	0.011	0.011	3	0.181	0.000	0.000	0.012	0.012	0	3.442	0.000	0.000	0.003	0.003	1
29	4.102	0.000	0.000	0.012	0.012	4	6.767	0.000	0.000	0.003	0.003	2	2.974	0.000	0.000	0.004	0.004	1
30	32.05	0.000	0.000	0.025	0.025	69	5.131	0.000	0.000	0.004	0.004	2	3.988	0.000	0.000	0.006	0.006	2
31							5.535	0.000	0.000	0.007	0.007	3						
Ten Daily Mean																		
Ten Daily I	4.185	0.000	0.000	0.016	0.016	6	7.690	0.000	0.000	0.022	0.022	20	16.26	0.000	0.000	0.020	0.020	49
Ten Daily II	6.125	0.000	0.000	0.014	0.014	7	1.193	0.000	0.000	0.009	0.009	1	8.794	0.000	0.000	0.015	0.015	11
Ten Daily III	5.909	0.000	0.000	0.022	0.022	12	1.878	0.000	0.000	0.010	0.010	1	5.263	0.000	0.000	0.005	0.005	3
Monthly																		
Total						249						225						626

Annual Sediment Load (Metric Tonnes) : 6285

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	4.661	0.000	0.000	0.026	0.026	10	2.165	0.000	0.000	0.015	0.015	3	2.007	0.000	0.000	0.016	0.016	3
2	4.230	0.000	0.000	0.016	0.016	6	1.065	0.000	0.000	0.018	0.018	2	1.864	0.000	0.000	0.013	0.013	2
3	3.280	0.000	0.000	0.021	0.021	6	1.228	0.000	0.000	0.016	0.016	2	1.479	0.000	0.000	0.014	0.014	2
4	3.036	0.000	0.000	0.009	0.009	2	1.061	0.000	0.000	0.009	0.009	1	1.105	0.000	0.000	0.010	0.010	1
5	7.375	0.000	0.000	0.001	0.001	1	0.986	0.000	0.000	0.009	0.009	1	0.940	0.000	0.000	0.015	0.015	1
6	13.94	0.000	0.000	0.002	0.002	3	1.078	0.000	0.000	0.009	0.009	1	1.000	0.000	0.000	0.009	0.009	1
7	146.9	0.000	0.000	0.026	0.026	325	1.043	0.000	0.000	0.015	0.015	1	0.823	0.000	0.000	0.012	0.012	1
8	99.64	0.000	0.000	0.009	0.009	77	2.574	0.000	0.000	0.013	0.013	3	0.765	0.000	0.000	0.015	0.015	1
9	50.71	0.000	0.000	0.013	0.013	55	3.156	0.000	0.000	0.016	0.016	4	0.532	0.000	0.000	0.010	0.010	0
10	51.04	0.000	0.000	0.017	0.017	74	3.180	0.000	0.000	0.016	0.016	4	0.579	0.000	0.000	0.010	0.010	1
11	17.25	0.000	0.000	0.014	0.014	21	2.977	0.000	0.000	0.014	0.014	4	0.655	0.000	0.000	0.009	0.009	1
12	7.064	0.000	0.000	0.012	0.012	7	3.280	0.000	0.000	0.010	0.010	3	1.495	0.000	0.000	0.010	0.010	1
13	7.082	0.000	0.000	0.012	0.012	7	3.041	0.000	0.000	0.018	0.018	5	1.203	0.000	0.000	0.011	0.011	1
14	5.173	0.000	0.000	0.009	0.009	4	2.270	0.000	0.000	0.011	0.011	2	0.948	0.000	0.000	0.009	0.009	1
15	5.105	0.000	0.000	0.013	0.013	6	1.520	0.000	0.000	0.013	0.013	2	0.934	0.000	0.000	0.008	0.008	1
16	3.938	0.000	0.000	0.015	0.015	5	1.137	0.000	0.000	0.015	0.015	1	0.423	0.000	0.000	0.010	0.010	0
17	3.226	0.000	0.000	0.008	0.008	2	1.921	0.000	0.000	0.022	0.022	4	0.180	0.000	0.000	0.015	0.015	0
18	3.018	0.000	0.000	0.008	0.008	2	1.604	0.000	0.000	0.017	0.017	2	0.088	0.000	0.000	0.020	0.020	0
19	2.315	0.000	0.000	0.006	0.006	1	1.570	0.000	0.000	0.012	0.012	2	0.069	0.000	0.000	0.014	0.014	0
20	2.337	0.000	0.000	0.007	0.007	1	1.731	0.000	0.000	0.014	0.014	2	0.037	0.000	0.000	0.018	0.018	0
21	2.152	0.000	0.000	0.008	0.008	1	1.996	0.000	0.000	0.017	0.017	3	0.206	0.000	0.000	0.024	0.024	0
22	1.893	0.000	0.000	0.007	0.007	1	2.813	0.000	0.000	0.010	0.010	2	0.248	0.000	0.000	0.015	0.015	0
23	2.229	0.000	0.000	0.006	0.006	1	3.352	0.000	0.000	0.011	0.011	3	0.145	0.000	0.000	0.011	0.011	0
24	1.509	0.000	0.000	0.004	0.004	0	3.115	0.000	0.000	0.011	0.011	3	0.088	0.000	0.000	0.023	0.023	0
25	2.020	0.000	0.000	0.005	0.005	1	3.226	0.000	0.000	0.012	0.012	3	0.029	0.000	0.000	0.025	0.025	0
26	3.021	0.000	0.000	0.008	0.008	2	2.337	0.000	0.000	0.009	0.009	2	0.000	0.000	0.000	0.000	0.000	0
27	2.448	0.000	0.000	0.006	0.006	1	2.278	0.000	0.000	0.010	0.010	2	0.000	0.000	0.000	0.000	0.000	0
28	2.622	0.000	0.000	0.007	0.007	2	3.267	0.000	0.000	0.008	0.008	2	0.000	0.000	0.000	0.000	0.000	0
29	2.299	0.000	0.000	0.007	0.007	1	3.473	0.000	0.000	0.012	0.012	4	0.000	0.000	0.000	0.000	0.000	0
30	2.228	0.000	0.000	0.008	0.008	2	2.778	0.000	0.000	0.014	0.014	3						
31	2.314	0.000	0.000	0.010	0.010	2	1.970	0.000	0.000	0.012	0.012	2						
Ten Daily Mean																		
Ten Daily I	38.48	0.000	0.000	0.014	0.014	56	1.754	0.000	0.000	0.014	0.014	2	1.109	0.000	0.000	0.012	0.012	1
Ten Daily II	5.651	0.000	0.000	0.010	0.010	6	2.105	0.000	0.000	0.015	0.015	3	0.603	0.000	0.000	0.012	0.012	1
Ten Daily III	2.249	0.000	0.000	0.007	0.007	1	2.782	0.000	0.000	0.012	0.012	3	0.080	0.000	0.000	0.011	0.011	0
Monthly																		
Total						632						78						19

Annual Sediment Load (Metric Tonnes) : 6285

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PUDUR (KR000M1) **Division : SWR Division, Kochi**

Local River : Kannadipuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.228	0.000	0.000	0.020	0.020	2
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	2.282	0.000	0.000	0.038	0.038	7
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.224	0.000	0.000	0.018	0.018	2
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.149	0.000	0.000	0.021	0.021	2
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.165	0.000	0.000	0.015	0.015	2
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.149	0.000	0.000	0.017	0.017	2
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.154	0.000	0.000	0.014	0.014	1
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.083	0.000	0.000	0.013	0.013	1
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.169	0.000	0.000	0.011	0.011	1
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.094	0.000	0.000	0.013	0.013	1
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.204	0.000	0.000	0.011	0.011	1
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.193	0.000	0.000	0.017	0.017	2
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.963	0.000	0.000	0.015	0.015	1
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.037	0.000	0.000	0.008	0.008	1
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.014	0.000	0.000	0.011	0.011	1
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.860	0.000	0.000	0.013	0.013	1
31	0.000	0.000	0.000	0.000	0.000	0							1.266	0.000	0.000	0.016	0.016	2
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.820	0.000	0.000	0.013	0.013	2
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.094	0.000	0.000	0.013	0.013	1
Monthly																		
Total						0						0						30

Annual Sediment Load (Metric Tonnes) : 6285

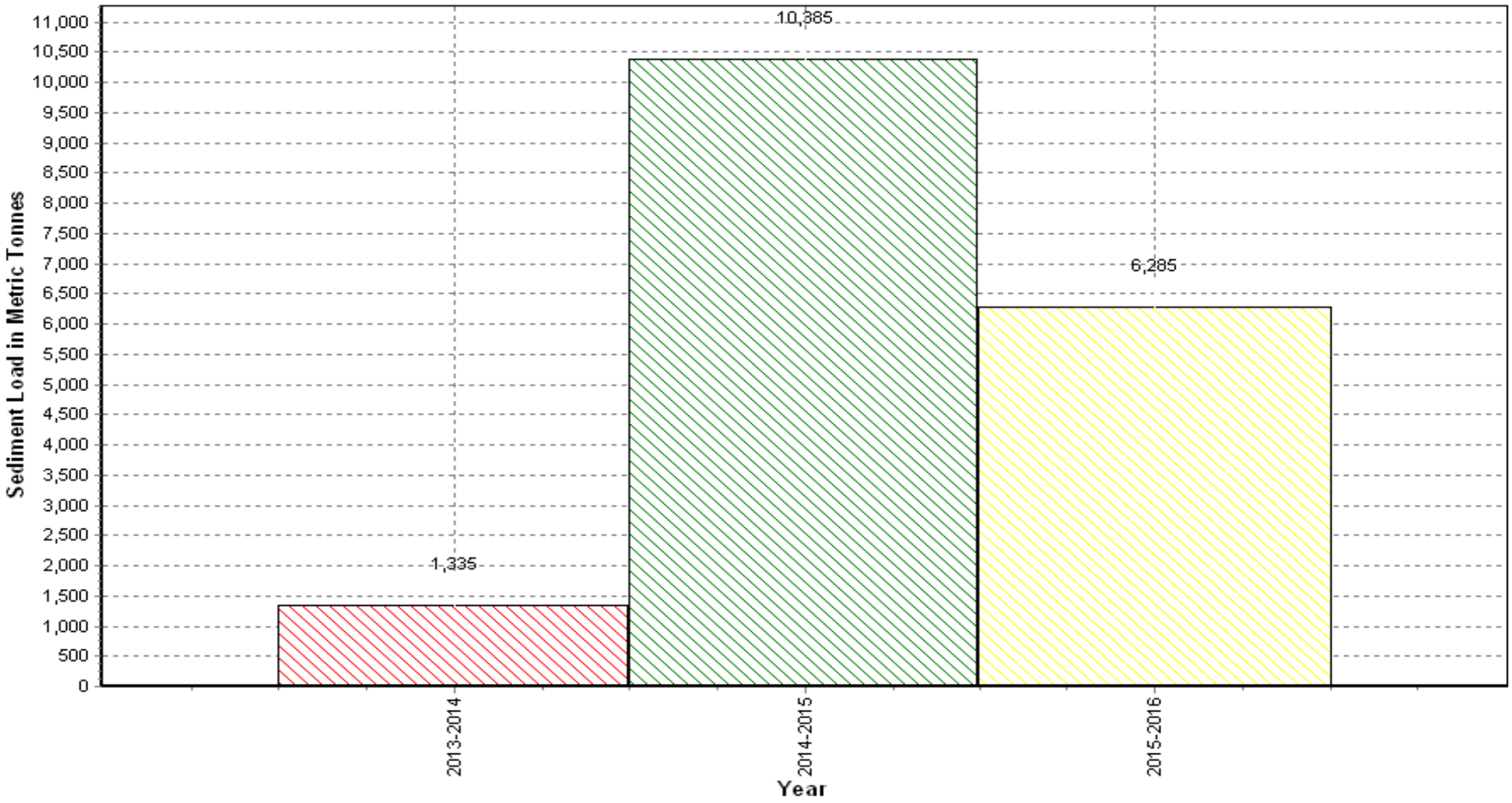
Annual Sediment Load for the period: 2013-2016

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



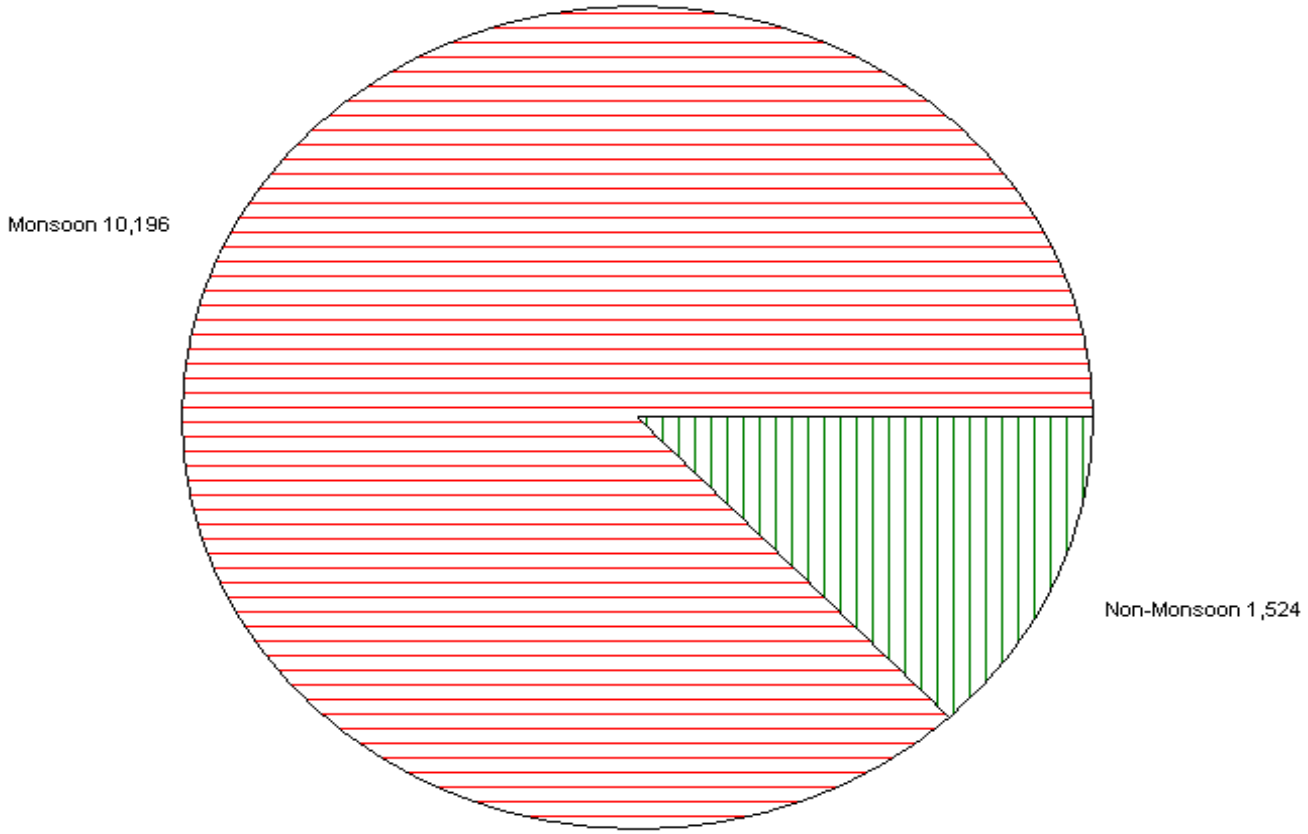
Seasonal Sediment Load for the period : 2013-2015

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



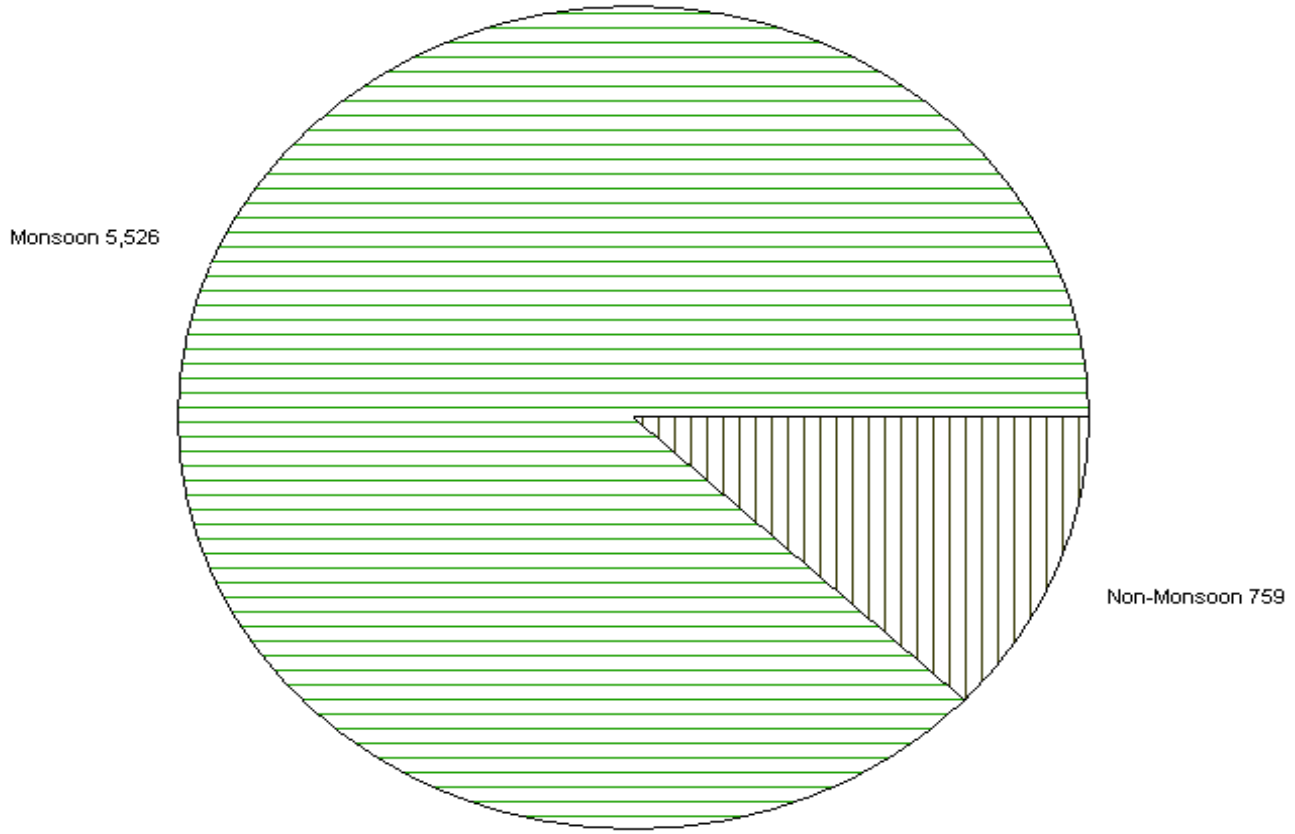
Seasonal Sediment Load for the Year: 2015-2016

Station Name : PUDUR (KR000M1)

Local River : Kannadipuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



Annual Sediment Load for period : 2003-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
2003-2004	2477	615	3092	202
2004-2005	13079	1561	14640	378
2005-2006	5332	3462	8794	397
2006-2007	Sediment observation not done			296
2007-2008	Sediment observation not done			411
2008-2009	1788	1319	3107	265
2009-2010	9329	1600	10929	428
2010-2011	4585	2727	7312	426
2011-2012	7832	3107	10939	413
2012-2013	1703	1571	3273	213
2013-2014	2603	2107	4710	330
2014-2015	6335	3842	10177	378
2015-2016	2780	5561	8342	312

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	3.112	0.000	0.000	0.020	0.020	5	5.692	0.000	0.000	0.019	0.019	9	3.361	0.000	0.000	0.023	0.023	7
2	3.054	0.000	0.000	0.022	0.022	6	5.658	0.000	0.000	0.018	0.018	9	3.309	0.000	0.000	0.020	0.020	6
3	2.978	0.000	0.000	0.025	0.025	6	5.461	0.000	0.000	0.020	0.020	10	5.932	0.000	0.000	0.019	0.019	10
4	2.625	0.000	0.000	0.024	0.024	5	5.055	0.000	0.000	0.019	0.019	8	9.747	0.000	0.000	0.021	0.021	17
5	3.152	0.000	0.000	0.026	0.026	7	4.634	0.000	0.000	0.021	0.021	8	12.92	0.000	0.000	0.018	0.018	20
6	4.294	0.000	0.000	0.023	0.023	9	4.451	0.000	0.000	0.023	0.023	9	7.399	0.000	0.000	0.018	0.018	12
7	4.952	0.000	0.000	0.002	0.002	1	5.425	0.000	0.000	0.021	0.021	10	7.596	0.000	0.000	0.018	0.018	12
8	4.671	0.000	0.000	0.021	0.021	9	8.748	0.000	0.000	0.022	0.022	16	8.849	0.000	0.000	0.016	0.016	12
9	4.296	0.000	0.000	0.031	0.031	12	6.990	0.000	0.000	0.023	0.023	14	7.669	0.000	0.000	0.018	0.018	12
10	8.174	0.000	0.000	0.023	0.023	16	7.188	0.000	0.000	0.020	0.020	13	8.645	0.000	0.000	0.020	0.020	15
11	7.487	0.000	0.000	0.021	0.021	13	5.944	0.000	0.000	0.017	0.017	9	8.579	0.000	0.000	0.016	0.016	12
12	9.232	0.000	0.000	0.023	0.023	18	5.510	0.000	0.000	0.020	0.020	10	9.814	0.000	0.000	0.018	0.018	15
13	11.40	0.000	0.000	0.020	0.020	20	4.316	0.000	0.000	0.019	0.019	7	4.325	0.000	0.000	0.011	0.011	4
14	10.92	0.000	0.000	0.016	0.016	15	3.303	0.000	0.000	0.020	0.020	6	4.136	0.000	0.000	0.015	0.015	5
15	11.38	0.000	0.000	0.023	0.023	23	2.872	0.000	0.000	0.020	0.020	5	4.229	0.000	0.000	0.015	0.015	5
16	11.75	0.000	0.000	0.023	0.023	24	2.565	0.000	0.000	0.024	0.024	5	5.510	0.000	0.000	0.018	0.018	9
17	7.767	0.000	0.000	0.023	0.023	16	9.433	0.000	0.000	0.021	0.021	17	31.20	0.005	0.009	0.084	0.097	262
18	6.729	0.000	0.000	0.024	0.024	14	9.925	0.000	0.000	0.020	0.020	17	11.24	0.000	0.000	0.039	0.039	37
19	8.003	0.000	0.000	0.020	0.020	14	8.093	0.000	0.000	0.023	0.023	16	13.14	0.000	0.000	0.027	0.027	30
20	11.90	0.000	0.000	0.024	0.024	24	5.110	0.000	0.000	0.020	0.020	9	7.415	0.000	0.000	0.032	0.032	21
21	6.730	0.000	0.000	0.021	0.021	12	5.099	0.000	0.000	0.019	0.019	8	5.633	0.000	0.000	0.015	0.015	7
22	4.946	0.000	0.000	0.021	0.021	9	6.505	0.000	0.000	0.024	0.024	13	5.932	0.000	0.000	0.021	0.021	11
23	5.040	0.000	0.000	0.021	0.021	9	5.592	0.000	0.000	0.020	0.020	10	11.27	0.000	0.000			
24	5.198	0.000	0.000	0.016	0.016	7	4.470	0.000	0.000	0.021	0.021	8	6.074	0.000	0.000	0.020	0.020	10
25	5.718	0.000	0.000	0.023	0.023	11	3.777	0.000	0.000	0.021	0.021	7	5.568	0.000	0.000	0.024	0.024	11
26	6.510	0.000	0.000	0.019	0.019	11	4.035	0.000	0.000	0.019	0.019	7	5.638	0.000	0.000	0.023	0.023	11
27	15.20	0.000	0.000	0.022	0.022	29	3.347	0.000	0.000	0.015	0.015	4	5.623	0.000	0.000	0.020	0.020	10
28	6.730	0.000	0.000	0.024	0.024	14	7.028	0.000	0.000	0.016	0.016	10	5.478	0.000	0.000	0.020	0.020	9
29	5.045	0.000	0.000	0.023	0.023	10	5.929	0.000	0.000	0.017	0.017	9	5.233	0.000	0.000	0.021	0.021	9
30	5.219	0.000	0.000	0.023	0.023	10	5.128	0.000	0.000	0.019	0.019	8	4.634	0.000	0.000	0.019	0.019	8
31							3.559	0.000	0.000	0.017	0.017	5	8.842	0.000	0.000	0.020	0.020	15
Ten Daily Mean																		
Ten Daily I	4.131	0.000	0.000	0.022	0.022	8	5.930	0.000	0.000	0.021	0.021	11	7.542	0.000	0.000	0.019	0.019	12
Ten Daily II	9.657	0.000	0.000	0.022	0.022	18	5.707	0.000	0.000	0.020	0.020	10	9.959	0.001	0.001	0.027	0.029	40
Ten Daily III	6.634	0.000	0.000	0.021	0.021	12	4.952	0.000	0.000	0.019	0.019	8	6.357	0.000	0.000	0.020	0.020	10
Monthly																		
Total						379						295						626

Annual Sediment Load (Metric Tonnes) : 8342

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	9.537	0.000	0.000	0.021	0.021	17	9.299	0.000	0.000	0.016	0.016	13	10.92	0.000	0.000	0.015	0.015	14
2	13.80	0.000	0.000	0.023	0.023	28	5.396	0.000	0.000	0.016	0.016	7	12.95	0.000	0.000	0.018	0.018	20
3	10.98	0.000	0.000	0.023	0.023	21	3.489	0.000	0.000	0.016	0.016	5	11.88	0.000	0.000	0.015	0.015	15
4	14.63	0.000	0.000	0.022	0.022	28	3.140	0.000	0.000	0.013	0.013	4	12.23	0.000	0.000	0.017	0.017	18
5	14.05	0.000	0.000	0.024	0.024	29	2.419	0.000	0.000	0.013	0.013	3	29.60	0.000	0.000	0.046	0.046	117
6	13.47	0.000	0.000	0.022	0.022	26	2.875	0.000	0.000	0.015	0.015	4	9.494	0.000	0.000	0.016	0.016	13
7	8.592	0.000	0.000	0.023	0.023	17	2.564	0.000	0.000	0.012	0.012	3	5.230	0.000	0.000	0.019	0.019	8
8	12.60	0.000	0.000	0.023	0.023	25	2.679	0.000	0.000	0.016	0.016	4	4.035	0.000	0.000	0.012	0.012	4
9	12.03	0.000	0.000	0.020	0.020	20	2.816	0.000	0.000	0.013	0.013	3	4.906	0.000	0.000	0.015	0.015	6
10	14.13	0.000	0.000	0.020	0.020	24	2.577	0.000	0.000	0.015	0.015	3	7.258	0.000	0.000	0.013	0.013	8
11	14.07	0.000	0.000	0.018	0.018	22	2.234	0.000	0.000	0.011	0.011	2	6.523	0.000	0.000	0.011	0.011	6
12	11.24	0.000	0.000	0.016	0.016	16	2.335	0.000	0.000	0.017	0.017	3	6.537	0.000	0.000	0.015	0.015	8
13	10.92	0.000	0.000	0.014	0.014	13	2.415	0.000	0.000	0.014	0.014	3	7.712	0.000	0.000	0.012	0.012	8
14	12.79	0.000	0.000	0.018	0.018	20	2.615	0.000	0.000	0.020	0.020	5	7.110	0.000	0.000	0.015	0.015	9
15	11.46	0.000	0.000	0.012	0.012	12	2.837	0.000	0.000	0.017	0.017	4	6.475	0.000	0.000	0.015	0.015	8
16	11.97	0.000	0.000	0.016	0.016	16	2.410	0.000	0.000	0.018	0.018	4	6.343	0.000	0.000	0.013	0.013	7
17	10.58	0.000	0.000	0.013	0.013	12	2.302	0.000	0.000	0.015	0.015	3	5.721	0.000	0.000	0.014	0.014	7
18	10.59	0.000	0.000	0.013	0.013	12	1.971	0.000	0.000	0.013	0.013	2	4.982	0.000	0.000	0.011	0.011	5
19	10.33	0.000	0.000	0.013	0.013	12	0.355	0.000	0.000	0.016	0.016	0	4.940	0.000	0.000	0.015	0.015	7
20	9.290	0.000	0.000	0.011	0.011	9	6.328	0.000	0.000	0.019	0.019	10	7.838	0.000	0.000	0.014	0.014	10
21	11.74	0.000	0.000	0.017	0.017	17	9.764	0.000	0.000	0.017	0.017	14	9.520	0.000	0.000	0.016	0.016	13
22	10.15	0.000	0.000	0.018	0.018	15	12.71	0.000	0.000	0.015	0.015	16	7.950	0.000	0.000	0.014	0.014	10
23	10.17	0.000	0.000	0.016	0.016	14	13.40	0.000	0.000	0.016	0.016	19	8.906	0.000	0.000	0.025	0.025	19
24	5.283	0.000	0.000				13.28	0.000	0.000	0.016	0.016	18	36.36	0.011	0.024	0.057	0.091	287
25	4.758	0.000	0.000	0.019	0.019	8	12.71	0.000	0.000	0.015	0.015	16	13.09	0.000	0.000	0.037	0.037	42
26	4.519	0.000	0.000	0.019	0.019	7	13.31	0.000	0.000	0.015	0.015	17	8.126	0.000	0.000	0.026	0.026	18
27	4.634	0.000	0.000	0.019	0.019	8	13.75	0.000	0.000	0.013	0.013	16	5.076	0.000	0.000	0.026	0.026	11
28	4.992	0.000	0.000	0.016	0.016	7	12.68	0.000	0.000	0.018	0.018	19	5.694	0.000	0.000	0.025	0.025	12
29	4.936	0.000	0.000	0.014	0.014	6	15.45	0.000	0.000	0.015	0.015	21	7.530	0.000	0.000	0.026	0.026	17
30	5.079	0.000	0.000	0.019	0.019	8	10.26	0.000	0.000	0.015	0.015	13	7.056	0.000	0.000	0.026	0.026	16
31							9.861	0.000	0.000	0.014	0.014	12						
Ten Daily Mean																		
Ten Daily I	12.38	0.000	0.000	0.022	0.022	24	3.725	0.000	0.000	0.014	0.014	5	10.85	0.000	0.000	0.018	0.018	22
Ten Daily II	11.32	0.000	0.000	0.014	0.014	14	2.580	0.000	0.000	0.016	0.016	4	6.418	0.000	0.000	0.014	0.014	8
Ten Daily III	6.627	0.000	0.000	0.017	0.017	10	12.47	0.000	0.000	0.015	0.015	17	10.93	0.001	0.002	0.028	0.031	45
Monthly																		
Total						469						267						744

Annual Sediment Load (Metric Tonnes) : 8342

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	7.526	0.000	0.000	0.023	0.023	15	18.73	0.000	0.000	0.024	0.024	39	11.44	0.000	0.000	0.023	0.023	23
2	6.828	0.000	0.000	0.026	0.026	15	13.75	0.000	0.000	0.020	0.020	24	12.05	0.000	0.000	0.022	0.022	23
3	34.10	0.022	0.042	0.075	0.138	407	16.28	0.000	0.000	0.018	0.018	25	10.93	0.000	0.000	0.022	0.022	20
4	26.69	0.000	0.000	0.041	0.041	94	16.09	0.000	0.000	0.017	0.017	24	11.23	0.000	0.000	0.024	0.024	24
5	18.75	0.000	0.000	0.034	0.034	55	15.74	0.000	0.000	0.020	0.020	27	12.38	0.000	0.000	0.022	0.022	24
6	19.60	0.000	0.000	0.036	0.036	61	13.70	0.000	0.000	0.019	0.019	22	10.92	0.000	0.000	0.019	0.019	18
7	100.6	0.000	0.000	0.067	0.067	585	10.41	0.000	0.000	0.023	0.023	21	11.94	0.000	0.000	0.020	0.020	21
8	111.9	0.000	0.000	0.067	0.067	648	19.04	0.000	0.000	0.025	0.025	41	12.36	0.000	0.000	0.021	0.021	22
9	116.9	0.000	0.000	0.060	0.060	601	17.58	0.000	0.000	0.023	0.023	35	10.55	0.000	0.000	0.025	0.025	22
10	40.47	0.000	0.000	0.043	0.043	149	17.14	0.000	0.000	0.021	0.021	31	11.27	0.000	0.000	0.023	0.023	22
11	27.44	0.000	0.000	0.049	0.049	115	17.25	0.000	0.000	0.017	0.017	25	9.518	0.000	0.000	0.022	0.022	18
12	24.51	0.000	0.000	0.040	0.040	84	16.83	0.000	0.000	0.020	0.020	29	9.504	0.000	0.000	0.022	0.022	18
13	18.91	0.000	0.000	0.034	0.034	56	16.24	0.000	0.000	0.018	0.018	25	9.606	0.000	0.000	0.022	0.022	18
14	17.65	0.000	0.000	0.022	0.022	33	16.90	0.000	0.000	0.020	0.020	29	11.58	0.000	0.000	0.020	0.020	20
15	16.58	0.000	0.000	0.016	0.016	22	16.71	0.000	0.000	0.019	0.019	27	13.94	0.000	0.000	0.021	0.021	26
16	18.64	0.000	0.000	0.020	0.020	32	17.60	0.000	0.000	0.021	0.021	33	9.789	0.000	0.000	0.022	0.022	18
17	17.18	0.000	0.000	0.019	0.019	28	17.14	0.000	0.000	0.021	0.021	31	9.807	0.000	0.000	0.024	0.024	21
18	14.88	0.000	0.000	0.020	0.020	26	17.09	0.000	0.000	0.017	0.017	25	9.553	0.000	0.000	0.024	0.024	20
19	15.26	0.000	0.000	0.019	0.019	25	17.86	0.000	0.000	0.017	0.017	26	10.95	0.000	0.000	0.024	0.024	22
20	15.86	0.000	0.000	0.018	0.018	25	17.17	0.000	0.000	0.022	0.022	33	10.96	0.000	0.000	0.023	0.023	22
21	13.78	0.000	0.000	0.016	0.016	19	16.62	0.000	0.000	0.016	0.016	22	9.504	0.000	0.000	0.017	0.017	14
22	13.39	0.000	0.000	0.022	0.022	25	16.14	0.000	0.000	0.019	0.019	26	11.01	0.000	0.000	0.020	0.020	19
23	11.83	0.000	0.000	0.020	0.020	20	13.00	0.000	0.000	0.017	0.017	19	11.16	0.000	0.000	0.017	0.017	16
24	13.44	0.000	0.000	0.022	0.022	26	13.06	0.000	0.000	0.017	0.017	19	11.59	0.000	0.000	0.018	0.018	18
25	13.25	0.000	0.000	0.022	0.022	25	13.63	0.000	0.000	0.018	0.018	21	12.62	0.000	0.000	0.019	0.019	21
26	14.90	0.000	0.000	0.019	0.019	24	14.63	0.000	0.000	0.020	0.020	25	13.04	0.000	0.000	0.022	0.022	25
27	14.63	0.000	0.000	0.020	0.020	25	14.04	0.000	0.000	0.017	0.017	20	12.08	0.000	0.000	0.018	0.018	19
28	16.08	0.000	0.000	0.023	0.023	32	14.01	0.000	0.000	0.017	0.017	21	11.22	0.000	0.000	0.019	0.019	18
29	15.41	0.000	0.000	0.019	0.019	26	14.66	0.000	0.000	0.020	0.020	25	10.41	0.000	0.000	0.022	0.022	20
30	14.14	0.000	0.000	0.018	0.018	22	14.31	0.000	0.000	0.022	0.022	27						
31	21.51	0.000	0.000	0.024	0.024	44	13.06	0.000	0.000	0.017	0.017	19						
Ten Daily Mean																		
Ten Daily I	48.33	0.002	0.004	0.047	0.053	263	15.85	0.000	0.000	0.021	0.021	29	11.51	0.000	0.000	0.022	0.022	22
Ten Daily II	18.69	0.000	0.000	0.026	0.026	45	17.08	0.000	0.000	0.019	0.019	28	10.52	0.000	0.000	0.022	0.022	20
Ten Daily III	14.76	0.000	0.000	0.020	0.020	26	14.29	0.000	0.000	0.018	0.018	22	11.40	0.000	0.000	0.019	0.019	19
Monthly																		
Total						3365						817						592

Annual Sediment Load (Metric Tonnes) : 8342

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2) **Division : SR Division, Coimbatore**

Local River : Aliyar **Sub-Division : Middle Cauvery SD, Coimbatore**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	10.21	0.000	0.000	0.018	0.018	16	7.551	0.000	0.000	0.021	0.021	14	6.072	0.000	0.000	0.020	0.020	10
2	9.165	0.000	0.000	0.014	0.014	11	5.010	0.000	0.000	0.022	0.022	10	6.980	0.000	0.000	0.016	0.016	10
3	7.708	0.000	0.000	0.013	0.013	9	3.571	0.000	0.000	0.018	0.018	6	5.645	0.000	0.000	0.017	0.017	8
4	8.058	0.000	0.000	0.014	0.014	10	4.058	0.000	0.000	0.022	0.022	8	6.667	0.000	0.000	0.017	0.017	10
5	7.234	0.000	0.000	0.015	0.015	9	4.811	0.000	0.000	0.017	0.017	7	6.167	0.000	0.000	0.013	0.013	7
6	8.076	0.000	0.000	0.014	0.014	10	4.237	0.000	0.000	0.023	0.023	8	6.120	0.000	0.000	0.015	0.015	8
7	7.108	0.000	0.000	0.019	0.019	11	4.014	0.000	0.000	0.021	0.021	7	7.258	0.000	0.000	0.016	0.016	10
8	7.457	0.000	0.000	0.019	0.019	12	4.069	0.000	0.000	0.017	0.017	6	5.170	0.000	0.000	0.012	0.012	5
9	7.099	0.000	0.000	0.020	0.020	12	5.393	0.000	0.000	0.022	0.022	10	5.271	0.000	0.000	0.015	0.015	7
10	7.338	0.000	0.000	0.017	0.017	10	5.421	0.000	0.000	0.022	0.022	10	4.815	0.000	0.000	0.013	0.013	6
11	8.568	0.000	0.000	0.014	0.014	11	5.098	0.000	0.000	0.019	0.019	8	5.044	0.000	0.000	0.012	0.012	5
12	8.274	0.000	0.000	0.021	0.021	15	5.202	0.000	0.000	0.018	0.018	8	5.916	0.000	0.000	0.012	0.012	6
13	7.041	0.000	0.000	0.020	0.020	12	5.042	0.000	0.000	0.019	0.019	8	5.607	0.000	0.000	0.010	0.010	5
14	7.807	0.000	0.000	0.017	0.017	11	4.685	0.000	0.000	0.020	0.020	8	5.036	0.000	0.000	0.011	0.011	5
15	7.677	0.000	0.000	0.015	0.015	10	4.791	0.000	0.000	0.018	0.018	7	5.170	0.000	0.000	0.012	0.012	5
16	9.018	0.000	0.000	0.019	0.019	15	4.762	0.000	0.000	0.019	0.019	8	5.283	0.000	0.000	0.012	0.012	6
17	6.171	0.000	0.000	0.016	0.016	9	4.000	0.000	0.000	0.019	0.019	7	8.449	0.000	0.000	0.011	0.011	8
18	5.651	0.000	0.000	0.014	0.014	7	3.902	0.000	0.000	0.020	0.020	7	7.190	0.000	0.000	0.012	0.012	8
19	5.604	0.000	0.000	0.016	0.016	8	3.924	0.000	0.000	0.019	0.019	6	8.458	0.000	0.000	0.012	0.012	9
20	4.223	0.000	0.000	0.021	0.021	8	4.000	0.000	0.000	0.019	0.019	7	11.03	0.000	0.000	0.013	0.013	12
21	2.719	0.000	0.000	0.019	0.019	4	4.337	0.000	0.000	0.017	0.017	6	10.34	0.000	0.000	0.012	0.012	11
22	2.599	0.000	0.000	0.022	0.022	5	3.539	0.000	0.000	0.019	0.019	6	10.34	0.000	0.000	0.012	0.012	11
23	5.191	0.000	0.000	0.021	0.021	9	3.558	0.000	0.000	0.019	0.019	6	10.15	0.000	0.000	0.012	0.012	11
24	5.425	0.000	0.000	0.026	0.026	12	3.365	0.000	0.000	0.018	0.018	5	9.949	0.000	0.000	0.012	0.012	10
25	4.568	0.000	0.000	0.019	0.019	7	3.546	0.000	0.000	0.018	0.018	5	9.943	0.000	0.000	0.013	0.013	11
26	3.499	0.000	0.000	0.023	0.023	7	2.405	0.000	0.000	0.018	0.018	4	9.707	0.000	0.000	0.012	0.012	10
27	4.111	0.000	0.000	0.021	0.021	7	3.083	0.000	0.000	0.017	0.017	4	9.748	0.000	0.000	0.014	0.014	12
28	2.807	0.000	0.000	0.021	0.021	5	3.062	0.000	0.000	0.017	0.017	4	10.92	0.000	0.000	0.013	0.013	12
29	3.297	0.000	0.000	0.019	0.019	5	4.515	0.000	0.000	0.018	0.018	7	11.22	0.000	0.000	0.013	0.013	13
30	8.524	0.000	0.000	0.019	0.019	14	4.381	0.000	0.000	0.021	0.021	8	10.65	0.000	0.000	0.010	0.010	9
31	3.795	0.000	0.000	0.022	0.022	7							10.89	0.000	0.000	0.014	0.014	13
Ten Daily Mean																		
Ten Daily I	7.945	0.000	0.000	0.016	0.016	11	4.814	0.000	0.000	0.020	0.020	9	6.016	0.000	0.000	0.015	0.015	8
Ten Daily II	7.003	0.000	0.000	0.017	0.017	11	4.541	0.000	0.000	0.019	0.019	7	6.718	0.000	0.000	0.012	0.012	7
Ten Daily III	4.230	0.000	0.000	0.021	0.021	8	3.579	0.000	0.000	0.018	0.018	6	10.35	0.000	0.000	0.012	0.012	11
Monthly																		
Total						301						216						271

Annual Sediment Load (Metric Tonnes) : 8342

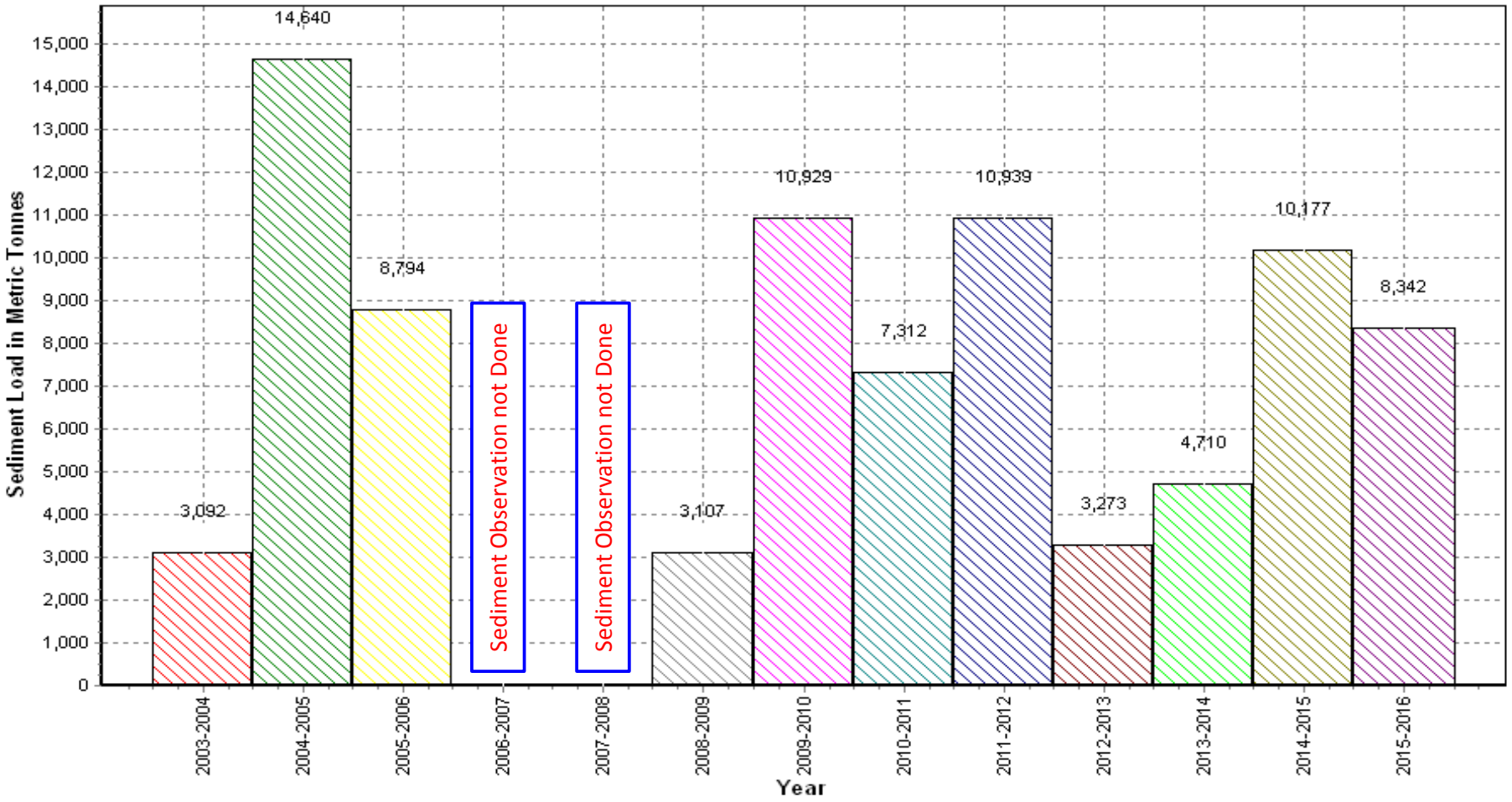
Annual Sediment Load for the period: 2003-2016

Station Name : AMBARAMPALAYAM (KR000U2)

Division : SR Division, Coimbatore

Local River : Aliyar

Sub-Division : Middle Cauvery SD, Coimbatore



Seasonal Sediment Load for the period : 2003-2015

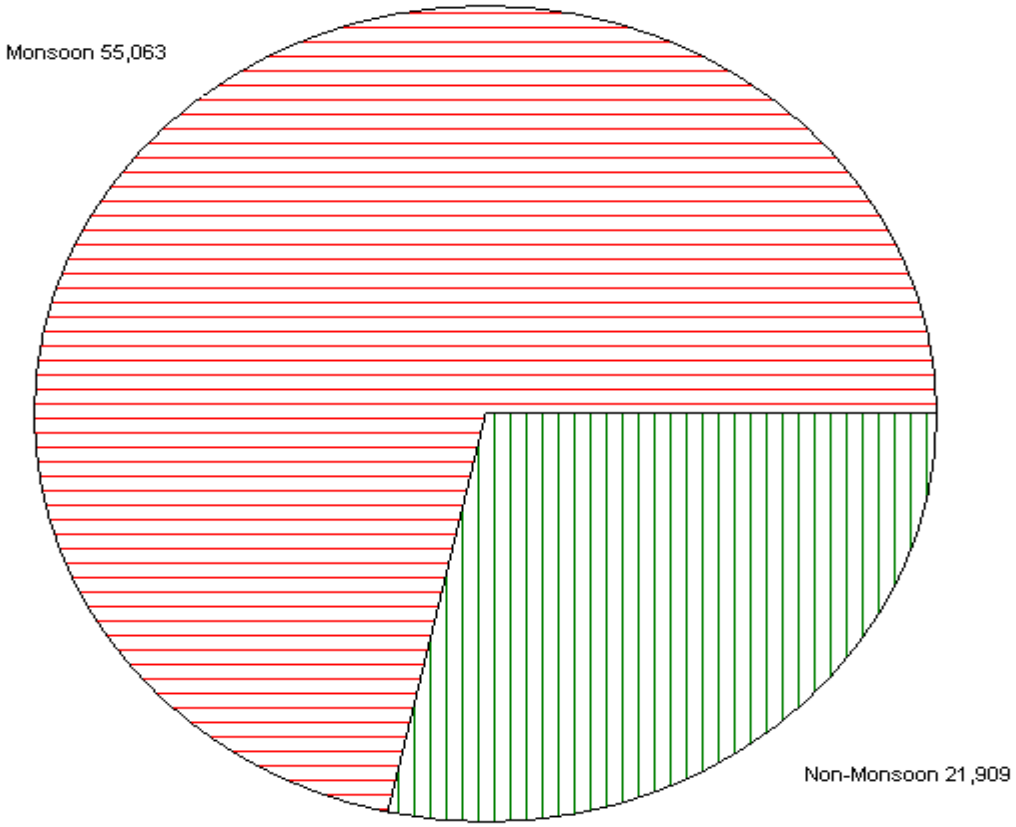
Station Name : AMBARAMPALAYAM (KR000U2)

Division : SR Division, Coimbatore

Local River : Aliyar

Sub-Division : Middle Cauvery SD, Coimbatore

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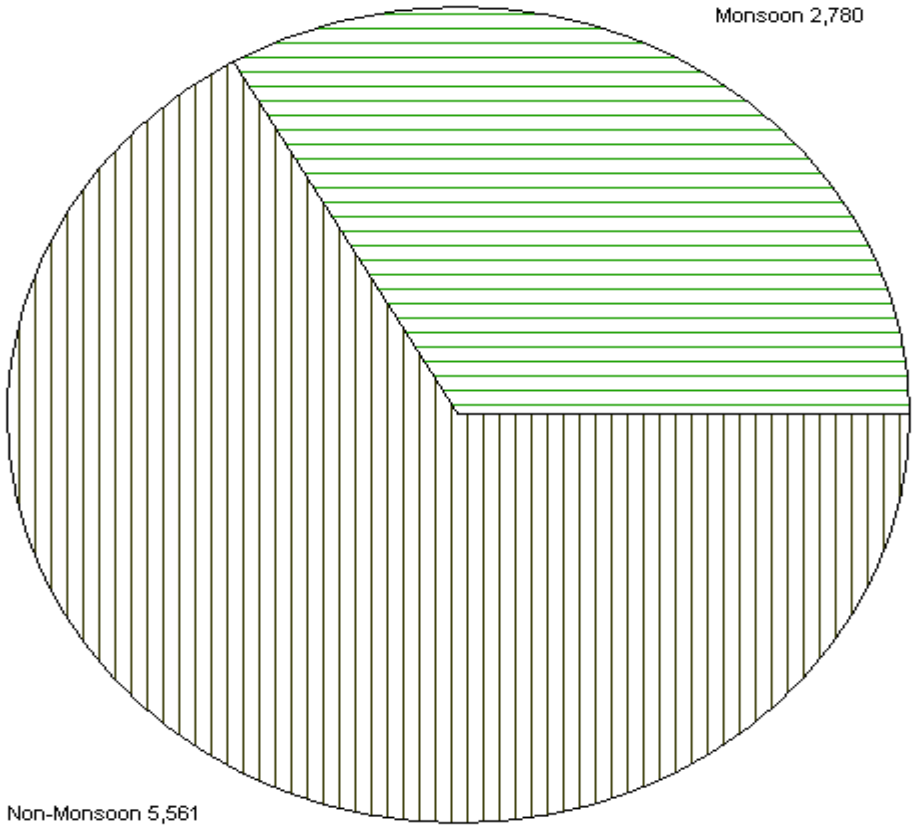
Seasonal Sediment Load for the Year: 2015-2016

Station Name : AMBARAMPALAYAM (KR000U2)

Division : SR Division, Coimbatore

Local River : Aliyar

Sub-Division : Middle Cauvery SD, Coimbatore



Annual Sediment Load for period : 1980-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1980-1981	56902	1625	58527	2604
1981-1982	104056	746	104803	2912
1982-1983	23743	839	24582	1169
1983-1984	54309	1390	55699	1736
1984-1985	31314	772	32085	1619
1985-1986	24720	899	25619	1575
1986-1987	29666	542	30208	1393
1987-1988	23061	2333	25394	1297
1988-1989	41575	515	42090	1835
1989-1990	59258	810	60068	1739
1990-1991	29616	576	30192	1655
1991-1992	69592	1061	70653	1961
1992-1993	99558	825	100383	2693
1993-1994	36480	785	37266	1598
1994-1995	129230	892	130121	2765
1995-1996	42885	491	43376	1854
1996-1997	28983	1099	30082	1351
1997-1998	31916	1024	32941	1419
1998-1999	79108	1964	81072	2663
1999-2000	40703	493	41196	1951
2000-2001	15408	31	15438	1115
2001-2002	19080	364	19444	1406
2002-2003	20014	2354	22369	1656
2003-2004	14318	1976	16294	1423
2004-2005	67184	733	67917	1682
2005-2006	66132	2283	68416	2099
2006-2007	Sediment Obsevation Not Done			1668
2007-2008	Sediment Obsevation Not Done			3178
2008-2009	34867	858	35725	1355
2009-2010	97095	1229	98324	1789
2010-2011	56090	2395	58485	1614
2011-2012	59480	172	59653	2037
2012-2013	14021	97	14118	932
2013-2014	85750	154	85904	2646
2014-2015	14800	257	15057	2155
2015-2016	6986	357	7344	1509

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	15.29	0.000	0.000	0.001	0.001	1	96.81	0.000	0.001	0.001	0.002	13	71.41	0.000	0.002	0.003	0.004	27
2	0.095	0.000	0.000	0.000	0.000	0	97.74	0.000	0.000	0.001	0.001	7	64.51	0.000	0.001	0.001	0.001	8
3	7.364	0.000	0.000	0.001	0.001	1	87.42	0.000	0.000	0.001	0.001	8	67.25	0.000	0.001	0.002	0.003	17
4	9.638	0.000	0.000	0.001	0.001	1	85.46	0.000	0.000	0.002	0.002	14	78.71	0.000	0.001	0.001	0.002	14
5	65.70	0.000	0.000	0.002	0.002	9	76.50	0.000	0.000	0.001	0.001	9	75.08	0.000	0.001	0.005	0.007	43
6	49.70	0.000	0.000	0.001	0.001	3	67.52	0.000	0.000	0.001	0.001	4	73.22	0.000	0.001	0.002	0.003	22
7	52.56	0.000	0.000	0.001	0.001	5	71.46	0.000	0.000	0.002	0.002	10	66.20	0.000	0.001	0.002	0.004	21
8	58.96	0.000	0.000	0.001	0.001	7	70.94	0.000	0.000	0.002	0.002	13	75.08	0.000	0.002	0.002	0.004	29
9	4.359	0.000	0.000	0.002	0.002	1	87.32	0.000	0.000	0.001	0.001	8	66.31	0.000	0.002	0.002	0.004	22
10	7.827	0.000	0.000	0.002	0.002	1	95.84	0.000	0.000	0.002	0.002	13	74.60	0.000	0.002	0.003	0.004	27
11	24.27	0.000	0.000	0.002	0.002	3	93.81	0.000	0.001	0.002	0.003	28	100.4	0.000	0.002	0.002	0.004	35
12	43.59	0.000	0.000	0.001	0.001	2	86.17	0.000	0.001	0.002	0.003	20	118.7	0.000	0.003	0.002	0.005	53
13	38.04	0.000	0.000	0.002	0.002	6	77.65	0.000	0.000	0.002	0.002	13	151.8	0.000	0.003	0.002	0.005	62
14	52.56	0.000	0.000	0.001	0.001	6	75.21	0.000	0.000	0.002	0.002	13	111.1	0.000	0.003	0.002	0.005	46
15	43.63	0.000	0.000	0.002	0.002	6	78.37	0.000	0.000	0.001	0.001	8	94.19	0.000	0.002	0.002	0.004	35
16	25.55	0.000	0.000	0.006	0.006	14	72.27	0.000	0.000	0.002	0.002	9	85.19	0.000	0.002	0.002	0.004	29
17	53.42	0.000	0.000	0.001	0.001	5	99.27	0.000	0.000	0.001	0.001	12	73.64	0.000	0.002	0.002	0.004	24
18	136.5	0.000	0.000	0.001	0.001	15	180.0	0.001	0.002	0.002	0.005	75	64.69	0.000	0.000	0.002	0.002	8
19	56.80	0.000	0.000	0.002	0.002	7	217.9	0.002	0.002	0.003	0.007	124	334.6	0.010	0.010	0.009	0.028	806
20	49.39	0.000	0.000	0.004	0.004	17	211.0	0.002	0.002	0.003	0.007	128	134.1	0.009	0.008	0.008	0.025	284
21	57.48	0.000	0.000	0.002	0.003	14	160.2	0.002	0.002	0.002	0.005	69	89.05	0.000	0.001	0.008	0.009	69
22	114.6	0.001	0.001	0.002	0.004	40	416.0	0.002	0.003	0.003	0.007	252	85.70	0.000	0.001	0.010	0.011	81
23	125.5	0.002	0.002	0.002	0.006	66	219.8	0.002	0.003	0.004	0.010	188	81.29	0.000	0.002	0.007	0.009	66
24	221.7	0.002	0.002	0.007	0.011	213	328.2	0.003	0.004	0.009	0.016	445	76.08	0.000	0.003	0.005	0.008	51
25	242.6	0.002	0.004	0.004	0.010	205	204.0	0.001	0.002	0.002	0.005	88	70.96	0.000	0.003	0.005	0.008	48
26	283.1	0.001	0.002	0.003	0.005	132	161.4	0.001	0.001	0.002	0.004	57	60.15	0.000	0.002	0.003	0.005	28
27	531.5	0.002	0.002	0.004	0.008	354	119.8	0.001	0.001	0.002	0.003	34	54.56	0.000	0.002	0.005	0.007	32
28	274.0	0.001	0.002	0.004	0.007	168	99.89	0.000	0.001	0.001	0.002	21	50.73	0.000	0.001	0.004	0.005	21
29	142.2	0.002	0.003	0.005	0.010	118	94.80	0.000	0.001	0.001	0.002	19	52.11	0.000	0.000	0.003	0.003	15
30	137.5	0.000	0.002	0.005	0.007	82	76.70	0.000	0.001	0.001	0.002	13	53.23	0.000	0.000	0.003	0.003	13
31							76.42	0.000	0.001	0.001	0.002	12	53.35	0.000	0.000	0.002	0.002	11
Ten Daily Mean																		
Ten Daily I	27.15	0.000	0.000	0.001	0.001	3	83.70	0.000	0.000	0.001	0.001	10	71.24	0.000	0.001	0.002	0.004	23
Ten Daily II	52.38	0.000	0.000	0.002	0.002	8	119.2	0.001	0.001	0.002	0.003	43	126.8	0.002	0.004	0.003	0.008	138
Ten Daily III	213.0	0.001	0.002	0.004	0.007	139	177.9	0.001	0.002	0.003	0.005	109	66.11	0.000	0.001	0.005	0.006	39
Monthly																		
Total						1503						1726						2046

Annual Sediment Load (Metric Tonnes) : 7344

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	55.16	0.000	0.000	0.003	0.003	14	122.9	0.001	0.002	0.003	0.006	67	66.34	0.000	0.000	0.003	0.003	19
2	51.06	0.000	0.000	0.003	0.003	12	84.05	0.001	0.001	0.002	0.004	29	41.80	0.000	0.000	0.002	0.002	6
3	102.4	0.001	0.003	0.004	0.007	63	88.27	0.000	0.002	0.002	0.004	29	49.39	0.000	0.000	0.002	0.002	8
4	117.4	0.001	0.002	0.003	0.006	65	87.79	0.001	0.002	0.002	0.004	33	47.54	0.000	0.000	0.002	0.002	7
5	136.5	0.001	0.002	0.003	0.007	77	87.77	0.001	0.002	0.002	0.005	37	62.32	0.000	0.000	0.002	0.002	10
6	69.96	0.001	0.001	0.002	0.003	21	94.66	0.003	0.003	0.005	0.010	80	89.19	0.000	0.000	0.003	0.003	19
7	119.6	0.001	0.002	0.003	0.006	60	72.04	0.000	0.000	0.002	0.002	12	62.55	0.000	0.000	0.002	0.002	9
8	92.92	0.000	0.003	0.003	0.005	43	73.93	0.000	0.000	0.003	0.003	18	53.65	0.000	0.000	0.002	0.002	7
9	83.82	0.000	0.000	0.002	0.002	17	78.76	0.000	0.000	0.003	0.003	17	52.59	0.000	0.000	0.001	0.001	6
10	94.64	0.000	0.000	0.003	0.003	23	81.48	0.000	0.000	0.002	0.002	14	39.49	0.000	0.000	0.001	0.001	4
11	77.45	0.000	0.000	0.003	0.003	23	69.37	0.000	0.000	0.002	0.002	12	42.43	0.000	0.000	0.002	0.002	6
12	73.14	0.000	0.000	0.003	0.003	19	70.92	0.000	0.000	0.003	0.003	15	42.43	0.000	0.000	0.002	0.002	7
13	77.45	0.000	0.000	0.002	0.002	15	77.34	0.000	0.000	0.003	0.003	17	77.73	0.000	0.000	0.001	0.001	9
14	71.51	0.000	0.000	0.001	0.001	8	116.2	0.000	0.000	0.004	0.004	40	68.96	0.000	0.000	0.001	0.001	8
15	66.92	0.000	0.000	0.003	0.003	15	81.05	0.000	0.000	0.002	0.002	15	48.67	0.000	0.000	0.001	0.001	5
16	65.13	0.000	0.000	0.003	0.003	19	73.51	0.000	0.000	0.003	0.003	17	28.86	0.000	0.000	0.002	0.002	4
17	86.84	0.000	0.000	0.002	0.002	15	73.58	0.000	0.000	0.002	0.002	15	52.41	0.000	0.000	0.002	0.002	7
18	71.35	0.000	0.000	0.002	0.002	13	73.48	0.000	0.000	0.002	0.002	15	42.43	0.000	0.000	0.002	0.002	7
19	74.18	0.000	0.000	0.003	0.003	16	72.44	0.000	0.000	0.003	0.003	16	54.81	0.000	0.000	0.002	0.002	9
20	72.04	0.000	0.000	0.003	0.003	17	64.76	0.000	0.000	0.003	0.003	16	56.63	0.000	0.000	0.002	0.002	10
21	67.07	0.000	0.000	0.003	0.003	17	55.86	0.000	0.000	0.003	0.003	14	60.38	0.000	0.000	0.001	0.001	6
22	60.55	0.000	0.000	0.003	0.003	14	66.34	0.000	0.000	0.003	0.003	15	45.49	0.000	0.000	0.001	0.001	4
23	56.23	0.000	0.000	0.003	0.003	14	53.12	0.000	0.000	0.003	0.003	12	36.66	0.000	0.000	0.001	0.001	4
24	54.54	0.000	0.000	0.002	0.002	11	46.21	0.000	0.000	0.003	0.003	10	52.51	0.000	0.000	0.002	0.002	7
25	61.41	0.000	0.000	0.002	0.002	13	47.05	0.000	0.000	0.003	0.003	11	78.34	0.000	0.000	0.002	0.002	15
26	52.03	0.000	0.002	0.005	0.007	31	38.22	0.000	0.000	0.003	0.003	8	57.96	0.000	0.000	0.002	0.002	8
27	55.12	0.000	0.002	0.004	0.006	28	45.20	0.000	0.000	0.003	0.003	10	56.87	0.000	0.000	0.002	0.002	8
28	86.56	0.000	0.003	0.005	0.008	60	39.38	0.000	0.000	0.002	0.002	7	49.71	0.000	0.000	0.002	0.002	8
29	76.89	0.000	0.004	0.006	0.010	66	33.77	0.000	0.000	0.002	0.002	6	40.95	0.000	0.000	0.002	0.002	7
30	75.30	0.000	0.000	0.006	0.006	38	52.46	0.000	0.000	0.002	0.002	10	26.04	0.000	0.000	0.002	0.002	4
31							57.35	0.000	0.000	0.002	0.002	10						
Ten Daily Mean																		
Ten Daily I	92.35	0.001	0.001	0.003	0.005	39	87.16	0.001	0.001	0.003	0.004	34	56.49	0.000	0.000	0.002	0.002	10
Ten Daily II	73.60	0.000	0.000	0.003	0.003	16	77.27	0.000	0.000	0.003	0.003	18	51.54	0.000	0.000	0.002	0.002	7
Ten Daily III	64.57	0.000	0.001	0.004	0.005	29	48.63	0.000	0.000	0.002	0.002	10	50.49	0.000	0.000	0.002	0.002	7
Monthly																		
Total						845						628						239

Annual Sediment Load (Metric Tonnes) : 7344

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	40.79	0.000	0.000	0.001	0.001	5	6.860	0.000	0.000	0.003	0.003	2	6.965	0.000	0.000	0.006	0.006	3
2	52.49	0.000	0.000	0.002	0.002	7	5.418	0.000	0.000	0.003	0.003	1	6.924	0.000	0.000	0.001	0.001	1
3	53.16	0.000	0.000	0.002	0.002	7	6.253	0.000	0.000	0.003	0.003	2	6.699	0.000	0.000	0.001	0.001	1
4	51.20	0.000	0.000	0.001	0.001	6	4.569	0.000	0.000	0.003	0.003	1	6.346	0.000	0.000	0.001	0.001	0
5	45.54	0.000	0.000	0.002	0.002	6	3.821	0.000	0.000	0.003	0.003	1	6.079	0.000	0.000	0.001	0.001	1
6	35.21	0.000	0.000	0.002	0.002	5	4.016	0.000	0.000	0.003	0.003	1	5.291	0.000	0.000	0.002	0.002	1
7	47.39	0.000	0.000	0.002	0.002	9	3.839	0.000	0.000	0.001	0.001	0	5.870	0.000	0.000	0.002	0.002	1
8	29.07	0.000	0.000	0.002	0.002	4	4.305	0.000	0.000	0.001	0.001	0	5.081	0.000	0.000	0.001	0.001	1
9	47.39	0.000	0.000	0.002	0.002	6	3.623	0.000	0.000	0.003	0.003	1	6.039	0.000	0.000	0.001	0.001	1
10	28.20	0.000	0.000	0.001	0.001	3	4.464	0.000	0.000	0.003	0.003	1	4.605	0.000	0.000	0.002	0.002	1
11	37.27	0.000	0.000	0.001	0.001	5	5.256	0.000	0.000	0.003	0.003	1	6.094	0.000	0.000	0.002	0.002	1
12	50.23	0.000	0.000	0.002	0.002	9	4.672	0.000	0.000	0.002	0.002	1	5.732	0.000	0.000	0.002	0.002	1
13	45.54	0.000	0.001	0.002	0.003	12	5.828	0.000	0.000	0.002	0.002	1	5.840	0.000	0.000	0.001	0.001	1
14	76.55	0.000	0.002	0.005	0.006	42	5.352	0.000	0.000	0.001	0.001	1	5.653	0.000	0.000	0.002	0.002	1
15	56.20	0.000	0.002	0.004	0.006	30	5.495	0.000	0.000	0.002	0.002	1	4.774	0.000	0.000	0.002	0.002	1
16	51.18	0.000	0.001	0.004	0.005	23	7.424	0.000	0.000	0.002	0.002	1	4.440	0.000	0.000	0.001	0.001	1
17	44.80	0.000	0.000	0.003	0.003	11	5.138	0.000	0.000	0.002	0.002	1	5.877	0.000	0.000	0.002	0.002	1
18	27.95	0.000	0.000	0.004	0.004	9	2.766	0.000	0.000	0.002	0.002	0	4.700	0.000	0.000	0.000	0.000	0
19	26.05	0.000	0.000	0.003	0.003	7	3.416	0.000	0.000	0.001	0.001	0	5.010	0.000	0.000	0.002	0.002	1
20	34.70	0.000	0.000	0.004	0.004	12	5.308	0.000	0.000	0.002	0.002	1	4.238	0.000	0.000	0.002	0.002	1
21	22.56	0.000	0.000	0.002	0.002	5	5.500	0.000	0.000	0.002	0.002	1	4.230	0.000	0.000	0.002	0.002	1
22	23.94	0.000	0.000	0.002	0.002	3	6.654	0.000	0.000	0.001	0.001	1	4.125	0.000	0.000	0.002	0.002	1
23	20.52	0.000	0.000	0.003	0.003	6	4.326	0.000	0.000	0.002	0.002	1	4.152	0.000	0.000	0.001	0.001	0
24	26.24	0.000	0.000	0.005	0.005	10	4.423	0.000	0.000	0.002	0.002	1	3.114	0.000	0.000	0.002	0.002	1
25	22.50	0.000	0.000	0.004	0.004	8	4.820	0.000	0.000	0.002	0.002	1	4.230	0.000	0.000	0.001	0.001	1
26	12.31	0.000	0.000	0.002	0.002	2	4.921	0.000	0.000	0.001	0.001	1	4.230	0.000	0.000	0.001	0.001	1
27	9.875	0.000	0.000	0.003	0.003	2	6.463	0.000	0.000	0.002	0.002	1	3.026	0.000	0.000	0.002	0.002	0
28	7.472	0.000	0.000	0.003	0.003	2	6.651	0.000	0.000	0.001	0.001	1	3.855	0.000	0.000	0.002	0.002	0
29	7.583	0.000	0.000	0.004	0.004	2	5.747	0.000	0.000	0.002	0.002	1	5.059	0.000	0.000	0.001	0.001	1
30	6.763	0.000	0.000	0.003	0.003	2	6.413	0.000	0.000	0.001	0.001	1						
31	7.935	0.000	0.000	0.004	0.004	3	6.425	0.000	0.000	0.003	0.003	2						
Ten Daily Mean																		
Ten Daily I	43.04	0.000	0.000	0.002	0.002	6	4.717	0.000	0.000	0.002	0.002	1	5.990	0.000	0.000	0.002	0.002	1
Ten Daily II	45.05	0.000	0.001	0.003	0.004	16	5.066	0.000	0.000	0.002	0.002	1	5.236	0.000	0.000	0.001	0.001	1
Ten Daily III	15.25	0.000	0.000	0.003	0.003	4	5.667	0.000	0.000	0.002	0.002	1	4.002	0.000	0.000	0.002	0.002	1
Monthly																		
Total						262						26						21

Annual Sediment Load (Metric Tonnes) : 7344

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : ARANGALY (KSA00F3) **Division : SWR Division, Kochi**

Local River : Chalakudy **Sub-Division : SWRSD No.2, Kochi**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	4.444	0.000	0.000	0.002	0.002	1	3.993	0.000	0.000	0.002	0.002	1	4.346	0.000	0.000	0.001	0.001	0
2	4.041	0.000	0.000	0.002	0.002	1	3.993	0.000	0.000	0.002	0.002	1	3.970	0.000	0.000	0.001	0.001	0
3	3.684	0.000	0.000	0.002	0.002	1	4.062	0.000	0.000	0.002	0.002	1	4.529	0.000	0.000	0.001	0.001	0
4	3.279	0.000	0.000	0.001	0.001	0	3.512	0.000	0.000	0.001	0.001	0	4.807	0.000	0.000	0.001	0.001	0
5	3.627	0.000	0.000	0.001	0.001	0	4.062	0.000	0.000	0.001	0.001	0	4.500	0.000	0.000	0.001	0.001	0
6	3.318	0.000	0.000	0.001	0.001	0	4.617	0.000	0.000	0.001	0.001	0	4.513	0.000	0.000	0.001	0.001	0
7	3.493	0.000	0.000	0.001	0.001	0	3.845	0.000	0.000	0.002	0.002	0	5.728	0.000	0.000	0.001	0.001	1
8	4.252	0.000	0.000	0.002	0.002	1	3.789	0.000	0.000	0.002	0.002	1	5.259	0.000	0.000	0.001	0.001	0
9	3.706	0.000	0.000	0.001	0.001	0	4.015	0.000	0.000	0.002	0.002	1	6.561	0.000	0.000	0.001	0.001	1
10	4.684	0.000	0.000	0.001	0.001	1	4.640	0.000	0.000	0.002	0.002	1	5.771	0.000	0.000	0.001	0.001	1
11	4.044	0.000	0.000	0.002	0.002	1	4.037	0.000	0.000	0.002	0.002	1	6.189	0.000	0.000	0.002	0.002	1
12	4.188	0.000	0.000	0.001	0.001	0	4.074	0.000	0.000	0.001	0.001	0	7.019	0.000	0.000	0.002	0.002	1
13	3.855	0.000	0.000	0.001	0.001	0	4.119	0.000	0.000	0.001	0.001	0	4.786	0.000	0.000	0.001	0.001	0
14	3.740	0.000	0.000	0.001	0.001	0	6.395	0.000	0.000	0.002	0.002	1	5.324	0.000	0.000	0.001	0.001	1
15	3.202	0.000	0.000	0.001	0.001	0	4.791	0.000	0.000	0.001	0.001	0	5.918	0.000	0.000	0.001	0.001	1
16	3.575	0.000	0.000	0.001	0.001	0	4.732	0.000	0.000	0.001	0.001	1	6.089	0.000	0.000	0.001	0.001	1
17	3.683	0.000	0.000	0.001	0.001	0	4.419	0.000	0.000	0.001	0.001	0	6.529	0.000	0.000	0.002	0.002	1
18	4.352	0.000	0.000	0.001	0.001	0	4.321	0.000	0.000	0.001	0.001	0	4.365	0.000	0.000	0.002	0.002	1
19	3.567	0.000	0.000	0.001	0.001	0	4.341	0.000	0.000	0.001	0.001	0	5.708	0.000	0.000	0.001	0.001	1
20	3.672	0.000	0.000	0.001	0.001	0	4.203	0.000	0.000	0.001	0.001	0	6.484	0.000	0.000	0.002	0.002	1
21	3.839	0.000	0.000	0.001	0.001	0	4.767	0.000	0.000	0.001	0.001	0	5.750	0.000	0.000	0.001	0.001	1
22	2.874	0.000	0.000	0.001	0.001	0	5.270	0.000	0.000	0.001	0.001	1	6.439	0.000	0.000	0.001	0.001	1
23	4.069	0.000	0.000	0.002	0.002	1	5.086	0.000	0.000	0.001	0.001	1	5.834	0.000	0.000	0.001	0.001	1
24	3.885	0.000	0.000	0.001	0.001	0	4.027	0.000	0.000	0.001	0.001	0	5.312	0.000	0.000	0.001	0.001	1
25	3.924	0.000	0.000	0.001	0.001	0	3.862	0.000	0.000	0.001	0.001	0	4.210	0.000	0.000	0.001	0.001	0
26	3.632	0.000	0.000	0.001	0.001	0	3.723	0.000	0.000	0.001	0.001	0	6.491	0.000	0.000	0.001	0.001	1
27	3.993	0.000	0.000	0.002	0.002	1	3.788	0.000	0.000	0.001	0.001	0	6.089	0.000	0.000	0.001	0.001	1
28	3.067	0.000	0.000	0.001	0.001	0	4.565	0.000	0.000	0.001	0.001	0	7.077	0.000	0.000	0.002	0.002	1
29	4.062	0.000	0.000	0.001	0.001	0	4.127	0.000	0.000	0.001	0.001	0	6.984	0.000	0.000	0.001	0.001	1
30	3.993	0.000	0.000	0.001	0.001	0	4.241	0.000	0.000	0.001	0.001	0	8.114	0.000	0.000	0.001	0.001	1
31	3.993	0.000	0.000	0.002	0.002	1							6.263	0.000	0.000	0.001	0.001	1
Ten Daily Mean																		
Ten Daily I	3.853	0.000	0.000	0.001	0.001	0	4.053	0.000	0.000	0.002	0.002	1	4.998	0.000	0.000	0.001	0.001	1
Ten Daily II	3.788	0.000	0.000	0.001	0.001	0	4.543	0.000	0.000	0.001	0.001	1	5.841	0.000	0.000	0.001	0.001	1
Ten Daily III	3.758	0.000	0.000	0.001	0.001	0	4.346	0.000	0.000	0.001	0.001	0	6.233	0.000	0.000	0.001	0.001	1
Monthly																		
Total						13						14						20

Annual Sediment Load (Metric Tonnes) : 7344

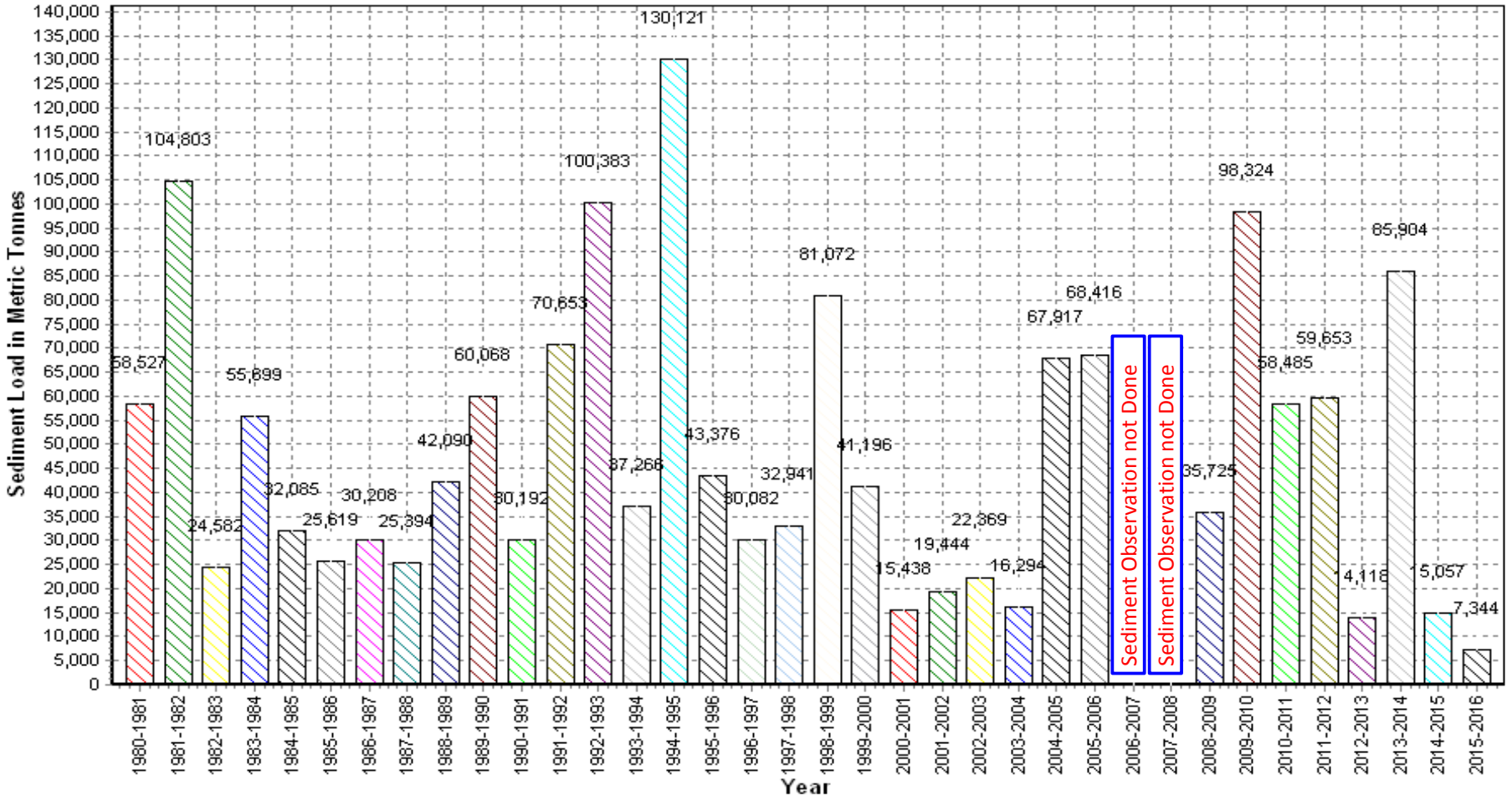
Annual Sediment Load for the period: 1980-2016

Station Name : ARANGALY (KSA00F3)

Local River : Chalakudy

Division : SWR Division, Kochi

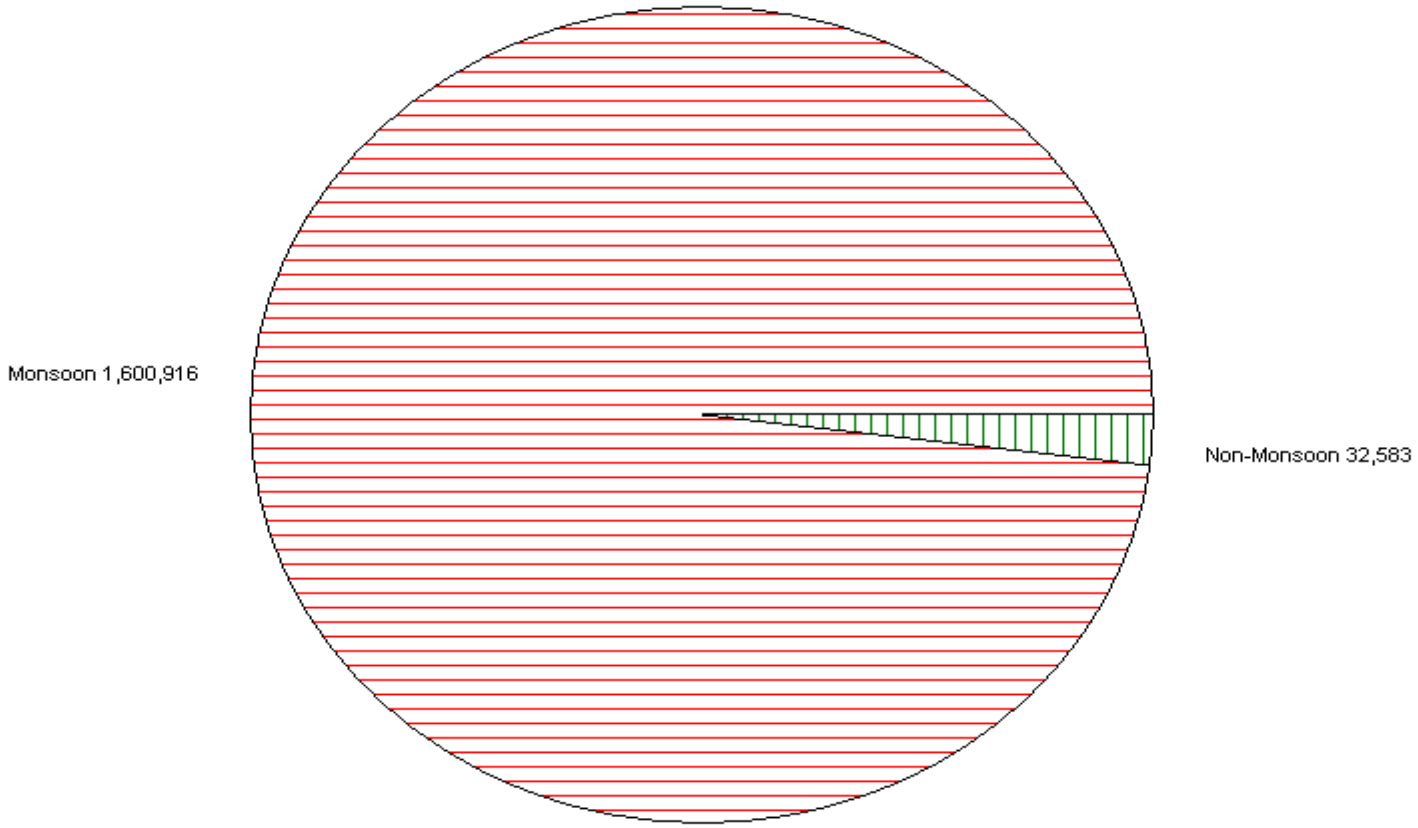
Sub-Division : SWRSD No.2, Kochi



Seasonal Sediment Load for the period : 1980-2015

Station Name : ARANGALY (KSA00F3)
Local River : Chalakudy

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi

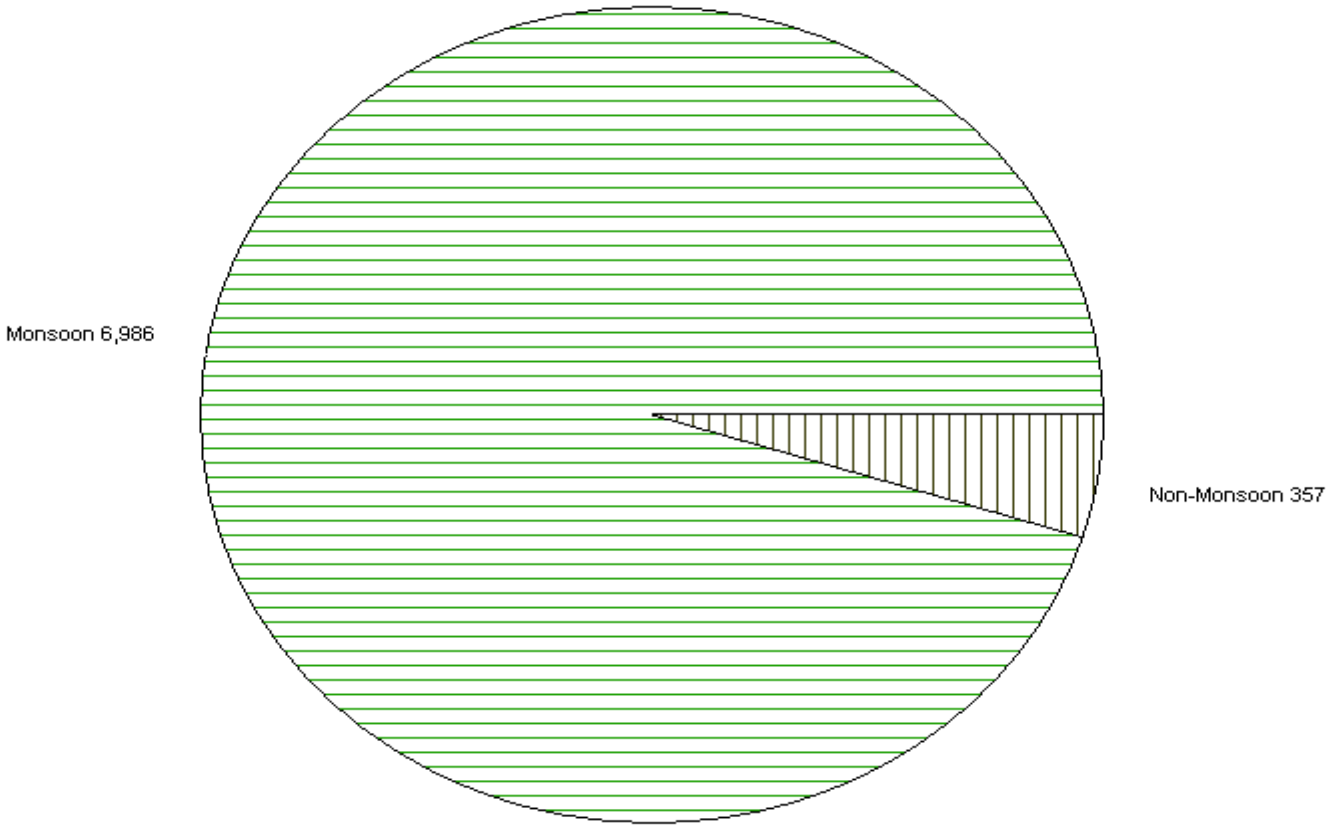


Seasonal Sediment Load for the Year: 2015-2016

Station Name : ARANGALY (KSA00F3)
Local River : Chalakudy

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi

609



BED MATERIAL ANALYSIS DATA

RIVER : *Chalakudi* **CODE NO. :** *KSAOOF3*

SITE : *Arangaly* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015					**DATE OF COLLECTION**				**15.07.2015**								
1	30	2.360	-		Dry				20.0	1.86							
2	60	2.490	-		Dry				6.30	1.01							
3	100	0.810	-		Dry				22.0	2.08							
4	150	-	(-)1.100	0.500	1.600	-	0.680	5.440	22.0	2.11	98.20	1.3627	0.5855	0.00006	78.40	25.0	1.54
5	200	0.500	-		Dry				25.0	2.20							
POSTMONSOON 2015					**DATE OF COLLECTION**				**19.02.2016**								
1	30	2.375	-		Dry				6.30	1.09							
2	60	2.590	-		Dry				6.00	1.00							
3	100	0.810	-		Dry				22.0	2.21							
4	150	-	(-)0.910	0.640	1.55	-	-	-	6.00	0.94	97.36	1.5191	0.0339	0.00006	5.007	25.0	1.28
5	200	0.710	-		Dry				25.0	2.46							
PREMONSOON 2016					**DATE OF COLLECTION**				**23.05.2016**								
1	30	2.350	-		Dry				15.0	2.16							
2	60	2.560	-		Dry				4.20	0.44							
3	100	1.085	-		Dry				6.00	0.65							
4	150	-	(-)0.850	0.850	1.70	5.00	NIL	NIL	6.30	0.99	98.38	1.6360	0.0026	0.0006	4.289	15.0	0.85
5	200	0.850	-		Dry				6.00	0.85							

Annual Sediment Load for period : 1972-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1972-1973	191966	12429	204395	7331
1973-1974	211647	915	212563	8083
1974-1975	467008	1135	468144	10276
1975-1976	850208	1954	852162	11778
1976-1977	114408	10240	124648	4621
1977-1978	156892	4312	161205	5908
1978-1979	321991	50798	372790	8161
1979-1980	336763	2775	339538	7600
1980-1981	225591	4817	230408	8285
1981-1982	492807	3119	495926	9659
1982-1983	133552	1184	134736	3876
1983-1984	202183	5391	207574	5751
1984-1985	195317	4052	199370	6305
1985-1986	414469	6837	421305	6573
1986-1987	314169	6791	320960	5630
1987-1988	111528	11804	123332	4868
1988-1989	248319	8271	256590	5560
1989-1990	634652	12115	646767	7628
1990-1991	193662	7126	200789	6176
1991-1992	504747	5948	510695	9968
1992-1993	462811	6619	469431	8142
1993-1994	186198	6210	192408	6355
1994-1995	432591	6447	439038	8911
1995-1996	534591	2518	537110	6715
1996-1997	335735	1512	337247	6048
1997-1998	219279	2070	221348	6603
1998-1999	342130	12505	354635	8762
1999-2000	101315	381	101696	5777
2000-2001	83211	3969	87180	6263
2001-2002	108555	3679	112234	6892
2002-2003	52805	2203	55008	5320
2003-2004	47538	9366	56904	4678
2004-2005	88695	2634	91329	6626
2005-2006	126985	17249	144234	9321
2006-2007	75529	Sed. Obsn Not Done	75529*	7023
2007-2008	145675	Sed. Obsn Not Done	145675*	10067
2008-2009	53839	Sed. Obsn Not Done	53839*	5602
2009-2010	119887	2459	122346	6686
2010-2011	55901	2936	58837	7509
2011-2012	48913	5419	54332	7489
2012-2013	3183	634	3817	3960
2013-2014	287786	2172	289958	9391
2014-2015	142442	4778	147220	8033
2015-2016	68740	4084	72824	5043

***Partial data**

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	113.1	0.000	0.000	0.002	0.002	18	279.6	0.001	0.001	0.004	0.006	133	218.2	0.000	0.001	0.003	0.004	81
2	184.0	0.000	0.000	0.002	0.002	33	261.8	0.001	0.001	0.004	0.005	113	0.000	0.000	0.000	0.000	0.000	0
3	204.0	0.000	0.000	0.002	0.002	41	281.9	0.001	0.001	0.004	0.005	129	181.0	0.000	0.000	0.002	0.002	36
4	172.7	0.000	0.000	0.002	0.002	30	241.3	0.001	0.003	0.008	0.012	246	318.0	0.000	0.000	0.003	0.003	69
5	147.8	0.000	0.000	0.002	0.002	22	240.2	0.001	0.002	0.006	0.009	183	229.4	0.000	0.000	0.007	0.007	133
6	155.3	0.000	0.000	0.002	0.002	25	190.8	0.001	0.001	0.002	0.004	69	204.6	0.000	0.000	0.004	0.004	72
7	119.7	0.000	0.000	0.001	0.001	14	217.0	0.001	0.002	0.004	0.007	131	160.7	0.000	0.000	0.002	0.002	22
8	168.9	0.000	0.000	0.002	0.002	28	184.0	0.001	0.001	0.003	0.005	83	166.3	0.000	0.000	0.006	0.006	91
9	171.4	0.000	0.000	0.002	0.002	31	359.3	0.000	0.001	0.006	0.008	233	178.6	0.000	0.000	0.004	0.004	54
10	117.1	0.000	0.000	0.002	0.002	16	487.1	0.001	0.001	0.008	0.010	400	198.8	0.000	0.000	0.001	0.001	14
11	56.10	0.000	0.000	0.007	0.007	32	274.3	0.001	0.002	0.006	0.009	201	421.5	0.001	0.004	0.024	0.029	1052
12	273.1	0.001	0.002	0.010	0.014	319	274.6	0.001	0.002	0.004	0.006	149	401.5	0.001	0.004	0.020	0.025	881
13	192.4	0.000	0.000	0.007	0.007	123	412.4	0.001	0.002	0.004	0.008	278	567.6	0.002	0.004	0.021	0.027	1329
14	226.3	0.000	0.001	0.010	0.012	225	277.0	0.000	0.000	0.001	0.001	31	259.3	0.001	0.003	0.007	0.010	224
15	102.2	0.000	0.001	0.006	0.008	67	259.2	0.000	0.001	0.002	0.003	69	379.2	0.001	0.003	0.007	0.011	370
16	124.3	0.000	0.000	0.002	0.002	18	308.5	0.001	0.001	0.004	0.006	155	459.8	0.001	0.004	0.009	0.014	544
17	98.71	0.000	0.000	0.002	0.002	15	504.1	0.001	0.002	0.004	0.007	301	418.6	0.001	0.003	0.006	0.010	369
18	193.1	0.000	0.000	0.005	0.005	82	863.6	0.002	0.004	0.018	0.024	1813	282.7	0.001	0.001	0.007	0.008	198
19	263.1	0.000	0.000	0.004	0.004	91	790.3	0.002	0.004	0.017	0.022	1523	303.5	0.001	0.001	0.008	0.010	254
20	537.5	0.000	0.002	0.007	0.010	455	549.2	0.002	0.003	0.018	0.023	1082	370.5	0.000	0.002	0.022	0.024	765
21	297.0	0.001	0.002	0.007	0.010	257	515.0	0.001	0.002	0.011	0.015	650	272.6	0.002	0.005	0.011	0.018	419
22	1237	0.004	0.009	0.037	0.050	5333	1046	0.003	0.010	0.035	0.047	4283	298.1	0.002	0.003	0.005	0.010	247
23	745.6	0.002	0.004	0.032	0.038	2416	576.0	0.001	0.003	0.013	0.017	851	287.9	0.001	0.003	0.006	0.009	221
24	674.4	0.002	0.003	0.021	0.026	1521	917.1	0.002	0.008	0.027	0.037	2964	335.9	0.001	0.003	0.008	0.011	331
25	785.0	0.003	0.004	0.015	0.022	1472	605.9	0.001	0.002	0.017	0.020	1037	244.0	0.000	0.001	0.005	0.006	120
26	836.9	0.002	0.003	0.011	0.016	1128	502.1	0.001	0.001	0.014	0.017	720	245.5	0.000	0.000	0.003	0.003	72
27	1726	0.007	0.013	0.042	0.062	9186	347.2	0.001	0.001	0.010	0.012	354	231.4	0.000	0.000	0.003	0.003	68
28	981.5	0.003	0.007	0.020	0.031	2603	402.8	0.001	0.001	0.005	0.007	230	162.9	0.000	0.000	0.003	0.003	41
29	484.3	0.001	0.002	0.004	0.007	310	345.9	0.000	0.001	0.004	0.005	146	144.2	0.000	0.000	0.003	0.003	41
30	483.3	0.001	0.001	0.005	0.007	280	324.9	0.000	0.000	0.001	0.001	14	157.2	0.000	0.000	0.004	0.004	48
31							293.5	0.000	0.000	0.008	0.008	193	141.6	0.000	0.000	0.003	0.003	38
Ten Daily Mean																		
Ten Daily I	155.4	0.000	0.000	0.002	0.002	26	274.3	0.001	0.001	0.005	0.007	172	185.6	0.000	0.000	0.003	0.003	57
Ten Daily II	206.7	0.000	0.001	0.006	0.007	143	451.3	0.001	0.002	0.008	0.011	560	386.4	0.001	0.003	0.013	0.017	599
Ten Daily III	825.1	0.002	0.005	0.019	0.027	2450	534.2	0.001	0.003	0.013	0.017	1040	229.2	0.001	0.001	0.005	0.007	150
Monthly																		
Total						26190						18763						8205

Annual Sediment Load (Metric Tonnes) : 72824

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	162.6	0.000	0.000	0.004	0.004	55	512.6	0.002	0.007	0.030	0.039	1714	193.4	0.000	0.001	0.010	0.011	189
2	189.3	0.000	0.000	0.003	0.003	41	231.9	0.001	0.003	0.015	0.019	373	162.7	0.000	0.002	0.008	0.010	143
3	147.7	0.000	0.000	0.003	0.003	37	236.5	0.001	0.002	0.019	0.021	437	226.5	0.000	0.000	0.007	0.007	129
4	195.0	0.000	0.000	0.002	0.002	35	288.0	0.001	0.002	0.020	0.023	565	149.8	0.000	0.000	0.005	0.005	61
5	347.6	0.001	0.002	0.007	0.009	279	330.3	0.001	0.003	0.020	0.023	662	216.1	0.000	0.000	0.003	0.003	50
6	273.3	0.001	0.002	0.018	0.021	489	281.2	0.001	0.002	0.007	0.010	238	202.2	0.001	0.002	0.012	0.015	260
7	358.6	0.002	0.003	0.040	0.044	1366	291.9	0.000	0.000	0.005	0.005	121	144.8	0.000	0.000	0.005	0.005	58
8	319.2	0.001	0.003	0.009	0.012	331	257.4	0.000	0.000	0.004	0.004	98	209.0	0.000	0.000	0.009	0.009	163
9	267.7	0.001	0.002	0.004	0.006	141	175.7	0.000	0.000	0.004	0.004	59	165.0	0.000	0.000	0.009	0.009	125
10	260.3	0.001	0.002	0.004	0.007	151	210.8	0.000	0.000	0.002	0.002	33	109.6	0.000	0.000	0.007	0.007	65
11	160.3	0.000	0.000	0.002	0.002	29	141.5	0.000	0.001	0.004	0.005	66	90.62	0.000	0.000	0.007	0.007	56
12	146.2	0.000	0.000	0.005	0.005	67	337.8	0.001	0.005	0.014	0.019	563	106.1	0.000	0.000	0.005	0.005	46
13	151.6	0.000	0.000	0.003	0.003	42	259.8	0.001	0.003	0.007	0.011	247	304.2	0.001	0.001	0.006	0.007	194
14	229.0	0.000	0.000	0.003	0.003	51	258.7	0.001	0.002	0.004	0.006	136	199.9	0.000	0.001	0.005	0.006	100
15	303.2	0.000	0.000	0.003	0.003	71	203.8	0.001	0.001	0.008	0.010	178	113.2	0.000	0.000	0.004	0.004	38
16	88.45	0.000	0.000	0.004	0.004	31	162.3	0.001	0.001	0.004	0.006	86	133.9	0.000	0.000	0.006	0.006	67
17	239.6	0.000	0.000	0.002	0.002	39	147.8	0.000	0.000	0.001	0.001	14	245.4	0.001	0.001	0.005	0.006	136
18	219.7	0.000	0.000	0.003	0.003	53	227.3	0.000	0.000	0.004	0.004	71	183.3	0.000	0.000	0.005	0.005	76
19	230.5	0.000	0.000	0.002	0.002	32	157.4	0.000	0.000	0.004	0.004	50	203.5	0.000	0.000	0.004	0.005	88
20	249.8	0.000	0.000	0.002	0.002	45	181.3	0.000	0.000	0.002	0.002	31	142.3	0.000	0.000	0.006	0.007	80
21	157.4	0.000	0.000	0.002	0.002	22	205.3	0.000	0.000	0.004	0.004	66	225.0	0.000	0.001	0.025	0.026	506
22	155.1	0.000	0.000	0.004	0.004	47	126.8	0.000	0.000	0.003	0.003	34	159.5	0.000	0.000	0.013	0.014	190
23	200.1	0.000	0.000	0.005	0.005	81	141.5	0.001	0.004	0.013	0.018	220	134.2	0.000	0.000	0.005	0.005	58
24	176.6	0.000	0.000	0.004	0.004	56	171.9	0.001	0.005	0.016	0.022	325	220.8	0.000	0.000	0.006	0.006	107
25	247.9	0.000	0.000	0.005	0.005	103	90.62	0.001	0.003	0.008	0.012	90	137.6	0.000	0.000	0.004	0.004	44
26	192.1	0.000	0.000	0.004	0.004	58	72.48	0.001	0.006	0.015	0.022	139	164.5	0.000	0.000	0.005	0.005	70
27	280.6	0.000	0.000	0.012	0.012	296	135.1	0.001	0.002	0.008	0.010	121	179.5	0.000	0.000	0.005	0.005	71
28	292.2	0.001	0.003	0.018	0.021	528	120.2	0.000	0.000	0.003	0.003	30	196.7	0.000	0.000	0.005	0.005	78
29	249.9	0.001	0.001	0.011	0.013	272	159.8	0.000	0.000	0.004	0.004	55	171.9	0.000	0.000	0.004	0.004	58
30	207.5	0.001	0.002	0.014	0.016	290	177.4	0.000	0.000	0.009	0.009	136	194.3	0.000	0.000	0.004	0.004	72
31							150.6	0.000	0.000	0.008	0.008	105						
Ten Daily Mean																		
Ten Daily I	252.1	0.000	0.001	0.009	0.011	293	281.6	0.001	0.002	0.013	0.015	430	177.9	0.000	0.001	0.007	0.008	124
Ten Daily II	201.8	0.000	0.000	0.003	0.003	46	207.8	0.000	0.001	0.005	0.007	144	172.2	0.000	0.000	0.005	0.006	88
Ten Daily III	215.9	0.000	0.000	0.008	0.008	175	141.1	0.000	0.002	0.008	0.010	120	178.4	0.000	0.000	0.008	0.008	125
Monthly																		
Total						5139						7065						3379

Annual Sediment Load (Metric Tonnes) : 72824

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	171.9	0.000	0.000	0.004	0.004	59	18.98	0.000	0.000	0.001	0.001	1	23.12	0.000	0.000	0.001	0.001	2
2	221.5	0.000	0.000	0.003	0.003	63	30.62	0.000	0.000	0.003	0.003	8	28.22	0.000	0.000	0.004	0.004	9
3	312.3	0.002	0.008	0.029	0.038	1031	24.10	0.000	0.000	0.002	0.002	5	22.76	0.000	0.000	0.003	0.003	6
4	233.0	0.001	0.002	0.014	0.017	340	25.71	0.000	0.000	0.002	0.002	5	23.65	0.000	0.000	0.002	0.002	4
5	170.2	0.000	0.001	0.010	0.011	162	17.45	0.000	0.000	0.003	0.003	5	22.44	0.000	0.000	0.002	0.002	3
6	163.1	0.000	0.000	0.006	0.006	85	64.32	0.000	0.000	0.001	0.001	7	0.000	0.000	0.000	0.000	0.000	0
7	159.4	0.000	0.000	0.001	0.001	15	9.786	0.000	0.000	0.004	0.004	3	0.000	0.000	0.000	0.000	0.000	0
8	193.8	0.000	0.000	0.006	0.006	104	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	118.0	0.000	0.000	0.002	0.002	24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	94.98	0.000	0.000	0.002	0.002	16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	140.4	0.000	0.000	0.011	0.011	131	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	201.3	0.000	0.000	0.003	0.003	57	12.91	0.000	0.000	0.004	0.004	4	0.000	0.000	0.000	0.000	0.000	0
13	169.3	0.000	0.000	0.010	0.010	145	21.26	0.000	0.000	0.004	0.004	7	23.65	0.000	0.000	0.002	0.002	4
14	209.4	0.000	0.000	0.021	0.021	373	21.03	0.000	0.000	0.003	0.003	5	25.46	0.000	0.000	0.002	0.002	4
15	277.2	0.001	0.002	0.013	0.016	393	25.14	0.000	0.000	0.003	0.003	6	21.89	0.000	0.000	0.001	0.001	2
16	145.0	0.000	0.000	0.005	0.005	61	28.59	0.000	0.000	0.004	0.004	11	0.000	0.000	0.000	0.000	0.000	0
17	136.3	0.000	0.000	0.002	0.002	19	24.55	0.000	0.000	0.005	0.005	10	0.000	0.000	0.000	0.000	0.000	0
18	121.7	0.000	0.000	0.002	0.002	18	11.75	0.000	0.000	0.003	0.003	3	0.000	0.000	0.000	0.000	0.000	0
19	47.28	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	16.27	0.000	0.000	0.001	0.001	2
20	39.44	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	20.05	0.000	0.000	0.002	0.002	3
21	11.04	0.000	0.000	0.000	0.000	0	16.26	0.000	0.000	0.005	0.005	6	17.75	0.000	0.000	0.003	0.003	5
22	57.94	0.000	0.000	0.001	0.001	4	19.78	0.000	0.000	0.004	0.004	6	19.36	0.000	0.000	0.005	0.005	8
23	55.73	0.000	0.000	0.001	0.001	4	22.52	0.000	0.000	0.006	0.006	11	25.00	0.000	0.000	0.006	0.006	12
24	51.43	0.000	0.000	0.001	0.001	3	25.92	0.000	0.000	0.006	0.006	13	25.46	0.000	0.000	0.001	0.001	3
25	17.02	0.000	0.000	0.000	0.000	0	25.00	0.000	0.000	0.005	0.005	10	28.23	0.000	0.000	0.002	0.002	6
26	17.02	0.000	0.000	0.000	0.000	0	24.10	0.000	0.000	0.005	0.005	11	19.55	0.000	0.000	0.001	0.001	2
27	30.51	0.000	0.000	0.000	0.000	1	19.33	0.000	0.000	0.005	0.005	8	24.55	0.000	0.000	0.001	0.001	2
28	41.34	0.000	0.000	0.001	0.001	2	23.72	0.000	0.000	0.003	0.003	5	25.46	0.000	0.000	0.001	0.001	2
29	106.7	0.000	0.000	0.002	0.002	14	14.81	0.000	0.000	0.006	0.006	8	37.79	0.000	0.000	0.001	0.001	4
30	55.73	0.000	0.000	0.001	0.001	4	20.85	0.000	0.000	0.010	0.010	18						
31	49.34	0.000	0.000	0.001	0.001	3	21.03	0.000	0.000	0.005	0.005	9						
Ten Daily Mean																		
Ten Daily I	183.8	0.000	0.001	0.008	0.009	190	19.10	0.000	0.000	0.002	0.002	3	12.02	0.000	0.000	0.001	0.001	2
Ten Daily II	148.7	0.000	0.000	0.007	0.007	120	14.52	0.000	0.000	0.003	0.003	5	10.73	0.000	0.000	0.001	0.001	1
Ten Daily III	44.89	0.000	0.000	0.001	0.001	3	21.21	0.000	0.000	0.005	0.005	10	24.79	0.000	0.000	0.002	0.002	5
Monthly																		
Total						3136						186						82

Annual Sediment Load (Metric Tonnes) : 72824

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : NEELESWARAM (KS000F3) **Division : SWR Division, Kochi**

Local River : Periyar **Sub-Division : SWRSD No.2, Kochi**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	27.33	0.000	0.000	0.002	0.002	4	25.46	0.000	0.000	0.004	0.004	8	27.33	0.000	0.000	0.004	0.004	9
2	24.95	0.000	0.000	0.003	0.003	6	28.28	0.000	0.000	0.004	0.004	10	28.28	0.000	0.000	0.004	0.004	10
3	0.000	0.000	0.000	0.000	0.000	0	30.23	0.000	0.000	0.004	0.004	11	27.33	0.000	0.000	0.004	0.004	9
4	0.000	0.000	0.000	0.000	0.000	0	35.85	0.000	0.000	0.005	0.005	16	30.23	0.000	0.000	0.004	0.004	11
5	0.000	0.000	0.000	0.000	0.000	0	27.80	0.000	0.000	0.004	0.004	10	33.24	0.000	0.000	0.005	0.005	14
6	0.000	0.000	0.000	0.000	0.000	0	30.23	0.000	0.000	0.004	0.004	11	35.85	0.000	0.000	0.005	0.005	16
7	0.000	0.000	0.000	0.000	0.000	0	39.63	0.000	0.000	0.006	0.006	20	26.39	0.000	0.000	0.004	0.004	9
8	0.000	0.000	0.000	0.000	0.000	0	25.00	0.000	0.000	0.004	0.004	8	30.72	0.000	0.000	0.005	0.005	12
9	0.000	0.000	0.000	0.000	0.000	0	33.24	0.000	0.000	0.005	0.005	14	30.72	0.000	0.000	0.005	0.005	12
10	0.000	0.000	0.000	0.000	0.000	0	23.65	0.000	0.000	0.003	0.003	7	29.73	0.000	0.000	0.004	0.004	11
11	21.38	0.000	0.000	0.005	0.005	9	26.39	0.000	0.000	0.004	0.004	9	31.22	0.000	0.000	0.005	0.005	12
12	24.74	0.000	0.000	0.004	0.004	9	24.55	0.000	0.000	0.004	0.004	8	13.97	0.000	0.000	0.002	0.002	2
13	27.33	0.000	0.000	0.003	0.003	7	15.44	0.000	0.000	0.002	0.002	3	14.33	0.000	0.000	0.002	0.002	3
14	0.000	0.000	0.000	0.000	0.000	0	15.44	0.000	0.000	0.002	0.002	3	15.06	0.000	0.000	0.002	0.002	3
15	0.000	0.000	0.000	0.000	0.000	0	18.55	0.000	0.000	0.003	0.003	4	16.96	0.000	0.000	0.003	0.003	4
16	25.10	0.000	0.000	0.001	0.001	3	21.03	0.000	0.000	0.003	0.003	5	21.03	0.000	0.000	0.003	0.003	5
17	0.000	0.000	0.000	0.000	0.000	0	22.76	0.000	0.000	0.003	0.003	6	26.39	0.000	0.000	0.004	0.004	9
18	0.000	0.000	0.000	0.000	0.000	0	24.10	0.000	0.000	0.004	0.004	7	24.10	0.000	0.000	0.004	0.004	7
19	31.46	0.000	0.000	0.007	0.007	19	24.55	0.000	0.000	0.004	0.004	8	26.39	0.000	0.000	0.004	0.004	9
20	0.000	0.000	0.000	0.000	0.000	0	25.46	0.000	0.000	0.004	0.004	8	31.72	0.000	0.000	0.005	0.005	13
21	0.000	0.000	0.000	0.000	0.000	0	29.25	0.000	0.000	0.004	0.004	11	34.28	0.000	0.000	0.005	0.005	15
22	0.000	0.000	0.000	0.000	0.000	0	18.95	0.000	0.000	0.003	0.003	4	25.92	0.000	0.000	0.004	0.004	9
23	0.000	0.000	0.000	0.000	0.000	0	22.76	0.000	0.000	0.003	0.003	6	27.33	0.000	0.000	0.004	0.004	9
24	0.000	0.000	0.000	0.000	0.000	0	25.92	0.000	0.000	0.004	0.004	9	23.20	0.000	0.000	0.003	0.003	7
25	0.000	0.000	0.000	0.000	0.000	0	26.85	0.000	0.000	0.004	0.004	9	25.92	0.000	0.000	0.004	0.004	9
26	0.000	0.000	0.000	0.000	0.000	0	26.85	0.000	0.000	0.004	0.004	9	62.80	0.000	0.000	0.009	0.009	49
27	0.000	0.000	0.000	0.000	0.000	0	24.55	0.000	0.000	0.004	0.004	8	24.55	0.000	0.000	0.004	0.004	8
28	0.000	0.000	0.000	0.000	0.000	0	25.00	0.000	0.000	0.004	0.004	8	37.45	0.000	0.000	0.005	0.005	17
29	0.000	0.000	0.000	0.000	0.000	0	25.46	0.000	0.000	0.004	0.004	8	54.38	0.000	0.000	0.008	0.008	37
30	0.000	0.000	0.000	0.000	0.000	0	25.46	0.000	0.000	0.004	0.004	8	37.99	0.000	0.000	0.006	0.006	18
31	0.000	0.000	0.000	0.000	0.000	0							25.92	0.000	0.000	0.004	0.004	9
Ten Daily Mean																		
Ten Daily I	5.228	0.000	0.000	0.000	0.000	1	29.94	0.000	0.000	0.004	0.004	11	29.98	0.000	0.000	0.004	0.004	11
Ten Daily II	13.00	0.000	0.000	0.002	0.002	5	21.83	0.000	0.000	0.003	0.003	6	22.12	0.000	0.000	0.003	0.003	7
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	25.11	0.000	0.000	0.004	0.004	8	34.52	0.000	0.000	0.005	0.005	17
Monthly																		
Total						57						256						366

Annual Sediment Load (Metric Tonnes) : 72824

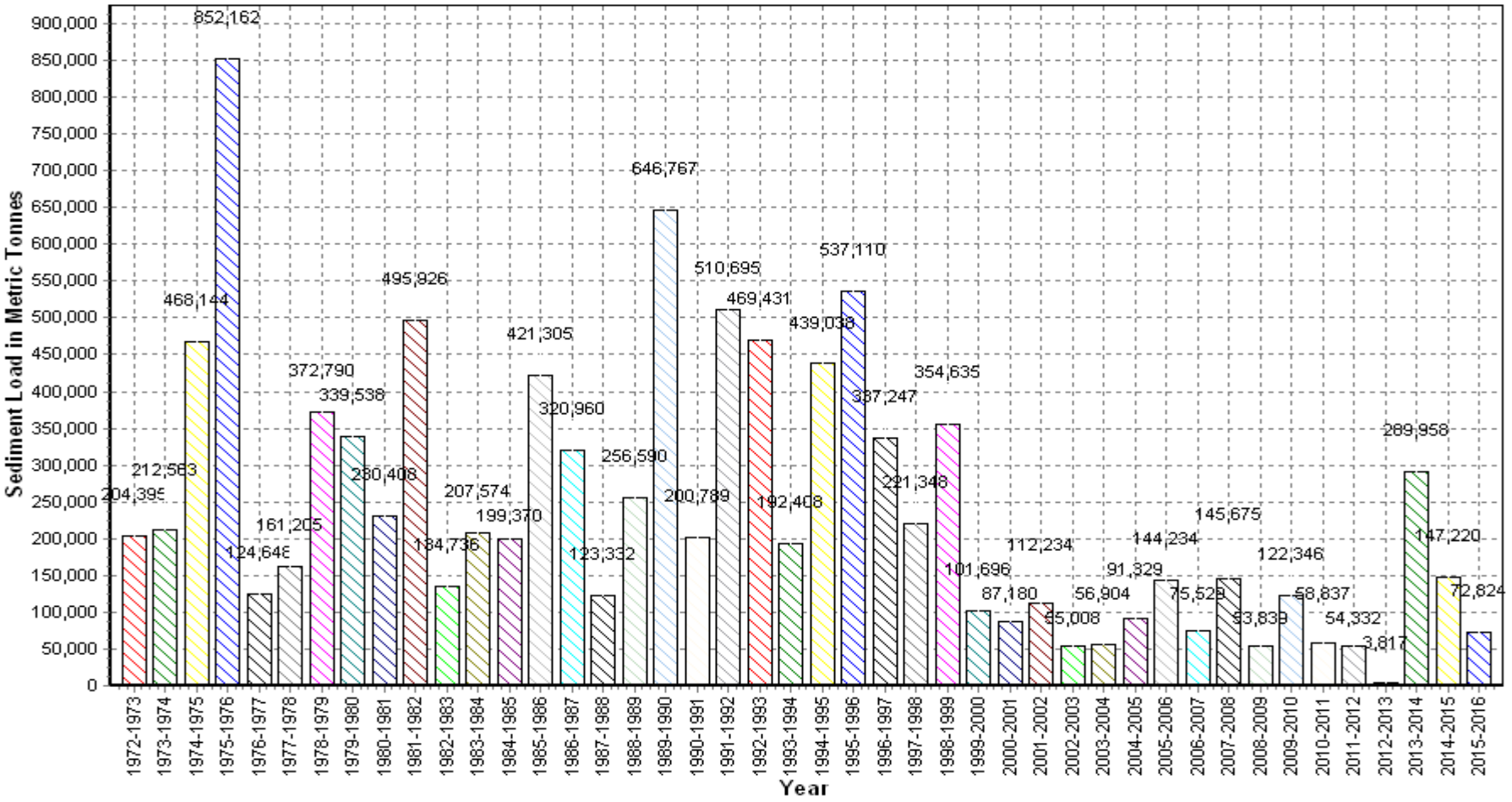
Annual Sediment Load for the period: 1972-2016

Station Name : NEELESWARAM (KS000F3)

Local River : Periyar

Division : SWR Division, Kochi

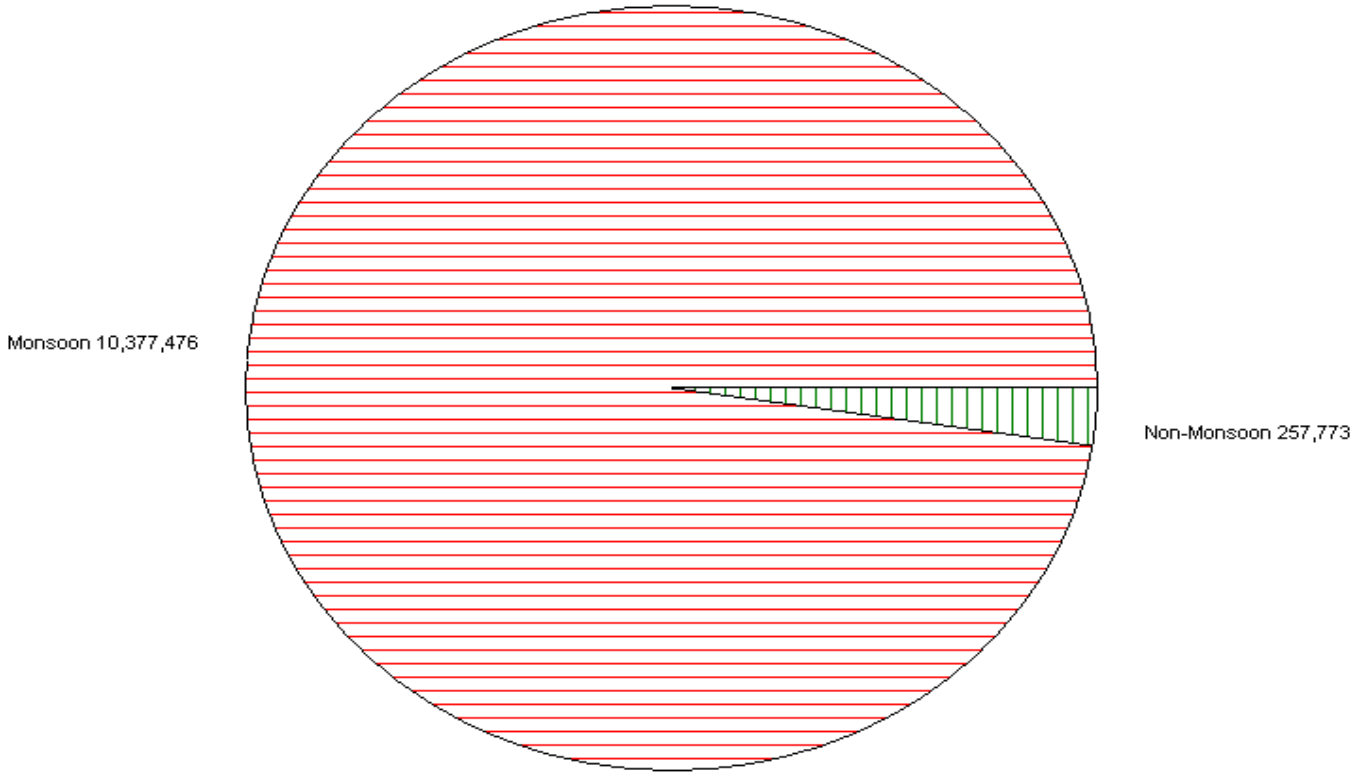
Sub-Division : SWRSD No.2, Kochi



Seasonal Sediment Load for the period : 1972-2015

Station Name : NEELESWARAM (KS000F3)
Local River : Periyar

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



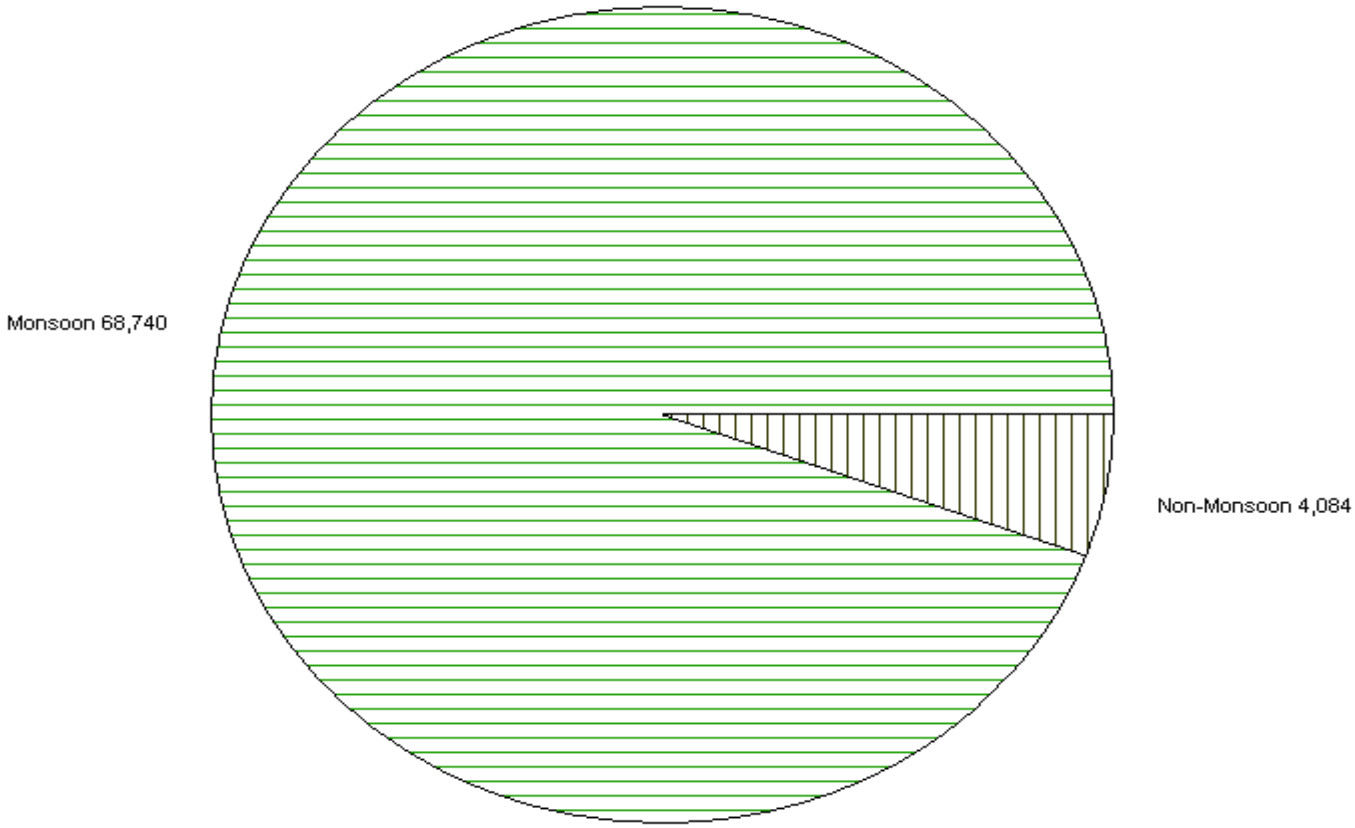
Seasonal Sediment Load for the Year: 2015-2016

Station Name : NEELESWARAM (KS000F3)

Local River : Periyar

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



618

BED MATERIAL ANALYSIS DATA

RIVER : *Periyar* **CODE NO. :** *KSOOOF3*

SITE : *Neeleswaram* **CROSS SECTION :** *SGL*

	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
									Bed Material Composition							Bed Material Composition	
SL. NO.	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**03.08.2015**						
1	60	-	3.460	0.540	4.000	20	0.485	38.80	12.0	1.42							
2	100	-	2.660	0.540	3.200	20	0.537	34.368	10.0	1.31							
3	160	-	0.260	0.540	0.800	20	0.310	4.960	16.0	1.09	262.81	1.6914	0.4085	0.00010	181.60	22.0	1.28
4	200	-	0.260	0.540	0.800	20	0.365	5.840	14.0	1.25							
5	260	-	0.160	0.540	0.700	20	0.225	3.150	22.0	1.33							
POSTMONSOON 2015									**DATE OF COLLECTION**		**15.12.2015**						
1	60	-	3.770	1.230	5.000	20	0.472	47.20	15.0	1.55							
2	100	-	2.870	1.230	4.100	20	0.412	33.680	12.0	1.10							
3	160	-	0.570	1.230	1.800	20	0.413	14.868	14.0	1.36	269.36	2.4662	0.4173	0.00012	277.2	20.	1.39
4	200	-	0.320	1.230	1.550	20	0.394	12.214	20.0	1.50							
5	260	-	0.320	1.230	1.550	20	0.376	11.656	18.0	1.42							
PREMONSOON 2016									**DATE OF COLLECTION**		**19.03.2016**						
1	60	-	3.420	0.730	4.150	20	0.092	7.636	10.0	1.28							
2	100	-	2.420	0.730	3.150	20	0.076	4.788	8.0	1.05							
3	160	-	0.320	0.730	1.050	20	0.079	1.659	6.0	1.00	265.99	1.6783	0.0706	0.00010	31.52	10.0	1.20
4	200	-	0.020	0.730	0.750	20	0.070	1.050	10.0	1.30							
5	260	-	(-)0.030	0.730	0.700	20	NIL	NIL	10.0	1.37							

Annual Sediment Load for period : 1979-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1979-1980	141204	14811	156015	4252
1980-1981	212552	13604	226156	5179
1981-1982	332851	9749	342600	6297
1982-1983	128875	4394	133269	3611
1983-1984	168109	13417	181526	4104
1984-1985	147177	10369	157546	4859
1985-1986	152210	15427	167637	5108
1986-1987	144133	7740	151873	4247
1987-1988	129176	17359	146535	4171
1988-1989	136276	9029	145305	4184
1989-1990	204484	13357	217841	5290
1990-1991	91498	11029	102527	4527
1991-1992	135122	14722	149844	4876
1992-1993	212329	17729	230059	6098
1993-1994	203126	11482	214607	5505
1994-1995	144305	15868	160173	5902
1995-1996	154759	11078	165837	5509
1996-1997	127248	12872	140120	5001
1997-1998	133839	13040	146879	4897
1998-1999	138625	23688	162313	6703
1999-2000	120259	12581	132840	5214
2000-2001	74091	14175	88267	3895
2001-2002	172501	23908	196409	5420
2002-2003	167079	11287	178366	3575
2003-2004	94957	11324	106281	3857
2004-2005	85948	14454	100402	4339
2005-2006	103929	24059	127989	6120
2006-2007	Sediment Observation Not Done			4924
2007-2008	Sediment Observation Not Done			6211
2008-2009	77045	6639	83684	3591
2009-2010	80242	8330	88572	4616
2010-2011	102768	13312	116080	5745
2011-2012	77711	12928	90639	5627
2012-2013	69289	2125	71414	3178
2013-2014	124891	11766	136656	6643
2014-2015	101859	10719	112578	5441
2015-2016	37559	8894	46453	4008

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	148.3	0.000	0.000	0.008	0.008	97	262.9	0.000	0.000	0.011	0.011	250	154.5	0.000	0.000	0.003	0.003	36
2	101.0	0.000	0.000	0.007	0.007	61	242.2	0.000	0.000	0.012	0.012	241	135.7	0.000	0.000	0.002	0.002	22
3	97.83	0.000	0.000	0.009	0.009	74	199.2	0.000	0.000	0.009	0.009	150	123.6	0.000	0.000	0.001	0.001	13
4	111.4	0.000	0.000	0.005	0.005	51	179.6	0.000	0.000	0.008	0.008	124	138.8	0.000	0.000	0.002	0.002	20
5	111.0	0.000	0.000	0.008	0.008	80	159.8	0.000	0.000	0.006	0.006	87	149.8	0.000	0.000	0.002	0.002	21
6	101.6	0.000	0.000	0.009	0.009	79	189.6	0.000	0.000	0.007	0.007	108	164.0	0.000	0.000	0.002	0.002	26
7	95.70	0.000	0.000	0.004	0.004	36	162.6	0.000	0.000	0.007	0.007	100	134.2	0.000	0.000	0.003	0.003	35
8	90.36	0.000	0.000	0.010	0.010	75	155.1	0.000	0.000	0.006	0.006	76	134.0	0.000	0.000	0.001	0.001	13
9	104.4	0.000	0.000	0.011	0.011	101	233.8	0.000	0.000	0.011	0.011	230	127.9	0.000	0.000	0.002	0.002	20
10	83.31	0.000	0.000	0.007	0.007	52	201.4	0.000	0.000	0.008	0.008	144	135.0	0.000	0.000	0.003	0.003	33
11	84.53	0.000	0.000	0.009	0.009	64	215.1	0.000	0.000	0.007	0.007	128	181.8	0.000	0.000	0.004	0.004	66
12	161.4	0.000	0.000	0.019	0.019	258	213.6	0.000	0.000	0.007	0.007	122	243.2	0.000	0.000	0.007	0.007	147
13	117.2	0.000	0.000	0.015	0.015	148	176.7	0.000	0.000	0.005	0.005	79	367.5	0.000	0.000	0.012	0.012	368
14	113.0	0.000	0.000	0.014	0.014	137	156.1	0.000	0.000	0.004	0.004	59	249.4	0.000	0.000	0.010	0.010	213
15	105.1	0.000	0.000	0.015	0.015	133	169.0	0.000	0.000	0.005	0.005	74	218.8	0.000	0.000	0.009	0.009	166
16	149.3	0.000	0.000	0.010	0.010	123	225.9	0.000	0.000	0.011	0.011	209	232.2	0.000	0.000	0.009	0.009	189
17	136.7	0.000	0.000	0.010	0.010	122	199.4	0.000	0.000	0.007	0.007	121	178.8	0.000	0.000	0.008	0.008	116
18	133.0	0.000	0.000	0.010	0.010	117	376.3	0.000	0.002	0.029	0.031	992	199.1	0.000	0.001	0.013	0.014	241
19	163.2	0.000	0.000	0.008	0.008	107	327.6	0.000	0.003	0.025	0.028	787	228.3	0.000	0.001	0.009	0.009	185
20	192.3	0.000	0.000	0.011	0.011	179	318.8	0.000	0.003	0.033	0.035	969	173.2	0.000	0.000	0.002	0.002	30
21	151.6	0.000	0.000	0.006	0.006	83	305.9	0.000	0.001	0.006	0.007	193	170.4	0.000	0.000	0.001	0.001	18
22	200.2	0.000	0.000	0.006	0.006	97	442.5	0.000	0.002	0.016	0.018	677	169.8	0.000	0.000	0.002	0.002	25
23	228.3	0.000	0.001	0.017	0.017	337	307.9	0.000	0.001	0.006	0.006	170	159.8	0.000	0.000	0.001	0.001	19
24	253.9	0.000	0.002	0.017	0.018	404	305.7	0.000	0.000	0.004	0.004	103	148.1	0.000	0.000	0.001	0.001	17
25	239.6	0.000	0.001	0.015	0.016	340	296.1	0.000	0.001	0.013	0.014	350	127.9	0.000	0.000	0.001	0.001	11
26	337.8	0.000	0.002	0.021	0.022	645	232.2	0.000	0.001	0.008	0.008	165	119.1	0.000	0.000	0.001	0.001	11
27	740.9	0.002	0.014	0.052	0.069	4391	217.1	0.000	0.000	0.005	0.005	84	147.0	0.000	0.000	0.002	0.002	20
28	715.9	0.001	0.010	0.042	0.052	3241	194.2	0.000	0.000	0.004	0.004	67	119.3	0.000	0.000	0.001	0.001	13
29	417.2	0.001	0.001	0.015	0.017	616	177.5	0.000	0.000	0.003	0.003	52	110.9	0.000	0.000	0.001	0.001	11
30	348.8	0.000	0.001	0.011	0.012	368	188.6	0.000	0.000	0.003	0.003	46	107.8	0.000	0.000	0.001	0.001	11
31							171.6	0.000	0.000	0.002	0.002	27	90.73	0.000	0.000	0.001	0.001	9
Ten Daily Mean																		
Ten Daily I	104.5	0.000	0.000	0.008	0.008	71	198.6	0.000	0.000	0.008	0.008	151	139.8	0.000	0.000	0.002	0.002	24
Ten Daily II	135.6	0.000	0.000	0.012	0.012	139	237.8	0.000	0.001	0.013	0.014	354	227.2	0.000	0.000	0.008	0.008	172
Ten Daily III	363.4	0.000	0.003	0.020	0.024	1052	258.1	0.000	0.000	0.006	0.007	176	133.7	0.000	0.000	0.001	0.001	15
Monthly																		
Total						12614						6985						2126

Annual Sediment Load (Metric Tonnes) : 46453

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	99.53	0.000	0.000	0.001	0.001	9	350.0	0.000	0.000	0.039	0.039	1176	162.2	0.000	0.000	0.014	0.014	200
2	151.9	0.000	0.000	0.002	0.002	21	271.2	0.000	0.000	0.019	0.019	438	160.8	0.000	0.001	0.014	0.014	197
3	95.46	0.000	0.000	0.002	0.002	16	212.7	0.000	0.000	0.004	0.004	72	120.0	0.000	0.000	0.002	0.002	20
4	159.0	0.000	0.000	0.002	0.002	26	236.3	0.000	0.000	0.007	0.007	141	159.2	0.000	0.000	0.006	0.006	88
5	227.7	0.000	0.001	0.023	0.024	470	178.7	0.000	0.000	0.008	0.008	116	244.1	0.000	0.003	0.031	0.034	713
6	293.0	0.000	0.004	0.021	0.025	633	223.5	0.000	0.000	0.001	0.001	25	213.6	0.000	0.001	0.020	0.021	384
7	296.7	0.000	0.000	0.014	0.014	354	169.0	0.000	0.000	0.006	0.006	85	206.1	0.000	0.001	0.014	0.015	265
8	257.4	0.000	0.000	0.009	0.009	205	208.3	0.000	0.000	0.005	0.005	88	355.6	0.000	0.001	0.020	0.020	624
9	193.9	0.000	0.000	0.006	0.006	107	187.5	0.000	0.000	0.004	0.004	58	217.8	0.000	0.000	0.009	0.009	175
10	174.7	0.000	0.000	0.005	0.005	75	187.0	0.000	0.000	0.007	0.007	116	182.9	0.000	0.000	0.007	0.007	111
11	161.8	0.000	0.000	0.003	0.003	35	182.9	0.000	0.000	0.006	0.006	95	147.5	0.000	0.000	0.005	0.005	60
12	151.2	0.000	0.000	0.001	0.001	17	168.4	0.000	0.000	0.005	0.005	65	121.7	0.000	0.000	0.005	0.005	47
13	135.7	0.000	0.000	0.003	0.003	40	225.6	0.000	0.000	0.008	0.008	162	204.9	0.000	0.001	0.023	0.024	421
14	130.1	0.000	0.000	0.006	0.006	64	221.5	0.000	0.001	0.027	0.027	524	152.8	0.000	0.000	0.014	0.015	191
15	137.2	0.000	0.000	0.002	0.002	24	141.4	0.000	0.000	0.008	0.008	97	135.7	0.000	0.000	0.010	0.011	124
16	104.4	0.000	0.000	0.004	0.004	40	168.1	0.000	0.000	0.007	0.007	108	99.38	0.000	0.000	0.005	0.005	44
17	137.7	0.000	0.000	0.002	0.002	27	178.2	0.000	0.000	0.002	0.002	32	101.3	0.000	0.000	0.005	0.005	42
18	155.1	0.000	0.000	0.006	0.006	82	114.0	0.000	0.000	0.002	0.002	19	115.5	0.000	0.000	0.005	0.005	45
19	156.1	0.000	0.000	0.006	0.006	74	158.8	0.000	0.000	0.004	0.004	49	104.1	0.000	0.000	0.013	0.013	116
20	152.8	0.000	0.000	0.004	0.004	53	114.6	0.000	0.000	0.004	0.004	41	176.6	0.000	0.001	0.012	0.013	197
21	106.4	0.000	0.000	0.001	0.001	13	132.2	0.000	0.000	0.002	0.002	23	157.5	0.000	0.001	0.009	0.009	124
22	129.4	0.000	0.000	0.002	0.002	17	140.8	0.000	0.000	0.007	0.007	81	120.4	0.000	0.000	0.006	0.006	64
23	154.9	0.000	0.000	0.003	0.003	40	132.3	0.000	0.000	0.009	0.009	98	112.1	0.000	0.000	0.005	0.005	46
24	137.9	0.000	0.000	0.004	0.004	51	144.7	0.000	0.000	0.011	0.011	136	98.94	0.000	0.000	0.005	0.005	40
25	217.6	0.000	0.001	0.008	0.009	165	186.6	0.000	0.000	0.015	0.015	243	95.70	0.000	0.000	0.005	0.005	39
26	197.9	0.000	0.001	0.011	0.011	188	110.7	0.000	0.000	0.010	0.010	93	74.50	0.000	0.000	0.004	0.004	25
27	312.4	0.000	0.002	0.030	0.031	839	96.66	0.000	0.000	0.003	0.003	24	100.7	0.000	0.000	0.005	0.005	45
28	281.0	0.000	0.002	0.035	0.037	891	90.26	0.000	0.000	0.008	0.008	62	108.3	0.000	0.000	0.005	0.005	46
29	263.4	0.000	0.001	0.017	0.018	405	134.9	0.000	0.000	0.010	0.010	111	111.9	0.000	0.000	0.005	0.005	51
30	389.2	0.000	0.003	0.046	0.048	1614	117.3	0.000	0.000	0.009	0.009	92	87.58	0.000	0.000	0.004	0.004	33
31							157.1	0.000	0.000	0.014	0.014	187						
Ten Daily Mean																		
Ten Daily I	194.9	0.000	0.001	0.008	0.009	192	222.4	0.000	0.000	0.010	0.010	232	202.2	0.000	0.001	0.014	0.014	278
Ten Daily II	142.2	0.000	0.000	0.004	0.004	46	167.3	0.000	0.000	0.007	0.007	119	135.9	0.000	0.000	0.010	0.010	129
Ten Daily III	219.0	0.000	0.001	0.016	0.016	422	131.2	0.000	0.000	0.009	0.009	105	106.8	0.000	0.000	0.005	0.005	51
Monthly Total						6596						4659						4579

Annual Sediment Load (Metric Tonnes) : 46453

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	79.72	0.000	0.000	0.004	0.004	30	41.16	0.000	0.000	0.005	0.005	17	43.80	0.000	0.000	0.001	0.001	4
2	145.2	0.000	0.000	0.006	0.006	77	43.69	0.000	0.000	0.004	0.004	14	41.56	0.000	0.000	0.001	0.001	4
3	184.1	0.000	0.001	0.011	0.012	186	41.03	0.000	0.000	0.004	0.004	14	32.83	0.000	0.000	0.002	0.002	7
4	240.3	0.000	0.001	0.017	0.018	382	40.15	0.000	0.000	0.004	0.004	14	36.70	0.000	0.000	0.002	0.002	8
5	120.4	0.000	0.000	0.009	0.009	96	45.18	0.000	0.000	0.005	0.005	18	45.29	0.000	0.000	0.001	0.001	5
6	88.12	0.000	0.000	0.006	0.006	48	41.92	0.000	0.000	0.003	0.003	9	55.36	0.000	0.000	0.004	0.004	21
7	82.41	0.000	0.000	0.006	0.006	41	44.73	0.000	0.000	0.001	0.001	3	38.42	0.000	0.000	0.002	0.002	8
8	97.96	0.000	0.000	0.007	0.007	55	47.92	0.000	0.000	0.002	0.002	7	42.73	0.000	0.000	0.002	0.002	6
9	76.57	0.000	0.000	0.001	0.001	9	45.52	0.000	0.000	0.002	0.002	9	48.69	0.000	0.000	0.004	0.004	16
10	83.55	0.000	0.000	0.002	0.002	13	48.30	0.000	0.000	0.003	0.003	11	57.18	0.000	0.000	0.004	0.004	18
11	79.38	0.000	0.000	0.004	0.004	27	45.87	0.000	0.000	0.003	0.003	11	59.12	0.000	0.000	0.004	0.004	22
12	82.41	0.000	0.000	0.005	0.005	37	46.44	0.000	0.000	0.003	0.003	12	57.66	0.000	0.000	0.002	0.002	9
13	149.4	0.000	0.001	0.025	0.026	334	49.23	0.000	0.000	0.003	0.003	13	78.36	0.000	0.000	0.003	0.003	20
14	240.3	0.000	0.002	0.048	0.051	1052	51.37	0.000	0.000	0.003	0.003	14	55.97	0.000	0.000	0.004	0.004	21
15	242.2	0.000	0.002	0.047	0.049	1019	54.01	0.000	0.000	0.005	0.005	23	59.86	0.000	0.000	0.008	0.008	41
16	270.6	0.000	0.001	0.029	0.030	704	46.11	0.000	0.000	0.006	0.006	23	44.37	0.000	0.000	0.006	0.006	23
17	185.9	0.000	0.000	0.014	0.014	225	49.23	0.000	0.000	0.008	0.008	33	44.24	0.000	0.000	0.009	0.009	36
18	124.7	0.000	0.000	0.005	0.005	52	43.02	0.000	0.000	0.008	0.008	30	51.34	0.000	0.000	0.005	0.005	22
19	97.55	0.000	0.000	0.006	0.006	51	36.99	0.000	0.000	0.005	0.005	17	47.93	0.000	0.000	0.002	0.002	7
20	96.34	0.000	0.000	0.007	0.007	61	42.68	0.000	0.000	0.005	0.005	18	46.52	0.000	0.000	0.004	0.004	18
21	86.78	0.000	0.000	0.008	0.008	60	46.00	0.000	0.000	0.001	0.001	4	81.28	0.000	0.000	0.011	0.011	79
22	74.17	0.000	0.000	0.004	0.004	24	47.02	0.000	0.000	0.006	0.006	24	51.86	0.000	0.000	0.009	0.009	41
23	58.15	0.000	0.000	0.003	0.003	14	59.52	0.000	0.000	0.005	0.005	26	72.01	0.000	0.000	0.008	0.008	50
24	50.18	0.000	0.000	0.003	0.003	12	46.44	0.000	0.000	0.003	0.003	13	73.41	0.000	0.000	0.009	0.009	56
25	55.97	0.000	0.000	0.003	0.003	15	46.71	0.000	0.000	0.002	0.002	9	73.22	0.000	0.000	0.006	0.006	36
26	55.61	0.000	0.000	0.003	0.003	16	52.08	0.000	0.000	0.001	0.001	5	48.56	0.000	0.000	0.010	0.010	42
27	48.30	0.000	0.000	0.002	0.002	10	90.32	0.000	0.000	0.001	0.001	9	69.00	0.000	0.000	0.007	0.007	42
28	56.20	0.000	0.000	0.002	0.002	10	67.62	0.000	0.000	0.001	0.001	8	65.07	0.000	0.000	0.008	0.008	47
29	50.26	0.000	0.000	0.006	0.006	24	42.41	0.000	0.000	0.001	0.001	5	48.84	0.000	0.000	0.008	0.008	35
30	45.76	0.000	0.000	0.002	0.002	6	43.10	0.000	0.000	0.001	0.001	4						
31	41.13	0.000	0.000	0.001	0.001	5	43.71	0.000	0.000	0.001	0.001	5						
Ten Daily Mean																		
Ten Daily I	119.8	0.000	0.000	0.007	0.007	94	43.96	0.000	0.000	0.003	0.003	12	44.26	0.000	0.000	0.002	0.002	9
Ten Daily II	156.9	0.000	0.001	0.019	0.020	356	46.50	0.000	0.000	0.005	0.005	19	54.54	0.000	0.000	0.005	0.005	22
Ten Daily III	56.59	0.000	0.000	0.003	0.003	18	53.18	0.000	0.000	0.002	0.002	10	64.80	0.000	0.000	0.009	0.009	47
Monthly Total						4694						421						742

Annual Sediment Load (Metric Tonnes) : 46453

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : RAMAMANGALAM (KM000I2) **Division : SWR Division, Kochi**

Local River : Muvattupuzha **Sub-Division : SWRSD No.2, Kochi**

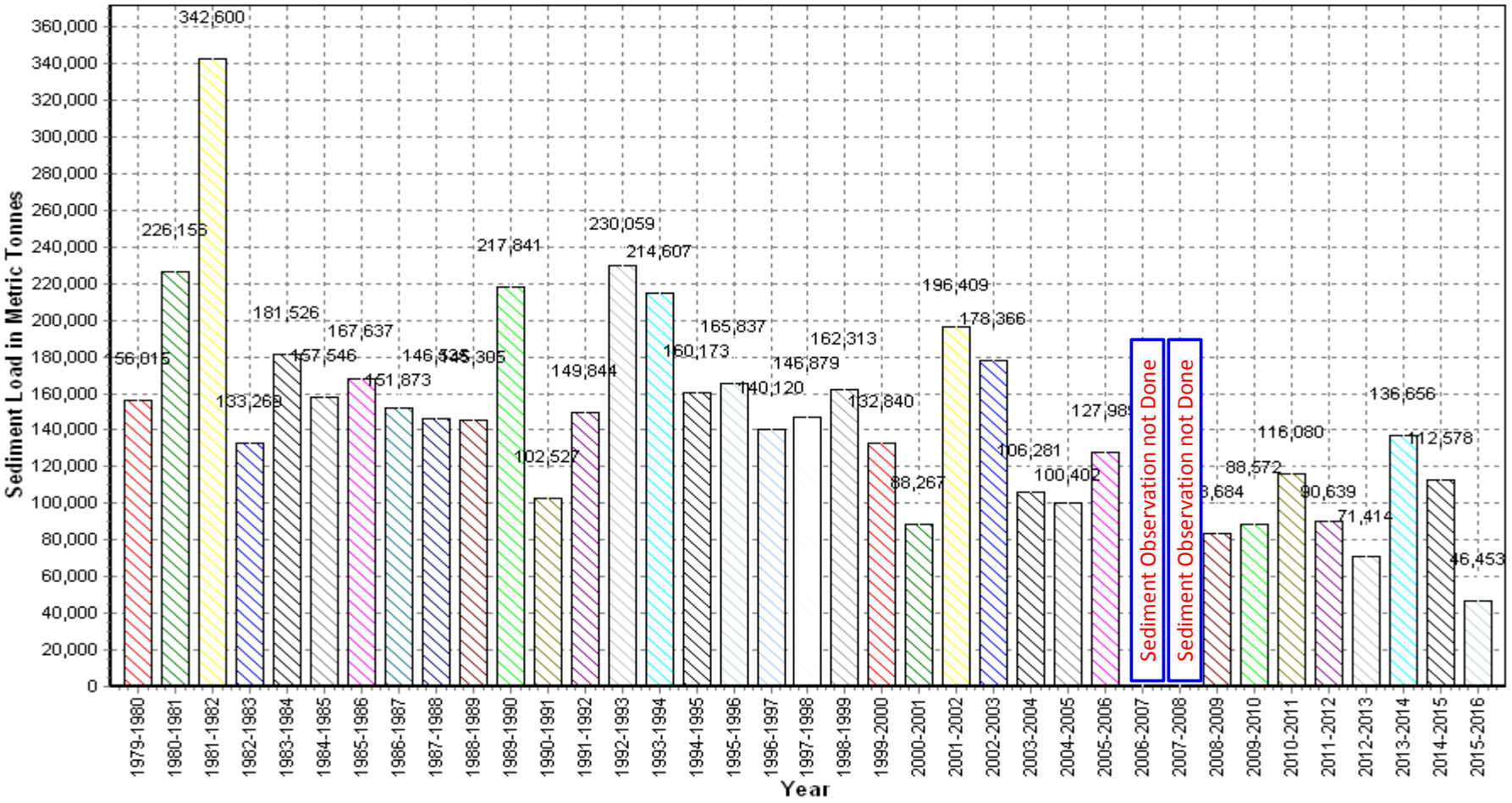
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	48.52	0.000	0.000	0.006	0.006	25	73.82	0.000	0.000	0.007	0.007	41	68.21	0.000	0.000	0.003	0.003	17
2	52.59	0.000	0.000	0.007	0.007	30	74.85	0.000	0.000	0.005	0.005	34	46.94	0.000	0.000	0.002	0.002	8
3	62.37	0.000	0.000	0.006	0.006	31	79.05	0.000	0.000	0.005	0.005	31	75.07	0.000	0.000	0.009	0.009	60
4	58.82	0.000	0.000	0.006	0.006	32	69.23	0.000	0.000	0.004	0.004	22	75.88	0.000	0.000	0.008	0.008	54
5	67.47	0.000	0.000	0.007	0.007	39	76.88	0.000	0.000	0.004	0.004	24	75.47	0.000	0.000	0.005	0.005	33
6	77.94	0.000	0.000	0.008	0.008	57	78.82	0.000	0.000	0.004	0.004	24	74.99	0.000	0.000	0.005	0.005	31
7	69.27	0.000	0.000	0.008	0.008	46	78.73	0.000	0.000	0.003	0.003	22	63.45	0.000	0.000	0.009	0.009	51
8	56.63	0.000	0.000	0.007	0.007	32	70.28	0.000	0.000	0.003	0.003	18	56.96	0.000	0.000	0.008	0.008	41
9	67.15	0.000	0.000	0.006	0.006	36	84.98	0.000	0.000	0.004	0.004	26	47.88	0.000	0.000	0.007	0.007	29
10	74.42	0.000	0.000	0.007	0.007	42	61.98	0.000	0.000	0.003	0.003	13	44.39	0.000	0.000	0.007	0.007	26
11	76.68	0.000	0.000	0.007	0.007	46	52.48	0.000	0.000	0.002	0.002	10	61.11	0.000	0.000	0.006	0.006	32
12	74.19	0.000	0.000	0.006	0.006	37	53.17	0.000	0.000	0.002	0.002	10	49.25	0.000	0.000	0.007	0.007	28
13	85.82	0.000	0.000	0.009	0.009	64	47.77	0.000	0.000	0.002	0.002	8	42.60	0.000	0.000	0.002	0.002	8
14	48.79	0.000	0.000	0.007	0.007	27	59.96	0.000	0.000	0.002	0.002	12	52.92	0.000	0.000	0.001	0.001	4
15	57.50	0.000	0.000	0.005	0.005	24	62.56	0.000	0.000	0.003	0.003	14	58.95	0.000	0.000	0.004	0.004	21
16	76.06	0.000	0.000	0.004	0.004	26	60.78	0.000	0.000	0.002	0.002	13	57.95	0.000	0.000	0.006	0.006	28
17	78.13	0.000	0.000	0.006	0.006	42	72.48	0.000	0.000	0.003	0.003	18	52.30	0.000	0.000	0.007	0.007	30
18	76.19	0.000	0.000	0.007	0.007	43	54.55	0.000	0.000	0.002	0.002	10	54.41	0.000	0.000	0.008	0.008	35
19	72.59	0.000	0.000	0.009	0.009	55	54.73	0.000	0.000	0.002	0.002	10	54.86	0.000	0.000	0.006	0.006	27
20	79.05	0.000	0.000	0.008	0.008	53	65.07	0.000	0.000	0.003	0.003	15	70.69	0.000	0.000	0.010	0.010	58
21	62.35	0.000	0.000	0.005	0.005	24	78.14	0.000	0.000	0.003	0.003	21	66.11	0.000	0.000	0.008	0.008	44
22	51.61	0.000	0.000	0.008	0.008	37	64.76	0.000	0.000	0.003	0.003	15	60.97	0.000	0.000	0.006	0.006	34
23	63.15	0.000	0.000	0.008	0.008	44	63.31	0.000	0.000	0.003	0.003	14	50.21	0.000	0.000	0.005	0.005	20
24	71.86	0.000	0.000	0.009	0.009	54	72.48	0.000	0.000	0.003	0.003	19	45.85	0.000	0.000	0.004	0.004	16
25	77.94	0.000	0.000	0.010	0.010	66	69.89	0.000	0.000	0.003	0.003	18	68.73	0.000	0.000	0.005	0.005	30
26	51.18	0.000	0.000	0.007	0.007	30	70.43	0.000	0.000	0.003	0.003	18	111.0	0.000	0.000	0.014	0.014	132
27	63.01	0.000	0.000	0.010	0.010	52	93.37	0.000	0.000	0.004	0.004	31	79.44	0.000	0.000	0.006	0.006	41
28	45.50	0.000	0.000	0.008	0.008	31	72.83	0.000	0.000	0.003	0.003	19	83.60	0.000	0.000	0.002	0.002	12
29	73.15	0.000	0.000	0.011	0.011	68	73.57	0.000	0.000	0.003	0.003	19	97.53	0.000	0.000	0.005	0.005	43
30	78.92	0.000	0.000	0.009	0.009	61	74.11	0.000	0.000	0.003	0.003	19	106.3	0.000	0.000	0.008	0.008	77
31	73.10	0.000	0.000	0.009	0.009	54							117.1	0.000	0.000	0.009	0.009	92
Ten Daily Mean																		
Ten Daily I	63.52	0.000	0.000	0.007	0.007	37	74.86	0.000	0.000	0.004	0.004	25	62.92	0.000	0.000	0.006	0.006	35
Ten Daily II	72.50	0.000	0.000	0.007	0.007	42	58.35	0.000	0.000	0.002	0.002	12	55.50	0.000	0.000	0.005	0.005	27
Ten Daily III	64.71	0.000	0.000	0.008	0.008	48	73.29	0.000	0.000	0.003	0.003	19	80.62	0.000	0.000	0.007	0.007	49
Monthly																		
Total						1311						565						1161

Annual Sediment Load (Metric Tonnes) : 46453

Annual Sediment Load for the period: 1979-2016

Station Name : RAMAMANGALAM (KM000I2)
Local River : Muvattupuzha

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



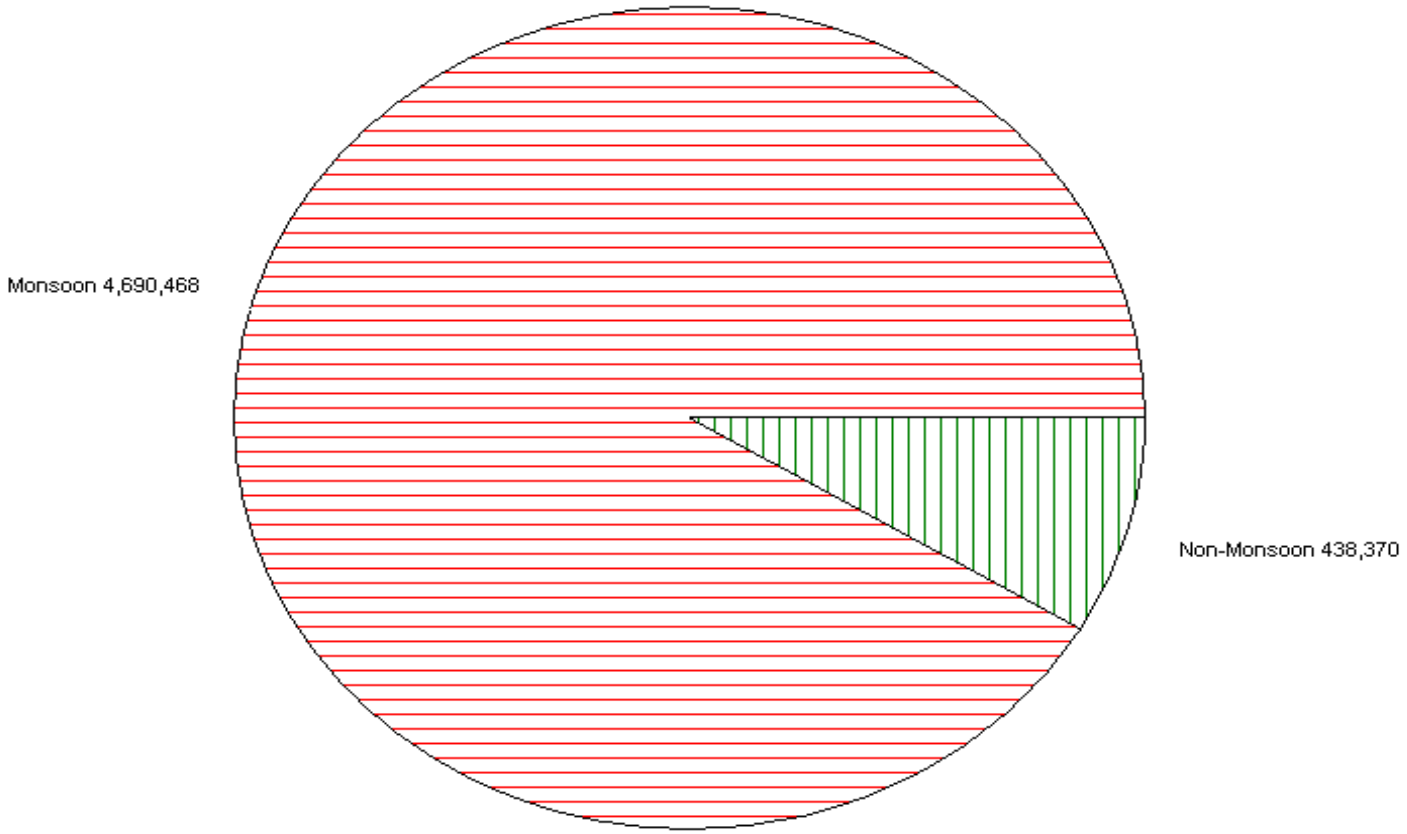
Seasonal Sediment Load for the period : 1979-2015

Station Name : RAMAMANGALAM (KM000I2)

Local River : Muvattupuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



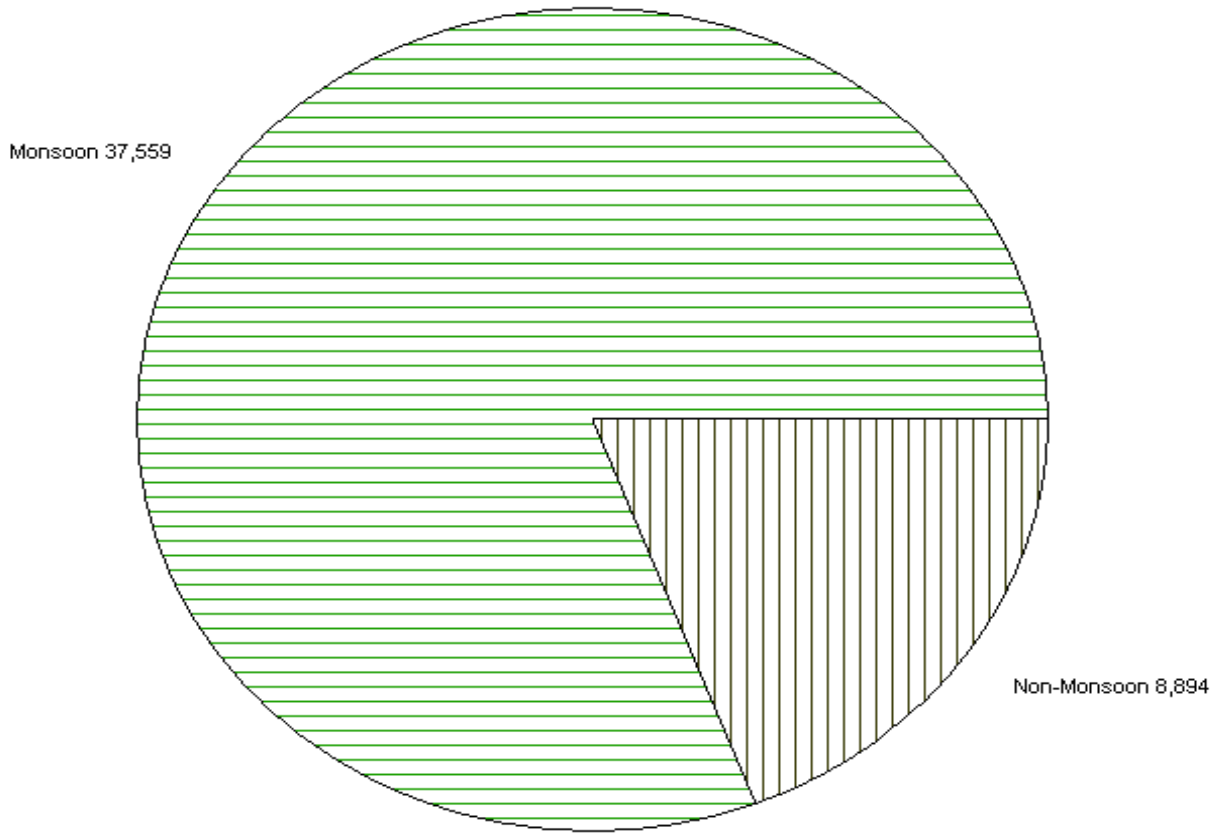
Seasonal Sediment Load for the Year: 2015-2016

Station Name : RAMAMANGALAM (KM000I2)

Local River : Muvattupuzha

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



BED MATERIAL ANALYSIS DATA

RIVER : *Muvattupuzha* **CODE NO. :** *KM000I2*

SITE : *Ramamangalam* **CROSS SECTION :** *SGL*

	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
									Bed Material Composition							Bed Material Composition	
SL. NO.	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**26.10.2015**						
1	50	-	0.430	1.240	0.81	16.0	0.351	2.275	14.0	3.02							
2	100	-	(-)0.470	1.240	1.66	50.0	0.774	10.28	15.0	2.66	118.28	1.4127	0.6625	0.00027	110.27	15.0	2.96
3	150	-	0.290	1.240	0.95	50.0	0.351	2.668	14.0	3.21							
POSTMONSOON 2015									**DATE OF COLLECTION**		**28.12.2015**						
1	50	-	0.260	0.680	0.42	14.0	0.153	0.5141	15.0	3.10							
2	100	-	(-)0.610	0.680	1.29	50.0	0.652	6.7280	18.0	3.52	116.18	0.9496	0.5093	0.0020	56.19	18.0	3.13
3	150	-	0.140	0.680	0.54	50.0	0.153	0.6610	14.0	2.76							
PREMONSOON 2016									**DATE OF COLLECTION**		**20.05.2016**						
1	50	-	0.100	0.890	0.79	16.0	0.270	1.7064	22.0	3.18							
2	100	-	(-)0.600	0.890	1.49	50.0	0.665	7.9268	25.0	3.20	118.25	1.1877	0.5033	0.00020	70.69	25.0	3.27
3	150	-	0.690	0.890	0.20	50.0	0.112	0.2598	25.0	3.44							

Annual Sediment Load for period : 1988-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1988-1989	52092	512	52604	1029
1989-1990	71969	665	72634	1380
1990-1991	33902	69	33971	956
1991-1992	42029	125	42153	1049
1992-1993	46536	83	46620	1340
1993-1994	58944	281	59225	1062
1994-1995	42505	3898	46403	1329
1995-1996	43160	153	43312	1257
1996-1997	35091	827	35918	1214
1997-1998	39710	609	40319	1148
1998-1999	38149	2308	40457	1578
1999-2000	37492	250	37742	1238
2000-2001	29050	215	29265	945
2001-2002	40383	480	40862	1252
2002-2003	22687	285	22972	840
2003-2004	24237	339	24577	877
2004-2005	27821	38	27859	930
2005-2006	47166	3310	50476	1496
2006-2007	Sediment Observation Not Done			1278
2007-2008	Sediment Observation Not Done			1419
2008-2009	19417	14	19432	795
2009-2010	23294	197	23491	901
2010-2011	26786	239	27025	1167
2011-2012	6257	9	6265	1056
2012-2013	2566	7	2573	719
2013-2014	10075	71	10146	1534
2014-2015	7369	150	7519	1468
2015-2016	3135	185	3319	951

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	16.46	0.000	0.000	0.001	0.001	2	85.56	0.000	0.001	0.002	0.003	18	38.94	0.000	0.000	0.001	0.001	3
2	5.724	0.000	0.000	0.001	0.001	1	63.30	0.000	0.000	0.002	0.002	9	32.42	0.000	0.000	0.004	0.004	10
3	5.149	0.000	0.000	0.001	0.001	1	48.41	0.000	0.000	0.001	0.001	5	40.72	0.000	0.000	0.008	0.008	27
4	17.17	0.000	0.000	0.001	0.001	2	48.36	0.000	0.000	0.002	0.002	8	41.85	0.000	0.000	0.001	0.001	3
5	19.07	0.000	0.000	0.001	0.001	2	37.16	0.000	0.000	0.001	0.001	4	49.33	0.000	0.000	0.001	0.001	4
6	10.10	0.000	0.000	0.001	0.001	1	73.62	0.000	0.001	0.001	0.002	15	44.05	0.000	0.000	0.001	0.001	4
7	7.647	0.000	0.000	0.001	0.001	1	49.72	0.000	0.000	0.001	0.001	6	41.47	0.000	0.000	0.001	0.001	3
8	5.919	0.000	0.000	0.001	0.001	1	48.80	0.000	0.000	0.002	0.002	7	41.05	0.000	0.000	0.001	0.001	4
9	14.22	0.000	0.000	0.002	0.002	3	77.98	0.001	0.002	0.002	0.005	33	43.20	0.000	0.000	0.001	0.001	4
10	10.01	0.000	0.000	0.001	0.001	1	77.60	0.000	0.001	0.002	0.003	18	41.77	0.000	0.000	0.001	0.001	4
11	8.095	0.000	0.000	0.002	0.002	2	79.50	0.002	0.002	0.002	0.005	36	73.27	0.000	0.001	0.001	0.002	15
12	17.39	0.000	0.000	0.002	0.002	3	83.67	0.001	0.002	0.002	0.005	35	122.1	0.002	0.002	0.002	0.006	62
13	10.06	0.000	0.000	0.002	0.002	2	61.60	0.000	0.001	0.002	0.003	14	218.2	0.003	0.003	0.003	0.009	166
14	17.24	0.000	0.000	0.003	0.003	4	47.77	0.000	0.000	0.002	0.002	7	102.7	0.002	0.003	0.003	0.008	70
15	16.31	0.000	0.000	0.002	0.002	3	51.56	0.000	0.000	0.001	0.001	6	87.23	0.001	0.001	0.002	0.004	32
16	34.80	0.000	0.000	0.001	0.001	3	65.76	0.000	0.000	0.001	0.001	6	96.39	0.001	0.001	0.002	0.005	40
17	28.13	0.000	0.000	0.001	0.001	3	66.12	0.000	0.000	0.001	0.001	7	73.61	0.000	0.000	0.001	0.001	6
18	52.41	0.002	0.002	0.003	0.007	33	130.9	0.002	0.002	0.003	0.007	81	68.25	0.000	0.000	0.001	0.001	5
19	48.07	0.002	0.002	0.002	0.005	22	123.9	0.002	0.002	0.003	0.007	74	53.08	0.000	0.000	0.001	0.001	5
20	54.79	0.000	0.001	0.001	0.002	10	110.6	0.002	0.003	0.003	0.009	81	50.50	0.000	0.000	0.001	0.001	4
21	56.80	0.001	0.002	0.002	0.005	24	175.2	0.003	0.003	0.004	0.010	147	40.05	0.000	0.000	0.001	0.001	3
22	98.26	0.002	0.003	0.003	0.009	72	182.1	0.000	0.001	0.002	0.003	47	56.92	0.000	0.000	0.001	0.001	5
23	109.4	0.004	0.004	0.004	0.012	113	128.6	0.000	0.000	0.001	0.001	14	46.47	0.000	0.000	0.001	0.001	4
24	95.35	0.001	0.002	0.003	0.005	43	193.1	0.000	0.001	0.002	0.003	43	41.27	0.000	0.000	0.001	0.001	3
25	93.57	0.000	0.002	0.003	0.005	38	112.5	0.000	0.000	0.001	0.001	13	34.24	0.000	0.000	0.001	0.001	3
26	155.3	0.002	0.002	0.003	0.008	103	91.33	0.000	0.000	0.001	0.001	9	30.91	0.000	0.000	0.001	0.001	3
27	215.6	0.003	0.003	0.004	0.010	181	76.28	0.000	0.000	0.001	0.001	7	28.49	0.000	0.000	0.001	0.001	3
28	214.6	0.003	0.004	0.004	0.012	219	69.61	0.000	0.000	0.001	0.001	7	24.10	0.000	0.000	0.001	0.001	2
29	133.0	0.003	0.003	0.003	0.009	108	57.71	0.000	0.000	0.001	0.001	5	22.69	0.000	0.000	0.001	0.001	2
30	117.7	0.002	0.002	0.002	0.005	53	49.33	0.000	0.000	0.001	0.001	6	19.02	0.000	0.000	0.001	0.001	1
31							43.74	0.000	0.000	0.001	0.001	3	17.68	0.000	0.000	0.001	0.001	2
Ten Daily Mean																		
Ten Daily I	11.15	0.000	0.000	0.001	0.001	1	61.05	0.000	0.001	0.002	0.002	12	41.48	0.000	0.000	0.002	0.002	7
Ten Daily II	28.73	0.000	0.001	0.002	0.003	8	82.14	0.001	0.001	0.002	0.004	35	94.53	0.001	0.001	0.002	0.004	41
Ten Daily III	129.0	0.002	0.003	0.003	0.008	95	107.2	0.000	0.001	0.001	0.002	27	32.90	0.000	0.000	0.001	0.001	3
Monthly																		
Total						1052						774						503

Annual Sediment Load (Metric Tonnes) : 3319

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	16.51	0.000	0.000	0.001	0.001	1	99.90	0.000	0.000	0.001	0.001	11	31.21	0.001	0.002	0.002	0.005	13
2	14.77	0.000	0.000	0.001	0.001	1	74.84	0.000	0.000	0.001	0.001	7	45.20	0.000	0.002	0.002	0.004	14
3	13.33	0.000	0.000	0.001	0.001	1	68.44	0.000	0.000	0.001	0.001	7	33.47	0.000	0.000	0.001	0.001	4
4	28.31	0.000	0.000	0.001	0.001	3	68.40	0.000	0.000	0.001	0.001	7	63.61	0.002	0.003	0.006	0.011	60
5	46.91	0.000	0.000	0.001	0.001	4	58.83	0.000	0.000	0.001	0.001	5	122.3	0.002	0.003	0.003	0.009	94
6	61.29	0.000	0.001	0.001	0.002	11	50.02	0.000	0.000	0.001	0.001	4	60.26	0.000	0.001	0.002	0.003	14
7	48.39	0.000	0.001	0.001	0.002	10	52.52	0.000	0.000	0.001	0.001	5	67.31	0.000	0.001	0.001	0.002	13
8	52.86	0.000	0.001	0.001	0.002	10	46.44	0.000	0.000	0.001	0.001	4	68.53	0.000	0.001	0.001	0.002	11
9	44.16	0.000	0.000	0.001	0.001	4	50.45	0.000	0.000	0.001	0.001	5	66.92	0.000	0.000	0.001	0.001	8
10	39.47	0.000	0.000	0.001	0.001	4	41.53	0.000	0.000	0.001	0.001	4	53.60	0.000	0.000	0.001	0.001	5
11	33.24	0.000	0.000	0.001	0.001	3	39.91	0.000	0.000	0.001	0.001	3	38.58	0.000	0.000	0.001	0.001	3
12	30.19	0.000	0.000	0.001	0.001	3	38.54	0.000	0.000	0.001	0.001	3	37.53	0.000	0.000	0.001	0.001	3
13	25.68	0.000	0.000	0.001	0.001	2	49.16	0.000	0.000	0.001	0.001	5	59.23	0.000	0.001	0.001	0.002	12
14	21.64	0.000	0.000	0.001	0.001	2	46.80	0.000	0.000	0.001	0.001	5	38.55	0.000	0.000	0.001	0.001	3
15	15.26	0.000	0.000	0.001	0.001	1	33.55	0.000	0.000	0.001	0.001	3	37.61	0.000	0.000	0.001	0.001	4
16	21.57	0.000	0.000	0.001	0.001	2	30.33	0.000	0.000	0.001	0.001	3	35.47	0.000	0.000	0.001	0.001	3
17	39.32	0.000	0.000	0.001	0.001	4	37.43	0.000	0.000	0.001	0.001	4	30.32	0.000	0.000	0.001	0.001	3
18	32.84	0.000	0.000	0.001	0.001	3	27.90	0.000	0.000	0.001	0.001	2	37.01	0.000	0.000	0.001	0.001	4
19	32.19	0.000	0.000	0.001	0.001	3	37.01	0.000	0.000	0.001	0.001	3	41.12	0.000	0.000	0.001	0.001	5
20	29.97	0.000	0.000	0.001	0.001	3	28.73	0.000	0.000	0.001	0.001	2	36.67	0.000	0.000	0.001	0.001	3
21	26.24	0.000	0.000	0.001	0.001	2	26.56	0.000	0.000	0.001	0.001	3	30.48	0.000	0.000	0.001	0.001	3
22	18.84	0.000	0.000	0.001	0.001	2	42.05	0.000	0.000	0.001	0.001	4	25.51	0.000	0.000	0.001	0.001	2
23	17.54	0.000	0.000	0.001	0.001	2	24.81	0.000	0.000	0.001	0.001	2	25.61	0.000	0.000	0.001	0.001	2
24	16.80	0.000	0.000	0.001	0.001	1	36.07	0.000	0.000	0.001	0.001	4	31.04	0.000	0.000	0.001	0.001	3
25	60.90	0.000	0.001	0.001	0.002	12	43.60	0.000	0.001	0.001	0.002	6	24.30	0.000	0.000	0.001	0.001	2
26	183.1	0.002	0.003	0.003	0.008	128	44.82	0.000	0.001	0.001	0.002	9	23.69	0.000	0.000	0.001	0.001	2
27	81.63	0.001	0.001	0.002	0.004	29	30.62	0.000	0.000	0.001	0.001	3	18.17	0.000	0.000	0.001	0.001	1
28	86.13	0.002	0.002	0.002	0.005	39	27.73	0.000	0.000	0.001	0.001	2	25.01	0.000	0.000	0.001	0.001	2
29	74.13	0.002	0.002	0.002	0.006	37	39.89	0.000	0.001	0.001	0.002	8	19.81	0.000	0.000	0.001	0.001	1
30	88.41	0.000	0.001	0.001	0.002	18	28.29	0.000	0.000	0.001	0.001	3	21.64	0.000	0.000	0.001	0.001	1
31							37.80	0.003	0.003	0.003	0.009	28						
Ten Daily Mean																		
Ten Daily I	36.60	0.000	0.000	0.001	0.001	5	61.14	0.000	0.000	0.001	0.001	6	61.24	0.001	0.001	0.002	0.004	23
Ten Daily II	28.19	0.000	0.000	0.001	0.001	3	36.94	0.000	0.000	0.001	0.001	3	39.21	0.000	0.000	0.001	0.001	4
Ten Daily III	65.37	0.001	0.001	0.002	0.003	27	34.75	0.000	0.001	0.001	0.002	6	24.53	0.000	0.000	0.001	0.001	2
Monthly																		
Total						345						164						298

Annual Sediment Load (Metric Tonnes) : 3319

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	19.84	0.000	0.000	0.001	0.001	2	7.091	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
2	53.04	0.002	0.002	0.002	0.005	25	6.875	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
3	65.25	0.001	0.001	0.003	0.005	26	5.323	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
4	57.03	0.001	0.001	0.002	0.005	22	4.892	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
5	38.56	0.001	0.001	0.002	0.003	10	4.142	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
6	32.21	0.001	0.001	0.001	0.003	7	4.112	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
7	28.03	0.001	0.001	0.001	0.002	5	4.015	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
8	27.61	0.000	0.000	0.001	0.001	2	2.834	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
9	25.20	0.000	0.000	0.001	0.001	1	2.821	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
10	20.74	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	21.42	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	19.66	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	41.56	0.000	0.000	0.001	0.001	5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	55.55	0.000	0.000	0.001	0.001	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	50.98	0.000	0.001	0.001	0.002	10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	54.41	0.000	0.001	0.001	0.002	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	40.87	0.000	0.000	0.001	0.001	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	28.93	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	25.41	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	27.17	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	22.65	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	18.02	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	17.22	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	16.40	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	16.40	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	13.82	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	12.57	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	11.28	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	12.15	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	7.957	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0						
31	9.417	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	36.75	0.001	0.001	0.001	0.003	10	4.211	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	36.60	0.000	0.000	0.001	0.001	5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	14.35	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						165						2						0

Annual Sediment Load (Metric Tonnes) : 3319

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALAMPUR (KMA00C6) **Division : SWR Division, Kochi**

Local River : Kaliyar **Sub-Division : SWRSD No.2, Kochi**

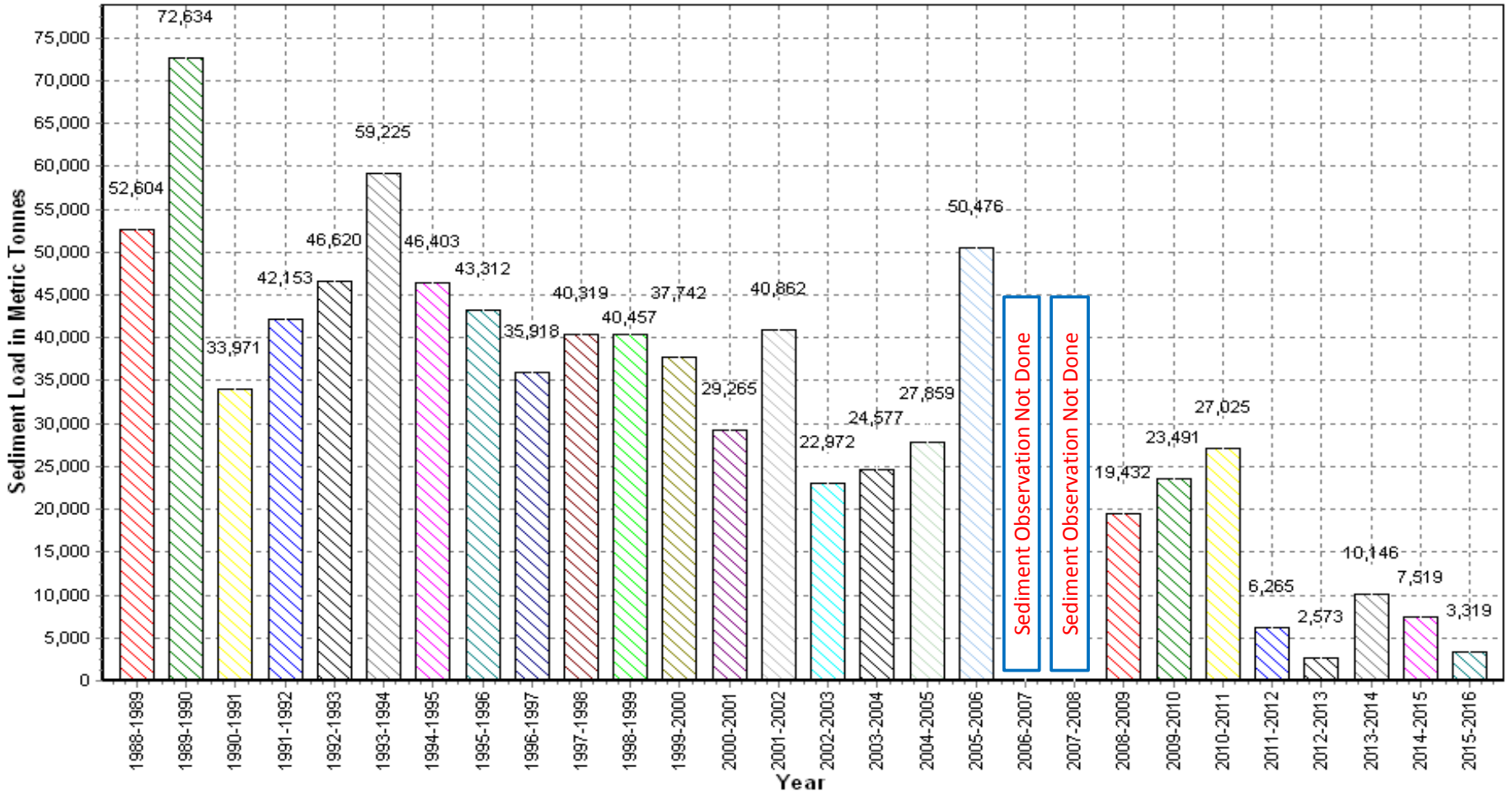
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	25.87	0.000	0.000	0.001	0.001	2
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.184	0.000	0.000	0.001	0.001	1
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	29.37	0.000	0.000	0.001	0.001	3
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	21.70	0.000	0.000	0.001	0.001	3
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.78	0.000	0.001	0.001	0.003	6
31	0.000	0.000	0.000	0.000	0.000	0							19.47	0.000	0.000	0.001	0.001	2
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.03	0.000	0.000	0.001	0.001	2
Monthly																		
Total						0						0						17

Annual Sediment Load (Metric Tonnes) : 3319

Annual Sediment Load for the period: 1988-2016

Station Name : KALAMPUR (KMA00C6)
Local River : Kaliyar

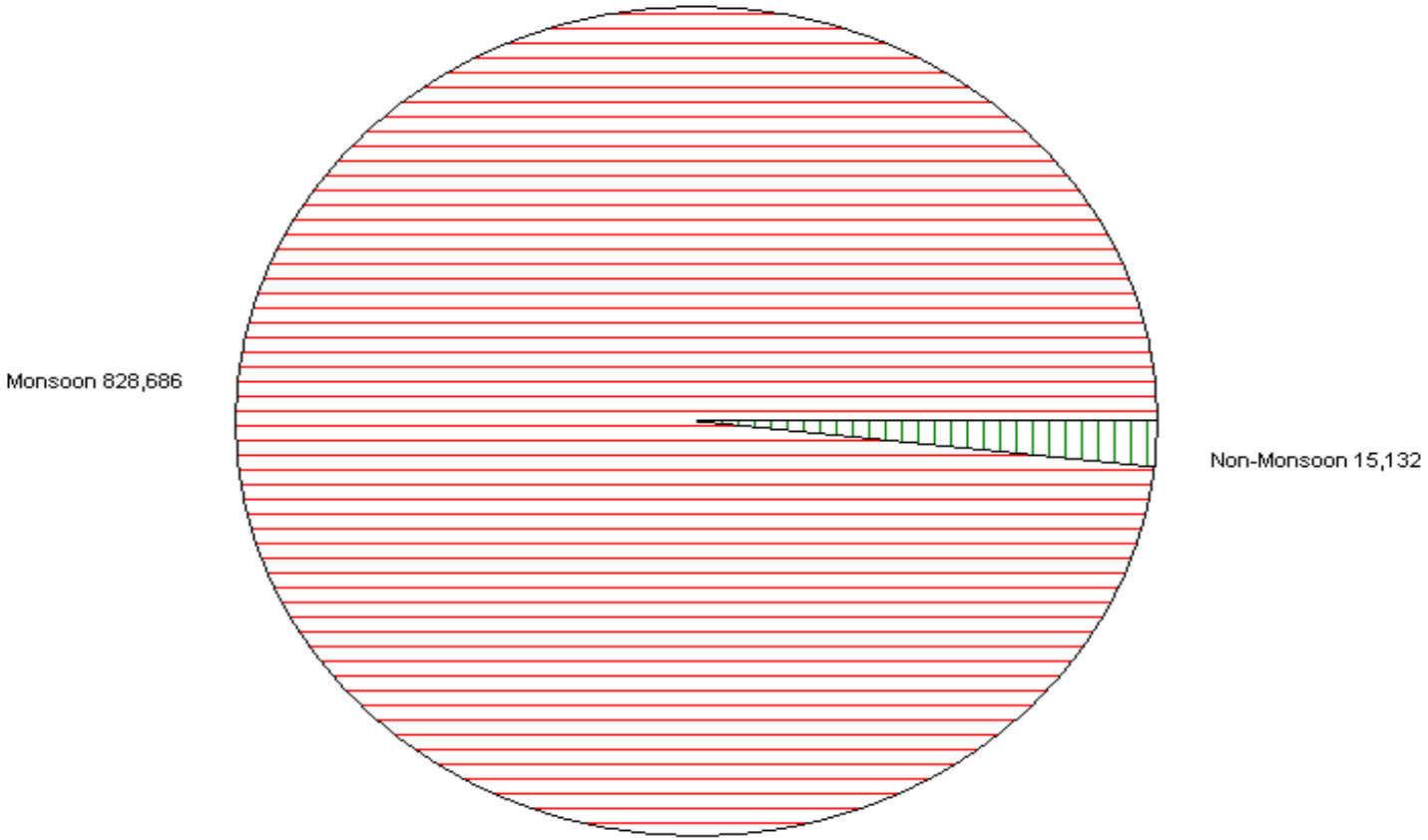
Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



Seasonal Sediment Load for the period : 1988-2015

Station Name : KALAMPUR (KMA00C6)
Local River : Kaliyar

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



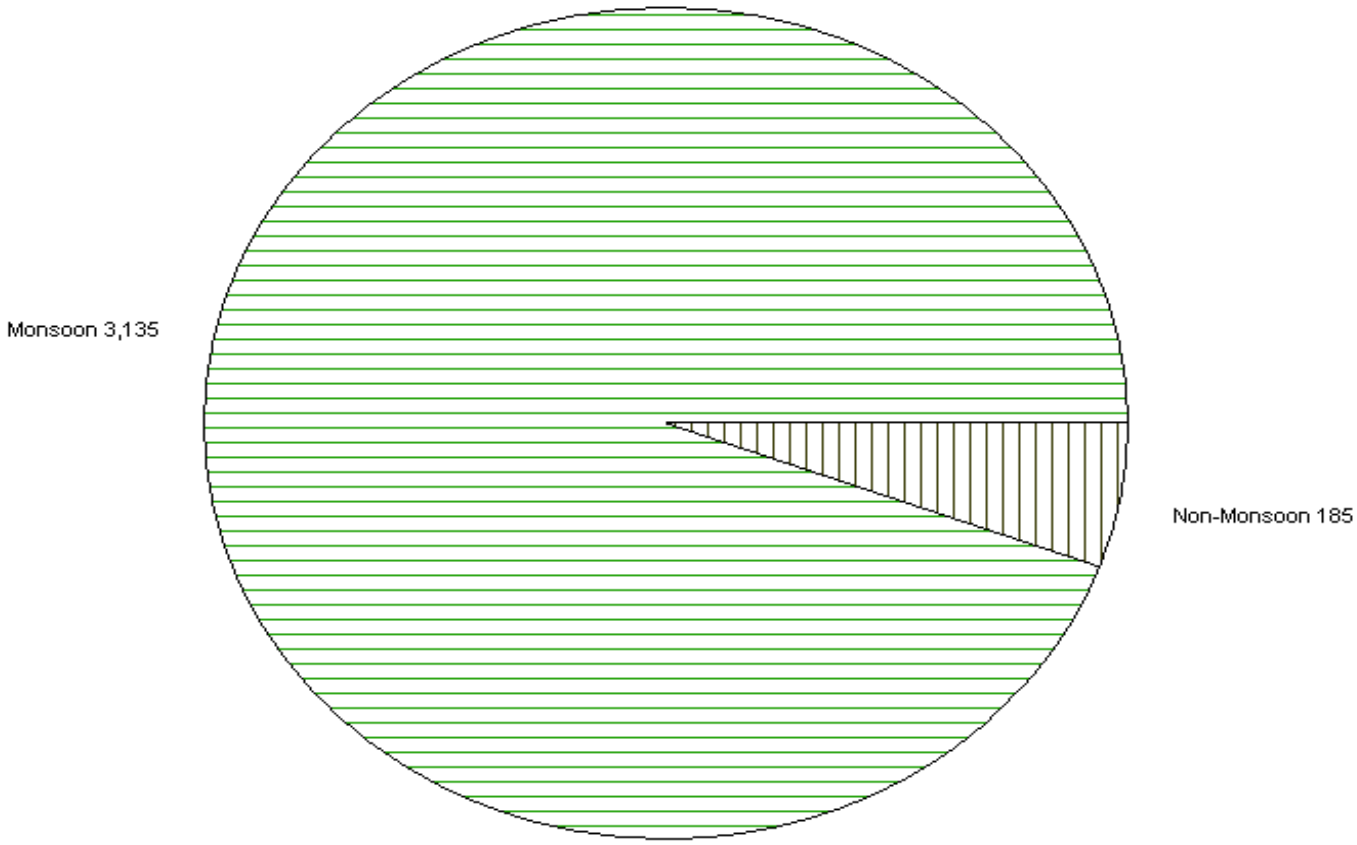
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KALAMPUR (KMA00C6)

Local River : Kaliyar

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



BED MATERIAL ANALYSIS DATA

RIVER : *Kaliyar* **CODE NO. :** *KMAOOC6*

SITE : *Kalampur* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**07.11.2015**						
1	24	-	5.800	9.630	3.83	24.0	0.301	3.612	14.0	2.31							
2	48	-	6.400	9.630	3.23	24.0	0.461	3.983	16.0	2.42	61.17	3.0482	0.3712	0.00013	67.32	16.0	2.38
3	66	-	7.400	9.630	2.23	18.0	0.264	2.059	15.0	2.40							
POSTMONSOON 2015									**DATE OF COLLECTION**		**25.01.2016**						
1	24	-	5.800	8.360	2.56	24.0	Nil	Nil	6	2.68							
2	48	-	7.100	8.360	1.26	24.0	Nil	Nil	14	3.22	55.96	Nil	Nil	Nil	Nil	14	2.92
3	66	-	7.350	8.360	1.01	18.0	Nil	Nil	6.3	2.86							
PREMONSOON 2016									**DATE OF COLLECTION**		**20.05.2016**						
1	24	-	5.820	9.130	3.31	24.0	Nil	Nil	14	1.48							
2	48	-	6.820	9.130	2.31	24.0	Nil	Nil	16	2.42	58.92	Nil	Nil	Nil	Nil	20	2.7
3	66	-	7.220	9.130	1.91	18.0	Nil	Nil	20	4.2							

Annual Sediment Load for period : 1987-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWRSD No.2, Kochi**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1987-1988	21490	2651	24141	1403
1988-1989	26091	1080	27171	1413
1989-1990	44590	287	44877	1751
1990-1991	14017	28	14044	1362
1991-1992	57974	167	58141	1761
1992-1993	46901	544	47444	2252
1993-1994	60982	774	61756	1874
1994-1995	41679	5150	46829	1893
1995-1996	35413	153	35565	1753
1996-1997	34233	1007	35240	1723
1997-1998	16707	1652	18359	1996
1998-1999	23694	6394	30088	2310
1999-2000	26810	245	27054	1752
2000-2001	37968	3139	41107	1334
2001-2002	45744	4584	50328	1681
2002-2003	41253	2831	44084	1206
2003-2004	59012	14542	73553	1437
2004-2005	37061	1537	38597	1159
2005-2006	24918	3929	28846	2153
2006-2007	14757	595	15352	1671
2007-2008	27676	960	28636	2174
2008-2009	11628	623	12251	1502
2009-2010	12357	952	13308	1303
2010-2011	15451	1304	16755	2003
2011-2012	14688	616	15304	1715
2012-2013	7831	173	8004	1045
2013-2014	19076	877	19953	2348
2014-2015	17733	1855	19588	2255
2015-2016	11520	1061	12581	1192

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWRSD No.2, Kochi**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	31.54	0.000	0.000	0.005	0.005	14	157.9	0.000	0.001	0.012	0.013	176	28.27	0.000	0.000	0.005	0.005	12
2	14.62	0.000	0.000	0.006	0.006	7	92.02	0.000	0.000	0.003	0.003	27	19.62	0.000	0.000	0.004	0.004	7
3	14.11	0.000	0.000	0.007	0.007	8	68.01	0.000	0.000	0.005	0.005	28	16.55	0.000	0.000	0.004	0.004	6
4	40.82	0.000	0.000	0.005	0.005	19	61.82	0.000	0.000	0.005	0.005	25	34.19	0.000	0.000	0.005	0.005	15
5	48.60	0.000	0.000	0.005	0.005	21	43.52	0.000	0.000	0.004	0.004	14	41.17	0.000	0.000	0.005	0.005	19
6	31.46	0.000	0.000	0.007	0.007	20	40.23	0.000	0.000	0.004	0.004	14	32.49	0.000	0.000	0.005	0.005	14
7	27.67	0.000	0.000	0.007	0.007	17	35.15	0.000	0.000	0.008	0.008	26	34.27	0.000	0.000	0.004	0.004	12
8	27.46	0.000	0.000	0.008	0.008	20	33.47	0.000	0.000	0.005	0.005	14	41.08	0.000	0.000	0.004	0.004	13
9	24.04	0.000	0.000	0.013	0.013	26	38.77	0.000	0.000	0.004	0.004	14	42.45	0.000	0.000	0.005	0.005	19
10	22.65	0.000	0.000	0.006	0.006	11	62.12	0.000	0.000	0.007	0.007	38	36.27	0.000	0.000	0.005	0.005	17
11	14.56	0.000	0.000	0.011	0.011	14	54.38	0.000	0.000	0.004	0.004	18	36.03	0.000	0.000	0.005	0.005	15
12	24.64	0.000	0.000	0.004	0.004	9	51.29	0.000	0.000	0.003	0.003	11	61.18	0.000	0.000	0.004	0.004	22
13	25.10	0.000	0.000	0.005	0.005	10	44.93	0.000	0.000	0.003	0.003	12	135.5	0.000	0.002	0.004	0.005	63
14	20.42	0.000	0.000	0.005	0.005	9	37.94	0.000	0.000	0.004	0.004	11	102.0	0.000	0.000	0.004	0.004	35
15	24.16	0.000	0.000	0.008	0.008	16	38.76	0.000	0.000	0.005	0.005	16	78.15	0.000	0.000	0.004	0.004	27
16	33.71	0.000	0.000	0.008	0.008	22	44.43	0.000	0.000	0.005	0.005	19	75.47	0.000	0.000	0.005	0.005	30
17	39.44	0.000	0.000	0.003	0.003	11	39.18	0.000	0.000	0.005	0.005	17	61.05	0.000	0.000	0.004	0.004	23
18	40.68	0.000	0.000	0.003	0.003	12	83.61	0.000	0.001	0.011	0.011	82	49.67	0.000	0.000	0.004	0.004	18
19	57.32	0.000	0.000	0.004	0.004	20	103.9	0.000	0.001	0.013	0.014	123	228.6	0.000	0.000	0.034	0.034	674
20	112.7	0.000	0.003	0.005	0.007	71	119.9	0.001	0.001	0.014	0.015	160	124.1	0.000	0.000	0.020	0.020	213
21	89.22	0.000	0.001	0.005	0.007	51	147.8	0.001	0.002	0.013	0.015	188	85.00	0.000	0.000	0.015	0.015	112
22	91.84	0.000	0.000	0.008	0.008	63	141.2	0.000	0.001	0.013	0.015	178	95.81	0.000	0.000	0.019	0.019	159
23	116.2	0.000	0.000	0.004	0.004	39	169.2	0.000	0.000	0.008	0.008	110	68.93	0.000	0.000	0.015	0.015	89
24	112.1	0.000	0.000	0.006	0.006	60	186.6	0.001	0.002	0.014	0.016	255	38.25	0.000	0.000	0.009	0.009	30
25	109.2	0.000	0.000	0.003	0.003	28	129.8	0.001	0.002	0.010	0.012	137	35.51	0.000	0.000	0.009	0.009	28
26	166.7	0.001	0.002	0.007	0.010	147	90.65	0.000	0.001	0.007	0.008	63	32.35	0.000	0.000	0.009	0.009	25
27	347.4	0.001	0.002	0.037	0.040	1209	61.50	0.000	0.000	0.005	0.005	26	33.29	0.000	0.000	0.009	0.009	27
28	450.2	0.001	0.003	0.031	0.035	1350	60.01	0.000	0.000	0.004	0.004	19	28.58	0.000	0.000	0.008	0.008	20
29	266.9	0.000	0.002	0.006	0.007	164	36.33	0.000	0.000	0.004	0.004	13	29.08	0.000	0.000	0.009	0.009	21
30	181.6	0.000	0.002	0.019	0.020	317	34.01	0.000	0.000	0.006	0.006	16	21.23	0.000	0.000	0.006	0.006	12
31							32.07	0.000	0.000	0.005	0.005	14	19.03	0.000	0.000	0.006	0.006	9
Ten Daily Mean																		
Ten Daily I	28.30	0.000	0.000	0.007	0.007	16	63.30	0.000	0.000	0.006	0.006	37	32.64	0.000	0.000	0.005	0.005	13
Ten Daily II	39.28	0.000	0.000	0.006	0.006	19	61.83	0.000	0.000	0.006	0.007	47	95.18	0.000	0.000	0.009	0.009	112
Ten Daily III	193.1	0.000	0.001	0.013	0.014	343	99.01	0.000	0.001	0.008	0.009	93	44.28	0.000	0.000	0.010	0.010	48
Monthly Total						3785						1862						1785

Annual Sediment Load (Metric Tonnes) : 12581

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWRSD No.2, Kochi**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	18.33	0.000	0.000	0.005	0.005	8	160.9	0.000	0.000	0.017	0.017	231	110.1	0.000	0.001	0.013	0.014	131
2	17.13	0.000	0.000	0.006	0.006	8	111.5	0.000	0.000	0.011	0.011	110	74.04	0.000	0.000	0.009	0.009	59
3	16.30	0.000	0.000	0.010	0.010	15	85.47	0.000	0.000	0.009	0.009	64	58.21	0.000	0.000	0.007	0.007	36
4	13.00	0.000	0.000	0.005	0.005	6	72.98	0.000	0.000	0.007	0.007	46	73.51	0.000	0.000	0.009	0.009	57
5	31.36	0.000	0.000	0.004	0.004	9	98.35	0.000	0.000	0.010	0.010	82	99.22	0.000	0.000	0.012	0.012	102
6	132.3	0.000	0.000	0.010	0.010	119	121.0	0.000	0.000	0.012	0.012	124	75.95	0.000	0.000	0.009	0.009	59
7	195.9	0.000	0.000	0.014	0.014	244	82.41	0.000	0.000	0.008	0.008	58	62.53	0.000	0.000	0.007	0.007	40
8	132.3	0.000	0.000	0.009	0.009	107	63.06	0.000	0.000	0.006	0.006	34	122.6	0.000	0.000	0.015	0.015	154
9	70.28	0.000	0.000	0.005	0.005	29	63.20	0.000	0.000	0.006	0.006	34	107.0	0.000	0.000	0.013	0.013	117
10	61.29	0.000	0.000	0.004	0.004	21	66.24	0.000	0.000	0.007	0.007	37	82.00	0.000	0.000	0.010	0.010	69
11	66.60	0.000	0.000	0.004	0.004	24	71.78	0.000	0.000	0.007	0.007	43	65.26	0.000	0.000	0.008	0.008	43
12	61.80	0.000	0.000	0.004	0.004	21	62.16	0.000	0.000	0.006	0.006	33	54.64	0.000	0.000	0.007	0.007	31
13	38.78	0.000	0.000	0.004	0.004	12	60.48	0.000	0.000	0.006	0.006	31	64.10	0.000	0.000	0.007	0.007	36
14	41.67	0.000	0.000	0.006	0.006	20	66.73	0.000	0.000	0.007	0.007	37	51.63	0.000	0.000	0.004	0.004	19
15	38.65	0.000	0.000	0.003	0.003	11	54.59	0.000	0.000	0.005	0.005	25	36.83	0.000	0.000	0.004	0.004	12
16	31.86	0.000	0.000	0.005	0.005	13	45.12	0.000	0.000	0.004	0.004	17	38.35	0.000	0.000	0.005	0.005	16
17	37.33	0.000	0.000	0.005	0.005	17	78.78	0.000	0.000	0.009	0.009	59	27.53	0.000	0.000	0.006	0.006	14
18	47.34	0.000	0.000	0.003	0.003	12	48.14	0.000	0.000	0.006	0.006	23	25.80	0.000	0.000	0.006	0.006	13
19	31.34	0.000	0.000	0.004	0.004	12	50.51	0.000	0.000	0.006	0.006	26	53.40	0.002	0.002	0.007	0.010	48
20	40.86	0.000	0.000	0.008	0.008	28	48.58	0.000	0.000	0.006	0.006	25	33.92	0.000	0.000	0.007	0.007	19
21	39.04	0.000	0.000	0.009	0.009	30	43.15	0.000	0.000	0.005	0.005	20	27.68	0.000	0.000	0.010	0.010	25
22	34.14	0.000	0.000	0.007	0.007	20	52.02	0.000	0.001	0.007	0.008	36	31.78	0.000	0.000	0.011	0.011	29
23	33.37	0.000	0.000	0.007	0.007	19	66.29	0.000	0.001	0.007	0.008	43	23.67	0.000	0.000	0.007	0.007	14
24	30.43	0.000	0.000	0.006	0.006	16	54.05	0.000	0.000	0.005	0.005	24	50.54	0.000	0.002	0.004	0.006	26
25	34.61	0.000	0.000	0.007	0.007	22	59.49	0.000	0.000	0.005	0.005	26	38.69	0.000	0.001	0.006	0.007	22
26	80.89	0.000	0.000	0.012	0.012	83	63.24	0.000	0.000	0.005	0.005	28	27.46	0.000	0.000	0.007	0.007	17
27	82.42	0.000	0.000	0.011	0.011	76	50.94	0.000	0.000	0.004	0.004	16	23.05	0.000	0.000	0.006	0.006	12
28	72.17	0.000	0.000	0.009	0.009	53	50.91	0.000	0.000	0.004	0.004	18	45.49	0.000	0.005	0.006	0.012	46
29	73.11	0.000	0.000	0.008	0.008	51	61.99	0.000	0.000	0.004	0.004	24	38.69	0.000	0.003	0.006	0.009	29
30	141.0	0.000	0.000	0.015	0.015	179	61.79	0.000	0.001	0.008	0.009	46	36.57	0.000	0.000	0.007	0.007	21
31							76.22	0.000	0.001	0.009	0.010	65						
Ten Daily Mean																		
Ten Daily I	68.82	0.000	0.000	0.007	0.007	57	92.51	0.000	0.000	0.009	0.009	82	86.52	0.000	0.000	0.010	0.010	82
Ten Daily II	43.62	0.000	0.000	0.005	0.005	17	58.69	0.000	0.000	0.006	0.006	32	45.15	0.000	0.000	0.006	0.006	25
Ten Daily III	62.12	0.000	0.000	0.009	0.009	55	58.19	0.000	0.000	0.006	0.006	31	34.36	0.000	0.001	0.007	0.008	24
Monthly Total						1288						1484						1315

Annual Sediment Load (Metric Tonnes) : 12581

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWRSD No.2, Kochi**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	32.96	0.000	0.000	0.005	0.005	14	6.089	0.000	0.000	0.004	0.004	2	0.343	0.000	0.000	0.005	0.005	0
2	62.61	0.000	0.000	0.004	0.004	22	6.081	0.000	0.000	0.003	0.003	2	0.000	0.000	0.000	0.000	0.000	0
3	52.41	0.000	0.000	0.004	0.004	19	5.500	0.000	0.000	0.003	0.003	2	0.000	0.000	0.000	0.000	0.000	0
4	53.28	0.000	0.000	0.007	0.007	30	5.653	0.000	0.000	0.004	0.004	2	0.000	0.000	0.000	0.000	0.000	0
5	40.57	0.000	0.000	0.006	0.006	20	5.236	0.000	0.000	0.004	0.004	2	0.000	0.000	0.000	0.000	0.000	0
6	34.17	0.000	0.000	0.005	0.005	16	3.789	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
7	33.04	0.000	0.000	0.006	0.006	16	4.698	0.000	0.000	0.005	0.005	2	0.000	0.000	0.000	0.000	0.000	0
8	31.18	0.000	0.000	0.004	0.004	11	3.359	0.000	0.000	0.004	0.004	1	0.000	0.000	0.000	0.000	0.000	0
9	24.92	0.000	0.000	0.007	0.007	15	3.638	0.000	0.000	0.004	0.004	1	0.000	0.000	0.000	0.000	0.000	0
10	22.00	0.000	0.000	0.004	0.004	8	3.312	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
11	17.09	0.000	0.000	0.005	0.005	7	2.295	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
12	16.96	0.000	0.000	0.004	0.004	6	1.808	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
13	17.91	0.000	0.000	0.003	0.003	4	1.769	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
14	59.24	0.001	0.001	0.007	0.009	47	1.701	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
15	77.46	0.001	0.002	0.009	0.012	81	2.177	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
16	76.57	0.001	0.002	0.009	0.012	79	1.547	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
17	66.66	0.001	0.002	0.008	0.011	60	0.542	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
18	43.96	0.000	0.001	0.007	0.009	32	0.587	0.000	0.000	0.008	0.008	0	0.000	0.000	0.000	0.000	0.000	0
19	36.84	0.000	0.001	0.008	0.009	27	0.466	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0
20	28.00	0.000	0.000	0.006	0.006	15	0.476	0.000	0.000	0.006	0.006	0	0.000	0.000	0.000	0.000	0.000	0
21	19.83	0.000	0.000	0.005	0.005	9	0.498	0.000	0.000	0.007	0.007	0	0.000	0.000	0.000	0.000	0.000	0
22	16.38	0.000	0.000	0.005	0.005	6	0.697	0.000	0.000	0.007	0.007	0	0.000	0.000	0.000	0.000	0.000	0
23	15.54	0.000	0.000	0.008	0.008	10	0.480	0.000	0.000	0.004	0.004	0	0.000	0.000	0.000	0.000	0.000	0
24	14.73	0.000	0.000	0.006	0.006	8	0.542	0.000	0.000	0.004	0.004	0	0.000	0.000	0.000	0.000	0.000	0
25	12.15	0.000	0.000	0.004	0.004	5	0.660	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0
26	10.47	0.000	0.000	0.003	0.003	3	0.752	0.000	0.000	0.006	0.006	0	0.000	0.000	0.000	0.000	0.000	0
27	8.244	0.000	0.000	0.002	0.002	2	0.682	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0
28	9.062	0.000	0.000	0.003	0.003	2	0.515	0.000	0.000	0.008	0.008	0	0.000	0.000	0.000	0.000	0.000	0
29	8.900	0.000	0.000	0.002	0.002	2	0.448	0.000	0.000	0.004	0.004	0	0.000	0.000	0.000	0.000	0.000	0
30	6.932	0.000	0.000	0.003	0.003	2	0.316	0.000	0.000	0.004	0.004	0						
31	6.106	0.000	0.000	0.003	0.003	2	0.361	0.000	0.000	0.005	0.005	0						
Ten Daily Mean																		
Ten Daily I	38.71	0.000	0.000	0.005	0.005	17	4.736	0.000	0.000	0.004	0.004	2	0.034	0.000	0.000	0.001	0.001	0
Ten Daily II	44.07	0.000	0.001	0.007	0.008	36	1.337	0.000	0.000	0.005	0.005	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	11.67	0.000	0.000	0.004	0.004	5	0.541	0.000	0.000	0.005	0.005	0	0.000	0.000	0.000	0.000	0.000	0
Monthly Total						580						25						0

Annual Sediment Load (Metric Tonnes) : 12581

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KIDANGOOR (KT000L3) **Division : SWR Division, Kochi**

Local River : Meenachil **Sub-Division : SWRSD No.2, Kochi**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.929	0.000	0.000	0.001	0.001	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	4.269	0.000	0.000	0.001	0.001	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.30	0.000	0.000	0.007	0.007	8
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	43.54	0.000	0.002	0.006	0.009	32
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.78	0.000	0.000	0.004	0.004	10
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	27.37	0.000	0.000	0.004	0.004	10
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	25.76	0.000	0.000	0.006	0.006	12
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	16.43	0.000	0.000	0.004	0.004	6
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.53	0.000	0.000	0.004	0.004	5
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	11.39	0.000	0.000	0.004	0.004	4
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	41.93	0.002	0.005	0.023	0.030	109
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	49.82	0.001	0.003	0.019	0.023	100
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.50	0.000	0.000	0.006	0.006	19
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	40.72	0.000	0.000	0.008	0.008	28
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	46.15	0.000	0.000	0.008	0.008	32
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	34.94	0.000	0.000	0.005	0.005	15
31	0.000	0.000	0.000	0.000	0.000	0							69.30	0.000	0.000	0.011	0.011	65
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.22	0.000	0.000	0.002	0.003	6
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.04	0.000	0.001	0.009	0.010	36
Monthly Total						0						0						456

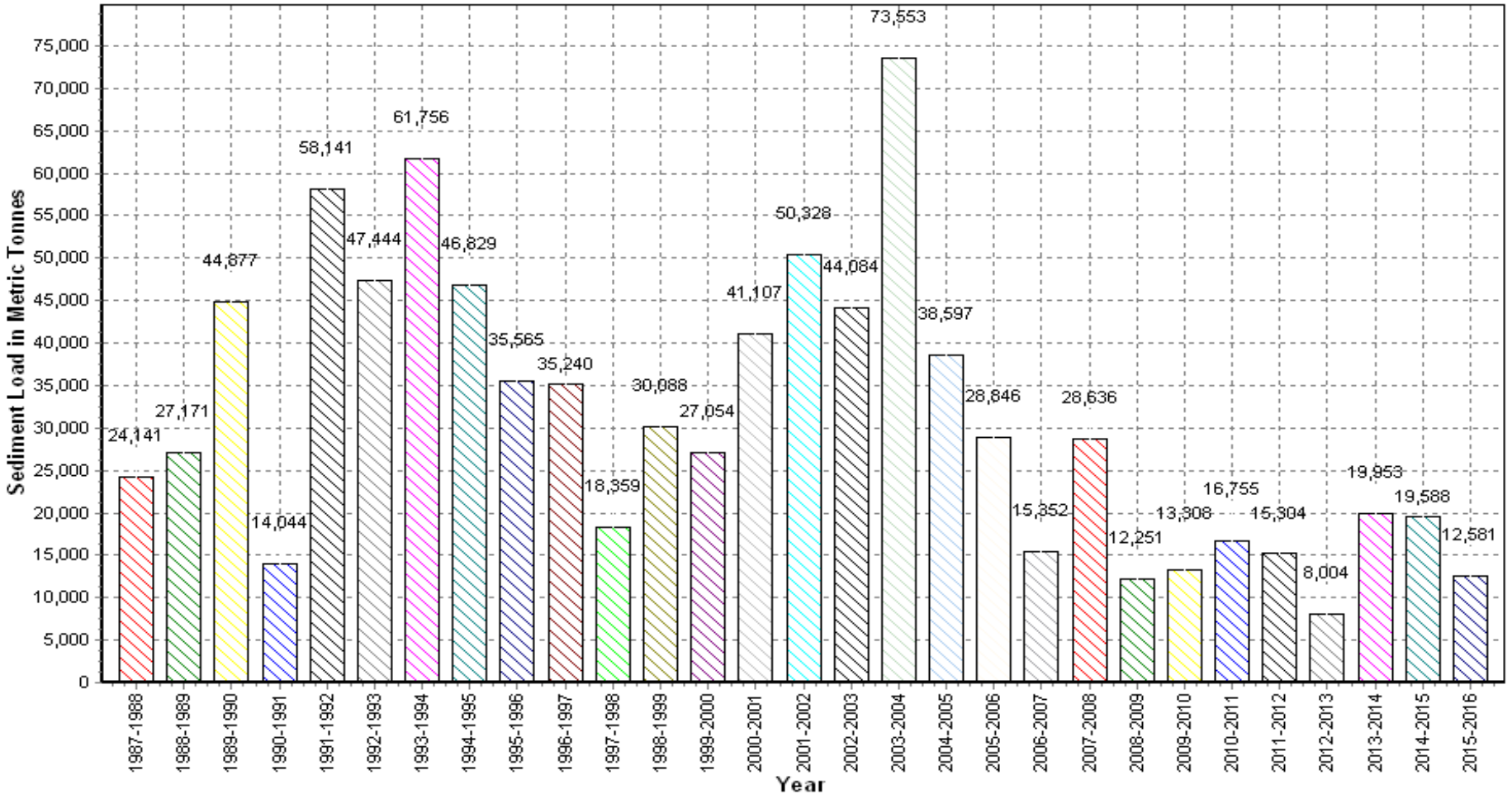
642

Annual Sediment Load (Metric Tonnes) : 12581

Annual Sediment Load for the period: 1987-2016

Station Name : KIDANGOOR (KT000L3)
Local River : Meenachil

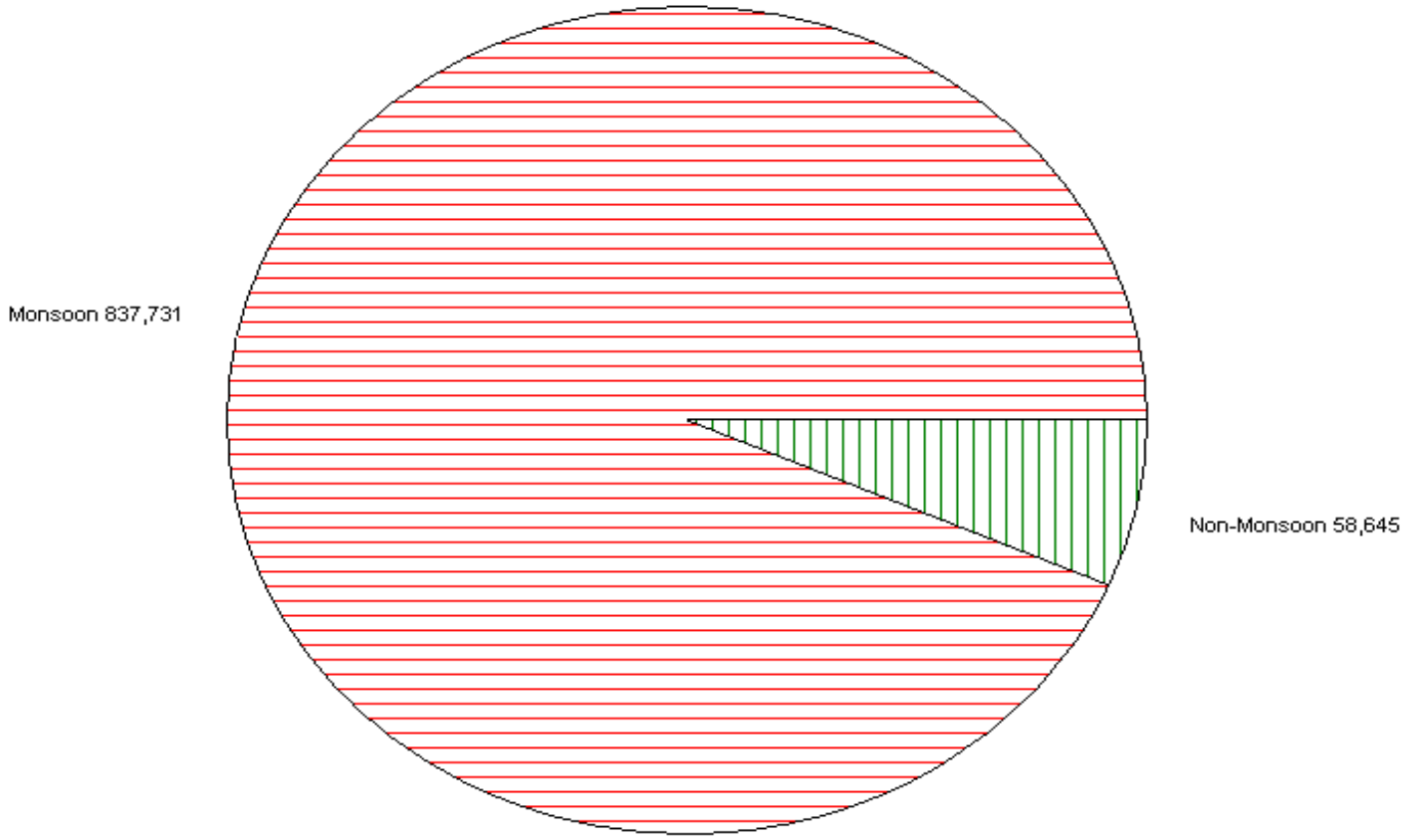
Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



Seasonal Sediment Load for the period : 1987-2015

Station Name : KIDANGOOR (KT000L3)
Local River : Meenachil

Division : SWR Division, Kochi
Sub-Division : SWRSD No.2, Kochi



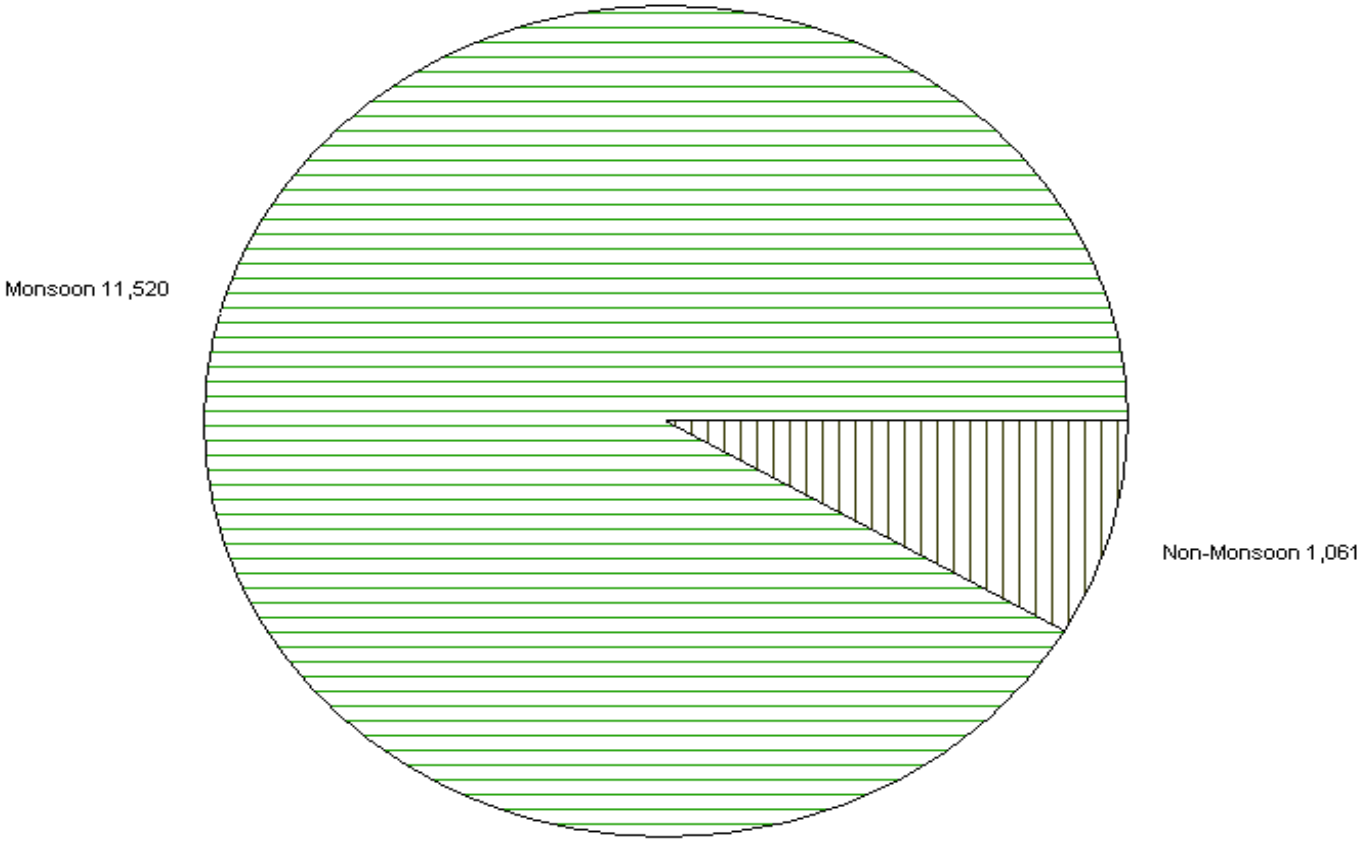
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KIDANGOOR (KT000L3)

Local River : Meenachil

Division : SWR Division, Kochi

Sub-Division : SWRSD No.2, Kochi



BED MATERIAL ANALYSIS DATA

RIVER : *Meenachil* **CODE NO. :** *KTOOOL3*

SITE : *Kidangoor* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE YEAR						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015					**DATE OF COLLECTION**				**00-00-0000**								
1																	
2					Samples not collected												
3																	
4																	
5																	
6																	
POSTMONSOON 2015					**DATE OF COLLECTION**				**19.02.2016**								
1	32	-	(-)4.07	0.260	4.330				20.0	4.20							
2	48	-	(-)3.27	0.260	3.530	60.00	NIL	NIL	16.0	3.82	NIL	NIL	NIL	NIL	NIL	20.0	4.02
3	64	-	(-)3.97	0.260	4.230				18.0	4.03							
PREMONSOON 2016					**DATE OF COLLECTION**				**27.05.2016**								
1	32	-	(-)3.61	1.390	5.000		0.189		15.0	3.24							
2	48	-	(-)3.36	1.390	4.750	60.0	0.200	35.76	17.0	3.90	64.01	4.2621	0.1311	0.00018	35.76	17.0	3.57
3	64	-	(-)4.16	1.390	5.550		NIL		16.0	3.56							

Annual Sediment Load for period : 1986-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWRSD No.1, Trivandrum**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1986-1987	33911	493	34404	1282
1987-1988	64975	7192	72167	1413
1988-1989	67288	1850	69138	1609
1989-1990	96871	585	97456	2073
1990-1991	43300	162	43463	1379
1991-1992	58214	696	58910	1803
1992-1993	101131	2301	103432	2398
1993-1994	100628	1335	101964	2002
1994-1995	91051	16990	108041	2147
1995-1996	67318	1281	68600	1951
1996-1997	62382	3562	65944	1905
1997-1998	84336	1363	85699	1973
1998-1999	56902	7540	64441	2196
1999-2000	39222	294	39516	1474
2000-2001	42645	1400	44045	1316
2001-2002	51828	1493	53321	1934
2002-2003	19395	616	20011	1161
2003-2004	18978	4935	23913	1549
2004-2005	16362	937	17299	1248
2005-2006	47992	18184	66176	2059
2006-2007	25270	798	26068	1779
2007-2008	72512	567	73079	2013
2008-2009	25684	48	25732	1232
2009-2010	30891	1123	32014	1459
2010-2011	43051	834	43885	2136
2011-2012	38327	1420	39747	1784
2012-2013	8006	31	8037	861
2013-2014	44636	1365	46001	2268
2014-2015	59125	1784	60909	2271
2015-2016	26451	3561	30011	1516

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWRSD No.1, Trivandrum**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	14.14	0.000	0.000	0.001	0.001	2	159.1	0.001	0.011	0.006	0.017	238	42.23	0.000	0.001	0.003	0.005	16
2	13.43	0.000	0.000	0.004	0.004	5	82.47	0.001	0.002	0.006	0.008	58	32.14	0.000	0.000	0.002	0.002	6
3	12.50	0.000	0.000	0.003	0.003	3	78.80	0.000	0.007	0.004	0.011	74	32.36	0.000	0.000	0.002	0.002	6
4	22.72	0.000	0.000	0.006	0.006	11	60.24	0.000	0.002	0.007	0.009	49	38.41	0.000	0.000	0.001	0.001	4
5	50.41	0.000	0.000	0.006	0.006	24	53.47	0.000	0.011	0.040	0.051	234	48.63	0.000	0.001	0.004	0.005	20
6	48.82	0.000	0.000	0.004	0.004	16	61.31	0.000	0.001	0.002	0.003	15	52.25	0.000	0.001	0.003	0.004	17
7	36.20	0.000	0.000	0.001	0.001	2	55.96	0.000	0.001	0.002	0.003	13	53.14	0.000	0.001	0.004	0.005	23
8	33.57	0.000	0.000	0.006	0.006	17	51.59	0.000	0.000	0.002	0.002	9	49.13	0.000	0.000	0.002	0.002	7
9	36.12	0.000	0.000	0.009	0.009	29	56.12	0.000	0.000	0.001	0.001	7	47.11	0.000	0.000	0.001	0.001	6
10	32.05	0.000	0.000	0.003	0.003	9	59.80	0.000	0.001	0.003	0.004	19	46.83	0.000	0.000	0.001	0.001	6
11	29.12	0.000	0.000	0.007	0.007	17	61.83	0.000	0.001	0.003	0.004	20	56.70	0.000	0.000	0.001	0.001	6
12	60.52	0.000	0.002	0.012	0.014	73	57.24	0.000	0.002	0.003	0.005	24	83.20	0.001	0.002	0.006	0.009	62
13	61.69	0.000	0.001	0.003	0.004	21	64.32	0.000	0.001	0.002	0.003	18	162.3	0.001	0.003	0.008	0.012	171
14	82.06	0.000	0.001	0.001	0.001	7	40.72	0.000	0.001	0.002	0.004	12	159.6	0.001	0.002	0.005	0.007	102
15	57.26	0.000	0.001	0.004	0.005	24	38.39	0.000	0.000	0.002	0.002	5	125.3	0.001	0.003	0.009	0.013	139
16	59.18	0.000	0.002	0.012	0.014	70	40.21	0.000	0.000	0.002	0.002	6	109.4	0.001	0.003	0.011	0.015	144
17	60.23	0.000	0.001	0.003	0.004	23	38.35	0.000	0.000	0.001	0.001	5	86.38	0.001	0.004	0.014	0.019	140
18	81.51	0.000	0.002	0.006	0.008	56	88.29	0.000	0.001	0.002	0.003	21	61.56	0.000	0.002	0.005	0.007	35
19	85.02	0.001	0.002	0.006	0.009	64	143.3	0.000	0.001	0.003	0.004	52	160.7	0.001	0.004	0.010	0.015	208
20	153.9	0.001	0.003	0.010	0.014	188	113.9	0.000	0.001	0.002	0.003	33	87.83	0.002	0.004	0.012	0.017	131
21	108.6	0.001	0.002	0.003	0.006	54	120.4	0.001	0.001	0.003	0.006	57	81.44	0.000	0.000	0.008	0.008	59
22	80.19	0.001	0.002	0.004	0.007	46	119.7	0.001	0.001	0.002	0.004	40	71.32	0.000	0.000	0.002	0.002	12
23	108.6	0.001	0.002	0.007	0.010	93	110.1	0.001	0.002	0.004	0.007	64	60.88	0.000	0.008	0.005	0.013	70
24	119.0	0.001	0.001	0.004	0.006	63	130.4	0.001	0.002	0.005	0.008	88	54.72	0.000	0.002	0.007	0.009	42
25	84.85	0.001	0.001	0.003	0.005	34	124.6	0.000	0.001	0.003	0.004	45	47.61	0.000	0.002	0.009	0.011	44
26	167.9	0.001	0.003	0.010	0.014	203	85.49	0.000	0.001	0.002	0.002	18	49.47	0.000	0.000	0.004	0.004	15
27	336.0	0.002	0.006	0.017	0.025	729	61.97	0.000	0.000	0.001	0.001	7	43.58	0.000	0.000	0.002	0.002	8
28	483.9	0.003	0.010	0.134	0.147	6142	56.28	0.000	0.001	0.002	0.003	15	32.93	0.000	0.000	0.002	0.002	5
29	330.0	0.001	0.008	0.091	0.101	2874	51.70	0.000	0.001	0.003	0.004	19	33.08	0.000	0.000	0.002	0.002	5
30	217.3	0.001	0.002	0.006	0.009	169	47.53	0.000	0.000	0.002	0.002	8	25.87	0.000	0.000	0.003	0.003	7
31							44.01	0.000	0.000	0.004	0.004	14	27.39	0.000	0.000	0.003	0.003	7
Ten Daily Mean																		
Ten Daily I	30.00	0.000	0.000	0.004	0.004	12	71.89	0.000	0.004	0.007	0.011	72	44.22	0.000	0.000	0.002	0.003	11
Ten Daily II	73.05	0.000	0.002	0.006	0.008	54	68.66	0.000	0.001	0.002	0.003	20	109.3	0.001	0.003	0.008	0.012	114
Ten Daily III	203.6	0.001	0.004	0.028	0.033	1041	86.57	0.000	0.001	0.003	0.004	34	48.03	0.000	0.001	0.004	0.005	25
Monthly																		
Total						11065						1288						1523

Annual Sediment Load (Metric Tonnes) : 30011

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWRSD No.1, Trivandrum**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	25.74	0.000	0.000	0.002	0.002	4	212.3	0.002	0.005	0.017	0.025	449	110.2	0.002	0.005	0.022	0.029	275
2	24.75	0.000	0.000	0.002	0.002	5	127.0	0.002	0.004	0.022	0.028	302	100.1	0.002	0.005	0.013	0.019	163
3	26.16	0.000	0.000	0.004	0.004	8	86.36	0.002	0.004	0.010	0.015	110	78.85	0.001	0.003	0.007	0.010	70
4	16.07	0.000	0.000	0.002	0.002	3	133.2	0.002	0.010	0.034	0.046	525	61.20	0.001	0.005	0.016	0.023	120
5	72.26	0.002	0.006	0.016	0.025	154	100.5	0.002	0.005	0.017	0.024	209	152.4	0.002	0.004	0.012	0.018	233
6	100.8	0.002	0.006	0.034	0.042	369	174.2	0.001	0.004	0.013	0.019	283	104.6	0.002	0.007	0.034	0.043	391
7	120.5	0.002	0.006	0.046	0.055	569	120.4	0.002	0.007	0.025	0.034	355	110.8	0.002	0.004	0.010	0.015	144
8	78.70	0.001	0.004	0.015	0.021	140	81.99	0.001	0.003	0.010	0.015	105	180.5	0.004	0.011	0.013	0.028	432
9	68.13	0.001	0.003	0.009	0.013	75	97.80	0.001	0.004	0.011	0.016	138	162.3	0.004	0.009	0.012	0.024	342
10	60.52	0.000	0.002	0.007	0.009	49	196.3	0.002	0.006	0.029	0.037	624	104.7	0.002	0.006	0.007	0.016	141
11	58.63	0.000	0.002	0.005	0.007	35	133.2	0.002	0.006	0.022	0.029	338	77.51	0.002	0.005	0.005	0.012	77
12	53.38	0.000	0.002	0.005	0.007	33	110.3	0.003	0.007	0.019	0.028	267	63.88	0.002	0.005	0.006	0.012	67
13	47.61	0.000	0.001	0.005	0.006	24	106.8	0.001	0.004	0.012	0.017	156	79.80	0.002	0.004	0.009	0.015	100
14	45.42	0.000	0.001	0.004	0.005	21	139.1	0.001	0.004	0.010	0.014	173	77.88	0.002	0.004	0.008	0.014	94
15	26.89	0.000	0.000	0.003	0.003	7	105.3	0.002	0.005	0.015	0.022	197	58.63	0.001	0.004	0.009	0.014	69
16	29.16	0.000	0.000	0.003	0.003	9	76.94	0.002	0.005	0.013	0.020	132	61.10	0.001	0.004	0.009	0.014	72
17	49.14	0.000	0.001	0.006	0.007	30	74.04	0.001	0.002	0.006	0.009	58	53.44	0.000	0.001	0.004	0.004	20
18	60.92	0.000	0.000	0.004	0.004	18	68.54	0.001	0.002	0.006	0.009	54	39.42	0.000	0.000	0.004	0.004	13
19	57.47	0.000	0.000	0.003	0.003	13	100.0	0.001	0.002	0.006	0.009	75	57.06	0.000	0.002	0.004	0.006	29
20	64.94	0.000	0.001	0.003	0.005	26	80.02	0.001	0.003	0.007	0.010	69	49.19	0.000	0.002	0.002	0.003	14
21	64.03	0.000	0.001	0.003	0.004	24	64.29	0.001	0.002	0.006	0.009	52	57.46	0.002	0.004	0.008	0.014	68
22	44.43	0.000	0.001	0.003	0.005	18	78.73	0.001	0.002	0.006	0.010	65	44.23	0.000	0.002	0.006	0.008	30
23	44.00	0.000	0.002	0.004	0.006	22	101.6	0.001	0.003	0.009	0.013	111	47.05	0.000	0.002	0.006	0.008	34
24	43.76	0.000	0.002	0.004	0.006	21	162.8	0.002	0.005	0.015	0.021	295	30.59	0.000	0.001	0.004	0.005	14
25	80.32	0.001	0.004	0.019	0.023	162	146.1	0.002	0.004	0.006	0.012	146	36.62	0.000	0.009	0.014	0.023	72
26	120.0	0.002	0.006	0.035	0.043	441	150.4	0.002	0.004	0.013	0.019	251	29.69	0.000	0.000	0.003	0.003	7
27	100.8	0.001	0.004	0.019	0.024	208	102.0	0.001	0.002	0.005	0.007	63	24.61	0.000	0.000	0.006	0.006	12
28	88.41	0.001	0.002	0.009	0.012	91	78.22	0.000	0.001	0.003	0.005	31	21.69	0.000	0.000	0.002	0.002	4
29	77.37	0.001	0.003	0.010	0.014	95	79.07	0.001	0.003	0.010	0.014	97	30.21	0.000	0.000	0.048	0.048	125
30	142.1	0.002	0.006	0.022	0.029	361	84.50	0.002	0.004	0.012	0.018	133	22.42	0.000	0.000	0.006	0.006	12
31							122.0	0.003	0.006	0.032	0.041	430						
Ten Daily Mean																		
Ten Daily I	59.37	0.001	0.003	0.014	0.017	138	133.0	0.002	0.005	0.019	0.026	310	116.6	0.002	0.006	0.015	0.022	231
Ten Daily II	49.35	0.000	0.001	0.004	0.005	22	99.43	0.001	0.004	0.011	0.017	152	61.79	0.001	0.003	0.006	0.010	56
Ten Daily III	80.53	0.001	0.003	0.013	0.017	144	106.3	0.001	0.003	0.011	0.015	152	34.46	0.000	0.002	0.010	0.012	38
Monthly																		
Total						3036						6293						3247

Annual Sediment Load (Metric Tonnes) : 30011

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWRSD No.1, Trivandrum**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	19.83	0.000	0.000	0.001	0.001	2	5.311	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
2	18.41	0.000	0.000	0.001	0.001	1	4.746	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
3	17.37	0.000	0.000	0.001	0.001	1	4.134	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
4	35.17	0.000	0.000	0.033	0.033	99	6.128	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
5	30.01	0.000	0.000	0.022	0.022	57	5.938	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
6	24.04	0.000	0.000	0.097	0.097	201	5.756	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
7	21.31	0.000	0.000	0.004	0.004	7	5.674	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
8	18.47	0.000	0.000	0.005	0.005	7	5.475	0.000	0.000	0.003	0.003	2	0.000	0.000	0.000	0.000	0.000	0
9	17.41	0.000	0.000	0.005	0.005	8	5.223	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
10	13.12	0.000	0.000	0.010	0.010	11	5.109	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
11	11.12	0.000	0.000	0.004	0.004	4	3.985	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
12	11.42	0.000	0.000	0.003	0.003	3	3.463	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
13	15.72	0.000	0.000	0.003	0.004	5	3.607	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
14	80.89	0.001	0.002	0.007	0.010	66	3.472	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
15	167.9	0.002	0.004	0.012	0.017	252	2.359	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
16	118.3	0.002	0.004	0.010	0.016	159	2.367	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
17	92.14	0.001	0.002	0.006	0.010	79	2.099	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
18	63.81	0.000	0.002	0.005	0.007	40	1.956	0.000	0.000	0.004	0.004	1	0.000	0.000	0.000	0.000	0.000	0
19	53.68	0.000	0.001	0.003	0.004	19	1.700	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
20	41.30	0.000	0.000	0.003	0.003	10	1.680	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
21	31.61	0.000	0.000	0.002	0.002	6	1.681	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
22	28.88	0.000	0.000	0.002	0.002	5	1.661	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
23	24.31	0.000	0.000	0.002	0.002	5	1.474	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
24	19.11	0.000	0.000	0.002	0.002	4	1.725	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
25	16.37	0.000	0.000	0.003	0.003	4	2.291	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
26	13.23	0.000	0.000	0.003	0.003	3	2.099	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
27	12.10	0.000	0.000	0.003	0.003	3	1.754	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
28	9.976	0.000	0.000	0.002	0.002	2	3.976	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
29	8.101	0.000	0.000	0.002	0.002	2	1.820	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
30	7.466	0.000	0.000	0.003	0.003	2	1.760	0.000	0.000	0.002	0.002	0						
31	7.006	0.000	0.000	0.003	0.003	2	4.144	0.000	0.000	0.002	0.002	1						
Ten Daily Mean																		
Ten Daily I	21.51	0.000	0.000	0.018	0.018	40	5.349	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	65.63	0.001	0.002	0.006	0.008	64	2.669	0.000	0.000	0.003	0.003	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	16.20	0.000	0.000	0.002	0.002	3	2.217	0.000	0.000	0.003	0.003	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						1069						23						0

Annual Sediment Load (Metric Tonnes) : 30011

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : KALLOOPPARA (KYB00F2) **Division : SWR Division, Kochi**

Local River : Manimala **Sub-Division : SWRSD No.1, Trivandrum**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	17.93	0.000	0.000	0.003	0.004	6
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	25.79	0.000	0.001	0.004	0.004	10
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	37.56	0.000	0.001	0.004	0.005	18
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.97	0.000	0.001	0.004	0.005	16
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.91	0.000	0.001	0.004	0.005	14
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	29.01	0.000	0.001	0.004	0.005	12
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	30.44	0.000	0.001	0.004	0.005	13
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	33.41	0.000	0.001	0.004	0.005	14
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	119.9	0.001	0.003	0.009	0.013	133
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	92.59	0.001	0.002	0.006	0.009	72
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	62.71	0.001	0.002	0.004	0.007	36
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	51.95	0.001	0.002	0.004	0.006	27
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	44.20	0.001	0.001	0.004	0.006	21
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	38.34	0.001	0.001	0.003	0.005	17
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.06	0.000	0.001	0.004	0.005	13
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	55.03	0.001	0.002	0.006	0.008	39
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	205.4	0.001	0.003	0.092	0.096	1711
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	116.1	0.001	0.002	0.006	0.009	92
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	96.00	0.001	0.002	0.005	0.008	66
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	80.14	0.000	0.002	0.005	0.007	49
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	64.52	0.000	0.002	0.004	0.006	35
31	0.000	0.000	0.000	0.000	0.000	0							88.89	0.001	0.002	0.005	0.007	57
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.793	0.000	0.000	0.000	0.000	1
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	49.93	0.000	0.001	0.005	0.006	34
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	78.96	0.001	0.002	0.013	0.015	193
Monthly																		
Total						0						0						2469

Annual Sediment Load (Metric Tonnes) : 30011

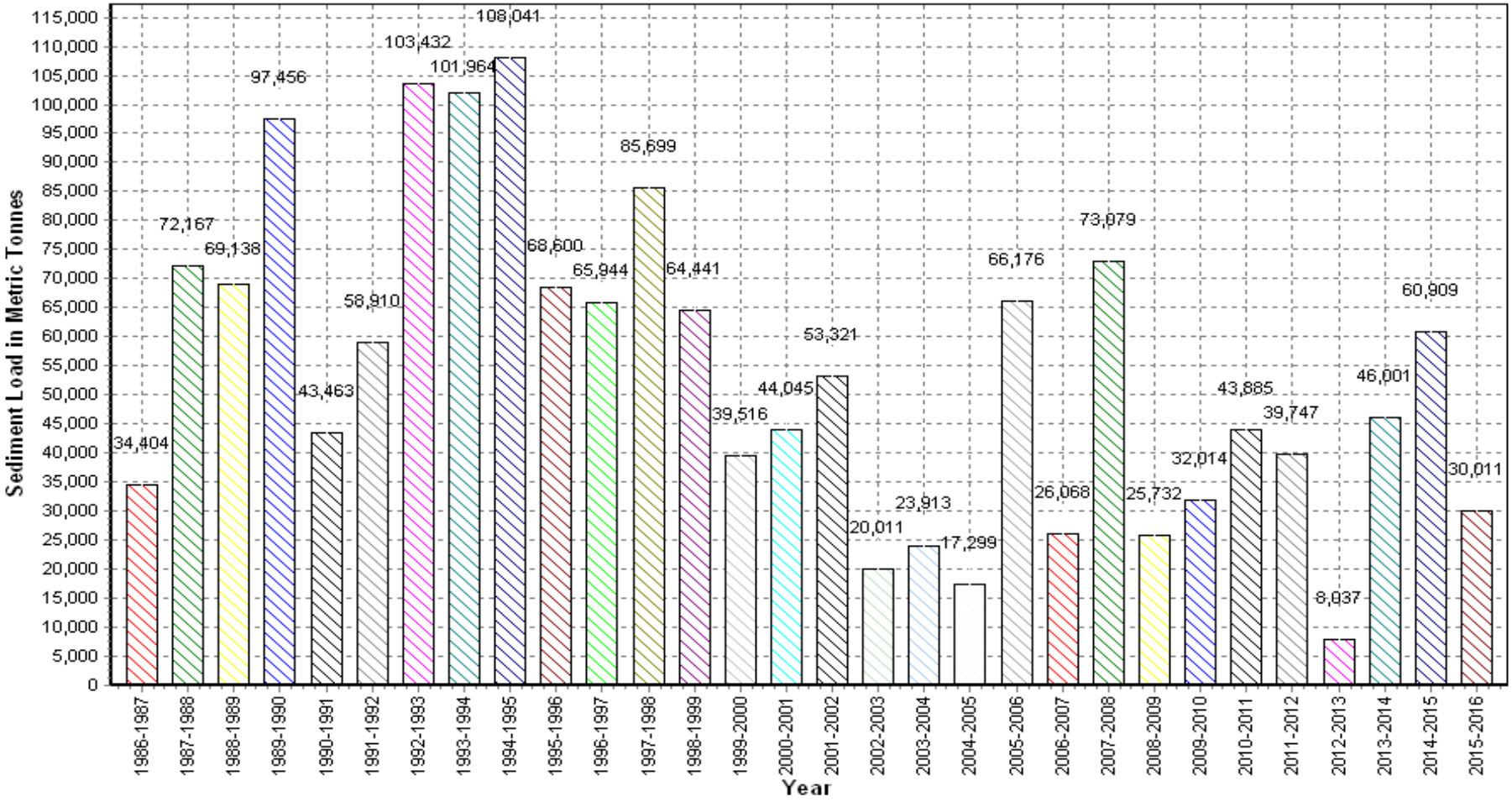
Annual Sediment Load for the period: 1986-2016

Station Name : KALLOOPPARA (KYB00F2)

Local River : Manimala

Division : SWR Division, Kochi

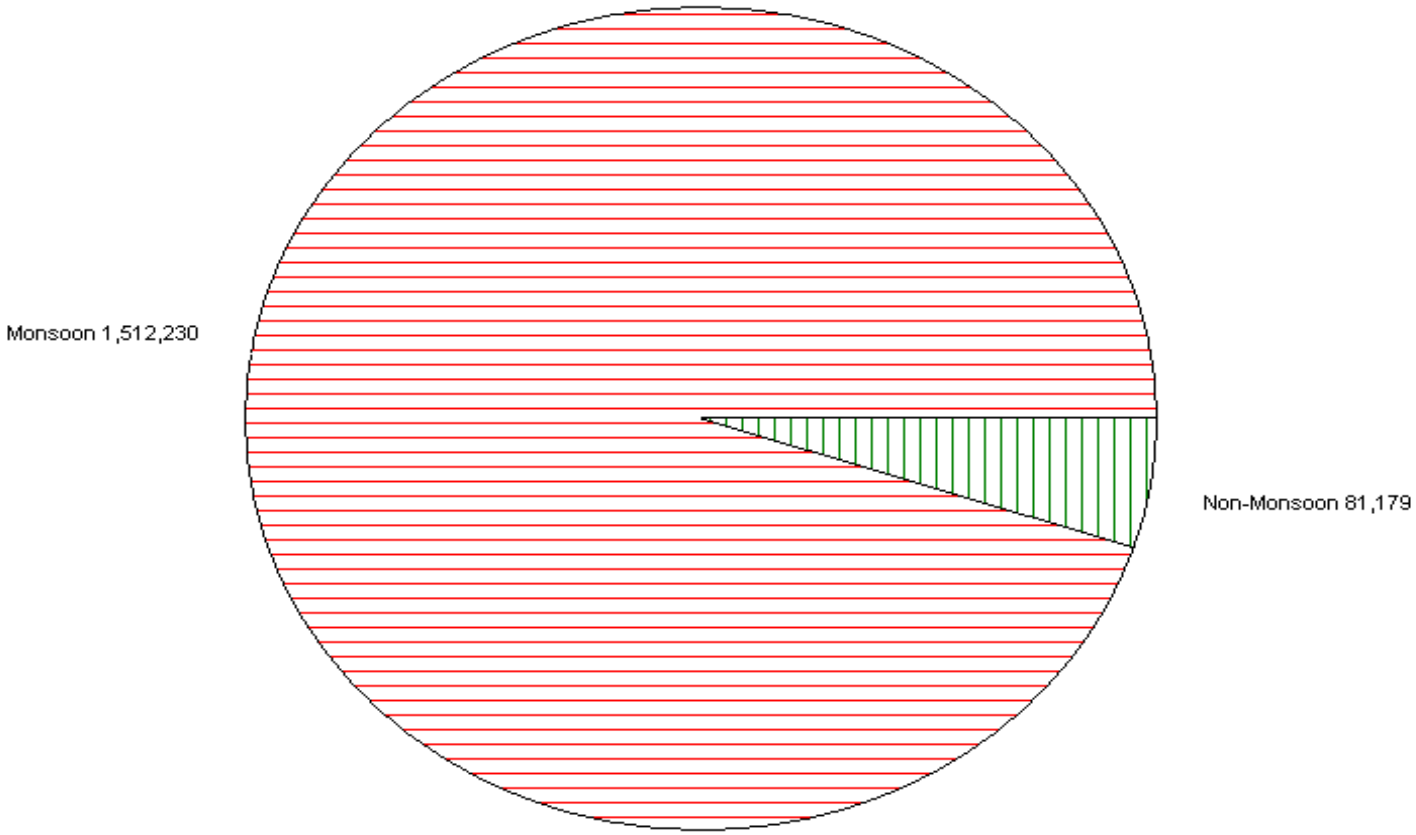
Sub-Division : SWRSD No.1, Trivandrum



Seasonal Sediment Load for the period : 1986-2015

Station Name : KALLOOPPARA (KYB00F2)
Local River : Manimala

Division : SWR Division, Kochi
Sub-Division : SWRSD No.1, Trivandrum



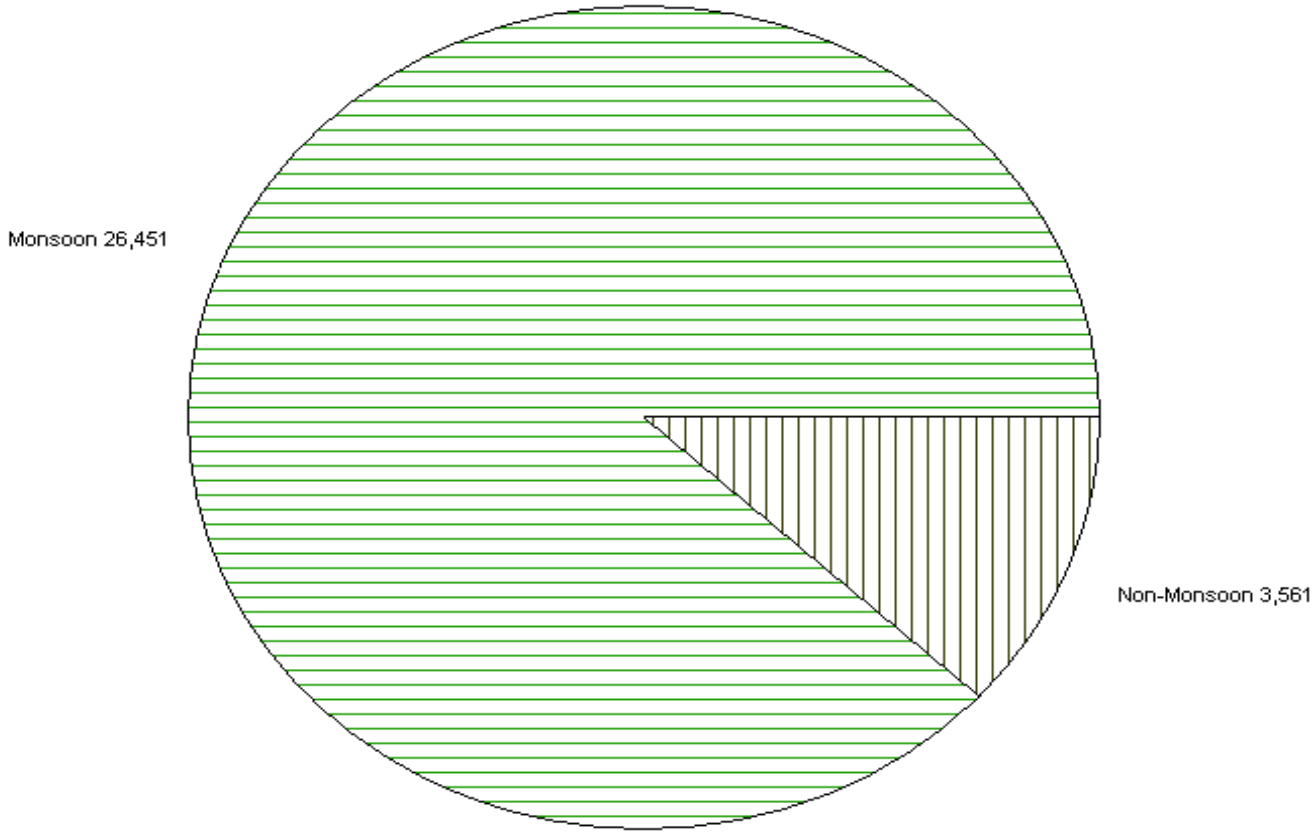
Seasonal Sediment Load for the Year: 2015-2016

Station Name : KALLOOPPARA (KYB00F2)

Local River : Manimala

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



654

BED MATERIAL ANALYSIS DATA

RIVER : *Manimala* **CODE NO. :** *KYBOOF2*

SITE : *Kallooppara* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015							DATE OF COLLECTION										
1																	
2							Samples not collected										
3																	
4																	
5																	
6																	
POSTMONSOON 2015							DATE OF COLLECTION		25.01.2016								
1	73	-	(-)0.080	0.820	0.90	23.0	-		6.20	1.04							
2	96	-	(-)0.130	0.820	0.95	23.0	-	2.283	6.00	1.18	65.34	0.9963	0.0351	0.0002	2.283	6.20	1.05
3	120	-	(-)0.600	0.820	1.42	24.0	-		6.00	0.93							
PREMONSOON 2016							DATE OF COLLECTION		20.05.2016								
1	73	-	(-)0.100	2.450	2.55	23.0	0.303		8.00	1.82							
2	96	-	(-)0.120	2.450	2.57	23.0	0.471	62.74	6.20	1.12	71.11	2.4217	0.3643	0.00010	62.74	10	1.91
3	120	-	(-)0.650	2.450	3.10	24.0	0.382		10.0	2.80							

Annual Sediment Load for period : 1986-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWRSD No.1, Trivandrum**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1986-1987	103443	2849	106293	3116
1987-1988	128049	15067	143116	3163
1988-1989	141700	3314	145014	3644
1989-1990	170762	2796	173558	4354
1990-1991	63496	2273	65769	3289
1991-1992	100939	3832	104770	4064
1992-1993	496387	5189	501576	5397
1993-1994	112485	4975	117460	4300
1994-1995	182623	18893	201516	4721
1995-1996	128498	2880	131379	4247
1996-1997	89485	9076	98561	3786
1997-1998	91579	3889	95468	3666
1998-1999	256820	33435	290255	5296
1999-2000	88434	1574	90009	3728
2000-2001	83998	4470	88468	3458
2001-2002	89196	933	90129	3596
2002-2003	34005	185	34191	1969
2003-2004	47115	5196	52311	2441
2004-2005	45485	2787	48272	3430
2005-2006	124224	7112	131336	5104
2006-2007	Sediment Observation Not Done			4253
2007-2008	Sediment Observation Not Done			4535
2008-2009	21905	100	22005	2234
2009-2010	31820	1368	33188	3287
2010-2011	49519	952	50471	4578
2011-2012	36685	691	37376	3593
2012-2013	12545	11	12556	1722
2013-2014	77319	497	77816	4550
2014-2015	23439	28800	52239	4039
2015-2016	8214	1283	9496	2921

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWRSD No.1, Trivandrum**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	53.29	0.000	0.000	0.001	0.001	3	347.3	0.000	0.001	0.000	0.001	24	98.42	0.000	0.000	0.001	0.001	8
2	49.01	0.000	0.000	0.001	0.001	3	230.8	0.000	0.000	0.002	0.002	40	71.70	0.000	0.000	0.001	0.001	5
3	55.04	0.000	0.000	0.001	0.001	3	189.4	0.000	0.000	0.002	0.002	28	70.51	0.000	0.000	0.001	0.001	5
4	75.62	0.000	0.000	0.001	0.001	7	179.2	0.000	0.000	0.002	0.002	23	73.96	0.000	0.000	0.001	0.001	5
5	73.24	0.000	0.000	0.001	0.001	6	155.8	0.000	0.000	0.001	0.001	19	104.9	0.000	0.000	0.001	0.001	9
6	59.00	0.000	0.000	0.001	0.001	4	142.6	0.000	0.000	0.001	0.001	16	144.0	0.000	0.000	0.001	0.001	15
7	65.03	0.000	0.000	0.001	0.001	6	115.4	0.000	0.000	0.002	0.002	15	109.7	0.000	0.000	0.001	0.001	9
8	40.35	0.000	0.000	0.001	0.001	3	106.6	0.000	0.000	0.001	0.001	11	100.9	0.000	0.000	0.001	0.001	7
9	67.54	0.000	0.000	0.001	0.001	4	107.1	0.000	0.000	0.001	0.001	11	79.62	0.000	0.000	0.001	0.001	5
10	58.27	0.000	0.000	0.001	0.001	4	113.6	0.000	0.000	0.002	0.002	16	93.05	0.000	0.000	0.001	0.001	7
11	54.37	0.000	0.000	0.001	0.001	3	113.0	0.000	0.000	0.001	0.001	14	142.4	0.000	0.000	0.001	0.001	16
12	114.6	0.000	0.001	0.002	0.003	25	109.6	0.000	0.000	0.001	0.001	12	221.1	0.000	0.001	0.003	0.003	63
13	114.1	0.000	0.000	0.002	0.002	19	107.1	0.000	0.000	0.001	0.001	11	302.9	0.001	0.003	0.005	0.010	251
14	86.79	0.000	0.000	0.002	0.002	13	106.2	0.000	0.000	0.001	0.001	10	287.4	0.000	0.000	0.003	0.003	79
15	58.61	0.000	0.000	0.002	0.002	8	93.22	0.000	0.000	0.001	0.001	9	301.7	0.000	0.000	0.003	0.003	78
16	68.25	0.000	0.000	0.002	0.002	10	73.53	0.000	0.000	0.001	0.001	6	238.5	0.000	0.000	0.002	0.002	47
17	74.36	0.000	0.000	0.001	0.001	6	97.04	0.000	0.000	0.001	0.001	12	185.3	0.000	0.000	0.001	0.001	22
18	94.19	0.000	0.000	0.001	0.001	7	269.5	0.000	0.000	0.003	0.003	65	230.0	0.000	0.000	0.002	0.002	30
19	88.91	0.000	0.000	0.001	0.001	5	275.8	0.000	0.000	0.003	0.003	67	233.9	0.000	0.000	0.002	0.002	32
20	219.1	0.000	0.000	0.001	0.002	32	242.5	0.000	0.000	0.002	0.002	44	173.1	0.000	0.000	0.001	0.001	19
21	190.7	0.000	0.000	0.001	0.001	21	242.5	0.000	0.000	0.002	0.002	50	137.8	0.000	0.000	0.001	0.001	13
22	179.8	0.000	0.000	0.001	0.001	17	282.7	0.000	0.000	0.003	0.003	66	143.0	0.000	0.000	0.001	0.001	16
23	188.8	0.000	0.001	0.002	0.002	36	227.9	0.000	0.000	0.002	0.002	37	128.3	0.000	0.000	0.001	0.001	12
24	222.1	0.000	0.001	0.002	0.003	48	267.0	0.000	0.000	0.002	0.002	53	124.7	0.000	0.000	0.001	0.001	11
25	186.7	0.000	0.001	0.002	0.002	32	272.6	0.000	0.000	0.002	0.002	54	111.6	0.000	0.000	0.001	0.001	9
26	307.2	0.000	0.002	0.005	0.007	191	207.6	0.000	0.000	0.002	0.002	30	113.1	0.000	0.000	0.001	0.001	12
27	560.1	0.002	0.003	0.012	0.017	803	167.1	0.000	0.000	0.001	0.001	20	89.71	0.000	0.000	0.001	0.001	7
28	619.9	0.001	0.003	0.012	0.016	846	157.4	0.000	0.000	0.001	0.001	18	76.61	0.000	0.000	0.001	0.001	5
29	546.0	0.001	0.002	0.009	0.012	552	114.6	0.000	0.000	0.001	0.001	12	72.61	0.000	0.000	0.001	0.001	5
30	412.8	0.000	0.000	0.005	0.005	175	110.0	0.000	0.000	0.001	0.001	11	66.91	0.000	0.000	0.001	0.001	5
31							104.1	0.000	0.000	0.001	0.001	10	57.27	0.000	0.000	0.001	0.001	4
Ten Daily Mean																		
Ten Daily I	59.64	0.000	0.000	0.001	0.001	4	168.8	0.000	0.000	0.001	0.001	20	94.68	0.000	0.000	0.001	0.001	7
Ten Daily II	97.33	0.000	0.000	0.001	0.001	13	148.8	0.000	0.000	0.002	0.002	25	231.6	0.000	0.000	0.002	0.003	64
Ten Daily III	341.4	0.000	0.001	0.005	0.007	272	195.8	0.000	0.000	0.002	0.002	33	102.0	0.000	0.000	0.001	0.001	9
Monthly																		
Total						2891						814						812

Annual Sediment Load (Metric Tonnes) : 9838

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWRSD No.1, Trivandrum**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	50.70	0.000	0.000	0.001	0.001	4	338.1	0.000	0.001	0.002	0.003	79	143.1	0.000	0.001	0.004	0.005	56
2	56.81	0.000	0.000	0.001	0.001	4	229.5	0.000	0.000	0.001	0.002	32	102.3	0.000	0.001	0.003	0.003	27
3	49.85	0.000	0.000	0.001	0.001	5	223.5	0.000	0.000	0.001	0.001	23	94.04	0.000	0.000	0.001	0.001	10
4	45.56	0.000	0.000	0.001	0.001	4	172.9	0.000	0.000	0.001	0.001	21	91.41	0.000	0.000	0.001	0.001	9
5	71.75	0.000	0.000	0.001	0.001	7	175.7	0.000	0.000	0.002	0.002	30	295.5	0.000	0.002	0.007	0.009	220
6	100.7	0.000	0.000	0.001	0.001	10	319.7	0.000	0.001	0.004	0.005	124	228.2	0.000	0.002	0.006	0.008	150
7	143.1	0.000	0.000	0.001	0.001	16	255.8	0.000	0.001	0.003	0.005	99	280.8	0.000	0.002	0.007	0.008	199
8	133.9	0.000	0.000	0.002	0.002	17	216.8	0.000	0.000	0.001	0.001	21	277.4	0.000	0.002	0.007	0.008	194
9	123.6	0.000	0.000	0.002	0.002	22	183.9	0.000	0.000	0.001	0.001	16	264.1	0.000	0.001	0.006	0.008	178
10	138.8	0.000	0.000	0.002	0.002	18	295.2	0.000	0.001	0.005	0.005	128	209.0	0.000	0.001	0.007	0.007	128
11	122.6	0.000	0.000	0.002	0.002	20	252.3	0.000	0.001	0.004	0.005	105	178.9	0.000	0.000	0.002	0.002	25
12	106.0	0.000	0.000	0.001	0.001	11	321.8	0.000	0.001	0.006	0.007	186	106.6	0.000	0.000	0.001	0.001	12
13	85.75	0.000	0.000	0.001	0.001	7	252.3	0.000	0.000	0.004	0.004	92	139.9	0.000	0.000	0.002	0.002	18
14	94.01	0.000	0.000	0.001	0.001	9	264.1	0.000	0.000	0.004	0.004	89	173.2	0.000	0.000	0.002	0.002	24
15	57.58	0.000	0.000	0.001	0.001	4	235.6	0.000	0.000	0.003	0.003	69	144.3	0.000	0.000	0.002	0.002	19
16	73.63	0.000	0.000	0.001	0.001	6	174.0	0.000	0.000	0.002	0.002	23	125.3	0.000	0.000	0.001	0.001	15
17	111.6	0.000	0.000	0.001	0.001	12	135.3	0.000	0.000	0.001	0.001	15	116.4	0.000	0.000	0.001	0.001	13
18	130.5	0.000	0.000	0.002	0.002	20	129.5	0.000	0.000	0.001	0.001	16	111.4	0.000	0.000	0.001	0.001	13
19	120.1	0.000	0.000	0.001	0.001	15	122.8	0.000	0.000	0.001	0.001	15	177.4	0.001	0.002	0.005	0.007	100
20	132.0	0.000	0.000	0.002	0.002	17	132.6	0.000	0.000	0.001	0.001	15	125.5	0.000	0.001	0.006	0.007	78
21	110.7	0.000	0.000	0.001	0.001	11	111.4	0.000	0.000	0.001	0.001	12	121.8	0.000	0.000	0.001	0.001	15
22	108.9	0.000	0.000	0.001	0.001	11	123.7	0.000	0.000	0.001	0.001	14	99.61	0.000	0.000	0.001	0.001	9
23	105.8	0.000	0.000	0.001	0.001	12	139.3	0.000	0.000	0.001	0.001	17	114.2	0.000	0.000	0.001	0.001	11
24	94.19	0.000	0.000	0.001	0.001	10	158.4	0.000	0.000	0.002	0.002	22	109.8	0.000	0.000	0.001	0.001	9
25	135.1	0.000	0.000	0.002	0.002	20	170.2	0.000	0.000	0.002	0.002	26	92.05	0.000	0.000	0.001	0.001	10
26	125.4	0.000	0.000	0.002	0.002	20	136.5	0.000	0.000	0.001	0.001	17	79.62	0.000	0.000	0.002	0.002	10
27	151.9	0.001	0.001	0.001	0.003	34	140.2	0.000	0.000	0.002	0.002	18	74.52	0.000	0.000	0.001	0.001	7
28	247.6	0.001	0.002	0.005	0.008	165	123.5	0.000	0.000	0.002	0.002	16	89.37	0.000	0.000	0.001	0.001	8
29	227.6	0.000	0.001	0.001	0.002	41	120.3	0.000	0.000	0.001	0.001	14	92.05	0.000	0.000	0.001	0.001	11
30	315.2	0.000	0.001	0.005	0.006	161	143.7	0.000	0.000	0.002	0.002	20	47.81	0.000	0.000	0.001	0.001	4
31							104.3	0.000	0.001	0.003	0.003	31						
Ten Daily Mean																		
Ten Daily I	91.48	0.000	0.000	0.001	0.001	11	241.1	0.000	0.000	0.002	0.003	57	198.6	0.000	0.001	0.005	0.006	117
Ten Daily II	103.4	0.000	0.000	0.001	0.001	12	202.0	0.000	0.000	0.003	0.003	62	139.9	0.000	0.000	0.002	0.003	32
Ten Daily III	162.2	0.000	0.000	0.002	0.003	48	133.8	0.000	0.000	0.002	0.002	19	92.08	0.000	0.000	0.001	0.001	10
Monthly																		
Total						713						1402						1581

Annual Sediment Load (Metric Tonnes) : 9838

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWRSD No.1, Trivandrum**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	96.28	0.000	0.000	0.002	0.002	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	101.3	0.000	0.000	0.002	0.002	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	100.1	0.000	0.000	0.002	0.002	14	30.16	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0
4	108.7	0.000	0.000	0.002	0.002	16	30.43	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
5	98.48	0.000	0.000	0.002	0.002	13	42.79	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
6	100.7	0.000	0.000	0.002	0.002	14	42.48	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
7	99.03	0.000	0.000	0.002	0.002	13	42.25	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
8	100.7	0.000	0.000	0.001	0.001	11	31.34	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0
9	110.9	0.000	0.000	0.001	0.001	13	30.67	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0
10	107.1	0.000	0.000	0.001	0.001	12	29.29	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0
11	101.2	0.000	0.000	0.001	0.001	10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	105.5	0.000	0.000	0.001	0.001	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	113.9	0.000	0.000	0.002	0.002	22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	115.7	0.000	0.000	0.003	0.003	30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	143.9	0.000	0.002	0.008	0.010	118	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	191.8	0.000	0.002	0.009	0.011	179	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	141.2	0.000	0.001	0.007	0.008	98	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	105.5	0.000	0.025	0.005	0.030	272	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	94.01	0.000	0.000	0.001	0.001	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	71.18	0.000	0.000	0.001	0.001	6	35.06	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
21	69.10	0.000	0.000	0.001	0.001	7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	72.25	0.000	0.000	0.001	0.001	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	71.35	0.000	0.000	0.001	0.001	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	61.70	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	53.84	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	41.96	0.000	0.000	0.000	0.000	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	48.48	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	42.77	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	41.36	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	40.99	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0						
31	45.34	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	102.3	0.000	0.000	0.002	0.002	13	27.94	0.000	0.000	0.000	0.000	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	118.4	0.000	0.003	0.004	0.007	76	3.506	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	53.56	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						920						15						0

Annual Sediment Load (Metric Tonnes) : 9838

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : MALAKKARA (KY000J4) **Division : SWR Division, Kochi**

Local River : Pamba **Sub-Division : SWRSD No.1, Trivandrum**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.92	0.000	0.000	0.001	0.001	2
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	37.47	0.000	0.000	0.001	0.001	3
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.98	0.000	0.000	0.001	0.001	2
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.89	0.000	0.000	0.001	0.001	2
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	32.51	0.000	0.000	0.001	0.001	2
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.93	0.000	0.000	0.001	0.001	2
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	33.37	0.000	0.000	0.001	0.001	2
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.59	0.000	0.000	0.001	0.001	2
11	0.000	0.000	0.000	0.000	0.000	0	33.27	0.000	0.000	0.001	0.001	2	31.07	0.000	0.000	0.001	0.001	2
12	0.000	0.000	0.000	0.000	0.000	0	35.15	0.000	0.000	0.001	0.001	2	29.11	0.000	0.000	0.001	0.001	1
13	0.000	0.000	0.000	0.000	0.000	0	32.64	0.000	0.000	0.001	0.001	2	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	28.43	0.000	0.000	0.001	0.001	1
16	35.58	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	30.16	0.000	0.000	0.001	0.001	1
17	33.74	0.000	0.000	0.001	0.001	3	0.000	0.000	0.000	0.000	0.000	0	47.20	0.000	0.000	0.001	0.001	3
18	31.04	0.000	0.000	0.001	0.001	2	30.46	0.000	0.000	0.001	0.001	1	250.3	0.000	0.001	0.003	0.003	74
19	28.69	0.000	0.000	0.001	0.001	1	28.58	0.000	0.000	0.001	0.001	1	120.1	0.000	0.000	0.002	0.002	21
20	31.04	0.000	0.000	0.001	0.001	2	33.74	0.000	0.000	0.001	0.001	2	88.19	0.000	0.000	0.001	0.001	9
21	28.91	0.000	0.000	0.001	0.001	1	33.15	0.000	0.000	0.001	0.001	2	59.41	0.000	0.000	0.001	0.001	5
22	0.000	0.000	0.000	0.000	0.000	0	29.42	0.000	0.000	0.001	0.001	1	43.34	0.000	0.000	0.001	0.001	3
23	28.66	0.000	0.000	0.001	0.001	1	29.21	0.000	0.000	0.001	0.001	1	29.29	0.000	0.000	0.001	0.001	2
24	0.000	0.000	0.000	0.000	0.000	0	31.93	0.000	0.000	0.001	0.001	1	29.29	0.000	0.000	0.001	0.001	2
25	0.000	0.000	0.000	0.000	0.000	0	26.57	0.000	0.000	0.000	0.000	1	71.03	0.000	0.001	0.005	0.006	38
26	0.000	0.000	0.000	0.000	0.000	0	29.34	0.000	0.000	0.001	0.001	1	120.8	0.000	0.001	0.006	0.007	71
27	0.000	0.000	0.000	0.000	0.000	0	31.30	0.000	0.000	0.001	0.001	2	92.84	0.000	0.001	0.002	0.003	22
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	85.03	0.000	0.001	0.002	0.002	18
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	57.16	0.000	0.000	0.001	0.001	7
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	46.05	0.000	0.000	0.001	0.001	3
31	0.000	0.000	0.000	0.000	0.000	0							72.40	0.000	0.001	0.002	0.003	18
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	26.67	0.000	0.000	0.001	0.001	2
Ten Daily II	16.01	0.000	0.000	0.000	0.000	1	19.39	0.000	0.000	0.000	0.000	1	62.46	0.000	0.000	0.001	0.001	11
Ten Daily III	5.234	0.000	0.000	0.000	0.000	0	21.09	0.000	0.000	0.000	0.000	1	64.24	0.000	0.000	0.002	0.002	17
Monthly																		
Total						13						19						316

Annual Sediment Load (Metric Tonnes) : 9838

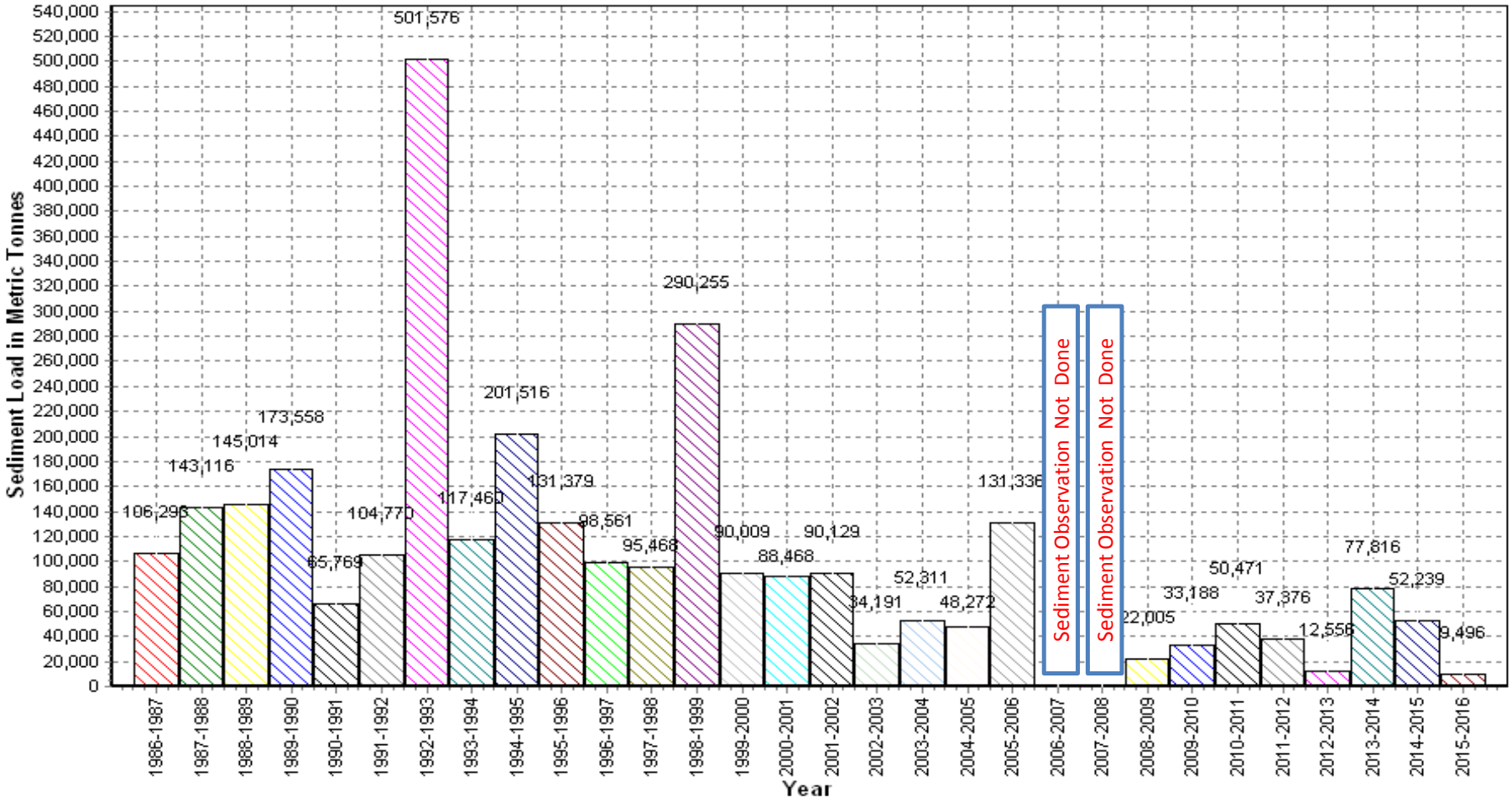
Annual Sediment Load for the period: 1986-2016

Station Name : MALAKKARA (KY000J4)

Local River : Pamba

Division : SWR Division, Kochi

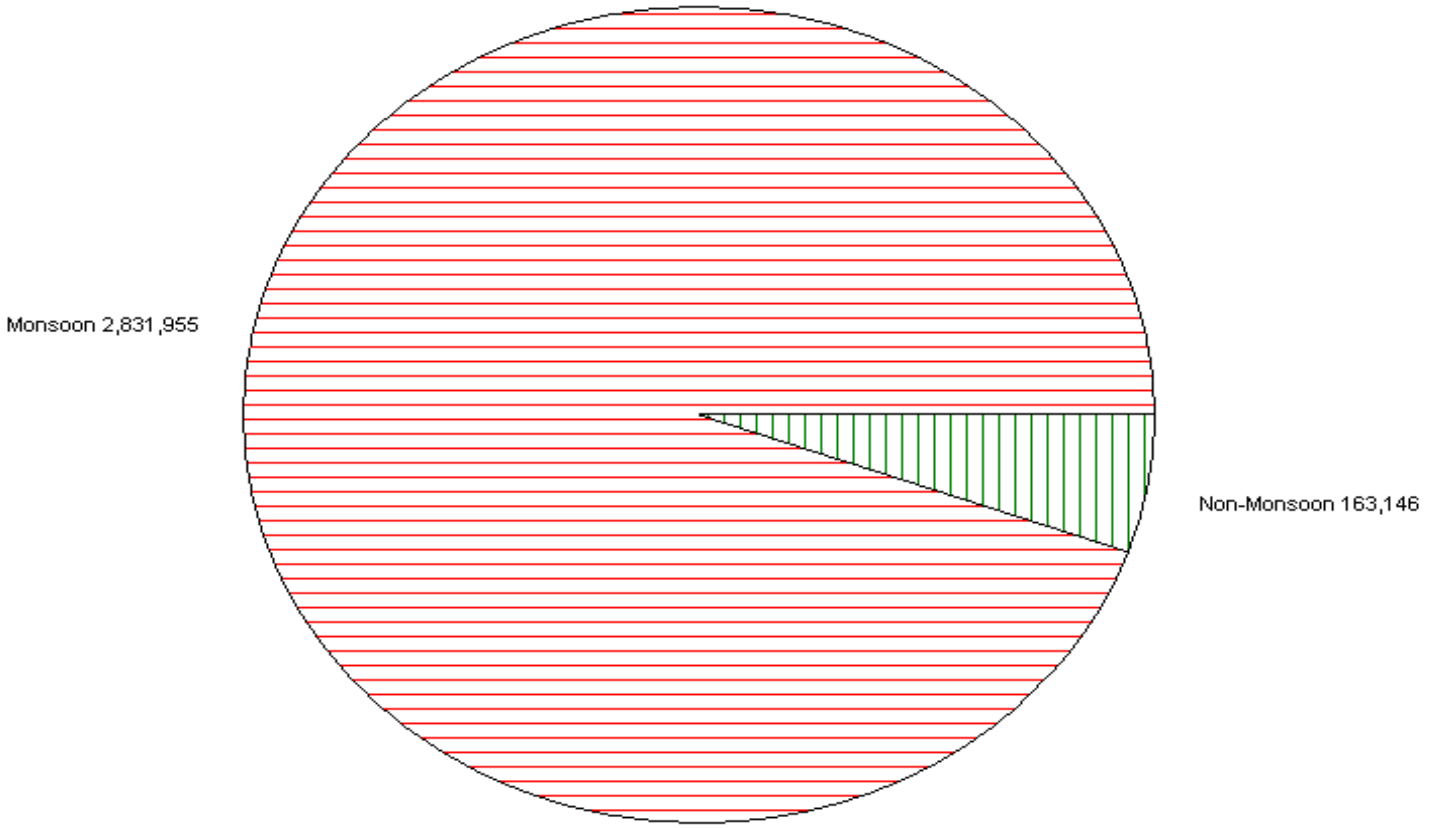
Sub-Division : SWRSD No.1, Trivandrum



Seasonal Sediment Load for the period : 1986-2015

Station Name : MALAKKARA (KY000J4)
Local River : Pamba

Division : SWR Division, Kochi
Sub-Division : SWRSD No.1, Trivandrum



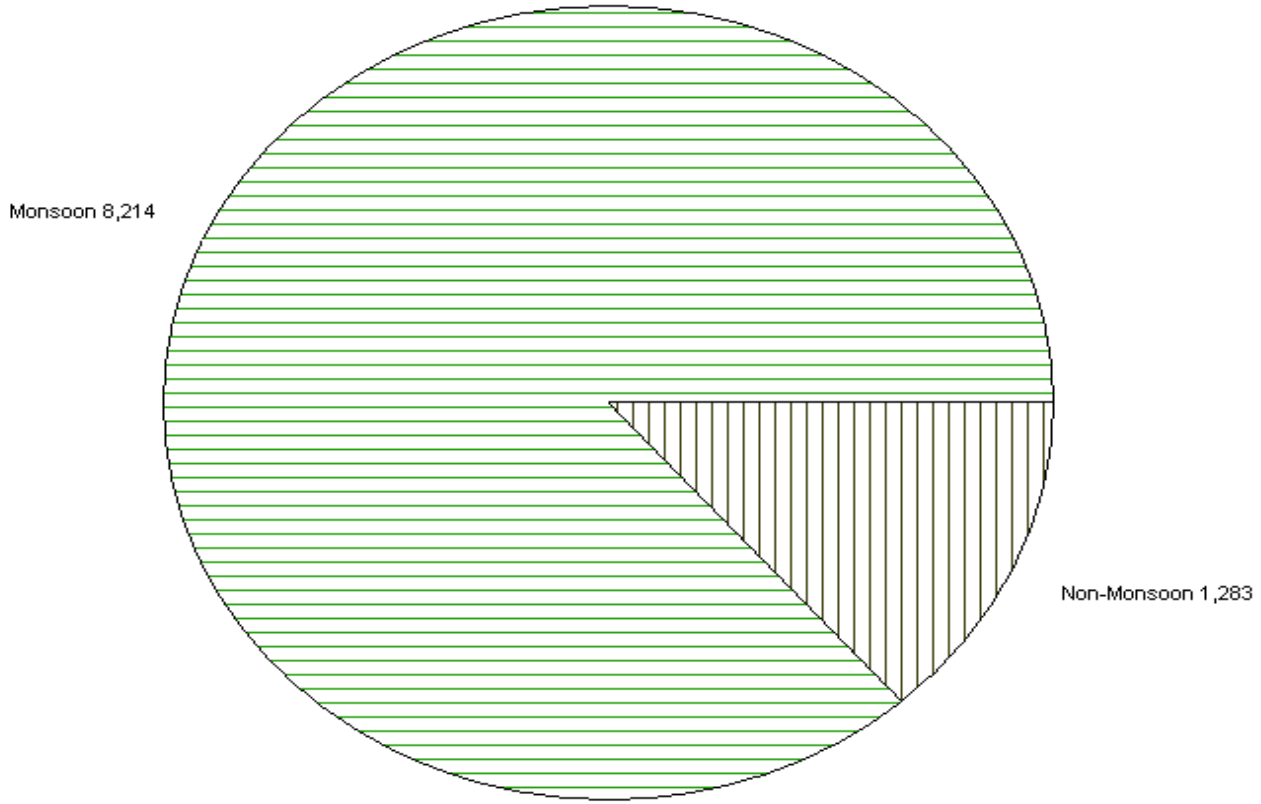
Seasonal Sediment Load for the Year: 2015-2016

Station Name : MALAKKARA (KY000J4)

Local River : Pamba

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



BED MATERIAL ANALYSIS DATA

RIVER : *Pamba* **CODE NO. :** *KYOOOJ4*

SITE : *Malakkara* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015							DATE OF COLLECTION		00-00-0000								
1																	
2																	
3							Samples not collected										
POSTMONSOON 2015							DATE OF COLLECTION		09-12-2015								
1	80	-	(-)3.410	0.490	3.90	35.0	0.288		6	.98							
2	115	-	(-)3.310	0.490	3.80	35.0	0.410	110.9	6.3	1.15	103.49	3.1614	0.3390	0.0003	110.9	6.3	1.05
3	150	-	(-)2.010	0.490	2.50	35.0	0.242		6	1.02							
PREMONSOON 2016							DATE OF COLLECTION		30.05.2016								
1	80	-	(-)3.300	0.300	3.600	35.0	0.172		8	1.38							
2	115	-	(-)3.200	0.300	3.500	35.0	0.229	46.47	6	1.06	102.05	2.9618	0.1537	0.0003	46.47	10	1.29
3	150	-	(-)2.000	0.300	2.300	35.0	NIL		10	1.42							

Annual Sediment Load for period : 1980-2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWRSD No.1, Trivandrum**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1980-1981	0	1255	1255	1141
1981-1982	143177	3828	147005	1872
1982-1983	51128	270	51398	721
1983-1984	33033	6441	39473	840
1984-1985	34680	1526	36206	864
1985-1986	42469	1643	44113	972
1986-1987	38914	383	39297	747
1987-1988	68271	14134	82404	974
1988-1989	48938	1076	50015	936
1989-1990	102685	1482	104166	1440
1990-1991	36097	784	36881	860
1991-1992	95939	6890	102829	1470
1992-1993	177589	4462	182052	1911
1993-1994	87550	1417	88967	1284
1994-1995	113969	16394	130363	1614
1995-1996	66416	1072	67488	1449
1996-1997	85160	1903	87063	1039
1997-1998	84376	1164	85540	1072
1998-1999	56224	1897	58121	1613
1999-2000	26704	286	26990	1196
2000-2001	17174	554	17728	1091
2001-2002	45907	105	46012	1259
2002-2003	15009	175	15183	638
2003-2004	11284	7738	19022	810
2004-2005	21866	232	22099	918
2005-2006	28138	8064	36203	1246
2006-2007	Sediment Observation Not Done			1328
2007-2008	Sediment Observation Not Done			1277
2008-2009	36261	203	36464	720
2009-2010	29208	1487	30695	754
2010-2011	85289	2812	88101	1400
2011-2012	20253	1401	21654	975
2012-2013	8628	36	8664	406
2013-2014	25354	1203	26558	1390
2014-2015	16958	999	17957	1269
2015-2016	7060	516	7576	809

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWRSD No.1, Trivandrum**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	7.588	0.000	0.000	0.002	0.002	1	89.83	0.000	0.002	0.002	0.004	29	15.22	0.000	0.000	0.002	0.002	2
2	5.587	0.000	0.000	0.001	0.001	1	64.75	0.000	0.000	0.004	0.004	20	17.90	0.000	0.000	0.004	0.004	5
3	3.860	0.000	0.000	0.002	0.002	1	44.32	0.000	0.000	0.003	0.003	10	14.48	0.000	0.000	0.004	0.004	5
4	29.14	0.000	0.000	0.001	0.001	3	43.45	0.000	0.000	0.001	0.001	5	14.69	0.000	0.000	0.008	0.008	10
5	27.57	0.000	0.000	0.001	0.001	3	32.23	0.000	0.000	0.001	0.001	2	14.18	0.000	0.000	0.003	0.003	4
6	18.12	0.000	0.008	0.002	0.010	15	30.45	0.000	0.000	0.000	0.000	1	16.83	0.000	0.000	0.004	0.004	6
7	13.24	0.000	0.004	0.001	0.005	6	24.10	0.000	0.000	0.002	0.002	5	14.27	0.000	0.000	0.002	0.002	3
8	11.70	0.000	0.001	0.001	0.002	2	20.89	0.000	0.000	0.003	0.003	5	13.77	0.000	0.000	0.003	0.003	3
9	21.64	0.000	0.001	0.002	0.003	5	18.20	0.000	0.000	0.004	0.004	7	12.02	0.000	0.000	0.002	0.002	2
10	14.82	0.000	0.000	0.002	0.002	2	20.12	0.000	0.000	0.001	0.001	2	12.44	0.000	0.000	0.001	0.001	1
11	11.30	0.000	0.000	0.001	0.001	1	22.39	0.000	0.000	0.003	0.003	5	17.82	0.000	0.000	0.005	0.005	7
12	15.16	0.000	0.000	0.001	0.001	2	24.54	0.000	0.000	0.002	0.002	5	18.42	0.000	0.000	0.009	0.009	14
13	14.30	0.000	0.000	0.002	0.002	3	22.61	0.000	0.000	0.002	0.002	3	33.12	0.000	0.000	0.015	0.015	43
14	13.24	0.000	0.000	0.002	0.002	2	17.60	0.000	0.000	0.004	0.004	6	43.76	0.000	0.002	0.008	0.010	37
15	11.30	0.000	0.000	0.001	0.001	1	16.32	0.000	0.000	0.004	0.004	6	39.04	0.000	0.001	0.006	0.007	24
16	15.18	0.000	0.000	0.008	0.008	10	20.25	0.000	0.000	0.002	0.002	3	34.45	0.000	0.001	0.005	0.006	18
17	11.47	0.000	0.000	0.001	0.001	1	17.11	0.000	0.000	0.006	0.006	9	32.18	0.000	0.000	0.004	0.004	11
18	13.43	0.000	0.000	0.004	0.004	4	43.41	0.000	0.000	0.007	0.007	27	61.96	0.000	0.002	0.003	0.005	25
19	13.53	0.000	0.000	0.005	0.005	5	47.94	0.000	0.000	0.008	0.008	33	84.25	0.001	0.002	0.019	0.022	162
20	17.64	0.000	0.000	0.000	0.000	0	40.89	0.000	0.000	0.003	0.003	12	56.04	0.000	0.003	0.022	0.025	123
21	18.99	0.000	0.000	0.003	0.003	4	41.97	0.000	0.000	0.002	0.002	9	49.68	0.000	0.000	0.001	0.001	3
22	20.78	0.000	0.000	0.003	0.003	5	44.97	0.000	0.000	0.002	0.002	7	47.59	0.000	0.002	0.006	0.008	31
23	24.75	0.000	0.000	0.005	0.005	12	40.89	0.000	0.000	0.001	0.001	5	39.04	0.000	0.001	0.004	0.005	17
24	29.56	0.000	0.000	0.003	0.003	7	42.29	0.000	0.000	0.001	0.001	3	33.90	0.000	0.000	0.003	0.003	9
25	30.53	0.000	0.000	0.006	0.006	16	44.06	0.000	0.000	0.011	0.011	42	25.89	0.000	0.000	0.003	0.003	6
26	44.83	0.000	0.000	0.009	0.009	35	38.65	0.000	0.000	0.008	0.008	26	24.53	0.000	0.000	0.002	0.002	4
27	91.63	0.001	0.009	0.007	0.017	138	30.32	0.000	0.000	0.004	0.004	10	20.17	0.000	0.000	0.003	0.003	5
28	236.8	0.016	0.016	0.014	0.047	955	25.85	0.000	0.000	0.003	0.003	6	17.01	0.000	0.000	0.002	0.002	3
29	120.2	0.013	0.006	0.006	0.024	253	24.40	0.000	0.000	0.002	0.002	5	15.25	0.000	0.000	0.002	0.002	2
30	116.9	0.000	0.001	0.009	0.010	98	19.83	0.000	0.000	0.004	0.004	6	13.62	0.000	0.000	0.002	0.002	2
31							17.54	0.000	0.000	0.003	0.003	5	13.21	0.000	0.000	0.003	0.003	3
Ten Daily Mean																		
Ten Daily I	15.33	0.000	0.001	0.001	0.003	4	38.83	0.000	0.000	0.002	0.002	9	14.58	0.000	0.000	0.003	0.003	4
Ten Daily II	13.65	0.000	0.000	0.003	0.003	3	27.30	0.000	0.000	0.004	0.004	11	42.10	0.000	0.001	0.010	0.011	46
Ten Daily III	73.50	0.003	0.003	0.006	0.013	152	33.71	0.000	0.000	0.004	0.004	11	27.26	0.000	0.000	0.003	0.003	8
Monthly																		
Total						1592						317						592

999

Annual Sediment Load (Metric Tonnes) : 7576

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWRSD No.1, Trivandrum**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	11.70	0.000	0.000	0.002	0.002	2	97.70	0.001	0.036	0.005	0.042	351	111.2	0.001	0.001	0.008	0.010	93
2	10.41	0.000	0.000	0.002	0.002	2	57.44	0.000	0.014	0.004	0.019	94	91.33	0.001	0.001	0.006	0.008	63
3	10.39	0.000	0.000	0.003	0.003	3	47.53	0.000	0.000	0.006	0.006	25	71.83	0.000	0.000	0.004	0.004	25
4	7.621	0.000	0.000	0.003	0.003	2	43.81	0.000	0.000	0.003	0.003	11	67.98	0.000	0.000	0.004	0.004	24
5	22.15	0.001	0.002	0.005	0.009	16	54.76	0.000	0.000	0.001	0.001	3	223.8	0.002	0.001	0.005	0.009	166
6	46.27	0.002	0.004	0.010	0.015	62	74.28	0.001	0.002	0.037	0.040	259	128.7	0.002	0.001	0.006	0.009	100
7	37.97	0.001	0.003	0.007	0.012	38	60.65	0.000	0.000	0.029	0.029	150	134.6	0.001	0.002	0.008	0.011	123
8	34.92	0.000	0.003	0.012	0.015	46	49.82	0.000	0.000	0.002	0.002	7	114.9	0.001	0.001	0.007	0.008	80
9	26.36	0.000	0.000	0.003	0.003	8	75.62	0.000	0.000	0.003	0.003	16	127.5	0.000	0.000	0.008	0.008	85
10	34.96	0.000	0.000	0.005	0.005	16	118.7	0.002	0.000	0.011	0.012	125	93.96	0.000	0.000	0.009	0.009	70
11	26.45	0.000	0.000	0.003	0.003	7	91.36	0.001	0.006	0.007	0.014	109	74.41	0.000	0.000	0.011	0.011	69
12	21.29	0.000	0.000	0.002	0.002	4	71.13	0.000	0.000	0.002	0.002	13	62.45	0.000	0.000	0.002	0.002	12
13	25.21	0.000	0.000	0.003	0.003	5	71.38	0.000	0.000	0.013	0.013	80	122.6	0.001	0.002	0.018	0.021	221
14	19.46	0.000	0.000	0.002	0.002	4	98.93	0.002	0.002	0.033	0.037	318	84.96	0.000	0.000	0.006	0.006	45
15	19.31	0.000	0.000	0.006	0.006	10	73.05	0.002	0.006	0.006	0.013	84	64.26	0.000	0.000	0.004	0.004	23
16	17.34	0.000	0.000	0.003	0.003	5	56.83	0.000	0.000	0.004	0.004	20	81.17	0.000	0.000	0.005	0.005	34
17	27.22	0.000	0.000	0.001	0.001	3	42.55	0.000	0.000	0.003	0.003	11	62.98	0.000	0.000	0.004	0.004	21
18	36.61	0.000	0.000	0.003	0.003	8	35.20	0.000	0.000	0.004	0.004	13	55.25	0.000	0.000	0.004	0.004	21
19	25.76	0.000	0.000	0.002	0.002	5	32.70	0.000	0.000	0.006	0.006	17	87.00	0.001	0.002	0.010	0.013	96
20	34.45	0.000	0.000	0.004	0.004	12	34.44	0.000	0.000	0.002	0.002	7	71.93	0.001	0.001	0.004	0.006	37
21	27.48	0.000	0.000	0.004	0.004	9	29.00	0.000	0.000	0.006	0.006	14	54.17	0.000	0.000	0.001	0.001	2
22	24.88	0.000	0.000	0.003	0.003	6	59.04	0.002	0.001	0.006	0.009	48	42.35	0.000	0.000	0.003	0.003	11
23	18.62	0.000	0.000	0.003	0.003	4	31.50	0.000	0.000	0.002	0.002	6	34.54	0.000	0.000	0.006	0.006	16
24	17.01	0.000	0.000	0.001	0.001	2	66.58	0.001	0.001	0.005	0.007	39	31.48	0.000	0.000	0.005	0.005	13
25	60.73	0.001	0.003	0.004	0.008	40	76.17	0.002	0.001	0.005	0.008	51	32.77	0.000	0.000	0.006	0.006	18
26	85.30	0.001	0.002	0.006	0.008	59	84.10	0.002	0.001	0.006	0.009	62	25.91	0.000	0.000	0.006	0.006	14
27	60.13	0.002	0.002	0.004	0.007	38	56.82	0.000	0.000	0.002	0.002	12	22.61	0.000	0.000	0.003	0.003	6
28	57.01	0.003	0.003	0.004	0.010	47	36.68	0.000	0.000	0.006	0.006	19	28.51	0.000	0.000	0.003	0.003	8
29	62.46	0.001	0.003	0.030	0.034	182	55.83	0.000	0.002	0.009	0.011	55	24.92	0.000	0.000	0.003	0.003	5
30	79.98	0.000	0.003	0.011	0.014	100	105.2	0.001	0.001	0.019	0.022	198	22.34	0.000	0.000	0.002	0.002	3
31							99.19	0.002	0.001	0.008	0.011	93						
Ten Daily Mean																		
Ten Daily I	24.28	0.000	0.001	0.005	0.007	19	68.03	0.000	0.005	0.010	0.016	104	116.6	0.001	0.001	0.006	0.008	83
Ten Daily II	25.31	0.000	0.000	0.003	0.003	6	60.76	0.000	0.001	0.008	0.010	67	76.70	0.000	0.001	0.007	0.008	58
Ten Daily III	49.36	0.001	0.001	0.007	0.009	49	63.65	0.001	0.001	0.007	0.008	54	31.96	0.000	0.000	0.004	0.004	10
Monthly																		
Total						743						2311						1505

Annual Sediment Load (Metric Tonnes) : 7576

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWRSD No.1, Trivandrum**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	28.64	0.000	0.000	0.003	0.003	8	8.752	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
2	22.49	0.000	0.000	0.003	0.003	5	5.994	0.000	0.000	0.003	0.003	2	0.000	0.000	0.000	0.000	0.000	0
3	21.46	0.000	0.000	0.002	0.002	4	5.379	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
4	28.27	0.000	0.000	0.003	0.003	8	4.371	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0
5	19.78	0.000	0.000	0.002	0.002	4	4.623	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
6	19.45	0.000	0.000	0.002	0.002	4	4.246	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
7	24.24	0.000	0.000	0.003	0.003	6	3.975	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
8	21.69	0.000	0.000	0.003	0.003	6	1.555	0.000	0.000	0.002	0.002	0	0.000	0.000	0.000	0.000	0.000	0
9	22.36	0.000	0.000	0.002	0.002	4	3.468	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
10	16.77	0.000	0.000	0.000	0.000	0	3.294	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
11	16.46	0.000	0.000	0.002	0.002	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	16.46	0.000	0.000	0.002	0.002	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	13.88	0.000	0.000	0.007	0.007	9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	20.24	0.000	0.000	0.018	0.018	31	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	21.94	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	67.75	0.001	0.002	0.004	0.006	37	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	38.64	0.000	0.000	0.004	0.004	13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	24.66	0.000	0.000	0.003	0.003	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	20.03	0.000	0.000	0.013	0.013	22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	20.78	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	17.29	0.000	0.000	0.004	0.004	6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	15.91	0.000	0.000	0.005	0.005	7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	15.85	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	15.06	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	11.09	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	9.557	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	9.021	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	8.783	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	8.423	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	8.287	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0						
31	8.252	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	22.52	0.000	0.000	0.002	0.002	5	4.566	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	26.09	0.000	0.000	0.007	0.007	16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	11.59	0.000	0.000	0.002	0.002	2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						224						8						0

Annual Sediment Load (Metric Tonnes) : 7576

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : THUMPAMON (KYA00J4) **Division : SWR Division, Kochi**

Local River : Achankovil **Sub-Division : SWRSD No.1, Trivandrum**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	1.110	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	7.115	0.000	0.000	0.001	0.001	1	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	3.001	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.254	0.000	0.000	0.002	0.002	2
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.225	0.000	0.000	0.002	0.002	1
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	22.37	0.000	0.000	0.001	0.001	3
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.88	0.000	0.000	0.001	0.001	1
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.73	0.000	0.000	0.001	0.001	1
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	15.05	0.000	0.000	0.002	0.002	2
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	148.5	0.001	0.006	0.004	0.010	127
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	58.19	0.000	0.003	0.004	0.007	34
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	36.62	0.000	0.002	0.004	0.006	20
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	30.17	0.000	0.001	0.005	0.006	16
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	16.89	0.000	0.001	0.003	0.003	5
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.64	0.000	0.000	0.004	0.004	5
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	9.335	0.000	0.000	0.000	0.000	0
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	20.93	0.000	0.000	0.001	0.001	2
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	22.28	0.000	0.001	0.008	0.008	16
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	20.65	0.000	0.000	0.007	0.007	13
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	22.42	0.000	0.000	0.008	0.008	15
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	15.66	0.000	0.000	0.004	0.004	6
30	2.596	0.000	0.000	0.001	0.001	0	0.000	0.000	0.000	0.000	0.000	0	11.86	0.000	0.000	0.002	0.002	2
31	2.691	0.007	0.002	0.000	0.010	2							22.95	0.000	0.000	0.005	0.005	10
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.712	0.000	0.000	0.000	0.000	0	0.111	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.300	0.000	0.000	0.000	0.000	0	32.59	0.000	0.001	0.002	0.003	19
Ten Daily III	0.481	0.001	0.000	0.000	0.001	0	0.000	0.000	0.000	0.000	0.000	0	18.80	0.000	0.000	0.004	0.004	8
Monthly																		
Total						3						1						280

Annual Sediment Load (Metric Tonnes) : 7576

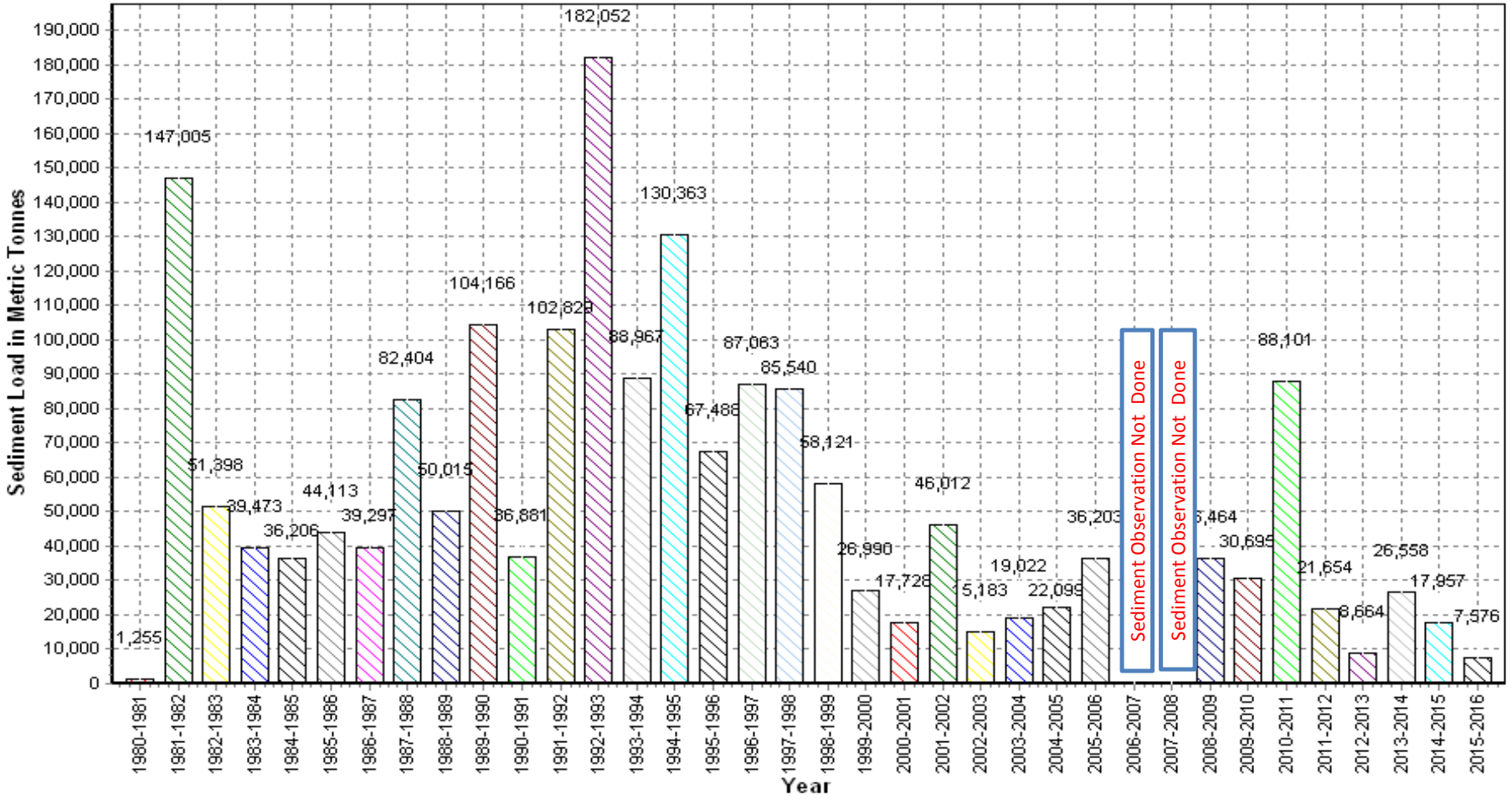
Annual Sediment Load for the period: 1980-2016

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



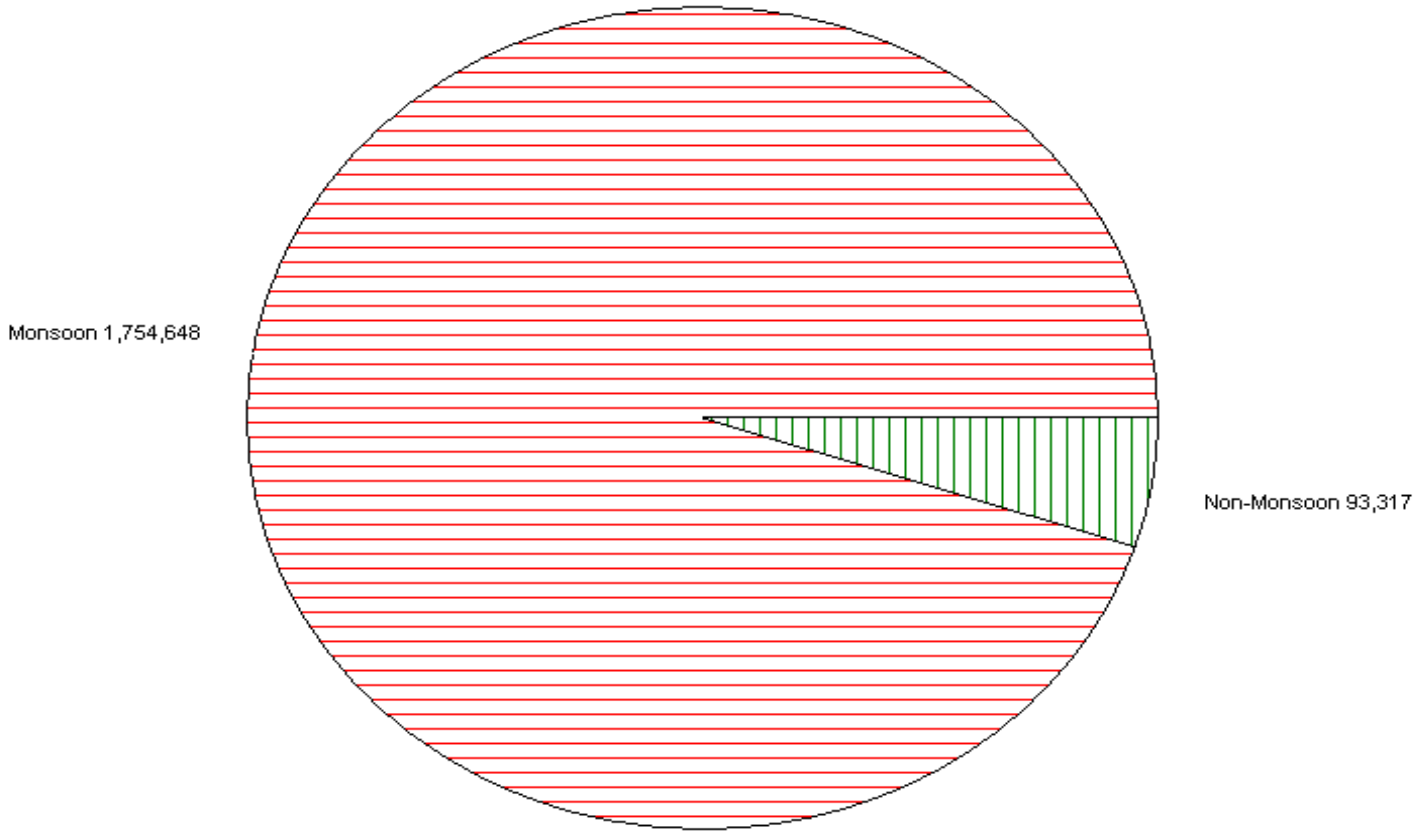
Seasonal Sediment Load for the period : 1980-2015

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



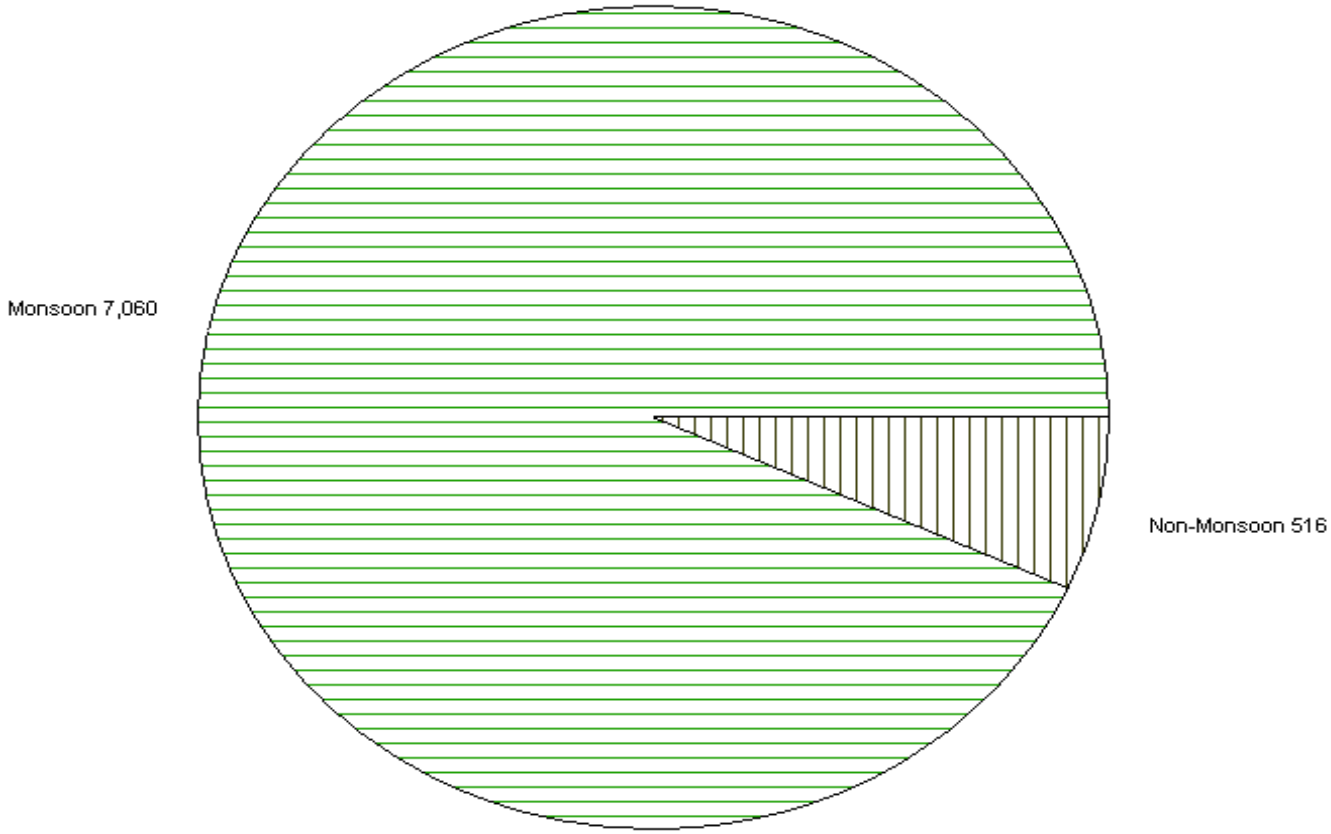
Seasonal Sediment Load for the Year: 2015-2016

Station Name : THUMPAMON (KYA00J4)

Local River : Achankovil

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



BED MATERIAL ANALYSIS DATA

RIVER : *Achankovil* **CODE NO. :** *KYA00J4*

SITE : *Thumpamon* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED											GENERAL DATA OF THE RIVER						
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	Bed Material Composition		WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	Bed Material Composition	
									MAX SIZE (mm)	MEAN SIZE (mm)						MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015						**DATE OF COLLECTION**					**00-00-0000**						
1																	
2																	
3						Samples not collected											
4																	
5																	
6																	
POSTMONSOON 2015						**DATE OF COLLECTION**					**30.12.2015**						
1	60	-	5.530	6.730	1.20	15.0	NIL		22.0	3.87							
2	75	-	3.990	6.730	2.74	15.0	0.204	8.282	15.0	3.23	49.03	1.9725	0.0875	0.00005	8.282	22.0	3.47
3	90	-	3.600	6.730	3.13	15.0	NIL		16.0	3.30							
PREMONSOON 2016						**DATE OF COLLECTION**					**10.05.2016**						
1	60	-	5.620	6.440	0.82	15.0			25.0	3.76							
2	75	-	4.010	6.440	2.43	15.0	NIL	NIL	22.0	3.55	43.24	1.9143	NIL	NIL	NIL	25.0	3.64
3	90	-	3.500	6.440	2.94	15.0			24.0	3.60							

Annual Sediment Load for period : 1980-2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWRSD No.1, Trivandrum**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1980-1981	20344	12910	33254	1379
1981-1982	137542	7253	144795	2289
1982-1983	62395	1080	63475	1037
1983-1984	58345	19698	78043	1209
1984-1985	51947	5986	57933	1375
1985-1986	41663	5016	46679	1302
1986-1987	33874	5162	39036	902
1987-1988	75727	16361	92088	1469
1988-1989	58207	1359	59566	1394
1989-1990	97901	4155	102056	1893
1990-1991	63946	4334	68279	1512
1991-1992	86817	4265	91082	1943
1992-1993	559958	4261	564219	2839
1993-1994	78416	3439	81855	1533
1994-1995	105641	21934	127575	2032
1995-1996	49905	4407	54311	1472
1996-1997	40976	5380	46356	1196
1997-1998	48291	6802	55094	1208
1998-1999	75797	13601	89397	2054
1999-2000	42566	3829	46395	1711
2000-2001	47747	1640	49387	1374
2001-2002	18878	1628	20506	1304
2002-2003	13117	1963	15080	987
2003-2004	9633	5337	14970	768
2004-2005	15643	3832	19475	977
2005-2006	22360	9325	31685	1138
2006-2007	19620	2460	22080	938
2007-2008	Sediment Observation Not Done			995
2008-2009	7361	2240	9601	543
2009-2010	13115	6439	19554	1112
2010-2011	87498	14664	102161	2473
2011-2012	31530	8186	39716	1425
2012-2013	6587	987	7574	564
2013-2014	27632	4621	32252	1739
2014-2015	29175	5039	34214	1692
2015-2016	9819	4202	14021	1068

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWRSD No.1, Trivandrum**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	33.33	0.000	0.000	0.013	0.013	36	89.61	0.000	0.000	0.014	0.014	111	31.37	0.000	0.000	0.010	0.010	26
2	27.86	0.000	0.000	0.010	0.010	25	69.44	0.000	0.000	0.014	0.014	82	29.74	0.000	0.000	0.009	0.009	23
3	25.26	0.000	0.000	0.011	0.011	24	52.42	0.000	0.000	0.011	0.011	51	44.30	0.000	0.000	0.013	0.013	50
4	73.96	0.000	0.000	0.014	0.014	87	49.12	0.000	0.000	0.013	0.013	56	48.22	0.000	0.000	0.013	0.013	53
5	50.62	0.000	0.000	0.011	0.011	47	48.97	0.000	0.000	0.013	0.013	53	48.81	0.000	0.000	0.013	0.013	56
6	48.44	0.000	0.000	0.010	0.010	44	45.76	0.000	0.000	0.011	0.011	44	47.23	0.000	0.000	0.012	0.012	47
7	33.59	0.000	0.000	0.009	0.009	25	29.92	0.000	0.000	0.011	0.011	28	45.51	0.000	0.000	0.011	0.011	42
8	38.31	0.000	0.000	0.012	0.012	39	35.69	0.000	0.000	0.010	0.010	31	45.11	0.000	0.000	0.010	0.010	40
9	44.20	0.000	0.000	0.012	0.012	47	35.36	0.000	0.000	0.010	0.010	32	43.96	0.000	0.000	0.010	0.010	39
10	33.45	0.000	0.000	0.011	0.011	31	37.17	0.000	0.000	0.012	0.012	39	44.54	0.000	0.000	0.011	0.011	40
11	30.38	0.000	0.000	0.011	0.011	28	42.61	0.000	0.000	0.013	0.013	47	46.48	0.000	0.000	0.007	0.007	29
12	29.36	0.000	0.000	0.010	0.010	26	38.64	0.000	0.000	0.008	0.008	25	46.78	0.000	0.000	0.011	0.011	44
13	28.07	0.000	0.000	0.010	0.010	25	33.78	0.000	0.000	0.010	0.010	30	48.33	0.000	0.000	0.012	0.012	52
14	32.13	0.000	0.000	0.011	0.011	31	31.28	0.000	0.000	0.010	0.010	27	45.37	0.000	0.000	0.012	0.012	46
15	29.55	0.000	0.000	0.010	0.010	25	31.00	0.000	0.000	0.010	0.010	26	46.72	0.000	0.000	0.012	0.012	50
16	34.21	0.000	0.000	0.012	0.012	37	32.94	0.000	0.000	0.011	0.011	31	46.16	0.000	0.000	0.012	0.012	49
17	31.69	0.000	0.000	0.011	0.011	31	31.32	0.000	0.000	0.010	0.010	28	46.02	0.000	0.000	0.012	0.012	49
18	33.91	0.000	0.000	0.013	0.013	39	50.68	0.000	0.000	0.015	0.015	63	66.51	0.000	0.000	0.015	0.015	88
19	42.82	0.000	0.000	0.014	0.014	53	48.40	0.000	0.000	0.014	0.014	58	52.95	0.000	0.000	0.012	0.012	53
20	30.49	0.000	0.000	0.012	0.012	33	44.71	0.000	0.000	0.012	0.012	45	48.17	0.000	0.000	0.011	0.011	45
21	18.91	0.000	0.000	0.012	0.012	20	46.92	0.000	0.000	0.012	0.012	50	29.25	0.000	0.000	0.007	0.007	17
22	32.92	0.000	0.000	0.011	0.011	32	46.01	0.000	0.000	0.010	0.010	41	28.31	0.000	0.000	0.007	0.007	17
23	32.27	0.000	0.000	0.011	0.011	30	31.21	0.000	0.000	0.010	0.010	27	19.30	0.000	0.000	0.006	0.006	10
24	29.47	0.000	0.000	0.010	0.010	26	57.07	0.000	0.000	0.013	0.013	66	15.36	0.000	0.000	0.006	0.006	8
25	34.37	0.000	0.000	0.011	0.011	31	46.76	0.000	0.000	0.012	0.012	50	12.64	0.000	0.000	0.006	0.006	7
26	52.98	0.000	0.000	0.012	0.012	57	42.88	0.000	0.000	0.011	0.011	39	12.62	0.000	0.000	0.007	0.007	8
27	102.0	0.000	0.001	0.016	0.017	152	45.33	0.000	0.000	0.010	0.010	40	7.716	0.000	0.000	0.007	0.007	4
28	335.0	0.003	0.008	0.020	0.030	868	37.33	0.000	0.000	0.010	0.010	32	8.830	0.000	0.000	0.005	0.005	4
29	107.7	0.000	0.001	0.017	0.018	171	35.77	0.000	0.000	0.010	0.010	30	19.95	0.000	0.000	0.009	0.009	16
30	129.0	0.002	0.005	0.018	0.026	284	34.14	0.000	0.000	0.010	0.010	29	20.92	0.000	0.000	0.010	0.010	17
31							31.71	0.000	0.000	0.010	0.010	27	20.32	0.000	0.000	0.009	0.009	16
Ten Daily Mean																		
Ten Daily I	40.90	0.000	0.000	0.011	0.011	40	49.35	0.000	0.000	0.012	0.012	53	42.88	0.000	0.000	0.011	0.011	42
Ten Daily II	32.26	0.000	0.000	0.012	0.012	33	38.54	0.000	0.000	0.011	0.011	38	49.35	0.000	0.000	0.012	0.012	50
Ten Daily III	87.46	0.000	0.001	0.014	0.016	167	41.37	0.000	0.000	0.011	0.011	39	17.75	0.000	0.000	0.007	0.007	11
Monthly																		
Total						2402						1337						1046

Annual Sediment Load (Metric Tonnes) : 14021

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWRSD No.1, Trivandrum**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	14.59	0.000	0.000	0.009	0.009	11	29.70	0.000	0.000	0.012	0.012	30	53.59	0.000	0.001	0.008	0.009	40
2	7.770	0.000	0.000	0.005	0.005	3	21.75	0.000	0.000	0.010	0.010	19	67.40	0.000	0.001	0.016	0.018	104
3	5.025	0.000	0.000	0.005	0.005	2	17.04	0.000	0.000	0.010	0.010	15	47.94	0.000	0.000	0.012	0.012	51
4	5.303	0.000	0.000	0.006	0.006	3	21.75	0.000	0.000	0.011	0.011	20	51.20	0.000	0.000	0.012	0.012	52
5	18.80	0.000	0.000	0.009	0.009	15	28.02	0.000	0.000	0.012	0.012	30	103.3	0.000	0.001	0.019	0.021	184
6	19.71	0.000	0.000	0.008	0.008	14	56.30	0.000	0.000	0.014	0.014	67	62.68	0.000	0.000	0.015	0.015	82
7	33.52	0.000	0.000	0.012	0.012	36	30.09	0.000	0.000	0.012	0.012	32	92.80	0.000	0.000	0.019	0.019	155
8	30.30	0.000	0.000	0.012	0.012	30	25.08	0.000	0.000	0.011	0.011	23	116.5	0.000	0.001	0.026	0.027	275
9	21.63	0.000	0.000	0.009	0.009	17	94.56	0.000	0.001	0.016	0.018	145	72.64	0.000	0.001	0.018	0.020	122
10	17.42	0.000	0.000	0.002	0.002	3	98.52	0.000	0.001	0.019	0.021	175	61.43	0.000	0.001	0.014	0.014	76
11	26.39	0.000	0.000	0.010	0.010	24	55.36	0.000	0.001	0.012	0.012	59	54.51	0.000	0.000	0.010	0.010	49
12	15.72	0.000	0.000	0.010	0.010	13	45.75	0.000	0.000	0.012	0.012	46	58.21	0.000	0.000	0.010	0.010	50
13	15.84	0.000	0.000	0.010	0.010	13	93.85	0.000	0.003	0.020	0.023	187	166.4	0.001	0.002	0.018	0.020	289
14	14.36	0.000	0.000	0.008	0.008	10	89.49	0.000	0.001	0.020	0.021	160	73.41	0.000	0.000	0.016	0.016	101
15	12.88	0.000	0.000	0.008	0.008	9	59.40	0.000	0.000	0.013	0.013	66	60.19	0.000	0.000	0.013	0.013	67
16	18.98	0.000	0.000	0.011	0.011	18	42.99	0.000	0.000	0.012	0.012	43	83.53	0.000	0.000	0.017	0.017	125
17	45.14	0.000	0.000	0.012	0.012	48	35.01	0.000	0.000	0.010	0.010	31	54.76	0.000	0.000	0.010	0.010	49
18	37.61	0.000	0.000	0.012	0.012	38	28.81	0.000	0.000	0.009	0.009	22	49.48	0.000	0.000	0.010	0.010	42
19	27.43	0.000	0.000	0.011	0.011	26	29.55	0.000	0.000	0.010	0.010	25	51.23	0.000	0.000	0.011	0.011	47
20	28.81	0.000	0.000	0.010	0.010	26	28.52	0.000	0.000	0.012	0.012	31	38.38	0.000	0.000	0.008	0.008	27
21	29.12	0.000	0.000	0.010	0.010	24	24.55	0.000	0.000	0.010	0.010	22	27.31	0.000	0.000	0.009	0.009	22
22	21.30	0.000	0.000	0.008	0.008	15	21.68	0.000	0.000	0.010	0.010	18	32.61	0.000	0.000	0.011	0.011	31
23	18.06	0.000	0.000	0.008	0.008	13	18.51	0.000	0.000	0.007	0.007	11	28.21	0.000	0.000	0.010	0.010	24
24	17.74	0.000	0.000	0.008	0.008	12	37.61	0.000	0.000	0.014	0.014	45	38.01	0.000	0.000	0.010	0.010	34
25	28.89	0.000	0.000	0.013	0.013	32	61.43	0.000	0.000	0.023	0.023	120	38.64	0.000	0.000	0.010	0.010	34
26	21.57	0.000	0.000	0.012	0.012	22	41.79	0.000	0.000	0.014	0.014	49	37.68	0.000	0.000	0.010	0.010	33
27	20.51	0.000	0.000	0.009	0.009	16	27.18	0.000	0.000	0.012	0.012	28	36.07	0.000	0.000	0.010	0.010	31
28	26.36	0.000	0.000	0.010	0.010	23	22.08	0.000	0.000	0.008	0.008	16	42.71	0.000	0.000	0.010	0.010	38
29	26.15	0.000	0.000	0.012	0.012	28	28.62	0.000	0.000	0.012	0.012	31	49.54	0.000	0.000	0.012	0.012	53
30	34.72	0.000	0.000	0.010	0.010	31	68.06	0.000	0.002	0.017	0.020	115	35.90	0.000	0.000	0.009	0.009	29
31							204.2	0.001	0.002	0.023	0.026	461						
Ten Daily Mean																		
Ten Daily I	17.41	0.000	0.000	0.008	0.008	13	42.28	0.000	0.000	0.013	0.013	56	72.95	0.000	0.001	0.016	0.017	114
Ten Daily II	24.32	0.000	0.000	0.010	0.010	23	50.87	0.000	0.000	0.013	0.013	67	69.01	0.000	0.000	0.012	0.013	85
Ten Daily III	24.44	0.000	0.000	0.010	0.010	22	50.52	0.000	0.000	0.014	0.014	83	36.67	0.000	0.000	0.010	0.010	33
Monthly																		
Total						576						2143						2315

676

Annual Sediment Load (Metric Tonnes) : 14021

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWRSD No.1, Trivandrum**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	34.01	0.000	0.000	0.010	0.010	28	18.13	0.000	0.000	0.007	0.007	10	4.440	0.000	0.000	0.008	0.008	3
2	32.39	0.000	0.000	0.009	0.009	25	25.91	0.000	0.000	0.007	0.007	15	4.361	0.000	0.000	0.008	0.008	3
3	36.23	0.000	0.000	0.010	0.010	32	21.32	0.000	0.000	0.006	0.006	12	4.420	0.000	0.000	0.008	0.008	3
4	72.52	0.000	0.000	0.020	0.020	127	25.55	0.000	0.000	0.007	0.007	14	4.369	0.000	0.000	0.008	0.008	3
5	37.94	0.000	0.000	0.011	0.011	35	25.46	0.000	0.000	0.007	0.007	15	0.000	0.000	0.000	0.000	0.000	0
6	36.23	0.000	0.000	0.010	0.010	32	25.80	0.000	0.000	0.007	0.007	15	0.000	0.000	0.000	0.000	0.000	0
7	31.70	0.000	0.000	0.010	0.010	26	17.51	0.000	0.000	0.007	0.007	10	10.42	0.000	0.000	0.011	0.011	10
8	57.88	0.000	0.000	0.003	0.003	13	12.30	0.000	0.000	0.007	0.007	7	5.935	0.000	0.000	0.007	0.007	4
9	62.31	0.000	0.000	0.026	0.026	138	6.140	0.000	0.000	0.006	0.006	3	5.963	0.000	0.000	0.007	0.007	4
10	55.10	0.000	0.000	0.003	0.003	15	5.550	0.000	0.000	0.006	0.006	3	5.066	0.000	0.000	0.006	0.006	3
11	50.57	0.000	0.000	0.003	0.003	12	5.786	0.000	0.000	0.006	0.006	3	7.194	0.000	0.000	0.009	0.009	5
12	57.22	0.000	0.000	0.010	0.010	49	4.412	0.000	0.000	0.007	0.007	3	6.510	0.000	0.000	0.008	0.008	4
13	72.52	0.000	0.000	0.013	0.013	80	4.568	0.000	0.000	0.007	0.007	3	10.91	0.000	0.000	0.009	0.009	9
14	51.18	0.000	0.000	0.009	0.009	41	4.539	0.000	0.000	0.006	0.006	3	7.162	0.000	0.000	0.006	0.006	3
15	59.41	0.000	0.000	0.009	0.009	48	4.144	0.000	0.000	0.007	0.007	2	13.29	0.000	0.000	0.010	0.010	11
16	69.84	0.000	0.000	0.003	0.003	15	4.259	0.000	0.000	0.007	0.007	2	13.13	0.000	0.000	0.009	0.009	10
17	59.49	0.000	0.000	0.010	0.010	50	3.964	0.000	0.000	0.004	0.004	2	12.85	0.000	0.000	0.008	0.008	9
18	50.66	0.000	0.000	0.007	0.007	32	7.578	0.000	0.000	0.007	0.007	4	5.911	0.000	0.000	0.008	0.008	4
19	54.40	0.000	0.000	0.002	0.002	11	4.386	0.000	0.000	0.007	0.007	3	11.58	0.000	0.000	0.010	0.010	10
20	51.75	0.000	0.000	0.005	0.005	20	4.458	0.000	0.000	0.007	0.007	3	5.877	0.000	0.000	0.008	0.008	4
21	51.04	0.000	0.000	0.007	0.007	30	7.101	0.000	0.000	0.007	0.007	4	4.923	0.000	0.000	0.007	0.007	3
22	51.07	0.000	0.000	0.006	0.006	27	5.046	0.000	0.000	0.007	0.007	3	4.464	0.000	0.000	0.007	0.007	3
23	49.42	0.000	0.000	0.006	0.006	26	5.224	0.000	0.000	0.007	0.007	3	3.998	0.000	0.000	0.008	0.008	3
24	47.12	0.000	0.000	0.006	0.006	22	4.335	0.000	0.000	0.007	0.007	3	4.835	0.000	0.000	0.008	0.008	3
25	47.12	0.000	0.000	0.006	0.006	22	3.204	0.000	0.000	0.007	0.007	2	4.429	0.000	0.000	0.008	0.008	3
26	48.81	0.000	0.000	0.005	0.005	22	3.440	0.000	0.000	0.008	0.008	2	5.170	0.000	0.000	0.009	0.009	4
27	47.12	0.000	0.000	0.007	0.007	27	2.417	0.000	0.000	0.007	0.007	1	5.075	0.000	0.000	0.009	0.009	4
28	43.40	0.000	0.000	0.008	0.008	30	2.326	0.000	0.000	0.007	0.007	1	4.527	0.000	0.000	0.008	0.008	3
29	38.47	0.000	0.000	0.007	0.007	22	4.450	0.000	0.000	0.007	0.007	3	5.340	0.000	0.000	0.009	0.009	4
30	40.59	0.000	0.000	0.008	0.008	29	4.420	0.000	0.000	0.007	0.007	3						
31	42.35	0.000	0.000	0.011	0.011	41	4.723	0.000	0.000	0.008	0.008	3						
Ten Daily Mean																		
Ten Daily I	45.63	0.000	0.000	0.011	0.011	47	18.37	0.000	0.000	0.006	0.006	10	4.497	0.000	0.000	0.006	0.006	3
Ten Daily II	57.70	0.000	0.000	0.007	0.007	36	4.809	0.000	0.000	0.006	0.006	3	9.441	0.000	0.000	0.008	0.008	7
Ten Daily III	46.05	0.000	0.000	0.007	0.007	27	4.244	0.000	0.000	0.007	0.007	3	4.751	0.000	0.000	0.008	0.008	3
Monthly																		
Total						1129						158						132

Annual Sediment Load (Metric Tonnes) : 14021

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : PATTAZHY (KD000G4) **Division : SWR Division, Kochi**

Local River : Kallada **Sub-Division : SWRSD No.1, Trivandrum**

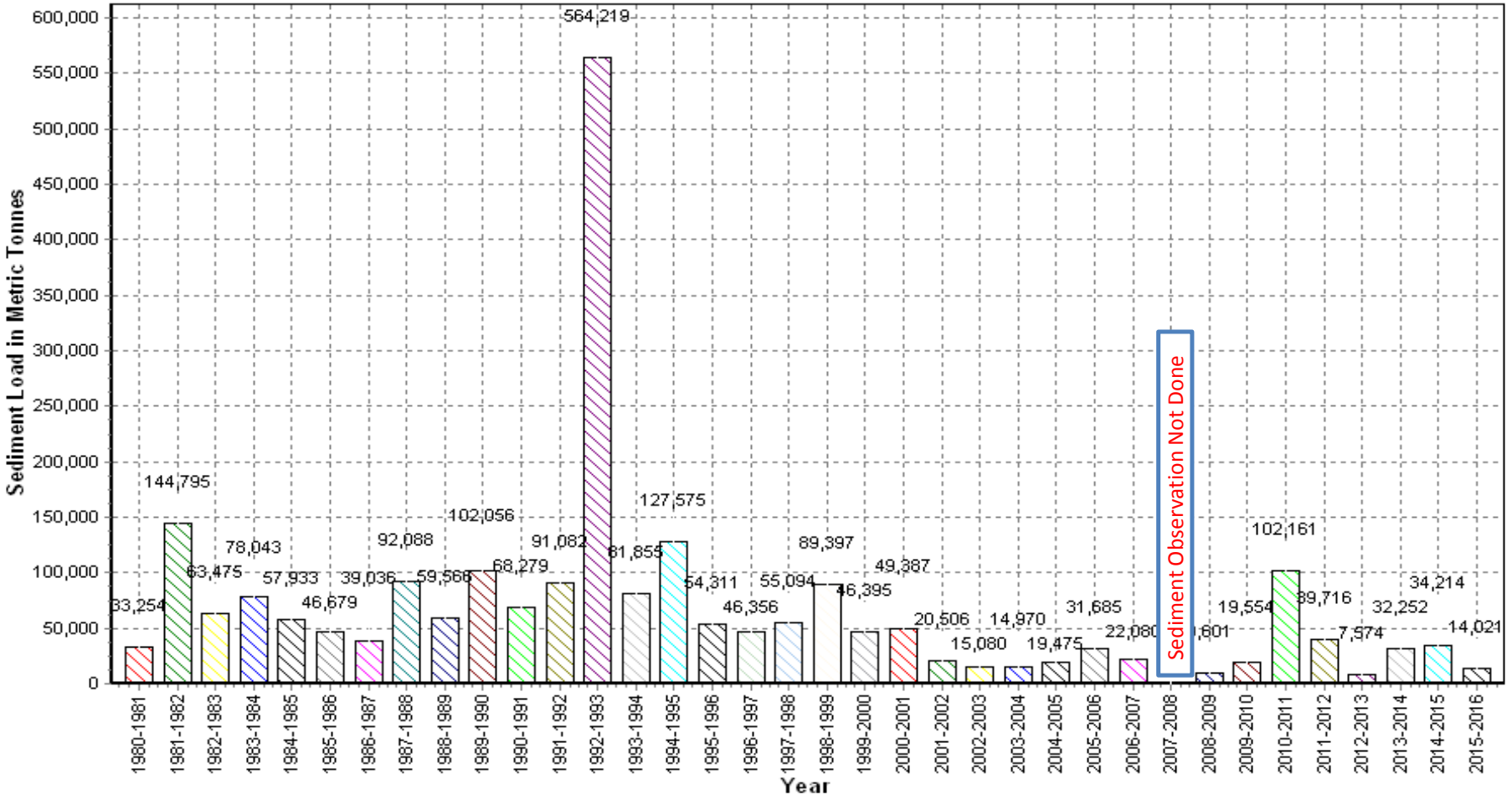
Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	5.934	0.000	0.000	0.008	0.008	4	12.03	0.000	0.000	0.010	0.010	10	6.919	0.000	0.000	0.008	0.008	5
2	6.386	0.000	0.000	0.008	0.008	4	11.32	0.000	0.000	0.009	0.009	9	5.756	0.000	0.000	0.009	0.009	5
3	5.581	0.000	0.000	0.008	0.008	4	9.546	0.000	0.000	0.008	0.008	7	7.274	0.000	0.000	0.008	0.008	5
4	5.744	0.000	0.000	0.008	0.008	4	8.026	0.000	0.000	0.007	0.007	5	5.720	0.000	0.000	0.009	0.009	4
5	5.930	0.000	0.000	0.009	0.009	4	6.775	0.000	0.000	0.009	0.009	5	5.741	0.000	0.000	0.009	0.009	4
6	5.337	0.000	0.000	0.007	0.007	3	6.337	0.000	0.000	0.007	0.007	4	7.082	0.000	0.000	0.008	0.008	5
7	5.989	0.000	0.000	0.008	0.008	4	6.168	0.000	0.000	0.008	0.008	4	6.796	0.000	0.000	0.008	0.008	5
8	6.593	0.000	0.000	0.008	0.008	4	5.897	0.000	0.000	0.009	0.009	5	8.443	0.000	0.000	0.007	0.007	5
9	5.909	0.000	0.000	0.007	0.007	4	7.913	0.000	0.000	0.007	0.007	5	11.99	0.000	0.000	0.008	0.008	9
10	11.79	0.000	0.000	0.011	0.011	11	9.546	0.000	0.000	0.009	0.009	7	7.816	0.000	0.000	0.007	0.007	5
11	12.12	0.000	0.000	0.010	0.010	11	7.892	0.000	0.000	0.007	0.007	5	17.25	0.000	0.000	0.010	0.010	15
12	16.27	0.000	0.000	0.010	0.010	15	6.939	0.000	0.000	0.007	0.007	4	16.76	0.000	0.000	0.010	0.010	15
13	11.33	0.000	0.000	0.008	0.008	8	6.237	0.000	0.000	0.008	0.008	4	17.25	0.000	0.000	0.010	0.010	15
14	10.88	0.000	0.000	0.009	0.009	9	6.445	0.000	0.000	0.006	0.006	4	57.32	0.000	0.000	0.011	0.011	54
15	7.330	0.000	0.000	0.007	0.007	4	7.865	0.000	0.000	0.006	0.006	4	70.91	0.000	0.000	0.018	0.018	112
16	15.25	0.000	0.000	0.010	0.010	14	11.37	0.000	0.000	0.010	0.010	10	50.40	0.000	0.000	0.013	0.013	56
17	7.317	0.000	0.000	0.008	0.008	5	7.410	0.000	0.000	0.008	0.008	5	31.35	0.000	0.000	0.012	0.012	32
18	7.136	0.000	0.000	0.007	0.007	5	5.083	0.000	0.000	0.009	0.009	4	225.1	0.001	0.002	0.017	0.020	395
19	6.500	0.000	0.000	0.007	0.007	4	3.112	0.000	0.000	0.006	0.006	2	121.5	0.000	0.011	0.014	0.025	260
20	6.680	0.000	0.000	0.008	0.008	5	4.147	0.000	0.000	0.008	0.008	3	124.7	0.000	0.001	0.012	0.013	138
21	6.478	0.000	0.000	0.009	0.009	5	4.670	0.000	0.000	0.009	0.009	4	98.77	0.000	0.001	0.011	0.011	96
22	6.486	0.000	0.000	0.009	0.009	5	7.913	0.000	0.000	0.007	0.007	4	36.23	0.000	0.000	0.004	0.004	13
23	10.84	0.000	0.000	0.013	0.013	13	7.580	0.000	0.000	0.008	0.008	5	76.63	0.000	0.000	0.010	0.010	68
24	7.068	0.000	0.000	0.008	0.008	5	6.919	0.000	0.000	0.008	0.008	5	115.8	0.000	0.000	0.017	0.017	173
25	6.919	0.000	0.000	0.008	0.008	5	6.833	0.000	0.000	0.008	0.008	5	119.5	0.000	0.001	0.012	0.013	137
26	6.460	0.000	0.000	0.007	0.007	4	6.860	0.000	0.000	0.008	0.008	4	110.6	0.000	0.000	0.012	0.012	110
27	6.445	0.000	0.000	0.007	0.007	4	6.881	0.000	0.000	0.008	0.008	5	93.68	0.000	0.000	0.015	0.015	124
28	6.451	0.000	0.000	0.007	0.007	4	7.088	0.000	0.000	0.008	0.008	5	94.80	0.000	0.000	0.014	0.014	116
29	8.053	0.000	0.000	0.007	0.007	5	6.823	0.000	0.000	0.008	0.008	5	123.8	0.000	0.000	0.016	0.016	173
30	13.05	0.000	0.000	0.010	0.010	11	7.822	0.000	0.000	0.007	0.007	5	92.68	0.000	0.000	0.010	0.010	82
31	7.731	0.000	0.000	0.007	0.007	5							122.3	0.000	0.001	0.018	0.020	207
Ten Daily Mean																		
Ten Daily I	6.519	0.000	0.000	0.008	0.008	5	8.356	0.000	0.000	0.008	0.008	6	7.354	0.000	0.000	0.008	0.008	5
Ten Daily II	10.08	0.000	0.000	0.009	0.009	8	6.650	0.000	0.000	0.008	0.008	4	73.26	0.000	0.001	0.013	0.014	109
Ten Daily III	7.816	0.000	0.000	0.008	0.008	6	6.939	0.000	0.000	0.008	0.008	5	98.62	0.000	0.000	0.013	0.013	118
Monthly																		
Total						190						151						2442

Annual Sediment Load (Metric Tonnes) : 14021

Annual Sediment Load for the period: 1980-2016

Station Name : PATTAZHY (KD000G4)
Local River : Kallada

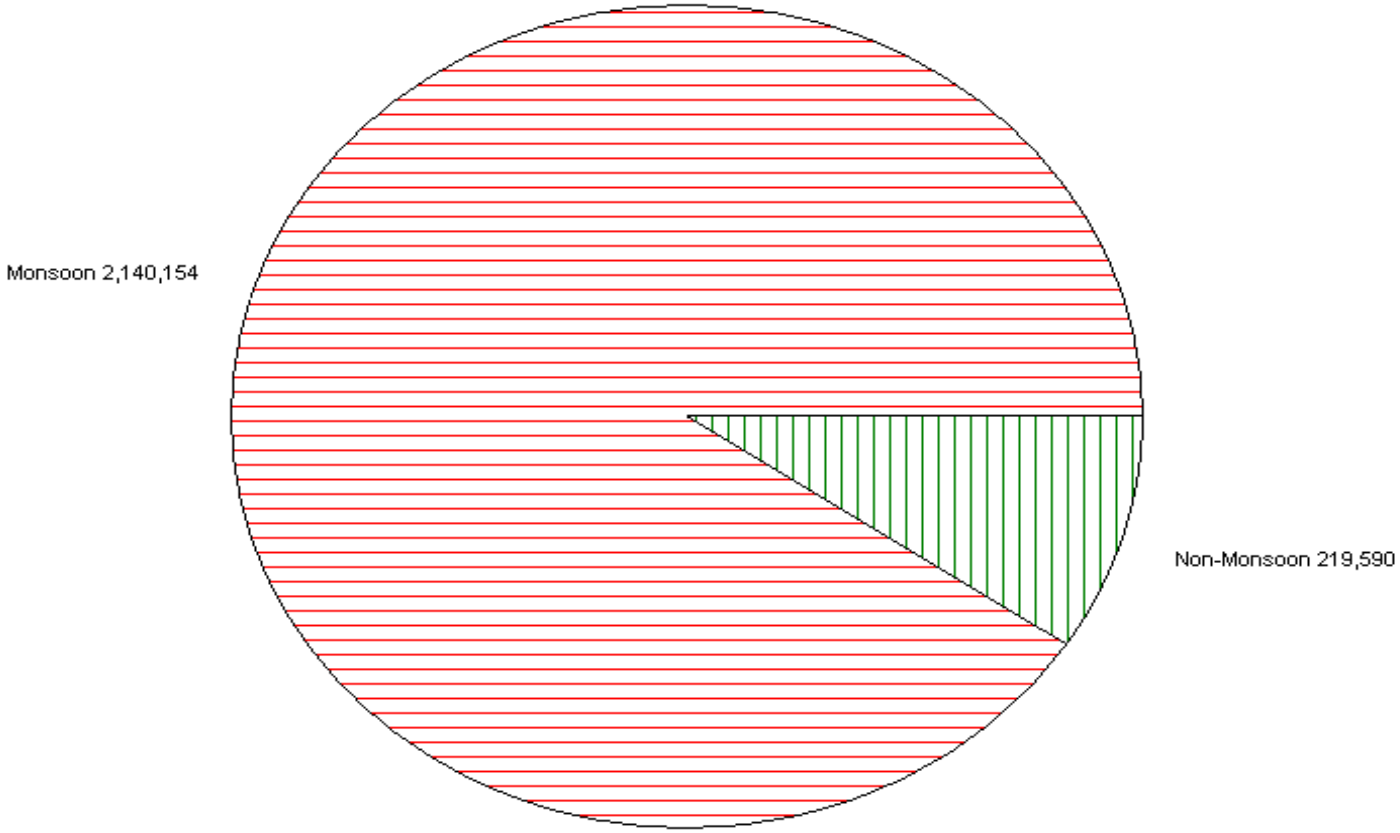
Division : SWR Division, Kochi
Sub-Division : SWRSD No.1, Trivandrum



Seasonal Sediment Load for the period : 1980-2015

Station Name : PATTAZHY (KD000G4)
Local River : Kallada

Division : SWR Division, Kochi
Sub-Division : SWRSD No.1, Trivandrum



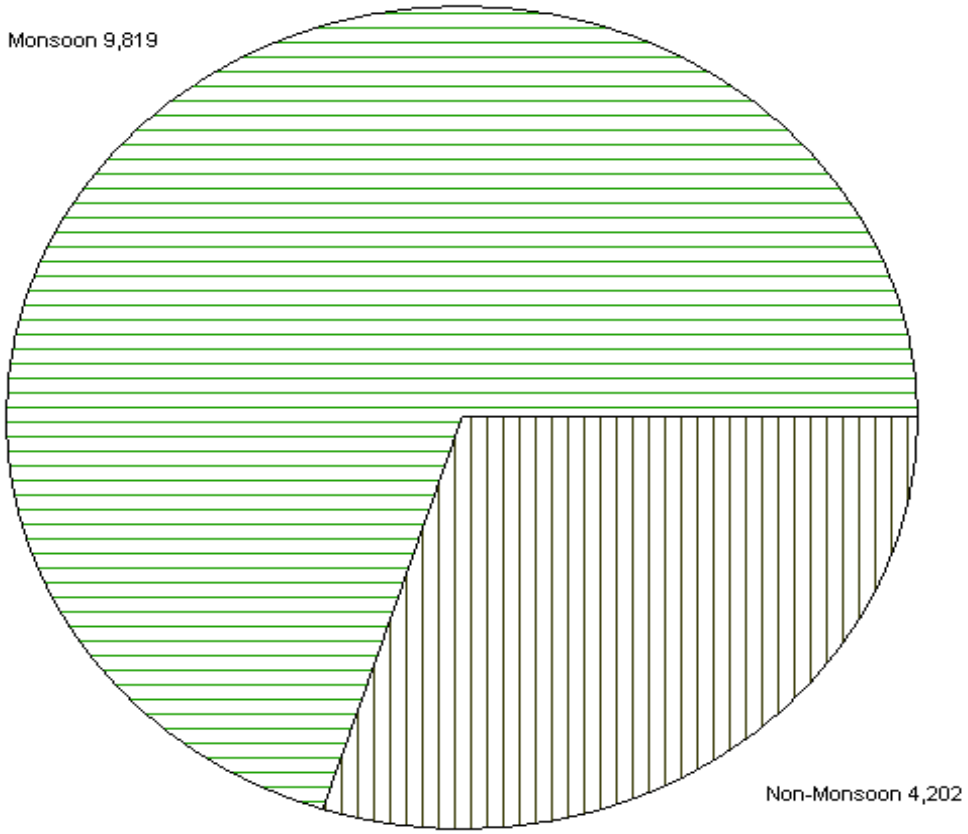
Seasonal Sediment Load for the Year: 2015-2016

Station Name : PATTAZHY (KD000G4)

Local River : Kallada

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



BED MATERIAL ANALYSIS DATA

RIVER : *Kallada* **CODE NO. :** *KDOOOG4*

SITE : *Pattazhy* **CROSS SECTION :** *SGL*

SL. NO.	DATA FOR SAMPLE COLLECTED								Bed Material Composition		GENERAL DATA OF THE RIVER					Bed Material Composition	
	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015									**DATE OF COLLECTION**		**21.11.2015**						
1	160	-	-	1.930	Dry	20.0	-		15.0	1.80							
2	180	2.995	1.145	1.930	0.785	20.0	-	27.11	6.0	1.00	40.36	1.0146	0.6620	0.00205	27.11	15.0	1.30
3	200	-	(-)0.055	1.930	1.985	20.0	-		6.30	1.11							
POSTMONSOON 2015									**DATE OF COLLECTION**		**05.01.2016**						
1	160	-	-	1.890	Dry	20.0	-		15.0	1.75							
2	180	2.900	1.040	1.890	0.850	20.0	-	25.69	10.0	1.44	40	1.0265	0.6198	0.00180	25.69	15.0	1.62
3	200	-	(-)0.010	1.890	1.900	20.0	-		15.0	1.68							
PREMONSOON 2016									**DATE OF COLLECTION**		**11.05.2016**						
1	160	2.160	-	1.750	Dry	20.0	-		4.20	1.69							
2	180	-	0.900	1.750	0.850	20.0	-	7.402	6.30	0.92	34.31	1.0839	0.1990	0.00800	7.402	14.0	1.75
3	200	-	(-)0.200	1.750	1.950	20.0	-		14.0	2.64							

Annual Sediment Load for period : 1979-2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWRSD No.1, Trivandrum**

Year	Monsoon (M.T.)	Non-Monsoon (M.T.)	Annual Load (M.T.)	Annual Run Off (MCM)
1979-1980	77090	4761	81851	626
1980-1981	52910	5938	58848	557
1981-1982	112660	6505	119164	934
1982-1983	45038	1011	46048	347
1983-1984	24707	11751	36458	447
1984-1985	49889	3771	53661	532
1985-1986	28592	2188	30780	444
1986-1987	27809	1510	29319	288
1987-1988	60563	24355	84919	697
1988-1989	55532	1275	56808	616
1989-1990	61657	2459	64117	749
1990-1991	20791	814	21605	489
1991-1992	99060	13156	112216	965
1992-1993	276610	2369	278979	1134
1993-1994	47825	2828	50653	877
1994-1995	56324	3136	59460	751
1995-1996	22179	205	22384	542
1996-1997	59677	2457	62134	543
1997-1998	23197	583	23780	651
1998-1999	73763	13100	86863	921
1999-2000	39047	308	39355	740
2000-2001	30738	4292	35030	535
2001-2002	37790	287	38077	535
2002-2003	16439	290	16729	431
2003-2004	12824	7254	20078	418
2004-2005	24593	9321	33915	792
2005-2006	14531	9198	23729	808
2006-2007	39027	390	39416	855
2007-2008	Sediment Observation Not Done			850
2008-2009	12615	462	13077	521
2009-2010	17276	2336	19612	480
2010-2011	61207	2232	63439	1014
2011-2012	9225	4417	13642	506
2012-2013	890	0	890	38
2013-2014	32384	2908	35291	479
2014-2015	33721	2778	36499	579
2015-2016	14462	1983	16445	507

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWRSD No.1, Trivandrum**

Day	Jun						Jul						Aug					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	16.30	0.000	0.000	0.010	0.010	14	32.72	0.000	0.000	0.012	0.012	34	10.97	0.000	0.000	0.007	0.007	7
2	8.184	0.000	0.000	0.011	0.011	7	31.90	0.000	0.000	0.010	0.010	27	12.12	0.000	0.000	0.009	0.009	9
3	4.535	0.000	0.000	0.011	0.011	4	21.52	0.000	0.000	0.009	0.009	17	10.26	0.000	0.000	0.008	0.008	7
4	35.81	0.000	0.000	0.009	0.009	28	16.98	0.000	0.000	0.010	0.010	14	7.948	0.000	0.000	0.009	0.009	6
5	16.51	0.000	0.000	0.008	0.008	12	13.07	0.000	0.000	0.009	0.009	10	7.730	0.000	0.000	0.008	0.008	6
6	8.184	0.000	0.000	0.011	0.011	8	12.06	0.000	0.000	0.011	0.011	11	12.39	0.000	0.000	0.009	0.009	9
7	7.269	0.000	0.000	0.012	0.012	8	15.69	0.000	0.000	0.010	0.010	14	7.638	0.000	0.000	0.008	0.008	5
8	4.223	0.000	0.000	0.010	0.010	4	11.99	0.000	0.000	0.010	0.010	11	0.000	0.000	0.000	0.000	0.000	0
9	17.06	0.000	0.000	0.009	0.009	14	11.84	0.000	0.000	0.003	0.003	3	0.000	0.000	0.000	0.000	0.000	0
10	7.720	0.000	0.000	0.012	0.012	8	11.56	0.000	0.000	0.005	0.005	5	9.159	0.000	0.000	0.010	0.010	8
11	4.277	0.000	0.000	0.010	0.010	4	15.24	0.000	0.000	0.122	0.122	161	8.880	0.000	0.000	0.010	0.010	8
12	0.000	0.000	0.000	0.000	0.000	0	19.64	0.000	0.000	0.105	0.105	177	8.880	0.000	0.000	0.009	0.009	7
13	0.000	0.000	0.000	0.000	0.000	0	10.44	0.000	0.000	0.015	0.015	13	8.880	0.000	0.000	0.011	0.011	9
14	0.000	0.000	0.000	0.000	0.000	0	9.953	0.000	0.000	0.017	0.017	15	6.627	0.000	0.000	0.008	0.008	4
15	4.108	0.000	0.000	0.010	0.010	4	10.01	0.000	0.000	0.014	0.014	12	8.880	0.000	0.000	0.018	0.018	14
16	4.007	0.000	0.000	0.010	0.010	3	9.734	0.000	0.000	0.000	0.000	0	12.44	0.000	0.000	0.025	0.025	27
17	5.405	0.000	0.000	0.012	0.012	5	10.88	0.000	0.000	0.013	0.013	12	0.000	0.000	0.000	0.000	0.000	0
18	4.043	0.000	0.000	0.009	0.009	3	19.27	0.000	0.000	0.022	0.022	36	23.86	0.000	0.000	0.056	0.056	115
19	15.35	0.000	0.000	0.009	0.009	12	14.70	0.000	0.000	0.017	0.017	21	23.86	0.000	0.000	0.108	0.108	223
20	11.16	0.000	0.000	0.011	0.011	11	15.67	0.000	0.000	0.017	0.017	23	12.89	0.000	0.000	0.057	0.057	63
21	13.39	0.000	0.000	0.013	0.013	14	12.02	0.000	0.000	0.016	0.016	17	12.02	0.000	0.000	0.050	0.050	51
22	11.39	0.000	0.000	0.011	0.011	10	13.34	0.000	0.000	0.014	0.014	16	10.89	0.000	0.000	0.058	0.058	55
23	11.44	0.000	0.000	0.011	0.011	11	12.68	0.000	0.000	0.014	0.014	16	11.20	0.000	0.000	0.057	0.057	55
24	9.820	0.000	0.000	0.011	0.011	9	71.61	0.000	0.000	0.015	0.015	92	8.880	0.000	0.000	0.042	0.042	32
25	11.71	0.000	0.000	0.022	0.022	23	41.66	0.000	0.000	0.014	0.014	51	0.000	0.000	0.000	0.000	0.000	0
26	31.08	0.000	0.000	0.015	0.015	39	18.54	0.000	0.000	0.008	0.008	13	0.000	0.000	0.000	0.000	0.000	0
27	62.15	0.000	0.000	0.016	0.016	83	17.26	0.000	0.000	0.011	0.011	16	0.000	0.000	0.000	0.000	0.000	0
28	307.6	0.000	0.000	0.125	0.125	3322	14.90	0.000	0.000	0.012	0.012	15	0.000	0.000	0.000	0.000	0.000	0
29	64.31	0.000	0.000	0.036	0.036	199	12.75	0.000	0.000	0.015	0.015	16	0.000	0.000	0.000	0.000	0.000	0
30	53.11	0.000	0.000	0.017	0.017	78	12.43	0.000	0.000	0.012	0.012	13	0.000	0.000	0.000	0.000	0.000	0
31							11.66	0.000	0.000	0.009	0.009	9	0.000	0.000	0.000	0.000	0.000	0
Ten Daily Mean																		
Ten Daily I	12.58	0.000	0.000	0.010	0.010	11	17.93	0.000	0.000	0.009	0.009	15	7.823	0.000	0.000	0.007	0.007	6
Ten Daily II	4.835	0.000	0.000	0.007	0.007	4	13.55	0.000	0.000	0.034	0.034	47	11.52	0.000	0.000	0.030	0.030	47
Ten Daily III	57.60	0.000	0.000	0.027	0.027	379	21.71	0.000	0.000	0.013	0.013	25	3.908	0.000	0.000	0.019	0.019	18
Monthly																		
Total						3937						891						721

Annual Sediment Load (Metric Tonnes) : 16445

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWRSD No.1, Trivandrum**

Day	Sep						Oct						Nov					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	41.29	0.000	0.000	0.081	0.081	290	83.53	0.000	0.000	0.012	0.012	89
2	0.000	0.000	0.000	0.000	0.000	0	25.88	0.000	0.000	0.079	0.079	176	49.09	0.000	0.000	0.010	0.010	44
3	0.000	0.000	0.000	0.000	0.000	0	22.21	0.000	0.000	0.113	0.113	216	40.79	0.000	0.000	0.014	0.014	48
4	0.000	0.000	0.000	0.000	0.000	0	25.07	0.000	0.000	0.124	0.124	269	36.65	0.000	0.000	0.013	0.013	41
5	22.29	0.000	0.000	0.010	0.010	19	22.39	0.000	0.000	0.109	0.109	210	134.4	0.000	0.000	0.011	0.011	129
6	104.2	0.000	0.000	0.032	0.032	288	21.57	0.000	0.000	0.115	0.115	214	50.79	0.000	0.000	0.013	0.013	59
7	50.89	0.000	0.000	0.012	0.012	55	19.82	0.000	0.000	0.121	0.121	207	49.28	0.000	0.000	0.013	0.013	54
8	40.76	0.000	0.000	0.012	0.012	41	15.52	0.000	0.000	0.107	0.107	143	51.17	0.000	0.000	0.009	0.009	38
9	30.32	0.000	0.000	0.055	0.055	143	148.9	0.000	0.000	0.134	0.134	1719	98.43	0.000	0.000	0.012	0.012	103
10	34.39	0.000	0.000	0.027	0.027	81	96.34	0.000	0.000	0.097	0.097	803	71.83	0.000	0.000	0.012	0.012	76
11	29.95	0.000	0.000	0.034	0.034	88	54.88	0.000	0.000	0.045	0.045	211	41.99	0.000	0.000	0.012	0.012	43
12	41.93	0.000	0.000	0.033	0.033	119	40.86	0.000	0.000	0.015	0.015	53	37.73	0.000	0.000	0.012	0.012	40
13	25.47	0.000	0.000	0.019	0.019	43	84.39	0.000	0.000	0.015	0.015	108	49.53	0.000	0.000	0.012	0.012	51
14	21.16	0.000	0.000	0.015	0.015	28	50.53	0.000	0.000	0.015	0.015	66	41.31	0.000	0.000	0.116	0.116	413
15	15.13	0.000	0.000	0.018	0.018	24	40.32	0.000	0.000	0.015	0.015	51	40.13	0.000	0.000	0.070	0.070	241
16	29.51	0.000	0.000	0.015	0.015	37	37.32	0.000	0.000	0.017	0.017	55	33.83	0.000	0.000	0.015	0.015	43
17	39.17	0.000	0.000	0.015	0.015	52	27.78	0.000	0.000	0.015	0.015	36	31.08	0.000	0.000	0.017	0.017	46
18	39.84	0.000	0.000	0.016	0.016	54	21.90	0.000	0.000	0.014	0.014	26	27.77	0.000	0.000	0.015	0.015	36
19	30.16	0.000	0.000	0.012	0.012	32	22.32	0.000	0.000	0.016	0.016	30	36.84	0.000	0.000	0.012	0.012	39
20	24.66	0.000	0.000	0.011	0.011	24	28.26	0.000	0.000	0.016	0.016	38	29.96	0.000	0.000	0.016	0.016	42
21	27.78	0.000	0.000	0.015	0.015	35	19.91	0.000	0.000	0.015	0.015	25	28.73	0.000	0.000	0.013	0.013	33
22	21.45	0.000	0.000	0.011	0.011	20	18.85	0.000	0.000	0.014	0.014	22	23.47	0.000	0.000	0.012	0.012	23
23	17.26	0.000	0.000	0.028	0.028	42	17.46	0.000	0.000	0.011	0.011	16	22.43	0.000	0.000	0.012	0.012	23
24	18.18	0.000	0.000	0.021	0.021	33	36.36	0.000	0.000	0.023	0.023	71	24.07	0.000	0.000	0.011	0.011	23
25	34.20	0.000	0.000	0.032	0.032	95	21.90	0.000	0.000	0.014	0.014	26	20.76	0.000	0.000	0.010	0.010	18
26	21.67	0.000	0.000	0.017	0.017	32	26.93	0.000	0.000	0.015	0.015	35	20.49	0.000	0.000	0.011	0.011	19
27	21.14	0.000	0.000	0.017	0.017	31	22.43	0.000	0.000	0.014	0.014	27	18.62	0.000	0.000	0.010	0.010	17
28	22.29	0.000	0.000	0.019	0.019	36	18.84	0.000	0.000	0.013	0.013	21	28.90	0.000	0.000	0.011	0.011	26
29	28.93	0.000	0.000	0.019	0.019	48	22.59	0.000	0.000	0.013	0.013	26	22.29	0.000	0.000	0.009	0.009	18
30	52.81	0.000	0.000	0.019	0.019	87	63.06	0.000	0.000	0.014	0.014	78	21.47	0.000	0.000	0.010	0.010	19
31							148.5	0.000	0.000	0.012	0.012	159						
Ten Daily Mean																		
Ten Daily I	28.29	0.000	0.000	0.015	0.015	63	43.90	0.000	0.000	0.108	0.108	425	66.60	0.000	0.000	0.012	0.012	68
Ten Daily II	29.70	0.000	0.000	0.019	0.019	50	40.86	0.000	0.000	0.018	0.018	68	37.02	0.000	0.000	0.030	0.030	99
Ten Daily III	26.57	0.000	0.000	0.020	0.020	46	37.89	0.000	0.000	0.014	0.014	46	23.12	0.000	0.000	0.011	0.011	22
Monthly																		
Total						1587						5432						1895

Annual Sediment Load (Metric Tonnes) : 16445

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AYILAM (KV000G3) **Division : SWR Division, Kochi**

Local River : Vamanapuram **Sub-Division : SWRSD No.1, Trivandrum**

Day	Dec						Jan						Feb					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	19.46	0.000	0.000	0.008	0.008	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	17.06	0.000	0.000	0.007	0.007	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	32.54	0.000	0.000	0.014	0.014	39	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	37.58	0.000	0.000	0.016	0.016	52	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	21.13	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	19.06	0.000	0.000	0.009	0.009	14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	21.13	0.000	0.000	0.010	0.010	18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	22.62	0.000	0.000	0.008	0.008	16	7.586	0.000	0.000	0.010	0.010	6	0.000	0.000	0.000	0.000	0.000	0
9	24.22	0.000	0.000	0.009	0.009	18	7.771	0.000	0.000	0.009	0.009	6	0.000	0.000	0.000	0.000	0.000	0
10	20.99	0.000	0.000	0.009	0.009	16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	20.72	0.000	0.000	0.009	0.009	16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	20.36	0.000	0.000	0.009	0.009	15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	15.90	0.000	0.000	0.007	0.007	9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	20.99	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	36.92	0.000	0.000	0.012	0.012	39	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	37.08	0.000	0.000	0.013	0.013	40	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	24.00	0.000	0.000	0.009	0.009	18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	21.57	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
19	21.14	0.000	0.000	0.009	0.009	17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
20	17.06	0.000	0.000	0.008	0.008	12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
21	15.07	0.000	0.000	0.009	0.009	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
22	14.24	0.000	0.000	0.009	0.009	11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
23	13.26	0.000	0.000	0.009	0.009	10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
24	12.25	0.000	0.000	0.009	0.009	9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
25	12.25	0.000	0.000	0.009	0.009	9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
26	11.44	0.000	0.000	0.009	0.009	8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
27	11.56	0.000	0.000	0.009	0.009	9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
28	8.503	0.000	0.000	0.007	0.007	5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
29	8.513	0.000	0.000	0.007	0.007	5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
30	8.758	0.000	0.000	0.006	0.006	5	0.000	0.000	0.000	0.000	0.000	0						
31	6.918	0.000	0.000	0.008	0.008	5	0.000	0.000	0.000	0.000	0.000	0						
Ten Daily Mean																		
Ten Daily I	23.58	0.000	0.000	0.010	0.010	21	1.536	0.000	0.000	0.002	0.002	1	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	23.57	0.000	0.000	0.009	0.009	20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily III	11.16	0.000	0.000	0.008	0.008	8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Monthly																		
Total						503						12						0

Annual Sediment Load (Metric Tonnes) : 16445

Daily Observed Sediment Datasheet for period : 2015-2016

Station Name : AYILAM (KV000G3) | **Division : SWR Division, Kochi**

Local River : Vamanapuram | **Sub-Division : SWRSD No.1, Trivandrum**

Day	Mar						Apr						May					
	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day	Q cumecs.	Coarse g/l	Medium g/l	Fine g/l	Total g/l	Total M.T./day
1	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
2	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
3	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
5	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
6	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
7	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
8	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
9	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
10	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
11	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
12	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
13	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
14	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
15	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
16	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
17	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
18	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	35.41	0.000	0.000	0.018	0.018	55
19	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	22.38	0.000	0.000	0.072	0.072	139
20	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	64.30	0.000	0.000	0.017	0.017	94
21	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	66.26	0.000	0.000	0.021	0.021	117
22	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	32.54	0.000	0.000	0.044	0.044	124
23	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	11.13	0.000	0.000	0.086	0.086	82
24	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.694	0.000	0.000	0.089	0.089	59
25	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.791	0.000	0.000	0.091	0.091	61
26	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	31.23	0.000	0.000	0.108	0.108	292
27	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	13.58	0.000	0.000	0.080	0.080	94
28	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	14.05	0.000	0.000	0.084	0.084	102
29	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.25	0.000	0.000	0.096	0.096	102
30	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	7.927	0.000	0.000	0.089	0.089	61
31	0.000	0.000	0.000	0.000	0.000	0							10.90	0.000	0.000	0.092	0.092	86
Ten Daily Mean																		
Ten Daily I	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0
Ten Daily II	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	12.21	0.000	0.000	0.011	0.011	29
Ten Daily III	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0	19.58	0.000	0.000	0.080	0.080	107
Monthly																		
Total						0						0						1468

Annual Sediment Load (Metric Tonnes) : 16445

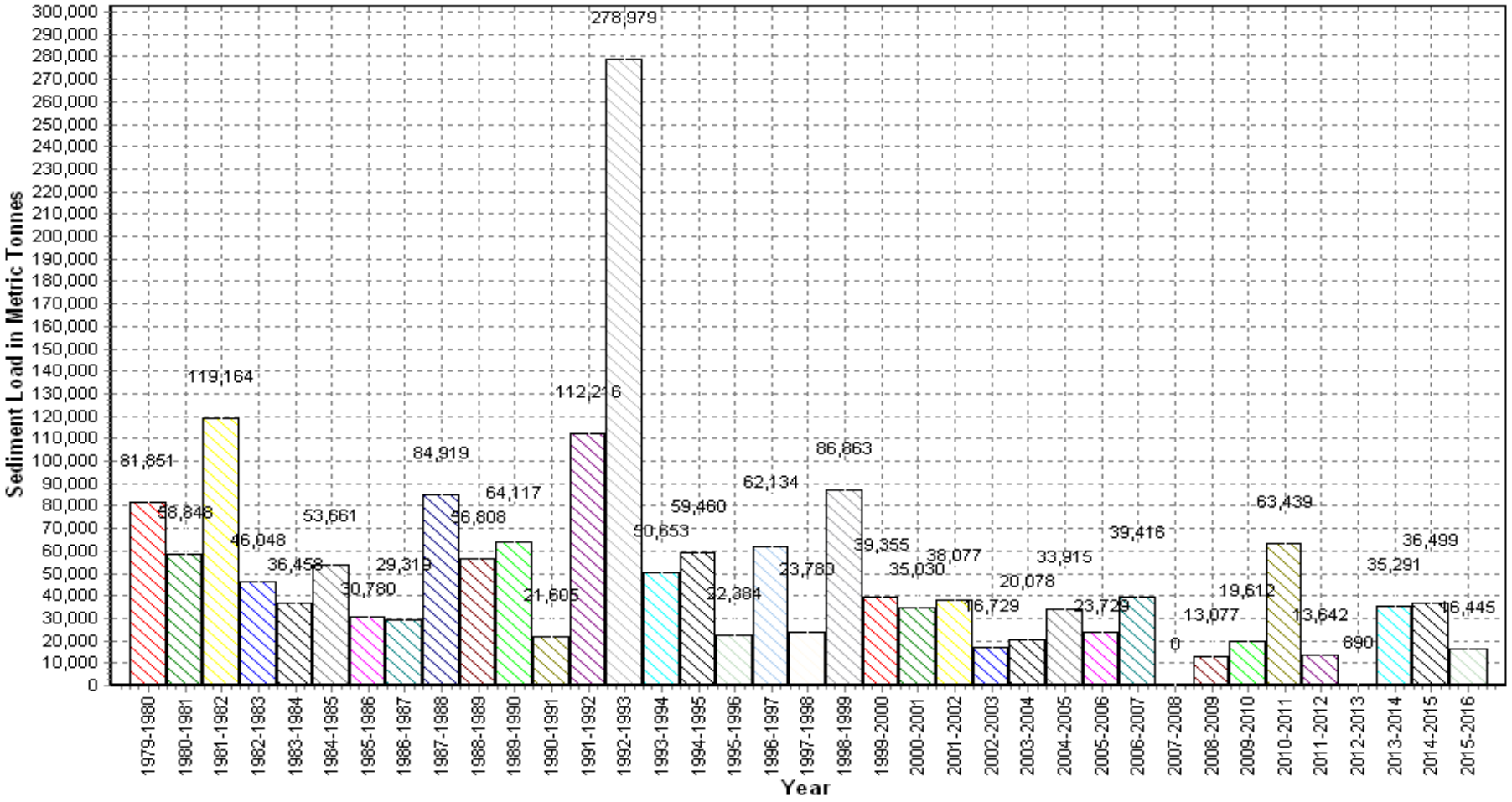
Annual Sediment Load for the period: 1979-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

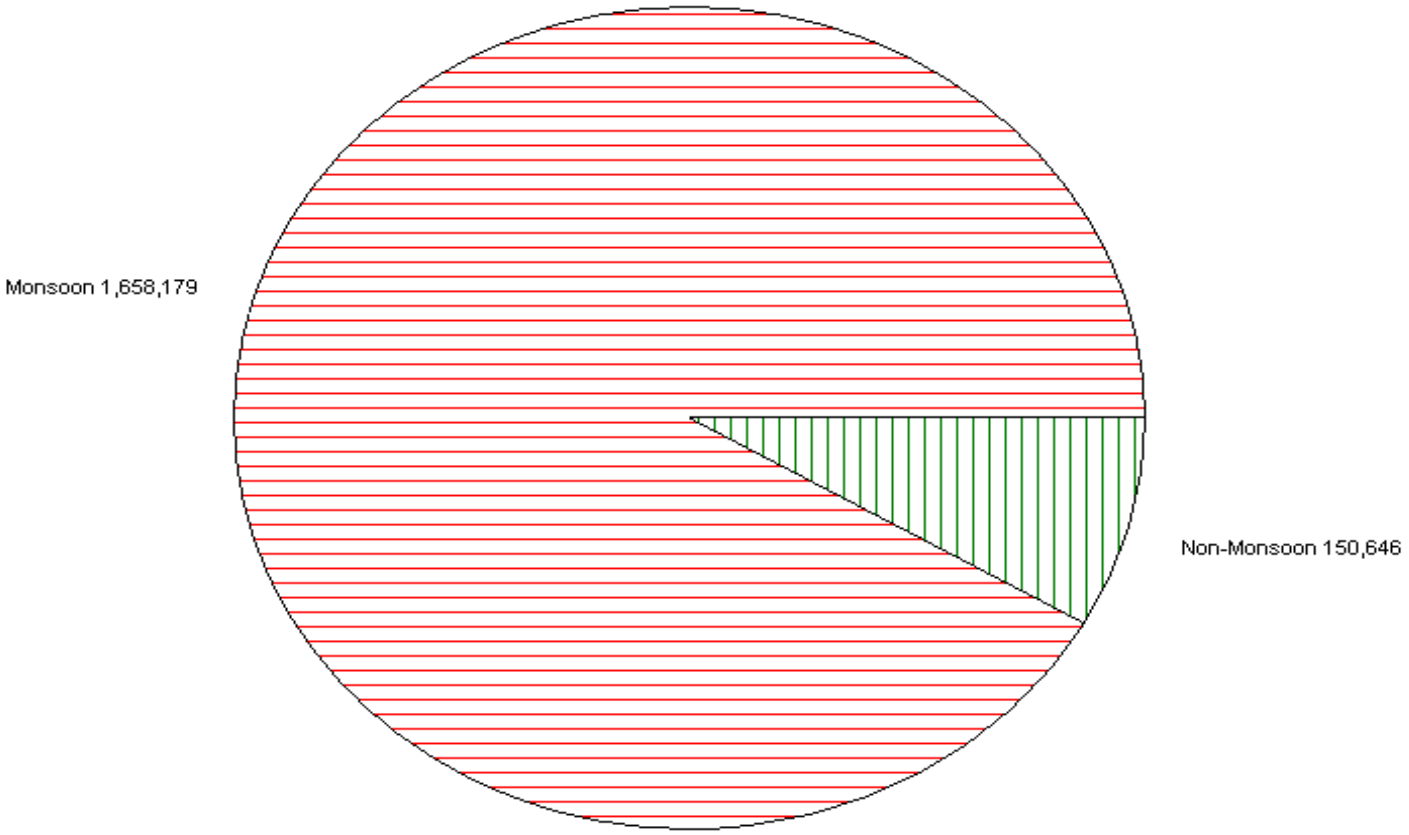
Sub-Division : SWRSD No.1, Trivandrum



Seasonal Sediment Load for the period : 1979-2015

Station Name : AYILAM (KV000G3)
Local River : Vamanapuram

Division : SWR Division, Kochi
Sub-Division : SWRSD No.1, Trivandrum



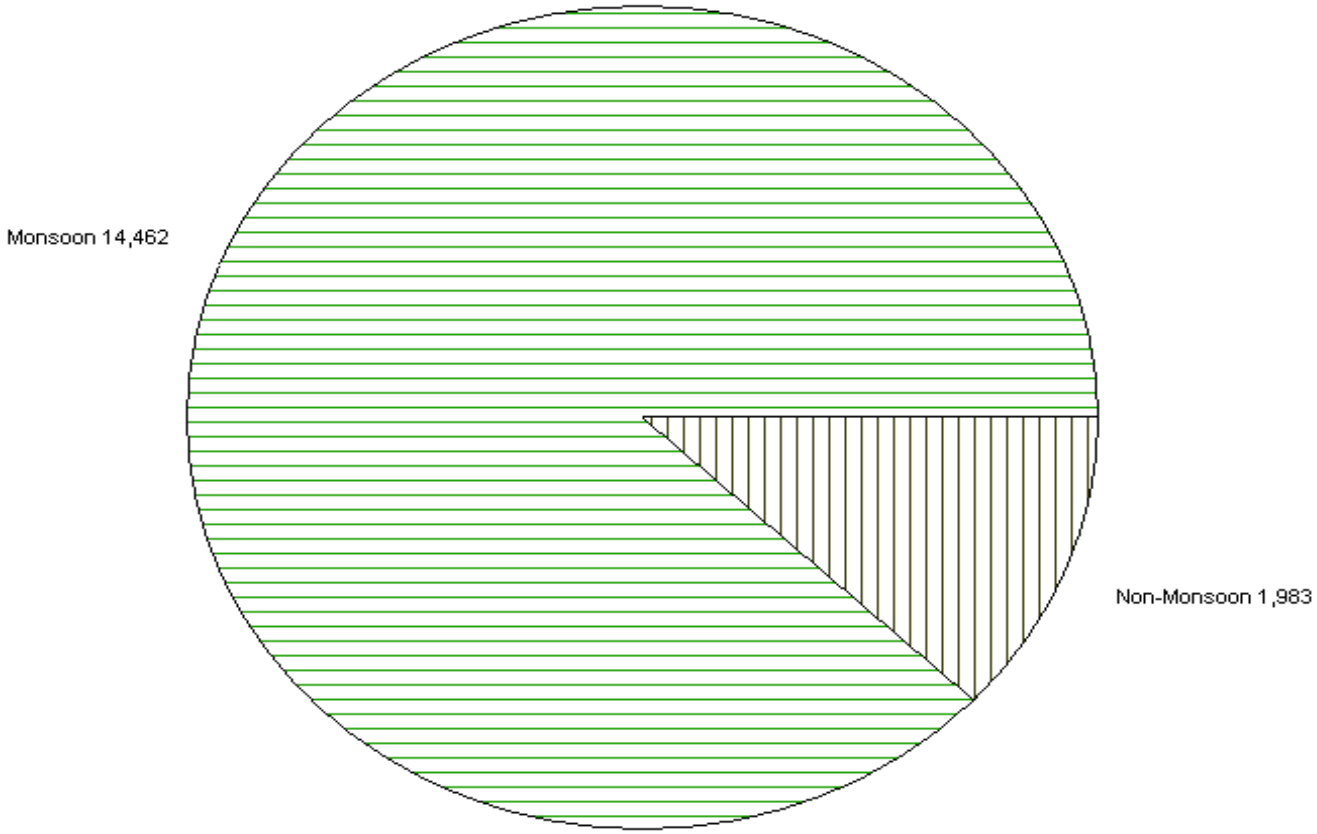
Seasonal Sediment Load for the Year: 2015-2016

Station Name : AYILAM (KV000G3)

Local River : Vamanapuram

Division : SWR Division, Kochi

Sub-Division : SWRSD No.1, Trivandrum



690

BED MATERIAL ANALYSIS DATA

RIVER : *Vamanapuram* **CODE NO. :** *KVOOOG3*

SITE : *Ayilam* **CROSS SECTION :** *SGL*

	DATA FOR SAMPLE COLLECTED										GENERAL DATA OF THE RIVER						
									Bed Material Composition							Bed Material Composition	
SL. NO.	R.D.NO.	R.L. OF DRY BED (m)	R.L. OF BED LEVEL (m)	W.L. (GTS) OF THE SAMPLING DEPTH (m)	DEPTH OF WATER (m)	WIDTH (m)	VELOCITY (m/Sec)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)	WETTED PERIMETER (m)	HYDRULIC MEAN DEPTH (m)	MEAN VELOCITY (m/Sec)	SURFACE WATER SLOPE (S)	DISCHARGE (m^3/Sec)	MAX SIZE (mm)	MEAN SIZE (mm)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
MONSOON 2015						**DATE OF COLLECTION**			**21.10.2015**								
1	30	-	(-) 1.940	1.710	3.65		0.317	1.144	2.20	1.10							
2	36	-	(-) 3.340	1.710	5.05	26.0	0.354	1.770	15.0	1.61	29.19	2.6538	0.2886	0.00013	19.91	24.0	2.22
3	40	-	(-) 0.440	1.710	2.15		0.207	0.435	24.0	3.96							
POSTMONSOON 2015						**DATE OF COLLECTION**			**11.01.2016**								
1	30	-	(-) 2.080	1.320	3.40		NIL	NIL	2.20	0.92							
2	36	-	(-) 3.230	1.320	4.55	25.0	NIL	NIL	6.30	1.49	27.78	2.4564	NIL	NIL	NIL	15.0	1.51
3	40	-	(-) 0.830	1.320	2.15		NIL	NIL	15.0	2.12							
PREMONSOON 2016						**DATE OF COLLECTION**			**06.05.2016**								
1	30	-	(-)2.340	0.500	2.84		NIL	NIL	6.0	1.52							
2	36	-	(-)3.630	0.500	4.13	24.0	NIL	NIL	16.0	2.43	27.56	2.0367	NIL	NIL	NIL	16.0	1.87
3	40	-	(-)1.030	0.500	1.53		NIL	NIL	6.3	1.65							

ABBREVIATION AND SYMBOLS

Av.	:	Average
Cumec	:	Cubic meter per second
Cum	:	Cubic meter
D	:	Days
Dis.	:	Discharge
G	:	Gauge
GD	:	Gauge Discharge
GDS	:	Gauge Discharge Sediment
GDSQ	:	Gauge Discharge Sediment Water Quality
G.T.S.	:	Great Trignometrical Survey
Km.	:	Kilometer
M	:	Million
UKD	:	Upper Krishna Division, Pune.
CD	:	Cauvery Division, Bangalore.
SWRD	:	South Western Rivers Division, Cochin.
SRD	:	Southern Rivers Division, Coimbatore.
m.	:	Meter
mm.	:	Millimeter
m/s.	:	Meter per Second
M.Cum.	:	Million Cubic Meter
Max.	:	Maximum
Min.	:	Minimum
m.s.l.	:	Mean Sea Level
R.Days.	:	Remaining Days
R.L.	:	Reduced Level
s.	:	Second
Sq.	:	Square
Sq.km.	:	Square Kilometer
W.L.	:	Water Level
W.Year	:	Water Year
W.Q.	:	Water Quality
º	:	Degree (30^{o})
’	:	Minute (25’)
”	:	Second (50”)
#	:	Discarded Discharge
r	:	Back Water Effect