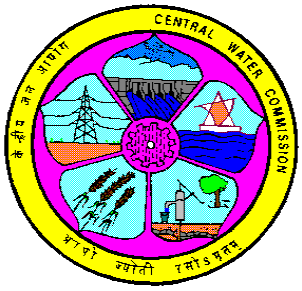
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GOVERNMENT OF INDIA
CENTRAL WATER COMMISSION



KRISHNA BASIN
STAGE - DISCHARGE DATA (Vol. I)
(JUNE 2017 – MAY 2018)

KRISHNA & CO-ORDINATION CIRCLE
HYDERABAD

December – 2018

प्रस्तावना

जल, सीमित संसाधन होने के कारण, विवेकपूर्णता से उपयोग करने के लिए उचित योजना अत्यधिक आवश्यक है । योजना के लिए, सांख्यिकता से मान्य आंकड़ा संग्रह प्राथमिक जरूरत है । भारत में सभी नदी क्षेत्रों में जल विज्ञान संबंधी प्रेक्षण स्टेशनों के अच्छे नेटवर्क के माध्यम से इस उद्देश्य को निभाने के लिए केंद्रीय जल आयोग प्रयत्न करता आ रहा है । यह रिपोर्ट कृष्णा नदी क्षेत्र से संबंध रखता है जो चार राज्यों यथा महाराष्ट्र, कर्नाटक, तेलंगाना और आंध्र प्रदेश को सम्मिलित करता है ।

कृष्णा नदी क्षेत्र से संबंधित जल वर्ष पुस्तक **2017-18** तीन खंड में तैयार की गयी है । खंड **I, II** व **III** क्रमशः प्रवाह डेटा, तलछट डेटा और जल गुणवत्ता डेटा अंतर्विष्ट करता है । वर्ष **2017-18** के लिए अनुभाग खंड **I** में, स्थल अनुसार इतिहास, सामान्य प्रवाह डेटा, जल विज्ञान संबंधी डेटा, प्रतिदिन स्तर-निर्वहन डेटा और नक्शे/मानचित्र को सम्मिलित किया गया है । इसी प्रकार, स्थल अनुसार प्रतिदिन तलछट डेटा खंड **II** में और जल नमूनों की जल गुणवत्ता विश्लेषण खंड **III** में शामिल किया जाता है ।

इस जल वर्ष पुस्तक (खंड **I**) में कृष्ण नदी क्षेत्र के **46** स्टेशनों से एकत्रित प्रतिदिन डेटा को समाविष्ट करके प्रकाशित किया गया है जिस में से 37 स्टेशन कृष्ण एवँ समन्वय परिमंडल, हैदराबाद के क्षेत्राधिकार में हैं और शेष **9** स्टेशन जल विज्ञान एवँ समन्वय परिमंडल, बेंगलुरु क्षेत्राधिकार में हैं । प्रति वर्ष जल वर्ष पुस्तक प्रकाशित की जाती है जिस में माह जून से मई तक का डेटा रहता हैं । यह डेटा डिजिटल रूप में भी उपलब्ध है और डब्ल्यू.आर.आई.एस. वैबसाइट पर अपलोड किया जायेगा और डेटा विकीर्णन पर दिशानिर्देशों के अनुसार विभिन्न उपयोगकर्ता एजेंसियों की जरूरत के अनुसार भी उपलब्ध करवाया जाएगा ।

यह जल वर्ष पुस्तक **2017-18** को प्रकाशित करने में इस कार्यालय और विभिन्न मंडल कार्यालयों यथा ऊपरी कृष्ण मंडल, पुणे, निचली कृष्ण मंडल, हैदराबाद और कावेरी मंडल, बैंगलूरु के अधिकारियों और कर्मचारियों के प्रयासों को अभिस्वीकृत किया जाता है जिन के बिना यह खंड प्रकाशित करना संभव नहीं होता ।

हैदराबाद
दिसंबर 2018

(जी रामबाबू)
अधीक्षण अभियंता

PREFACE

Water, being a limited resource needs to be judiciously utilized for which proper planning is very essential. In order to plan, a statistically valid data bank is a primary requirement. Central Water Commission endeavours to achieve this objective through a good network of Hydrological observation Stations in all river basins in India. This report pertains to the Krishna river basin which encompasses four states viz. Maharashtra, Karnataka, Telangana and Andhra Pradesh.

Water Year Book 2017-18 pertaining to Krishna Basin is prepared in three volumes. The Volume I, II & III contains stream flow data, Sediment data and Water Quality data respectively. Site-wise history of stream flow data and Hydrological data for the year 2017-18 comprising abstract of daily stage-discharge data and charts/maps are included in Volume I. Similarly, site-wise daily sediment data with charts are included in the Volume II and site-wise results of Water Quality analysis of Water Samples are included in Volume III.

This volume of the Water Year Book (Vol-I) contains the daily discharge data collected at 46 sites in the Krishna Basin, out of which 37 sites are under the jurisdiction of Krishna and Co-ordination Circle, Hyderabad and remaining 9 sites are under Cauvery and Southern Rivers Circle, Bengaluru. The Water Year Book containing data from June to May is published every year. The data is also available in digital form and would be uploaded onto WRIS website and also supplied to various user agencies according to their requirement following the guidelines on data dissemination.

The efforts of the officers and staff of this office and that of field Divisions viz. Upper Krishna Division, Pune, Lower Krishna Division, Hyderabad and Cauvery Division, Bengaluru in bringing out this Water Year Book 2017-18 are hereby acknowledged, without which, it would not have been possible to bring out this volume.



Hyderabad
December 2018

(G. RAMBABU)
Superintending Engineer

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कृष्णा नदी क्षेत्र
दैनिक निर्वहन डेटा (खंड - I)
(जून 2017 - मई 2018)

1. परिचय

1.1 कृष्णा नदी प्रणाली

1.1.1 कृष्णा नदी प्रायद्वीपीय भारत में दूसरी सबसे बड़ी पूर्व-निकासी अंतरराज्यीय नदी है। नदी क्षेत्र पूर्वी रेखांश 73°21′ से 81°09′ तक और उत्तरी अक्षांश 13°07′ से 19°25′ के बीच स्थित है, जो महाराष्ट्र, कर्नाटक, तेलंगाना और आंध्र प्रदेश के बड़े क्षेत्रों को कवर करते हुए डेक्कन के पठार में है।

कृष्णा नदी क्षेत्र उत्तर में गोदावरी नदी क्षेत्र से अलग चोटी द्वारा, दक्षिण और पूर्व में पूर्वी घाटों द्वारा तथा पश्चिम में पश्चिमी घाटों द्वारा घिरा हुआ है। नदी क्षेत्र का आकार त्रिकोणीय है जिसका आधार पश्चिमी घाट है तथा शीर्ष विजयवाड़ा है और कृष्णा नदी स्वयं मध्यस्थ बनती हैं। सभी प्रमुख सहायक नदियां पश्चिमी घाट से निकलते हुए है और वो कृष्णा नदी में इसकी लंबाई के ऊपरी दो-तिहाई हिस्से में आकर मिलती हैं।

1.1.2 कृष्णा नदी 2,59,439 वर्ग किलोमीटर (भू स्थानिक डेटा सेट के आधार पर) क्षेत्र में बहती है जो कि देश के कुल भौगोलिक क्षेत्र का लगभग 8% है।

जल निकासी क्षेत्र का राज्यवार वितरण नीचे दी गई तालिका में दिखाया गया है।

राज्य का नाम	लम्बाई (कि.मी.)	जल निकासी क्षेत्र (वर्ग कि.मी.)	जल निकासी क्षेत्र %
महाराष्ट्र	306	69,044	26.8
कर्नाटक	483	1,13,622	43.7
तेलंगाना	612	51,388	19.8
आंध्र प्रदेश		25,385	9.8
कुल	**1401**	**2,59,439**	**100.0**

1.1.3 कृष्णा नदी अरब सागर से लगभग 64 किमी दूर महाबलेश्वर के उत्तर में 1337 मीटर की ऊंचाई पर पश्चिमी घाटों में उदित होती है और महाराष्ट्र, कर्नाटक, तेलंगाना और आंध्र प्रदेश राज्यों से होते हुये पश्चिम से पूर्व तक बहती हुये विजयवाड़ा के नीचे की ओर बहाव के साथ बंगाल की खाड़ी में मिल जाती है।

1.1.4 कृष्णा नदी जलमार्ग 1400 किमी लम्बा है जिसमें शामिल होने वाली 13 प्रमुख सहायक नदियां हैं, जिनमें से छह दाएं किनारे की सहायक नदियां हैं और सात बाएं किनारे की सहायक नदियां हैं। घटप्रभा, मलप्रभा और तुंगभद्रा प्रमुख दाएं किनारे की सहायक नदियां हैं जो कुल मिलाकर 35.45% हिस्सेदारी रखते हैं, जबकि भीमा, मुसी और मुन्नेरू प्रमुख बाएं किनारे की सहायक नदियां हैं जो कुल मिलाकर 35.62 % क्षेत्र हिस्सेदारी रखते है। सहायक नदियों के स्रोत की ऊंचाई, लंबाई और अपवाह क्षेत्रों की जानकारी नीचे तालिका में दी गई है।

कृष्णा नदी की महत्वपूर्ण सहायक नदियां

स. क्र.	सहायक नदी का नाम	तट	औ. स. त. के ऊपर स्रोत की ऊंचाई (मी.)	लम्बाई (कि.मी.)	अपवाह-क्षेत्र (वर्ग कि.मी.)
1	कोयना	दायाँ	1441	118	4,890
2	पंचगंगा	दायाँ	1020	74	2,575
3	दुधगंगा	दायाँ	870	103	2,350
4	घटप्रभा	दायाँ	884	283	8,829
5	मलप्रभा	दायाँ	793	304	11,549
6	भीमा	बायाँ	945	861	70,614
7	तुंगभद्रा	दायाँ	610	531	71,417
8	दिंडी	बायाँ	718	178	3,490
9	पेद्दवागु	बायाँ	707	109	2,343
10	हालिया	बायाँ	708	112	3,780
11	मूसी	बायाँ	661	265	11,212
12	पालेरु	बायाँ	515	152	3,263
13	मुन्नेरु	बायाँ	238	195	10,409

1.2 कृष्णा नदी क्षेत्र में बारिश का स्वरूप

कृष्णा नदी क्षेत्र में औसत वार्षिक वर्षा 750 मि.मी. है। वर्ष 2017-18 में कृष्णा नदी बेसिन में तुंगभद्रा उप बेसिन के क्षेत्र में कम वर्षा और अन्य क्षेत्रों औसत वर्षा हुई, जिसके कारण तुंगभद्रा बेसिन के कई साइटों पर कम वार्षिक उपज देखी गई, जबकि अधिकांश अन्य साइटों पर पिछले वर्ष की तुलना में अच्छा प्रदर्शन देखा गया। दक्षिण पश्चिम मॉनसून जून के मध्य में शुरु होता है और अक्टूबर के मध्य तक वापस चला जाता है। मानसून अवधि के दौरान लगभग 90% वार्षिक वर्षा प्राप्त होती है, जिसमें से 70% जुलाई, अगस्त और सितंबर के दौरान होती है।

1.3 कृष्णा नदी क्षेत्र में जल-विज्ञान संबंधी तंत्र

कृष्णा गोदावरी आयोग ने जुलाई 1962 की अपनी रिपोर्ट में कृष्णा बेसिन में कई स्थानों पर स्थायी आधार पर दैनिक बहाव अवलोकन साइटों की एक वैज्ञानिक तरीके से स्थापित करने की सिफारिश की थी। 1973 की अपनी रिपोर्ट में कृष्णा जल विवाद न्यायाधिकरण ने भी कृष्णा बेसिन में अतिरिक्त जल-विज्ञान निरीक्षण केंद्रों की स्थापना की सिफारिश की थी। केन्द्रीय जल आयोग ने 1963 में कृष्णा बेसिन में जल-विज्ञान अवलोकन शुरू किया। कृष्णा नदी और इसकी सहायक नदियों पर जल-विज्ञान स्थलों की स्थापना की गई और डेटा संग्रहण जारी है। मानसून के मौसम के दौरान, स्टेशन गेज लाइन पर गेज घंटे प्रति घंटा दर्ज की जाता है। गैर मानसून के मौसम के दौरान 0800 घंटे, 1300 घंटे और 1800 घंटे प्रतिदिन तीन बार दर्ज की जाता है।

कृष्णा बेसिन के 46 जल-विज्ञान अवलोकन केंद्रों में से 3 7, कृष्णा और समन्वय परिमंडल, हैदराबाद के नियंत्रण में हैं और 9 कावेरी मंडल, जल विज्ञानीय प्रेश्रण एवँ समन्वय परिमंडल, (एच.वो. और सी.सी.), बेंगलुरू के अधीन हैं। कृष्णा और समन्वय परिमंडल के तहत, दो मंडल हैं, यथा ऊपरी कृष्णा मंडल, पुणे ने 17 अवलोकन केंद्रों को और निचली कृष्णा मंडल, हैदराबाद ने 20 अवलोकन केंद्रों को सम्भाले रखा है।

2017-18 के दौरान एकत्रित 46 केंद्रों का दैनिक गेज और निर्वहन डेटा इस खंड में प्रस्तुत किया गया है। गेज और निर्वहन अवलोकन के अलावा, इनमें से कुछ केंद्रों पर तलछट और जल गुणवत्ता निगरानी भी की जाती है। सभी 46 साइटों का वर्ष 2017-18 के लिए जल स्तर और निर्वहन डेटा खंड -1 में प्रस्तुत किया गया है। निलंबित तलछट डेटा (27 साइट) और जल गुणवत्ता डेटा (33 साइट) वर्ष 2017-18 के लिए अनुक्रम II और III में क्रमशः प्रस्तुत किए जाते हैं।

1.4 **निरीक्षण तकनीकें**

गेज और निर्वहन डेटा के संग्रह के लिए अपनाए गए मानक तरीकों को निम्नलिखित पैरा में संक्षेप में समझाया गया है।

1.4.1 **गेज निरीक्षण**

नदी के जल स्तर या चरण को औसत समुद्र तल के आधार के ऊपर इसकी ऊंचाई के रूप में मापा जाता है। गैर-अभिलिखित गेज को मैन्युअल रूप से पढ़ कर जल स्तर माप किया जाता है। लंबवत चिह्नित छड़ी की श्रृंखला प्रत्येक साइट पर तीन लइनों में स्थापित की जाती है। मेट्रिक इकाई अंकन के साथ इनेमल पेन्ट गेज प्लेटें गेज पोस्ट पर स्थापित की जाती हैं ताकि गेज को तीन दशमलव तक पढ़ा जा सके। तीन गेजिंग लाइनों में से, मध्य लाइन को स्टेशन गेज लाइन के रूप में उपयोग किया जाता है और अन्य दो लाइनों की रीडिंग का उपयोग पानी की सतह के ढलान की गणना के लिए किया जाता है।

1.4.2 निर्वहन निरीक्षण

आमतौर पर, रविवार और छुट्टियों के दिनों को छोड़कर सभी दिनों में क्षेत्र-वेग विधि का उपयोग करके लगभग 0800 घंटे पर एक बार निर्वहन अवलोकन किया जाता हैं।

स्टेशन गेज लाइन पर नदी के गहराई और वेग अवलोकन हेतु IS: 1192-2013 में उल्लेखित विधि अनुसार नदी को 15-25 भागों में विभाजित किया जाता है। नदी के प्रवाह की चौड़ाई और प्रवाह की स्थिति के आधार पर प्रत्येक खंड का केंद्रीय बिंदु टैग लाइन का उपयोग करके या खंड प्रणाली द्वारा चिह्नित किया जाता है।

मध्य खंड विधि का आमतौर पर पालन किया जाता है और प्रत्येक खंड के मध्य बिंदु पर गहराई और वेग मापा जाता है। वेडिंग राड या गहराई रॉड का उपयोग करके गहराई दर्ज की जाती है, किंतु 3.0 मीटर से अधिक गहराई के लिये साउंडिंग रील या इको साउंडर का उपयोग किया जाता है। असाधारण मामलों में, जहां नदी का नदीतल स्थिर है, अवलोकन अनुभाग में नदी के हालिया ली गई क्रास सेक्शन को उपयोग करके गहराई का अनुमान लगाया जाता है।

हराई और वेग अवलोकन कम प्रवाह के दौरान वेडिंग के द्वारा तथा ज्यादा प्रवाह के दौरान नाव के साथ केबल वे द्वारा या आईबी / ओबी इंजन द्वारा किया जाता है। कुछ साइटों पर, पुल का उपयोग करके उस साइट पर उपलब्ध अवलोकन सुविधाओं के माध्यम से डेटा के संग्रह किया जाता है।

IS: 3910-1992 के अनुसार बनाई गई एक कप प्रकार के धारामापी का उपयोग करके IS: 3918-1966 के अनुरूप वेग को मापा जाता है । आमतौर पर धारामापी IS: 6064-1971 के अनुसार निलंबन उपकरण द्वारा प्रत्येक खंड बिंदु पर सतह से कुल गहराई की 0.6 गहराई तक नीचे किया जाता है और जब जल की गहराई 0.3 मीटर से कम होती है, तो वेग पानी की सतह के बिल्कुल नीचे मापा जाता हैं।

अत्यधिक प्रवाह वेग के दौरान नदी के मध्यम और उच्च स्थरों में, इंजनों वाली नाव का उपयोग किया जाता है। जहां इंजन के बिना FRP नाव का उपयोग किया जाता है उन कुछ स्टेशनों पर नावों के संचालन हेतु केबल वे स्थापित किये गये है। जब धारा प्रवाह की स्थिति के कारण नाव को अवलोकन के लिए स्थिर रखना मुश्किल हो जाता है, वहां कभी-कभी वेग मापन सड़क-पुलों से किए जाता हैं, जहां भी संभव होता हैं। जब उपर्युक्त प्रक्रियाओं में से कोई भी संभव नहीं होती है, तो या तो फ्लोट अवलोकन या ढलान-क्षेत्र विधि द्वारा गणना की जाती है।

विभिन्न साइटों पर विभिन्न विधियों द्वारा ली गया डेटा, निर्वहन की गणना करने के लिए निर्धारित मानक रूपों में दर्ज किया जाता है और फिर सतह जल डेटा प्रविष्टि प्रणाली (SWDES) में अंकित करने के लिए उप मंडलीय डेटा केंद्र में प्रेषित किया जाता है। डेटा की सॉफ्ट कॉपी मंडल कर्यालय में जमा की जाती है। मंडल डेटा प्रसंस्करण केंद्र में प्राथमिक सत्यापन के बाद, क्षेत्रीय डेटा प्रसंस्करण केंद्र, परिमंडल कर्यालय में HYMOS सॉफ्टवेयर का उपयोग कर डेटा को संशोधित करके अंतिम रूप दिया जाता है। वर्ष 2016 से लिया गया डेटा को e-SWIS (ऑनलाइन डेटा बेस) में दर्ज किया जा रहा है।

1.4.3 गैर-निरीक्षण दिनों के लिए निर्वहन डेटा की गणना

प्रत्येक सत्र (मानसून या गैर मानसून) के दौरान मापा नदी स्तर और निर्वहन डेटा SWDES से HYMOS में भेजा जाता हैं। HYMOS में सभी अवलोकन बिंदुओं को वेटेज देकर और ऐसे अवलोकनों को छोड़कर जो असंगत हो, एक स्तर-निर्वहन दर-निर्धारण वक्र तैयार किया जाता हैं। वर्तमान मौसम के लिए चरण-निर्वहन वक्र को इस तरह से अंतिम रूप दिया गया है कि यह पूर्वाग्रह से मुक्त हो और उपयुक्त परीक्षणों को पास करता हो। पिछले वर्ष के एस-डी वक्र के साथ अध्यारोपित करके तुलना की जाती है और वर्तमान वर्ष के वक्र में यदि कोई परिवर्तन देखा जाता हे तो इसके सत्यापन के लिए चरण-क्षेत्र और चरण-वेग आरेखों का उपयोग करके अध्ययन किया जाता है। परिवर्तन की उपयुक्तता के संतोषजनक निष्कर्ष पर, वर्तमान मौसम के चरण-निर्वहन वक्र को अंतिम रूप दिया गया है और गैर-निरीक्षण दिनों के लिए 0800 घंटे बजे पानी के स्तर के लिये दर-निर्धारण वक्र से निर्वहन की गणना की जाती है। अमान्य अवलोकनों के लिए निर्वहन की गणना, चरण-निर्वहन दर-निर्धारण वक्र से की जाती है।

1.5 व्याख्यात्मक & विवेचनात्मक टिप्पणी

1.5.1 इस प्रकाशन में प्रस्तुत डेटा और आलेखी प्रस्तुतिकरणों में निहित जल-विज्ञान मानकों को समझने में सहायता के लिए निम्नलिखित स्पष्टीकरण / व्याख्या दी गयी है।

i. जल वर्ष, कैलेंडर वर्ष के 1 जून से शुरू होता है और अगले कैलेंडर वर्ष के 31 मई तक चलता है और एक पूर्ण जल-विज्ञान चक्र को पूर्ण करता है।

ii. दिए गए निर्वहन आंकड़े दैनिक निरीक्षित / अनुमानित प्रवाह होते हैं। गैर-अवलोकन दिनों और अमान्य अवलोकनों के लिए, 0800 घंटों के गेज के लिए निर्वहन का अनुमान लगाया जाता है और प्रति सेकंड घन मीटर (Cumecs) में दर्शाया जाता है।

iii. गेज का शून्य प्रत्येक साइट के लिए निर्धारित डेटम स्तर का संदर्भ है और बारहमासी नदी के निम्नतम पानी के स्तर से 1 या 2 मीटर कम रखा जाता है। गैर-बारहमासी नदी में, इसे नदी के तल के स्तर से 1 मीटर कम रखा जाता है।

iv. निर्वहन को निम्न तरीकों से पूर्णांकित किया जाता है :
   a) 1000 क्यूमेक्स से अधिक होने पर निकटतम पूर्ण पूर्णांक।
   b) 100-999 क्यूमेक्स के बीच होने पर निकटतम पहला दशमलव मान।
   c) 10-99 क्यूमेक्स के बीच होने पर निकटतम दूसरा दशमलव मान।
   d) 10 से कम कम होने पर निकटतम तीसरा दशमलव मान।

v. महीने के अधिकतम और न्यूनतम निर्वहन (अवलोकित / गणना) दैनिक निर्वहन से लिया जाता है।

vi. अपवाह (रन-ऑफ) मिलीमीटर में जल निकासी क्षेत्र पर निर्वहन माप स्टेशन तक पानी की वास्तविक गहराई होती है, जो कि वार्षिक गणित रन-ऑफ के जो समतुल्य होती है, जिसे निम्नलिखित संबंधों का उपयोग करके गणना किया जाता है।

$$\text{अपवाह (मि.मी.)} = \frac{\text{वार्षिक अपवाह (मिलियन क्यूबिक मीटर)} \times 1000}{\text{अपवाह क्षेत्र (वर्ग किमी)}}$$

vii. रिकॉर्ड पर अधिकतम और सबसे निचला निर्वहन मापने के समय के अनुरूप होता है (निर्वहन मापने का समय आमतौर पर **08.00** घंटे से निर्वहन माप के अंत तक होता है) और पूर्ण अधिकतम और सबसे कम पानी के स्तर के अनुरूप नहीं होता है।

हालांकि, अधिकतम उत्पन्न जल स्तर घटना के दिनांक और समय के साथ इसकी अनुमानित निर्वहन का उल्लेख प्रत्येक साइट की इतिहास पुस्तिका में किया गया है।

गेजिंग साइट का कोड नंबर एक सात-कॉलम वाला अद्‌वितीय अक्षरांकीय संदर्भ संख्या होती है, जो डेटा बैंकों में प्रवाह डेटा के भंडारण और पुनर्प्राप्ति की सुविधा प्रदान करता है। पहला वर्ण या तो एक अभिन्न नदी बेसिन या एक क्षेत्र है जिसमें कई संगत नदी अपवहन क्षेत्र प्रदर्शित करता हैं। इसके बाद एक वर्ण होता है, जो एक स्वतंत्र नदी प्रणाली की पहचान करता है, जिसमें समुद्र में एक या एक से अधिक

आउटलेट होते हैं या जो किसी अन्य देश में प्रवेश करने के लिए अंतरराष्ट्रीय सीमा पार करते हैं। तीसरे, चौथे और पांचवें वर्ण समुद्र / अंतरराष्ट्रीय सीमा से धारा की ओर बढ़ते क्रमशः पहले, दूसरे और तीसरे अनुक्रम की सहायक नदियों को दर्शाते हैं। छठे और सातवें वर्ण नदी पर निर्धारित गेजिंग साइट का स्थान इंगित करते हैं। रिक्त स्थान, यदि कोई हो तो, शून्य से भरे होते हैं।

1.5.2 चित्रात्मक निरूपण की व्याख्या

आयतचित्र-हाइड्रोग्राफ, पट्टी मानचित्र और एक पाई आरेख आदि; स्वचालित रूप से दर्ज किए गए डेटा के आधार पर सॉफ़्टवेयर द्वारा उत्पन्न होते हैं, जिनकी संक्षेप में व्याख्या नीचे दी गयी है।

A. आयतचित्र-हाइड्रोग्राफ : इस आलेखीय निरूपण से पता चलता है (ए) अधिकतम ऐतिहासिक निर्वहन, जिसका मतलब है, उपलब्ध डेटा की पूरी अवधि में, जल वर्ष के प्रत्येक महीने में, दिन में, उच्चतम निर्वहन कितना है। (बि) इसी प्रकार न्यूनतम ऐतिहासिक निर्वहन का मतलब है , उपलब्ध डेटा की पूरी अवधि में , जल वर्ष के प्रत्येक महीने में, दिन में सबसे कम निर्वहन कितना है। (सि) वर्तमान वर्ष सहित उपलब्ध डेटा की पूरी अवधि के लिए, जल वर्ष में, प्रत्येक महीने मे औसत ऐतिहासिक निर्वहन| (डि) वर्तमान वर्ष का औसत निर्वहन का मतलब है कि वर्तमान वर्ष के प्रत्येक माह में दैनिक निर्वहन का औसत मान। इस प्रकार यह ग्राफ एक दिन के अधिकतम, न्यूनतम निर्वहन और प्रत्येक वर्ष के लिए प्रत्येक माह के औसत निर्वहन का जिसके लिए डेटा उपलब्ध है, निरूपण करता हैं, तथा इन मानो की तुलना मौजूदा वर्ष के मासिक औसत मानो से करता है।

B. रनऑफ का बार चार्ट: यह निम्नलिखित सूत्रों का उपयोग करते हुए दस लाख घन मीटर (एम.सी.एम.) में मौजूदा वर्ष सहित सभी वर्षों के उपलब्ध आंकड़ों के लिए , प्रत्येक जल वर्ष के वार्षिक प्रवाह का सचित्र प्रदर्शन है।

दैनिक डिस्चार्ज (घन मीटर प्रति सेकेंड मे) X (60 X 60 X 24 / 1000000) = एम.सी.एम. में दिन का रनऑफ

दैनिक रनऑफ का योग, एक वर्ष में, वार्षिक रनऑफ देता है। यह चार्ट उपलब्ध डेटा के सभी वर्षों के लिए, साइट पर प्रत्येक वर्ष के वार्षिक रन ऑफ की तुलना करता है।

C. पाई आरेख: मासिक औसत रनऑफ का पाई आरेख, वर्ष के प्रत्येक महीने के लिए सालाना रन ऑफ का औसत प्रतिशत दर्शाता है, जिसके लिए चालू वर्ष का डेटा भी उपलब्ध हो। इसी तरह वर्तमान वर्ष का पाई आरेख, वर्तमान जल वर्ष में प्रत्येक महीने के वार्षिक प्रवाह के प्रतिशत का निरूपित करता है। यह निरूपण किसी विशेष साइट पर वार्षिक उपज में , पानी का मासिक योगदान दिखाता है। क्षेत्र में धारा के मार्ग मे बारिश गिरने के आधार पर मासिक रन ऑफ एक साइट से दूसरे साइट पर भिन्न हो सकता है।

D. अध्यारोपित अनुप्रस्थ काट: नदी के तल का अनुप्रस्थ काट, मानक निर्वहन क्षेत्र के साथ प्रत्येक साइट पर मानसून के पहले और मानसून के बाद दर्ज की जाती है और अनुप्रस्थ काट मे परिवर्तन पता करने हेतु इसे अध्यारोपित भी करते हैं|

E. जल स्तर बनाम समय चार्ट: प्रत्येक साइट पर 3 शीर्ष चोटी के बाढ़ का निरूपण इन चार्टों द्वारा किया जाता है, जिसमें प्रत्येक बाढ़ के लिए 72 घंटे (3 दिन) के समय के साथ पानी का स्तर, तिथि और समय दिया होता है।

1.6 प्रस्तुति का तरीका

इस खंड में साइट-वार जल-विज्ञान डेटा, वृत्तपत्रक, प्रवाह तालिका और चित्रमय सारांश प्रस्तुत किए जाते हैं। हाइड्रोलॉजिकल स्टेशनों का अनुक्रमण, समुद्र से ऊपर की ओर बढ़ने वाली नदी के साथ या मुख्य नदी / अंतरराष्ट्रीय सीमा के साथ संगम से नदी के स्रोत तक व्यवस्थित किया जाता है, जिसमे मध्यवर्ती सहायक नदियो स्तिथ साइटो को भी समान रूप से प्राथमिकता दी जाती है।

प्रवाह सारणी निम्नलिखित तथ्य इंगित करती है:

अ) दैनिक निर्वहन (क्यूमेक्स मे)

आ) दस दैनिक औसत निर्वहन (क्यूमेक्स मे)

इ) मासिक औसत निर्वहन (क्यूमेक्स मे)

ई) मासिक अधिकतम और न्यूनतम निर्वहन (क्यूमेक्स मे)

उ) वार्षिक रन-ऑफ (मि. क्यूमेक्स और मिमी में)

KRISHNA BASIN
DAILY DISCHARGE DATA (VOL - I)
(JUNE 2017 – MAY 2018)

1.0 INTRODUCTION

1.1 THE KRISHNA RIVER SYSTEM

1.1.1 The River Krishna is the second largest eastward draining interstate river in Peninsular India. The basin of Krishna is situated between East longitudes 73^0 21′ to 81^0 09′ and North latitudes 13^0 07′ to 19^0 25′ in the Deccan Plateau covering large areas in the States of Maharashtra, Karnataka, Telangana and Andhra Pradesh.

The Krishna Basin is bounded on the North by the ridge, separating it from the Godavari basin and on the South and East by the Eastern Ghats and on the West by the Western Ghats. The basin is more or less triangular in shape with its base along the Western Ghats, the apex at Vijayawada and the river Krishna itself forming the median. All the major tributaries are originating in the Western Ghats and joining river Krishna at the base of the triangle in the upper two-thirds of its length.

1.1.2 The Krishna drains an area of 2,59,439 sq.km (based on geo spatial data sets) which is nearly 8% of the total geographical area of the country.

The State wise distribution of drainage area is shown in the Table given below.

Name of State	Length (km)	Drainage area (sq.km)	Drainage area %
Maharashtra	306	69,044	26.8
Karnataka	483	1,13,622	43.7
Telangana	612	51,388	19.8
Andhra Pradesh		25,385	9.8
Total	**1401**	**2,59,439**	**100.0**

1.1.3 The river Krishna rises in the Western Ghats at an altitude of 1337m just North of Mahabaleswar, about 64 km from the Arabian Sea and flows from West to East through the States of Maharashtra, Karnataka, Telangana and Andhra Pradesh before it joins the Bay of Bengal at downstream of Vijayawada.

1.1.4 There are about 13 major tributaries which join the river Krishna along its 1400 km course, out of which, six tributaries are on right bank and remaining seven are on left bank. Among the major tributaries, the Ghataprabha, Malaprabha and Tunga-Bhadra are the principal right bank tributaries which together contribute 35.45% of the total catchment area, whereas the Bhima, Musi and Munneru are the principal left bank tributaries which together contribute 35.62% of the total catchment area. The elevation of source, length and catchment areas of the tributaries are indicated in given table below.

The important tributaries of river Krishna

Sl.No.	Name of tributary	Bank	Elevation of source in m above MSL	Length (km)	Catchment area (sq.km)
1	Koyna	Right	1441	118	4,890
2	Panchganga	Right	1020	74	2,575
3	Dudhganga	Right	870	103	2,350
4	Ghataprabha	Right	884	283	8,829
5	Malaprabha	Right	793	304	11,549
6	Bhima	Left	945	861	70,614
7	Tunga Bhadra	Right	610	531	71,417
8	Dindi	Left	718	178	3,490
9	Peddavagu	Left	707	109	2,343
10	Halia	Left	708	112	3,780
11	Musi	Left	661	265	11,212
12	Paleru	Left	515	152	3,263
13	Munneru	Left	238	195	10,409

1.2 RAINFALL PATTERN IN THE KRISHNA BASIN

The average annual rainfall in the Krishna basin is 750 mm. In 2017-18 Tungabhadra sub basin in Krishna River Basin experienced less rainfall and above average rainfall in other areas, due to which less annual yield observed at many of the sites in Tungabhadra basin while most of other sites experienced good runoff compared to the previous year. The South West Monsoon sets in the middle of June and withdraws by the middle of October. About 90% of annual rainfall is received during the Monsoon period, of which more than 70% occurs during July, August and September.

1.3 Hydrological Network in Krishna Basin

Krishna Godavari Commission in their report of July 1962 recommended for establishment of daily discharge observation sites on permanent basis and in a scientific way at various locations in Krishna basin. Krishna Water Dispute Tribunal in their report of 1973 also recommended setting up of additional Hydrological Observation stations in Krishna basin. Central Water Commission commenced Hydrological Observations in Krishna Basin in 1963. Hydrological Observation sites on main Krishna River and its tributaries were established and data collection is being continued. During monsoon season, gauges are recorded hourly at the station gauge line. During non-monsoon season gauges are recorded thrice daily at 0800 hours, 1300 hours and 1800 hours.

Out of 46 Hydrological observation stations in the Krishna Basin, 37 are under the control of Krishna & Co-Ordination Circle, Hyderabad and 9 are under Cauvery Division, Bangalore under Cauvery & Southern Rivers Circle (C&SRC), Bangalore. Under the Krishna & Co-Ordination Circle, there are two divisions namely, Upper Krishna Division, (UKD) Pune maintaining 17 observation stations and Lower Krishna Division, (LKD) Hyderabad maintaining 20 observation stations.

The daily gauge and discharge data of 46 stations collected during 2017-18 have been presented in this volume. In addition to gauge and discharge observations, Sediment and Water Quality monitoring are also conducted at some of these stations. The water level and discharge data for the year 2017-18 of all the 46 sites are presented in Volume-I. Suspended Sediment data (27 sites) and Water Quality data (33 Sites) are presented for the year 2017-18 in volumes II and III respectively.

1.4 OBSERVATION TECHNIQUES

The standard methods adopted for collection of Gauge and Discharge data are explained briefly in the following Para's.

1.4.1 Gauge Observation

Water level or stage of the river is measured as its elevation above MSL datum. Water level measurement is carried out by manually reading non-recording gauges. Series of vertical staff gauges are fixed at three sections at every site. Enameled gauge plates with metric unit markings are fixed on the gauge posts so that gauges can be read up to three decimals. Out of the three gauging lines, the central one is used as station gauge line and readings of the other two lines are used for calculation of water surface slope.

1.4.2 Discharge Observation

In general, discharge observations are conducted once in a day commencing at about 0800 hours using area-velocity method on all days except Sundays and holidays.

Across the river at station gauge line, the river is divided into 15 – 25 segments as outlined in IS 1192 – 2013 for conducting depth and velocity observations. The central point of each segment is located / marked using the tag line or by Segmentation system depending on the width of the river and flow conditions.

Mid-section method is generally followed and depth and velocity are observed at midpoint of each segment. Depth is recorded using wading rod and sounding rod up to 3.0 m above which Sounding reel or Echo Sounder is used. In exceptional cases, where the river bed is stable, depths are estimated using recent cross section of the stream at the observation section.

Depth and velocity observations are carried out by wading during lean flow and at higher flow conditions by Boat with cable way or Boat with IB /OB Engine or Catamaran or Motor Launch. At certain sites, Bridge sections are used for collection of data depending on the means of observation facilities available at that site.

The velocity is measured as per IS 3918 - 1966 by using a cup type current meter conforming to IS 3910 - 1992. In general the current meter is lowered to the requisite depth i.e. 0.6 of total depth from the surface at every segment point by suspension equipment as per IS: 6064 - 1971 and when the depth is less than 0.3 meter, the velocity is observed just below the water surface.

At medium and high stages with significant flow velocities, boats fitted with power engines are being used. At some stations cableway has been established for navigating the boat, where FRP boats without engines are used. Measurements of velocity are sometimes carried out from road bridges, wherever feasible, when it becomes difficult to keep the boat stable for velocity observations due to the river flow conditions. When none of the above procedures is possible, either float observation is resorted to or computed by slope area method.

The data observed by different methods at various sites is entered in prescribed standard forms to compute the discharge and then transmitted to sub divisional data centre to be entered into Surface Water Data Entry System (SWDES). The soft copy of the data is submitted to division. After Primary validation at Divisional Data Processing Centre, the data is processed and finalized in Regional Data Processing Centre using the HYMOS software at the Circle. From June 2016 onwards the observed is being entered in e-SWIS (online database).

1.4.3 Computation of discharge for non-observed days

The stages and corresponding discharges measured during each season (monsoon or non-monsoon) are exported to HYMOS from SWDES. Stage-Discharge rating curve will be generated in HYMOS giving weightage to all the observation points and discarding such observations which appear inconsistent. The Stage-Discharge curve for the current season is then finalised such that it is free from bias and passes all the goodness of fit tests. It is also compared by superimposition with the previous year's S-D curve and shift, if any, of the current year's curve is studied with reference to changes in the river cross-section and using the stage-area and stage-velocity diagrams for verification. On satisfactory conclusion of the appropriateness of the shift, the Stage-Discharge curve of the current season is finalised and used for computation of discharge from the rating curve against 0800 hours water level for non-observed days. The discharge for the discarded observations, are computed from the Stage-Discharge rating curve.

1.5 EXPLANATORY & INTERPRETATION NOTE

1.5.1 The following explanatory/ interpretation note is given for assistance in understanding hydrological parameters contained in the data and graphical representations presented in this publication.

i. Water year commences from 1st June of a calendar year and extends up to 31st of May of next calendar year and covers one complete hydrologic cycle.

ii. The discharge figures given are daily observed/estimated flows. For non-observation days and discarded observations, the discharge is estimated against 0800 hours gauge reading and represented in cubic meter per second (cumec).

iii. The zero RL of gauge is a reference of datum level, fixed for each site and is kept 1 or 2m lower than the lowest water level of a perennial stream. In a non-perennial stream, it is kept 1m lower than the bed level of the stream.

iv. Discharge is rounded off to
   a) Nearest full integer when it exceeds 1000 cumec.
   b) Nearest first decimal value when it is between 100-999 cumec.
   c) Nearest second decimal value when it is between 10-99 cumec.
   d) Nearest third decimal value when it is less than 10 cumec.

v. Maximum and minimum discharges (observed / computed) of the month are taken from daily discharges.

vi. Run-off in millimeters (mm) is the notional depth of water over the drainage area up to the discharge measurement station converted as equivalent to the calculated Annual run-off, which is computed using the following relation.

$$\text{Run-off (mm)} = \frac{\text{Annual run-off (Million cubic metre)} * 1000}{\text{Catchment area (sq.km)}}$$

vii. The peak and the lowest discharge on record correspond to the measuring time (Discharge measuring time is generally from 08.00 hours to the end of discharge measurement) and are not corresponding to absolute peak and lowest observed water level.
However Maximum Water level occurred with date and time of occurrence and corresponding estimated discharge has been mentioned in History sheet of each site.

The gauging site's code number is a unique seven-column alphanumeric reference number, which facilitates storage and retrieval of flow data in data banks. The first character is identifier of either an integral river basin or for convenience a region having several contiguous river catchments. This is followed by a character,

which identifies an independent river system, which either has one or more outlets to the sea or crosses international border to enter another country. The third, fourth and fifth characters denote first, second and third order of tributaries respectively from the sea/international boundary moving upstream. The sixth and seventh characters indicate the location of gauging site earmarked on the river. Blank spaces, if any, are filled by zeros.

1.5.2 Interpretation of Graphical representations

Histogram-Hydrograph, Bar Chart and a pie diagram etc; are automatically generated by the software based on the data entered, which are briefly interpreted below.

A) Histogram-Hydrograph: This graphical representation reveals (a) Maximum discharge historical, which means, highest discharge observed, on a day, in each month of water year, in the entire period of available data. (b) Similarly minimum historical discharge means, lowest discharge observed, on a day, in each month of water year, in the entire period of available data. (c) Mean discharge-Historical means, average value of discharge, for each month, in a water year, for the entire period of available data including current year. (d) Mean discharge current year means, average value of daily discharge in each month, in current water year. Therefore this graph represents maximum, minimum discharge observed on a day and mean of each month discharge for all years for which data is available and comparing these values with current year monthly mean values.

B) Bar chart of Runoff: This is the graphical representation of annual runoff of each water year, for all years of available data, including current year, in million cubic meter (MCM) using the following formula.

Daily discharge, in Cubic meter per second X (60 X60X24/ 1000000) = Runoff of the day in MCM.

Sum of daily Run off in a year gives annual runoff. This chart compares annual run off of each year at a site for all years of available data.

C) Pie Diagrams: Pie diagram of monthly average runoff represents average percentage of annual run off, for each month of water year, of all years, for which data is available including current year. Similarly current year pie diagram represents percentage of annual runoff of each month in current water year. This representation shows monthly contribution of water yield, in annual runoff, at a particular site. The monthly run off may vary from one site to another site depending up on rain fall at upstream in that region.

D) Superimposed cross section: The profile of river bed along standard discharge section is recorded, at on set and off set of monsoon at each site and superimpose the same, to find out cross sectional variations of river bed.

E) Water level Vs Time Charts: At each site 3 highest peak floods have been represented by these charts, showing water level ,date and time of occurrence with a time span of 72 hours (3 days) for each flood.

1.6 METHOD OF PRESENTATION

Site-wise hydrological data history sheets, flow tables and pictorial summary are presented in this volume. The serial order of hydrological stations is arranged along the river moving upstream from the sea or confluence with main river /international boundary towards its source, giving due priority to sites on intermediate tributary in similar way.

The flow tables indicate the following.

a) Daily discharge (in cumec)
b) Ten-daily mean discharge (in cumec)
c) Monthly mean discharge (in cumec)
d) Monthly maximum and minimum discharge (in cumec)
e) Annual run-off (in M.cum. & mm)

KRISHNA BASIN

E 72°
82°
N 19°
19°
14°
72°
82°
N

TO NASIK
TO MUMBAI
AHMADNAGAR
PHULGAON(s)
GHOD RES.
PARGAON
DHOND
KHADAKWASALA
PUNE
MANGAON
OSMANABAD
UJJAINI DAM
Nira
NARASINGPUR
SARATI
Bhima
SOLAPUR
Shivaji Sagar
Krishna R.
Yerla
MAHARASHTRA
WADAKBAL
BOROMERGA
KOYNA
WARUNJI
KARAD
TAKALI
SIRDHON
KOKANGAON
MALKHED
Kagna R.
JEWANGI
DEONGAON BRIDGE
NIVALI
PANDEGAON
SAMDOLI(s)
MIRAJ
BIJAPUR
KOLHAPUR
ARJUNWAD
TERWAD(s)
KURUNDWAD
SADALGA(s)
VANDUR
Dona
TALIKOT(s)
YADGIR
KOILSAGAR
TELANGANA
Krishna
HUVINHEDGI
GOTUR
Ghatprabha
MUDHOL
BAGALKOT
ALAMATI
DEOSUGAR
P.D. JURALA PROJ.
K.AGRAHARAM
GOKAKFALLS(s)
NARAYANPUR DAM
SRISAILAM PROJ.
DADDI
BELGUM
MANTRALAYAM
BAWAPURAM
KURNOOL
PONDA(GOA)
Malaprabha
CHOLACHGUDA(s)
KARNATAKA
DODDIPADU
T.RAMAPURAM(s)
TO PANAJI
KUSTAGI
Tungabhadra
Handri
DHARWAD
Bemihalla
NAVALGUND
T.B.DAM
OOLLENUR(s)
BENNUR BARRAGE
TO CHENNAI
MAROL
HARALAHALLI
Varada R.
HAGRI-BOMMANAHALLI
KUPPELUR
DAVANGERE
BYALADAHALLI
HONNALI
Vedavati
SHIMOGA
HOLEHONNUR
V.SAGAR PROJ.
HOOVINAHOLE
TUNGA PROJ.
BHADRA PROJ.
KELLODU
Swarnamukhi
R. Tunga
R. Bhadra
CHIKMAGALLUR
HASSAN
TO BANGALORE
ANDHRA PRADESH
WARANGAL
TO NAGPUR
HYDERABAD
Musi
POLAMPALLI(s)
Wyra
Munneru
P.BRIDGE
MADHIRA
WADENAPALLI
HALIA
KESSARA
N.S.DAM
PAMERACHERLA
PONDUGALA
SUDDAKALLU
Dindi
P. BARRAGE
VIJAYAWADA
TO VISAKAPATNAM
TO CHENNAI
MARELLA
Gundlakamma
BAY OF BENGAL
KESSARA

LEGEND	
STATE BOUNDARY	
CATCHMENT BOUNDARY	
NATIONAL HIGHWAY	44
RIVERS/TRIBUTARIES	
DAMS/BARRAGE	
GAUGE SITE (G)	
GAUGE DISCHARGE (GD)	
GAUGE DISCHARGE WATER QUALITY (GDQ)	
GAUGE DISCHARGE SEDIMENT WATER QUALITY (GDSQ)	
GUAGE & WATER QUALITY (GQ)	
FLOOD FORECASTING	
WIRELESS STATION	
TELEMETRY STATION	
WATER QUALITY LABORATORY LEVEL-II	
IMPORTANT PLACE	
STATE CAPITAL	
CE+CIRCLE+DIV.+SUB-DIV. OFFICES	
SUB-DIVISION	
AIRPORT	

Not to scale

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Vijayawada (Teriminal site of River Krishna)**	**Code**	:	**AK000B9**
State	:	Andhra Pradesh	District		Krishna
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Krishna
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD2, Vijayawada
Drainage Area	:	251360 Sq. Km.	Bank	:	Left
Latitude	:	16°30'04"	Longitude	:	80°37'30"
Zero of Gauge (m)	:	8.69 (m.s.l) 8.152 (m.s.l)	01/01/1964 01/09/1964	-	31/08/1964 -

		Opening Date	Closing Date		
Gauge	:	21/03/1964	HFL During 2017-18	:	9.752m
			Corres. Discharge	:	135.0(Estimated)
Discharge	:	24/03/1964	Date & Time of occurance	:	20/07/2017 06.00 hrs.
Sediment	:	01/02/1965			
Water Quality	:	01/01/1972			

HFL Recorded so far in m : 19.332 dt 05-10-2009
Corresponding Discharge (cumecs) : 28140 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	14925	17.392	06/08/1965	2.100	9.182	20/12/1965
1966-1967	10950	16.822	06/08/1966	0.000	8.997	28/05/1967
1967-1968	15215	18.192	07/08/1967	0.000	9.047	16/07/1967
1968-1969	8806	16.932	21/05/1969	2.509	8.997	13/04/1969
1969-1970	14346	17.552	08/08/1969	1.868	9.092	05/05/1970
1970-1971	14193	17.592	23/09/1970	2.930	9.032	16/04/1971
1971-1972	6915	15.132	08/09/1971	3.969	8.842	21/05/1972
1972-1973	3451	13.777	18/07/1972	1.700	8.812	27/04/1973
1973-1974	7795	15.302	30/10/1973	2.400	9.022	07/05/1974
1974-1975	13307	17.092	30/09/1974	5.045	9.122	21/02/1975
1975-1976	18513	18.182	13/10/1975	5.100	9.312	23/04/1976
1976-1977	14218	17.102	11/08/1976	2.470	9.052	29/03/1977
1977-1978	6793	15.122	02/08/1977	8.046	9.182	23/04/1978
1978-1979	17024	17.742	16/08/1978	2.954	9.012	21/05/1979
1979-1980	18620	17.572	30/09/1979	15.37	9.192	06/04/1980
1980-1981	13473	16.777	15/07/1980	3.489	8.982	18/02/1981
1981-1982	11661	16.442	27/09/1981	10.94	8.932	21/06/1981
1982-1983	6388	14.847	24/08/1982	22.70	9.032	30/06/1982

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**
1983-1984	20712	18.217	07/10/1983	9.200	8.842	20/07/1983
1984-1985	3082	13.392	21/08/1984	15.50	9.222	10/07/1984
1985-1986	2799	12.992	14/08/1985	7.900	8.872	15/02/1986
1986-1987	10144	16.237	13/08/1986	3.306	8.692	17/05/1987
1987-1988	2345	12.802	15/11/1987	6.161	8.802	15/10/1987
1988-1989	12071	16.782	01/10/1988	6.370	8.932	12/07/1988
1989-1990	17619	17.302	24/07/1989	13.95	9.052	07/07/1989
1990-1991	12239	16.502	23/08/1990	21.62	9.022	30/06/1990
1991-1992	11306	16.551	06/08/1991	27.70	8.954	07/07/1991
1992-1993	4072	13.679	12/09/1992	18.68	8.852	29/07/1992
1993-1994	8724	15.386	22/10/1993	26.56	8.832	28/07/1993
1994-1995	12366	16.572	24/07/1994	21.91	8.782	29/06/1994
1995-1996	3764	13.057	21/10/1995	9.194	8.592	02/04/1996
1996-1997	12323	16.992	04/10/1996	28.49	8.802	05/08/1996
1997-1998	13120	16.652	31/08/1997	13.45	8.542	22/07/1997
1998-1999	25082	18.947	16/10/1998	13.89	9.412	15/12/1998
1999-2000	5864	14.602	15/08/1999	11.31	8.932	29/01/2000
2000-2001	8135	15.537	24/08/2000	5.482	8.852	20/01/2001
2001-2002	4486	13.677	01/10/2001	4.424	8.772	24/07/2001
2002-2003	165.2	9.622	09/06/2002	2.989	8.772	25/03/2003
2003-2004	577.9	10.902	09/08/2003	0.176	8.852	29/05/2004
2004-2005	1481	12.122	07/10/2004	0.000	8.832	01/08/2004
2005-2006	20545	17.937	21/09/2005	0.000	9.432	08/04/2006
2006-2007	14636	16.772	17/08/2006	0.000	9.702	17/02/2007
2007-2008	14590	16.852	21/09/2007	0.431	9.392	24/05/2008
2008-2009	10580	16.302	11/08/2008	29.00	9.252	24/05/2009
2009-2010	27660	19.272	06/10/2009	23.72	9.132	16/08/2009
2010-2011	6954	14.662	06/09/2010	0.000	9.332	13/01/2011
2011-2012	11812	16.047	10/09/2011	0.000	9.332	28/12/2011
2012-2013	3182	13.172	05/09/2012	0.000	8.922	27/11/2012
2013-2014	10899	16.202	27/10/2013	0.000	9.152	03/01/2014
2014-2015	2456	12.702	19/09/2014	0.000	8.882	24/12/2014
2015-2016	1596	12.032	22/06/2015	0.000	8.762	21/01/2016
2016-2017	3596	13.102	23/09/2016	0.000	8.862	04/12/2016

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

Annual runoff of Krishna at Vijayawada in MCM

SL.No	Year	Monsoon	Non Monsoon	Annual
1	**1964-1965**		241	241
2	**1965-1966**	34371	996	35367
3	**1966-1967**	23657	4263	27921
4	**1967-1968**	29502	1751	31253
5	**1968-1969**	20893	2394	23287
6	**1969-1970**	40870	1112	41982
7	**1970-1971**	43671	291	43961
8	**1971-1972**	27022	215	27237
9	**1972-1973**	5275	126	5402
10	**1973-1974**	32848	185	33032
11	**1974-1975**	27890	372	28261
12	**1975-1976**	67697	2465	70162
13	**1976-1977**	29842	168	30011
14	**1977-1978**	18708	671	19379
15	**1978-1979**	48367	3700	52067
16	**1979-1980**	23533	2456	25988
17	**1980-1981**	30328	611	30939
18	**1981-1982**	33214	2622	35835
19	**1982-1983**	11347	2977	14324
20	**1983-1984**	37358	1916	39274
21	**1984-1985**	6682	3567	10250
22	**1985-1986**	4015	1451	5466
23	**1986-1987**	4084	901	4985
24	**1987-1988**	2252	2059	4311
25	**1988-1989**	30904	2606	33509
26	**1989-1990**	17451	3846	21297
27	**1990-1991**	22946	6098	29044
28	**1991-1992**	27530	5139	32669
29	**1992-1993**	5008	4607	9614
30	**1993-1994**	12336	7159	19495
31	**1994-1995**	34061	5071	39131
32	**1995-1996**	4794	1537	6332
33	**1996-1997**	15169	3923	19092
34	**1997-1998**	14697	1986	16683
35	**1998-1999**	30908	2785	33692
36	**1999-2000**	8430	1929	10360
37	**2000-2001**	5932	1259	7191
38	**2001-2002**	2116	1087	3203

39	**2002-2003**	311	63	374
40	**2003-2004**	245	88	333
41	**2004-2005**	628	31	658
42	**2005-2006**	35590	443	36034
43	**2006-2007**	26740	1	26741
44	**2007-2008**	25721	541	26262
45	**2008-2009**	9064	693	9757
46	**2009-2010**	13169	1341	14510
47	**2010-2011**	12525	1299	13825
48	**2011-2012**	7306	0	7306
49	**2012-2013**	1715	0	1715
50	**2013-2014**	11207	55	11262
51	**2014-2015**	2373	0	2373
52	**2015-2016**	237	0	237
53	**2016-2017**	1439	0	1439
54	**2017-2018**	12	0	12
	Average	18566	1687	19909

Stage-Discharge Data for the period 2017 - 2018

Station Name : Vijayawada (AK000B9) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

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	8.682	0.000	8.692	0.000	8.872	0.000	8.752	0.000	8.742	0.000	8.732	0.000
2	8.682	0.000	8.692	0.000	8.872	0.000	8.752	0.000	8.742	0.000	8.732	0.000
3	8.682	0.000	8.692	0.000	8.872	0.000	8.752	0.000	8.742	0.000	8.732	0.000
4	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
5	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
6	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
7	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
8	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
9	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
10	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
11	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
12	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
13	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
14	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
15	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
16	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
17	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
18	8.682	0.000	8.692	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
19	8.682	0.000	8.702	0.000	8.752	0.000	8.752	0.000	8.742	0.000	8.732	0.000
20	8.682	0.000	9.712	134.0	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
21	8.682	0.000	9.022	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
22	8.682	0.000	8.902	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
23	8.682	0.000	8.902	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
24	8.682	0.000	8.902	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
25	8.682	0.000	8.892	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
26	8.682	0.000	8.882	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
27	8.682	0.000	8.882	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
28	8.682	0.000	8.882	0.000	8.752	0.000	8.742	0.000	8.742	0.000	8.732	0.000
29	8.682	0.000	8.882	0.000	8.752	0.000	8.742	0.000	8.732	0.000	8.732	0.000
30	8.692	0.000	8.872	0.000	8.752	0.000	8.742	0.000	8.732	0.000	8.732	0.000
31			8.872	0.000	8.752	0.000			8.732	0.000		
Ten-Daily Mean												
I Ten-Daily	8.682	0.000	8.692	0.000	8.788	0.000	8.752	0.000	8.742	0.000	8.732	0.000
II Ten-Daily	8.682	0.000	8.795	13.40	8.752	0.000	8.751	0.000	8.742	0.000	8.732	0.000
III Ten-Daily	8.683	0.000	8.899	0.000	8.752	0.000	8.742	0.000	8.739	0.000	8.732	0.000
Monthly												
Min.	8.682	0.000	8.692	0.000	8.752	0.000	8.742	0.000	8.732	0.000	8.732	0.000
Max.	8.692	0.000	9.712	134.0	8.872	0.000	8.752	0.000	8.742	0.000	8.732	0.000
Mean	8.682	0	8.799	4.322	8.764	0	8.748	0	8.741	0	8.732	0

Annual Runoff in MCM = 12 Annual Runoff in mm = 0

Peak Observed Discharge = 134.0 cumecs on 20/07/2017 Corres. Water Level :9.712 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :8.682 m

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

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2017 - 2018

Station Name : Vijayawada (AK000B9) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
2	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
3	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
4	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
5	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
6	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
7	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
8	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
9	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
10	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
11	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
12	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
13	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
14	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
15	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
16	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
17	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
18	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
19	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
20	8.732	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
21	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
22	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
23	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
24	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
25	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
26	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
27	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
28	8.722	0.000	8.722	0.000	8.712	0.000	8.712	0.000	8.692	0.000	8.692	0.000
29	8.722	0.000	8.722	0.000			8.712	0.000	8.692	0.000	8.692	0.000
30	8.722	0.000	8.722	0.000			8.712	0.000	8.692	0.000	8.692	0.000
31	8.722	0.000	8.722	0.000			8.692	0.000			8.692	0.000
Ten-Daily Mean												
I Ten-Daily	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
II Ten-Daily	8.732	0.000	8.722	0.000	8.713	0.000	8.712	0.000	8.692	0.000	8.692	0.000
III Ten-Daily	8.722	0.000	8.722	0.000	8.712	0.000	8.710	0.000	8.692	0.000	8.692	0.000
Monthly												
Min.	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000	8.692	0.000
Max.	8.732	0.000	8.722	0.000	8.722	0.000	8.712	0.000	8.692	0.000	8.692	0.000
Mean	8.728	0	8.722	0	8.716	0	8.711	0	8.692	0	8.692	0

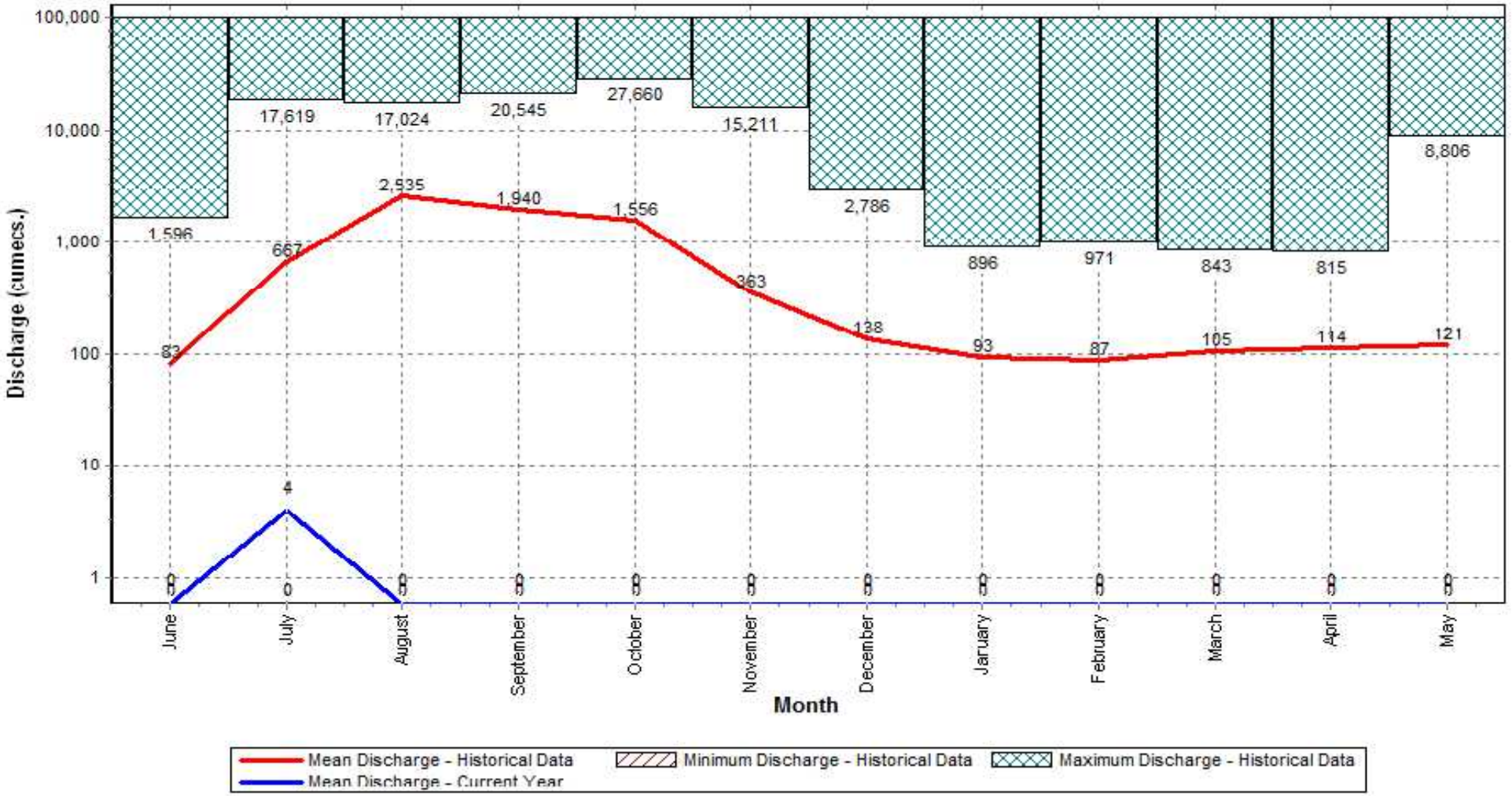
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Vijayawada (AK000B9) | **Data considered : 1965-2018** | **Division : Lower Krishna Divn., Hyderabad**

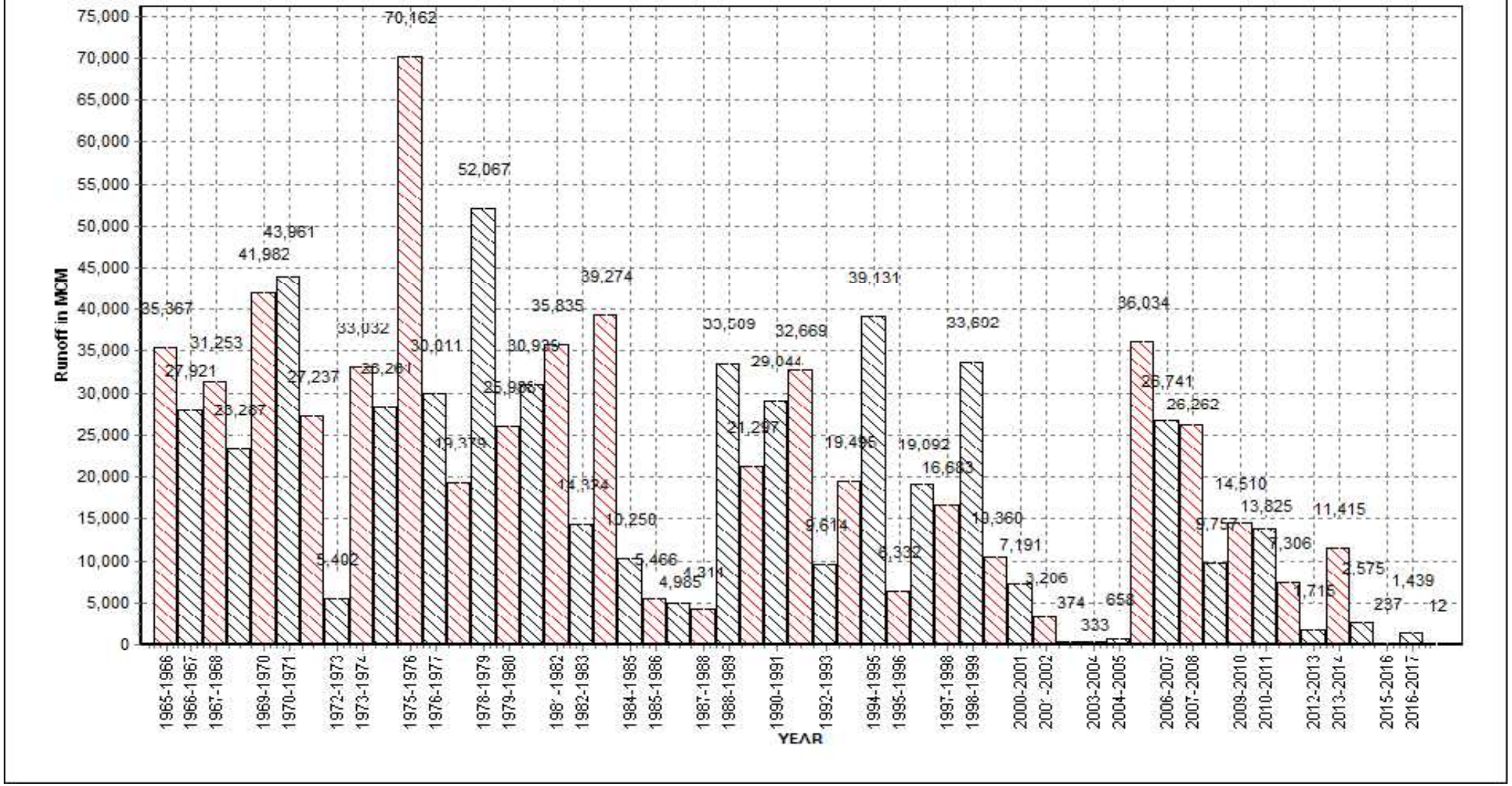
Local River : Krishna | **Sub-Division : Lower Krishna SD2, Vijayawada**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Vijayawada (AK000B9) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



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

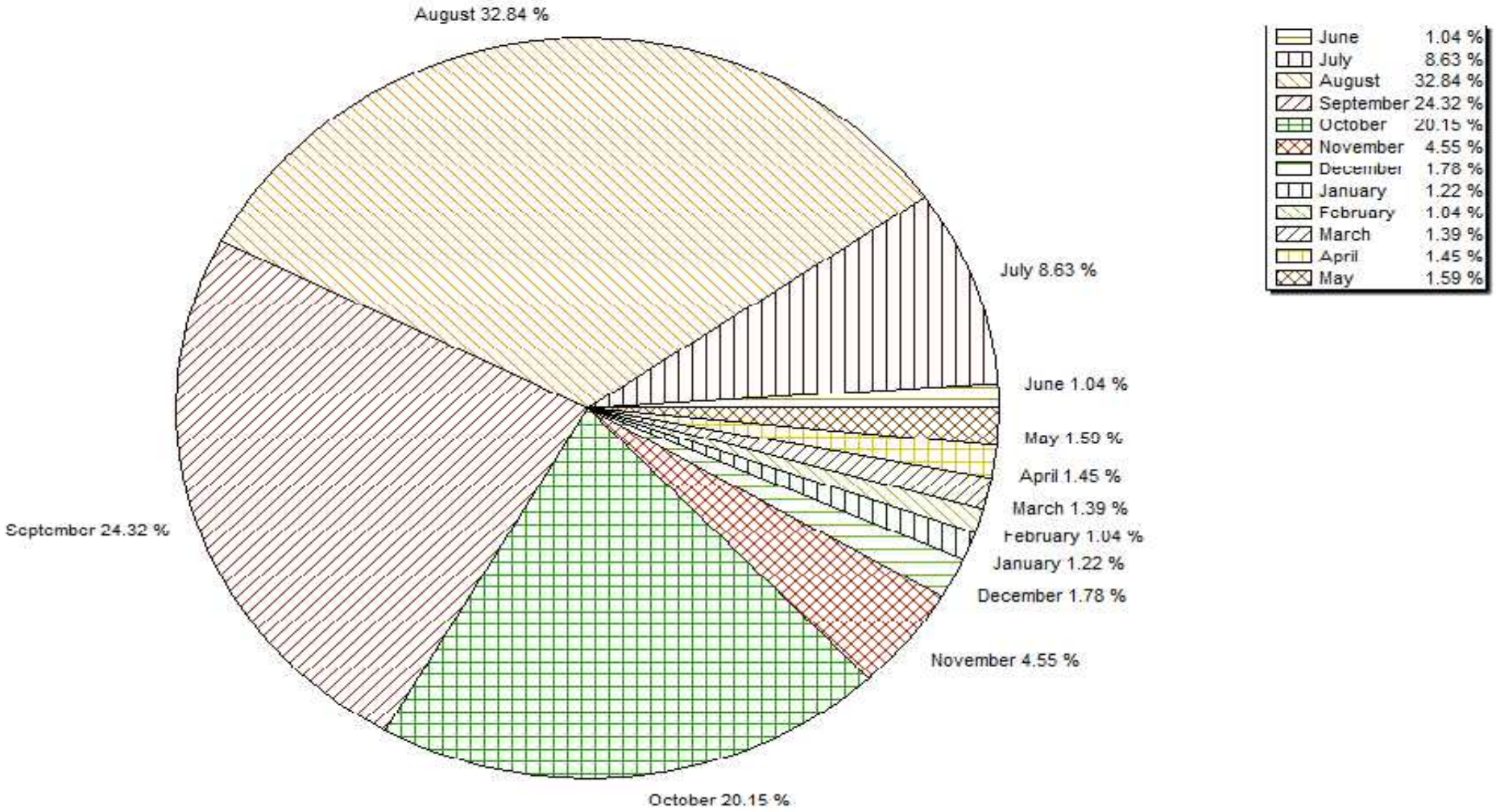
Monthly Average Runoff based on period : 1965-2017

Station Name : Vijayawada (AK000B9)

Local River : Krishna

Division : Lower Krishna Divn., Hyderabad

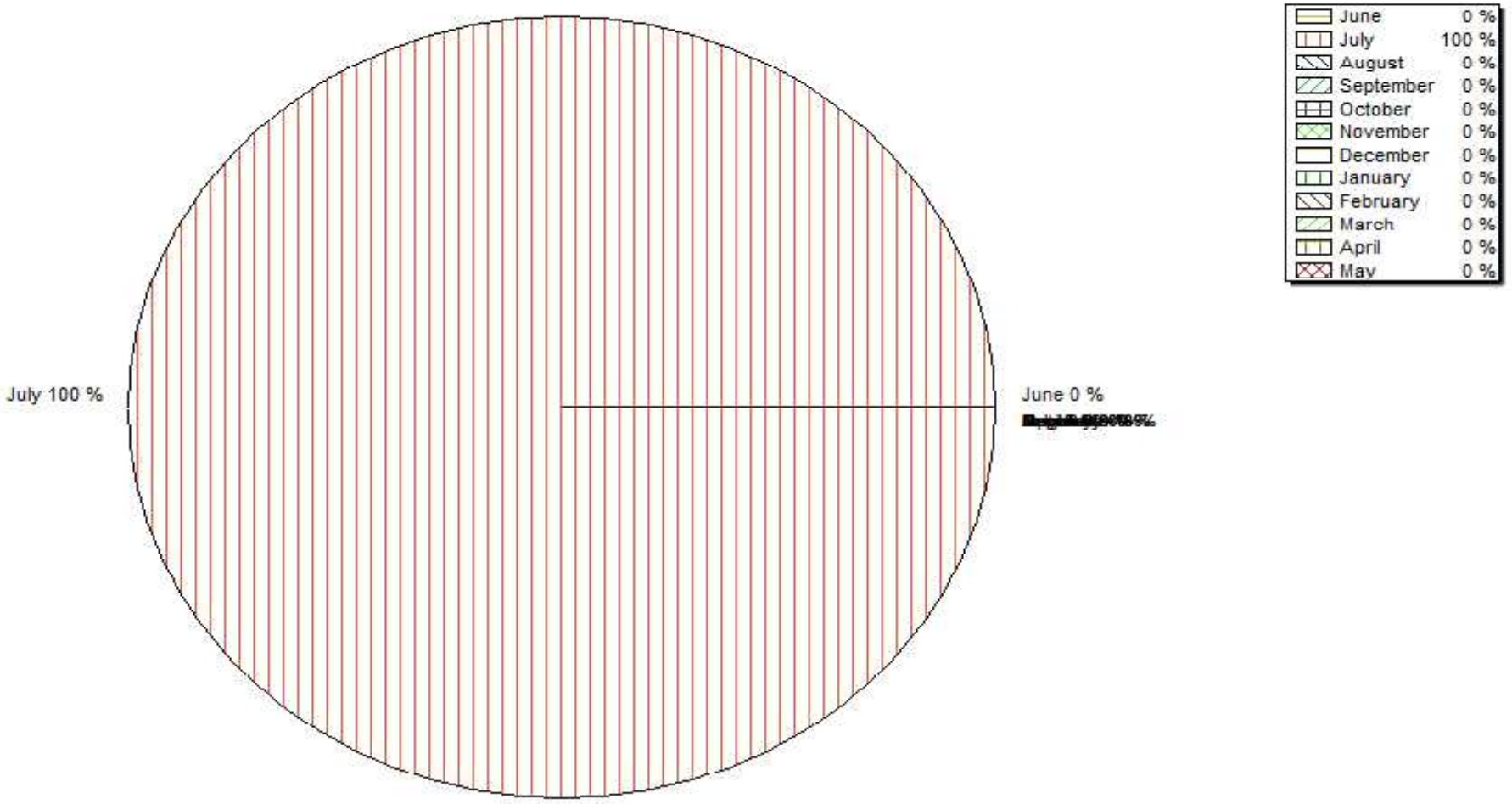
Sub-Division : Lower Krishna SD2, Vijayawada



Monthly Runoff for the Year : 2017-2018

Station Name : Vijayawada (AK000B9)
Local River : Krishna

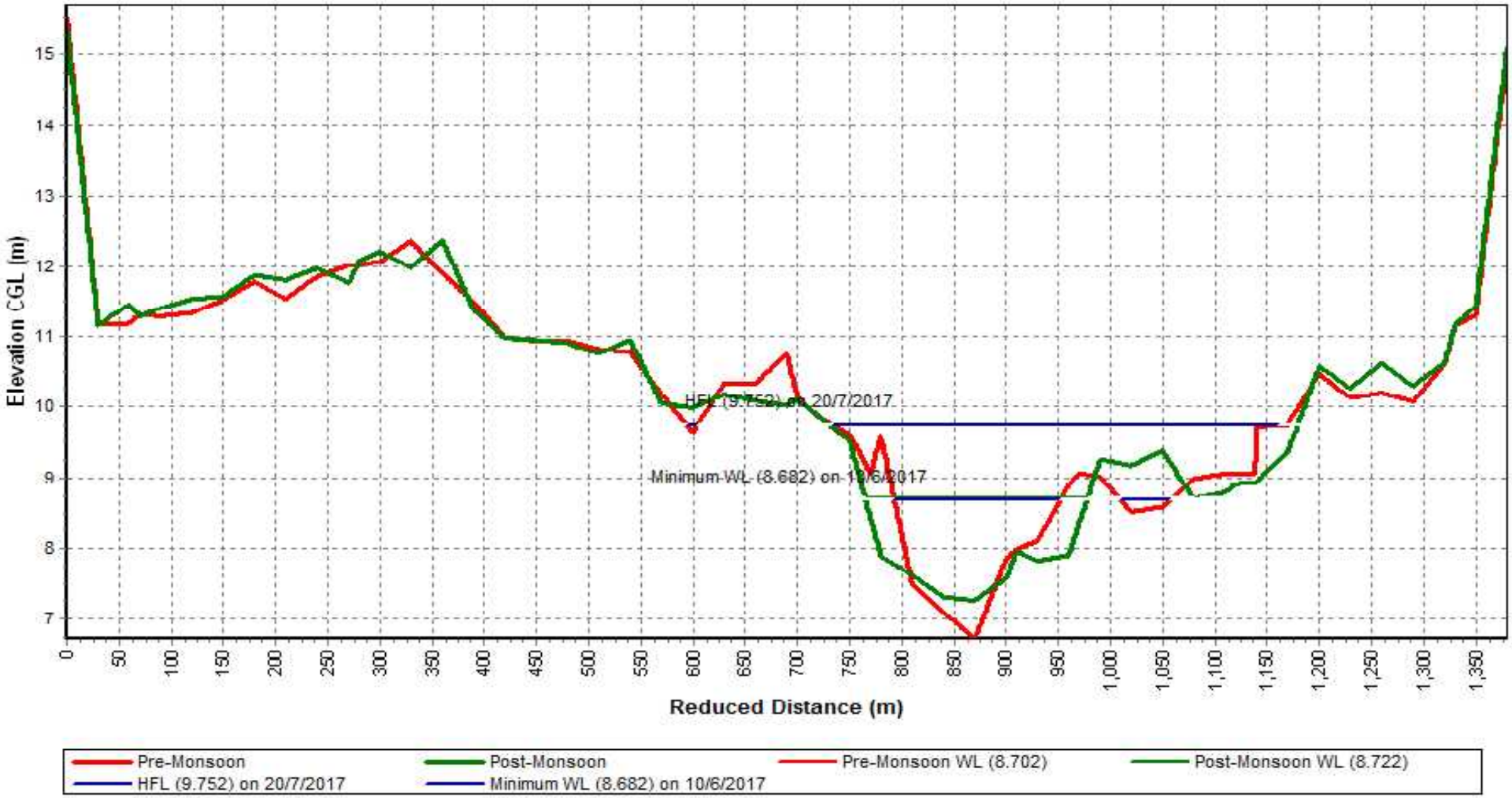
Division : Lower Krishna Divn., Hyderabad
Sub-Division : Lower Krishna SD2, Vijayawada



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Vijayawada (AK000B9) **Division : Lower Krishna Divn., Hyderabad**

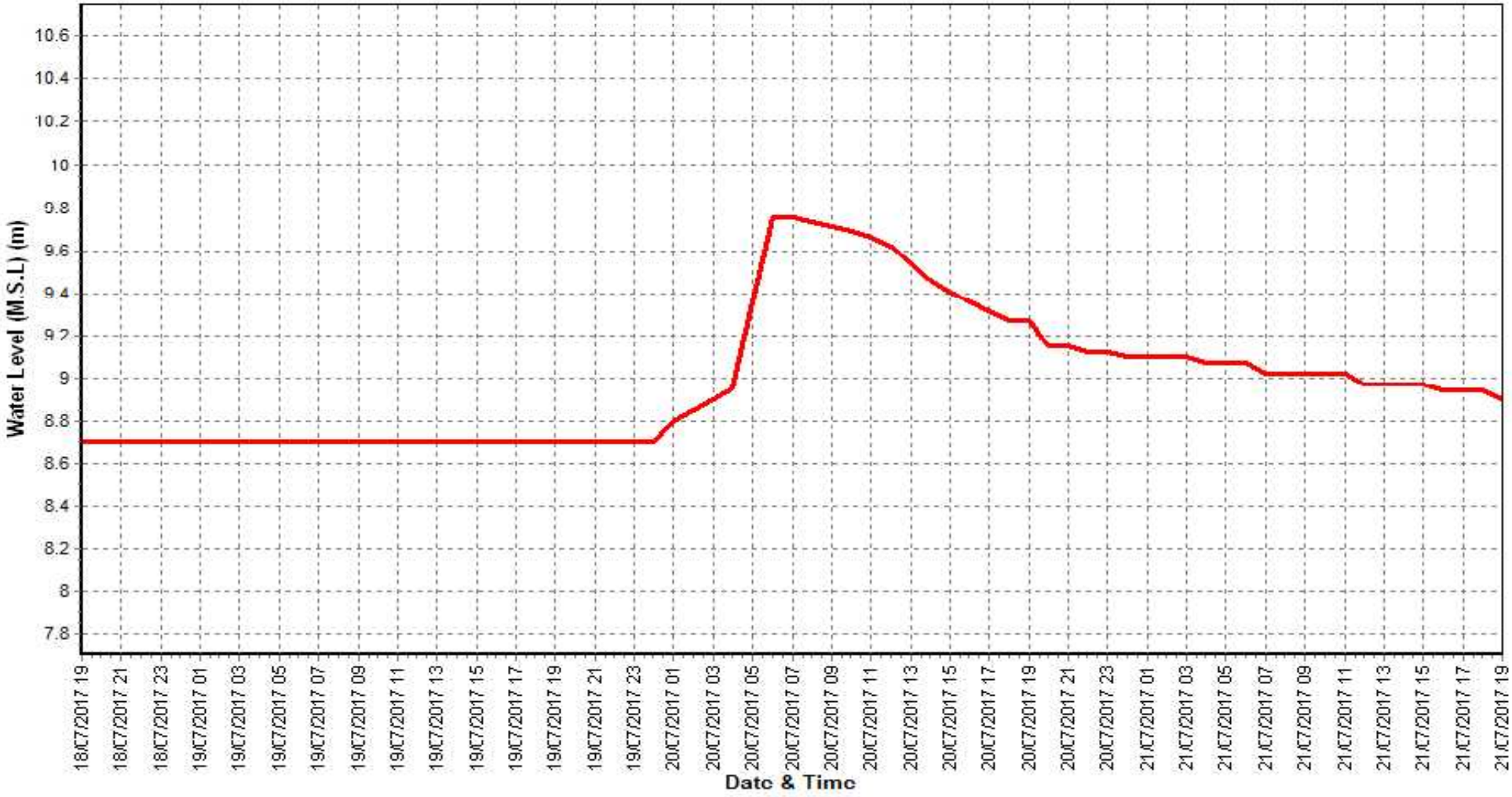
Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Vijayawada (AK000B9) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Keesara**	**Code**	:	**AKA00B4**
State	:	Andhra Pradesh	District		Krishna
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Munneru	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Munneru
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD2, Vijayawada
Drainage Area	:	9854 Sq. Km.	Bank	:	Left
Latitude	:	16°42'53"	Longitude	:	80°19'13"
Zero of Gauge (m)	:	28.585 (m.s.l)	01/04/1964	-	04/08/1970
		28.186 (m.s.l)	05/08/1970	-	31/01/1972
		27.186 (m.s.l)	01/02/1972	-	31/05/1972
		27.035 (m.s.l)	01/06/1972	-	31/05/1984
		27.5 (m.s.l)	01/06/1984		
		Opening Date	Closing Date		
Gauge	:	23/09/1963	HFL During 2017-18	:	30.630m
			Corres. Discharge	:	571.2(Estimated)
Discharge	:	26/06/1964	Date & Time of	:	18/07/2017
			occurance	:	15.00 hrs.
Sediment	:	02/07/1965			
Water Quality	:	01/01/1972			

HFL Recorded so far in m : 35.810 dt 24-07-1989
Corresponding Discharge (cumecs) :14128*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	1130	31.435	16/07/1965	0.000		18/05/1966
1966-1967	1485	31.785	06/09/1966	0.000	29.050	21/05/1967
1967-1968	1092	31.357	24/07/1967	0.000	28.770	15/04/1968
1968-1969	7000	36.810	20/05/1969	0.000	28.700	28/03/1969
1969-1970	2396	32.585	31/07/1969	0.700	28.605	26/04/1970
1970-1971	2473	32.286	23/08/1970	0.000	28.056	06/04/1971
1971-1972	324.5	30.016	12/10/1971	0.000	28.001	21/03/1972
1972-1973	117.5	29.000	04/07/1972	0.000	27.785	24/03/1973
1973-1974	936.9	30.500	10/08/1973	0.000	27.840	20/03/1974
1974-1975	871.5	30.565	16/10/1974	0.000	27.815	13/04/1975
1975-1976	1605	31.465	11/09/1975	0.000	27.955	22/04/1976
1976-1977	4553	32.753	22/07/1976	0.000	28.025	28/03/1977
1977-1978	1023	30.840	20/11/1977	0.200	28.010	14/04/1978
1978-1979	5180	33.000	15/08/1978	0.000	27.855	23/04/1979
1979-1980	477.2	30.020	24/09/1979	0.000	28.005	12/07/1979
1980-1981	912.1	30.755	23/08/1980	0.000	27.925	27/02/1981

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**
1981-1982	3003	32.550	04/08/1981	0.000	27.825	20/04/1982
1982-1983	1559	31.430	13/08/1982	0.000	27.865	12/06/1982
1983-1984	6140	33.755	06/10/1983	0.000	28.055	12/06/1983
1984-1985	664.4	31.260	12/10/1984	0.200	28.940	07/06/1984
1985-1986	1133	32.025	14/08/1985	0.000		25/05/1986
1986-1987	5950	35.110	13/08/1986	0.000	29.135	15/06/1986
1987-1988	1508	32.290	11/07/1987	0.129	29.000	27/06/1987
1988-1989	3390	33.740	30/07/1988	0.244	29.060	16/06/1988
1989-1990	6750	35.295	24/07/1989	0.576	28.605	01/06/1989
1990-1991	4090	33.680	02/10/1990	3.000	29.230	29/05/1991
1991-1992	2757	33.024	22/09/1991	0.100	29.310	18/05/1992
1992-1993	380.5	30.705	10/10/1992	0.000	29.300	05/06/1992
1993-1994	297.1	30.550	08/09/1993	0.550	29.195	21/05/1994
1994-1995	957.6	31.500	07/10/1994	0.201	29.120	02/07/1994
1995-1996	1801	32.440	17/10/1995	0.200	29.180	19/05/1996
1996-1997	2354	32.680	28/08/1996	0.340	29.180	02/06/1996
1997-1998	727.6	31.250	29/10/1997	0.504	29.050	07/06/1997
1998-1999	1478	32.070	16/10/1998	0.372	29.080	05/06/1998
1999-2000	654.0	31.115	12/09/1999	0.016	28.940	25/05/2000
2000-2001	3267	33.055	27/08/2000	0.034	28.870	30/05/2001
2001-2002	264.4	30.480	05/08/2001	0.010	28.920	30/05/2002
2002-2003	200.6	30.370	25/08/2002	0.000		25/01/2003
2003-2004	763.4	31.260	08/08/2003	0.000		11/04/2004
2004-2005	1064	31.580	05/08/2004	0.000		16/04/2005
2005-2006	6157	35.660	21/09/2005	0.000		03/07/2005
2006-2007	3799	33.700	05/08/2006	0.109	28.730	31/05/2007
2007-2008	864.2	31.100	21/09/2007	0.211	28.725	01/06/2007
2008-2009	4691	34.150	10/08/2008	0.000	28.650	01/06/2008
2009-2010	1104	31.635	22/05/2010	0.000	28.400	12/07/2009
2010-2011	1578	31.675	08/09/2010	3.047	28.790	26/05/2011
2011-2012	662.5	30.755	26/08/2011	0.000	28.260	01/05/2012
2012-2013	3036	33.150	04/09/2012	0.000	28.310	18/05/2013
2013-2014	1371	31.810	27/10/2013	0.000	28.600	02/04/2014
2014-2015	514.8	30.585	28/10/2014	0.000	28.530	07/07/2014
2015-2016	1194	31.650	22/06/2015	0.000		23/03/2016
2016-2017	1769	32.020	24/09/2016	0.000	28.520	16/03/2017

Annual Runoff of Munneru at Keesara

SL.No	Year	Monsoon	Non Monsson	Annual
1	**1963-1964**			
2	**1964-1965**		24	24
3	**1965-1966**	899	18	917
4	**1966-1967**	1620	55	1676
5	**1967-1968**	1110	19	1129
6	**1968-1969**	530	1005	1535
7	**1969-1970**	2158	178	2335
8	**1970-1971**	2712	44	2755
9	**1971-1972**	392	6	397
10	**1972-1973**	164	16	180
11	**1973-1974**	818	13	831
12	**1974-1975**	723	12	735
13	**1975-1976**	2689	33	2722
14	**1976-1977**	2797	35	2832
15	**1977-1978**	399	29	428
16	**1978-1979**	4321	36	4357
17	**1979-1980**	312	54	366
18	**1980-1981**	1365	25	1390
19	**1981-1982**	1957	30	1987
20	**1982-1983**	1329	100	1429
21	**1983-1984**	4633	163	4796
22	**1984-1985**	614	191	805
23	**1985-1986**	1142	148	1290
24	**1986-1987**	1616	132	1748
25	**1987-1988**	1101	112	1213
26	**1988-1989**	4296	145	4440
27	**1989-1990**	3950	822	4772
28	**1990-1991**	3336	247	3583
29	**1991-1992**	1857	189	2046
30	**1992-1993**	755	181	937
31	**1993-1994**	813	162	975
32	**1994-1995**	2158	311	2470
33	**1995-1996**	1852	129	1981

35	**1997-1998**	749	239	988
36	**1998-1999**	2727	284	3011
37	**1999-2000**	1447	150	1597
38	**2000-2001**	2776	169	2945
39	**2001-2002**	455	81	536
40	**2002-2003**	225	0	225
41	**2003-2004**	763	39	801
42	**2004-2005**	677	32	709
43	**2005-2006**	2898	317	3214
44	**2006-2007**	2134	138	2272
45	**2007-2008**	1419	314	1733
46	**2008-2009**	4036	175	4212
47	**2009-2010**	132	310	442
48	**2010-2011**	3835	383	4218
49	**2011-2012**	944	120	1065
50	**2012-2013**	2395	34	2429
51	**2013-2014**	2175	118	2293
52	**2014-2015**	507	95	602
53	**2015-2016**	908	1	909
54	**2016-2017**	996	12	1009
55	**2017-2018**	765	17	783
Average		1701	148	1817

Stage-Discharge Data for the period 2017 - 2018

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**

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	29.070	25.21	28.680	2.987	29.520	97.57	29.830	185.1 *	28.870	8.568
2		0.000	29.030	21.87 *	28.670	2.751	29.320	59.40 *	29.680	139.4 *	28.850	7.617
3		0.000	29.000	20.67	28.980	17.54	29.230	45.39 *	29.610	114.6	28.840	7.510
4		0.000	28.950	15.95	28.930	14.54	29.240	49.94	29.750	172.1	28.820	7.226 *
5		0.000	28.900	10.80	28.805	6.210	29.680	131.0	29.540	100.3	28.810	6.754 *
6		0.000	28.820	6.746	28.720	3.324 *	29.560	103.7	29.580	108.6	28.790	5.482
7		0.000	28.770	5.167	28.680	2.782	29.980	252.8	29.520	97.64	28.780	5.379
8		0.000	28.730	3.805	28.640	2.394	30.010	261.7	29.500	94.41 *	28.760	4.818
9		0.000	28.720	3.324 *	28.630	2.242	29.730	172.0	29.690	131.3	28.760	4.655
10		0.000	28.720	3.146	28.630	2.268	29.510	96.65 *	29.530	98.83	28.780	5.427
11		0.000	28.710	3.038	29.270	54.18	29.340	63.18	29.390	77.99	28.770	5.281
12		0.000	28.820	6.617	29.280	55.64	29.230	48.91	29.210	46.95	28.770	5.053 *
13		0.000	28.860	7.497	29.230	45.39 *	29.160	37.25	29.130	32.68	28.760	4.572
14		0.000	28.950	15.77	29.520	98.62	29.110	32.31	29.200	43.59	28.760	4.546
15		0.000	29.020	21.32	29.420	77.67 *	29.200	43.81	29.220	43.97 *	28.750	4.373
16		0.000	29.100	28.96 *	29.530	99.21	29.140	34.76	29.440	83.90	28.825	6.874
17		0.000	29.140	36.87	29.370	69.05	29.050	23.78 *	29.335	62.20	28.810	6.593
18		0.000	29.985	258.9	29.250	49.98	29.230	46.68	29.220	47.18	28.810	6.482
19		0.000	30.280	348.9	29.720	162.9	29.850	202.5	29.100	28.96 *	28.810	6.754 *
20		0.000	29.950	251.3	30.230	346.6 *	29.530	99.62	29.160	37.39	28.820	6.707
21		0.000	29.720	169.7	30.210	326.6	29.347	62.67	29.110	32.44	28.820	6.652
22		0.000	29.550	104.1	29.840	198.2	29.230	49.10	29.070	25.78 *	28.810	6.217
23	28.905	10.69	29.320	59.40 *	29.540	103.4	29.120	30.34	29.045	22.43	28.800	6.209
24	28.860	7.382	29.110	29.87	29.270	54.14	29.040	22.81 *	28.935	16.46	28.800	6.116
25	28.800	6.301 *	29.020	20.84	29.340	62.82 *	28.980	17.17	28.770	5.184	28.790	5.558
26	28.890	11.07 *	28.940	12.98	29.530	99.56	29.010	19.23	28.850	7.629	28.790	5.867 *
27	28.990	20.20	28.850	7.223	29.600	118.1 *	29.220	45.44	28.840	7.613	28.770	5.368
28	29.080	19.23	28.790	5.031	29.450	85.04	29.450	84.05	28.870	7.790	28.770	5.316
29	29.070	25.15	28.810	6.133	29.600	109.4	29.750	173.8	28.900	11.70 *	28.760	4.611
30	29.160	39.59	28.780	5.451 *	29.620	111.3	29.850	191.8 *	28.890	9.073	28.760	4.558
31			28.730	3.852	29.660	132.1			28.880	8.746		
Ten-Daily Mean												
I Ten-Daily		0.000	28.871	11.67	28.736	5.704	29.578	127.0	29.623	124.2	28.806	6.343
II Ten-Daily		0.000	29.282	97.92	29.482	105.9	29.284	63.29	29.240	50.48	28.789	5.723
III Ten-Daily	28.969	13.96	29.056	38.60	29.605	127.3	29.300	69.65	28.924	14.08	28.787	5.647
Monthly												
Min.	28.800	0.000	28.710	3.038	28.630	2.242	28.980	17.17	28.770	5.184	28.750	4.373
Max.	29.160	39.59	30.280	348.9	30.230	346.6	30.010	261.7	29.830	185.1	28.870	8.568
Mean	28.969	4.654	29.069	49.05	29.285	81.19	29.387	86.65	29.251	61.35	28.794	5.905

Annual Runoff in MCM = 783 Annual Runoff in mm = 79

Peak Observed Discharge = 348.9 cumecs on 19/07/2017 Corres. Water Level :30.28 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	28.750	4.420	28.650	0.000	28.340	0.000	28.040	0.000	28.720	3.324 *	28.270	0.000
2	28.750	4.310 *	28.650	0.000	28.330	0.000	28.020	0.000	28.710	3.265	28.210	0.000
3	28.750	4.310 *	28.640	0.000	28.320	0.000	28.000	0.000	28.680	2.440	28.150	0.000
4	28.740	3.821	28.640	0.000	28.310	0.000	27.980	0.000	28.870	8.194	28.050	0.000
5	28.740	3.765	28.630	0.000	28.300	0.000	27.960	0.000	28.820	6.338	27.900	0.000
6	28.740	3.770	28.630	0.000	28.290	0.000	27.940	0.000	28.730	3.790	27.840	0.000
7	28.730	3.663	28.620	0.000	28.280	0.000	27.920	0.000	28.700	3.552	27.780	0.000
8	28.730	3.690	28.620	0.000	28.270	0.000	27.900	0.000	28.670	0.000	27.750	0.000
9	28.720	3.432	28.610	0.000	28.260	0.000	27.860	0.000	28.630	0.000	27.700	0.000
10	28.720	3.324 *	28.610	0.000	28.250	0.000	27.830	0.000	28.610	0.000	27.640	0.000
11	28.710	3.330	28.600	0.000	28.240	0.000	27.810	0.000	28.920	13.34		0.000
12	28.710	3.257	28.590	0.000	28.230	0.000	27.790	0.000	28.870	8.121		0.000
13	28.700	2.941	28.580	0.000	28.220	0.000	27.770	0.000	28.800	6.073		0.000
14	28.700	2.884	28.580	0.000	28.210	0.000	27.750	0.000	28.810	6.303		0.000
15	28.700	2.847	28.580	0.000	28.200	0.000	27.730	0.000	28.640	0.000		0.000
16	28.690	2.619	28.570	0.000	28.190	0.000	27.710	0.000	28.550	0.000		0.000
17	28.690	2.487 *	28.560	0.000	28.180	0.000	27.690	0.000	28.520	0.000		0.000
18	28.690	2.551	28.550	0.000	28.170	0.000	27.670	0.000	28.500	0.000		0.000
19	28.680	2.385	28.530	0.000	28.160	0.000	27.650	0.000	28.500	0.000		0.000
20	28.680	2.360	28.510	0.000	28.150	0.000	28.920	13.34	28.500	0.000		0.000
21	28.660	0.000	28.500	0.000	28.140	0.000	28.860	8.072	28.500	0.000		0.000
22	28.660	0.000	28.480	0.000	28.130	0.000	28.800	6.132	28.500	0.000		0.000
23	28.650	0.000	28.460	0.000	28.120	0.000	28.770	5.352	28.500	0.000		0.000
24	28.650	0.000	28.440	0.000	28.110	0.000	28.780	5.574	28.500	0.000		0.000
25	28.660	0.000	28.430	0.000	28.100	0.000	28.740	3.964 *	28.500	0.000		0.000
26	28.660	0.000	28.410	0.000	28.090	0.000	28.790	5.967	28.500	0.000		0.000
27	28.660	0.000	28.400	0.000	28.080	0.000	28.790	5.872	28.490	0.000		0.000
28	28.670	0.000	28.390	0.000	28.060	0.000	28.760	5.212	28.400	0.000		0.000
29	28.670	0.000	28.380	0.000			28.750	4.310 *	28.360	0.000		0.000
30	28.660	0.000	28.360	0.000			28.740	3.964 *	28.320	0.000		0.000
31	28.660	0.000	28.350	0.000			28.730	3.723				0.000
Ten-Daily Mean												
I Ten-Daily	28.737	3.851	28.630	0.000	28.295	0.000	27.945	0.000	28.714	3.090	27.929	0.000
II Ten-Daily	28.695	2.766	28.565	0.000	28.195	0.000	27.849	1.334	28.661	3.384		0.000
III Ten-Daily	28.660	0.000	28.418	0.000	28.104	0.000	28.774	5.286	28.457	0.000		0.000
Monthly												
Min.	28.650	0.000	28.350	0.000	28.060	0.000	27.650	0.000	28.320	0.000	27.640	0.000
Max.	28.750	4.420	28.650	0.000	28.340	0.000	28.920	13.34	28.920	13.34	28.270	0.000
Mean	28.696	2.134	28.534	0	28.205	0	28.208	2.306	28.611	2.158	27.929	0

Peak Computed Discharge = 346.6 cumecs on 20/08/2017 Corres. Water Level :30.23 m

Lowest Computed Discharge = 2.487 cumecs on 17/12/2017 Corres. Water Level :28.69 m

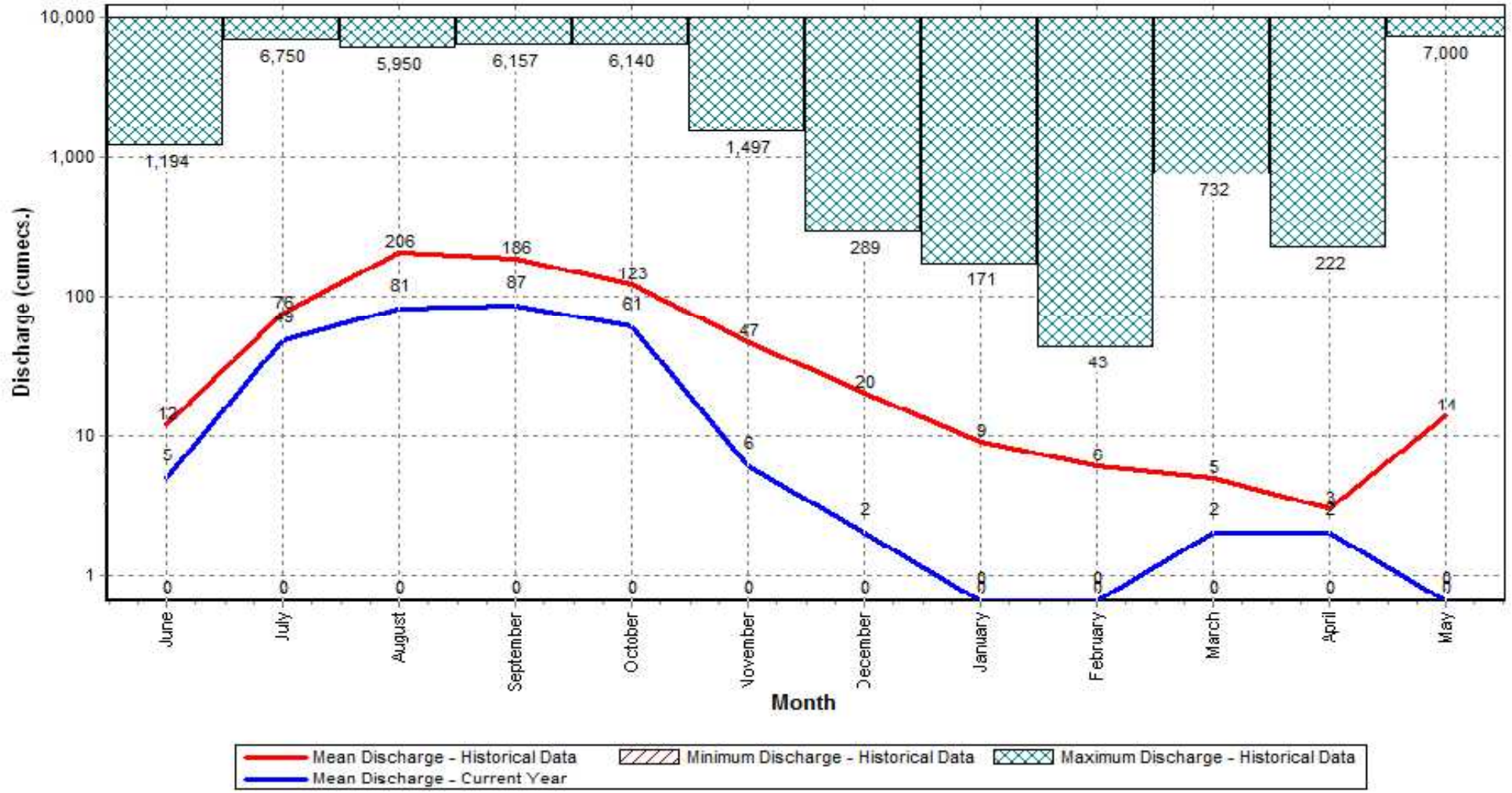
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Keesara (AKA00B4) | **Data considered : 1965-2018** | **Division : Lower Krishna Divn., Hyderabad**

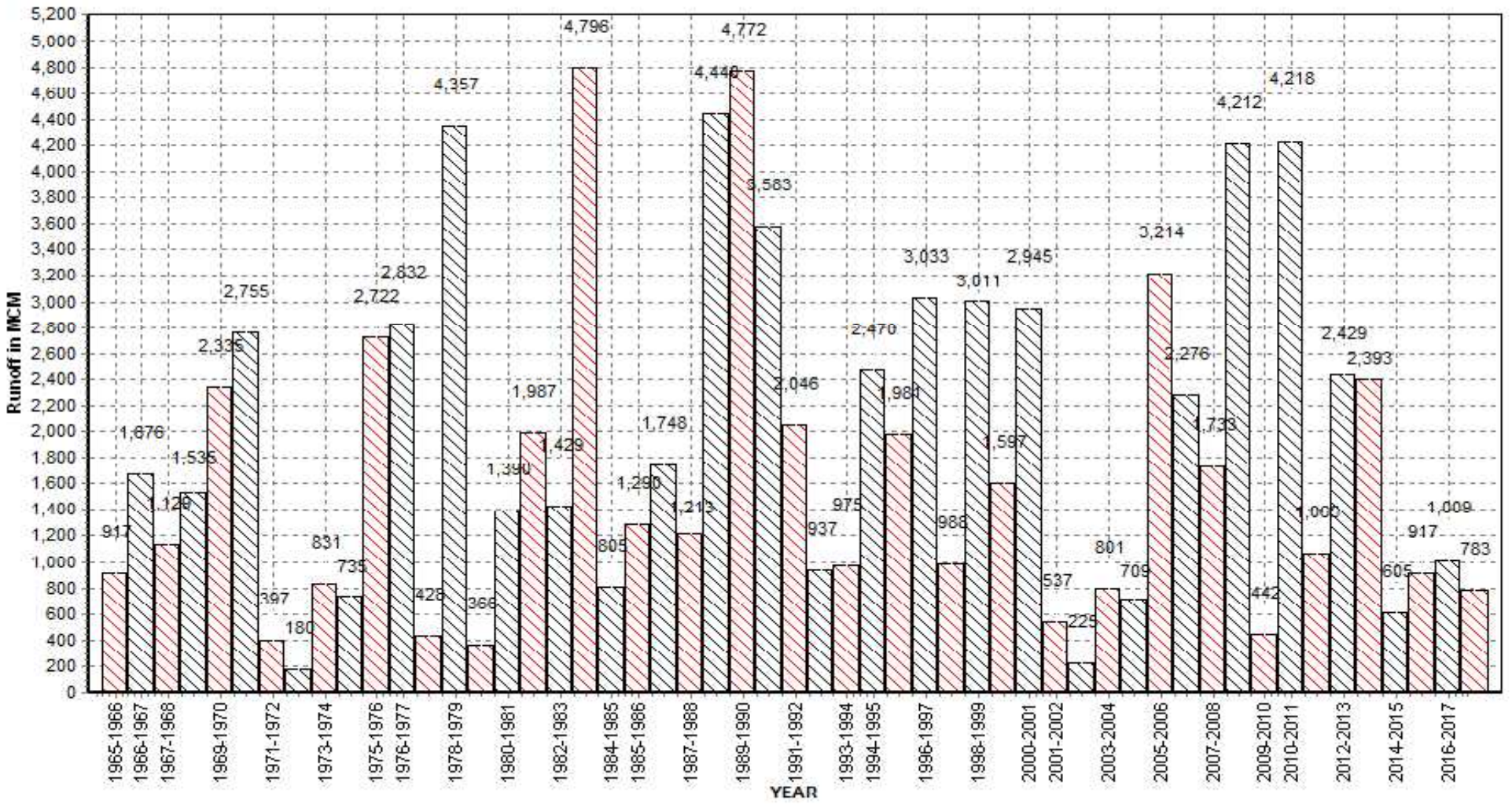
Local River : Munneru | **Sub-Division : Lower Krishna SD2, Vijayawada**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**

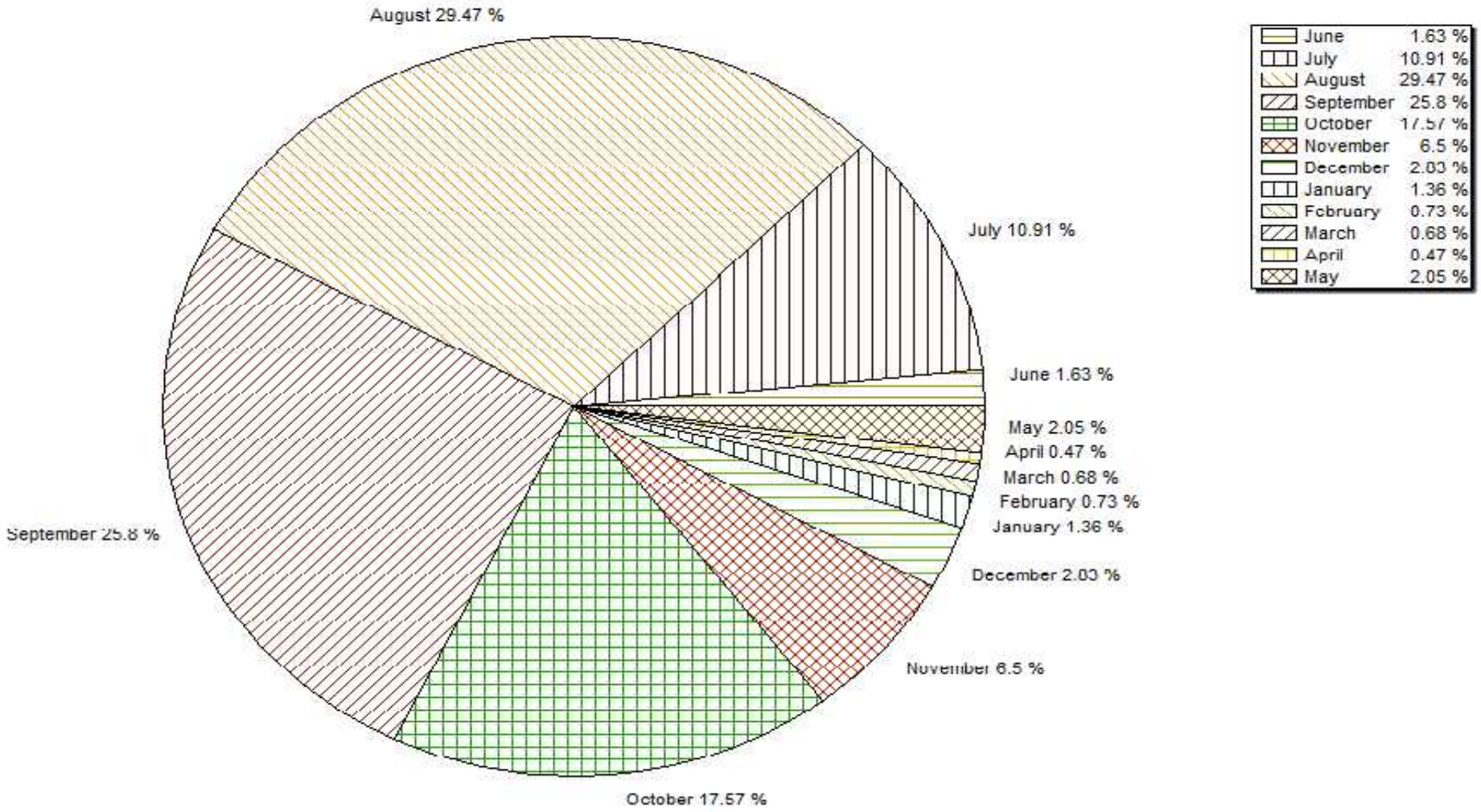


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**



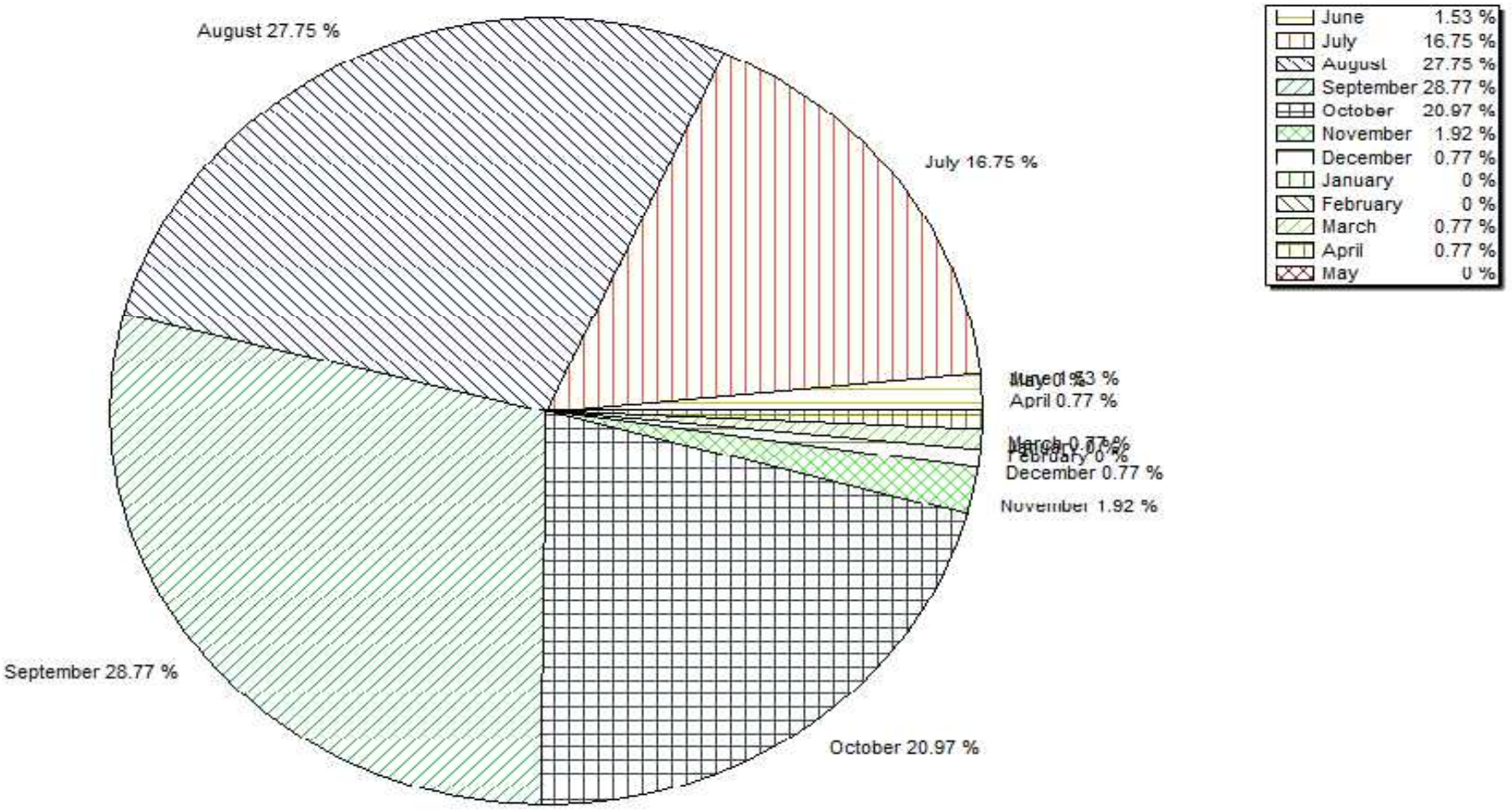
Monthly Runoff for the Year : 2017-2018

Station Name : Keesara (AKA00B4)

Local River : Munneru

Division : Lower Krishna Divn., Hyderabad

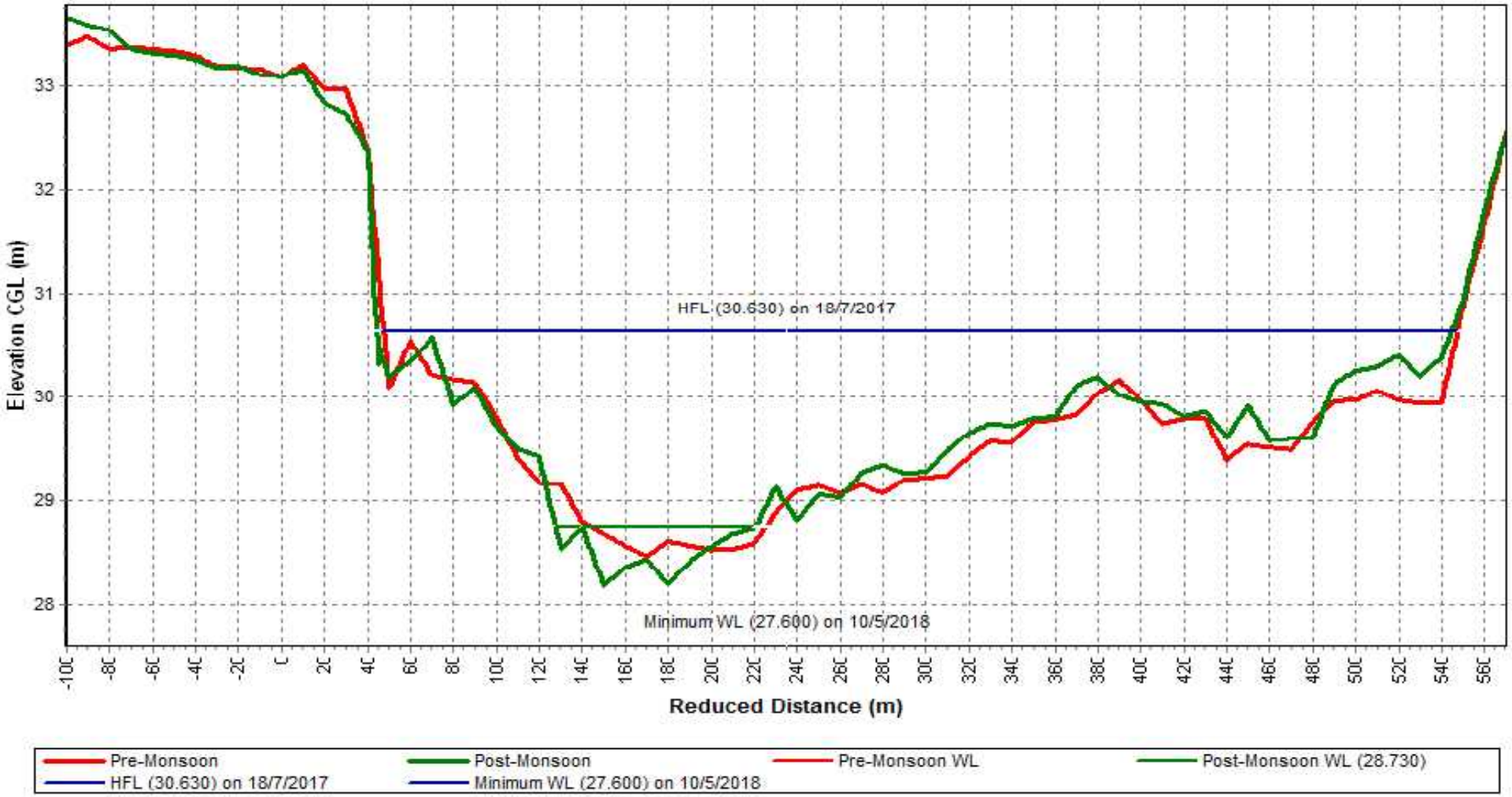
Sub-Division : Lower Krishna SD2, Vijayawada



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

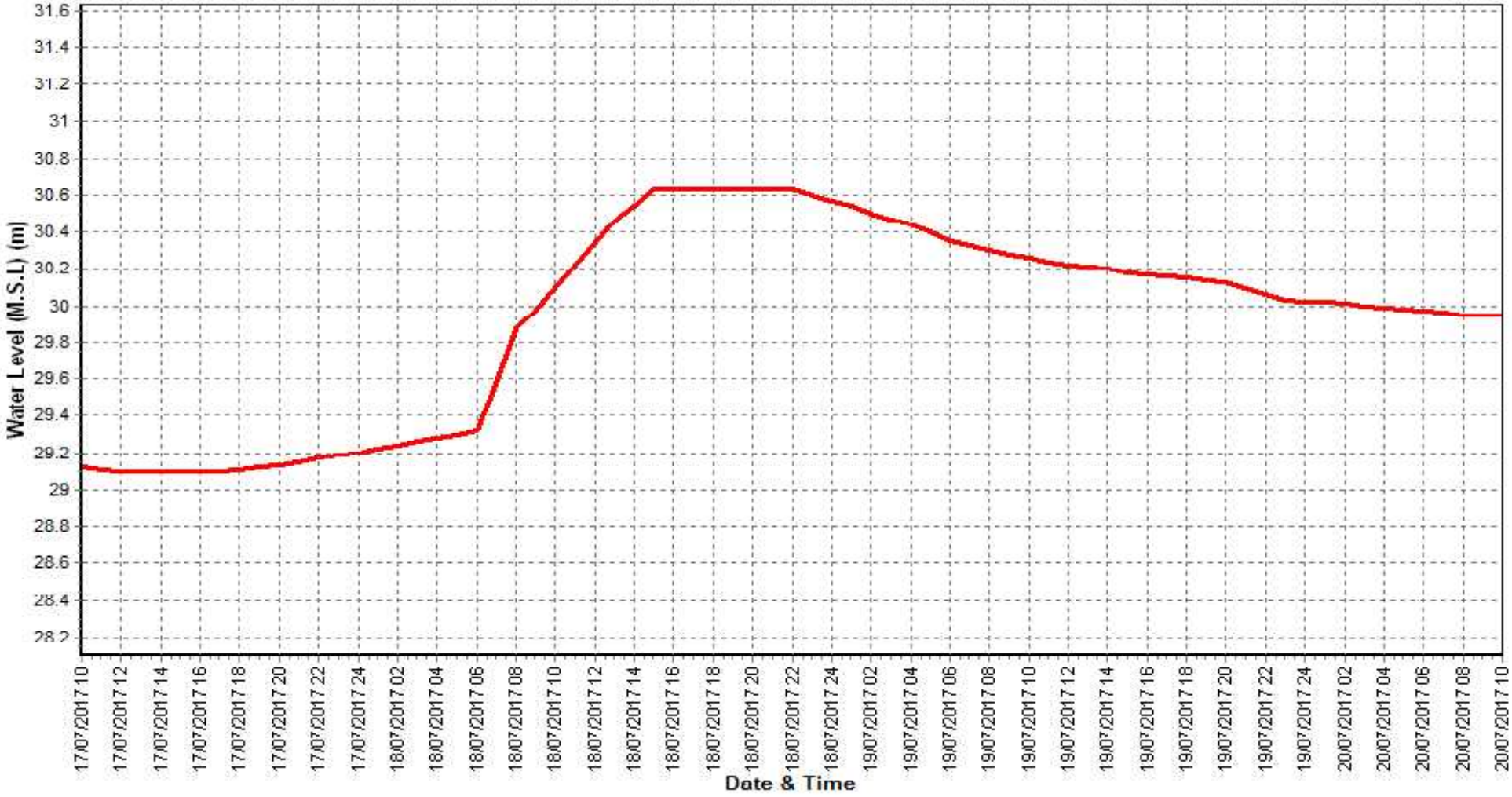
Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Keesara (AKA00B4) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Madhira**		**Code**	**: AKA10D2**	
State	: Telangana		District	Khammam	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Munneru		Sub Tributary	: Wyra	
Sub-Sub Tributary	: -		Local River	: Wyra	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Lower Krishna SD2, Vijayawada	
Drainage Area	: 1850 Sq. Km.		Bank	: Left	
Latitude	: 16°55'05"		Longitude	: 80°21'32"	
Zero of Gauge (m)	: 44.5 (m.s.l)		01/06/1984		
	Opening Date		Closing Date		
Gauge	: 23/02/1984		HFL During 2017-18	: 45.810m	
			Corres. Discharge	: 154.6(Estimated)	
Discharge	: 07/06/1984		Date & Time of	: 18/07/2017	
			occurance	: 06.00 hrs.	
Sediment	: 01/03/2014				
Water Quality	: 01/06/1992				

HFL Recorded so far in m : 52.010 dt 20-09-2005
Corresponding Discharge (cumecs) : 3048 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1984-1985	346.3	47.175	12/10/1984	0.000		01/06/1984
1985-1986	865.1	48.230	11/10/1985	0.000	44.850	28/05/1986
1986-1987	1269	49.205	13/08/1986	0.000	44.870	06/07/1986
1987-1988	110.8	46.365	13/11/1987	0.076	44.830	29/06/1987
1988-1989	859.7	48.260	19/09/1988	0.168	44.860	15/06/1988
1989-1990	1238	49.250	31/08/1989	0.224	44.860	26/06/1989
1990-1991	946.7	49.200	02/10/1990	1.000	44.850	22/05/1991
1991-1992	1306	49.280	22/09/1991	0.100	44.740	16/05/1992
1992-1993	147.9	46.300	10/10/1992	0.142	44.670	13/05/1993
1993-1994	80.44	46.021	28/08/1993	0.262	44.690	10/06/1993
1994-1995	419.1	47.400	07/10/1994	0.146	44.650	01/07/1994
1995-1996	554.6	48.015	16/10/1995	0.392	44.700	16/05/1996
1996-1997	356.1	46.995	28/08/1996	0.504	44.730	01/06/1996
1997-1998	91.39	46.070	12/09/1997	0.407	44.680	03/06/1997
1998-1999	411.0	47.160	16/10/1998	0.177	44.710	03/06/1998
1999-2000	303.9	46.950	26/08/1999	0.052	44.540	23/05/2000
2000-2001	867.1	48.505	27/08/2000	0.040	44.530	31/05/2001
2001-2002	98.37	45.925	15/08/2001	0.000	44.540	04/07/2001
2002-2003	73.22	45.915	14/10/2002	0.000		27/01/2003

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**
2003-2004	142.4	46.140	08/08/2003	0.000		17/04/2004
2004-2005	303.8	46.900	05/08/2004	0.000		16/04/2005
2005-2006	2309	50.820	21/09/2005	0.000		18/06/2005
2006-2007	802.2	47.975	20/09/2006	0.374	44.510	30/05/2007
2007-2008	431.3	47.030	06/10/2007	0.000		31/05/2008
2008-2009	1854	49.600	10/08/2008	0.000	44.390	12/04/2009
2009-2010	412.5	47.145	22/05/2010	0.000		11/08/2009
2010-2011	316.7	46.545	08/09/2010	0.000	44.430	31/05/2011
2011-2012	211.6	46.175	26/08/2011	0.000	44.250	28/04/2012
2012-2013	441.3	47.220	03/11/2012	0.000	44.473	27/05/2013
2013-2014	301.7	46.570	26/10/2013	0.000	44.520	28/07/2013
2014-2015	173.1	46.040	28/10/2014	0.000		08/07/2014
2015-2016	347.3	46.550	21/06/2015	0.000		02/02/2016
2016-2017	76.88	45.535	10/10/2016	0.000		03/02/2017

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

Annual Runoff of Wyra at Madhira

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1984-1985**	196	95	292
2	**1985-1986**	463	53	516
3	**1986-1987**	526	71	597
4	**1987-1988**	189	59	249
5	**1988-1989**	894	63	958
6	**1989-1990**	1343	280	1623
7	**1990-1991**	1100	105	1204
8	**1991-1992**	586	80	666
9	**1992-1993**	216	61	277
10	**1993-1994**	268	76	344
11	**1994-1995**	563	119	682
12	**1995-1996**	380	65	446
13	**1996-1997**	630	119	749
14	**1997-1998**	196	83	278
15	**1998-1999**	544	122	666
16	**1999-2000**	418	69	487
17	**2000-2001**	649	76	725
18	**2001-2002**	94	55	149
19	**2002-2003**	61	0	61
20	**2003-2004**	86	13	99
21	**2004-2005**	176	13	190
22	**2005-2006**	781	164	945
23	**2006-2007**	446	71	517
24	**2007-2008**	413	116	529
25	**2008-2009**	709	52	761
26	**2009-2010**	50	142	192
27	**2010-2011**	805	167	973
28	**2011-2012**	318	51	369
29	**2012-2013**	480	10	491
30	**2013-2014**	367	47	414
31	**2014-2015**	174	72	246
32	**2015-2016**	191	0	191
33	**2016-2017**	70	6	75
34	**2017-2018**	124	36	161
Average		427	77	504

Stage-Discharge Data for the period 2017 - 2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**

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	44.800	8.765		0.000	44.985	16.06 #	45.190	29.33 *		0.000
2		0.000	44.710	5.226 *		0.000	44.820	8.848 *	45.050	19.48 *		0.000
3		0.000	44.630	3.136		0.000	44.690	4.669 *	45.135	24.12		0.000
4		0.000	44.585	2.307		0.000	44.950	13.92	45.010	16.66		0.000
5		0.000	44.540	1.369		0.000	45.385	51.49 #	44.920	12.42		0.000
6		0.000	44.455	0.458		0.000	45.315	42.27 #	44.950	14.67		0.000
7		0.000		0.000		0.000	45.185	28.13	45.040	18.72		0.000
8		0.000		0.000		0.000	45.090	21.62	45.120	23.54 *		0.000
9		0.000		0.000		0.000	45.000	15.75	45.195	29.77 #		0.000
10		0.000		0.000		0.000	44.900	12.08 *	45.075	21.01		0.000
11		0.000		0.000	45.050	19.48 #	44.840	9.914	44.980	14.89		0.000
12		0.000		0.000	44.910	12.30	44.760	6.899	44.980	15.23		0.000
13		0.000		0.000	44.680	4.402 *	44.650	3.650 #	44.900	11.87		0.000
14		0.000	44.670	4.144 #	45.070	20.08	44.610	2.715	44.805	9.160		0.000
15		0.000	45.010	15.83	44.950	14.35 *	44.765	6.981	44.860	10.40 *		0.000
16		0.000	45.010	17.34 *	44.715	6.063	44.760	6.609	44.890	11.64		0.000
17		0.000	44.910	12.37	44.650	3.650 #	44.620	2.967 *	44.770	7.102		0.000
18		0.000	45.790	145.1	44.645	3.531 #	44.670	4.144 #	44.665	5.354		0.000
19		0.000	45.430	58.30 #	45.400	53.68 #	44.690	4.669 #	44.620	3.777 *		0.000
20		0.000	45.205	29.83	45.360	48.02 *	44.640	3.414 #	44.590	2.661		0.000
21		0.000	45.045	19.21 #	45.140	24.45	44.665	4.017 #	44.560	2.157		0.000
22	44.540	1.197	44.895	11.42	44.945	13.67	44.635	3.300 #	44.520	1.530 *		0.000
23	44.520	0.957	44.740	6.120 *	44.735	6.449	44.610	2.773	44.510	1.350		0.000
24	44.470	0.569	44.545	1.347	44.610	2.709	44.560	1.814 *	44.500	0.969		0.000
25	44.400	0.119 *	44.500	0.934	45.000	16.82 *	44.520	1.537	44.500	0.970		0.000
26		0.000	44.470	0.554	44.990	15.35	44.520	1.505	44.470	0.524		0.000
27		0.000		0.000	45.080	21.18 *	44.580	2.689	44.470	0.537	44.540	1.892
28	44.710	5.226 #		0.000	45.030	18.39 #	44.815	9.762	44.470	0.519	44.550	2.093
29	45.080	21.27		0.000	45.000	15.65	45.300	40.49 #	44.480	0.707 *	44.550	2.153
30	44.940	13.90		0.000	44.950	14.20	45.270	37.13 *	44.420	0.000	44.560	2.304
31				0.000	45.175	27.84				0.000		
Ten-Daily Mean												
I Ten-Daily		0.000	44.620	2.126		0.000	45.032	21.48	45.069	20.97		0.000
II Ten-Daily		0.000	45.146	28.29	44.943	18.56	44.701	5.196	44.806	9.207		0.000
III Ten-Daily	44.666	4.324	44.699	3.959	44.969	16.06	44.748	10.50	44.490	0.842	44.550	0.844
Monthly												
Min.	44.400	0.000	44.455	0.000	44.610	0.000	44.520	1.505	44.420	0.000	44.540	0.000
Max.	45.080	21.27	45.790	145.1	45.400	53.68	45.385	51.49	45.195	29.77	44.560	2.304
Mean	44.666	1.441	44.839	11.46	44.956	11.69	44.827	12.39	44.788	10.03	44.550	0.281

Annual Runoff in MCM = 161 Annual Runoff in mm = 87

Peak Observed Discharge = 145.1 cumecs on 18/07/2017 Corres. Water Level :45.79 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	44.540	1.884	44.620	3.415		0.000	44.620	3.613	44.860	9.706 *		0.000
2	44.560	2.404 *	44.600	3.211		0.000	44.580	2.855 *	44.880	10.22 #		0.000
3	44.550	2.182 *	44.580	2.969		0.000		0.000	44.900	10.74 #		0.000
4	44.590	2.289	44.580	2.958		0.000		0.000	44.790	7.922 #		0.000
5	44.600	2.451	44.600	3.336		0.000		0.000	44.780	7.671 #		0.000
6	44.550	2.098	44.590	3.202		0.000		0.000	44.580	0.000		0.000
7	44.560	2.309	44.580	2.855 *		0.000		0.000	44.620	3.777 #		0.000
8	44.550	2.103	44.600	3.338	44.600	3.383		0.000	44.600	3.312 *		0.000
9	44.560	2.302	44.560	2.670	44.650	4.622		0.000	44.610	3.544 #		0.000
10	44.560	2.404 *	44.590	3.271	44.710	5.949		0.000	44.590	3.083 #		0.000
11	44.540	1.930	44.590	3.220	44.690	5.446 *		0.000	44.590	3.083 #		0.000
12	44.530	1.835	44.590	3.274	44.660	5.400		0.000	44.590	3.083 #		0.000
13	44.530	1.863	44.530	2.088	44.670	5.493		0.000	44.580	2.855 #		0.000
14	44.540	1.916		0.000	44.510	1.359		0.000		0.000		0.000
15	44.580	2.968		0.000		0.000		0.000		0.000		0.000
16	44.610	3.577		0.000		0.000		0.000		0.000		0.000
17	44.620	3.777 *		0.000		0.000		0.000		0.000		0.000
18	44.620	3.662		0.000		0.000	44.910	11.00 *		0.000		0.000
19	44.610	3.564		0.000		0.000	44.990	13.22		0.000		0.000
20	44.660	5.281		0.000		0.000	44.880	10.12		0.000		0.000
21	44.660	5.326		0.000		0.000	44.840	9.762		0.000		0.000
22	44.670	5.373		0.000		0.000	44.800	8.929		0.000		0.000
23	44.690	5.530	44.570	3.005	44.640	3.701	44.790	7.216		0.000		0.000
24	44.700	5.689 *	44.590	3.265	44.620	3.607	44.850	9.766		0.000		0.000
25	44.660	4.723 *	44.630	3.648	44.620	3.777 *	44.820	8.682 *		0.000		0.000
26	44.700	5.849	44.650	4.484 *	44.650	4.472	44.800	7.924		0.000		0.000
27	44.710	5.962	44.620	3.601	44.610	3.318	44.730	6.163		0.000		0.000
28	44.690	5.561	44.580	2.855 *	44.600	3.281	44.710	5.814		0.000		0.000
29	44.670	5.327	44.500	1.337			44.680	5.204 *		0.000		0.000
30	44.590	3.097		0.000			44.700	5.689 *		0.000		0.000
31	44.590	3.083 *		0.000			44.860	9.706 #				0.000
Ten-Daily Mean												
I Ten-Daily	44.562	2.243	44.590	3.122	44.653	1.395	44.600	0.647	44.721	5.998		0.000
II Ten-Daily	44.584	3.037	44.570	0.858	44.632	1.770	44.927	3.435	44.587	0.902		0.000
III Ten-Daily	44.666	5.047	44.591	2.018	44.623	2.770	44.780	7.714		0.000		0.000
Monthly												
Min.	44.530	1.835	44.500	0.000	44.510	0.000	44.580	0.000	44.580	0.000		0.000
Max.	44.710	5.962	44.650	4.484	44.710	5.949	44.990	13.22	44.900	10.74		0.000
Mean	44.606	3.494	44.588	2	44.633	1.922	44.785	4.054	44.690	2.3		0

Peak Computed Discharge = 48.02 cumecs on 20/08/2017 Corres. Water Level :45.36 m

Lowest Computed Discharge = 0.119 cumecs on 25/06/2017 Corres. Water Level :44.4 m

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

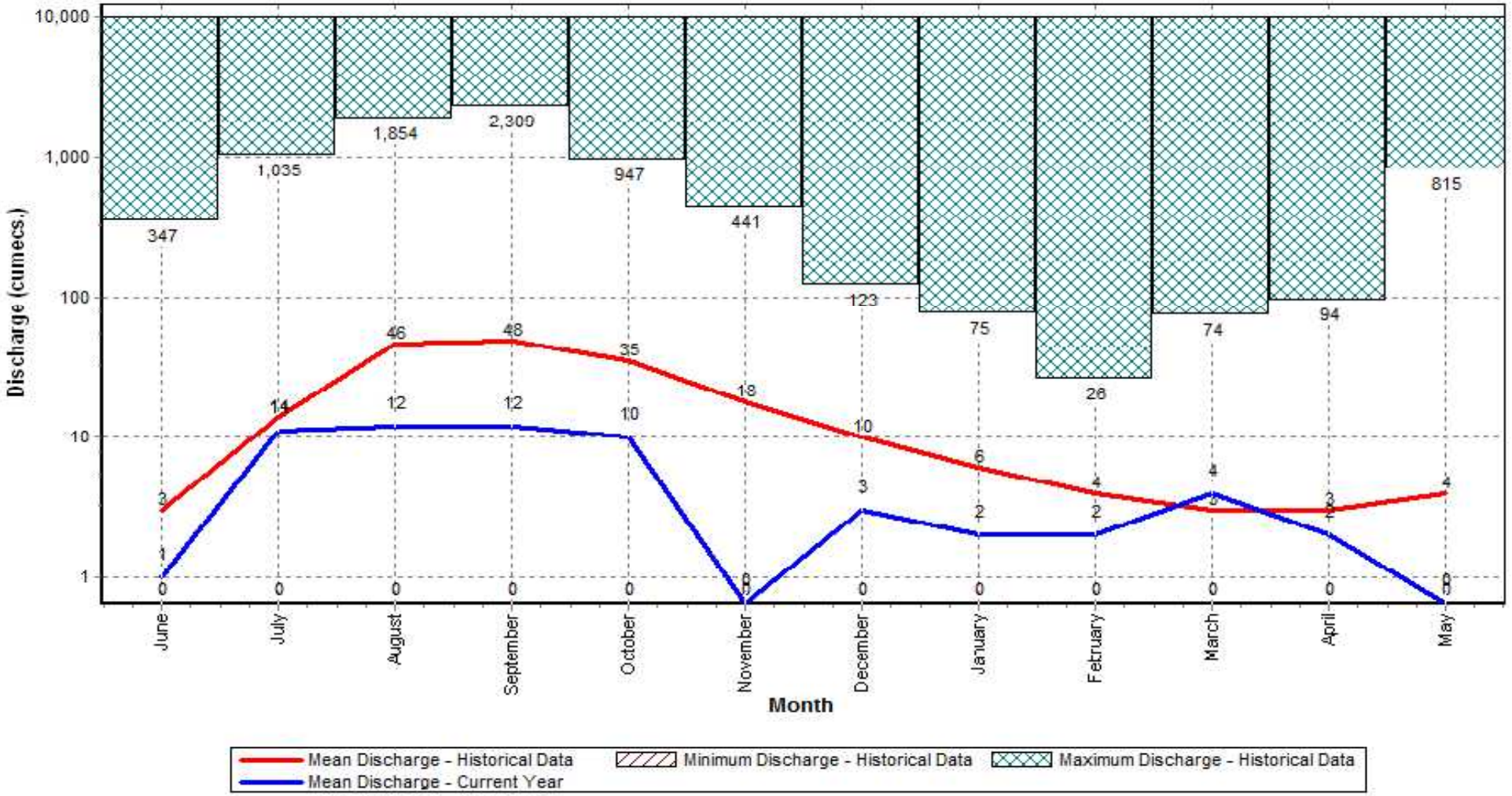
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Madhira (AKA10D2) **Data considered : 1984-2018** **Division : Lower Krishna Divn., Hyderabad**

Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**



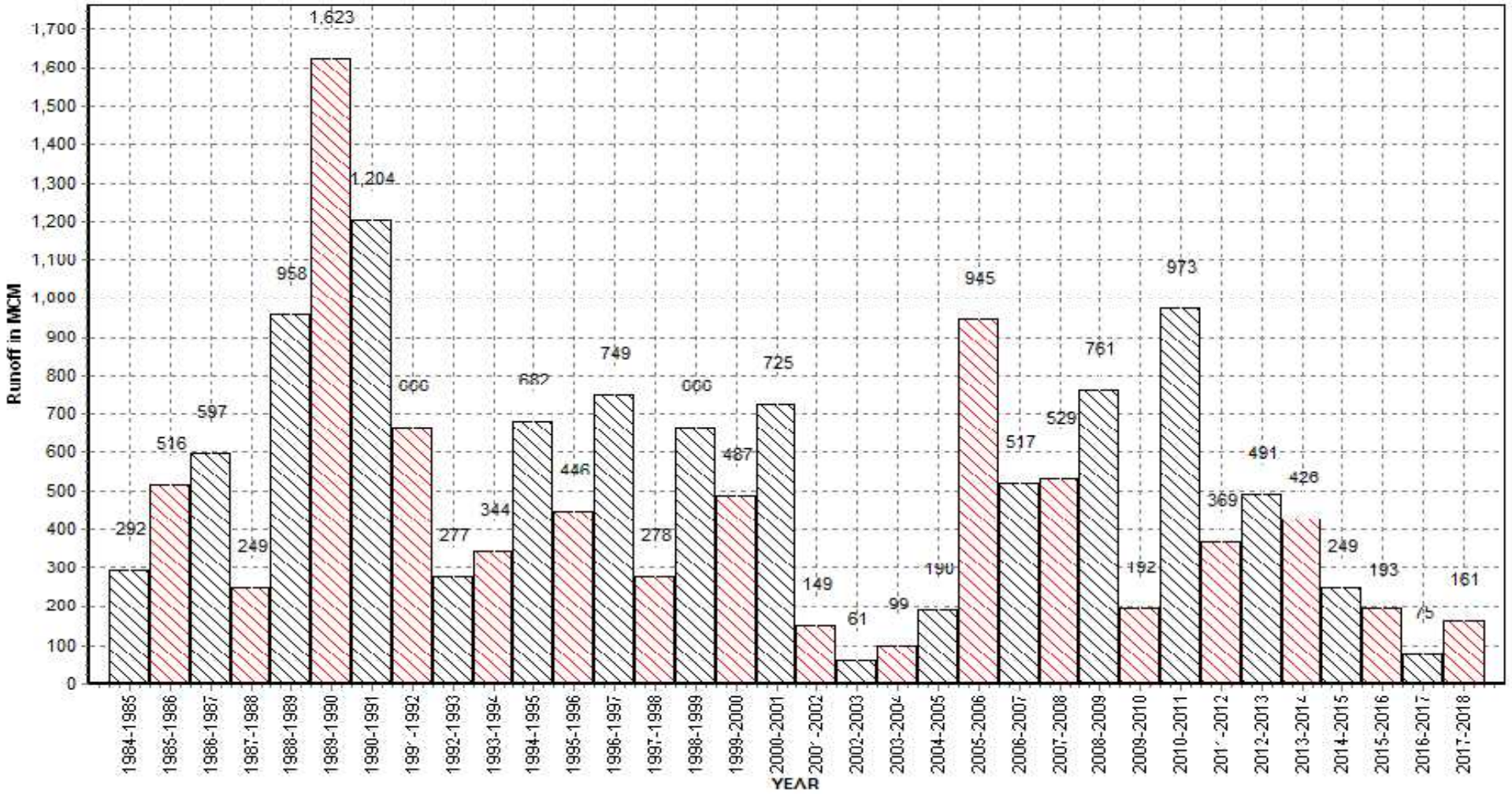
Annual Runoff Values for the period: 1984 - 2018

Station Name : Madhira (AKA10D2)

Division : Lower Krishna Divn., Hyderabad

Local River : Wyra

Sub-Division : Lower Krishna SD2, Vijayawada



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

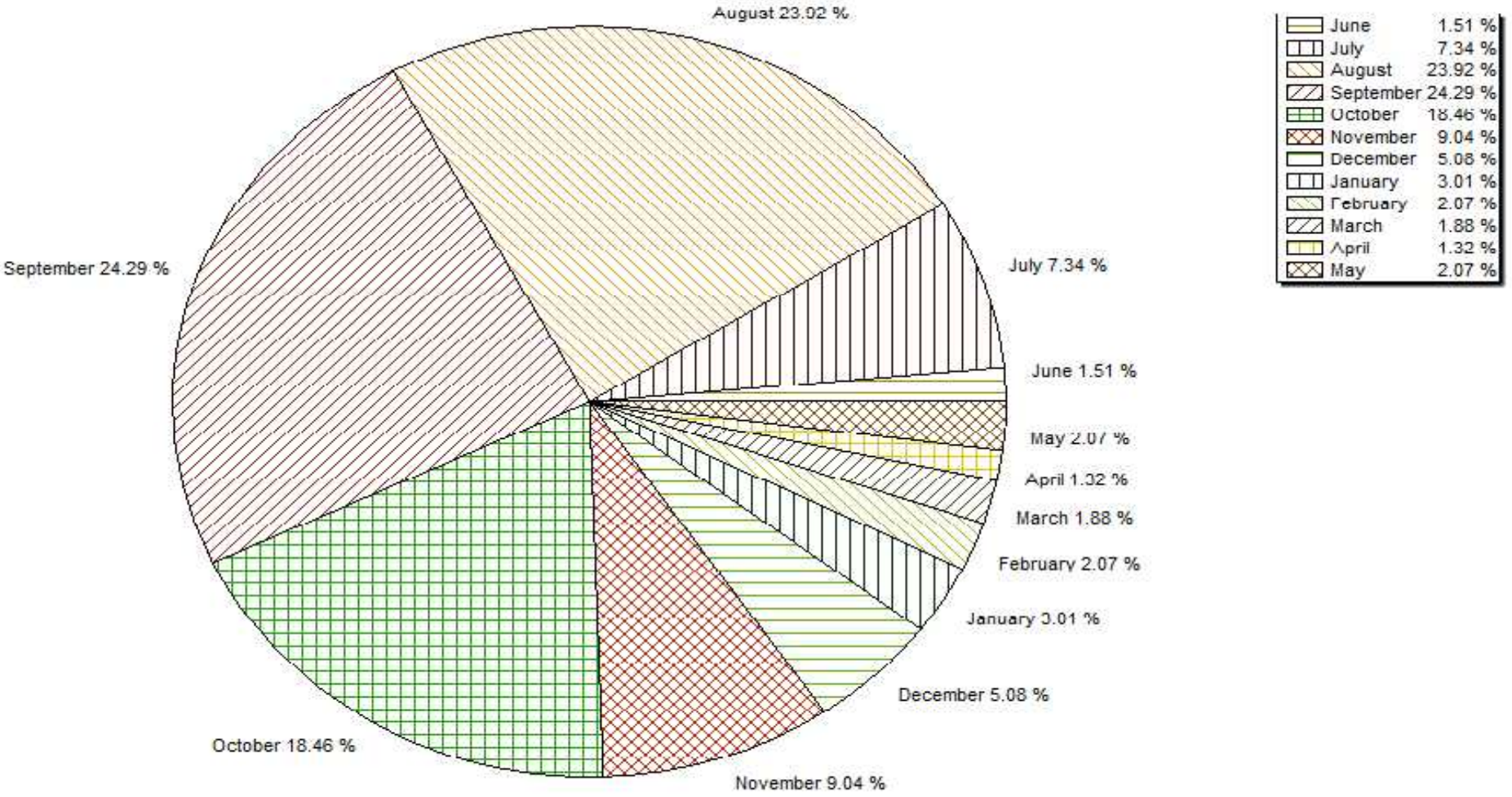
Monthly Average Runoff based on period : 1984-2017

Station Name : Madhira (AKA10D2)

Division : Lower Krishna Divn., Hyderabad

Local River : Wyra

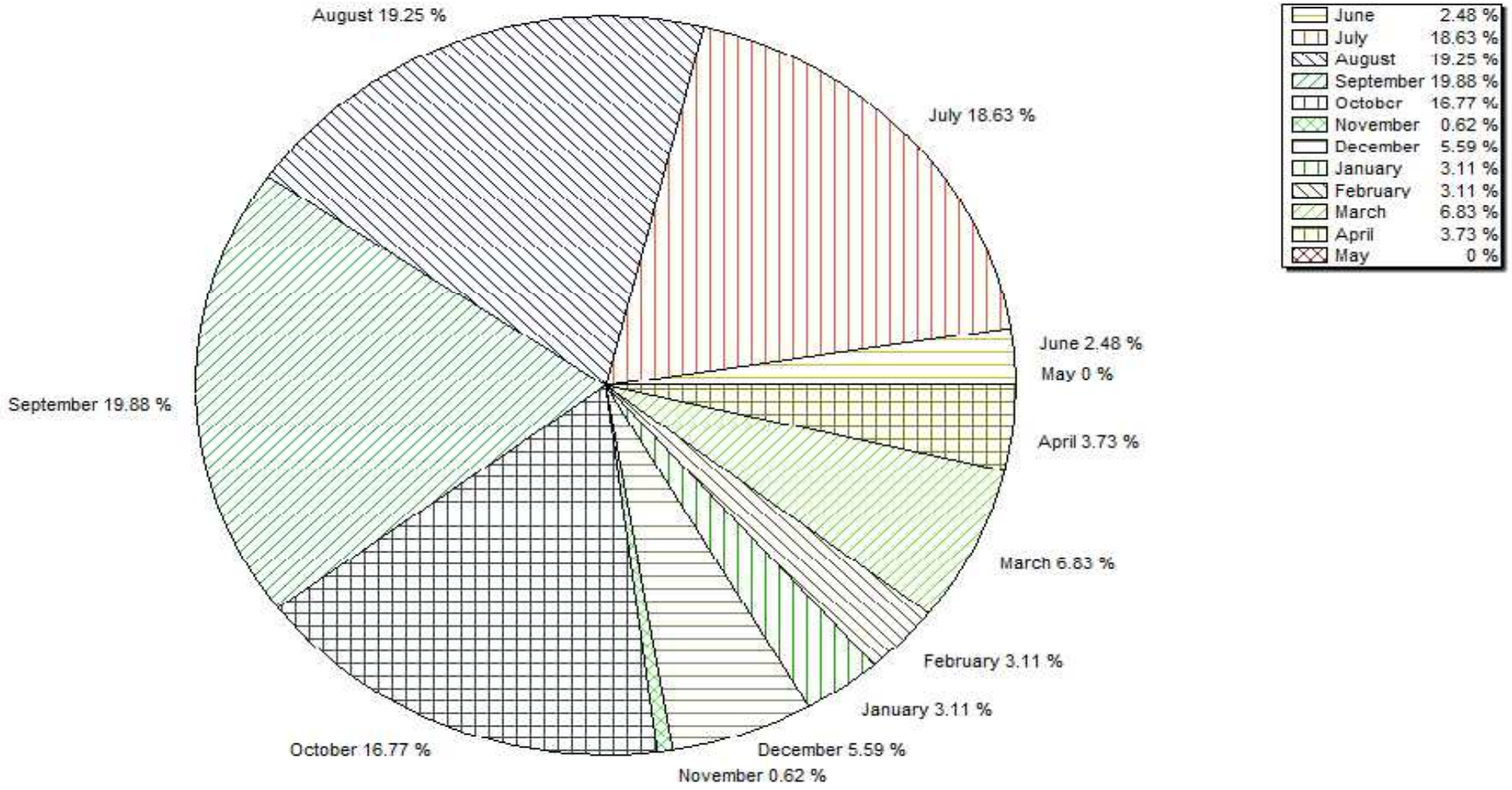
Sub-Division : Lower Krishna SD2, Vijayawada



Monthly Runoff for the Year : 2017-2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

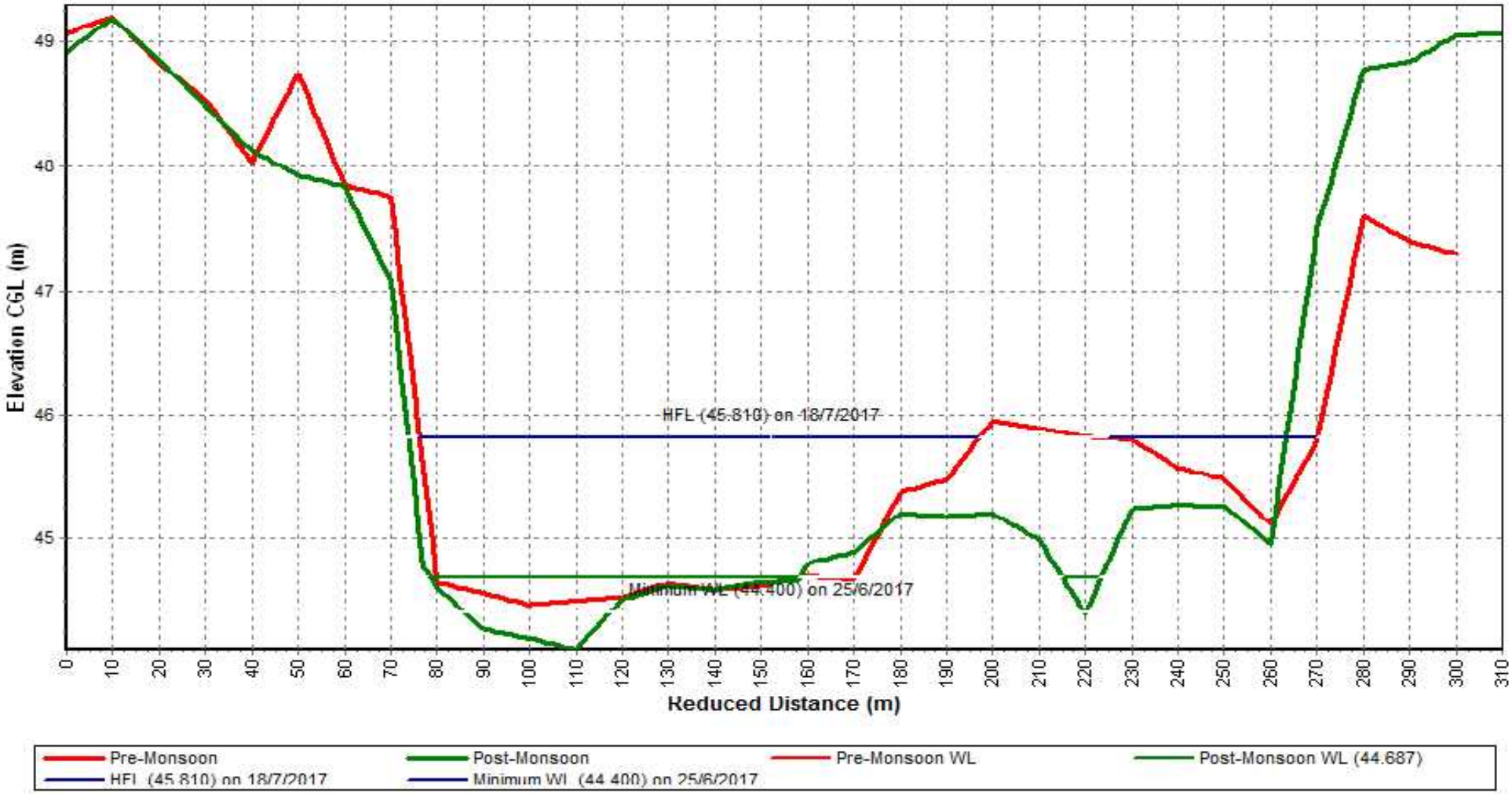
Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

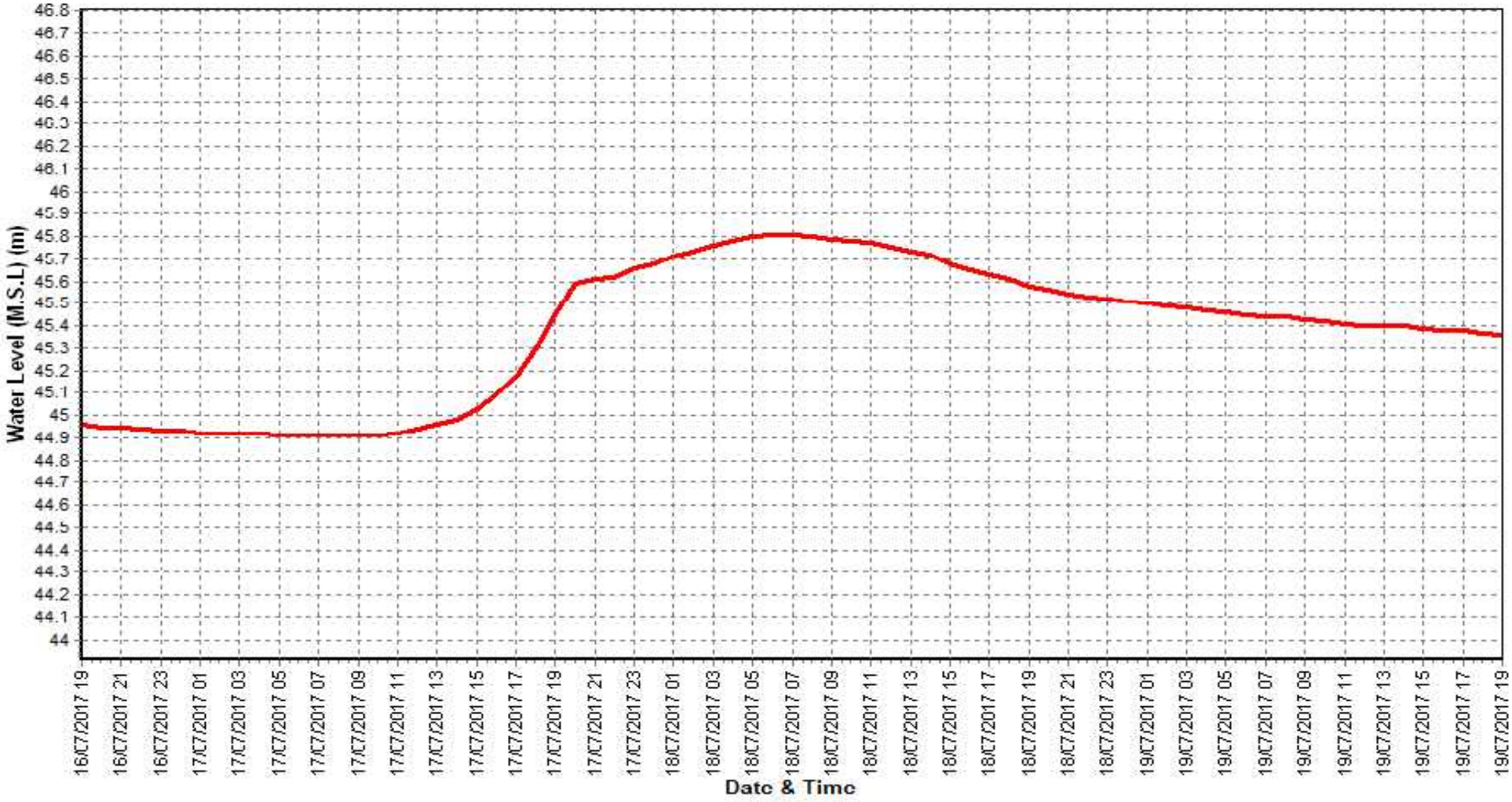
Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**

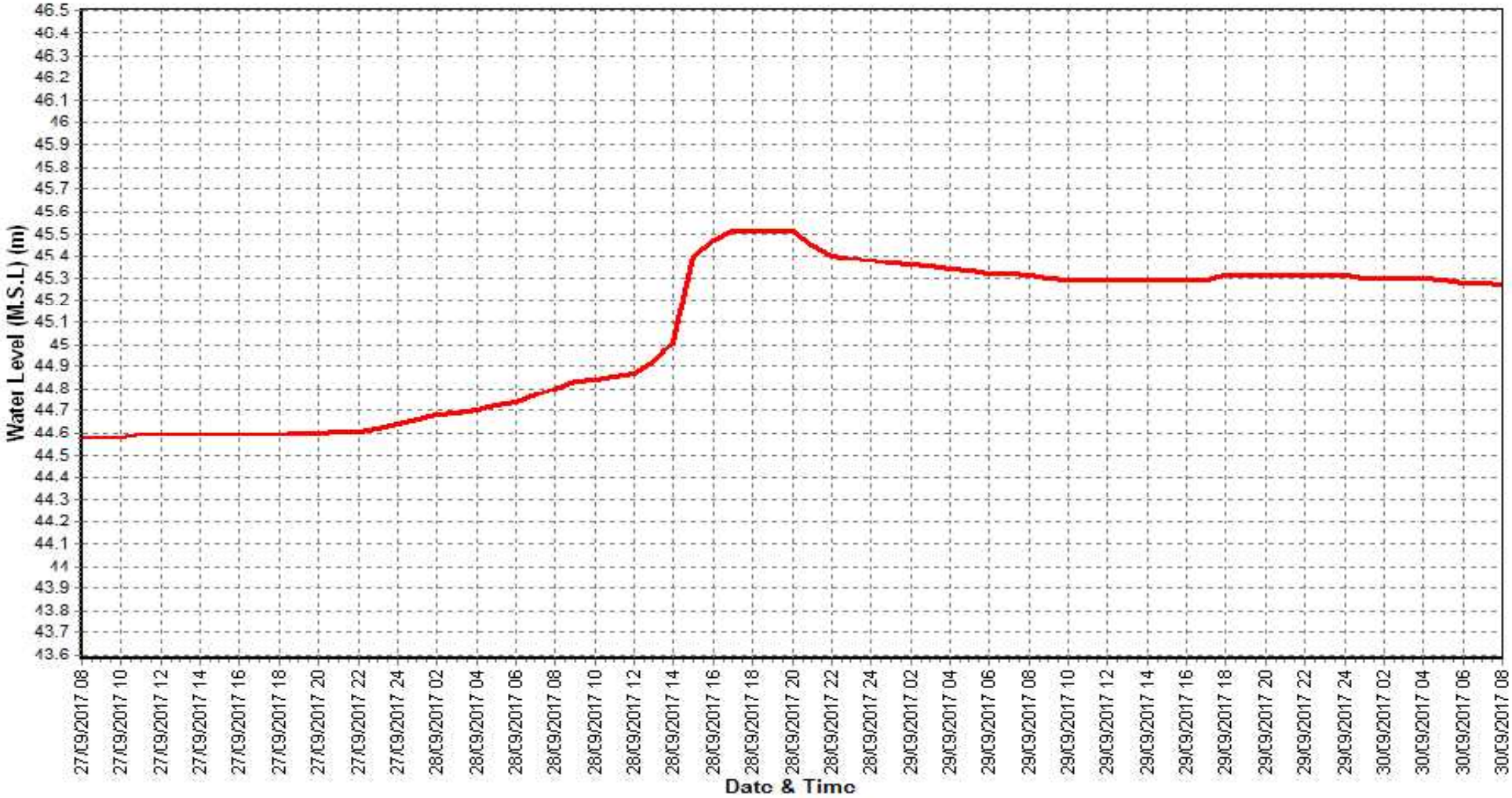


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Madhira (AKA10D2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Wyra **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**DAREDU**	**Code**	:	**035-LKDHYD**
State	:	Telangana	District		Khammam
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Munneru	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Munneru
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD2, Vijayawada
Drainage Area	:	3100 Sq. Km.	Bank	:	Left
Latitude	:	17°22'46"	Longitude	:	80°07'49"
Zero of Gauge (m)	:	93.5 (m.s.l)	16/11/2016		
		Opening Date	Closing Date		
Gauge	:	16/11/2016	HFL During 2017-18	:	97.420m
			Corres. Discharge	:	156.8(Estimated)
Discharge	:	16/11/2016	Date & Time of occurance	:	20/08/2017
				:	17.00 hrs.
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**

Stage-Discharge Data for the period 2017 - 2018

Station Name : DAREDU (035-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**

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	95.555	0.000	95.195	0.000	96.230	0.000	96.370	0.000	95.490	7.064
2		0.000	95.565	0.000	95.185	0.000	96.040	0.000	96.280	0.000	95.500	6.632
3		0.000	95.555	0.000	95.185	0.000	96.090	0.000	96.780	0.000	95.530	7.585
4		0.000	95.565	0.000	95.215	0.000	96.080	0.000	96.710	0.000	95.520	7.405 *
5		0.000	95.435	0.000	95.215	0.000	96.160	0.000	96.790	0.000	95.480	6.254 *
6		0.000	95.365	0.000	95.225	0.000	96.570	0.000	96.160	0.000	95.510	7.371
7		0.000	95.335	0.000	95.670	0.000	96.990	0.000	96.380	0.000	95.450	6.038
8		0.000	95.505	0.000	96.040	0.000	97.290	0.000	96.650	0.000	95.510	5.259
9		0.000	95.515	0.000	96.100	0.000	96.590	0.000	96.310	0.000	95.430	5.196
10		0.000	95.425	0.000	95.970	0.000	95.980	0.000	96.030	0.000	95.470	6.460
11		0.000	95.375	0.000	95.910	0.000	95.810	0.000	95.890	0.000	95.490	6.579
12		0.000	95.415	0.000	95.990	0.000	95.690	0.000	95.880	0.000	95.470	5.979 *
13		0.000	95.365	0.000	96.210	0.000	95.570	0.000	95.840	0.000	95.470	6.217
14		0.000	95.565	0.000	96.230	0.000	95.470	0.000	96.300	0.000	95.460	5.796
15		0.000	95.545	0.000	96.430	0.000	95.530	0.000	96.300	0.000	95.450	5.797
16		0.000	95.615	0.000	96.130	0.000	95.700	0.000	96.150	0.000	95.430	5.259
17		0.000	96.195	0.000	96.330	0.000	95.920	0.000	96.000	0.000	95.450	5.583
18		0.000	96.225	0.000	96.130	0.000	96.220	0.000	95.850	0.000	95.430	5.258
19		0.000	96.165	0.000	96.740	0.000	96.510	0.000	95.740	0.000	95.440	5.185 *
20		0.000	96.265	0.000	97.260	0.000	96.250	0.000	95.650	0.000	95.430	5.010
21		0.000	96.365	0.000	97.090	0.000	95.920	0.000	95.600	8.926	95.370	2.975
22		0.000	96.315	0.000	96.520	0.000	95.690	0.000	95.500	6.819 *	95.380	3.993
23		0.000	96.245	0.000	96.160	0.000	95.560	0.000	95.550	7.935	95.360	3.181
24		0.000	95.985	0.000	96.040	0.000	95.480	0.000	95.620	11.70	95.340	2.573
25		0.000	95.775	0.000	96.390	0.000	95.500	0.000	95.790	0.000	95.330	2.470
26		0.000	95.395	0.000	96.420	0.000	96.210	0.000	95.850	0.000	95.320	2.473 *
27		0.000	95.355	0.000	96.140	0.000	96.220	0.000	95.770	0.000	95.320	2.244
28		0.000	95.245	0.000	96.160	0.000	96.210	0.000	95.680	0.000	95.320	2.230
29	95.625	0.000	95.205	0.000	96.320	0.000	96.740	0.000	95.720	0.000	95.310	2.078
30	95.645	0.000	95.195	0.000	96.350	0.000	96.580	0.000	95.670	0.000	95.260	1.323
31			95.195	0.000	96.430	0.000			95.550	7.608		
Ten-Daily Mean												
I Ten-Daily		0.000	95.482	0.000	95.500	0.000	96.402	0.000	96.446	0.000	95.489	6.526
II Ten-Daily		0.000	95.773	0.000	96.336	0.000	95.867	0.000	95.960	0.000	95.452	5.666
III Ten-Daily	95.635	0.000	95.661	0.000	96.365	0.000	96.011	0.000	95.664	3.908	95.331	2.554
Monthly												
Min.	95.625	0.000	95.195	0.000	95.185	0.000	95.470	0.000	95.500	0.000	95.260	1.323
Max.	95.645	0.000	96.365	0.000	97.260	0.000	97.290	0.000	96.790	11.70	95.530	7.585
Mean	95.635	0	95.640	0	96.077	0	96.093	0	96.012	1.387	95.424	4.916

Annual Runoff in MCM = 17 Annual Runoff in mm =

Peak Observed Discharge = 11.70 cumecs on 24/10/2017 Corres. Water Level :95.62 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : DAREDU (035-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	95.240	1.039	94.990	0.000		0.000		0.000		0.000		0.000
2	95.230	0.925 *		0.000		0.000		0.000		0.000		0.000
3	95.220	0.779 *		0.000		0.000		0.000		0.000		0.000
4	95.210	0.814		0.000		0.000		0.000		0.000		0.000
5	95.220	0.926		0.000		0.000		0.000		0.000		0.000
6	95.220	0.886		0.000		0.000		0.000		0.000		0.000
7	95.180	0.614		0.000		0.000		0.000		0.000		0.000
8	95.150	0.000		0.000		0.000		0.000		0.000		0.000
9	95.160	0.000		0.000		0.000		0.000		0.000		0.000
10	95.160	0.000		0.000		0.000		0.000		0.000		0.000
11	95.120	0.000		0.000		0.000		0.000		0.000		0.000
12	95.100	0.000		0.000		0.000		0.000		0.000		0.000
13	95.100	0.000		0.000		0.000		0.000		0.000		0.000
14	95.080	0.000		0.000		0.000		0.000		0.000		0.000
15	95.100	0.000		0.000		0.000		0.000		0.000		0.000
16	95.100	0.000		0.000		0.000		0.000		0.000		0.000
17	95.090	0.000		0.000		0.000		0.000		0.000		0.000
18	95.080	0.000		0.000		0.000		0.000		0.000		0.000
19	95.070	0.000		0.000		0.000		0.000		0.000		0.000
20	95.070	0.000		0.000		0.000		0.000		0.000		0.000
21	95.060	0.000		0.000		0.000		0.000		0.000		0.000
22	95.060	0.000		0.000		0.000		0.000		0.000		0.000
23	95.060	0.000		0.000		0.000		0.000		0.000		0.000
24	95.060	0.000		0.000		0.000		0.000		0.000		0.000
25	95.060	0.000		0.000		0.000		0.000		0.000		0.000
26	95.060	0.000		0.000		0.000		0.000		0.000		0.000
27	95.040	0.000		0.000		0.000		0.000		0.000		0.000
28	95.030	0.000		0.000		0.000		0.000		0.000		0.000
29	95.020	0.000		0.000				0.000		0.000		0.000
30	95.010	0.000		0.000				0.000		0.000		0.000
31	95.010	0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	95.199	0.598	94.990	0.000		0.000		0.000		0.000		0.000
II Ten-Daily	95.091	0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily	95.043	0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	95.010	0.000	94.990	0.000		0.000		0.000		0.000		0.000
Max.	95.240	1.039	94.990	0.000		0.000		0.000		0.000		0.000
Mean	95.109	0.193	94.990	0		0		0		0		0

Peak Computed Discharge = 7.405 cumecs on 04/11/2017 **Corres. Water Level :95.52 m**

Lowest Computed Discharge = 0.779 cumecs on 03/12/2017 **Corres. Water Level :95.22 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

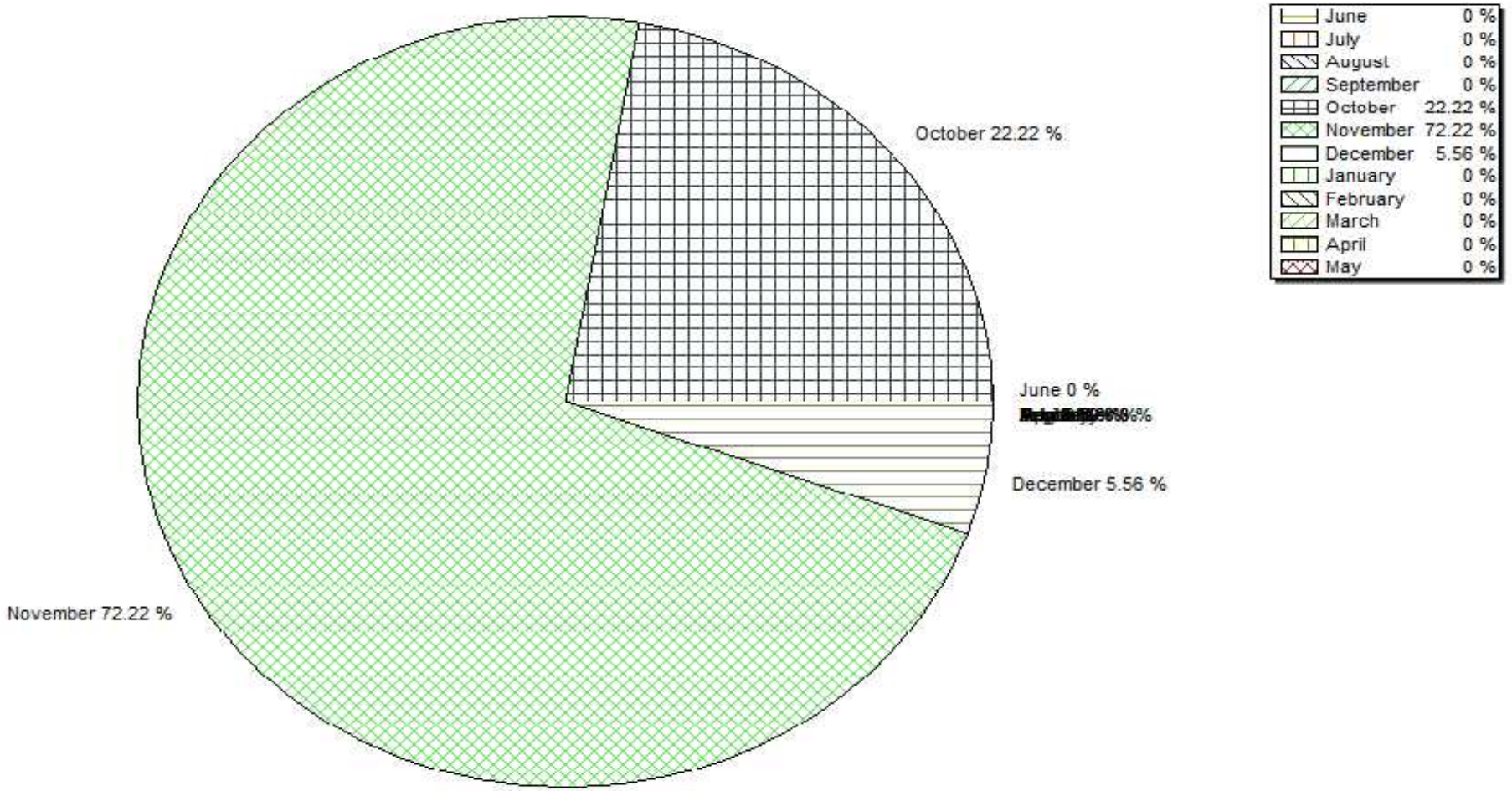
Monthly Runoff for the Year : 2017-2018

Station Name : DAREDU (035-LKDHYD)

Local River : Munneru

Division : Lower Krishna Divn., Hyderabad

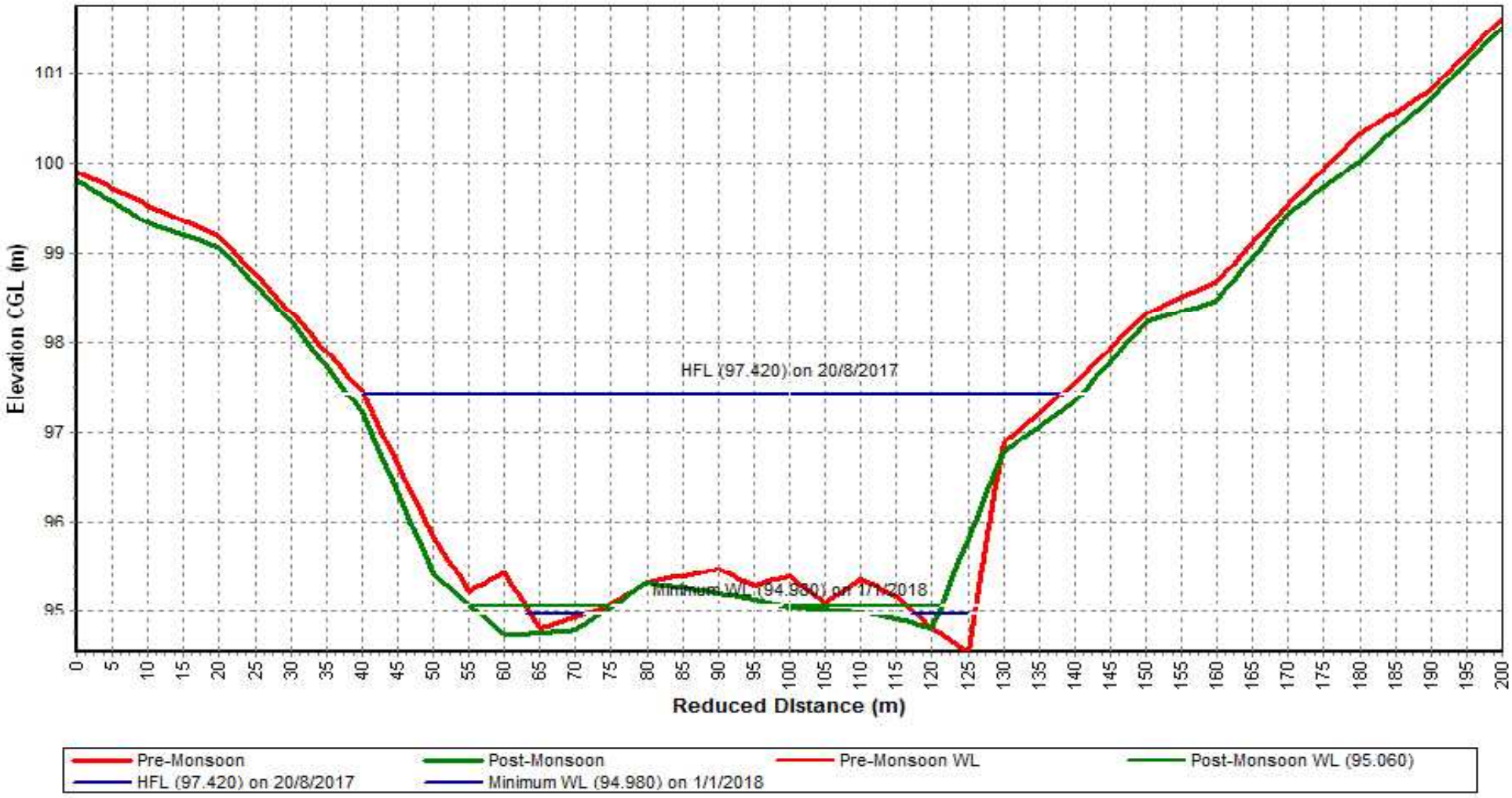
Sub-Division : Lower Krishna SD2, Vijayawada



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : DAREDU (035-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

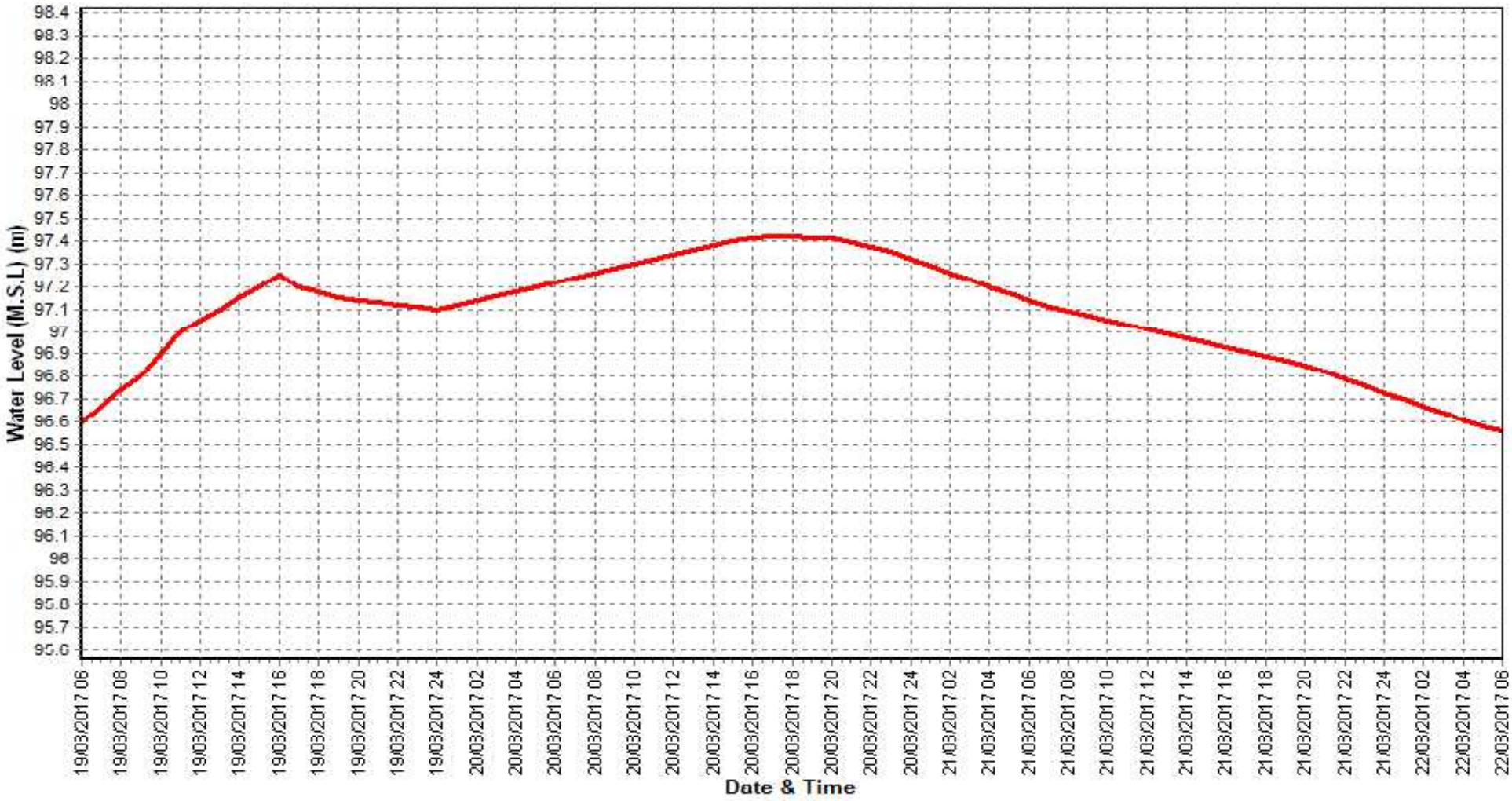
Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : DAREDU (035-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Munneru **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	2017-2018
Site	:	Munugodu	Code	:	033-LKDHYD
State	:	Andhra Pradesh	District		Guntur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Eddu Vagu	Sub Tributary	:	-
Sub-Sub Tributa	:	-	Local River	:	Eddu Vagu
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD 1, N.S.Dam
Drainage Area	:	647.8	Bank	:	Left
Latitude	:	16°33'16"	Longitude	:	80°12'23"
Zero of Gauge (	:	24.5	01/03/2017		
		Opening Date	Closing Date		
Gauge	:	24/10/2016	HFL During 2017-18	:	26.700m
			Corres. Discharge	:	48.77(Estimated)
Discharge	:	01/09/2017	Date & Time of	:	08/10/2017
			occurance	:	18.00 hrs.
Sediment	:	--			
Water Quality	:	--			

Stage-Discharge Data for the period 2017 - 2018

Station Name : Munugodu (033-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

Day	Sep		Oct		Nov	
	W.L	Q	W.L	Q	W.L	Q
1	Discharge observation from 01-09-2017.	0.000	25.360	1.895 *	25.180	0.341
2		0.000	25.420	2.581 *	25.180	0.329
3		0.000	25.450	2.967 #	25.140	0.240
4		0.000	25.450	2.513	25.050	0.070 *
5		0.000	25.430	2.706 #	25.070	0.109 *
6		0.000	26.490	36.70 *	25.200	0.724
7		0.000	26.320	28.30 *	25.200	0.714
8		0.000	26.580	41.64 *	25.190	0.474
9		0.000	26.540	39.41 *	25.190	0.484
10		0.000	26.230	24.32 *	25.180	0.369
11		0.000	25.870	11.65 *	24.970	0.000
12		0.000	25.650	6.320 #	25.040	0.000
13		0.000	25.550	4.480	25.040	0.000
14		0.000	25.480	3.524	25.010	0.000
15		0.000	25.550	4.472 *	25.020	0.000
16		0.000	25.580	5.008	25.330	1.627
17		0.000	25.590	5.504	25.360	1.893
18		0.000	25.535	4.192	25.335	1.625
19		0.000	25.460	3.103 *	25.370	2.002 *
20		0.000	25.405	2.688	25.360	1.873
21		0.000	25.360	1.905	25.455	2.567
22		0.000	25.330	1.595 *	25.440	2.483
23		0.000	25.350	1.763	25.470	3.537
24		0.000	25.360	1.794	25.450	2.967 *
25		0.000	25.340	1.606	25.440	2.835 *
26	25.845	10.74	25.200	0.705	25.400	2.339 *
27	25.540	3.923	25.200	0.709	25.440	2.954
28	25.530	3.669	25.190	0.605	25.450	2.946
29	25.550	4.100	25.150	0.366 *	25.480	3.508
30	25.430	2.706 *	25.190	0.499	25.540	4.203
31			25.190	0.471		
Ten-Daily Mean						
I Ten-Daily		0.000	25.927	18.30	25.158	0.385
II Ten-Daily		0.000	25.567	5.094	25.184	0.902
III Ten-Daily	25.579	2.514	25.260	1.092	25.457	3.034
Monthly						
Min.	25.430	0.000	25.150	0.366	24.970	0.000
Max.	25.845	10.74	26.580	41.64	25.540	4.203
Mean	25.579	0.838	25.574	7.935	25.266	1.44

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 2017 - 2018

Station Name : Munugodu (033-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	25.500	3.878	25.530	4.144 *	26.330	6.145	26.090	1.707	26.000	0.948 *	25.790	0.000
2	25.530	4.144 *	25.590	5.170 *	26.320	5.756	26.020	1.104 *	26.000	1.107	25.780	0.000
3	25.500	3.678 *	25.550	4.472 *	26.310	5.613	25.930	0.605	26.030	1.683	25.790	0.000
4	25.450	3.003	25.570	4.814 *	26.280	4.937 *	25.910	0.429 *	25.980	0.771	25.820	0.000
5	25.440	2.516	25.650	6.320 *	26.320	5.915	25.800	0.000	26.000	1.024	25.830	0.000
6	25.360	1.940	25.580	5.072	26.320	5.940	25.810	0.000	25.980	0.763	25.830	0.000
7	25.410	2.745	25.540	4.307 *	26.340	6.537	25.800	0.000	25.990	0.878	25.820	0.000
8	25.360	1.798	25.600	5.842	26.330	6.122	25.790	0.000	25.930	0.521 *	25.830	0.000
9	25.410	2.769	25.470	3.231	26.330	6.157	25.750	0.000	25.970	0.701	25.830	0.000
10	25.340	1.692 *	25.370	1.878	26.320	5.745	25.740	0.000	25.970	0.705	25.830	0.000
11	25.320	1.590	25.340	1.640	26.180	3.011 *		0.000	25.930	0.461	25.820	0.000
12	25.320	1.620	25.320	1.490	26.230	3.811		0.000	25.930	0.518	25.820	0.000
13	25.340	1.658	25.280	1.179	26.220	3.667		0.000	25.900	0.331	25.810	0.000
14	25.400	2.702	25.240	0.862 *	26.210	3.441	25.980	0.773	25.900	0.388 *	25.790	0.000
15	25.460	2.761	25.360	1.895 *	26.210	3.477	26.000	1.021	25.880	0.313 *	25.800	0.000
16	25.440	2.613	25.450	3.124	26.180	3.035	26.010	1.179	25.850	0.000	25.820	0.000
17	25.460	3.103 *	25.460	3.123	26.180	3.130	26.010	1.179	25.860	0.000	25.820	0.000
18	25.540	4.255	25.460	3.197	26.150	2.552 *	26.020	1.104 *	25.840	0.000	25.810	0.000
19	25.570	4.950	25.450	3.069	26.160	2.904	26.020	1.285	25.840	0.000	25.810	0.000
20	25.560	4.689	25.450	3.107	26.180	3.129	26.030	1.626	25.840	0.000	25.800	0.000
21	25.600	5.813	25.450	2.967 *	26.150	2.339	26.030	1.639	25.840	0.000	25.800	0.000
22	25.540	4.250	25.430	2.744	26.170	2.764	26.010	1.194	25.840	0.000	25.800	0.000
23	25.530	4.144 *	25.480	3.656	26.150	2.400	26.030	1.624	25.830	0.000	25.790	0.000
24	25.500	3.678 *	25.360	1.855	26.150	2.386	26.030	1.647	25.840	0.000	25.790	0.000
25	25.470	3.242 *	25.340	1.629	26.130	2.275 *	26.040	1.275 *	25.830	0.000	25.790	0.000
26	25.500	3.678 *	25.450	2.967 *	26.120	2.072	26.030	1.661	25.830	0.000	25.780	0.000
27	25.430	2.706 *	25.440	3.076	26.100	1.838	25.980	0.767	25.840	0.000	25.780	0.000
28	25.440	2.835 *	25.500	3.678 *	26.100	1.815	25.990	0.887	25.820	0.000	25.780	0.000
29	25.420	2.581 *	25.450	2.967 *			26.010	1.024 *	25.800	0.000	25.770	0.000
30	25.480	3.384 *	25.500	3.678 *			25.980	0.809 *	25.790	0.000	25.770	0.000
31	25.470	3.242 *	26.330	6.091			25.980	0.816			25.770	0.000
Ten-Daily Mean												
I Ten-Daily	25.430	2.816	25.545	4.525	26.320	5.887	25.864	0.385	25.985	0.910	25.815	0.000
II Ten-Daily	25.441	2.994	25.381	2.269	26.190	3.216	26.010	0.817	25.877	0.201	25.810	0.000
III Ten-Daily	25.489	3.596	25.521	3.210	26.134	2.236	26.010	1.213	25.826	0.000	25.784	0.000
Monthly												
Min.	25.320	1.590	25.240	0.862	26.100	1.815	25.740	0.000	25.790	0.000	25.770	0.000
Max.	25.600	5.813	26.330	6.320	26.340	6.537	26.090	1.707	26.030	1.683	25.830	0.000
Mean	25.455	3.15	25.484	3.331	26.220	3.89	25.958	0.818	25.896	0.37	25.802	0

Peak Computed Discharge = 41.64 cumecs on 08/10/2017 **Corres. Water Level :26.58 m**

Lowest Computed Discharge = 0.070 cumecs on 04/11/2017 **Corres. Water Level :25.05 m**

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

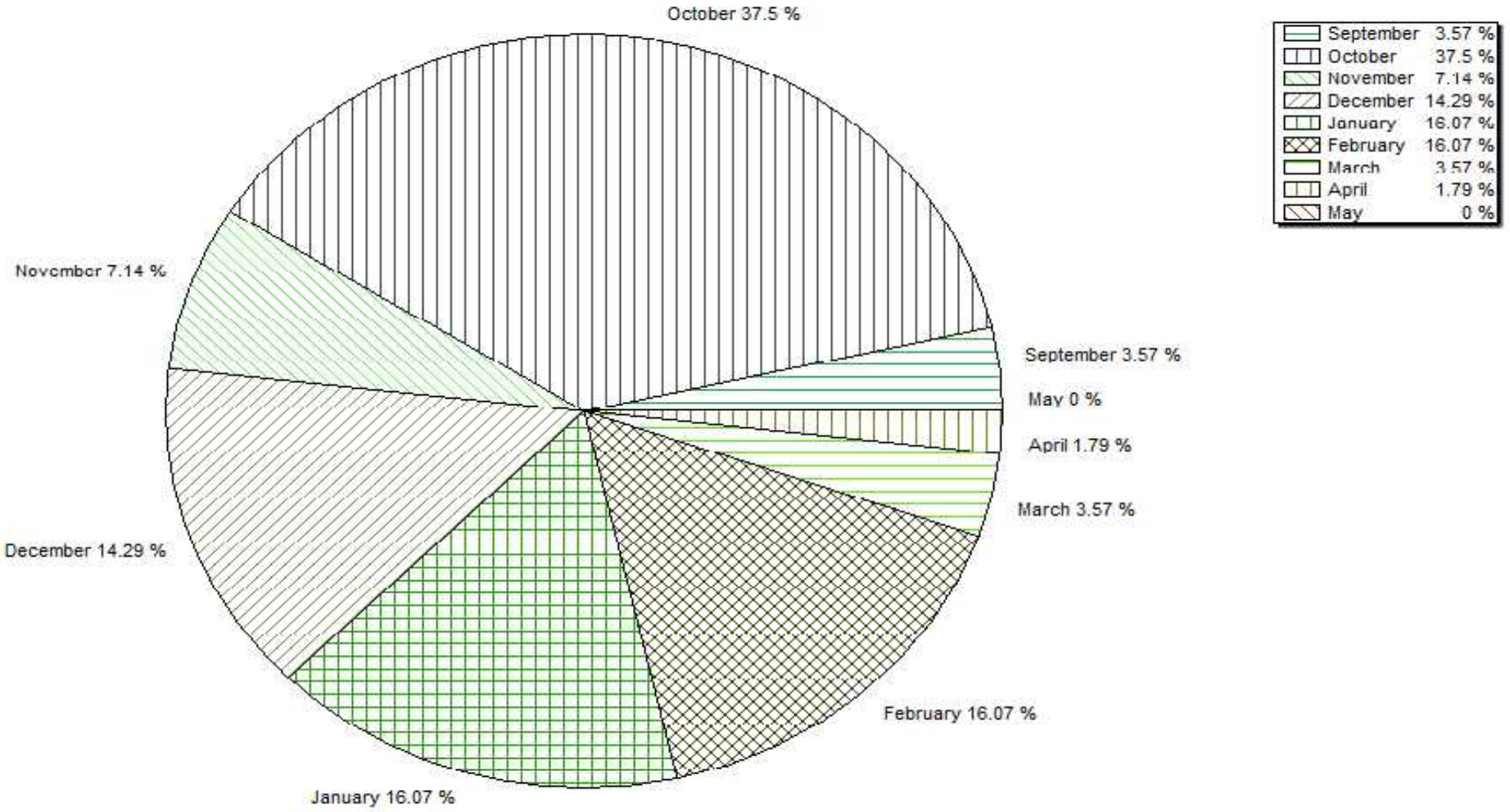
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Monthly Runoff for the Year : 2017-2018

Station Name : Munugodu (033-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

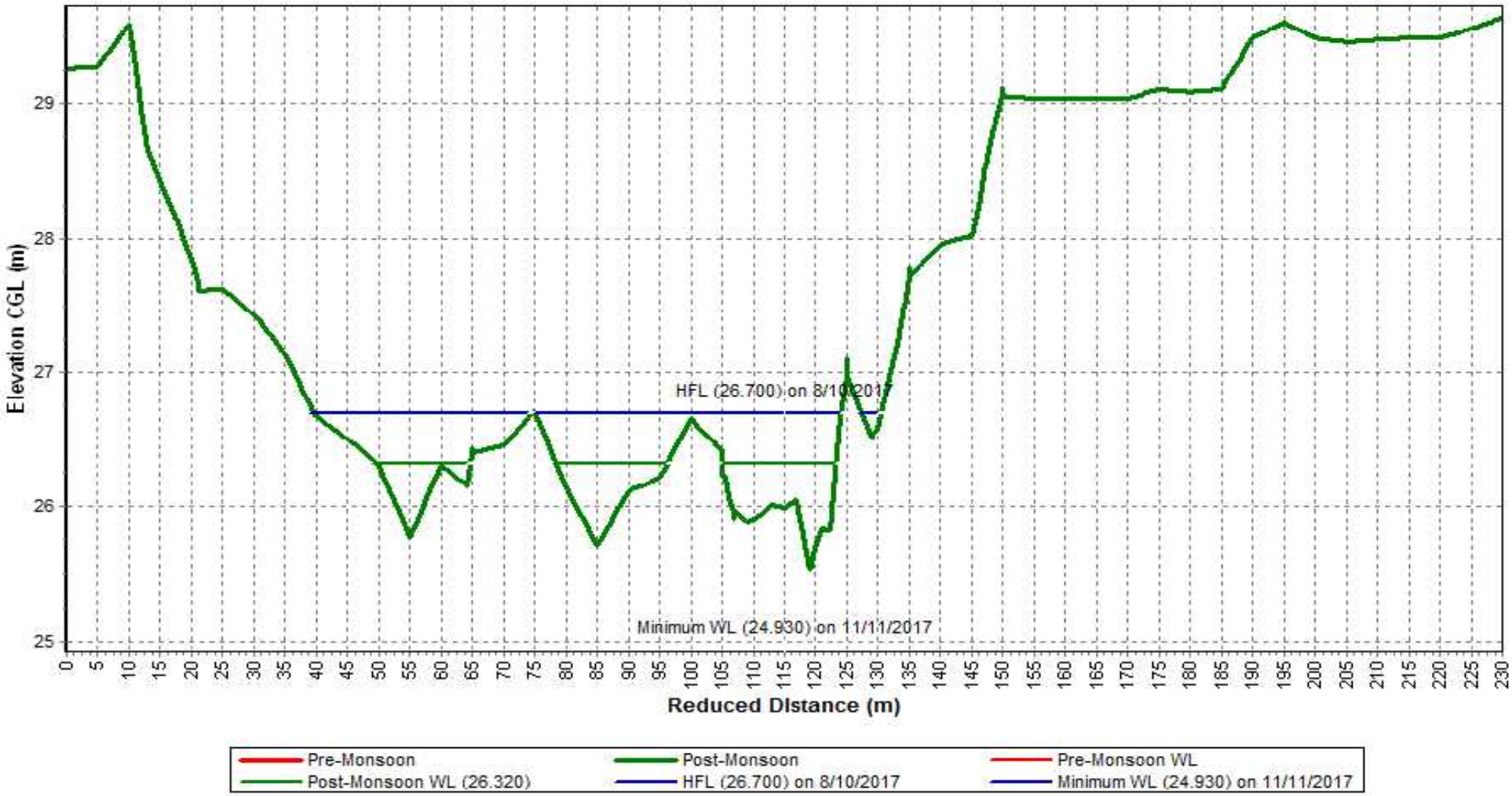
Local River : Krishna **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Munugodu (033-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

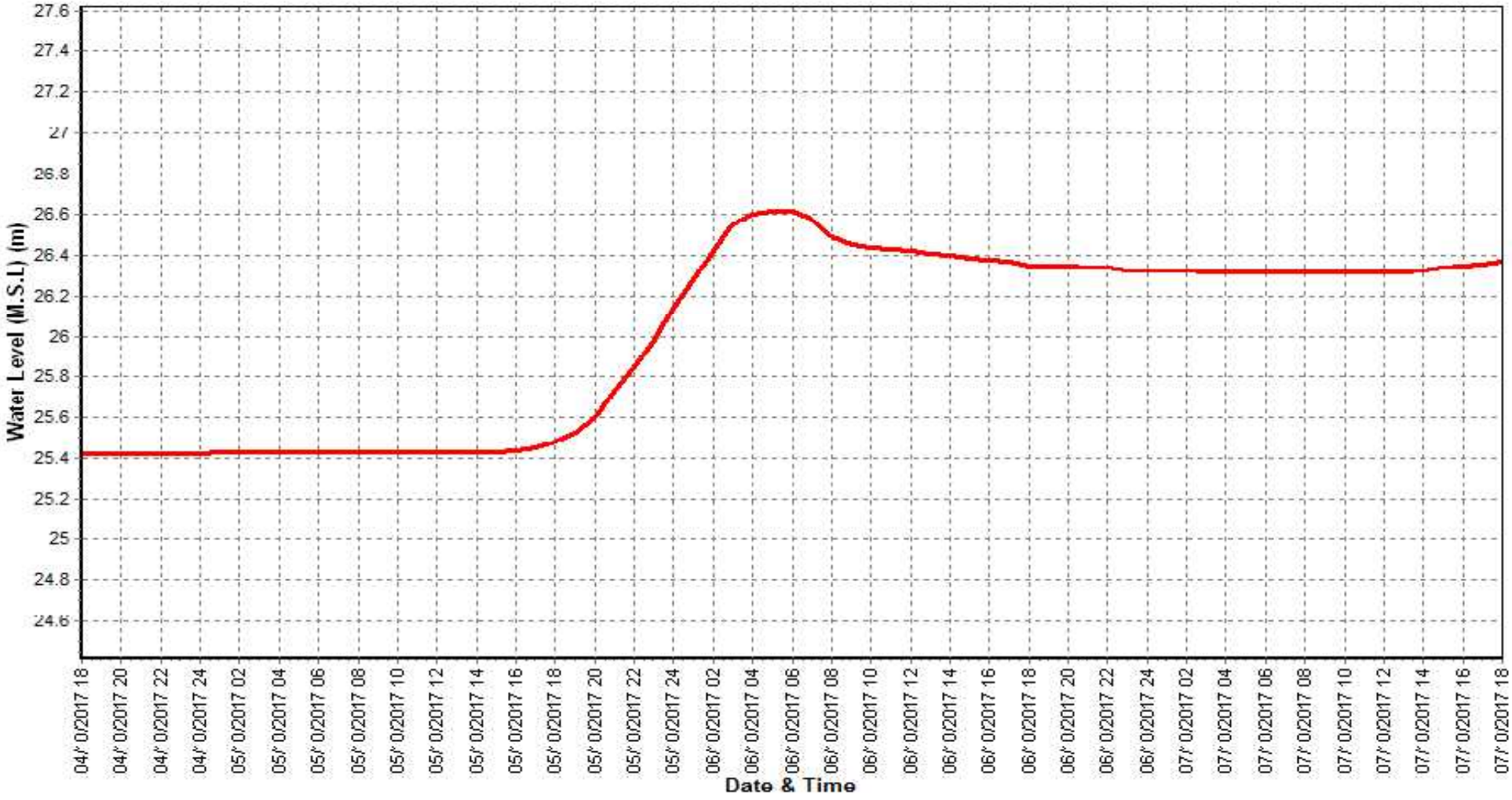
Local River : Krishna **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Munugodu (033-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Paleru Bridge**		**Code**	**: AKC00D3**	
State	: Andhra Pradesh		District	Krishna	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Paleru		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Paleru	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Lower Krishna SD2, Vijayawada	
Drainage Area	: 2928 Sq. Km.		Bank	: Right	
Latitude	: 16°56'56"		Longitude	: 80°02'57"	
Zero of Gauge (m)	: 73.232 (m.s.l) 71.367 (m.s.l) 71.857 (m.s.l) 70.357 (m.s.l)		01/06/1964 21/09/1964 01/06/1970 01/11/1984	- 20/09/1964 - 31/05/1970 - 31/10/1984	
	Opening Date		Closing Date		
Gauge	: 18/05/1964		HFL During 2017-18	: 72.137m	
			Corres. Discharge	: 11.38(Observed)	
Discharge	: 01/07/1964		Date & Time of occurance	: 19/07/2017 : 08.00 hrs.	
Sediment	: 01/03/2014				
Water Quality	: 01/06/1992				

HFL Recorded so far in m : 73.857 dt 26-10-2014
Corresponding Discharge (cumecs) : 184.9 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	461.0	74.464	14/07/1965	0.120	71.742	10/07/1965
1966-1967	18.80	72.372	25/07/1966	0.000	71.627	31/05/1967
1967-1968	129.4	73.202	25/07/1967	0.000	71.777	13/06/1967
1968-1969	427.0	73.937	20/05/1969	0.030	71.757	15/06/1968
1969-1970	284.8	73.777	14/12/1969	0.161	71.597	07/07/1969
1970-1971	825.3	75.507	23/08/1970	0.400	72.282	19/06/1970
1971-1972	51.00	73.147	03/10/1971	0.100	72.207	21/05/1972
1972-1973	28.00	73.207	05/11/1972	0.040	72.437	11/03/1973
1973-1974	45.00	73.462	03/10/1973	0.100	72.362	01/06/1973
1974-1975	442.8	74.947	16/10/1974	0.100	72.382	23/07/1974
1975-1976	492.6	74.965	09/09/1975	0.700	72.110	25/06/1975
1976-1977	460.3	74.872	26/08/1976	0.300	72.207	10/04/1977
1977-1978	139.5	73.757	04/10/1977	0.200	72.187	17/07/1977
1978-1979	1165	76.132	16/08/1978	0.800	72.057	23/05/1979
1979-1980	208.7	74.077	28/09/1979	0.200	71.992	16/07/1979
1980-1981	109.4	73.522	02/08/1980	0.400	72.097	31/05/1981
1981-1982	223.8	74.137	04/08/1981	0.300	72.077	17/04/1982
1982-1983	183.7	73.997	12/08/1982	0.100	72.167	31/05/1983

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**
1983-1984	2250	78.002	06/10/1983	0.200	72.067	13/07/1983
1984-1985	202.9	73.697	12/10/1984	0.200	71.607	08/07/1984
1985-1986	587.6	75.332	14/08/1985	0.600	71.767	09/07/1985
1986-1987	406.4	74.465	13/08/1986	0.500	71.972	08/07/1986
1987-1988	104.0	73.322	13/11/1987	0.649	72.027	30/05/1988
1988-1989	1086	76.282	20/09/1988	1.000	72.052	15/06/1988
1989-1990	1564	78.447	24/07/1989	1.000	72.017	06/08/1989
1990-1991	537.6	74.807	03/10/1990	3.745	72.007	05/07/1990
1991-1992	378.3	74.286	22/09/1991	0.867	71.902	04/05/1992
1992-1993	69.63	73.102	02/09/1992	0.275	71.792	31/07/1992
1993-1994	154.3	73.615	10/10/1993	1.749	71.958	24/06/1993
1994-1995	348.7	74.357	06/10/1994	0.684	71.912	18/07/1994
1995-1996	448.9	74.807	19/10/1995	0.387	71.722	07/08/1995
1996-1997	220.7	74.057	28/08/1996	0.274	71.772	08/08/1996
1997-1998	130.2	73.552	24/09/1997	0.097	71.717	12/08/1997
1998-1999	344.6	74.652	16/10/1998	0.376	71.727	22/07/1998
1999-2000	174.2	74.027	29/09/1999	0.269	71.727	17/01/2000
2000-2001	592.3	75.407	24/08/2000	0.287	71.797	31/03/2001
2001-2002	148.7	73.572	30/09/2001	0.038	71.757	04/09/2001
2002-2003	160.0	73.657	13/10/2002	0.000	71.147	08/03/2003
2003-2004	11.13	72.487	08/08/2003	0.000		20/04/2004
2004-2005	24.03	72.657	22/09/2004	0.004	71.517	03/09/2004
2005-2006	665.7	75.607	22/09/2005	0.010	71.667	22/06/2005
2006-2007	276.0	74.277	20/09/2006	0.008	71.707	21/07/2006
2013-2014	7.192	72.357	10/05/2014	0.493	71.657	28/03/2014
2014-2015	158.2	73.682	27/10/2014	0.000	71.457	26/07/2014
2015-2016	33.60	73.357	19/06/2015	0.000	71.257	16/01/2016
2016-2017	22.99	72.452	24/09/2016	0.000		31/05/2017

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

Annual Runoff of Paleru at Paleru Bridge

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	176	6	182
2	**1966-1967**	20	3	23
3	**1967-1968**	118	3	121
4	**1968-1969**	9	72	81
5	**1969-1970**	212	113	324
6	**1970-1971**	407	25	432
7	**1971-1972**	54	15	69
8	**1972-1973**	47	13	60
9	**1973-1974**	109	21	130
10	**1974-1975**	302	108	410
11	**1975-1976**	786	146	932
12	**1976-1977**	681	24	705
13	**1977-1978**	286	128	414
14	**1978-1979**	808	41	849
15	**1979-1980**	219	274	494
16	**1980-1981**	389	37	426
17	**1981-1982**	373	30	404
18	**1982-1983**	279	72	352
19	**1983-1984**	832	75	907
20	**1984-1985**	250	144	395
21	**1985-1986**	405	58	463
22	**1986-1987**	340	106	446
23	**1987-1988**	213	63	276
24	**1988-1989**	1054	130	1184
25	**1989-1990**	898	191	1089
26	**1990-1991**	486	201	687
27	**1991-1992**	403	89	492
28	**1992-1993**	214	153	367
29	**1993-1994**	281	153	434
30	**1994-1995**	419	176	596
31	**1995-1996**	320	98	418

32	**1996-1997**	348	192	540
33	**1997-1998**	268	94	362
34	**1998-1999**	558	178	735
35	**1999-2000**	304	58	362
36	**2000-2001**	504	46	550
37	**2001-2002**	111	99	210
38	**2002-2003**	39	1	39
39	**2003-2004**	12	2	14
40	**2004-2005**	34	49	83
41	**2005-2006**	486	187	673
42	**2006-2007**	268	146	414
43	**2007-2008**	**Discharge observation suspended on 31-5-2007**		
44	**2008-2009**	**and restarted GQ to GDSQ wef 01-03-2014.**		
45	**2009-2010**	0	0	0
46	**2010-2011**	0	0	0
47	**2011-2012**	0	0	0
48	**2012-2013**	0	0	0
49	**2013-2014**	0	22	22
50	**2014-2015**	143	56	199
51	**2015-2016**	34	1	35
52	**2016-2017**	19	2	21
53	**2017-2018**	43	34	78
Average		286	77	363

Stage-Discharge Data for the period 2017 - 2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**

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	71.807	2.011	71.747	1.174	72.137	11.37	71.917	4.140 *	71.707	0.913
2		0.000	71.817	2.202 *	71.737	1.150	71.987	6.103 *	71.937	4.650 *	71.637	0.572
3		0.000	71.807	2.015	71.727	1.133	71.957	5.200 *	71.947	3.834	71.517	0.000
4		0.000	71.797	1.822	71.717	0.921	71.937	3.887	71.967	4.160	71.507	0.000
5		0.000	71.787	1.689	71.707	0.912	71.917	3.603	71.982	5.320	71.497	0.000
6		0.000	71.787	1.676	71.637	1.283 *	71.897	3.522	71.937	3.719	71.477	0.000
7		0.000	71.777	1.459	71.687	0.891	71.972	5.640 #	71.887	3.284	71.457	0.000
8	71.817	2.636	71.757	1.413	71.687	0.873	72.137	11.33	71.877	3.242 *		0.000
9	71.897	3.589	71.757	1.529 *	71.677	0.841	72.097	10.76	71.917	3.399		0.000
10	71.897	3.570	71.757	1.349	71.677	0.816	72.007	6.755 *	71.897	3.200		0.000
11	71.897	3.671 *	71.777	1.464	71.727	1.143	71.947	3.957	71.897	3.119		0.000
12	71.937	4.026	71.797	1.868	71.827	2.128	71.937	3.847	71.867	3.077		0.000
13	71.957	5.200 #	71.817	2.089	71.837	2.508 *	71.917	3.587	71.897	3.196		0.000
14	71.957	5.200 #	71.837	2.115	71.832	2.163	71.897	3.325	72.037	7.641	71.637	0.580
15	71.947	4.920 #	71.837	2.122	71.897	3.671 *	71.877	3.209	72.097	10.20 *	71.737	1.175
16	71.937	4.012	71.837	2.508 *	71.917	3.633	71.867	3.032	71.937	3.699	71.767	1.459
17	71.897	3.615	71.907	3.724	71.877	3.217	71.867	3.044 *	71.917	3.402	71.817	1.900
18	71.887	3.451 *	71.967	5.491 #	71.867	3.046	71.767	1.504	71.897	3.236	71.807	1.819
19	71.887	3.579	72.137	11.38	71.887	3.310	71.767	1.455	71.887	3.451 *	71.837	2.508 *
20	71.937	4.650 #	72.107	11.06	71.927	4.389 *	71.707	0.930	71.857	3.104	71.867	3.162
21	71.927	3.832	72.097	10.58	71.977	5.792	71.637	0.551	71.857	3.001	71.927	3.410
22	71.817	2.005	72.057	7.978	71.917	3.525	71.527	0.000	71.857	2.855 *	71.897	3.216
23	71.827	2.132	71.957	5.200 *	71.907	3.317	71.467	0.000	71.847	2.073	71.917	3.344
24	71.807	1.951	71.937	3.924	71.827	2.005	71.447	0.000	71.517	0.000	71.897	3.243
25	71.817	2.202 *	71.927	3.889	71.807	2.064 *	71.447	0.000	71.497	0.000	71.917	3.311
26	71.807	2.064 *	71.887	3.374	71.827	2.035	71.487	0.000	71.517	0.000	71.927	4.390 *
27	71.797	1.870	71.857	2.835	71.817	2.202 *	71.477	0.000	71.517	0.000	71.927	3.402
28	71.837	2.167	71.797	1.822	71.797	1.863	71.497	0.000	71.787	1.691	71.907	3.077
29	71.817	2.039	71.787	1.673	71.787	1.739	71.792	1.647	71.737	1.386 *	71.897	3.050
30	71.807	2.009	71.757	1.529 *	71.877	3.213	71.897	3.671 *	71.727	1.063	71.927	3.413
31			71.757	1.311	72.097	10.64			71.717	1.060		
Ten-Daily Mean												
I Ten-Daily	71.870	0.980	71.785	1.716	71.700	0.999	72.005	6.817	71.926	3.895	71.543	0.149
II Ten-Daily	71.924	4.232	71.902	4.382	71.860	2.921	71.855	2.789	71.929	4.413	71.781	1.260
III Ten-Daily	71.826	2.227	71.892	4.010	71.876	3.490	71.568	0.587	71.689	1.193	71.914	3.386
Monthly												
Min.	71.797	0.000	71.757	1.311	71.637	0.816	71.447	0.000	71.497	0.000	71.457	0.000
Max.	71.957	5.200	72.137	11.38	72.097	10.64	72.137	11.37	72.097	10.20	71.927	4.390
Mean	71.874	2.48	71.861	3.39	71.814	2.503	71.809	3.398	71.843	3.103	71.767	1.598

Annual Runoff in MCM = 77 Annual Runoff in mm = 26

Peak Observed Discharge = 12.65 cumecs on 28/04/2018 Corres. Water Level :72.117 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	71.897	3.159	71.477	0.000	71.647	0.599	71.707	0.919	71.917	3.485 *	71.877	2.862
2	71.887	3.451 *	71.457	0.000	71.677	0.812	71.697	0.879 *	71.927	3.544	71.857	2.132
3	71.867	3.040 *	71.407	0.000	71.707	0.929	71.717	1.023	71.917	3.415	71.847	1.978
4	71.817	1.887	71.407	0.000	71.697	0.879 *	71.697	0.879 *	71.927	3.544	71.817	1.618
5	71.847	2.044	71.397	0.000	71.697	0.922	71.697	0.847	71.927	3.520	71.807	1.574
6	71.867	3.092	71.387	0.000	71.677	0.808	71.677	0.809	72.097	10.69	71.797	1.259 *
7	71.807	1.798		0.000	71.677	0.816	71.657	0.713	72.057	7.884	71.967	4.983 #
8	71.817	1.846		0.000	71.707	0.951	71.677	0.810	72.037	7.642 *	71.957	4.091
9	71.797	1.557		0.000	71.717	1.080	71.697	0.863	71.947	3.595	71.947	3.604
10	71.757	1.529 *		0.000	71.707	0.875	71.707	0.918	71.987	5.675 #	71.947	3.649
11	71.737	1.190	71.637	0.592	71.707	1.248 *	71.697	0.879 *	71.977	5.322 #	71.917	3.354
12	71.677	0.846	71.717	1.089	71.727	1.109	71.697	0.854	71.957	4.125	71.917	3.335
13	71.637	0.594	71.737	1.177	71.727	1.085	71.707	0.959	71.947	3.690	71.907	3.226 *
14	71.637	0.571	71.717	1.284 *	71.717	1.033	71.717	1.031	71.937	4.043 *	71.897	3.129
15	71.657	0.718	71.707	1.248 *	71.707	0.919	71.737	1.108	71.927	3.550	71.897	3.159
16	71.677	0.866	71.557	0.000	71.697	0.869	71.737	1.161	71.917	3.493	71.917	3.343
17	71.677	1.202 *	71.507	0.000	71.697	0.883	71.757	1.440	71.907	3.464	71.897	3.146
18	71.667	0.777	71.457	0.000	71.687	0.915 *	71.907	3.226 *	71.897	3.219	71.917	3.333
19	71.637	0.600	71.457	0.000	71.677	0.810	72.057	7.902	71.877	2.889	71.937	3.608
20	71.647	0.630	71.407	0.000	71.667	0.762	72.097	10.65	71.847	2.022	71.957	4.656 *
21	71.657	0.696	71.377	0.000	71.657	0.717	72.057	7.862	71.807	1.703	71.947	3.583
22	71.677	0.893		0.000	71.647	0.512	72.047	7.771	71.807	1.371 *	71.917	3.317
23	71.667	0.815		0.000	71.677	0.806	72.037	7.515	71.857	2.234	71.897	3.142
24	71.677	1.202 *		0.000	71.697	0.896	72.037	7.394	71.877	2.547	71.877	2.877
25	71.667	1.207 *		0.000	71.717	0.848 *	71.947	4.343 *	71.917	3.413	71.857	2.066
26	71.657	0.666	71.407	0.000	71.727	1.103	71.917	3.449	71.947	3.624	71.847	1.940
27	71.637	0.579	71.727	1.132	71.707	0.914	71.897	3.197	72.097	12.26	71.837	1.787 *
28	71.507	0.000	71.667	1.027 *	71.717	1.026	71.897	3.192	72.117	12.65	71.817	1.748
29	71.507	0.000	71.647	0.617			71.897	2.980 *	72.057	8.522 *	71.807	1.585
30	71.477	0.000	71.657	0.625			71.907	3.226 *	71.997	6.042 *	71.797	1.543
31	71.477	0.000	71.667	0.895			71.917	3.485			71.777	1.380
Ten-Daily Mean												
I Ten-Daily	71.836	2.340	71.422	0.000	71.691	0.867	71.693	0.866	71.974	5.299	71.882	2.775
II Ten-Daily	71.665	0.799	71.590	0.539	71.701	0.963	71.811	2.921	71.919	3.585	71.916	3.429
III Ten-Daily	71.601	0.551	71.593	0.391	71.693	0.853	71.960	4.947	71.948	5.436	71.852	2.270
Monthly												
Min.	71.477	0.000	71.377	0.000	71.647	0.512	71.657	0.713	71.807	1.371	71.777	1.259
Max.	71.897	3.451	71.737	1.284	71.727	1.248	72.097	10.65	72.117	12.65	71.967	4.983
Mean	71.697	1.208	71.547	0.312	71.695	0.897	71.826	2.977	71.947	4.814	71.882	2.807

Peak Computed Discharge = 10.20 cumecs on 15/10/2017 Corres. Water Level :72.097 m

Lowest Computed Discharge = 0.848 cumecs on 25/02/2018 Corres. Water Level :71.717 m

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

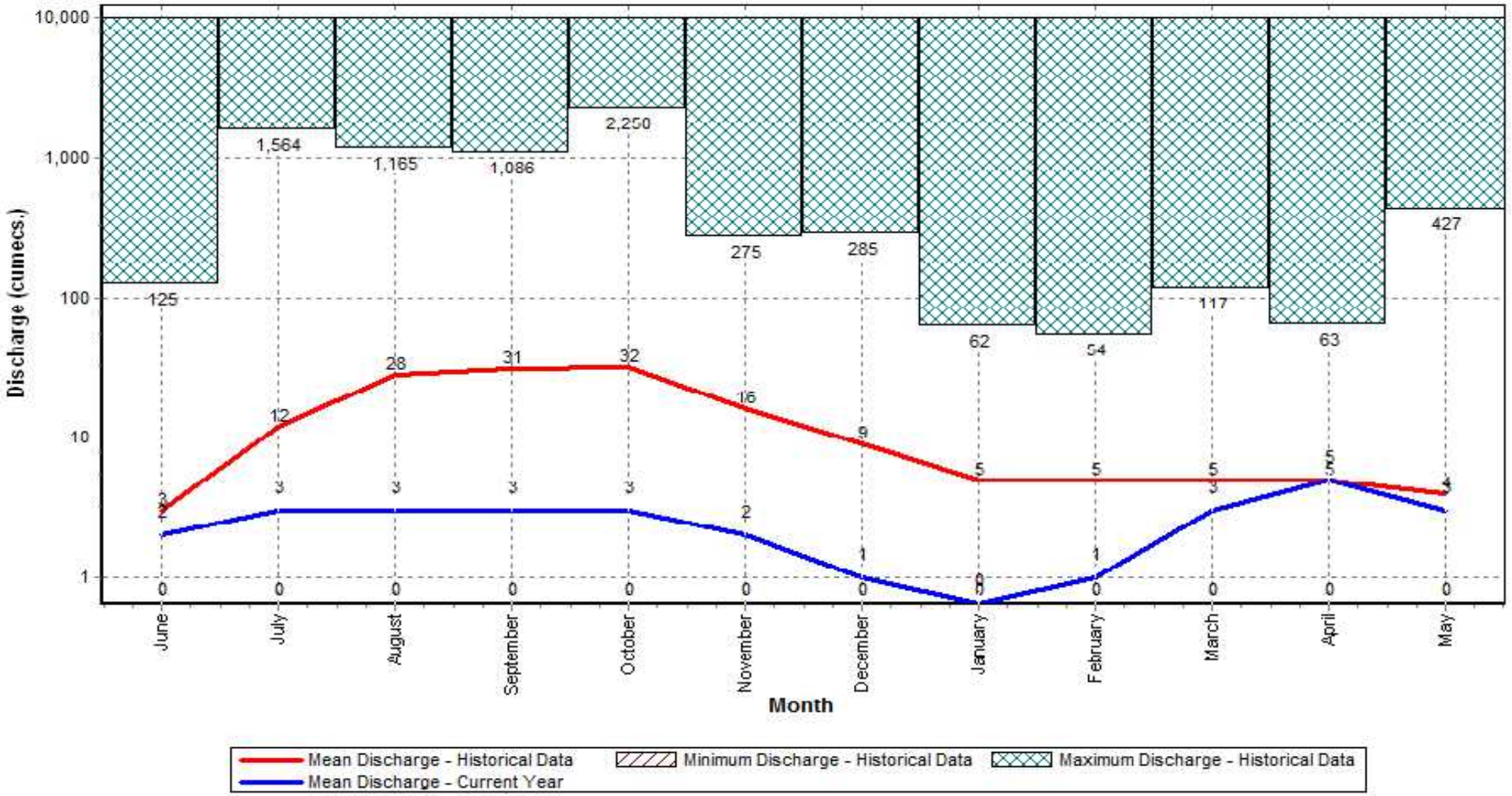
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Paleru Bridge (AKC00D3) **Data considered : 1965-2018** **Division : Lower Krishna Divn., Hyderabad**

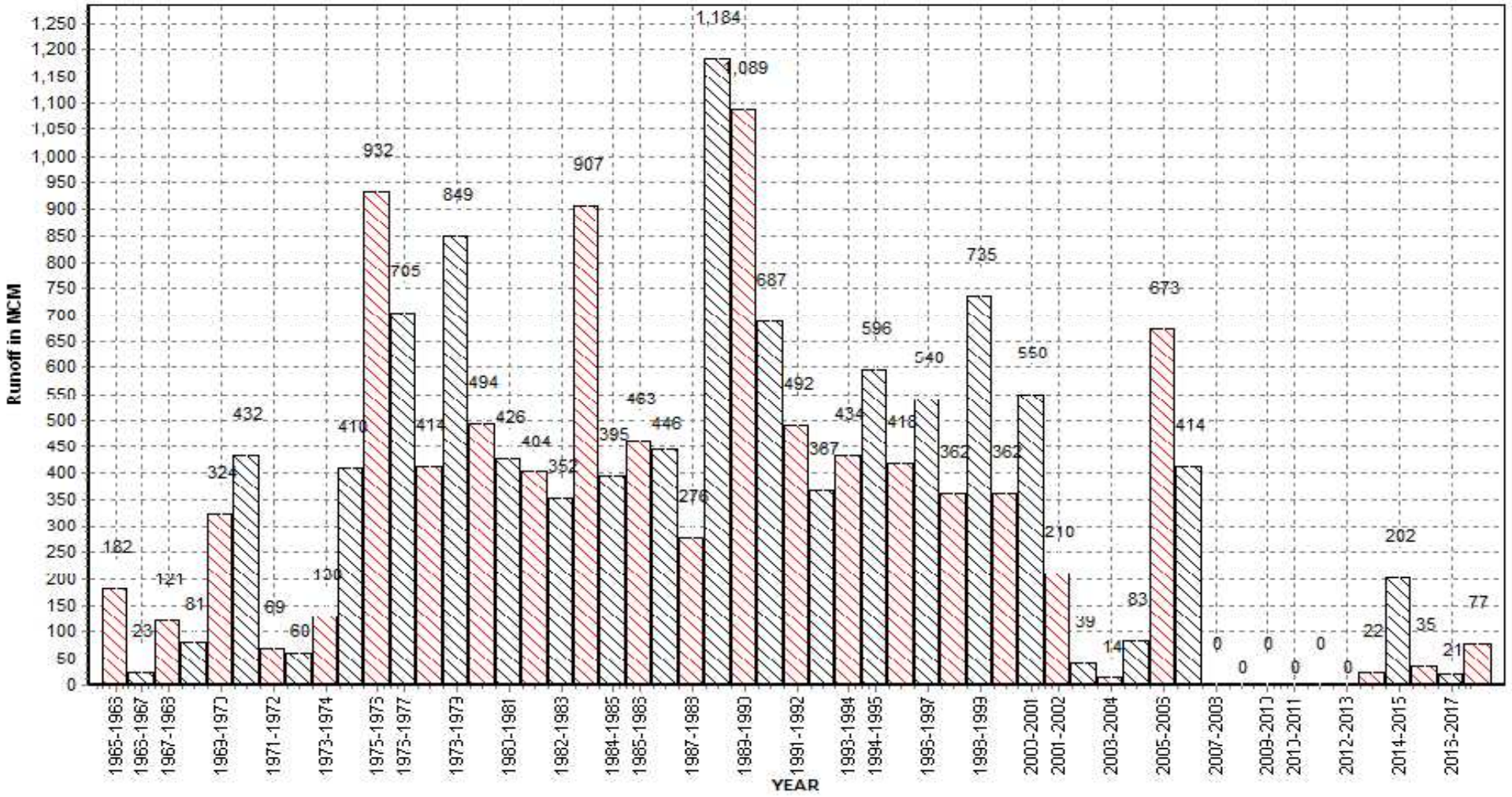
Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**



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

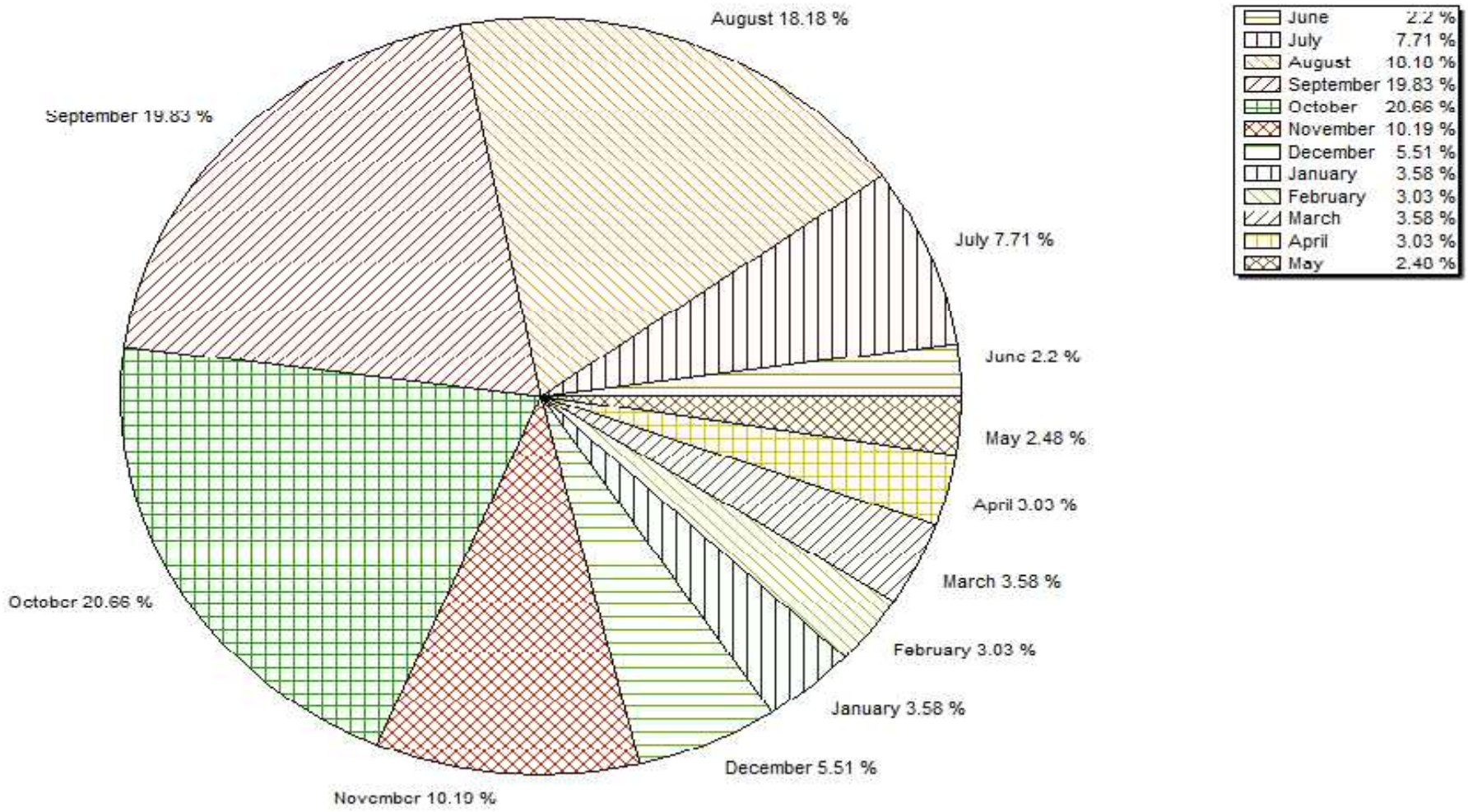
Monthly Average Runoff based on period : 1965-2017

Station Name : Paleru Bridge (AKC00D3)

Local River : Paleru

Division : Lower Krishna Divn., Hyderabad

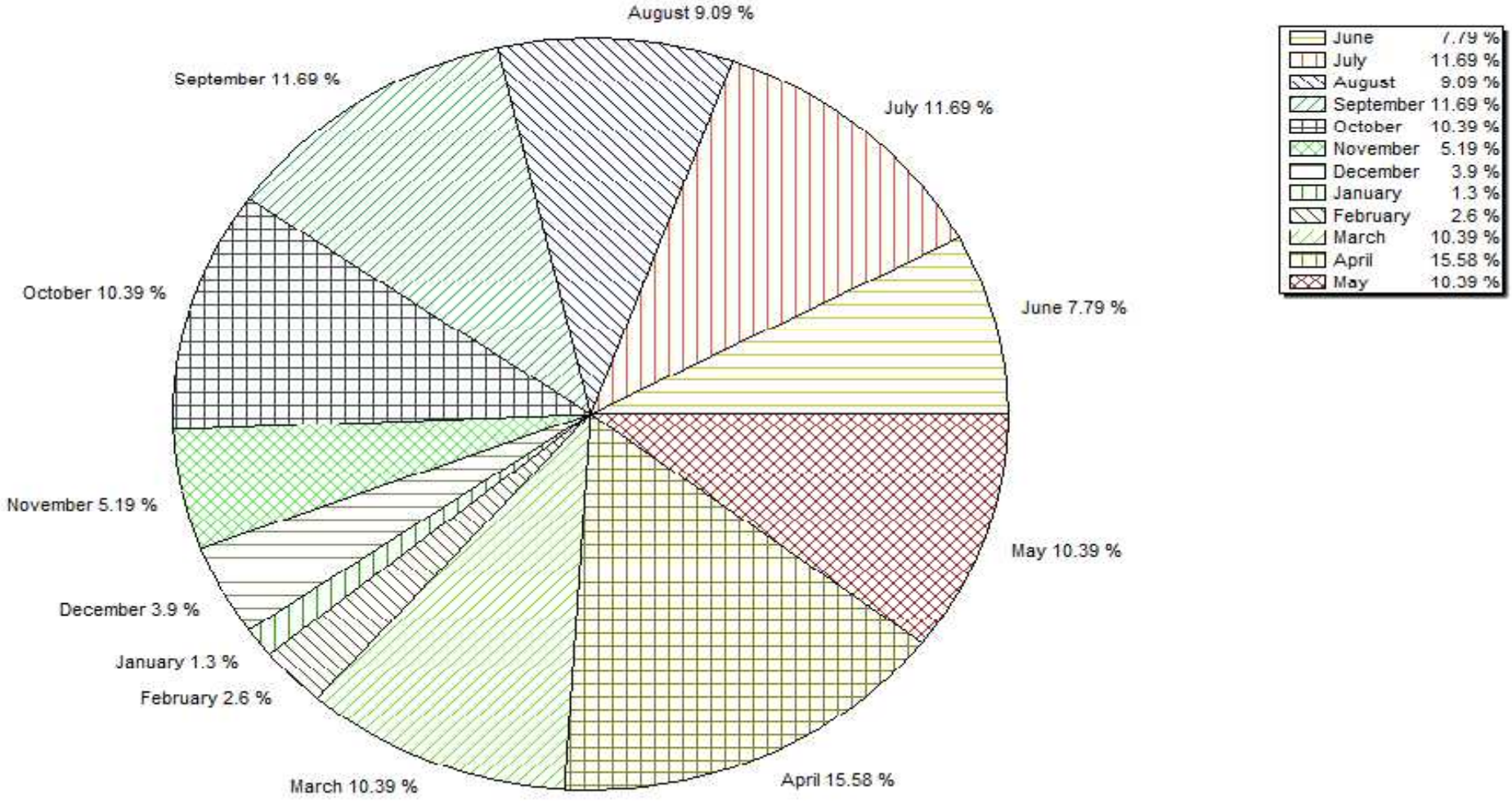
Sub-Division : Lower Krishna SD2, Vijayawada



Monthly Runoff for the Year : 2017-2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

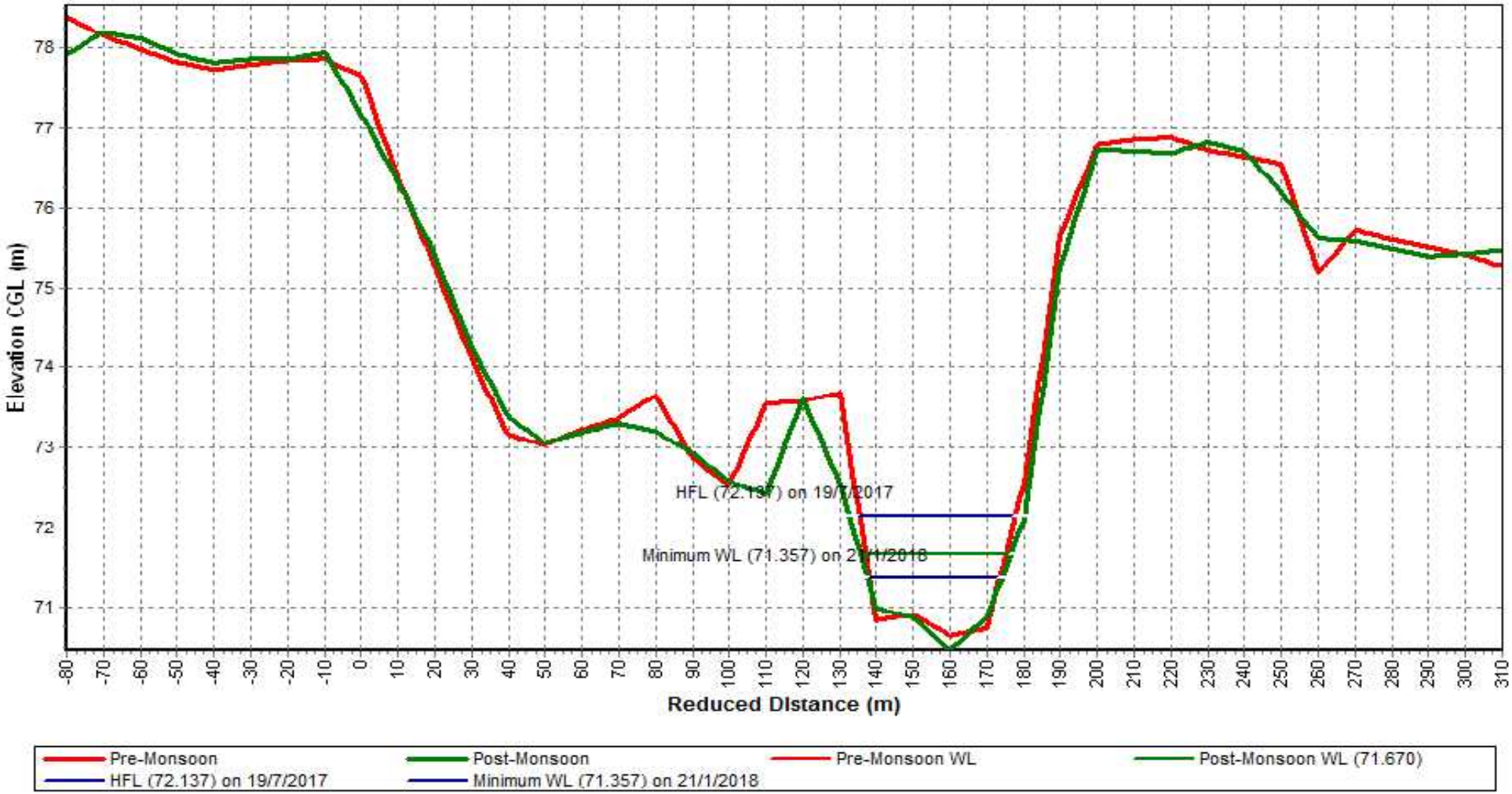
Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

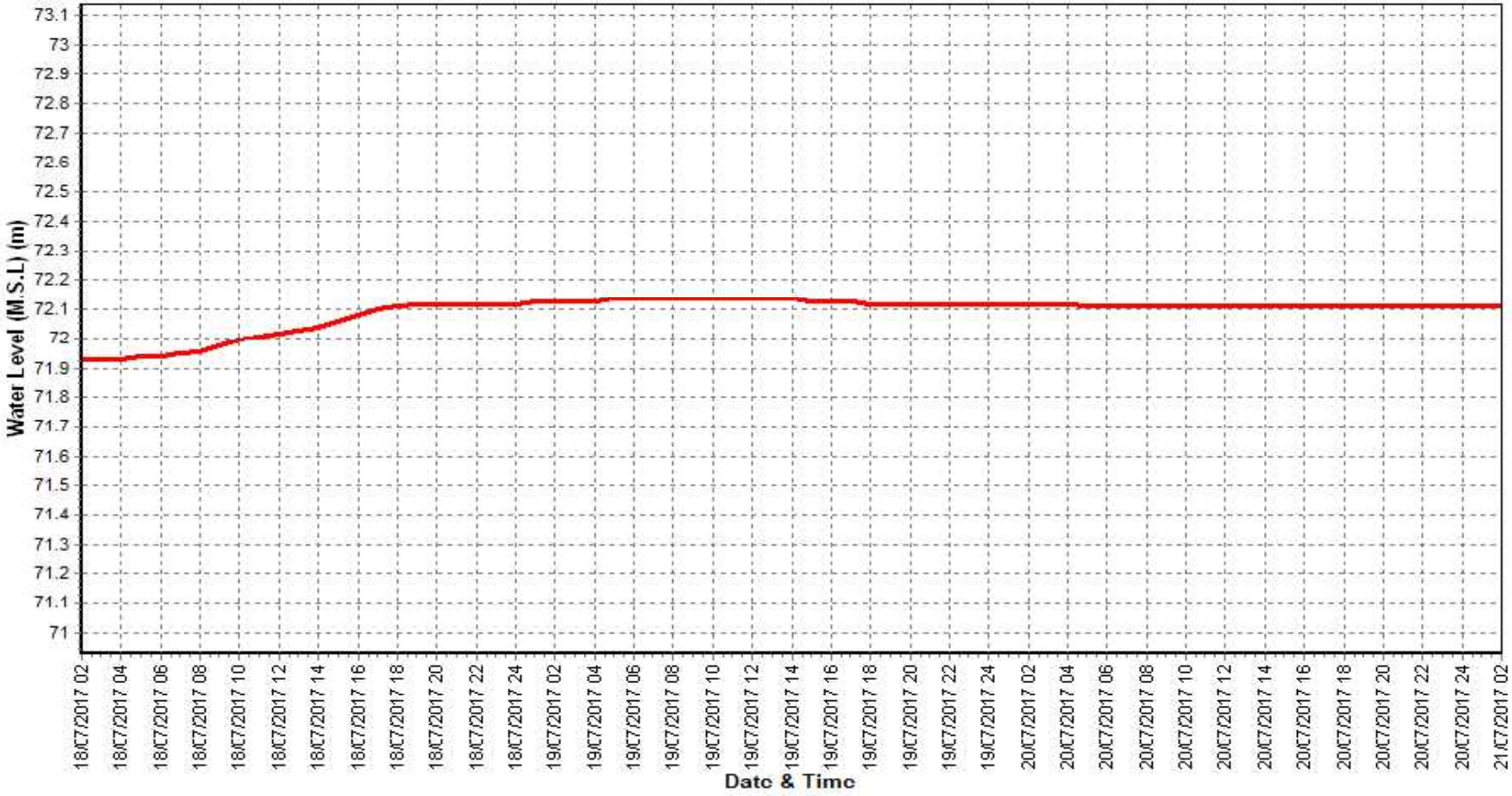
Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Paleru Bridge (AKC00D3) **Division : Lower Krishna Divn., Hyderabad**

Local River : Paleru **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Wadenapally**	**Code**	:	**AK000D5**
State	:	Telangana	District		Suryapet
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Krishna
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD2, Vijayawada
Drainage Area	:	235544 Sq. Km.	Bank	:	Left
Latitude	:	16°47'39"	Longitude	:	80°04'23"
Zero of Gauge (m)	:	22.054 (m.s.l)	01/01/1964		
		Opening Date	Closing Date		
Gauge	:	27/05/1964	HFL During 2017-18	:	25.554m
			Corres. Discharge	:	318.1(Estimated)
Discharge	:	10/12/1965	Date & Time of	:	24/10/2017
			occurance	:	19.00 hrs.
Sediment	:	01/12/1966			
Water Quality	:	01/01/1972			

HFL Recorded so far in m : 42.494 dt 05-10-2009
Corresponding Discharge (cumecs) : 31836 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1966-1967	11140	35.334	05/08/1966	1.094	24.529	16/05/1967
1967-1968	20016	38.554	06/08/1967	2.120	24.669	14/07/1967
1968-1969	7152	33.149	14/08/1968	20.44	24.789	17/05/1969
1969-1970	16486	37.139	08/08/1969	7.920	24.824	21/05/1970
1970-1971	14596	36.634	23/09/1970	0.000	24.799	29/05/1971
1971-1972	7122	32.969	07/09/1971	0.000	24.854	15/05/1972
1972-1973	4313	30.794	18/07/1972	0.000	24.704	02/06/1972
1973-1974	8333	33.139	18/07/1973	2.500	24.609	06/06/1973
1974-1975	16473	36.909	29/09/1974	6.797	24.594	02/06/1974
1975-1976	18962	38.129	13/10/1975	8.184	24.694	30/05/1976
1976-1977	14408	36.459	11/08/1976	2.717	24.529	06/06/1976
1977-1978	6737	33.064	02/08/1977	79.00	25.184	06/06/1977
1978-1979	18256	37.454	02/10/1978	14.20	24.749	22/05/1979
1979-1980	21560	37.514	30/09/1979	128.1	25.324	12/06/1979
1980-1981	15450	36.584	14/07/1980	20.00	24.724	11/05/1981
1981-1982	12919	35.334	24/09/1981	125.7	25.244	13/06/1981
1982-1983	6540	32.474	31/08/1982	148.2	25.312	17/05/1983
1983-1984	14393	36.294	22/08/1983	82.40	24.954	14/06/1983
1984-1985	3832	30.924	21/08/1984	59.46	24.954	26/05/1985

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

Corresponding Discharge (cumecs) : 31836 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1985-1986	2101	28.989	14/08/1985	50.81	24.854	01/04/1986
1986-1987	2675	29.574	13/08/1986	5.942	24.054	13/05/1987
1987-1988	2196	29.054	05/11/1987	4.835	24.004	07/06/1987
1988-1989	12959	36.374	29/09/1988	36.16	24.894	22/05/1989
1989-1990	11930	36.074	02/10/1989	61.22	24.994	20/06/1989
1990-1991	15540	36.034	24/08/1990	46.14	24.894	04/06/1990
1991-1992	12693	36.344	03/08/1991	31.32	24.804	08/06/1991
1992-1993	4913	31.363	12/09/1992	35.70	24.824	28/06/1992
1993-1994	10144	34.276	12/10/1993	53.30	24.774	06/06/1993
1994-1995	15575	36.974	23/07/1994	63.31	24.914	31/05/1995
1995-1996	1581	28.214	19/10/1995	49.16	24.774	31/05/1996
1996-1997	13740	36.809	04/10/1996	58.38	24.989	10/06/1996
1997-1998	15214	36.714	01/09/1997	41.58	24.754	08/06/1997
1998-1999	23689	41.144	16/10/1998	47.17	24.854	04/05/1999
1999-2000	6212	32.904	14/08/1999	15.00	24.854	03/06/1999
2000-2001	2957	30.224	24/08/2000	50.72	25.174	16/04/2001
2001-2002	2414	30.194	01/10/2001	34.17	24.734	29/05/2002
2002-2003	726.6	27.214	17/08/2002	5.563	24.199	15/03/2003
2003-2004	388.2	26.614	25/11/2003	5.948	24.264	24/06/2003
2004-2005	1178	28.204	05/10/2004	2.174	24.384	20/08/2004
2005-2006	16793	37.639	11/08/2005	4.244	24.504	26/06/2005
2006-2007	18000	37.484	16/08/2006	16.45	24.504	22/05/2007
2007-2008	15956	36.834	20/09/2007	16.27	24.474	31/05/2008
2008-2009	8408	32.514	17/09/2008	9.436	24.294	31/05/2009
2009-2010	31803	42.484	05/10/2009	7.808	24.234	10/06/2009
2010-2011	6021	31.324	08/10/2010	13.80	24.734	08/06/2010
2011-2012	12951	35.494	09/09/2011	7.703	24.204	15/05/2012
2012-2013	366.0	26.174	29/11/2012	11.72	24.284	06/04/2013
2013-2014	13434	35.704	26/10/2013	10.74	24.354	02/06/2013
2014-2015	4272	30.304	16/09/2014	0.000	23.794	24/06/2014
2015-2016	229.4	25.364	22/10/2015	0.000	23.164	27/01/2016
2016-2017	4919	30.454	23/09/2016	0.000	23.674	11/07/2016

Annual Runoff of Krishna at Wadenapally

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**		2571	2571
2	**1966-1967**	28344	6661	35005
3	**1967-1968**	37915	4917	42832
4	**1968-1969**	24509	3030	27539
5	**1969-1970**	41191	2481	43672
6	**1970-1971**	44714	1905	46619
7	**1971-1972**	29421	1901	31322
8	**1972-1973**	10139	1307	11446
9	**1973-1974**	38291	1516	39807
10	**1974-1975**	32155	3845	36001
11	**1975-1976**	69282	4332	73614
12	**1976-1977**	30160	2032	32192
13	**1977-1978**	22236	3139	25375
14	**1978-1979**	45708	5188	50896
15	**1979-1980**	30298	4100	34398
16	**1980-1981**	35526	2564	38091
17	**1981-1982**	36102	4815	40917
18	**1982-1983**	14542	5129	19671
19	**1983-1984**	37428	3770	41198
20	**1984-1985**	11908	5166	17074
21	**1985-1986**	8228	2555	10783
22	**1986-1987**	8159	2633	10791
23	**1987-1988**	5738	3592	9330
24	**1988-1989**	30909	4456	35365
25	**1989-1990**	16511	5771	22282
26	**1990-1991**	30198	7860	38058
27	**1991-1992**	29502	6087	35589
28	**1992-1993**	9945	6591	16537
29	**1993-1994**	17913	8818	26731
30	**1994-1995**	38060	7464	45524
31	**1995-1996**	5533	3244	8776
32	**1996-1997**	14728	6058	20786
33	**1997-1998**	17848	3771	21619
34	**1998-1999**	30461	4974	35435

35	**1999-2000**	10453	4199	14652
36	**2000-2001**	6327	3186	9513
37	**2001-2002**	4393	2745	7137
38	**2002-2003**	3514	663	4177
39	**2003-2004**	1484	945	2429
40	**2004-2005**	3058	1206	4265
41	**2005-2006**	35327	2529	37856
42	**2006-2007**	32828	3052	35880
43	**2007-2008**	35114	3115	38229
44	**2008-2009**	12526	3232	15758
45	**2009-2010**	21622	3224	24846
46	**2010-2011**	14395	2723	17118
47	**2011-2012**	12454	1132	13586
48	**2012-2013**	1574	1216	2790
49	**2013-2014**	13279	2558	15837
50	**2014-2015**	6359	1359	7718
51	**2015-2016**	654	366	1019
52	**2016-2017**	2759	875	3634
53	**2017-2018**	641	969	1610
	Average	21199	3463	24262

Stage-Discharge Data for the period 2017 - 2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

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	24.714	112.8 #	23.404	0.898	23.434	1.340	23.484	2.173	23.554	3.294 *	24.944	152.3
2	25.234	237.2	23.404	0.766 *	23.434	1.584	23.554	3.294 *	23.554	3.294 *	24.734	134.6
3	25.174	210.5 #	23.404	0.993	23.434	1.741	23.554	3.294 *	23.554	1.903	24.684	121.0
4	24.574	89.66 *	23.404	0.917	24.674	105.9 #	23.554	2.004	23.554	2.000	24.944	157.4 *
5	24.474	78.60	23.404	0.973	24.754	142.5	23.534	1.818	23.574	2.553	24.734	116.3 *
6	23.764	10.55 #	23.404	0.843	24.754	119.9 *	23.574	3.040	23.604	2.296	24.734	123.5
7	23.534	2.396	23.404	0.923	23.704	7.996 #	23.574	2.041	23.654	6.169 #	24.954	178.6
8	23.514	1.963	23.404	0.911	23.654	8.100	23.554	1.991	23.654	6.169 *	24.954	159.5 #
9	23.604	4.605 #	23.404	0.766 *	23.654	6.169 #	23.554	1.944	23.604	2.280	24.954	184.9
10	23.514	2.477	23.404	0.658	23.594	2.931	23.554	3.294 *	23.604	2.324	24.954	166.9
11	23.514	2.421 *	23.404	0.696	23.534	1.292	23.554	2.000	23.604	4.605 #	25.214	205.0
12	23.514	2.499	23.404	0.807	23.454	1.028	23.554	1.868	23.604	4.605 #	25.154	205.6 *
13	23.514	2.404	23.404	0.885	23.454	1.388 *	23.534	1.724	23.604	4.605 #	25.004	177.7
14	23.514	2.214	23.404	0.852	23.454	1.232	23.454	1.502	23.604	4.605 #	25.004	188.6
15	23.514	2.194	23.404	0.938	23.454	1.388 *	23.504	2.018	23.604	4.605 *	24.774	137.8
16	23.514	2.542	23.404	0.766 *	23.454	0.922	23.504	2.057	23.654	6.169 #	24.694	127.2
17	23.514	2.452	23.404	0.906	23.454	0.828	23.504	2.226 *	23.654	6.169 #	24.734	143.1
18	23.514	2.421 *	23.404	0.900	23.404	0.942	23.519	2.194	23.604	4.605 #	24.734	116.3 #
19	23.514	2.466	23.554	2.203	23.404	1.027	23.554	1.963	23.604	4.605 *	24.594	92.77 *
20	23.514	2.330	23.454	1.873	23.404	0.766 *	23.554	1.873	23.604	4.605 #	24.514	85.35
21	23.514	2.613	23.404	0.998	23.454	1.645	23.534	1.789	23.624	5.199 #	24.454	62.97
22	23.514	2.550	23.404	0.964	23.454	1.650	23.504	1.828	24.654	102.5 *	24.634	99.19 #
23	23.514	2.423	23.404	0.766 *	23.454	1.737	23.504	1.762	24.434	69.51 #	24.504	74.61
24	23.404	0.985	23.404	1.089	23.454	1.582	23.504	2.226 *	25.464	259.3	24.454	72.21 #
25	23.404	0.766 *	23.404	1.049	23.454	1.388 *	24.654	102.5 #	25.254	231.1 #	24.454	72.21 #
26	23.404	0.766 *	23.404	1.082	23.454	1.882	24.654	102.5 #	25.259	232.4 #	24.454	72.21 *
27	23.404	1.052	23.404	1.047	23.454	1.388 *	24.654	102.5 #	25.294	241.8 #	24.454	65.13
28	23.404	1.048	23.434	1.696	23.454	1.732	24.554	94.96	24.914	145.9	24.474	69.39
29	23.404	0.987	23.434	1.544	23.454	1.917	24.314	54.51 #	24.914	151.1 *	24.474	67.09
30	23.404	0.901	23.434	1.114 *	23.454	1.970	23.754	10.10 *	25.224	223.3 #	24.474	74.97 #
31			23.434	1.242	23.454	1.927			25.154	205.6 #		
Ten-Daily Mean												
I Ten-Daily	24.210	75.07	23.404	0.865	23.909	39.82	23.549	2.489	23.591	3.228	24.859	149.5
II Ten-Daily	23.514	2.394	23.424	1.083	23.447	1.081	23.524	1.942	23.614	4.917	24.842	147.9
III Ten-Daily	23.437	1.409	23.415	1.145	23.454	1.711	24.063	47.46	24.926	169.8	24.483	73.00
Monthly												
Min.	23.404	0.766	23.404	0.658	23.404	0.766	23.454	1.502	23.554	1.903	24.454	62.97
Max.	25.234	237.2	23.554	2.203	24.754	142.5	24.654	102.5	25.464	259.3	25.214	205.6
Mean	23.720	26.29	23.414	1.034	23.599	13.8	23.712	17.3	24.072	62.87	24.728	123.5

Annual Runoff in MCM = 1610 Annual Runoff in mm = 7

Peak Observed Discharge = 259.3 cumecs on 24/10/2017 Corres. Water Level :25.464 m

Lowest Observed Discharge = 0.658 cumecs on 10/07/2017 Corres. Water Level :23.404 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 2017 - 2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	24.474	68.22	24.404	64.27	24.284	50.52	24.654	98.03	24.954	159.5 *	23.454	1.347
2	24.474	74.97 *	24.354	57.70	24.284	51.08 #	24.654	102.5 *	25.084	183.1	23.454	1.389
3	24.474	74.97 *	24.314	54.91	24.284	48.21	24.869	162.3	25.214	204.1	23.454	1.413
4	24.534	88.49	24.314	54.85	23.954	21.39 *	25.194	215.6 *	25.054	167.7	23.454	1.354
5	24.674	105.9 #	24.314	54.96	23.954	25.24	24.754	143.0	24.754	133.5	23.454	1.283
6	24.674	105.9 #	24.314	54.43	23.954	25.20	24.654	99.29	24.404	63.08	23.454	1.388 *
7	24.634	99.19 #	24.354	59.28 *	23.954	25.45	24.454	72.21 #	24.354	59.34	23.454	1.343
8	24.654	102.5 #	24.704	111.0 #	23.954	24.73	24.154	40.99	24.354	59.28 *	23.454	1.406
9	24.654	102.5 #	24.904	149.0 #	23.954	25.50	24.154	40.58	24.304	53.99	23.454	1.367
10	24.654	102.5 *	24.904	149.0 #	23.954	24.85	24.154	39.10	24.254	50.82	23.454	1.378
11	24.654	102.5 #	24.704	111.0 #	23.954	21.39 *	24.154	37.65 *	23.504	1.998	23.454	1.373
12	24.674	105.9 #	24.494	74.57	23.954	24.99	24.154	42.02	23.504	1.886	23.454	1.448
13	24.674	105.9 #	24.704	111.0 #	23.954	24.88	24.154	40.92	23.504	1.851	23.454	1.388 *
14	24.674	105.9 #	24.704	111.0 *	23.954	24.86	23.514	2.807	23.504	2.077	23.454	1.470
15	24.594	92.77 #	24.704	111.0 *	23.954	25.43	24.254	47.77 #	23.504	2.226 *	23.454	2.328
16	24.554	97.63	24.754	119.9 #	23.954	26.20	24.154	44.13	23.504	2.052	23.454	1.437
17	24.554	86.60 *	24.754	119.9 #	23.954	24.60	24.154	37.65 #	23.504	1.975	23.454	1.400
18	24.454	63.23	24.704	111.0 #	23.954	21.39 *	24.154	37.65 *	23.504	1.822	23.454	1.386
19	24.374	62.73	24.704	111.0 #	24.054	28.88 #	24.154	43.64	23.504	2.073	23.454	1.307
20	24.374	60.34	24.714	128.2	24.354	59.28 #	24.154	44.71	23.504	1.957	23.454	1.388 *
21	24.354	59.56	24.704	111.0 *	24.654	119.7	24.154	44.14	23.504	2.043	23.454	1.284
22	24.354	57.47	24.454	72.21 #	24.754	139.1	24.454	68.59	23.504	2.226 *	23.454	1.360
23	24.334	56.56	24.404	60.28	24.654	102.5 #	24.604	103.0	23.534	2.240	23.454	1.301
24	24.334	56.87 *	24.384	59.08	24.654	97.96	24.704	111.0 #	23.534	2.400	23.454	1.396
25	24.324	55.68 *	24.384	63.01 #	24.654	102.5 *	24.904	149.0 *	23.534	2.357	24.354	59.12
26	24.314	52.28	24.384	63.01 *	24.654	102.6	24.904	166.0	23.454	1.448	24.354	60.09
27	24.314	51.30	24.654	120.1	24.654	98.49	25.034	177.6	23.454	1.433	24.354	59.28 *
28	24.314	50.23	24.654	102.5 *	24.654	96.30	25.034	178.8	23.454	1.348	24.354	58.08
29	24.474	72.45	24.354	57.25			25.034	177.1 *	23.454	1.388 *	24.354	57.58
30	24.674	105.9 #	24.334	55.63			25.034	177.1 *	23.454	1.388 *	24.154	42.48
31	24.614	95.95 *	24.284	51.00			25.009	170.0			24.054	36.09
Ten-Daily Mean												
I Ten-Daily	24.590	92.50	24.488	80.94	24.053	32.22	24.569	101.4	24.673	113.4	23.454	1.367
II Ten-Daily	24.558	88.34	24.694	110.9	24.004	28.19	24.100	37.90	23.504	1.992	23.454	1.493
III Ten-Daily	24.400	64.93	24.454	74.10	24.666	107.4	24.806	138.4	23.488	1.827	23.981	34.37
Monthly												
Min.	24.314	50.23	24.284	51.00	23.954	21.39	23.514	2.807	23.454	1.348	23.454	1.283
Max.	24.674	105.9	24.904	149.0	24.754	139.1	25.194	215.6	25.214	204.1	24.354	60.09
Mean	24.512	81.37	24.542	88.16	24.211	52.26	24.502	94.03	23.888	39.08	23.641	13.12

Peak Computed Discharge = 215.6 cumecs on 04/03/2018 Corres. Water Level :25.194 m

Lowest Computed Discharge = 0.766 cumecs on 25/06/2017 Corres. Water Level :23.404 m

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

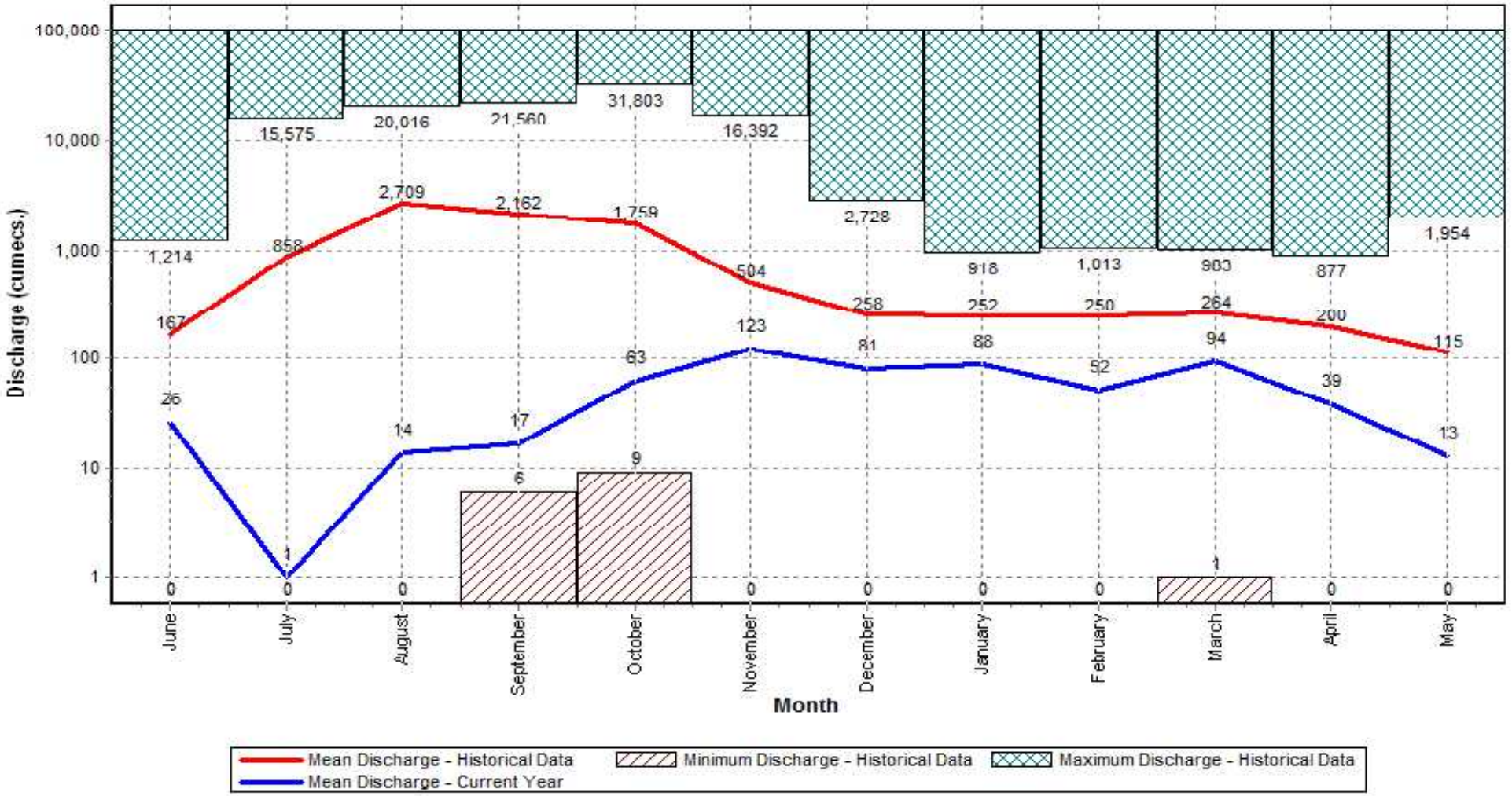
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Wadenapally (AK000D5) **Data considered : 1966-2018** **Division : Lower Krishna Divn., Hyderabad**

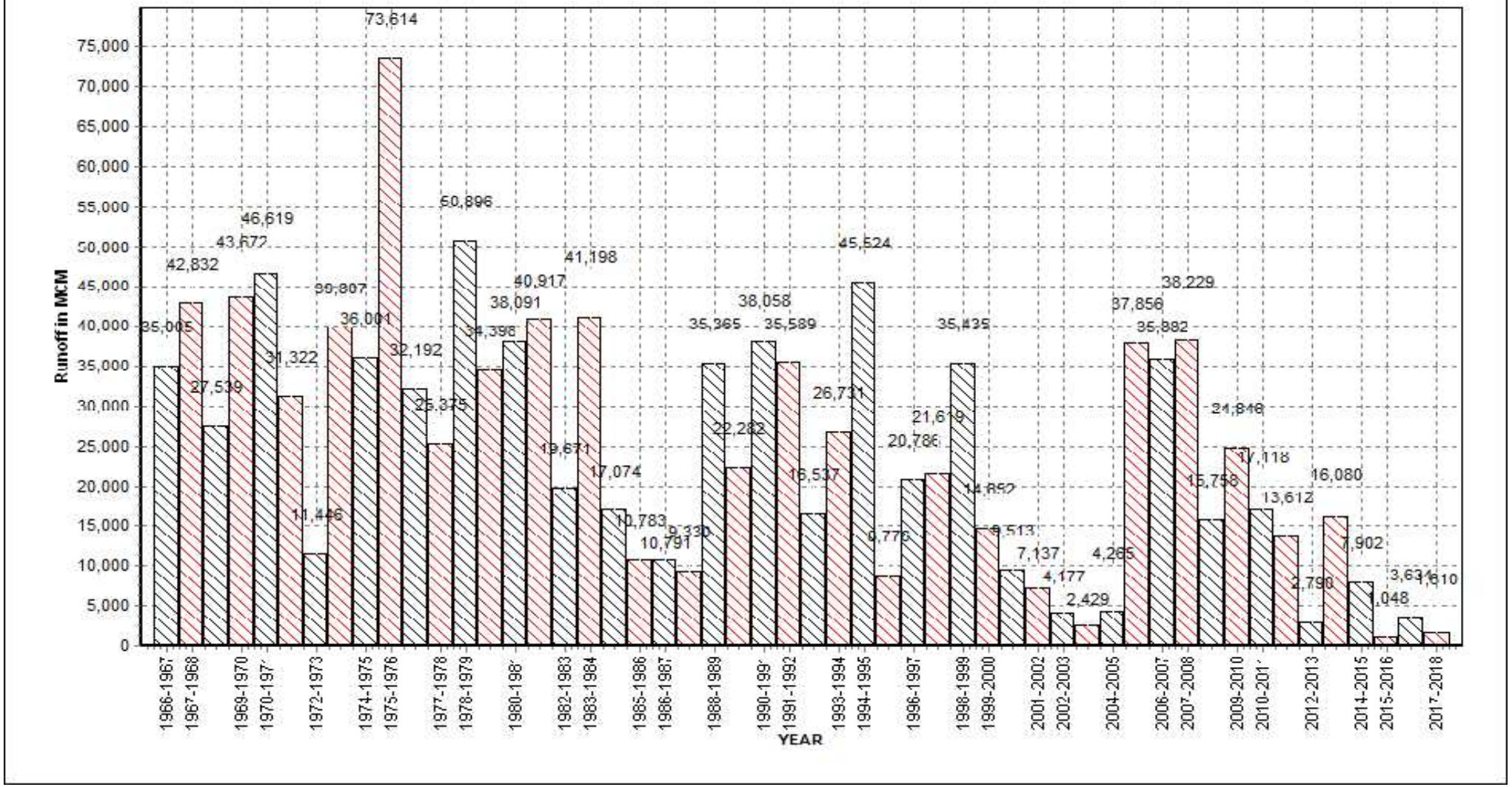
Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Annual Runoff Values for the period: 1966 - 2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

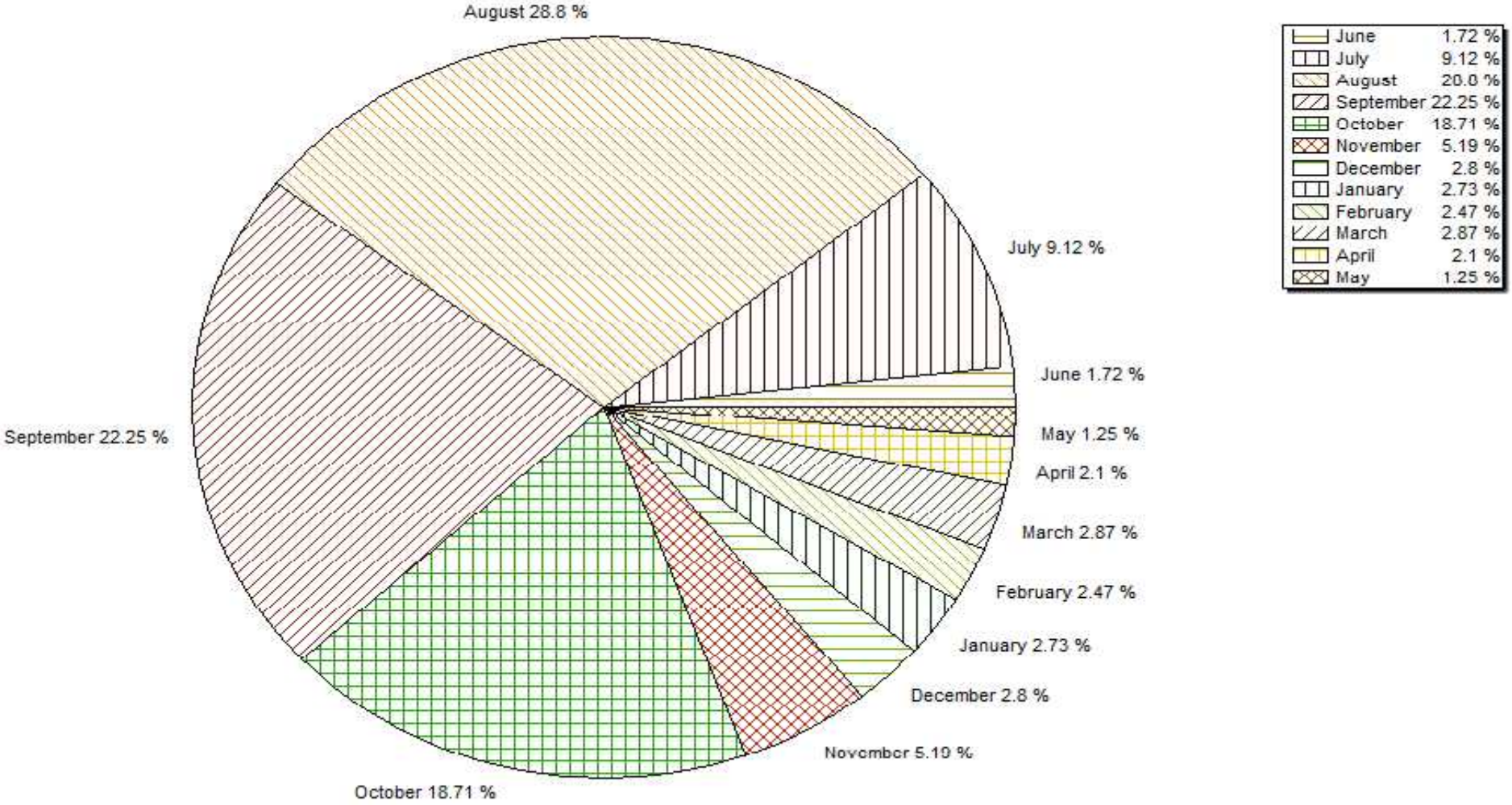


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1966-2017

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

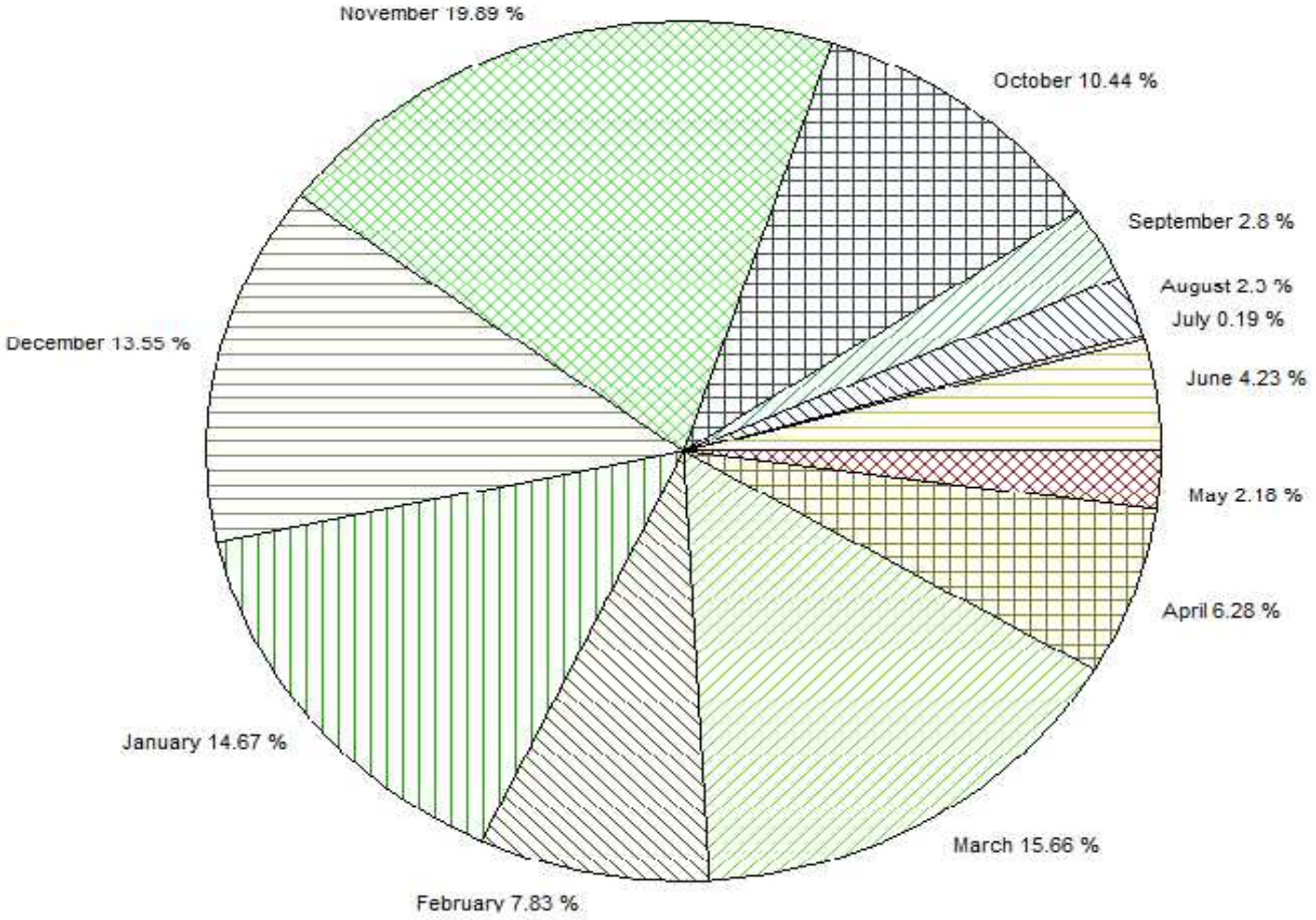
Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Monthly Runoff for the Year : 2017-2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**

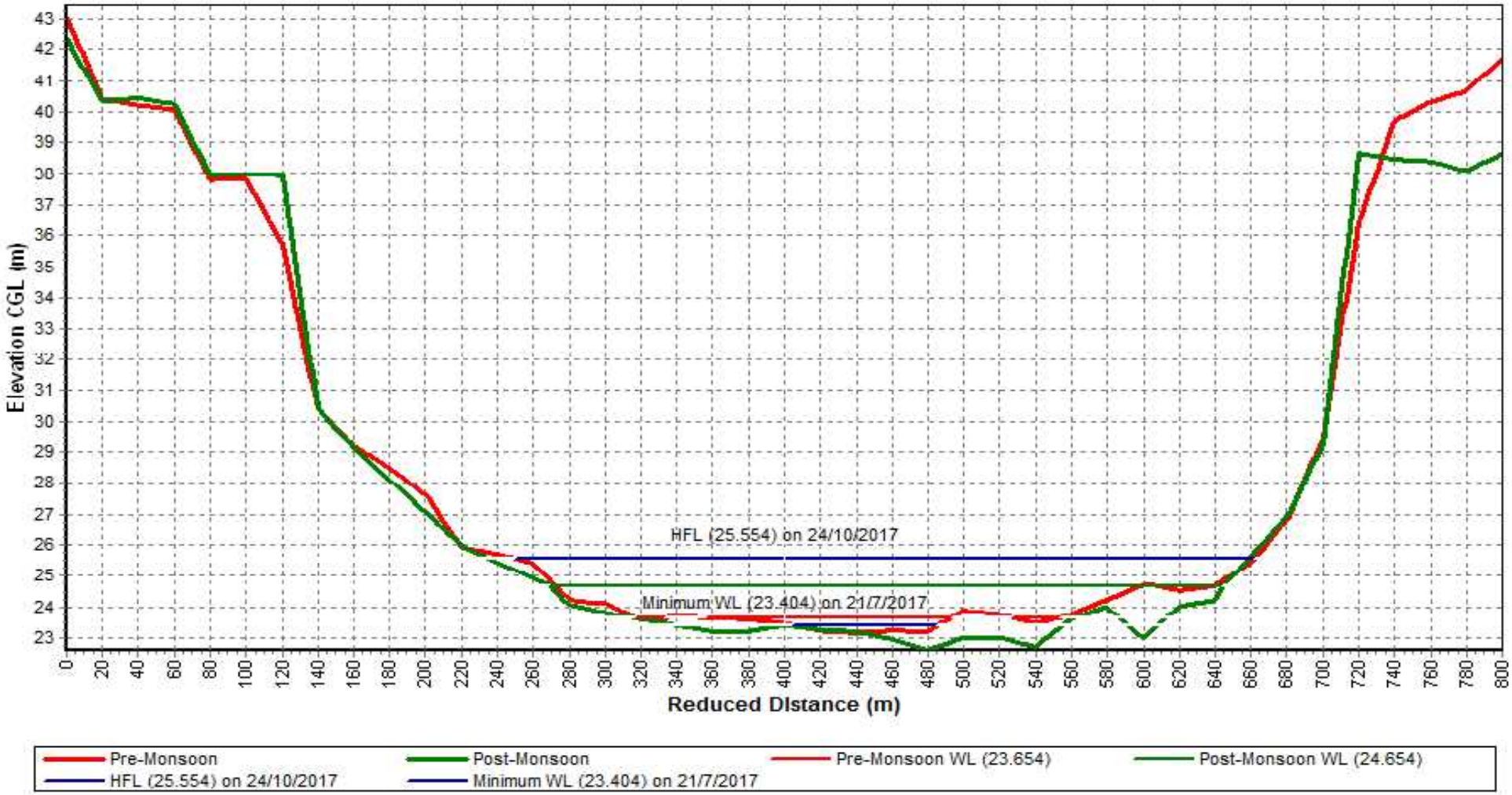


June	4.23 %
July	0.19 %
August	2.3 %
September	2.8 %
October	10.44 %
November	19.89 %
December	13.55 %
January	14.67 %
February	7.83 %
March	15.66 %
April	6.28 %
May	2.18 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

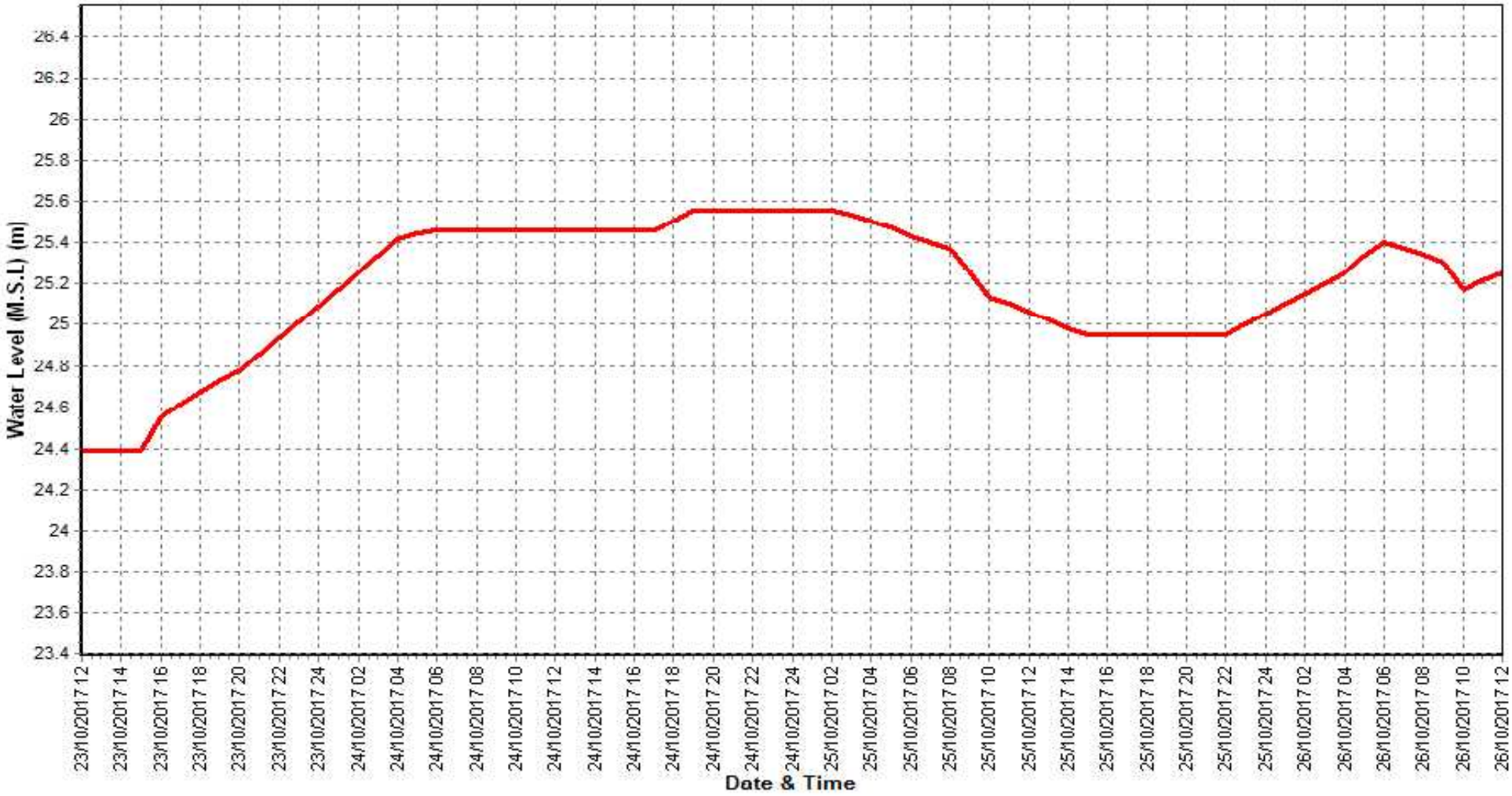
Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Wadenapally (AK000D5) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Lower Krishna SD2, Vijayawada**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Dameracherla**	**Code**	:	**AKF00A7**
State	:	Telangana	District		Nalgonda
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Musi	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Musi
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD 1, N.S.Dam
Drainage Area	:	11501 Sq. Km.	Bank	:	Right
Latitude	:	16°44'21"	Longitude	:	79°40'11"
Zero of Gauge (m)	:	56 (m.s.l)	01/06/1968	-	31/05/1972
		55 (m.s.l)	01/06/1972	-	31/05/2010
		53 (m.s.l)	01/06/2010		
		Opening Date	Closing Date		
Gauge	:	01/12/1967	HFL During 2017-18	:	57.200m
			Corres. Discharge	:	583.5(Observed)
Discharge	:	27/07/1968	Date & Time of	:	04/10/2017
			occurance	:	09.00 hrs.
Sediment	:	02/09/2013			
Water Quality	:	01/01/1980			

HFL Recorded so far in m : 62.500 dt 05-10-2009
Corresponding Discharge (cumecs) : 4300 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1969-1970	215.0	57.575	06/09/1969	1.000	56.080	31/05/1970
1970-1971	644.0	59.180	23/09/1970	0.689	56.050	20/06/1970
1971-1972	473.0	57.590	03/10/1971	0.280	55.910	31/05/1972
1972-1973	275.5	57.195	06/10/1972	0.200	55.900	12/06/1972
1973-1974	367.5	57.300	13/08/1973	0.200	55.740	18/06/1973
1974-1975	164.0	56.715	24/10/1974	0.500	55.690	16/05/1975
1975-1976	1389	58.570	08/10/1975	1.100	55.685	11/06/1975
1976-1977	921.7	57.785	05/09/1976	0.800	55.410	09/06/1976
1977-1978	155.9	56.320	23/08/1977	0.900	55.335	13/06/1977
1978-1979	1420	58.790	16/08/1978	0.700	55.300	05/06/1978
1979-1980	662.5	57.300	28/09/1979	0.500	55.250	22/06/1979
1980-1981	143.0	56.400	18/09/1980	0.200	55.130	20/04/1981
1981-1982	380.8	56.900	10/10/1981	0.100	55.230	13/04/1982
1982-1983	684.2	57.513	20/10/1982	0.100	55.225	11/06/1982
1983-1984	5762	61.065	06/10/1983	0.000	55.100	20/06/1983
1984-1985	132.1	56.250	02/08/1984	0.600	55.245	13/07/1984
1985-1986	283.2	57.100	13/08/1985	0.400	55.130	25/05/1986
1986-1987	194.5	56.730	13/08/1986	0.300	55.130	02/06/1986

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**
1987-1988	247.3	56.750	04/11/1987	0.097	55.090	09/06/1987
1988-1989	1356	58.450	20/09/1988	0.153	55.030	06/06/1988
1989-1990	2656	61.335	24/07/1989	0.545	55.110	04/07/1989
1990-1991	395.0	57.140	31/08/1990	0.538	55.100	29/06/1990
1991-1992	1077	58.751	22/09/1991	2.142	55.129	05/06/1991
1992-1993	121.6	56.291	11/09/1992	0.310	55.060	11/07/1992
1993-1994	171.9	56.500	10/10/1993	0.407	55.089	27/06/1993
1994-1995	744.4	57.500	06/10/1994	0.543	55.090	29/07/1994
1995-1996	915.9	57.710	20/10/1995	0.718	55.040	30/05/1996
1996-1997	538.5	57.170	08/09/1996	0.447	55.010	14/06/1996
1997-1998	196.5	56.450	23/09/1997	0.000	55.080	25/07/1997
1998-1999	1659	60.520	16/10/1998	0.000		17/07/1998
1999-2000	225.9	56.570	07/09/1999	0.700	55.000	21/05/2000
2000-2001	1270	58.450	23/08/2000	0.708	55.000	24/07/2000
2001-2002	922.1	57.775	30/09/2001	0.008	54.750	23/07/2001
2002-2003	4.286	55.140	16/12/2002	0.000		19/04/2003
2003-2004	42.52	55.590	24/08/2003	0.000	54.700	02/12/2003
2004-2005	272.3	56.400	06/10/2004	0.000	54.960	09/08/2004
2005-2006	699.0	58.800	30/10/2005	0.000	55.140	12/07/2005
2006-2007	446.1	56.345	28/10/2006	0.000	54.800	08/07/2006
2007-2008	353.8	56.620	25/03/2008	0.000	54.900	09/07/2007
2008-2009	1327	58.600	10/08/2008	0.827	55.000	22/06/2008
2009-2010	4300	62.500	05/10/2009	0.000	54.500	15/08/2009
2010-2011	461.5	57.150	28/08/2010	0.989	54.920	20/06/2010
2011-2012	282.0	56.910	20/08/2011	0.000	54.780	27/05/2012
2012-2013	107.6	55.920	03/10/2012	0.000	54.750	06/02/2013
2013-2014	3656	60.500	26/10/2013	0.000	54.980	05/06/2013
2014-2015	381.0	56.690	27/10/2014	0.000		19/08/2014
2015-2016	100.9	55.665	21/08/2015	0.000		31/03/2016
2016-2017	1963	58.375	24/09/2016	0.000	54.460	10/08/2016

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

Annual Runoff of Musi at Damercherla

SlNo.	Year	Monsoon	Non Monsoon	Annual
1	**1968-1969**	729	756	1485
2	**1969-1970**	937	670	1606
3	**1970-1971**	1262	331	1593
4	**1971-1972**	568	206	774
5	**1972-1973**	311	170	481
6	**1973-1974**	527	270	798
7	**1974-1975**	548	344	892
8	**1975-1976**	3009	390	3398
9	**1976-1977**	983	149	1132
10	**1977-1978**	375	190	565
11	**1978-1979**	1430	255	1685
12	**1979-1980**	481	278	758
13	**1980-1981**	521	40	561
14	**1981-1982**	706	37	744
15	**1982-1983**	481	90	571
16	**1983-1984**	1814	265	2079
17	**1984-1985**	379	281	660
18	**1985-1986**	559	91	651
19	**1986-1987**	485	119	604
20	**1987-1988**	422	126	548
21	**1988-1989**	1504	206	1710
22	**1989-1990**	1375	327	1702
23	**1990-1991**	736	278	1015
24	**1991-1992**	739	225	964
25	**1992-1993**	410	345	756
26	**1993-1994**	423	272	695
27	**1994-1995**	584	325	908
28	**1995-1996**	684	128	812
29	**1996-1997**	707	352	1059
30	**1997-1998**	383	117	500
31	**1998-1999**	1146	339	1484
32	**1999-2000**	473	171	644
33	**2000-2001**	765	266	1031
34	**2001-2002**	387	151	538
35	**2002-2003**	8	7	15
36	**2003-2004**	40	0	40
37	**2004-2005**	247	244	491

39	**2006-2007**	978	510	1488
40	**2007-2008**	1218	636	1854
41	**2008-2009**	1512	586	2098
42	**2009-2010**	1212	494	1706
43	**2010-2011**	1047	597	1644
44	**2011-2012**	624	119	743
45	**2012-2013**	89	48	137
46	**2013-2014**	1924	244	2168
47	**2014-2015**	447	257	704
48	**2015-2016**	145	4	149
49	**2016-2017**	1028	64	1093
50	**2017-2018**	665	207	872
	Average	783	260	1043

Stage-Discharge Data for the period 2017 - 2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**

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	54.540	0.000	54.650	0.000	54.800	1.124	55.400	36.02	56.100	206.5	55.460	53.39
2	54.540	0.000	54.650	0.000	54.800	1.287	55.350	33.12 *	55.950	131.8	55.400	44.94
3	54.540	0.000	54.660	0.000	54.780	1.093	55.300	26.87 *	56.425	309.6	55.400	43.54
4	54.540	0.000	54.660	0.000	54.750	0.641	55.350	32.04	57.200	583.5	55.400	39.96 *
5	54.540	0.000	54.660	0.000	54.700	0.000	55.300	26.69	56.550	342.0	55.360	34.44 *
6	54.540	0.000	54.660	0.000	54.700	0.000	55.500	49.72	56.000	171.3	55.340	28.98
7	54.540	0.000	54.660	0.000	54.700	0.000	55.440	42.23	56.000	170.8	55.300	24.70
8	54.540	0.000	54.660	0.000	54.680	0.000	55.350	32.90	56.000	164.4 *	55.300	25.24
9	54.540	0.000	54.680	0.000	54.680	0.000	55.270	25.92	56.350	284.3	55.350	29.45
10	54.640	0.000	54.680	0.000	54.680	0.000	55.270	23.40 *	56.350	302.9	55.410	45.29
11	54.640	0.000	54.680	0.000	55.180	13.05	55.260	26.64	56.100	213.8	55.380	37.41
12	54.640	0.000	54.690	0.000	55.200	14.16	55.210	15.64	56.600	367.8	55.350	33.12 *
13	54.640	0.000	54.690	0.000	55.170	13.43 *	55.140	9.097	55.950	163.9	55.250	25.12
14	54.640	0.000	54.700	0.000	55.150	11.62	55.100	7.309	55.900	130.5	55.460	53.62
15	54.640	0.000	54.760	0.000	55.150	11.73 *	55.230	19.12	55.800	114.6 *	55.390	39.42
16	54.640	0.000	54.950	1.927 *	55.020	3.394	55.200	17.47	55.975	154.7	55.340	34.33
17	54.640	0.000	55.040	4.726	55.020	3.415	55.250	21.21 *	55.650	87.75	55.410	45.72
18	54.640	0.000	55.070	6.803	55.020	3.480	55.250	22.95	55.900	130.4	55.300	27.01
19	54.640	0.000	55.080	7.812	55.050	5.859	55.300	21.42	55.700	92.70 *	55.300	26.87 *
20	54.640	0.000	55.210	15.77	55.050	4.851 *	55.310	23.25	55.670	94.61	55.250	22.13
21	54.640	0.000	55.140	8.894	55.040	5.031	55.520	56.24	55.630	78.62	55.200	15.24
22	54.640	0.000	55.120	8.102	55.040	4.449	55.360	33.76	55.450	47.37 *	55.250	23.20
23	54.640	0.000	55.080	6.273 *	55.050	5.716	55.300	27.16	55.520	57.88	55.250	24.58
24	54.640	0.000	55.050	5.917	55.080	7.477	55.200	16.16 *	55.500	51.46	55.200	14.71
25	54.640	0.000	55.040	4.819	55.860	133.5	55.100	7.345	56.200	224.9	55.200	14.73
26	54.650	0.000	54.850	1.846	55.560	49.66	55.450	50.49	55.700	99.62	55.200	16.16 *
27	54.650	0.000	54.830	1.468	55.500	55.34 *	55.420	46.52	55.600	72.21	55.200	15.18
28	54.650	0.000	54.830	1.434	55.480	44.56	55.400	43.44	55.620	76.08	55.220	16.30
29	54.650	0.000	54.830	1.387	55.400	37.42	55.560	62.31	55.500	55.34 *	55.230	17.06
30	54.650	0.000	54.800	1.200 *	55.360	32.81	56.325	279.3	55.460	51.89	55.230	16.74
31			54.800	1.129	55.460	44.57			55.480	54.09		
Ten-Daily Mean												
I Ten-Daily	54.550	0.000	54.662	0.000	54.727	0.415	55.353	32.89	56.292	266.7	55.372	36.99
II Ten-Daily	54.640	0.000	54.887	3.704	55.101	8.499	55.225	18.41	55.924	155.1	55.343	34.47
III Ten-Daily	54.645	0.000	54.943	3.861	55.348	38.23	55.464	62.27	55.605	79.04	55.218	17.39
Monthly												
Min.	54.540	0.000	54.650	0.000	54.680	0.000	55.100	7.309	55.450	47.37	55.200	14.71
Max.	54.650	0.000	55.210	15.77	55.860	133.5	56.325	279.3	57.200	583.5	55.460	53.62
Mean	54.612	0	54.834	2.565	55.068	16.44	55.347	37.86	55.930	164.1	55.311	29.62

Annual Runoff in MCM = 872 Annual Runoff in mm = 76

Peak Observed Discharge = 583.5 cumecs on 04/10/2017 Corres. Water Level :57.2 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :54.54 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 2017 - 2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	55.230	17.19	54.600	0.000	55.140	9.057	55.250	22.49	55.250	21.39 *	55.040	5.183
2	55.240	20.20 *	54.600	0.000	55.140	8.362	55.200	15.83 *	55.250	22.86	55.040	4.566
3	55.240	20.20 *	54.620	0.000	55.140	8.635	55.140	9.301	55.300	27.57	55.030	3.961
4	55.240	18.70	54.900	2.435	55.150	11.20 *	55.140	10.39 *	55.280	24.87	55.020	3.483
5	55.200	15.56	54.920	2.584	55.160	11.43	55.150	9.435	55.250	22.51	55.020	3.191
6	55.200	14.57	54.920	2.569	55.250	25.22	55.160	9.965	55.250	22.37	55.020	3.491 *
7	55.230	16.75	54.930	1.813 *	55.250	24.57	55.200	13.81	55.230	18.86	55.020	3.304
8	55.200	14.25	55.050	4.486	55.380	37.73	55.240	20.13	55.230	19.05 *	55.000	2.847
9	55.190	13.95	55.060	5.035	55.400	42.24	55.300	28.07	55.240	19.67	55.030	3.527
10	55.190	14.84 *	55.070	5.842	55.390	39.07	55.340	32.60	55.170	10.37	55.040	4.261
11	55.240	19.45	55.070	5.845	55.390	41.56 *	55.390	41.86 *	55.160	9.850	55.030	3.532
12	55.180	13.01	55.060	5.092	55.250	21.44	55.410	44.04	55.150	8.926	55.000	2.824
13	55.140	9.053	55.070	5.748	55.260	24.73	55.390	40.41	55.120	8.174	55.000	2.859 *
14	55.120	8.852	55.060	5.198 *	55.270	25.29	55.310	29.00	55.110	7.537	54.990	2.514
15	55.100	7.679	55.060	5.198 *	55.240	22.69	55.300	28.25	55.100	7.500 *	54.990	2.461
16	54.900	2.157	55.070	6.212	55.150	9.649	55.230	20.72	55.070	6.471	54.990	2.408
17	54.900	1.920 *	55.050	4.486	55.140	9.204	55.250	22.59	55.050	5.578	54.880	1.828
18	54.900	2.133	55.040	3.972	55.150	11.20 *	55.250	21.39 *	55.050	4.623	54.880	1.808
19	54.600	0.000	55.040	4.185	55.160	10.32	55.270	24.43	54.965	1.252	54.890	1.844
20	54.600	0.000	55.040	4.093	55.260	23.71	55.270	24.05	54.980	1.415	54.860	2.580 *
21	54.620	0.000	55.060	5.198 *	55.290	27.98	55.240	22.22	54.980	1.330	54.840	1.362
22	54.600	0.000	55.100	8.238	55.400	44.56	55.320	29.65	54.980	2.375 *	54.850	1.483
23	54.600	0.000	55.120	8.951	55.390	44.68	55.320	30.67	54.970	1.294	54.850	1.423
24	54.620	0.000	55.280	27.69	55.410	47.14	55.380	41.57	54.950	1.175	54.840	1.415
25	54.630	0.000	55.300	31.89	55.390	41.86 *	55.340	33.71 *	54.920	1.076	54.830	1.302
26	54.640	0.000	55.340	33.71 *	55.380	36.24	55.330	26.36	54.930	1.252	54.820	1.239
27	54.650	0.000	55.360	37.49	55.270	24.27	55.320	29.03	54.800	0.981	54.800	0.950 *
28	54.850	1.809	55.280	25.16 *	55.270	23.66	55.320	29.21	54.980	1.383	54.800	0.721
29	54.850	1.821	55.250	26.06			55.300	27.87 *	55.000	2.859 *	54.800	0.819
30	54.860	1.911	55.140	9.469			55.300	27.87 *	55.020	3.491 *	54.790	0.737
31	54.650	0.300 *	55.140	9.246			55.240	21.14			54.800	0.662
Ten-Daily Mean												
I Ten-Daily	55.216	16.62	54.867	2.476	55.240	21.75	55.212	17.20	55.245	20.95	55.026	3.781
II Ten-Daily	54.968	6.425	55.056	5.003	55.227	19.98	55.307	29.67	55.075	6.133	54.951	2.466
III Ten-Daily	54.688	0.531	55.215	20.28	55.350	36.30	55.310	29.03	54.953	1.722	54.820	1.101
Monthly												
Min.	54.600	0.000	54.600	0.000	55.140	8.362	55.140	9.301	54.800	0.981	54.790	0.662
Max.	55.240	20.20	55.360	37.49	55.410	47.14	55.410	44.04	55.300	27.57	55.040	5.183
Mean	54.949	7.623	55.052	9.61	55.267	25.27	55.277	25.42	55.091	9.602	54.929	2.406

Peak Computed Discharge = 164.4 cumecs on 08/10/2017 Corres. Water Level :56 m

Lowest Computed Discharge = 0.300 cumecs on 31/12/2017 Corres. Water Level :54.65 m

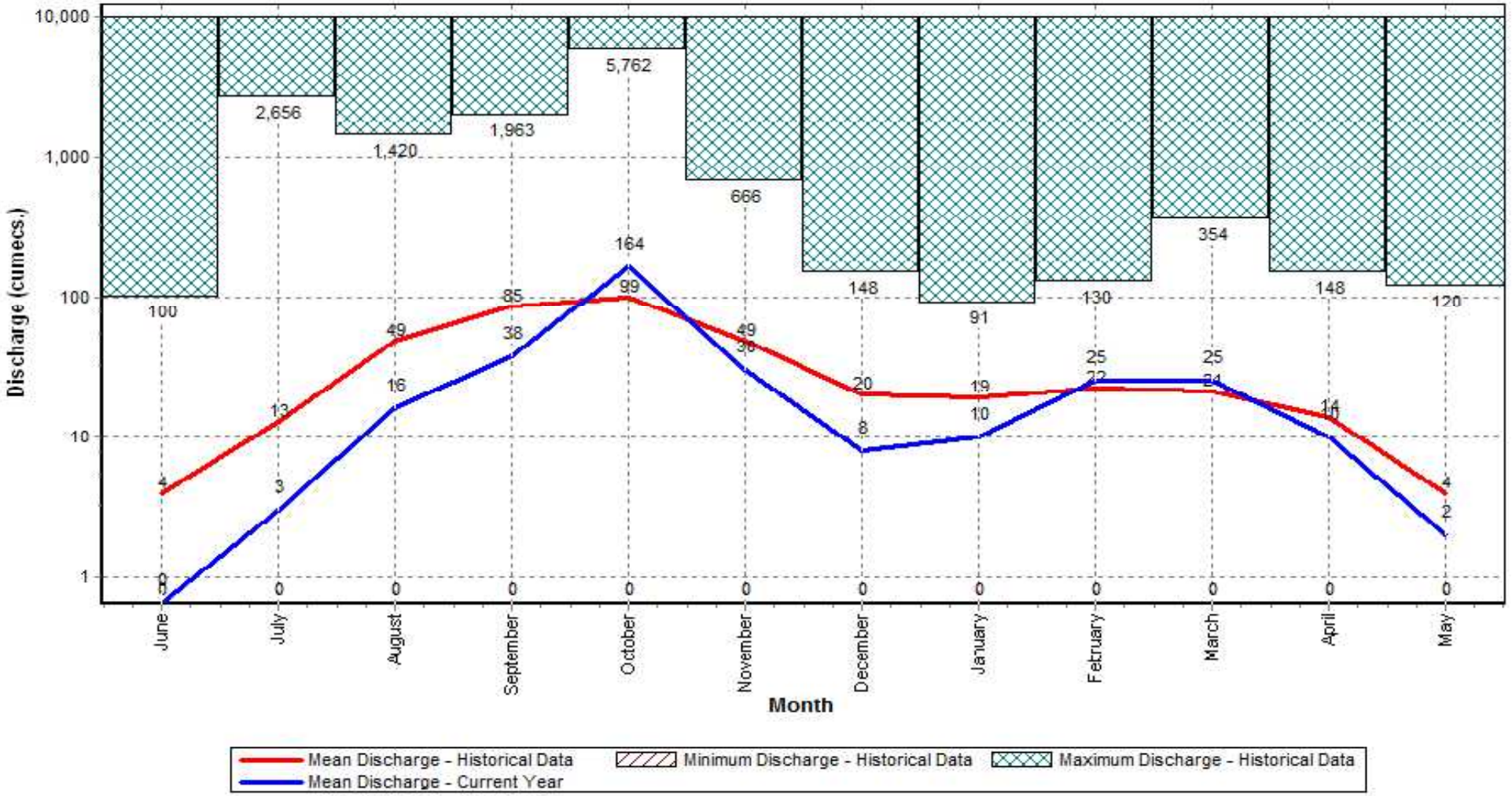
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Dameracherla (AKF00A7) **Data considered : 1969-2018** **Division : Lower Krishna Divn., Hyderabad**

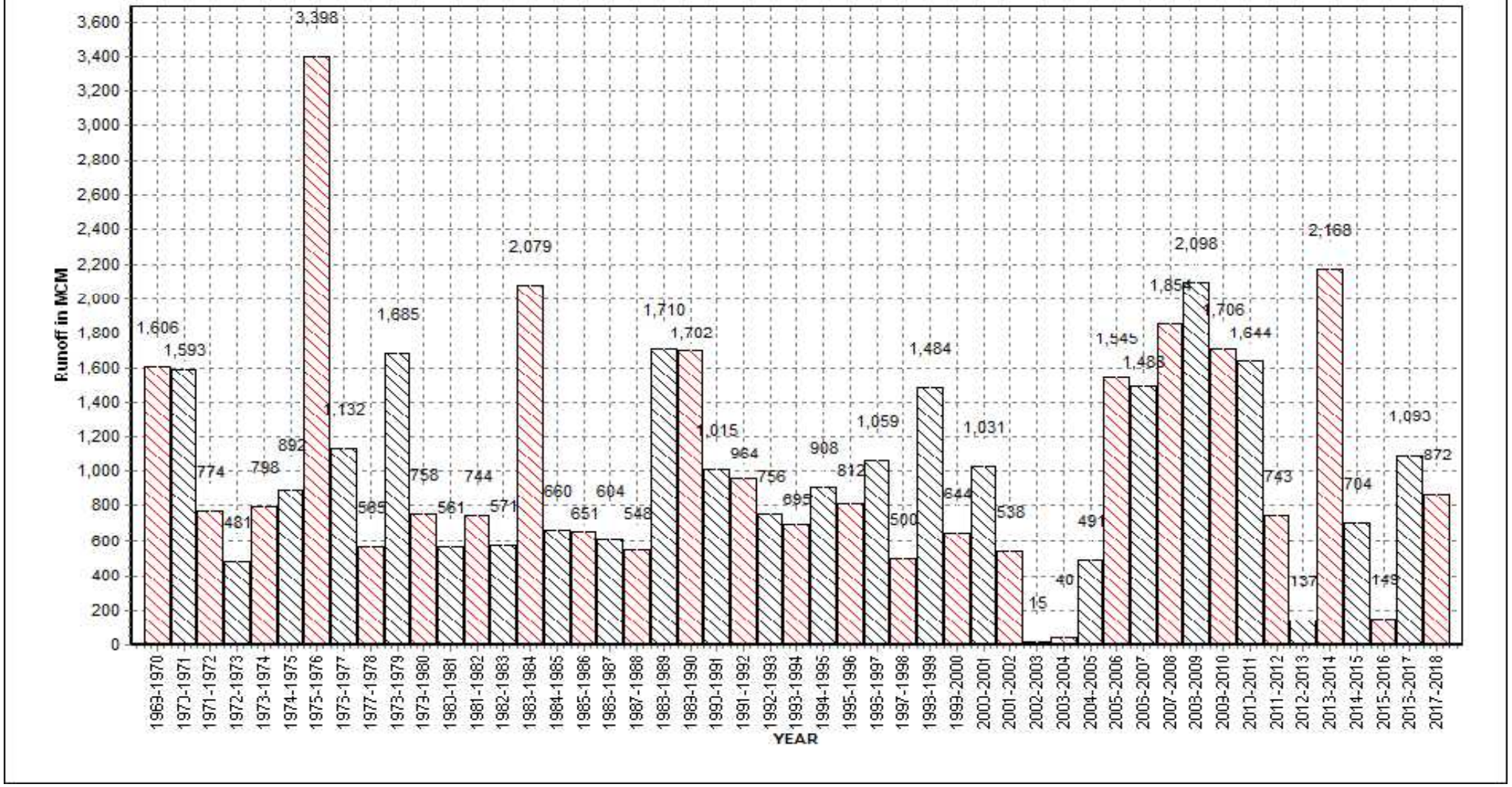
Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Annual Runoff Values for the period: 1969 - 2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**

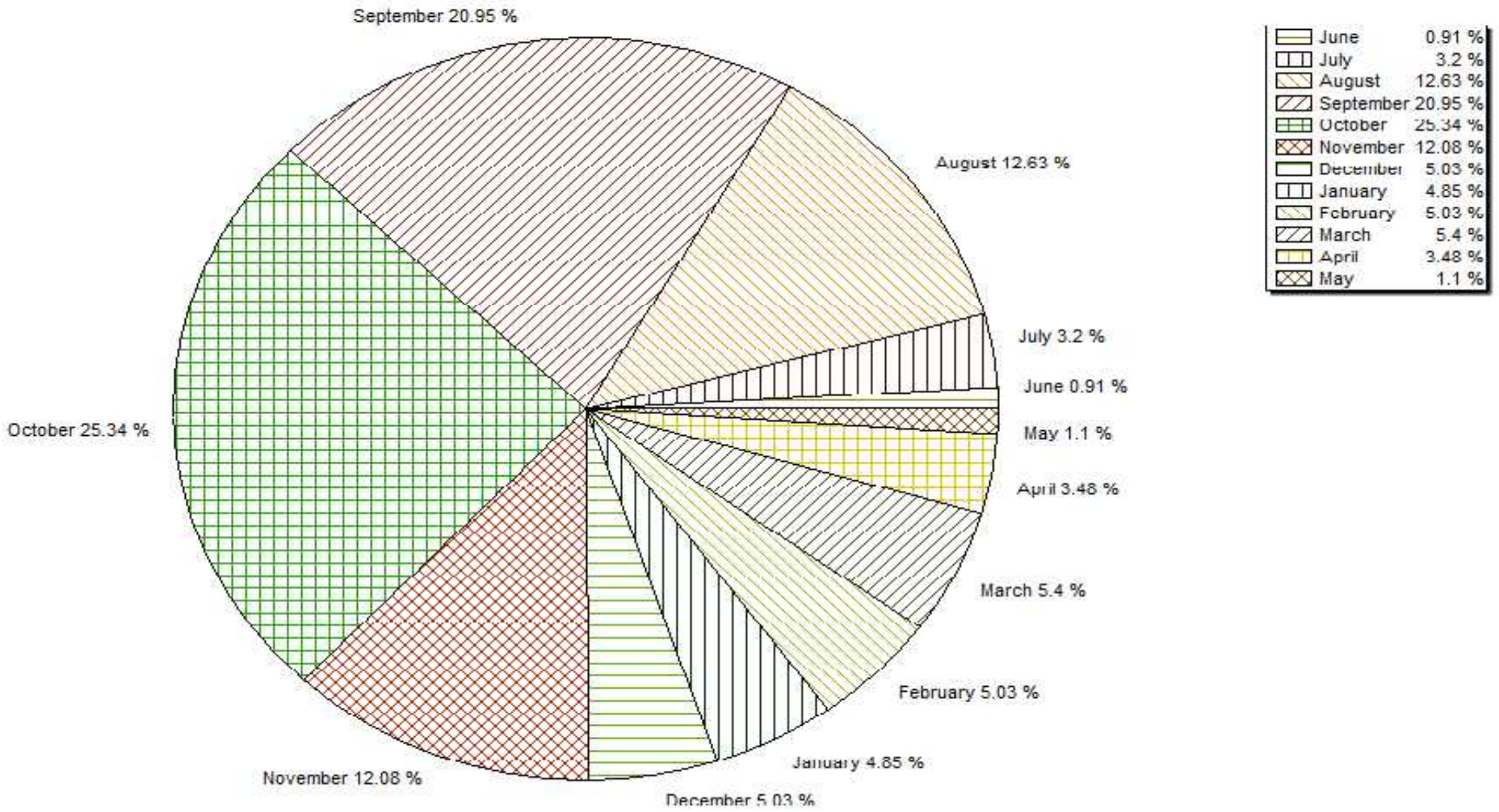


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1969-2017

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

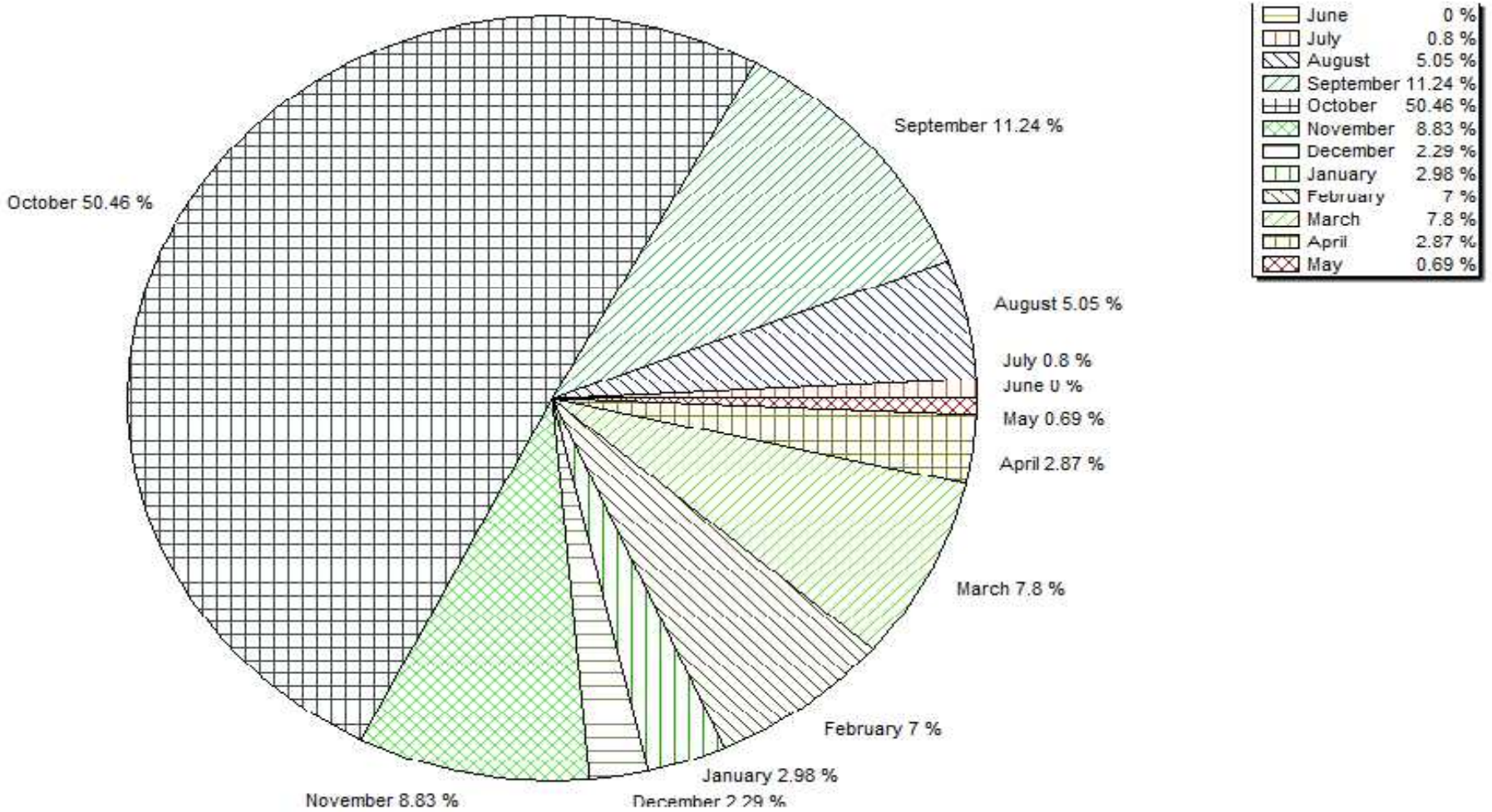
Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Monthly Runoff for the Year : 2017-2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

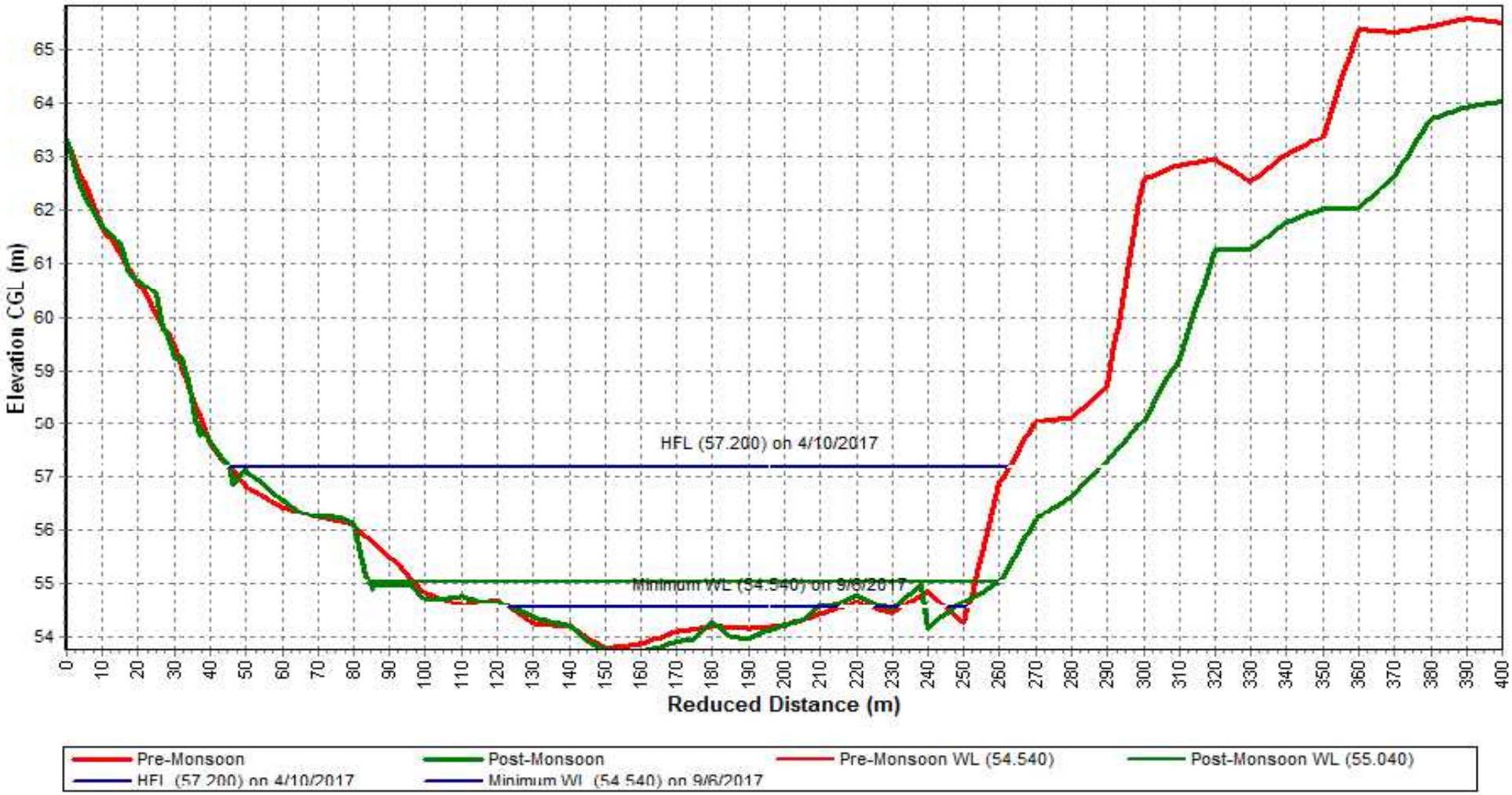
Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Dameracherla (AKF00A7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Musi **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Anantharam**	**Code**	:	**034-LKDHYD**
State	:	Telangana	District		Yadadri Bhuvanagiri
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Lower Krishna	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Lower Krishna
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD 1, N.S.Dam
Drainage Area	:	2448.40 Sq. Km.	Bank	:	Right
Latitude	:	17°26'05"	Longitude	:	79°24'43"
Zero of Gauge (m)	:	96.000ARB	01/03/2017		
		Opening Date	Closing Date		
Gauge	:	26/10/2016	**DRY BED, HENCE THERE IS NO HFL**		
Discharge	:	26/10/2016			
Sediment	:				
Water Quality	:				

Stage-Discharge Data for the period 2017 - 2018

Station Name : Anantharam (034-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

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		0.000		0.000
2								0.000		0.000		0.000
3								0.000		0.000		0.000
4								0.000		0.000		0.000
5								0.000		0.000		0.000
6								0.000		0.000		0.000
7								0.000		0.000		0.000
8						0.000		0.000		0.000		0.000
9						0.000		0.000		0.000		0.000
10						0.000		0.000		0.000		0.000
11						0.000		0.000		0.000		0.000
12						0.000		0.000		0.000		0.000
13						0.000		0.000		0.000		0.000
14						0.000		0.000		0.000		0.000
15						0.000		0.000		0.000		0.000
16						0.000		0.000		0.000		0.000
17						0.000		0.000		0.000		0.000
18						0.000		0.000		0.000		0.000
19						0.000		0.000		0.000		0.000
20						0.000		0.000		0.000		0.000
21						0.000		0.000		0.000		0.000
22						0.000		0.000		0.000		0.000
23						0.000		0.000		0.000		0.000
24						0.000		0.000		0.000		0.000
25						0.000		0.000		0.000		0.000
26						0.000		0.000		0.000		0.000
27						0.000		0.000		0.000		0.000
28						0.000		0.000		0.000		0.000
29						0.000		0.000		0.000		0.000
30						0.000		0.000		0.000		0.000
31						0.000				0.000		
Ten-Daily Mean												
I Ten-Daily						0.000		0.000		0.000		0.000
II Ten-Daily						0.000		0.000		0.000		0.000
III Ten-Daily						0.000		0.000		0.000		0.000
Monthly												
Min.						0.000		0.000		0.000		0.000
Max.						0.000		0.000		0.000		0.000
Mean						0		0		0		0

Annual Runoff in MCM = 0 Annual Runoff in mm = 0

Peak Observed Discharge = 0.000 cumecs on 08/08/2017

Lowest Observed Discharge = 0.000 cumecs on 08/08/2017

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

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2017 - 2018

Station Name : Anantharam (034-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1		0.000		0.000		0.000		0.000		0.000		0.000
2		0.000		0.000		0.000		0.000		0.000		0.000
3		0.000		0.000		0.000		0.000		0.000		0.000
4		0.000		0.000		0.000		0.000		0.000		0.000
5		0.000		0.000		0.000		0.000		0.000		0.000
6		0.000		0.000		0.000		0.000		0.000		0.000
7		0.000		0.000		0.000		0.000		0.000		0.000
8		0.000		0.000		0.000		0.000		0.000		0.000
9		0.000		0.000		0.000		0.000		0.000		0.000
10		0.000		0.000		0.000		0.000		0.000		0.000
11		0.000		0.000		0.000		0.000		0.000		0.000
12		0.000		0.000		0.000		0.000		0.000		0.000
13		0.000		0.000		0.000		0.000		0.000		0.000
14		0.000		0.000		0.000		0.000		0.000		0.000
15		0.000		0.000		0.000		0.000		0.000		0.000
16		0.000		0.000		0.000		0.000		0.000		0.000
17		0.000		0.000		0.000		0.000		0.000		0.000
18		0.000		0.000		0.000		0.000		0.000		0.000
19		0.000		0.000		0.000		0.000		0.000		0.000
20		0.000		0.000		0.000		0.000		0.000		0.000
21		0.000		0.000		0.000		0.000		0.000		0.000
22		0.000		0.000		0.000		0.000		0.000		0.000
23		0.000		0.000		0.000		0.000		0.000		0.000
24		0.000		0.000		0.000		0.000		0.000		0.000
25		0.000		0.000		0.000		0.000		0.000		0.000
26		0.000		0.000		0.000		0.000		0.000		0.000
27		0.000		0.000		0.000		0.000		0.000		0.000
28		0.000		0.000		0.000		0.000		0.000		0.000
29				0.000				0.000		0.000		0.000
30				0.000				0.000		0.000		0.000
31				0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.		0.000		0.000		0.000		0.000		0.000		0.000
Max.		0.000		0.000		0.000		0.000		0.000		0.000
Mean		0		0		0		0		0		0

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

Note:Missing values ignored while arriving at Annual Runoff

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Veerlapalem**	**Code**	:	**032-LKDHYD**
State	:	Telangana	District		Nalgonda
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Krishna
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD 1, N.S.Dam
Drainage Area	:	624.50 Sq. Km.	Bank	:	Left
Latitude	:	16°41'15"	Longitude	:	79°32'46"
Zero of Gauge (m)	:	44.500 (m.s.l)	01/03/2017		
		Opening Date	Closing Date		
Gauge	:	21/10/2016	HFL During 2017-18	:	47.790m
			Corres. Discharge	:	9.935(Estimated)
Discharge	:	21/10/2016	Date & Time of	:	26/03/2018
			occurance	:	13.00 hrs.
Sediment	:				
Water Quality	:				

Stage-Discharge Data for the period 2017 - 2018

Station Name : Veerlapalem (032-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

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		0.000		0.000		0.000		0.000
2				0.000		0.000		0.000		0.000		0.000
3				0.000		0.000		0.000		0.000		0.000
4				0.000		0.000		0.000	47.580	4.600		0.000
5				0.000		0.000		0.000	47.470	2.560		0.000
6				0.000		0.000		0.000	47.870	13.28 *		0.000
7				0.000		0.000		0.000	47.590	4.874		0.000
8				0.000		0.000	47.290	1.247 #	47.590	4.988 *		0.000
9				0.000		0.000		0.000	47.580	4.805		0.000
10				0.000		0.000		0.000	47.470	2.528		0.000
11				0.000		0.000		0.000	47.330	1.644		0.000
12				0.000		0.000		0.000	47.300	1.329		0.000
13				0.000		0.000		0.000	47.930	13.31 *		0.000
14				0.000		0.000		0.000	47.570	4.561	47.480	2.639
15				0.000		0.000		0.000	47.600	4.781 *	47.500	3.032
16				0.000		0.000		0.000	47.660	6.064 *	47.510	3.424
17				0.000		0.000		0.000	47.680	6.555 *	47.490	2.917
18				0.000		0.000		0.000	47.500	3.613	47.470	2.790 #
19			47.510	3.305 #		0.000		0.000	47.500	3.803 *	47.400	
20			47.490	3.533		0.000		0.000	47.520	3.832		0.000
21			47.350	1.935		0.000		0.000	47.500	3.399	47.350	1.898
22			47.340	1.746		0.000		0.000	47.510		47.480	2.799
23			47.330	1.600 *		0.000		0.000	47.510	3.725	47.340	1.884
24			47.320	1.412		0.000		0.000	47.540	3.830	47.500	3.018
25			47.120	0.413		0.000		0.000		0.000	47.480	2.724
26				0.000	47.620	5.179 #		0.000		0.000	47.470	2.730 *
27				0.000	47.500	2.789 *		0.000		0.000	47.350	1.645 #
28		0.000		0.000	47.480	2.595		0.000		0.000	47.340	1.809
29		0.000		0.000		0.000		0.000		0.000	47.450	2.433
30		0.000		0.000		0.000		0.000		0.000	47.470	2.786
31				0.000	47.550	3.902 #				0.000		
Ten-Daily Mean												
I Ten-Daily				0.000		0.000	47.290	0.125	47.593	3.764		0.000
II Ten-Daily			47.500	0.684		0.000		0.000	47.559	4.949	47.475	1.645
III Ten-Daily		0.000	47.292	0.646	47.537	1.315		0.000	47.515	1.095	47.423	2.373
Monthly												
Min.		0.000	47.120	0.000	47.480	0.000	47.290	0.000	47.300	0.000	47.340	0.000
Max.		0.000	47.510	3.533	47.620	5.179	47.290	1.247	47.930	13.31	47.510	3.424
Mean		0	47.351	0.45	47.537	0.467	47.290	0.042	47.562	3.269	47.443	1.329

Annual Runoff in MCM = 55 Annual Runoff in mm = 88

Peak Observed Discharge = 8.287 cumecs on 26/03/2018 Corres. Water Level :47.75 m

Lowest Observed Discharge = 0.000 cumecs on 28/06/2017

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 2017 - 2018

Station Name : Veerlapalem (032-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	47.460	2.673 #		0.000	47.510	3.481	47.480	2.643	47.560	4.066 *	47.300	1.508
2	47.460	2.770 *		0.000	47.510	3.330	47.380	1.883 *	47.560	3.825	47.300	1.462
3	47.460	2.770 *		0.000	47.540	3.825	47.310	1.366	47.730	7.875	47.330	1.739
4	47.460	2.673 #	47.530	3.678	47.540	3.745 *	47.320	1.434 *	47.690	6.813 #	47.320	1.518
5	47.340	1.803	47.540	3.883	47.540	3.777	47.330	1.744	47.570	3.914	47.310	1.326
6	47.300	1.333	47.510	3.428	47.600	4.625	47.360	2.052	47.510	3.304	47.300	1.307 *
7		0.000	47.530	3.593 *	47.590	4.863	47.320	1.653	47.510	3.230	47.300	1.107
8		0.000	47.570	4.378	47.580	4.507	47.460	2.673 #	47.500	3.169 *	47.300	1.075
9		0.000	47.540	3.795	47.620	5.334	47.550	3.628	47.490	2.992	47.290	1.070
10		0.000	47.560	4.273	47.610	5.091	47.570	4.010	47.520	3.344	47.300	1.101
11		0.000	47.600	4.827	47.600	4.781 *	47.570	4.235 *	47.520	3.332	47.290	0.987
12		0.000	47.540	3.848	47.580	4.406	47.580	4.387	47.480	2.742		0.000
13		0.000	47.500	3.060	47.570	4.391	47.600	4.696	47.450	2.561 #		0.000
14		0.000	47.490	3.038 *	47.550	4.072	47.550	3.902 #	47.330	1.540		0.000
15		0.000	47.490	3.038 *	47.520	3.657	47.500	3.059	47.450	2.561 *		0.000
16		0.000	47.480	2.781	47.490	2.943	47.510	3.124	47.490	2.916		0.000
17		0.000	47.470	2.647	47.480	2.852	47.510	3.161	47.520	3.403		0.000
18		0.000	47.490	2.916	47.500	3.169 *	47.480	2.912 *	47.500	2.930		0.000
19		0.000	47.500	3.146	47.520	3.587	47.460	2.673 #	47.520	3.462		0.000
20	47.310	1.481	47.480	2.742	47.550	4.006	47.560	3.761	47.500	2.972		0.000
21	47.290	1.145	47.540	3.745 *	47.550	3.957	47.560	3.711	47.500	2.952		0.000
22		0.000	47.580	4.674	47.520	3.646	47.560	3.806	47.450	2.561 *		0.000
23		0.000	47.620	5.411	47.720	7.684	47.590	4.288	47.310	1.467		0.000
24		0.000	47.580	4.668	47.730	7.908	47.590	4.283	47.300	1.402		0.000
25		0.000	47.520	3.631	47.700	7.080 *	47.670	6.305 *	47.300	1.440		0.000
26		0.000	47.540	3.745 *	47.670	6.628	47.750	8.287	47.280	1.190 #		0.000
27		0.000	47.570	4.392	47.680	6.889	47.730	7.848	47.280	1.190 #		0.000
28		0.000	47.560	4.066 *	47.560	3.982	47.690	7.136	47.280	1.190 #		0.000
29		0.000	47.530	3.755			47.620	5.179 *	47.290	1.247 *		0.000
30		0.000	47.570	4.332			47.580	4.411 *	47.300	1.307 *		0.000
31		0.000	47.570	4.296			47.560	3.678				0.000
Ten-Daily Mean												
I Ten-Daily	47.413	1.402	47.540	2.703	47.564	4.258	47.408	2.309	47.564	4.253	47.305	1.321
II Ten-Daily	47.310	0.148	47.504	3.204	47.536	3.786	47.532	3.591	47.476	2.842	47.290	0.099
III Ten-Daily	47.290	0.104	47.562	4.247	47.641	5.972	47.627	5.357	47.329	1.595		0.000
Monthly												
Min.	47.290	0.000	47.470	0.000	47.480	2.852	47.310	1.366	47.280	1.190	47.290	0.000
Max.	47.460	2.770	47.620	5.411	47.730	7.908	47.750	8.287	47.730	7.875	47.330	1.739
Mean	47.385	0.537	47.536	3.412	47.576	4.579	47.526	3.804	47.456	2.897	47.304	0.458

Peak Computed Discharge = 13.31 cumecs on 13/10/2017 Corres. Water Level :47.93 m

Lowest Computed Discharge = 1.247 cumecs on 29/04/2018 Corres. Water Level :47.29 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

HISTORY SHEET

Water Year : 2017-2018

Site	**: Halia**		**Code**	**: AKH00G2**	
State	: Telangana		District	Nalgonda	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Halia		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Halia	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Lower Krishna SD 1, N.S.Dam	
Drainage Area	: 3100 Sq. Km.		Bank	: Left	
Latitude	: 16°47'25"		Longitude	: 79°20'19"	
Zero of Gauge (m)	: 129 (m.s.l) 127.9 (m.s.l)		15/02/1984 01/06/2002	- 31/05/2002	
	Opening Date		Closing Date		
Gauge	: 15/02/1984		HFL During 2017-18	: 129.1m	
			Corres. Discharge	: 22.720(Observed)	
Discharge	: 11/07/1984		Date & Time of occurance	: 05/10/2017 : 08.00 hrs.	
Sediment	:				
Water Quality	: 01/06/1992				

HFL Recorded so far in m : 133.570 dt 25-10-2013
Corresponding Discharge (cumecs) : 2085*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1985-1986	65.00	130.445	19/06/1985	0.000	129.200	15/04/1986
1986-1987	26.00	130.260	07/11/1986	0.000	129.175	13/05/1987
1987-1988	552.4	131.530	04/11/1987	0.000	129.120	10/06/1987
1988-1989	161.4	130.770	20/09/1988	0.010	129.210	02/06/1988
1989-1990	297.7	131.120	17/07/1989	0.040	129.265	27/04/1990
1990-1991	169.0	130.690	26/10/1990	0.000	129.080	07/05/1991
1991-1992	2647	133.507	22/09/1991	0.000	129.340	29/05/1992
1992-1993	19.16	130.000	27/05/1993	0.000	129.230	10/05/1993
1993-1994	107.7	130.550	09/10/1993	0.040	129.260	26/06/1993
1994-1995	825.3	131.915	06/10/1994	0.023	129.253	29/06/1994
1995-1996	130.5	130.750	19/10/1995	0.012	129.305	18/05/1996
1996-1997	43.16	130.410	06/09/1996	0.003	129.290	03/06/1996
1997-1998	45.78	130.360	24/09/1997	0.000	129.200	15/05/1998
1998-1999	419.2	131.415	15/10/1998	0.000	129.220	09/07/1998
1999-2000	31.20	130.405	07/09/1999	0.002	129.160	31/05/2000
2000-2001	551.3	131.580	23/08/2000	0.002	129.070	29/05/2001
2001-2002	600.0	131.650	01/10/2001	0.000	129.100	13/07/2001
2002-2003	2.049	128.340	12/08/2002	0.000		23/04/2003

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**
2003-2004	144.3	129.600	24/10/2003	0.000	127.970	20/01/2004
2004-2005	280.3	129.650	09/10/2004	0.000		19/07/2004
2005-2006	3383	133.000	29/10/2005	0.000		02/07/2005
2006-2007	49.94	129.300	01/11/2006	0.000	128.000	13/07/2006
2007-2008	524.3	130.400	17/09/2007	0.280	128.320	03/06/2007
2008-2009	535.1	130.830	30/11/2008	0.000		09/07/2008
2009-2010	203.9	129.990	01/10/2009	0.000		18/07/2009
2010-2011	118.8	129.980	15/09/2010	0.099	128.100	20/06/2010
2011-2012	30.93	129.380	25/08/2011	0.000	128.630	30/07/2011
2012-2013	27.81	129.210	03/10/2012	0.000	128.200	24/03/2013
2013-2014	1126	132.325	25/10/2013	0.000	128.340	08/07/2013
2014-2015	71.70	129.490	27/10/2014	0.000		04/07/2014
2015-2016	31.36	129.160	15/09/2015	0.000		07/03/2016
2016-2017	291.2	130.870	23/09/2016	0.000	128.260	17/04/2017

Annual runoff of Halia at Halia

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1984-1985**	29	7	35
2	**1985-1986**	51	3	55
3	**1986-1987**	21	5	26
4	**1987-1988**	128	8	136
5	**1988-1989**	158	10	167
6	**1989-1990**	133	20	153
7	**1990-1991**	53	9	62
8	**1991-1992**	484	8	492
9	**1992-1993**	12	11	23
10	**1993-1994**	60	9	70
11	**1994-1995**	124	10	134
12	**1995-1996**	125	4	129
13	**1996-1997**	55	13	67
14	**1997-1998**	21	4	24
15	**1998-1999**	118	9	126
16	**1999-2000**	15	4	19
17	**2000-2001**	106	8	114
18	**2001-2002**	214	6	220
19	**2002-2003**	2	0	2
20	**2003-2004**	17	0	18
21	**2004-2005**	107	8	115
22	**2005-2006**	853	51	904
23	**2006-2007**	124	47	171
24	**2007-2008**	480	59	539
25	**2008-2009**	351	115	465
26	**2009-2010**	137	99	237
27	**2010-2011**	282	141	423
28	**2011-2012**	130	39	170
29	**2012-2013**	18	9	27
30	**2013-2014**	439	62	501
31	**2014-2015**	120	43	163
32	**2015-2016**	62	5	67
33	**2016-2017**	169	11	180
34	**2017-2018**	36	19	55
	Average	154	25	179

Stage-Discharge Data for the period 2017 - 2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**

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	128.260	0.000	128.350	0.425		0.000	128.410	0.877	128.800	10.33 *	128.370	0.555
2	128.250	0.000	128.330	0.350 *		0.000	128.320	0.000	128.690	6.840 *	128.320	0.000
3	128.230	0.000	128.300	0.000		0.000	128.230	0.000	129.020	19.71	128.340	0.000
4	128.230	0.000	128.280	0.000		0.000	128.340	0.000	128.850	11.05	128.330	0.000
5	128.260	0.000	128.250	0.000		0.000	128.750	9.983	129.080	22.72	128.340	0.000
6	128.250	0.000		0.000		0.000	128.850	12.23	129.050	20.32	128.380	0.560
7	128.310	0.000		0.000		0.000	128.740	9.453	128.980	16.66	128.400	0.702
8	128.340	0.000		0.000		0.000	128.770	10.90	128.810	10.68 *	128.400	0.705
9	128.340	0.000		0.000		0.000	128.720	8.717	128.750	9.953	128.370	0.536
10	128.350	0.000	128.310	0.000		0.000	128.640	5.446 *	128.700	8.103	128.350	0.448
11	128.370	0.000	128.330	0.000		0.000	128.480	1.409	128.620	6.555	128.330	0.000
12	128.470	1.998 #	128.350	0.000		0.000	128.480	1.434	128.550	2.695	128.300	0.000
13	128.430	0.924	128.400	0.676		0.000	128.400	0.721	128.570	4.179	128.320	0.000
14	128.430	0.947	128.370	0.559		0.000	128.300	0.000	128.520	2.663	128.330	0.000
15	128.430	1.135	128.370	0.577		0.000	128.280	0.000	128.670	6.267 *	128.330	0.000
16	128.430	0.986	128.360	0.892 *		0.000	128.300	0.000	128.600	5.413	128.320	0.000
17	128.430	1.179	128.380	0.606		0.000	128.310	0.000	128.740	8.957	128.320	0.000
18	128.440	1.542 *	128.480	2.176 #		0.000	128.360	0.486	128.690	7.099	128.310	0.000
19	128.470	1.998 #	128.460	1.833 #		0.000	128.520	2.037	128.600	4.424 *	128.340	0.000
20	128.450	1.682 #	128.480	2.176 #		0.000	128.450	1.203	128.520	2.628	128.340	0.000
21	128.450	1.136	128.460	1.833 #		0.000	128.370	0.540	128.500	1.931	128.510	2.785 #
22	128.430	0.984	128.380	0.620		0.000	128.280	0.000	128.430	1.416 *	128.520	3.014 #
23	128.420	0.943	128.330	0.000		0.000	128.240	0.000	128.390	0.634	128.520	3.014 #
24	128.430	0.998	128.280	0.000		0.000	128.240	0.000	128.400	0.770	128.510	2.785 #
25	128.420	1.303 *	128.260	0.000		0.000	128.230	0.000	128.400	0.753	128.500	2.268
26	128.410	1.202 *		0.000	128.875	13.14	128.730	8.870	128.400	0.747	128.510	2.785 *
27	128.390	0.701		0.000	128.760	8.997 *	128.740	9.933	128.420	0.924	128.530	3.256 #
28	128.380	0.673		0.000	128.600	3.678	128.740	9.738	128.400	0.769	128.520	2.543
29	128.360	0.538		0.000	128.530	2.153	128.960	15.44	128.360	0.892 *	128.500	2.171
30	128.370	0.595		0.000	128.490	1.557	128.870	12.85 *	128.370	0.520	128.500	2.298
31				0.000	128.490	1.667			128.350	0.449		
Ten-Daily Mean												
I Ten-Daily	128.282	0.000	128.303	0.077		0.000	128.577	5.760	128.873	13.64	128.360	0.350
II Ten-Daily	128.435	1.239	128.398	0.949		0.000	128.388	0.729	128.608	5.088	128.324	0.000
III Ten-Daily	128.406	0.907	128.342	0.223	128.624	2.836	128.540	5.737	128.402	0.891	128.512	2.692
Monthly												
Min.	128.230	0.000	128.250	0.000	128.490	0.000	128.230	0.000	128.350	0.449	128.300	0.000
Max.	128.470	1.998	128.480	2.176	128.875	13.14	128.960	15.44	129.080	22.72	128.530	3.256
Mean	128.374	0.715	128.358	0.41	128.624	1.006	128.502	4.076	128.620	6.357	128.399	1.014

Annual Runoff in MCM = 55 Annual Runoff in mm = 18

Peak Observed Discharge = 22.72 cumecs on 05/10/2017 Corres. Water Level :129.08 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :128.26 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 2017 - 2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	128.490	1.899	128.400	0.628	128.550	3.001	128.240	0.000	128.500	1.162 *	128.400	0.710
2	128.500	2.569 *	128.390	0.531	128.550	2.992	128.240	0.000	128.520	1.258	128.440	0.864
3	128.490	2.366 *	128.370	0.432	128.530	1.355	128.240	0.000	128.550	1.482	128.440	0.833
4	128.500	2.416	128.350	0.344	128.480	1.200 *	128.260	0.000	128.590	1.679	128.540	1.293
5	128.490	1.895	128.370	0.427	128.470	1.100	128.380	0.539	128.680	4.434	128.540	1.328
6	128.480	1.745	128.350	0.359	128.440	0.916	128.380	0.527	128.620	3.210	128.550	1.419 *
7	128.480	1.701	128.350	0.350 *	128.450	0.963	128.400	0.696	128.600	2.984	128.560	1.586
8	128.470	1.535	128.350	0.340	128.440	0.891	128.430	0.913	128.600	2.950 *	128.530	1.182
9	128.500	2.269	128.370	0.435	128.460	1.051	128.450	1.009	128.710	5.541	128.480	0.978
10	128.500	2.569 *	128.400	0.632	128.380	0.584	128.440	0.946	128.680	4.637	128.440	0.859
11	128.540	3.163	128.330	0.000	128.490	1.110 *	128.450	0.905 *	128.660	4.012	128.440	0.830
12	128.500	2.214	128.320	0.000	128.530	1.351	128.460	1.024	128.610	2.992	128.470	1.031
13	128.530	2.512	128.310	0.000	128.470	1.103	128.480	1.121	128.550	1.447	128.400	0.648 *
14	128.530	2.453	128.300	0.000	128.480	1.136	128.520	1.286	128.530	1.226	128.390	0.585
15	128.550	3.403	128.300	0.000	128.530	1.308	128.540	1.380	128.500	1.162 *	128.390	0.575
16	128.550	3.338	128.300	0.000	128.550	1.498	128.560	1.540	128.480	1.099	128.400	0.687
17	128.550	3.778 *	128.300	0.000	128.560	1.653	128.570	1.587	128.550	1.389	128.420	0.792
18	128.540	3.270	128.320	0.000	128.550	1.419 *	128.550	1.419 *	128.540	1.388	128.410	0.715
19	128.560	3.602	128.320	0.000	128.550	1.478	128.560	1.503	128.560	1.526	128.410	0.697
20	128.560	3.557	128.300	0.000	128.530	1.296	128.590	1.596	128.540	1.264	128.400	0.648 *
21	128.550	3.318	128.300	0.000	128.520	1.233	128.570	1.549	128.530	1.164	128.380	0.524
22	128.560	3.736	128.300	0.000	128.550	1.497	128.530	1.284	128.500	1.162 *	128.340	0.000
23	128.520	2.530	128.320	0.000	128.550	1.501	128.500	1.164	128.480	1.019	128.330	0.000
24	128.500	2.569 *	128.320	0.000	128.520	1.276	128.480	1.063	128.480	1.023	128.330	0.000
25	128.500	2.569 *	128.310	0.000	128.500	1.162 *	128.450	0.905 *	128.510	1.224	128.320	0.000
26	128.480	1.656	128.320	0.000	128.470	1.119	128.400	0.644	128.490	1.078	128.320	0.000
27	128.400	0.620	128.330	0.000	128.250	0.000	128.390	0.625	128.460	0.946	128.310	0.000
28	128.390	0.545	128.330	0.000	128.250	0.000	128.380	0.541	128.430	0.789	128.300	0.000
29	128.400	0.631	128.340	0.000			128.430	0.802 *	128.400	0.648 *	128.320	0.000
30	128.400	0.634	128.460	0.869			128.450	0.905 *	128.400	0.648 *	128.320	0.000
31	128.400	0.630 *	128.530	2.750			128.480	1.086			128.310	0.000
Ten-Daily Mean												
I Ten-Daily	128.490	2.096	128.370	0.448	128.475	1.405	128.346	0.463	128.605	2.934	128.492	1.105
II Ten-Daily	128.541	3.129	128.310	0.000	128.524	1.335	128.528	1.336	128.552	1.751	128.413	0.721
III Ten-Daily	128.464	1.767	128.351	0.329	128.451	0.974	128.460	0.961	128.468	0.970	128.325	0.048
Monthly												
Min.	128.390	0.545	128.300	0.000	128.250	0.000	128.240	0.000	128.400	0.648	128.300	0.000
Max.	128.560	3.778	128.530	2.750	128.560	3.001	128.590	1.596	128.710	5.541	128.560	1.586
Mean	128.497	2.313	128.344	0.261	128.486	1.257	128.445	0.921	128.542	1.885	128.407	0.606

Peak Computed Discharge = 12.85 cumecs on 30/09/2017 Corres. Water Level :128.87 m

Lowest Computed Discharge = 0.350 cumecs on 02/07/2017 Corres. Water Level :128.33 m

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

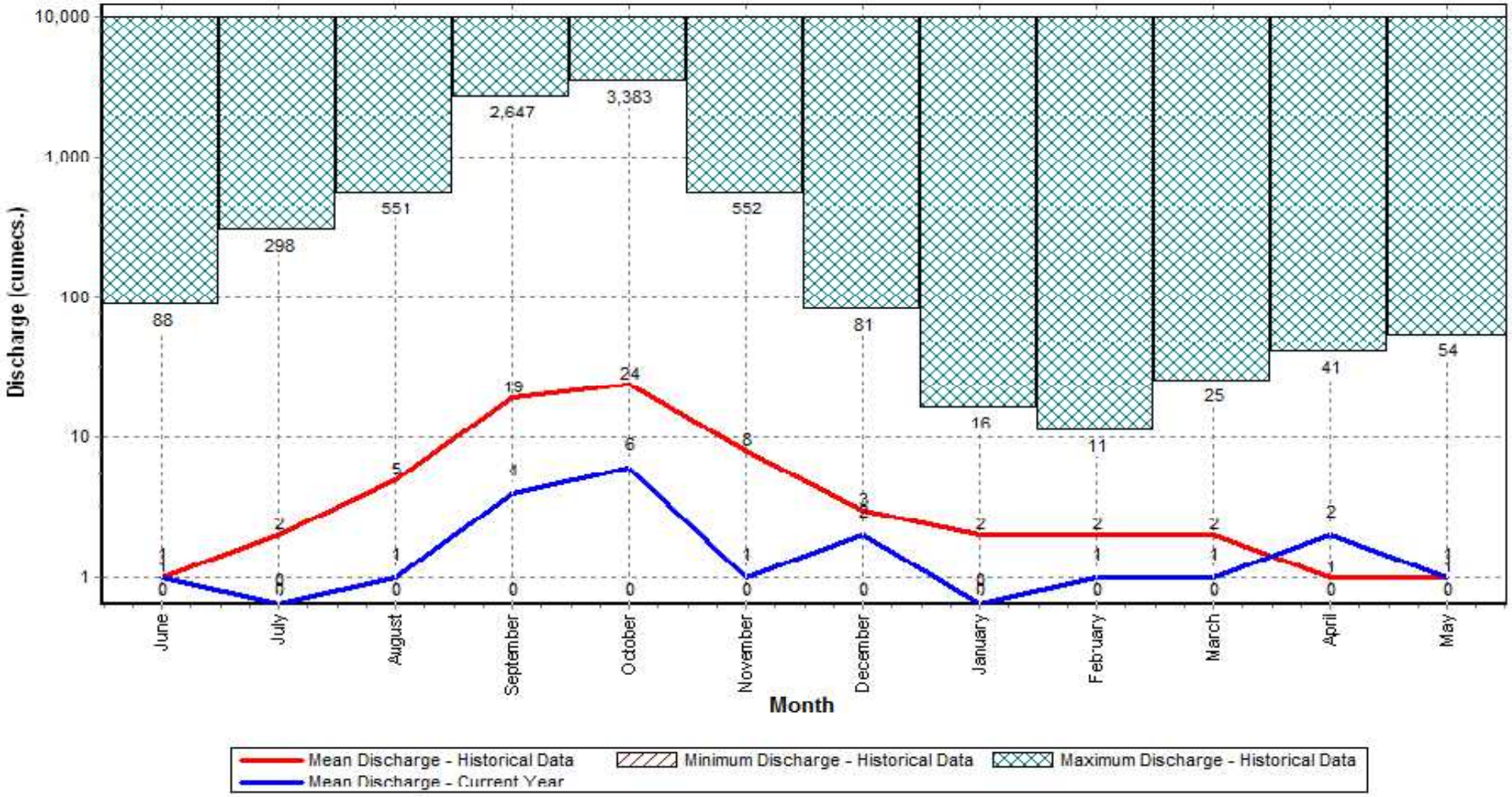
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Halia (AKH00G2) **Data considered : 1985-2018** **Division : Lower Krishna Divn., Hyderabad**

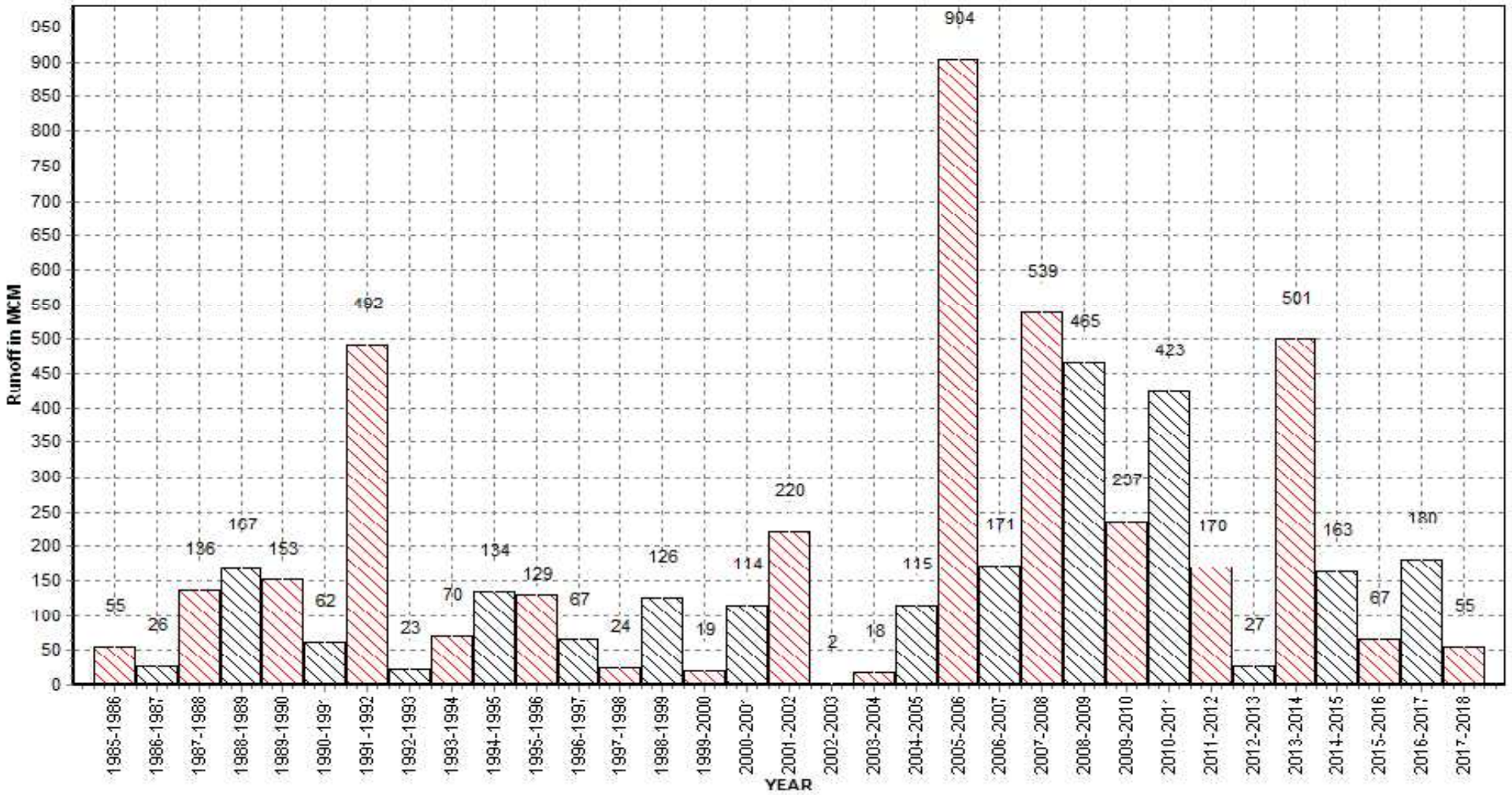
L **Dam**



Annual Runoff Values for the period: 1985 - 2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**

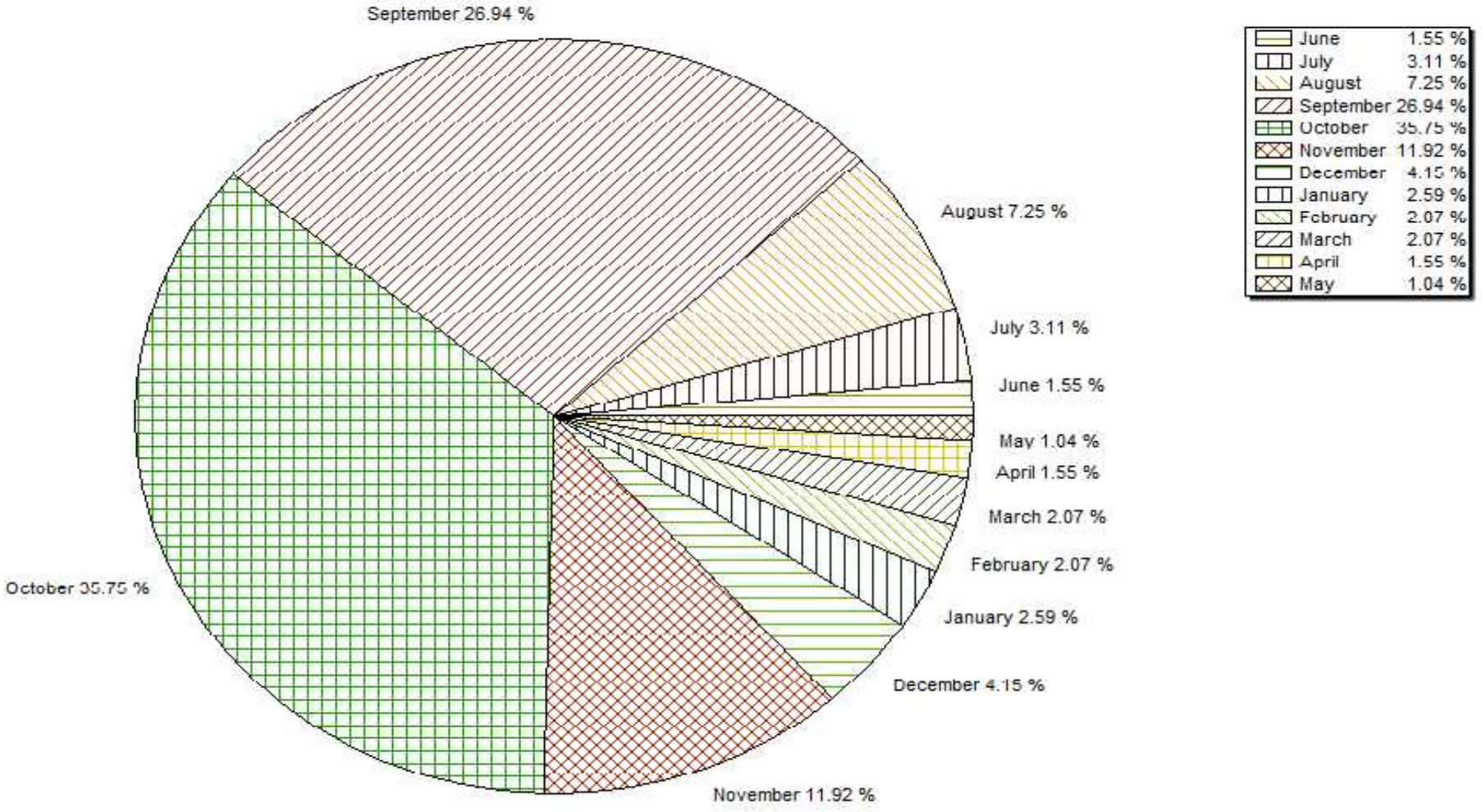


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1985-2017

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

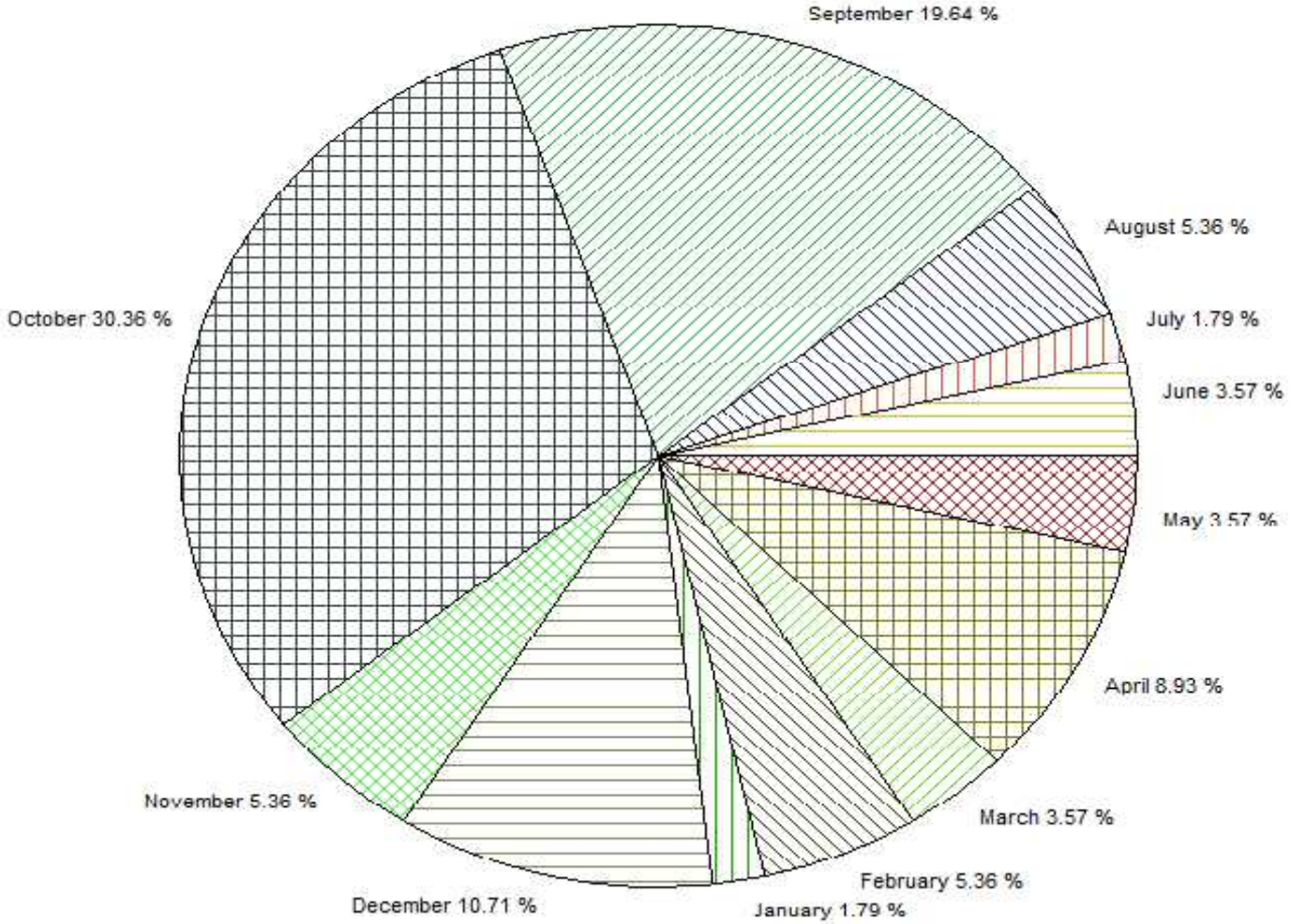
Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Monthly Runoff for the Year : 2017-2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**

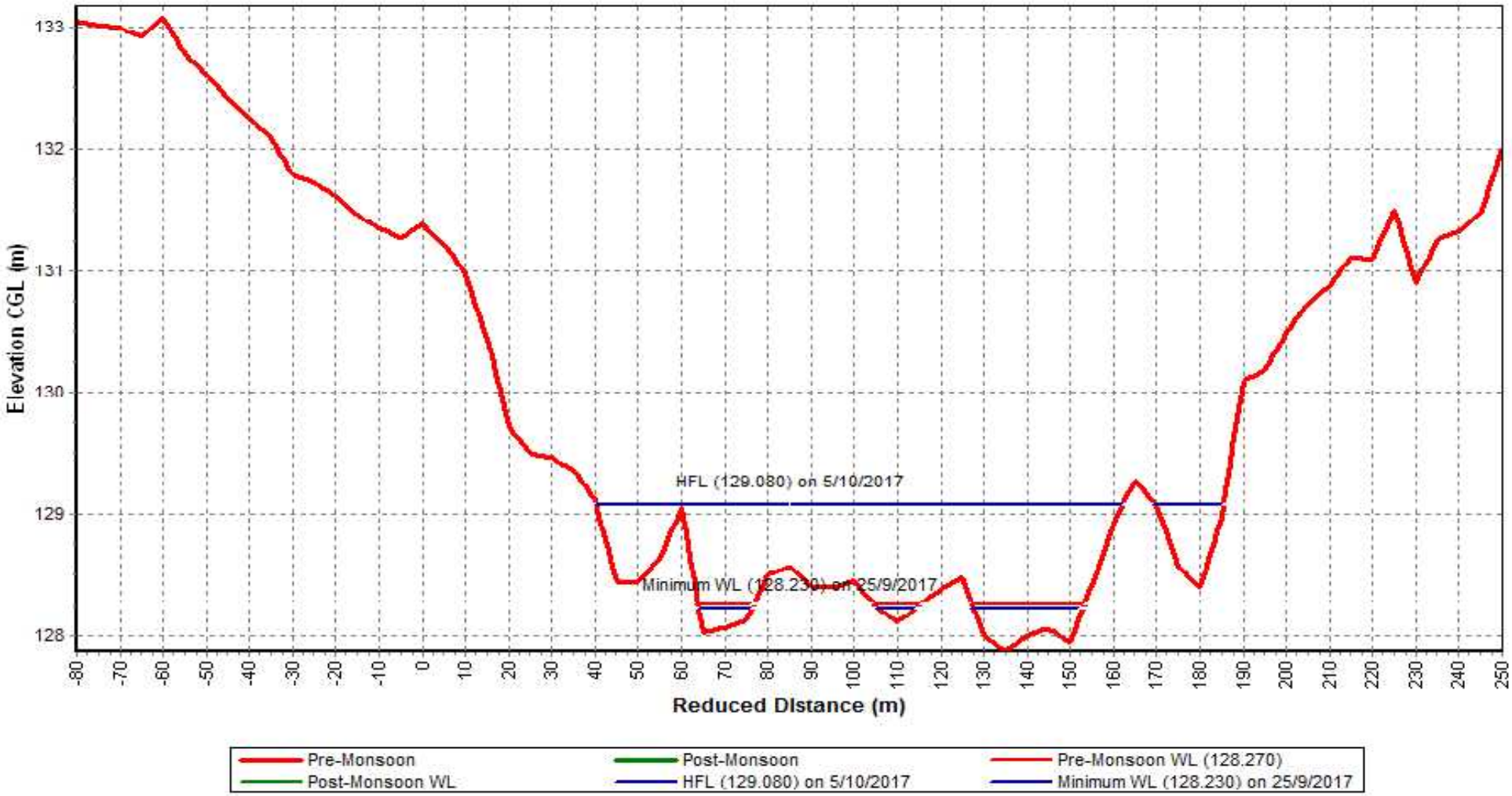


June	3.57 %
July	1.79 %
August	5.36 %
September	19.64 %
October	30.36 %
November	5.36 %
December	10.71 %
January	1.79 %
February	5.36 %
March	3.57 %
April	8.93 %
May	3.57 %

Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

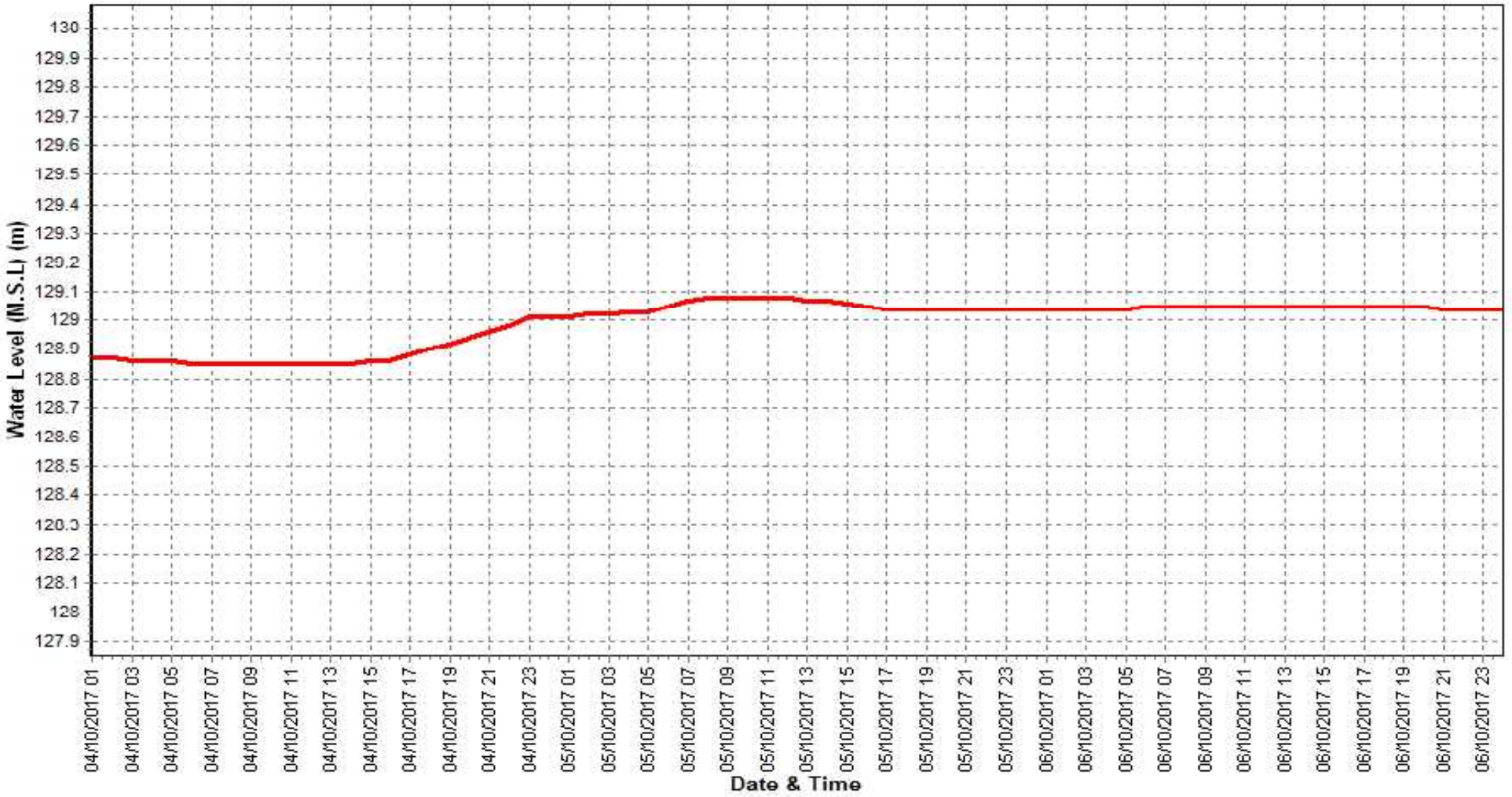
Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Halia (AKH00G2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Halia **Sub-Division : Lower Krishna SD 1, N.S.Dam**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**DODDIPADU.**	**Code**	:	**AKL00B1**
State	:	Andhra Pradesh	District		Kurnool
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	HUNDRI
Sub-Sub Tributary	:	PAL HANDRI	Local River	:	HUNDRI
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Tungabhadra SD, Kurnool
Drainage Area	:	3240 Sq. Km.	Bank	:	Left
Latitude	:	15°44'24"	Longitude	:	77°59'35"
Zero of Gauge (m)	:	286.383 (m.s.l)	18/11/2014		
		Opening Date	Closing Date		
Gauge	:	18/11/2014	HFL During 2017-18	:	290.063m
			Corres. Discharge	:	1836(Estimated)
Discharge	:	18/11/2014	Date & Time of occurance	:	13/10/2017 07.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m :290.063 dt 13-10-2017
Corresponding Discharge (cumecs) : 1836*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2015-2016	74.81	288.693	11/09/2015	0.000		24/08/2015
2016-2017	54.34	287.723	16/09/2016	0.000		18/04/2017

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

Annual Runff of Hundri at Doddipadu

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**2014-2015**	2	6	7
2	**2015-2016**	108	0	108
3	**2016-2017**	37	10	47
4	**2017-2018**	208	36	244
Average		118	13	101

Stage-Discharge Data for the period 2017 - 2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**

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		0.000		0.000		0.000	287.163	2.589 #	287.143	5.251
2		0.000		0.000		0.000		0.000	287.203	3.663 #	287.133	4.508
3		0.000		0.000		0.000		0.000	287.273	5.623	287.113	3.602
4		0.000		0.000		0.000		0.000	287.183	3.435	287.113	2.767 *
5		0.000		0.000		0.000		0.000	287.173	2.836 #	287.093	2.331 *
6		0.000		0.000		0.000		0.000	287.123	1.770	287.083	2.708
7		0.000		0.000		0.000		0.000	287.113	1.772	287.083	2.618
8		0.000		0.000		0.000		0.000	287.103	1.394 *	287.073	2.278
9		0.000		0.000		0.000		0.000	287.443	14.39	287.103	2.927
10		0.000		0.000		0.000		0.000	289.083	661.0	287.103	3.024
11		0.000		0.000		0.000		0.000	287.953	89.75	287.073	2.261
12		0.000		0.000		0.000		0.000	288.153	154.1	287.043	1.466 *
13		0.000		0.000		0.000		0.000	289.443	1012	287.063	1.608
14		0.000		0.000		0.000		0.000	287.573	31.62	287.063	1.791
15		0.000		0.000		0.000		0.000	287.973	95.57	287.063	1.972
16		0.000		0.000		0.000	287.178	2.790	287.498	24.35	287.053	1.696
17		0.000		0.000		0.000	287.073	0.963 #	287.883	70.04	287.073	2.019
18		0.000		0.000		0.000	286.943	0.000	287.428	14.98 #	287.173	8.085
19		0.000		0.000		0.000	287.168	2.906	287.433	16.74 *	287.153	3.794 *
20		0.000		0.000		0.000	287.283	6.324	287.373	13.36	287.103	2.557
21		0.000		0.000		0.000	287.153	2.195	287.353	12.95	287.123	3.562
22		0.000		0.000		0.000	287.083	0.955	287.323	10.45 *	287.133	3.653
23		0.000		0.000		0.000	287.043	0.628 #	287.293	8.046	287.123	3.332
24		0.000		0.000		0.000	287.033	0.536 #	287.133	6.386	287.123	3.386
25		0.000		0.000		0.000	287.033	0.536 #	287.153	7.517	287.133	3.679
26		0.000		0.000		0.000	287.123	1.741 #	287.143	6.495	287.123	3.004 *
27		0.000		0.000		0.000	287.063	0.792	287.133	5.775	287.113	2.662
28		0.000		0.000		0.000	287.163	2.932	287.123	4.439	287.103	2.198
29		0.000		0.000		0.000	287.298	6.925	287.113	2.767 *	287.143	4.726
30		0.000		0.000		0.000	287.243	4.987 *	287.123	4.662	287.203	6.413
31				0.000		0.000			287.123	4.517		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000	287.386	69.85	287.104	3.201
II Ten-Daily		0.000		0.000		0.000	287.129	1.298	287.871	152.2	287.086	2.725
III Ten-Daily		0.000		0.000		0.000	287.124	2.223	287.183	6.727	287.132	3.661
Monthly												
Min.		0.000		0.000		0.000	286.943	0.000	287.103	1.394	287.043	1.466
Max.		0.000		0.000		0.000	287.298	6.925	289.443	1012	287.203	8.085
Mean		0		0		0	287.125	1.174	287.470	74.02	287.107	3.196

Annual Runoff in MCM = 246 Annual Runoff in mm = 76

Peak Observed Discharge = 1012 cumecs on 13/10/2017 Corres. Water Level :289.443 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	287.243	7.550	287.183	5.606	287.183	4.694	287.093	0.000		0.000		0.000
2	287.203	5.941	287.173	5.168	287.163	3.597	287.073	0.000		0.000		0.000
3	287.183	4.699 *	287.173	5.168	287.163	3.597	287.053	0.000		0.000		0.000
4	287.143	4.329	287.193	5.984	287.163	4.083 *	287.043	0.000		0.000		0.000
5	287.113	2.625	287.153	3.419	287.203	5.337	287.033	0.000		0.000		0.000
6	287.143	4.363	287.163	3.859	287.203	5.273	287.033	0.000		0.000		0.000
7	287.183	5.334	287.153	3.794 *	287.173	3.951		0.000		0.000		0.000
8	287.153	4.458	287.173	4.961	287.193	5.190		0.000		0.000		0.000
9	287.143	4.009	287.203	6.066	287.213	6.660		0.000		0.000		0.000
10	287.153	3.794 *	287.223	6.461	287.213	5.972		0.000		0.000		0.000
11	287.173	4.841	287.203	5.995	287.213	5.719 *		0.000		0.000		0.000
12	287.193	5.995	287.183	5.390	287.193	4.545		0.000		0.000		0.000
13	287.193	5.784	287.173	4.629	287.183	4.456		0.000		0.000		0.000
14	287.203	6.549	287.163	4.083 *	287.163	3.913		0.000		0.000		0.000
15	287.193	6.567	287.163	4.083 *	287.183	4.333		0.000		0.000		0.000
16	287.193	6.573	287.153	3.813	287.183	4.153		0.000		0.000		0.000
17	287.193	5.026 *	287.153	3.542	287.163	3.609		0.000		0.000		0.000
18	287.183	5.853	287.093	2.205	287.173	4.384 *		0.000		0.000		0.000
19	287.183	5.723	287.143	3.453	287.183	4.105		0.000		0.000		0.000
20	287.183	5.662	287.143	3.323	287.193	4.165		0.000		0.000		0.000
21	287.173	5.189	287.153	3.794 *	287.193	3.758		0.000		0.000		0.000
22	287.163	4.439	287.223	5.830	287.183	3.756		0.000		0.000		0.000
23	287.183	5.500	287.213	5.624	287.173	3.089		0.000		0.000		0.000
24	287.173	4.384 *	287.213	5.495	287.183	3.006		0.000		0.000		0.000
25	287.173	4.387 *	287.203	5.271	287.153	3.794 *		0.000		0.000		0.000
26	287.183	5.600	287.203	5.366 *	287.133	1.983		0.000		0.000		0.000
27	287.163	4.388	287.183	4.743	287.133	1.939		0.000		0.000		0.000
28	287.173	4.759	287.183	4.699 *	287.103	0.000		0.000		0.000		0.000
29	287.153	3.888	287.193	4.838				0.000		0.000		0.000
30	287.133	3.108	287.173	4.525				0.000		0.000		0.000
31	287.153	3.794 *	287.183	4.782				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	287.166	4.710	287.179	5.049	287.187	4.835	287.055	0.000		0.000		0.000
II Ten-Daily	287.189	5.857	287.157	4.052	287.183	4.338		0.000		0.000		0.000
III Ten-Daily	287.166	4.494	287.193	4.997	287.157	2.665		0.000		0.000		0.000
Monthly												
Min.	287.113	2.625	287.093	2.205	287.103	0.000	287.033	0.000		0.000		0.000
Max.	287.243	7.550	287.223	6.461	287.213	6.660	287.093	0.000		0.000		0.000
Mean	287.173	5.003	287.177	4.709	287.177	4.038	287.055	0		0		0

Peak Computed Discharge = 16.74 cumecs on 19/10/2017 **Corres. Water Level :287.433 m**

Lowest Computed Discharge = 1.394 cumecs on 08/10/2017 **Corres. Water Level :287.103 m**

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

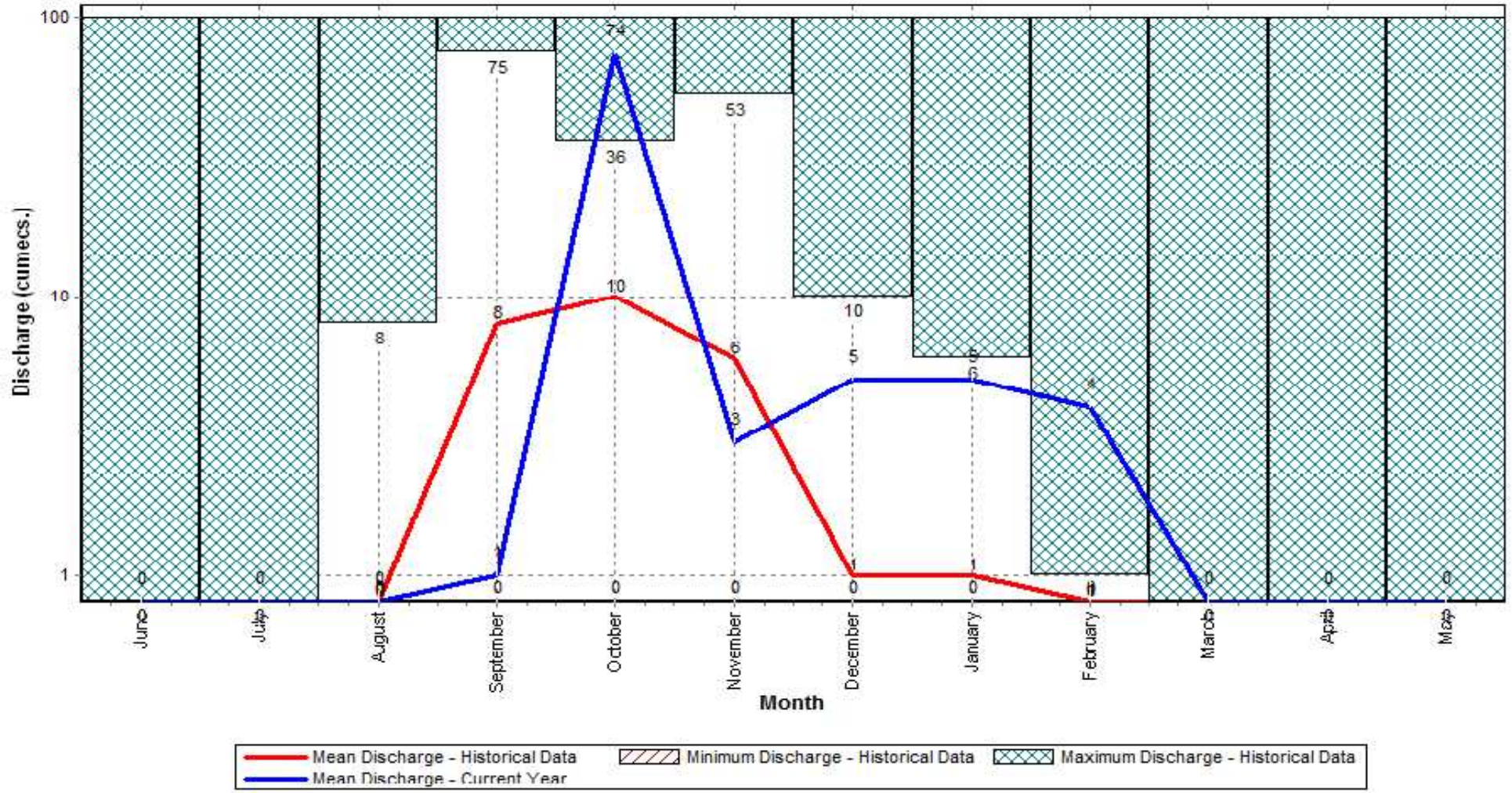
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : DODDIPADU. (AKL00B1) **Data considered : 2015-2018** **Division : Lower Krishna Divn., Hyderabad**

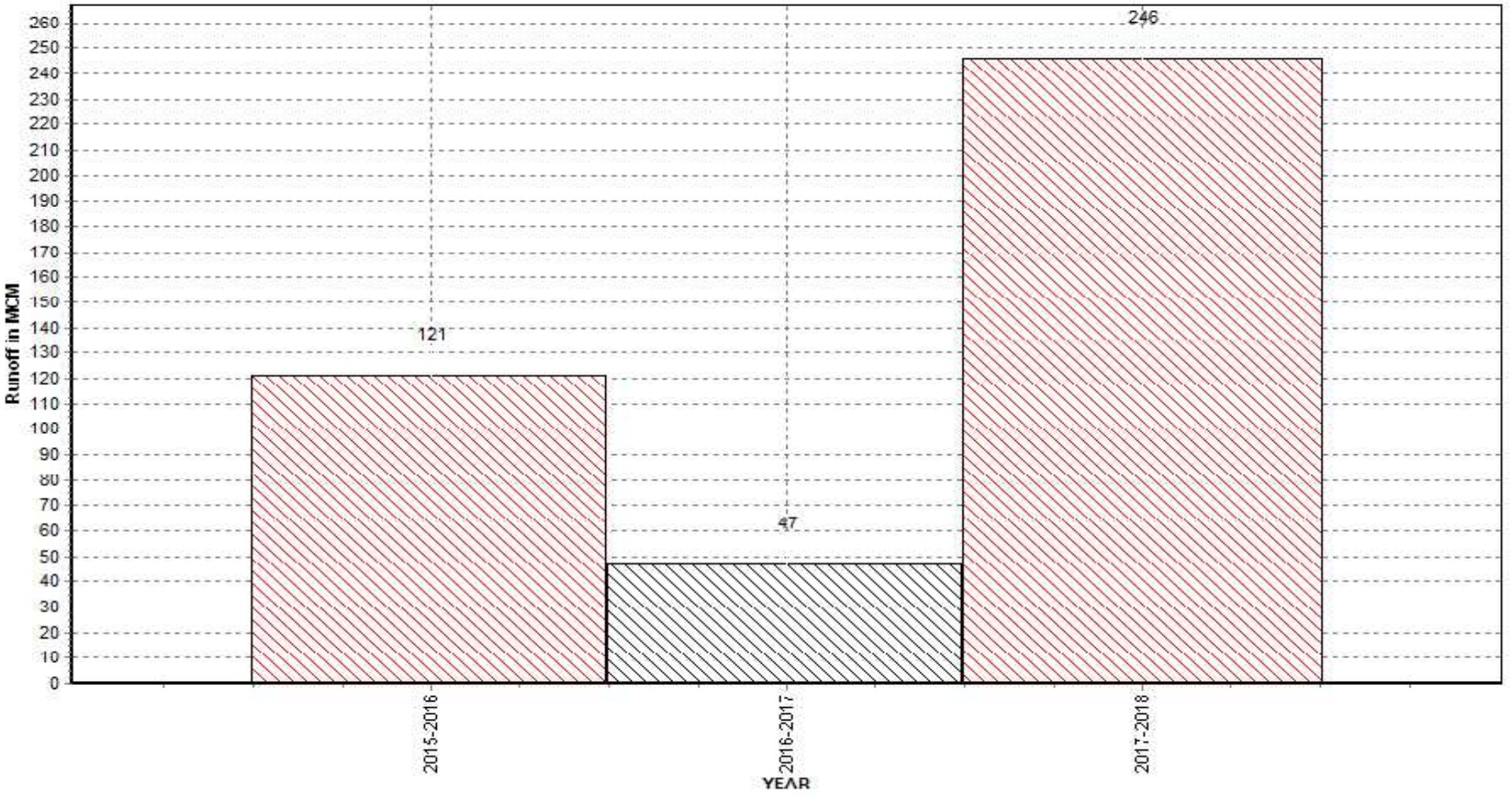
Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**



Annual Runoff Values for the period: 2015 - 2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**

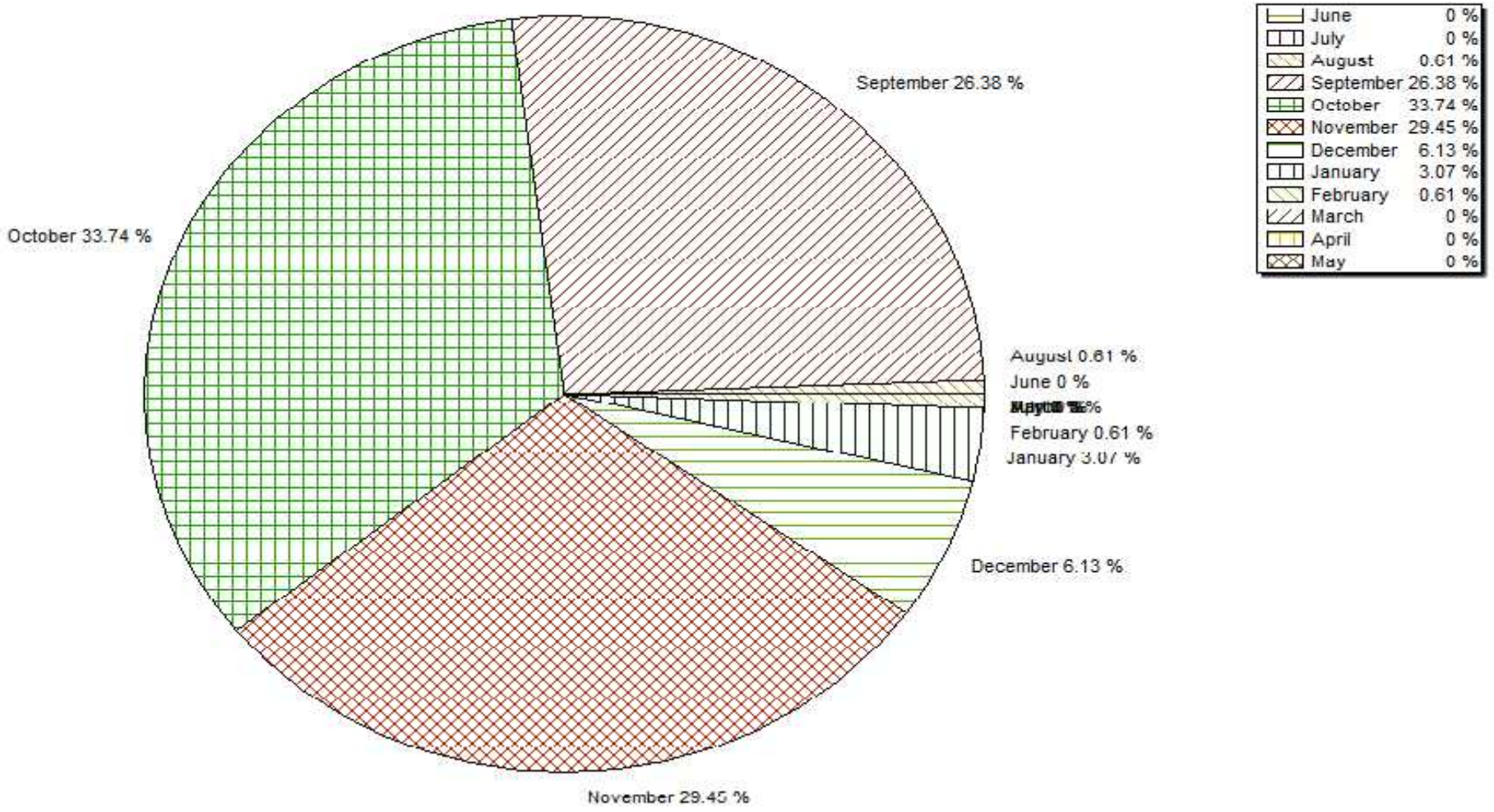


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2015-2017

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**



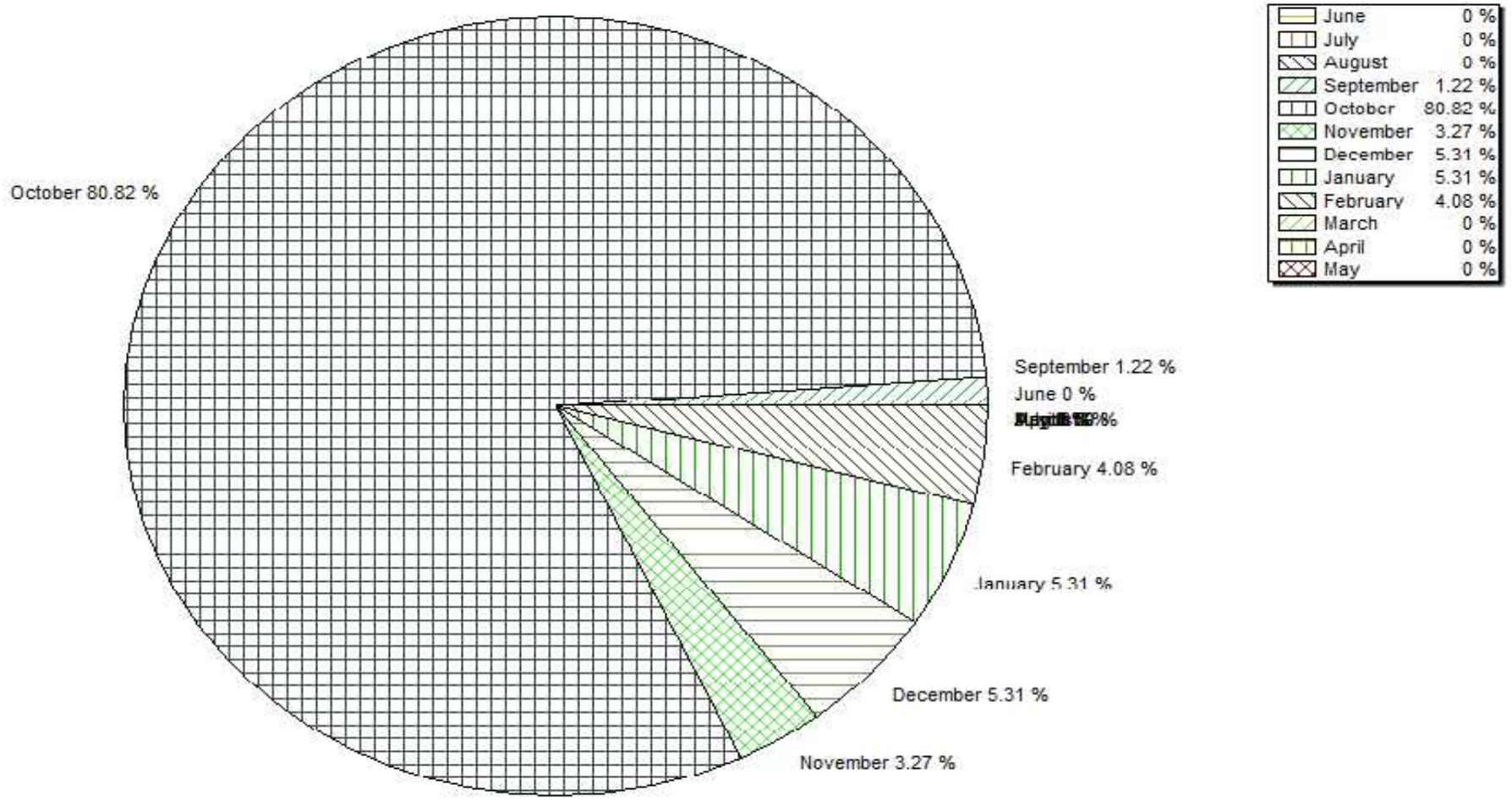
Monthly Runoff for the Year : 2017-2018

Station Name : DODDIPADU. (AKL00B1)

Division : Lower Krishna Divn., Hyderabad

Local River : HUNDRI

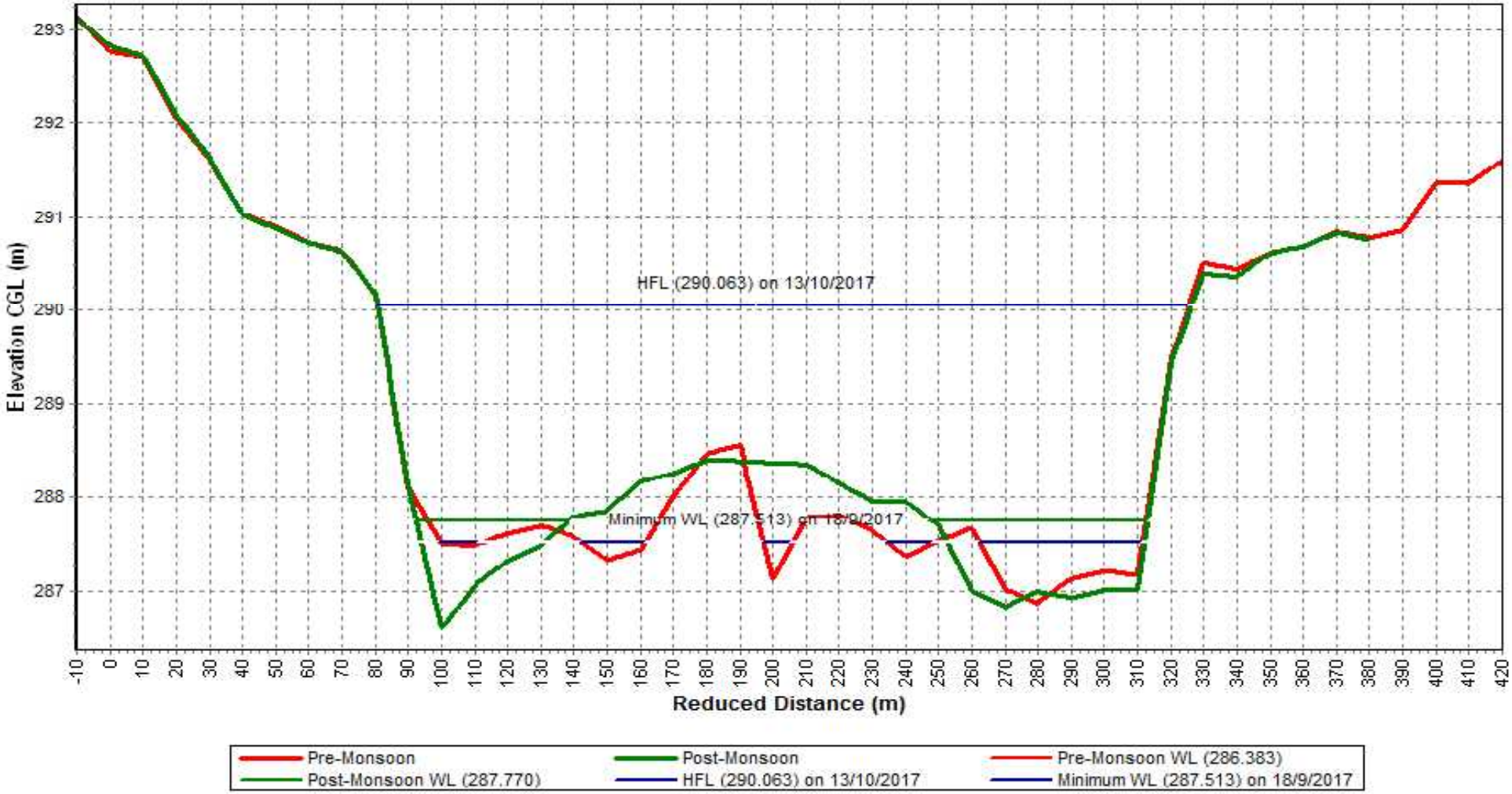
Sub-Division : Lower Tungabhadra SD, Kurnool



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

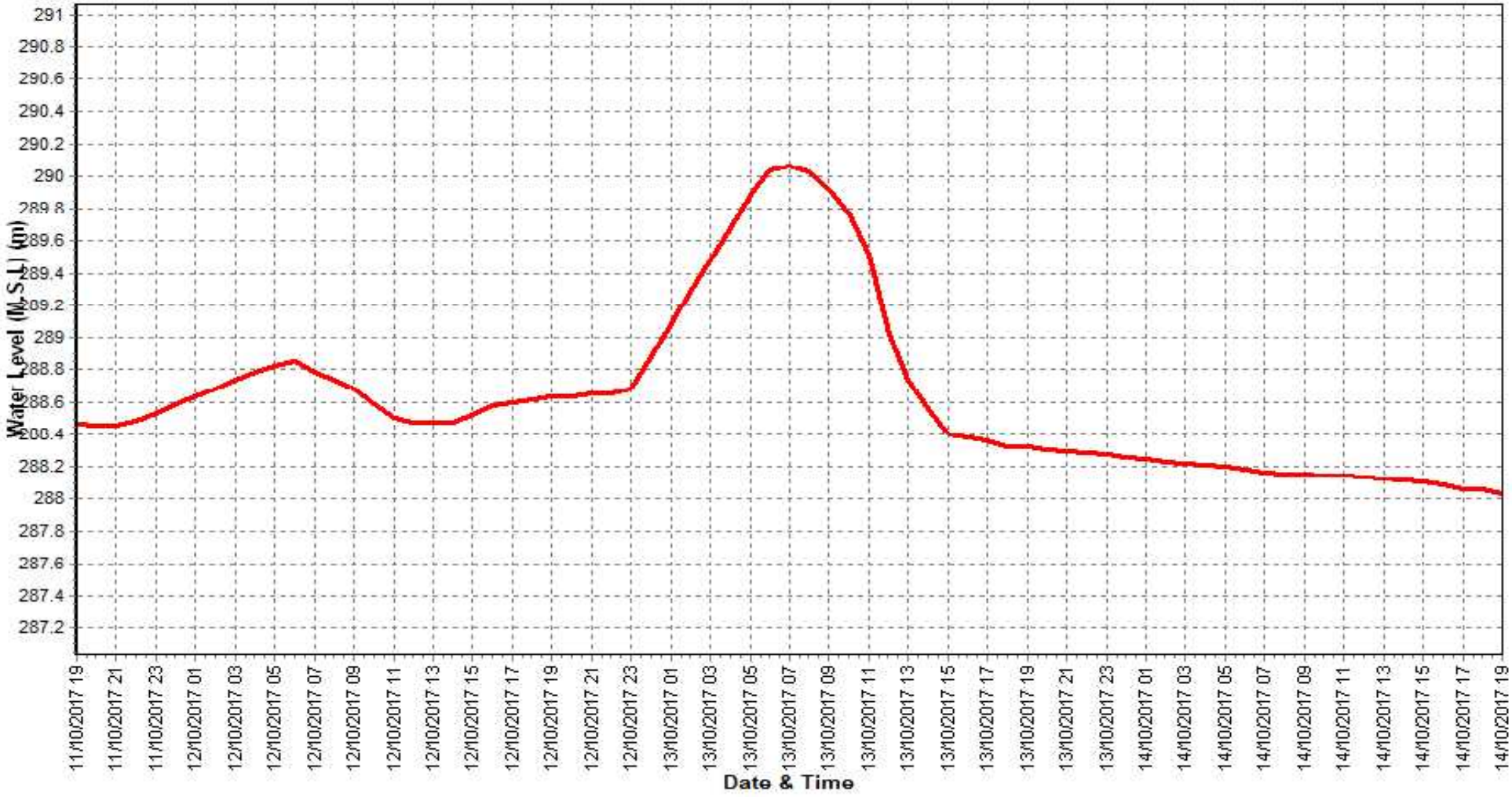
Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**

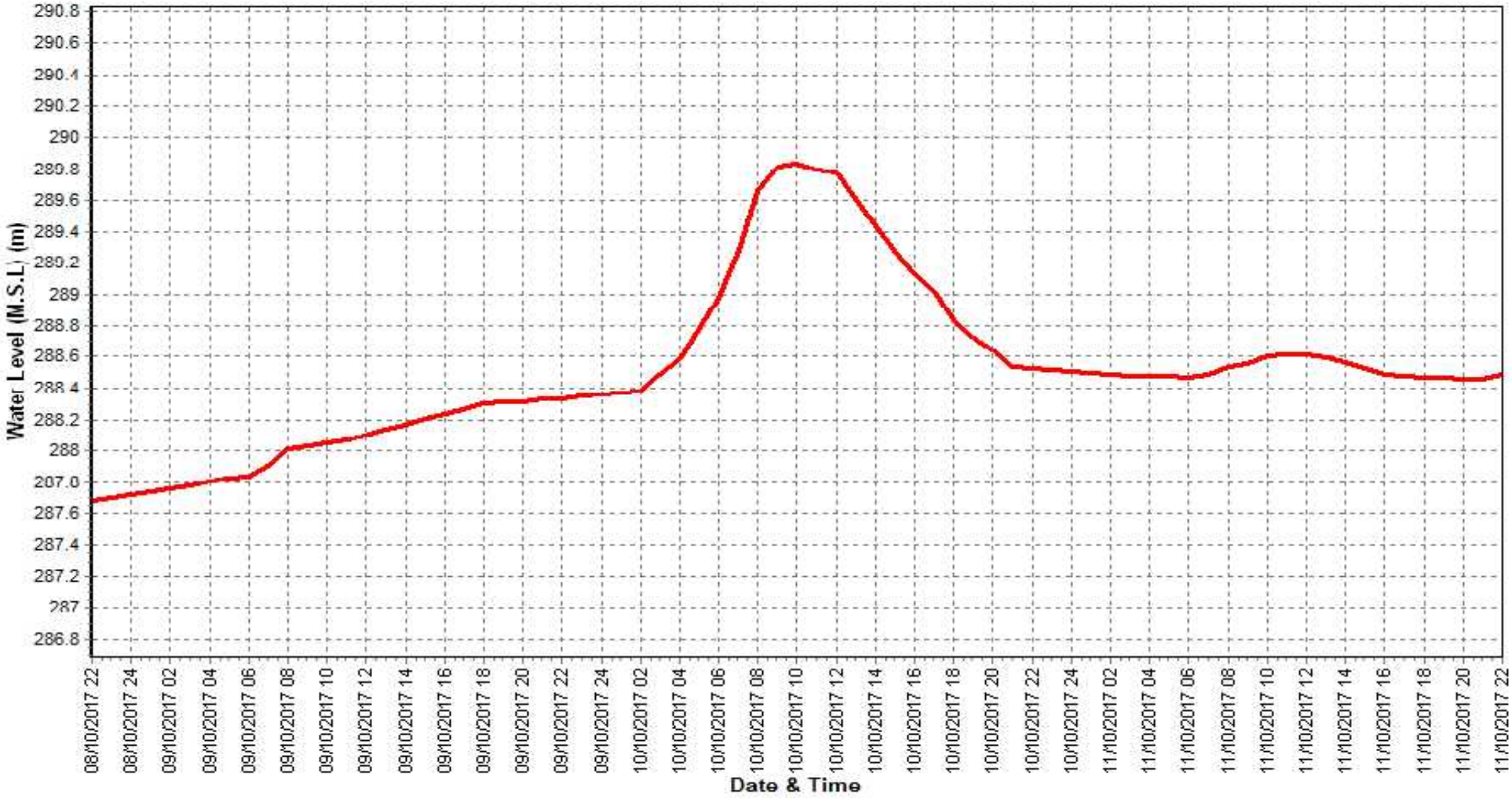


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : DODDIPADU. (AKL00B1) **Division : Lower Krishna Divn., Hyderabad**

Local River : HUNDRI **Sub-Division : Lower Tungabhadra SD, Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Bawapuram (Teriminal site of River Tungabhadra)**	**Code**	:	**AKL00B8**
State	:	Andhra Pradesh	District		Kurnool
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Tungabhadra
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Tungabhadra SD, Kurnool
Drainage Area	:	67180 Sq. Km.	Bank	:	Right
Latitude	:	15°52'57"	Longitude	:	77°57'26"
Zero of Gauge (m)	:	271.825 (m.s.l) 270.485 (m.s.l) 270.245 (m.s.l)	14/03/1964 01/06/1969 01/01/1973	-	31/05/1969 31/12/1972
		Opening Date	Closing Date		
Gauge	:	14/03/1964	HFL During 2017-18	:	274.525m
			Corres. Discharge	:	2798(Estimated)
Discharge	:	01/04/1964	Date & Time of	:	16/09/2017
			occurance	:	06.00 hrs.
Sediment	:	01/06/1965			
Water Quality	:	01/01/1972			

HFL Recorded so far in m : 285.225 dt 02-10-2009
Corresponding Discharge (cumecs) : 36303 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	3250	277.755	25/07/1965	1.000	272.560	23/03/1966
1966-1967	2700	277.295	25/09/1966	1.258	272.600	07/07/1966
1967-1968	3735	278.080	06/08/1967	1.049	272.550	11/07/1967
1968-1969	4987	278.337	09/10/1968	2.288	272.585	15/07/1968
1969-1970	3523	276.420	06/08/1969	2.500	271.410	15/05/1970
1970-1971	5714	277.883	21/09/1970	4.856	271.445	05/04/1971
1971-1972	3448	276.420	15/10/1971	4.140	271.455	09/05/1972
1972-1973	1152	274.660	19/09/1972	1.500	271.050	20/05/1973
1973-1974	1867	275.205	19/08/1973	1.700	271.305	11/05/1974
1974-1975	5520	277.285	28/09/1974	3.000	271.190	04/05/1975
1975-1976	6214	277.835	19/10/1975	3.300	271.145	03/07/1975
1976-1977	465.8	273.198	26/08/1976	3.000	271.105	13/10/1976
1977-1978	1864	274.945	13/10/1977	1.800	271.045	11/07/1977
1978-1979	6723	278.160	30/09/1978	2.100	271.055	01/07/1978
1979-1980	2149	275.445	25/09/1979	1.500	270.915	19/07/1979
1980-1981	4779	277.075	16/08/1980	0.800	270.990	03/05/1981
1981-1982	4345	276.885	20/09/1981	2.400	271.055	25/07/1981
1982-1983	3998	276.590	07/08/1982	1.600	271.015	04/05/1983

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**
1983-1984	2772	275.905	18/08/1983	0.700	270.915	13/07/1983
1984-1985	2944	275.815	06/08/1984	0.400	270.905	28/04/1985
1985-1986	1156	274.165	19/08/1985	0.100	270.885	19/04/1986
1986-1987	2858	275.585	16/08/1986	0.000	270.865	31/03/1987
1987-1988	1423	274.390	29/06/1987	0.170	270.835	09/06/1987
1988-1989	3455	275.975	31/08/1988	0.000		15/05/1989
1989-1990	2787	275.640	25/09/1989	0.000		02/06/1989
1990-1991	2989	275.945	18/08/1990	0.090	270.925	05/08/1990
1991-1992	3748	276.325	01/08/1991	0.023	270.915	21/04/1992
1992-1993	15004	280.445	19/11/1992	0.386	270.840	06/05/1993
1993-1994	4879	276.864	11/10/1993	1.418	270.815	09/07/1993
1994-1995	6971	278.015	19/07/1994	0.230	270.700	01/05/1995
1995-1996	1209	273.895	31/08/1995	0.000	270.655	28/06/1995
1996-1997	6509	277.525	03/10/1996	0.000	270.695	02/06/1996
1997-1998	5069	276.645	10/08/1997	0.945	270.775	24/07/1997
1998-1999	6036	276.975	15/10/1998	0.000	270.775	22/06/1998
1999-2000	2667	275.370	01/08/1999	0.542	270.665	01/02/2000
2000-2001	2629	275.515	11/10/2000	1.525	270.755	12/03/2001
2001-2002	3213	275.935	08/10/2001	0.000		22/05/2002
2002-2003	1268	274.295	13/10/2002	0.000	270.545	02/03/2003
2003-2004	534.0	273.185	24/10/2003	0.000	270.495	17/02/2004
2004-2005	1481	274.340	07/09/2004	0.000		03/05/2005
2005-2006	4651	276.345	06/08/2005	0.000		07/07/2005
2006-2007	5667	276.945	15/08/2006	0.000	270.395	02/04/2007
2007-2008	8101	278.395	20/09/2007	0.666	270.395	02/03/2008
2008-2009	6397	277.305	16/08/2008	0.000	270.275	15/05/2009
2009-2010	19986	281.585	02/10/2009	0.632	270.515	21/03/2010
2010-2011	5494	276.675	25/08/2010	0.585	270.505	10/08/2010
2011-2012	3774	275.590	05/09/2011	0.017	270.295	16/04/2012
2012-2013	1898	274.120	03/11/2012	0.000	270.125	23/04/2013
2013-2014	4755	275.755	06/08/2013	0.000	270.335	01/03/2014
2014-2015	5830	276.105	05/08/2014	0.000	270.285	08/04/2015
2015-2016	2081	273.955	08/09/2015	0.000	269.655	18/05/2016
2016-2017	1234	273.105	17/09/2016	0.000	269.995	25/01/2017

Annual Runoff of Tungabhadra at Bawapuram

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	4936	736	5672
2	**1966-1967**	2750	844	3594
3	**1967-1968**	4695	307	5002
4	**1968-1969**	5721	791	6511
5	**1969-1970**	6261	693	6954
6	**1970-1971**	9624	536	10160
7	**1971-1972**	4034	689	4723
8	**1972-1973**	2091	155	2246
9	**1973-1974**	5584	374	5958
10	**1974-1975**	5725	295	6020
11	**1975-1976**	14441	462	14903
12	**1976-1977**	686	292	978
13	**1977-1978**	3403	205	3608
14	**1978-1979**	11649	218	11867
15	**1979-1980**	3590	254	3843
16	**1980-1981**	8910	151	9061
17	**1981-1982**	6789	110	6900
18	**1982-1983**	4951	87	5038
19	**1983-1984**	4737	93	4830
20	**1984-1985**	3896	68	3964
21	**1985-1986**	1200	83	1283
22	**1986-1987**	2118	44	2161
23	**1987-1988**	2336	138	2475
24	**1988-1989**	4358	89	4447
25	**1989-1990**	2557	255	2812
26	**1990-1991**	4448	44	4492
27	**1991-1992**	6201	82	6284
28	**1992-1993**	9654	177	9831
29	**1993-1994**	5235	692	5927
30	**1994-1995**	10128	76	10204
31	**1995-1996**	1766	68	1834
32	**1996-1997**	5346	169	5515
33	**1997-1998**	4477	264	4741
34	**1998-1999**	8100	175	8275
35	**1999-2000**	5119	142	5261
36	**2000-2001**	5422	156	5578
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

38	**2002-2003**	786	53	839
39	**2003-2004**	495	177	672
40	**2004-2005**	1528	167	1695
41	**2005-2006**	5931	198	6129
42	**2006-2007**	4472	86	4558
43	**2007-2008**	10818	708	11526
44	**2008-2009**	5341	160	5501
45	**2009-2010**	9946	467	10414
46	**2010-2011**	5479	234	5713
47	**2011-2012**	3566	56	3622
48	**2012-2013**	1334	16	1351
49	**2013-2014**	7873	12	7885
50	**2014-2015**	7180	33	7213
51	**2015-2016**	1150	9	1159
52	**2016-2017**	356	0	356
53	**2017-2018**	1667	16	1683
Average		4984	237	5220

Stage-Discharge Data for the period 2017 - 2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

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	268.395	0.000	269.435	0.000	270.135	0.000	270.295	0.000	272.505	708.3 *	270.375	3.187
2	268.395	0.000	269.435	0.000	270.185	0.000	270.255	0.000	271.895	364.9 *	270.355	2.696
3	268.385	0.000	269.425	0.000	270.165	0.000	270.225	0.000	272.345	616.0	270.355	2.635
4	268.385	0.000	269.425	0.000	270.135	0.000	270.205	0.000	272.135	502.9	270.335	2.213 *
5	268.385	0.000	269.675	0.000	270.135	0.000	270.195	0.000	271.835	337.7 #	270.305	1.525 *
6	268.385	0.000	269.975	0.000	270.125	0.000	270.265	0.000	271.455	200.5	270.295	1.652
7	268.385	0.000	270.195	0.000	270.085	0.000	270.315	0.000	271.445	200.1	270.265	1.136
8	268.385	0.000	270.305	0.000	270.085	0.000	270.255	0.000	270.985	72.04 *	270.275	1.337
9	268.485	0.000	270.305	0.000	270.045	0.000	270.205	0.000	272.835	1007	270.295	1.676
10	268.535	0.000	270.325	2.587	270.045	0.000	272.625	790.8 *	272.425	643.8	270.285	1.582
11	268.545	0.000	270.325	2.433	270.105	0.000	271.725	286.8	272.815	845.5	270.295	1.652
12	268.555	0.000	270.315	2.215	270.115	0.000	271.145	113.0	272.440	649.9	270.305	1.525 *
13	268.595	0.000	270.295	1.867	270.145	0.000	271.055	91.76	272.030	430.2 #	270.305	1.844
14	268.665	0.000	270.305	2.048	270.185	0.000	271.055	92.40	273.365	1307	270.295	1.640
15	268.665	0.000	270.315	2.203	270.195	0.000	270.745	34.39 #	272.725	863.3 *	270.285	1.607
16	268.685	0.000	270.315	2.264 *	270.195	0.000	274.495	2757	272.275	564.2 #	270.275	1.364
17	268.765	0.000	270.305	2.054	270.215	0.000	272.520	692.4	272.575	764.1	270.265	1.145
18	269.165	0.000	270.295	1.800	270.205	0.000	272.225	509.1	271.730	276.9	270.275	1.387
19	269.415	0.000	270.325	2.504	270.155	0.000	272.275	592.7	271.945	388.4 *	270.275	0.963 *
20	269.425	0.000	270.315	2.216	270.135	0.000	271.145	114.1	271.370	182.1	270.285	1.580
21	269.425	0.000	270.305	2.005	270.095	0.000	271.275	133.2	270.790	27.15	270.315	1.943
22	269.475	0.000	270.295	1.827	270.085	0.000	271.175	119.8	270.525	9.487 *	270.345	2.403
23	269.475	0.000	270.285	1.508 *	270.075	0.000	270.565	10.19	270.555	12.79	270.355	2.458
24	269.475	0.000	270.285	1.508	270.045	0.000	270.435	7.070 *	270.515	8.716	270.355	2.482
25	269.475	0.000	270.285	1.472	270.035	0.000	270.375	3.299	270.435	5.042	270.355	2.506
26	269.465	0.000		0.000	270.045	0.000	270.465	5.071	270.405	4.294	270.345	2.471 *
27	269.445	0.000	270.225	0.000	270.095	0.000	270.425	4.101	270.375	3.168	270.345	2.437
28	269.445	0.000	270.205	0.000	270.185	0.000	270.425	4.207	270.600	16.11	270.345	2.449
29	269.435	0.000	270.195	0.000	270.445	0.000	271.825	297.7	270.655	17.37 *	270.345	2.448
30	269.425	0.000	270.145	0.000	270.305	0.000	273.455	1502 *	270.455	5.103	270.355	2.524
31			270.135	0.000	270.275	0.000			270.395	4.243		
Ten-Daily Mean												
I Ten-Daily	268.412	0.000	269.850	0.259	270.114	0.000	270.484	79.08	271.986	465.3	270.314	1.964
II Ten-Daily	268.848	0.000	270.311	2.160	270.165	0.000	271.839	528.4	272.327	627.2	270.286	1.471
III Ten-Daily	269.454	0.000	270.236	0.756	270.153	0.000	271.042	208.6	270.519	10.32	270.346	2.412
Monthly												
Min.	268.385	0.000	269.425	0.000	270.035	0.000	270.195	0.000	270.375	3.168	270.265	0.963
Max.	269.475	0.000	270.325	2.587	270.445	0.000	274.495	2757	273.365	1307	270.375	3.187
Mean	268.905	0	270.132	1.049	270.144	0	271.122	272	271.575	356.1	270.315	1.949

Annual Runoff in MCM = 1683 Annual Runoff in mm = 25

Peak Observed Discharge = 2757 cumecs on 16/09/2017 Corres. Water Level :274.495 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :268.395 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

Stage-Discharge Data for the period 2017 - 2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	270.355	2.469	270.275	1.144	270.145	0.000	270.125	0.000	269.965	0.000	269.985	0.000
2	270.345	2.450	270.265	0.846	270.145	0.000	270.135	0.000	269.935	0.000	270.025	0.000
3	270.345	2.471 *	270.235	0.000	270.135	0.000	270.135	0.000	270.105	0.000	270.045	0.000
4	270.335	2.340	270.225	0.000	270.115	0.000	270.115	0.000	270.115	0.000	270.095	0.000
5	270.355	2.523	270.215	0.000	270.095	0.000	270.065	0.000	270.125	0.000	270.095	0.000
6	270.355	2.540	270.195	0.000	270.095	0.000	270.035	0.000	270.135	0.000	270.095	0.000
7	270.375	3.040	270.185	0.000	270.095	0.000	270.015	0.000	270.145	0.000	270.075	0.000
8	270.375	3.050	270.165	0.000	270.095	0.000	269.995	0.000	270.135	0.000	270.065	0.000
9	270.375	3.326 *	270.155	0.000	270.115	0.000	269.975	0.000	270.125	0.000	270.045	0.000
10	270.375	3.326 *	270.155	0.000	270.165	0.000	270.005	0.000	270.115	0.000	270.035	0.000
11	270.365	2.684	270.165	0.000	270.165	0.000	270.025	0.000	270.085	0.000	270.005	0.000
12	270.355	2.456	270.155	0.000	270.165	0.000	270.045	0.000	270.055	0.000	269.985	0.000
13	270.355	2.439	270.145	0.000	270.155	0.000	270.055	0.000	270.045	0.000	269.975	0.000
14	270.355	2.469	270.135	0.000	270.145	0.000	270.065	0.000	270.025	0.000	269.965	0.000
15	270.345	2.428	270.125	0.000	270.125	0.000	270.065	0.000	270.005	0.000	269.955	0.000
16	270.345	2.398	270.125	0.000	270.115	0.000	270.065	0.000	269.985	0.000	269.925	0.000
17	270.345	2.471 *	270.125	0.000	270.095	0.000	270.035	0.000	269.965	0.000	269.925	0.000
18	270.355	2.466	270.135	0.000	270.085	0.000	270.015	0.000	269.945	0.000	269.925	0.000
19	270.365	2.721	271.025	52.69 *	270.065	0.000	270.025	0.000	269.925	0.000	269.945	0.000
20	270.365	2.693	270.855	34.09 *	270.045	0.000	270.055	0.000	269.915	0.000	269.965	0.000
21	270.335	2.333	270.605	14.06 *	270.035	0.000	270.075	0.000	269.885	0.000	270.005	0.000
22	270.325	2.224	270.435	4.963	270.035	0.000	270.095	0.000	269.865	0.000	270.005	0.000
23	270.325	2.241	270.355	2.462	270.025	0.000	270.095	0.000	269.855	0.000	269.995	0.000
24	270.315	1.741 *	270.305	1.846	270.005	0.000	270.095	0.000	269.835	0.000	269.985	0.000
25	270.305	1.525 *	270.275	1.119	270.065	0.000	270.095	0.000	269.835	0.000	269.975	0.000
26	270.295	1.561	270.225	0.000	270.085	0.000	270.085	0.000	269.815	0.000	269.965	0.000
27	270.275	1.320	270.215	0.000	270.105	0.000	270.065	0.000	269.785	0.000	269.955	0.000
28	270.275	1.296	270.185	0.000	270.115	0.000	270.045	0.000	269.775	0.000	269.935	0.000
29	270.275	1.300	270.175	0.000			270.025	0.000	269.775	0.000	269.925	0.000
30	270.275	1.279	270.165	0.000			269.995	0.000	269.875	0.000	269.905	0.000
31	270.275	0.963 *	270.155	0.000			269.975	0.000			269.955	0.000
Ten-Daily Mean												
I Ten-Daily	270.359	2.754	270.207	0.199	270.120	0.000	270.060	0.000	270.090	0.000	270.056	0.000
II Ten-Daily	270.355	2.522	270.299	8.678	270.116	0.000	270.045	0.000	269.995	0.000	269.957	0.000
III Ten-Daily	270.298	1.617	270.281	2.223	270.059	0.000	270.059	0.000	269.830	0.000	269.964	0.000
Monthly												
Min.	270.275	0.963	270.125	0.000	270.005	0.000	269.975	0.000	269.775	0.000	269.905	0.000
Max.	270.375	3.326	271.025	52.69	270.165	0.000	270.135	0.000	270.145	0.000	270.095	0.000
Mean	270.336	2.276	270.263	3.652	270.101	0	270.055	0	269.972	0	269.991	0

Peak Computed Discharge = 1502 cumecs on 30/09/2017 Corres. Water Level :273.455 m

Lowest Computed Discharge = 0.963 cumecs on 19/11/2017 Corres. Water Level :270.275 m

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

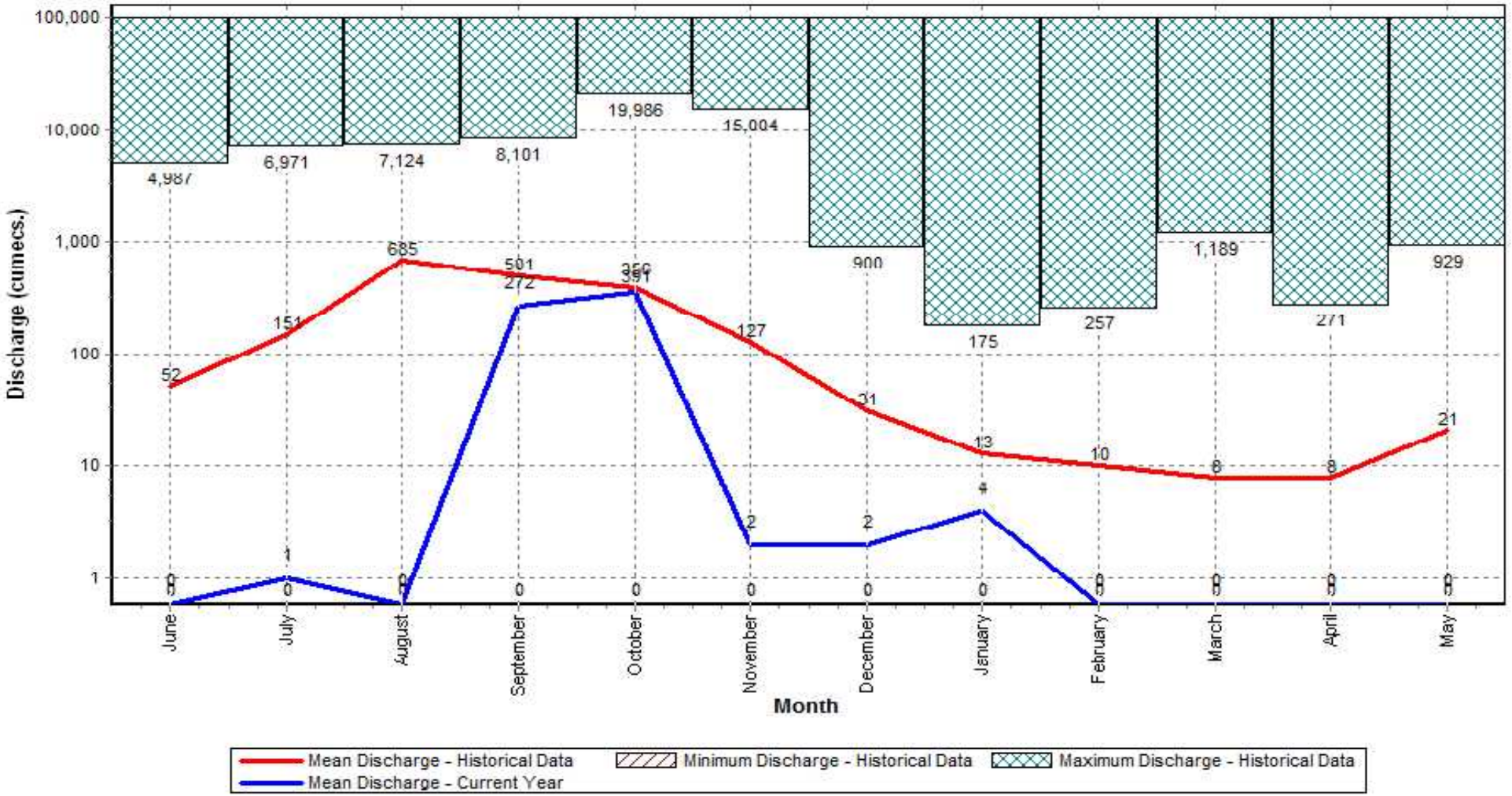
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Bawapuram (AKL00B8) **Data considered : 1965-2018** **Division : Lower Krishna Divn., Hyderabad**

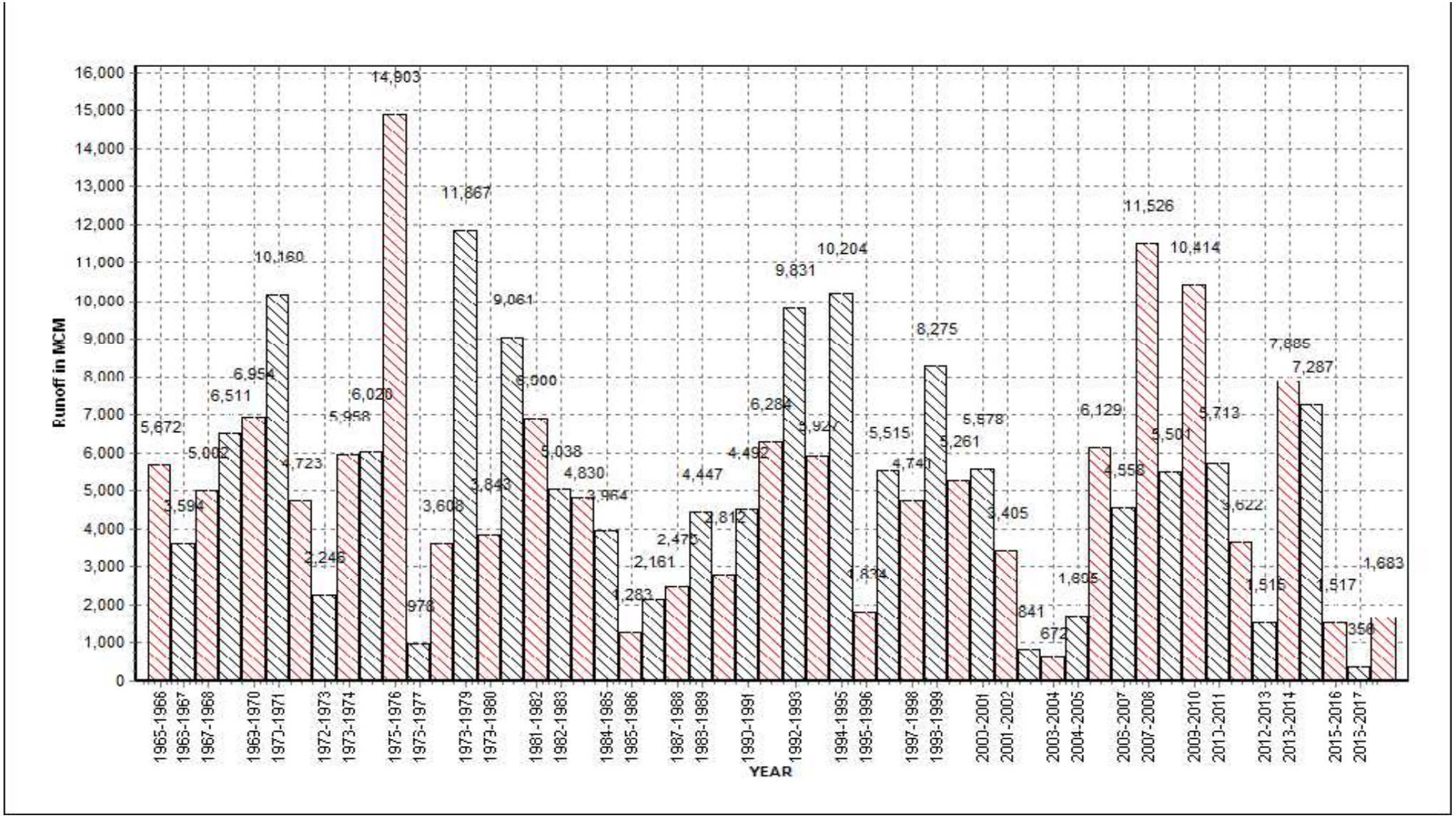
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

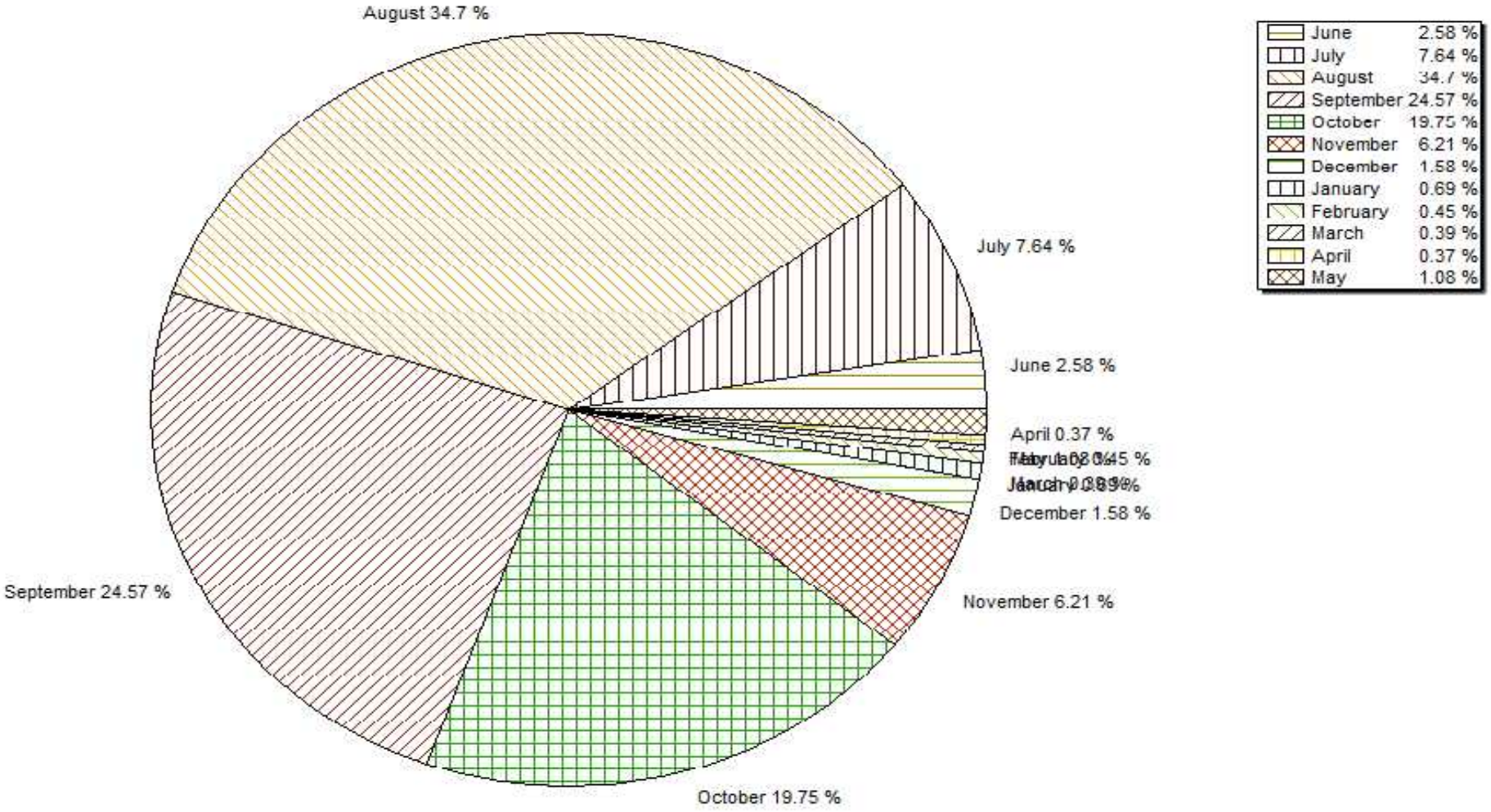


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



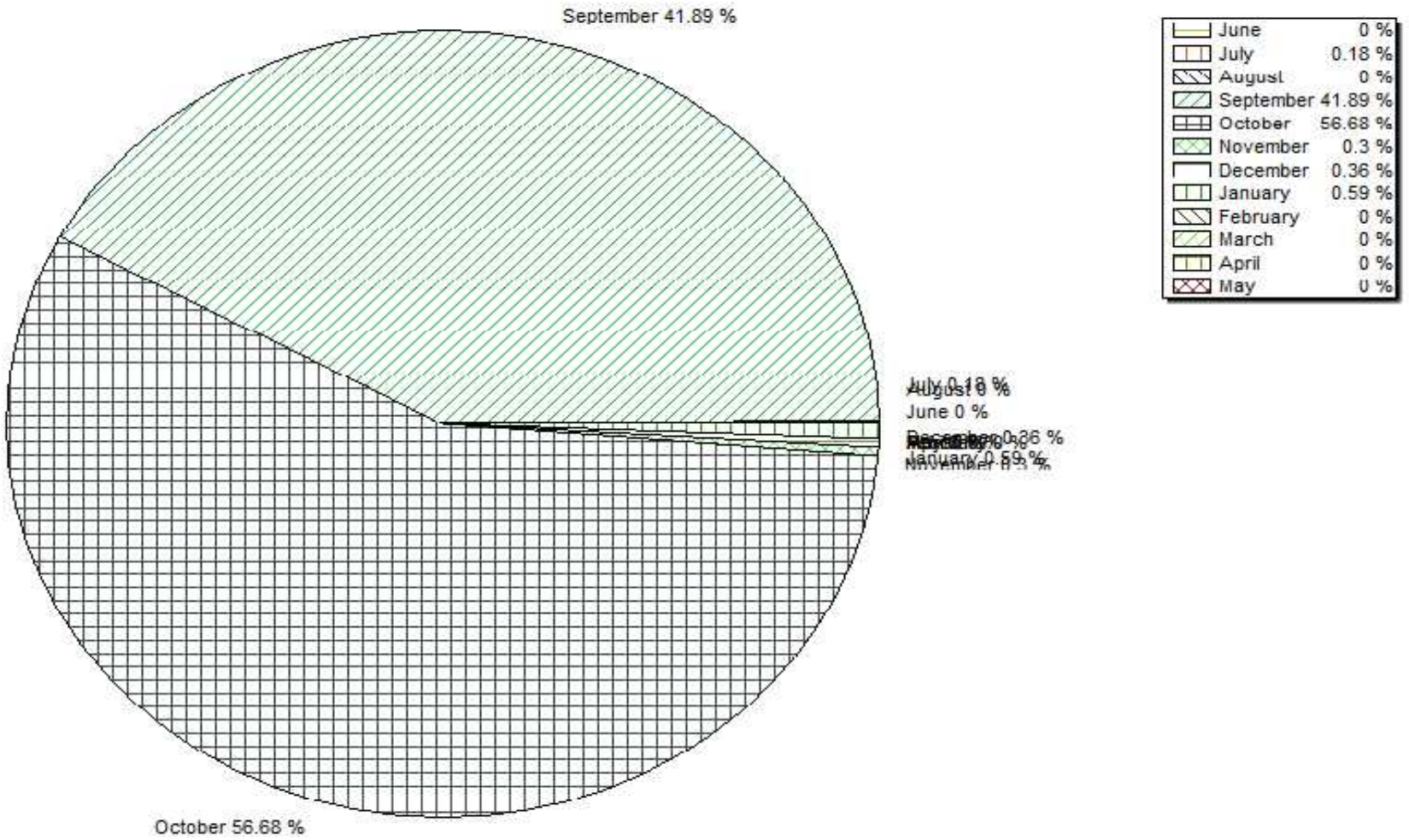
Monthly Runoff for the Year : 2017-2018

Station Name : Bawapuram (AKL00B8)

Division : Lower Krishna Divn., Hyderabad

Local River : Tungabhadra

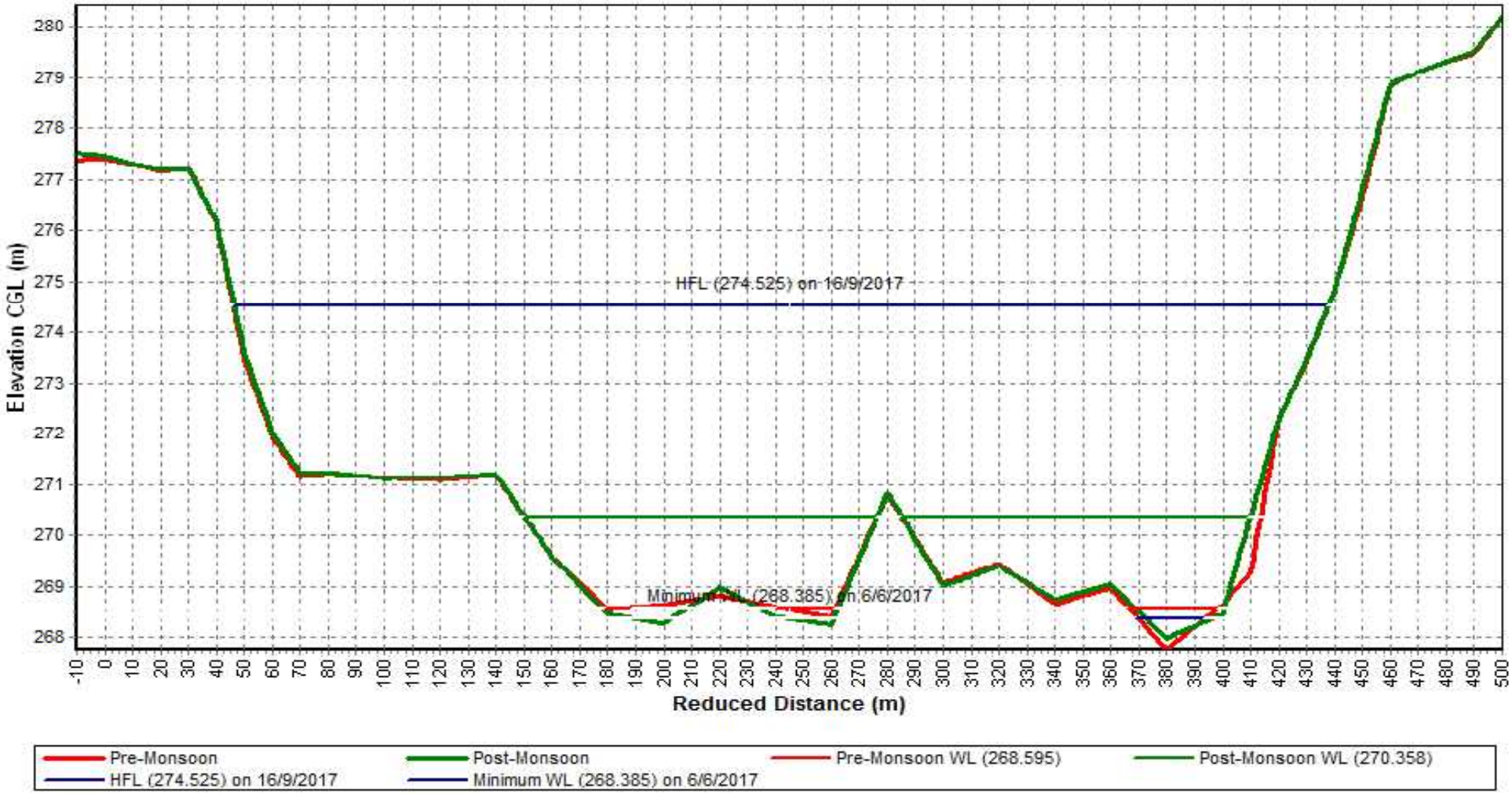
Sub-Division : Lower Tungabhadra SD, Kurnool



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

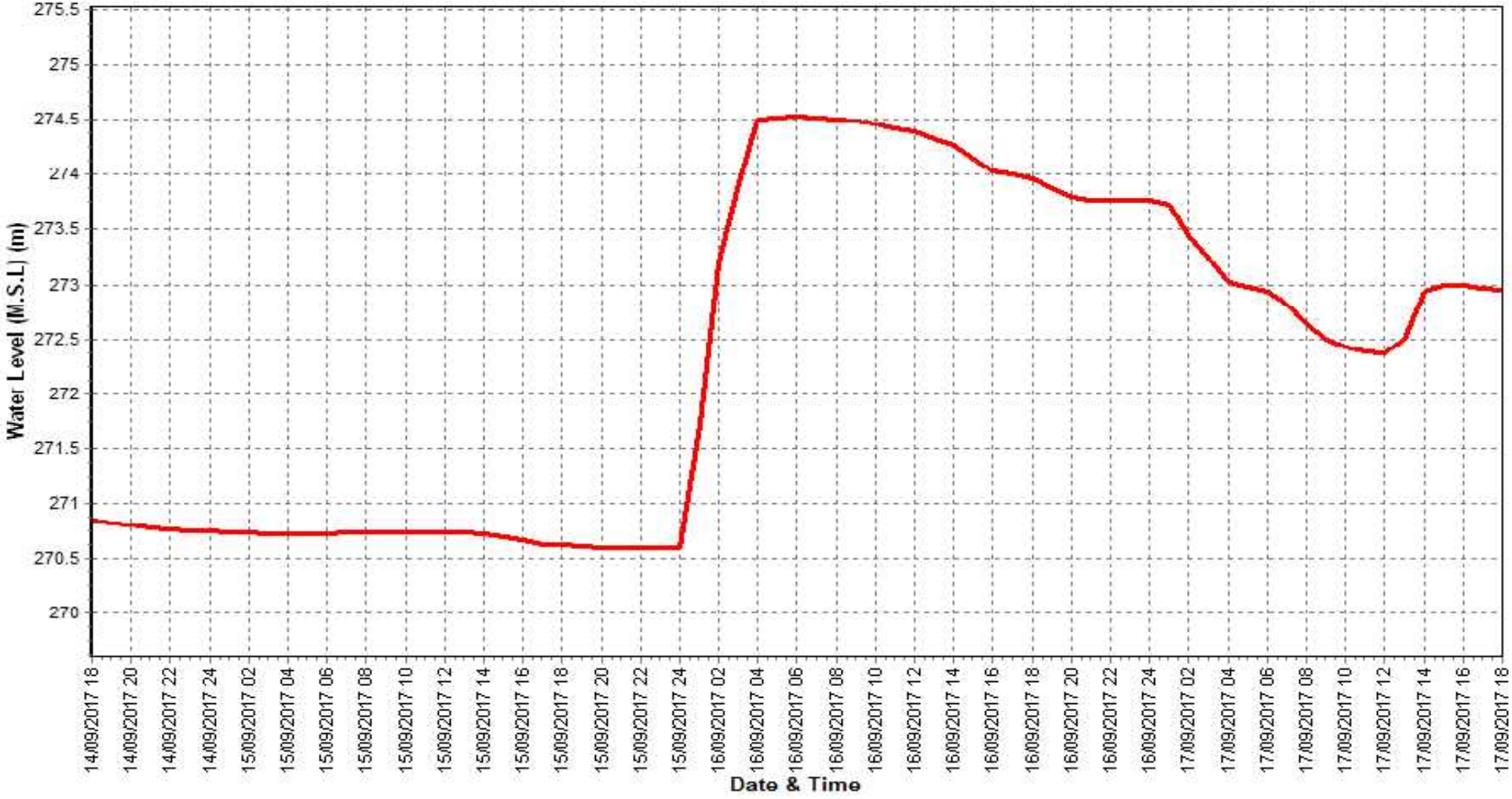
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

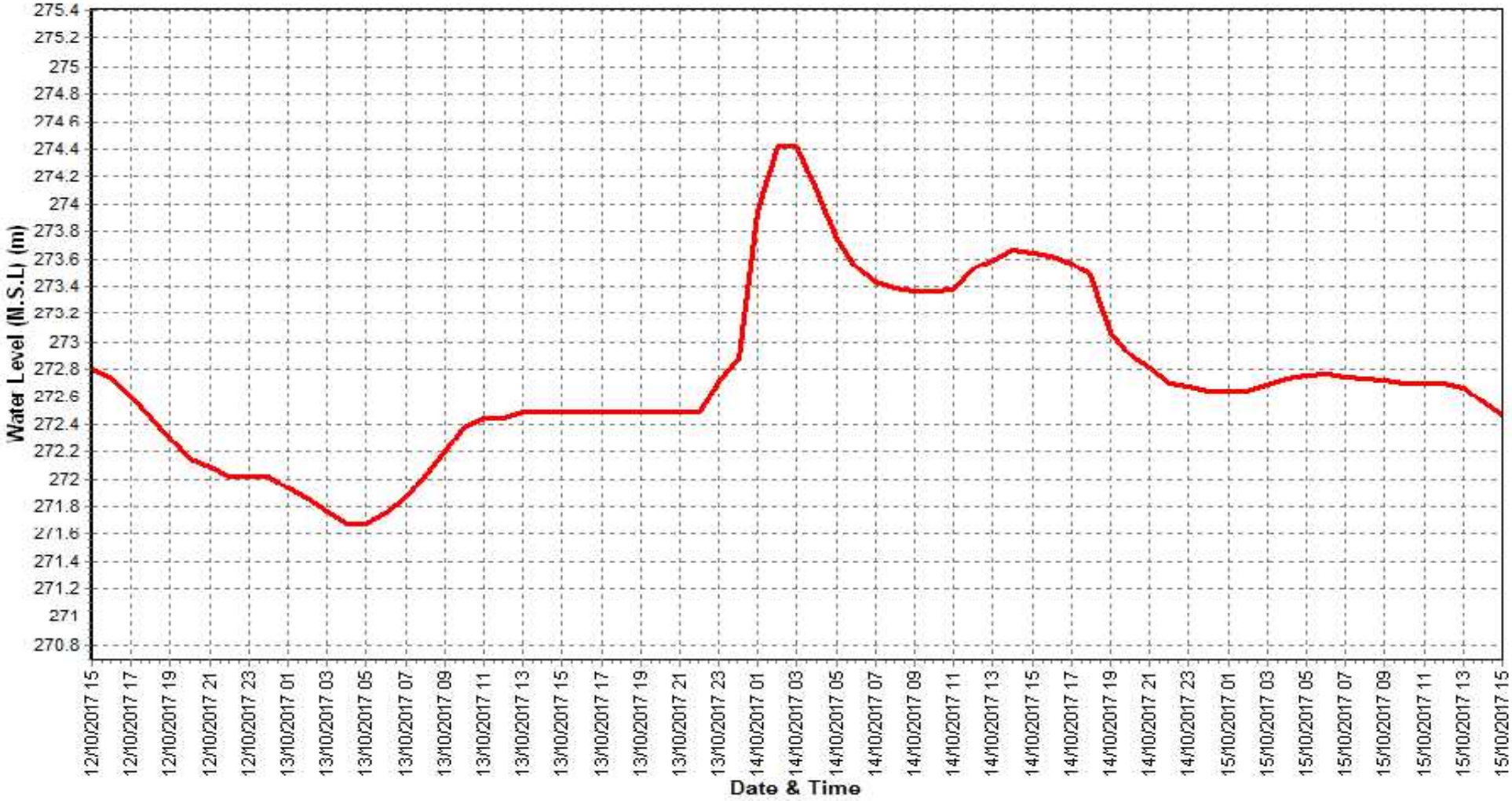


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

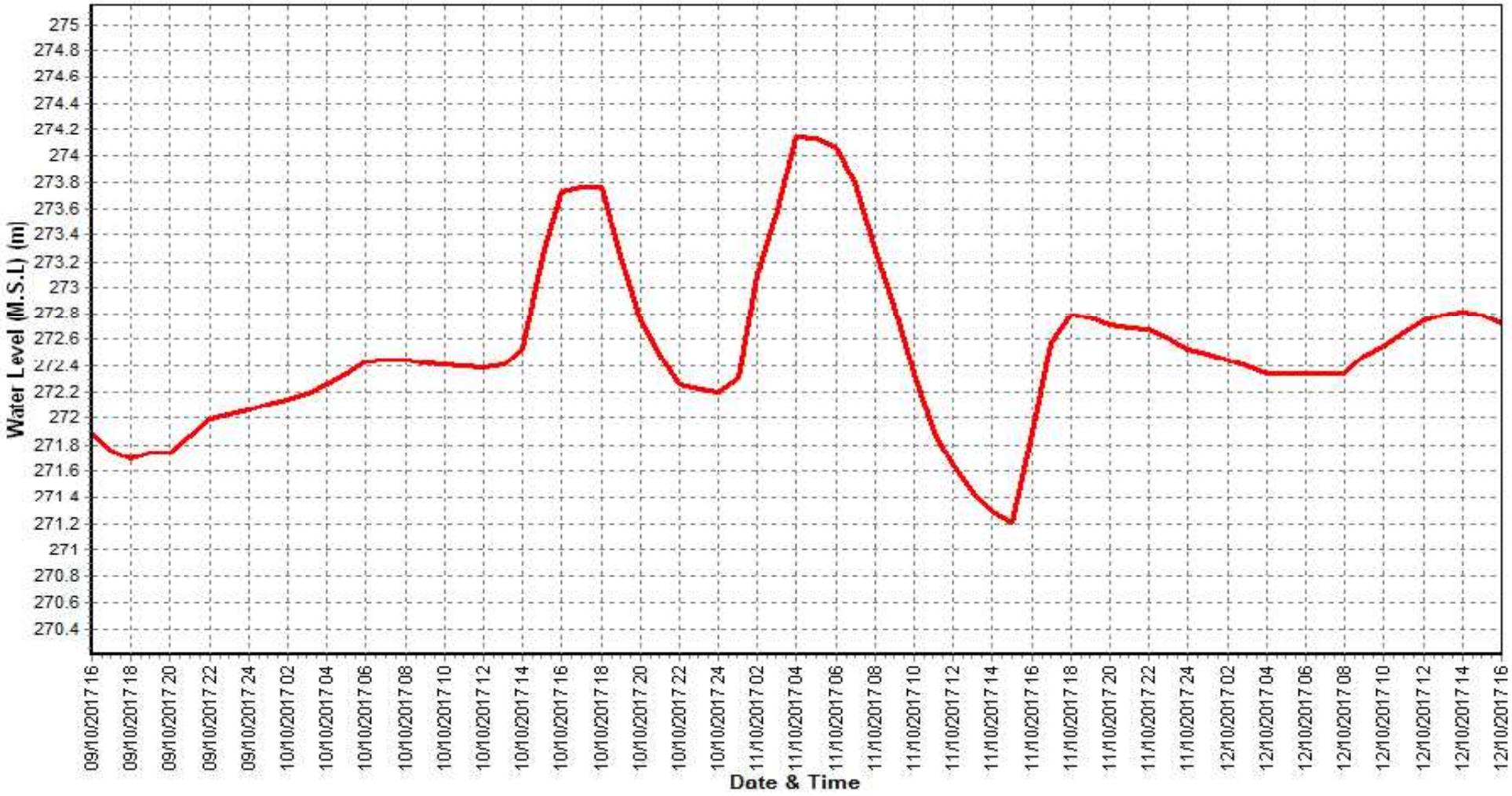


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Bawapuram (AKL00B8) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Mantralayam**		**Code**	**: AKL00F2**	
State	: Andhra Pradesh		District	Kurnool	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Tungabhadra		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Tungabhadra	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Lower Tungabhadra SD, Kurnool	
Drainage Area	: 60630 Sq. Km.		Bank	: Right	
Latitude	: 15°56'43"		Longitude	: 77°25'38"	
Zero of Gauge (m)	: 308.34 (m.s.l) 307.645 (m.s.l) 307.5 (m.s.l) 306 (m.s.l)		10/03/1972 01/12/1973 01/06/1975 01/06/1982	- 30/11/1973 - 31/05/1975 - 31/05/1982	
	Opening Date		Closing Date		
Gauge	: 10/03/1972		HFL During 2017-18	: 310.510m	
			Corres. Discharge	: 2400(Estimated)	
Discharge	: 01/06/1972		Date & Time of occurance	: 16/09/2017 : 01.00 hrs.	
Sediment	: 26/07/1977				
Water Quality	: 01/08/1977				

HFL Recorded so far in m : 318.770 dt 02-10-2009
Corresponding Discharge (cumecs) : 18882 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1972-1973	908.6	310.650	19/09/1972	15.20	308.710	27/05/1973
1973-1974	2259	312.197	25/10/1973	11.00	308.085	11/05/1974
1974-1975	5465	313.015	28/09/1974	7.700	307.975	31/05/1975
1975-1976	4489	313.260	19/10/1975	7.300	308.375	03/06/1975
1976-1977	568.2	309.920	22/08/1976	13.99	308.400	01/06/1976
1977-1978	2508	311.950	12/10/1977	19.70	308.465	06/07/1977
1978-1979	8504	314.775	30/09/1978	8.200	308.280	31/05/1979
1979-1980	3477	312.430	13/08/1979	4.800	308.215	31/05/1980
1980-1981	5258	313.630	08/07/1980	4.507	308.230	31/05/1981
1981-1982	5346	313.500	19/09/1981	4.600	308.220	02/06/1981
1982-1983	3161	311.045	06/08/1982	3.798	306.765	31/05/1983
1983-1984	2437	310.560	18/08/1983	2.400	306.755	07/06/1983
1984-1985	2943	310.778	10/10/1984	3.229	306.790	09/06/1984
1985-1986	1254	309.375	19/08/1985	2.752	306.720	31/05/1986
1986-1987	2904	310.695	15/08/1986	1.000	306.685	11/05/1987
1987-1988	1817	309.860	28/06/1987	0.736	306.645	17/06/1987
1988-1989	2644	310.365	16/09/1988	0.001	306.470	31/05/1989

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1989-1990	2310	310.285	25/09/1989	0.000	306.435	02/06/1989
1990-1991	3451	310.965	18/08/1990	2.552	306.890	25/05/1991
1991-1992	3919	311.453	31/07/1991	10.50	307.030	27/05/1992
1992-1993	16540	315.710	19/11/1992	7.040	307.024	09/07/1992
1993-1994	4208	311.382	19/10/1993	1.610	306.530	06/07/1993
1994-1995	7793	312.910	19/07/1994	0.981	306.300	11/05/1995
1995-1996	1198	309.200	31/08/1995	0.000	306.270	23/05/1996
1996-1997	5592	312.235	03/10/1996	0.000	306.280	01/06/1996
1997-1998	5186	311.810	10/08/1997	0.000	306.260	28/07/1997
1998-1999	5421	311.535	15/10/1998	0.000	306.230	18/06/1998
1999-2000	3522	310.980	30/07/1999	1.501	306.340	04/07/1999
2000-2001	2826	310.585	10/10/2000	0.270	306.290	26/07/2000
2001-2002	3796	311.330	08/10/2001	0.000		29/05/2002
2002-2003	1090	309.105	13/10/2002	0.000	305.810	16/05/2003
2003-2004	663.8	308.535	24/10/2003	0.000	305.850	26/04/2004
2004-2005	2008	309.900	17/08/2004	0.000	305.970	18/05/2005
2005-2006	5188	311.725	15/10/2005	0.000	305.980	13/06/2005
2006-2007	5307	312.040	15/08/2006	0.000	306.000	25/03/2007
2007-2008	7446	313.820	19/09/2007	0.929	306.130	25/05/2008
2008-2009	5831	312.410	16/08/2008	0.052	306.010	15/04/2009
2009-2010	18843	318.770	02/10/2009	0.063	305.920	22/07/2009
2010-2011	5646	312.690	25/08/2010	0.000	306.190	11/04/2011
2011-2012	3186	311.030	05/09/2011	0.000	306.060	18/03/2012
2012-2013	1766	309.705	05/09/2012	0.000	305.820	12/03/2013
2013-2014	4092	311.390	06/08/2013	0.000	306.010	11/07/2013
2014-2015	4810	312.015	05/08/2014	0.000	305.910	04/07/2014
2015-2016	1867	310.090	08/09/2015	0.000		05/05/2016
2016-2017	614.1	308.440	17/09/2016	0.000	305.930	25/02/2017

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

Annual Runoff of Tungabhadra at Mantralayam

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1972-1973**	2713	835	3548
2	**1973-1974**	6113	1226	7339
3	**1974-1975**	5864	1127	6992
4	**1975-1976**	16080	1582	17662
5	**1976-1977**	1640	786	2425
6	**1977-1978**	4095	1019	5113
7	**1978-1979**	13064	1088	14152
8	**1979-1980**	4799	1000	5799
9	**1980-1981**	10803	926	11730
10	**1981-1982**	8540	900	9441
11	**1982-1983**	6082	861	6943
12	**1983-1984**	5316	825	6141
13	**1984-1985**	4806	639	5445
14	**1985-1986**	1865	601	2465
15	**1986-1987**	3142	476	3618
16	**1987-1988**	2742	502	3244
17	**1988-1989**	4887	501	5388
18	**1989-1990**	3032	690	3722
19	**1990-1991**	5682	748	6429
20	**1991-1992**	7576	900	8476
21	**1992-1993**	10667	949	11617
22	**1993-1994**	6109	795	6904
23	**1994-1995**	11024	586	11611
24	**1995-1996**	2025	498	2523
25	**1996-1997**	5407	606	6013
26	**1997-1998**	5095	618	5713
27	**1998-1999**	8066	553	8620
28	**1999-2000**	6291	405	6696
29	**2000-2001**	5883	391	6275
30	**2001-2002**	3617	412	4029
31	**2002-2003**	915	285	1200
32	**2003-2004**	846	364	1210
33	**2004-2005**	2195	318	2513
34	**2005-2006**	7157	468	7625
35	**2006-2007**	5122	319	5441
36	**2007-2008**	11641	1171	12812
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

38	**2009-2010**	11503	781	12284
39	**2010-2011**	7130	544	7674
40	**2011-2012**	4255	294	4548
41	**2012-2013**	1786	167	1953
42	**2013-2014**	7804	272	8077
43	**2014-2015**	6999	481	7481
44	**2015-2016**	1530	194	1723
45	**2016-2017**	518	1	519
46	**2017-2018**	1642	133	1776
	Average	5650	635	6285

Stage-Discharge Data for the period 2017 - 2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

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	305.690	0.000	306.100	0.000	306.010	0.000	306.300	10.81	308.600	684.3 *	306.640	44.06
2	305.690	0.000	306.080	0.000	306.010	0.000	306.280	9.908 *	308.020	397.4 *	306.600	37.82 #
3	305.690	0.000	306.060	0.000	306.010	0.000	306.260	8.579 *	308.500	628.0 #	306.550	32.18 #
4	305.690	0.000	306.030	0.000	306.010	0.000	306.150	0.000	308.020	380.7	306.530	30.03 *
5	305.690	0.000	306.050	0.000	306.010	0.000	306.130	0.000	308.000	365.2	306.480	24.94 *
6	305.690	0.000	306.040	0.000	306.010	0.000	306.650	48.74 #	307.690	280.2	306.450	23.28
7	305.690	0.000	306.030	0.000	306.010	0.000	307.395	187.6 #	307.350	185.3	306.440	21.40
8	305.690	0.000	306.030	0.000	306.010	0.000	307.555	248.9	308.310	529.0 *	306.430	20.40
9	305.690	0.000	306.030	0.000	306.010	0.000	308.600	705.3	308.250	516.7	306.430	18.88
10	305.690	0.000	306.030	0.000	306.010	0.000	308.020	397.4 *	308.715	737.8	306.430	20.76
11	305.690	0.000	306.030	0.000		0.000	307.420	194.2 #	308.500	621.3	306.460	23.84
12	305.690	0.000	306.030	0.000		0.000	306.990	95.25	308.205	483.4	306.450	22.07 *
13	305.690	0.000	306.030	0.000		0.000	306.815	71.58	308.320	510.1	306.440	22.00
14	305.690	0.000	306.030	0.000	306.180	4.502	306.710	58.05	309.470	1250	306.430	20.39
15	305.690	0.000	306.030	0.000	306.200	5.111 *	306.600	42.59	308.400	574.6 *	306.420	19.49
16	305.690	0.000	306.020	0.000	306.230	5.071	310.095	1940	308.875	855.0 #	306.420	19.99
17	305.950	0.000	306.020	0.000	306.130	0.000	308.425	587.7 #	308.410	537.5	306.420	19.71
18	306.120	0.000	306.020	0.000	306.080	0.000	307.600	265.7	307.630	275.0	306.430	20.78
19	306.080	0.000	306.020	0.000	306.070	0.000	307.580	250.3	307.100	119.9 *	306.440	21.15 *
20	306.070	0.000	306.020	0.000	306.100	0.000	307.215	136.5	306.780	63.61	306.450	22.45
21	306.060	0.000	306.010	0.000	306.100	0.000	306.940	87.75	306.710	55.21	306.450	21.50
22	306.100	0.000	306.010	0.000	306.090	0.000	306.635	45.46	306.600	37.82 *	306.460	23.29
23	306.335	16.19	306.010	0.000	306.070	0.000	306.490	33.54	306.440	20.59	306.480	24.93
24	306.320	14.70	306.010	0.000	306.060	0.000	306.340	14.40 *	306.440	21.59	306.480	23.54
25	306.340	14.40 *	306.010	0.000	306.060	0.000	306.515	36.10	306.470	23.74	306.470	21.83
26	306.300	11.32 *	306.010	0.000	306.050	0.000	306.730	62.21	306.730	54.24 #	306.470	23.97 *
27	306.220	4.954	306.010	0.000	306.050	0.000	306.750	60.24	307.000	90.10	306.460	22.77
28	306.190	4.587	306.010	0.000	306.360	16.06 #	307.590	255.7	306.925	85.84	306.470	23.22
29	306.130	0.000	306.010	0.000	306.195	4.427	307.965	375.9	306.780	61.87	306.480	23.74
30	306.110	0.000	306.010	0.000	306.330	15.16	309.550	1377 *	306.720	53.44	306.545	31.64 #
31			306.010	0.000	306.300	13.52			306.670	46.12		
Ten-Daily Mean												
I Ten-Daily	305.690	0.000	306.048	0.000	306.010	0.000	306.934	161.7	308.146	470.5	306.498	27.38
II Ten-Daily	305.836	0.000	306.025	0.000	306.141	1.468	307.545	364.2	308.169	529.0	306.436	21.19
III Ten-Daily	306.210	6.615	306.010	0.000	306.151	4.470	307.151	234.9	306.680	50.05	306.477	24.04
Monthly												
Min.	305.690	0.000	306.010	0.000	306.010	0.000	306.130	0.000	306.440	20.59	306.420	18.88
Max.	306.340	16.19	306.100	0.000	306.360	16.06	310.095	1940	309.470	1250	306.640	44.06
Mean	305.912	2.205	306.027	0	306.098	2.06	307.210	253.6	307.633	340.2	306.470	24.2

Annual Runoff in MCM = 1776 Annual Runoff in mm = 29

Peak Observed Discharge = 1940 cumecs on 16/09/2017 Corres. Water Level :310.095 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :305.69 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 2017 - 2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	306.600	37.82 #	306.130	0.000	306.180	3.751	306.350	14.41	305.600	0.000	305.130	0.000
2	306.630	41.39 *	306.130	0.000	306.170	2.576	306.380	15.98 *	305.590	0.000	305.120	0.000
3	306.630	41.39 *	306.120	0.000	306.170	2.491	306.340	12.76	305.570	0.000	305.100	0.000
4	306.640	44.05	306.100	0.000	306.160	0.000	306.320	11.42 *	305.550	0.000	305.090	0.000
5	306.640	42.41	306.080	0.000	306.140	0.000	306.320	12.02	305.530	0.000	305.080	0.000
6	306.640	43.16	306.060	0.000	306.130	0.000	306.300	11.45	305.500	0.000	305.070	0.000
7	306.650	44.99	306.050	0.000	306.140	0.000	306.280	10.81	305.480	0.000	305.060	0.000
8	306.650	44.73	306.030	0.000	306.130	0.000	306.250	6.412	305.460	0.000	305.050	0.000
9	306.630	41.39 *	306.020	0.000	306.120	0.000	306.190	4.024	305.460	0.000	305.050	0.000
10	306.630	41.39 *	306.010	0.000	306.100	0.000	306.140	0.000	305.460	0.000	305.050	0.000
11	306.630	42.25		0.000	306.090	0.000	306.110	0.000	305.460	0.000	305.050	0.000
12	306.630	41.49		0.000	306.080	0.000	306.080	0.000	305.460	0.000	305.050	0.000
13	306.620	39.89	306.880	78.03	306.070	0.000	306.050	0.000	305.450	0.000	305.050	0.000
14	306.620	41.21	306.800	64.09 *	306.060	0.000	306.020	0.000	305.440	0.000	305.050	0.000
15	306.650	42.48	306.660	45.09 *	306.050	0.000		0.000	305.430	0.000	305.110	0.000
16	306.630	40.72	306.895	80.12	306.040	0.000		0.000	305.410	0.000	305.190	0.000
17	306.530	30.03 #	306.900	78.81	306.030	0.000	305.970	0.000	305.410	0.000	305.240	0.000
18	306.520	28.98 #	306.840	72.15	306.020	0.000	305.940	0.000	305.400	0.000	305.260	0.000
19	306.500	26.93 #	306.620	40.80	306.020	0.000	305.910	0.000	305.400	0.000	305.280	0.000
20	306.470	22.02	306.420	18.64	306.010	0.000	305.850	0.000	305.390	0.000	305.300	0.000
21	306.410	16.39	306.350	13.62 *	306.010	0.000	305.830	0.000	305.370	0.000	305.320	0.000
22	306.370	12.94	306.350	12.04	306.010	0.000	305.790	0.000	305.350	0.000	305.340	0.000
23	306.350	11.66	306.330	11.00	306.100	0.000	305.750	0.000	305.320	0.000	305.330	0.000
24	306.300	10.05 *	306.320	10.53	306.090	0.000	305.710	0.000	305.290	0.000	305.310	0.000
25	306.280	8.754 *	306.300	9.775	306.090	0.000	305.700	0.000	305.280	0.000	305.300	0.000
26	306.260	7.406	306.220	5.327 *	306.090	0.000	305.690	0.000	305.250	0.000	305.300	0.000
27	306.250	7.002	306.200	4.389	306.070	0.000	305.660	0.000	305.230	0.000	305.290	0.000
28	306.220	6.489	306.190	3.888 *	306.205	5.697	305.640	0.000	305.200	0.000	305.290	0.000
29	306.190	4.281	306.190	4.191			305.630	0.000	305.170	0.000	305.280	0.000
30	306.170	2.533	306.190	4.075			305.620	0.000	305.150	0.000	305.270	0.000
31	306.150	0.000	306.190	4.158			305.610	0.000			305.270	0.000
Ten-Daily Mean												
I Ten-Daily	306.634	42.27	306.073	0.000	306.144	0.882	306.287	9.930	305.520	0.000	305.080	0.000
II Ten-Daily	306.580	35.60	306.752	47.77	306.047	0.000	305.991	0.000	305.425	0.000	305.158	0.000
III Ten-Daily	306.268	7.955	306.257	7.545	306.083	0.712	305.694	0.000	305.261	0.000	305.300	0.000
Monthly												
Min.	306.150	0.000	306.010	0.000	306.010	0.000	305.610	0.000	305.150	0.000	305.050	0.000
Max.	306.650	44.99	306.900	80.12	306.205	5.697	306.380	15.98	305.600	0.000	305.340	0.000
Mean	306.487	27.94	306.330	18.09	306.092	0.518	305.980	3.203	305.402	0	305.183	0

Peak Computed Discharge = 1377 cumecs on 30/09/2017 Corres. Water Level :309.55 m

Lowest Computed Discharge = 3.888 cumecs on 28/01/2018 Corres. Water Level :306.19 m

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

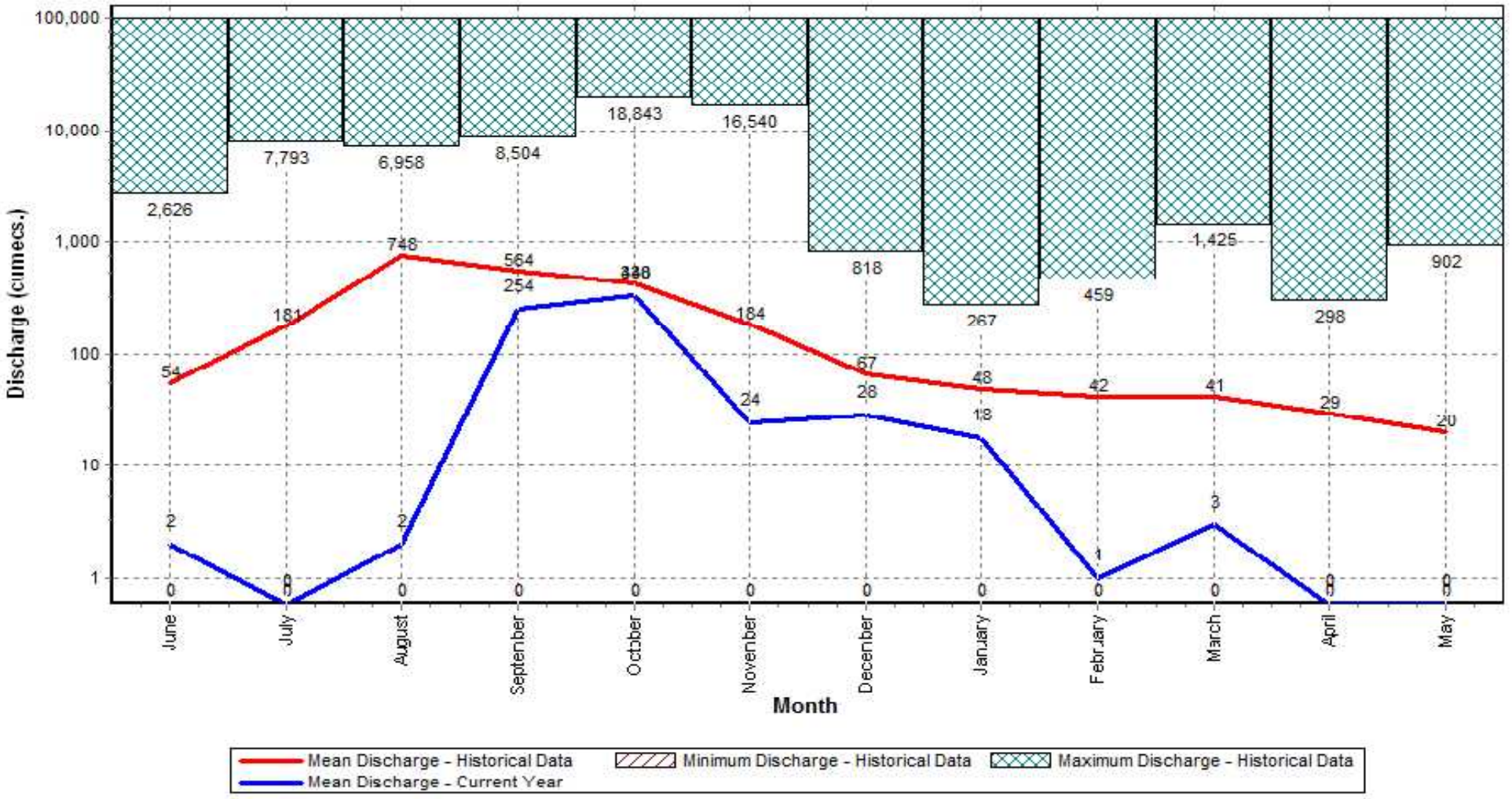
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Data considered : 1972-2018** **Division : Lower Krishna Divn., Hyderabad**

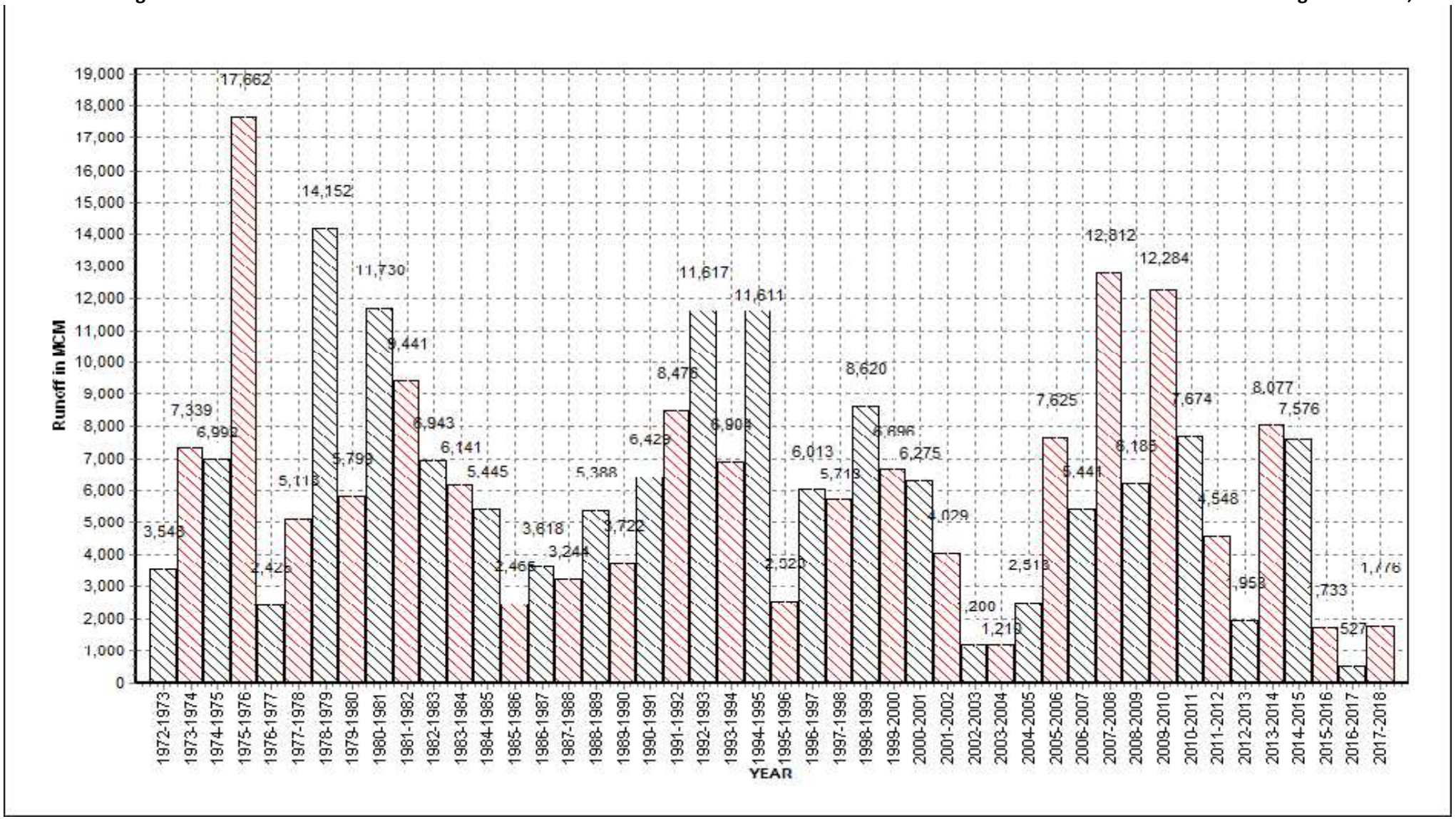
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Annual Runoff Values for the period: 1972 - 2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



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

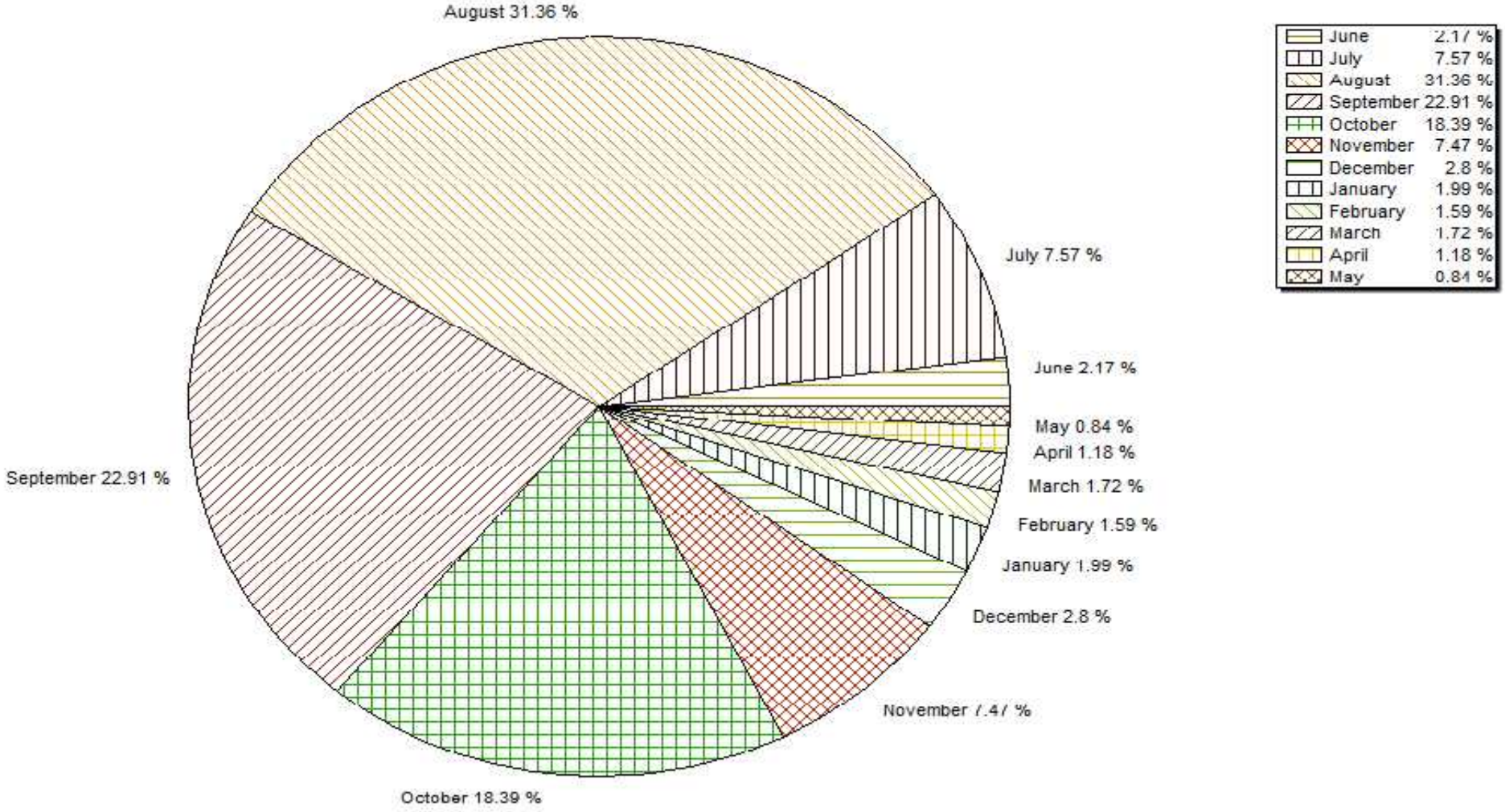
Monthly Average Runoff based on period : 1972-2017

Station Name : Mantralayam (AKL00F2)

Local River : Tungabhadra

Division : Lower Krishna Divn., Hyderabad

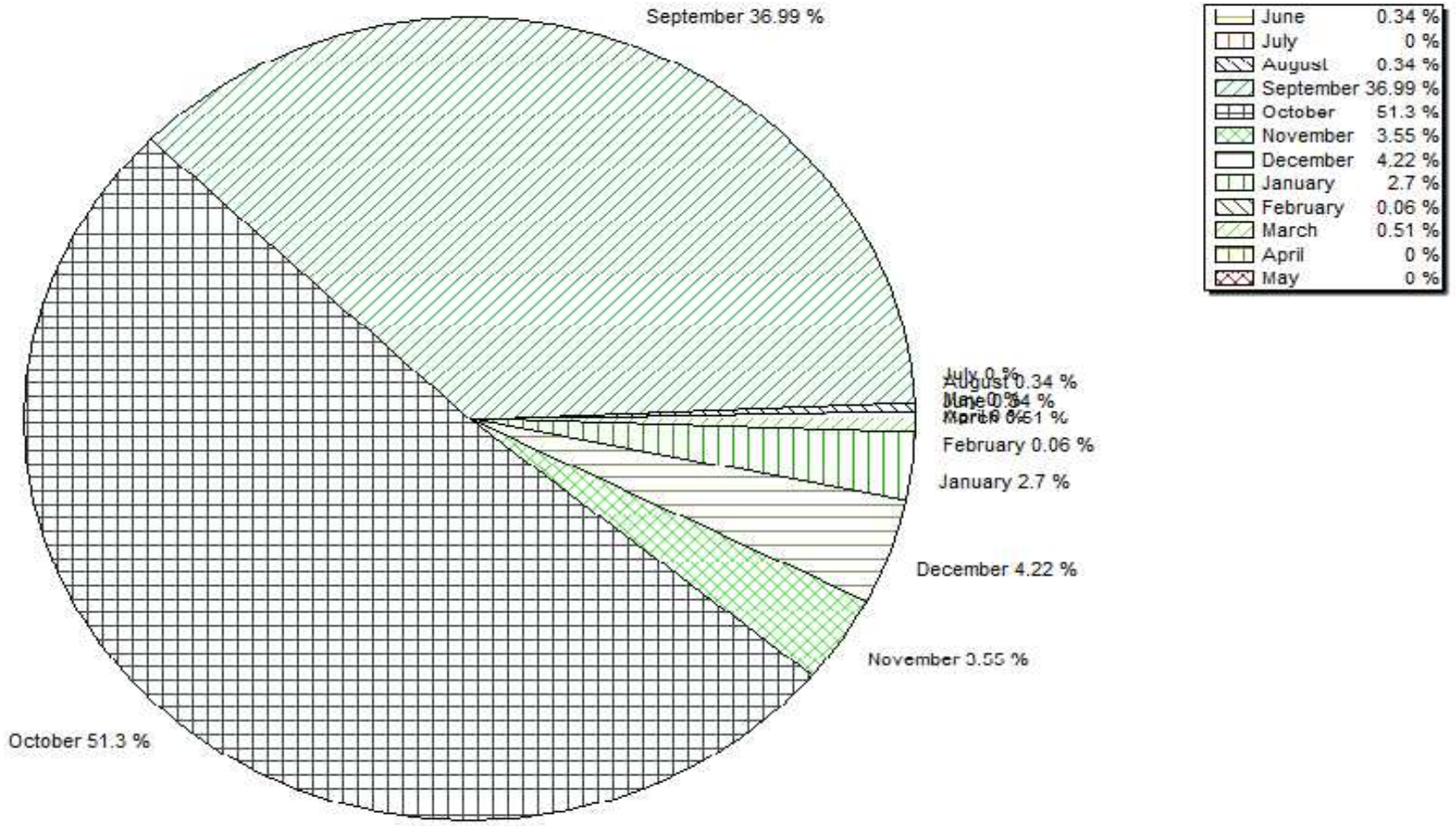
Sub-Division : Lower Tungabhadra SD, Kurnool



Monthly Runoff for the Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

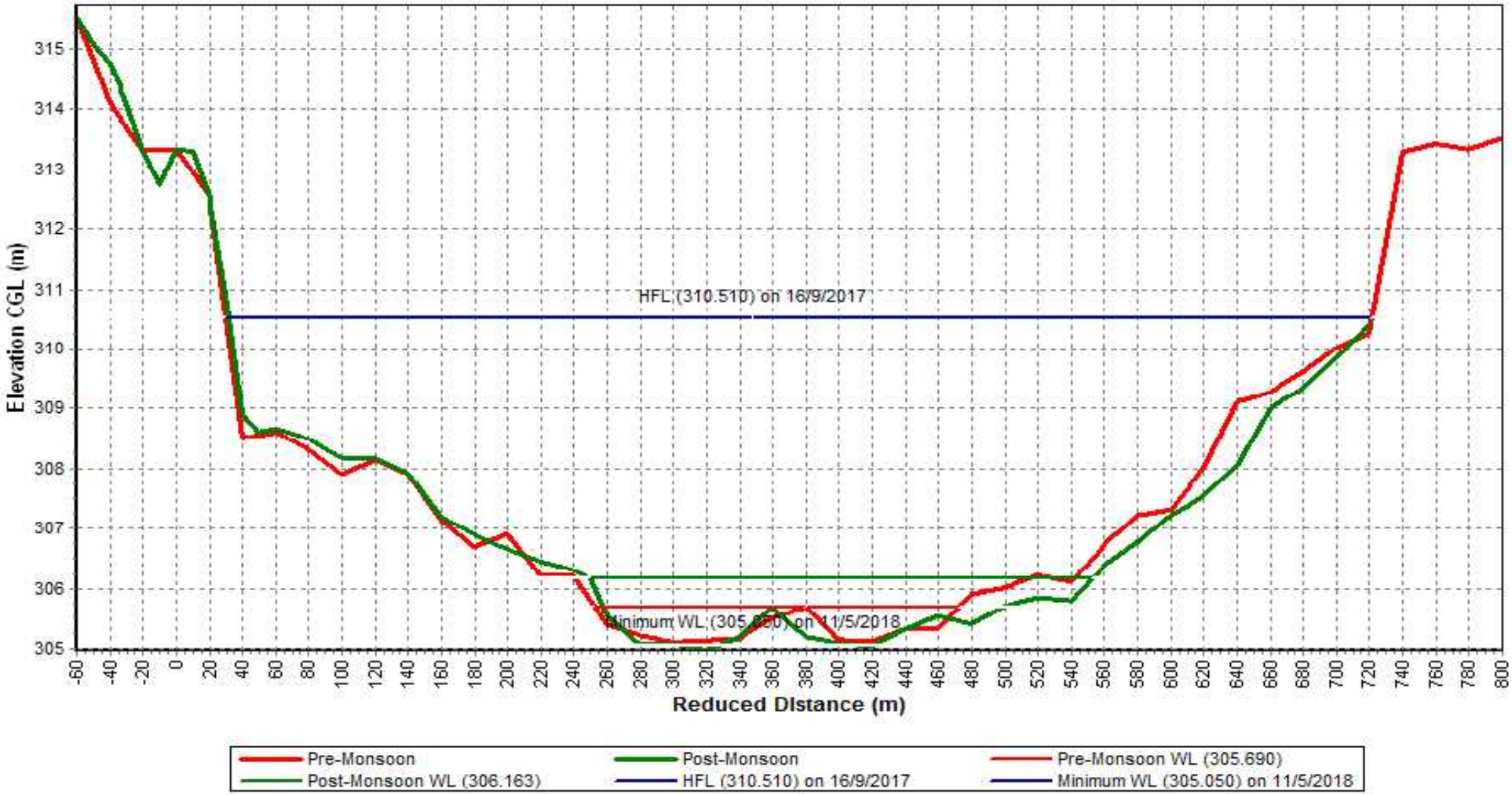
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

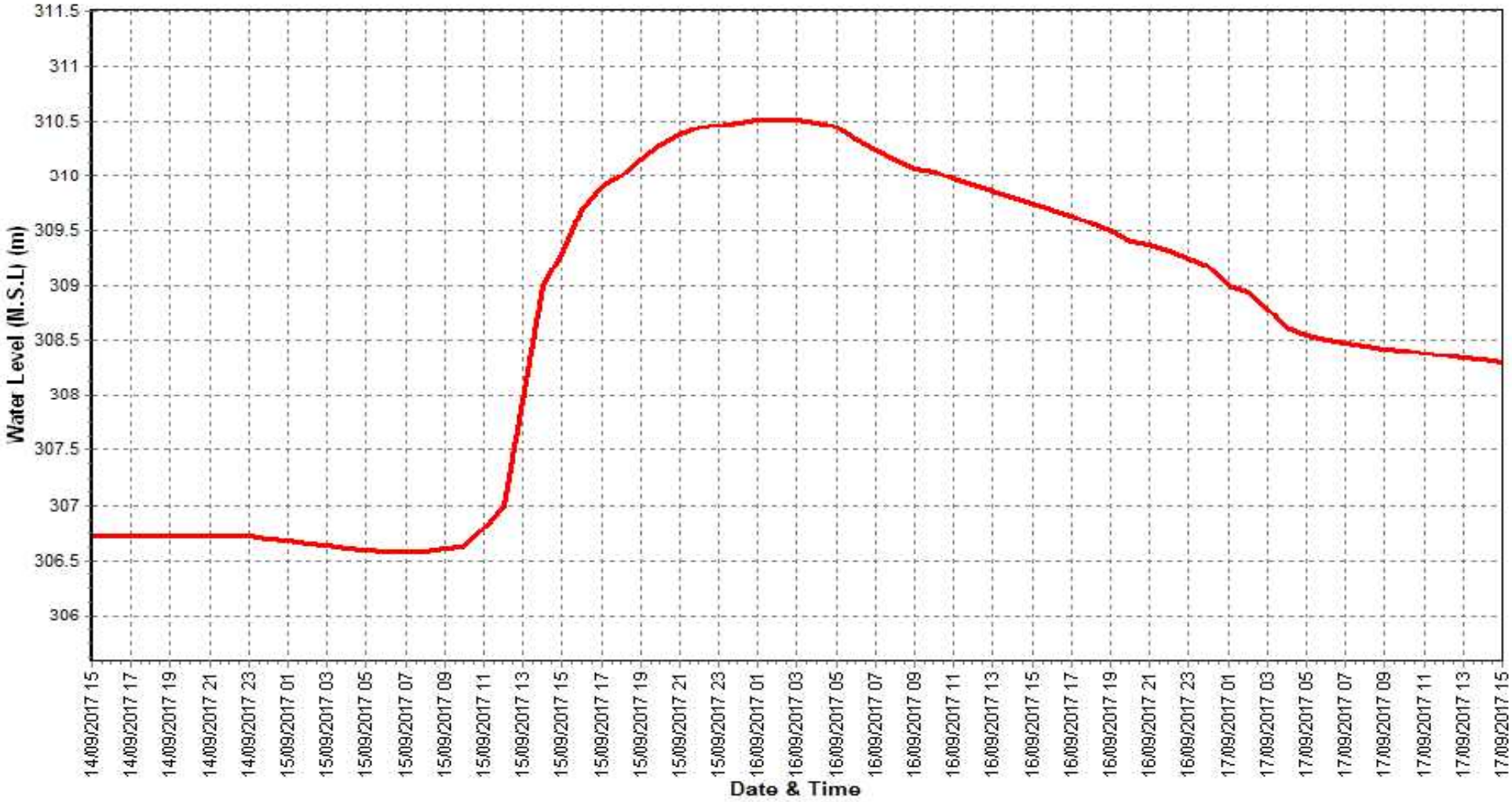
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

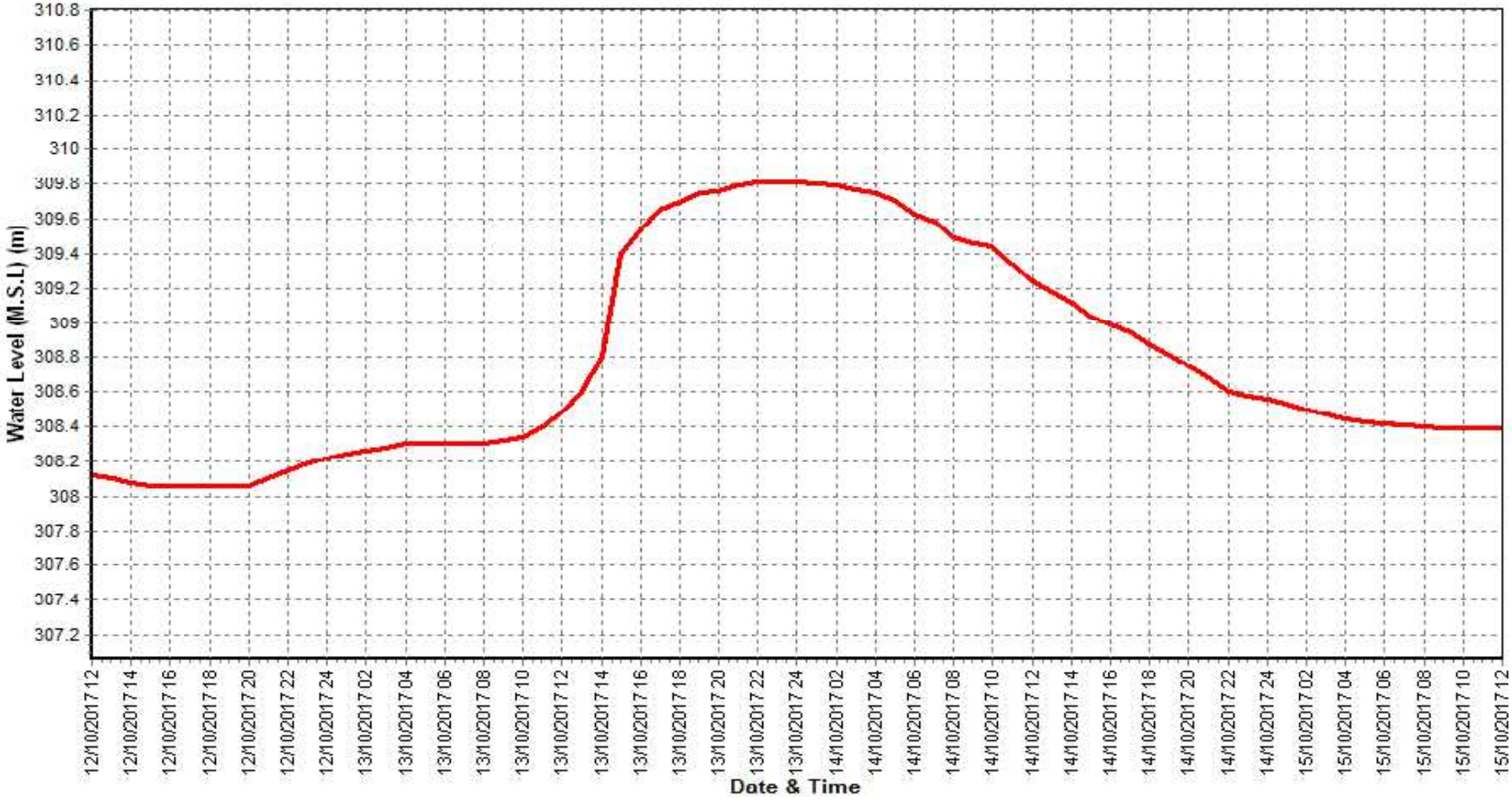


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

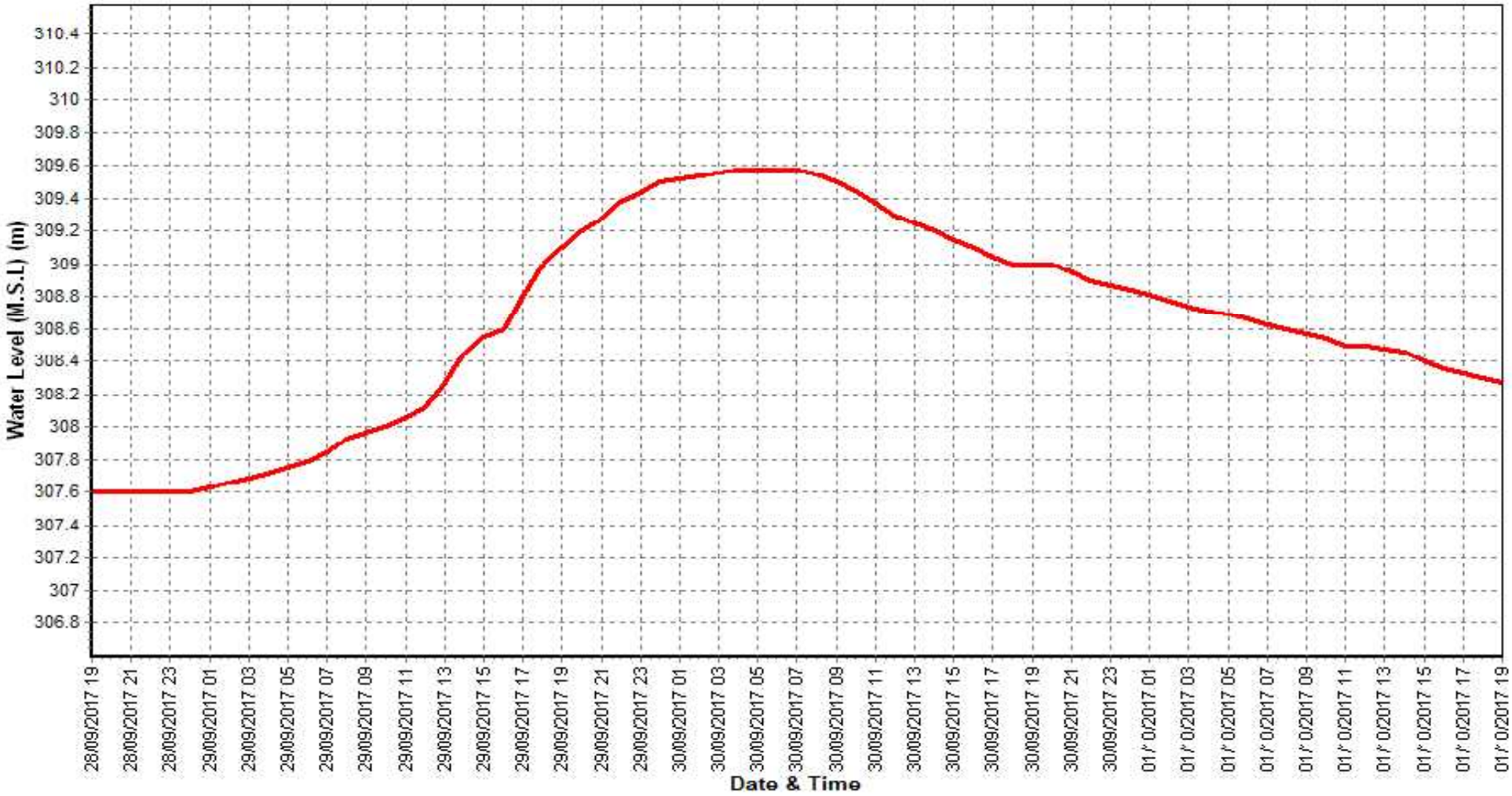


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Mantralayam (AKL00F2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**MELAGANUR**	**Code**	:	**030-LKDHYD**
State	:	Andhra Pradesh	District		Kurnool
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Tungabhadra
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Tungabhadra SD, Kurnool
Drainage Area	:	593.75 Sq. Km.	Bank	:	Right
Latitude	:	15°50'44"	Longitude	:	77°01'31"
Zero of Gauge (m)	:	94.000 ARB	01/06/2017		

		Opening Date	Closing Date		
Gauge	:	24/10/2016	HFL During 2017-18	:	101.1m
			Corres. Discharge	:	2321(Estimated)
Discharge	:	01/06/2017	Date & Time of	:	15/09/2017
			occurance	:	20.00 hrs.
Sediment	:	--			
Water Quality	:	--			

Stage-Discharge Data for the period 2017 - 2018

Station Name : MELAGANUR (030-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

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	96.700	0.000	99.100	457.0	97.430	44.06
2						0.000		0.000	98.800	368.2	97.470	46.89
3						0.000		0.000	98.650	309.4	97.380	32.56
4						0.000		0.000	98.460	239.7	97.370	34.98 *
5				0.000		0.000	96.890	3.126 #	98.350	202.7	97.390	37.16 *
6				0.000		0.000	97.850	91.47	98.080	124.5	97.390	34.17
7				0.000		0.000	98.580	273.3 #	97.820	67.42	97.400	34.84
8				0.000		0.000	98.200	158.8 #	99.460	706.8 #	97.545	58.33
9				0.000		0.000	99.390	574.7	98.850	389.6	97.540	55.59
10				0.000		0.000	98.600	280.4 #	98.450	236.5	97.450	43.80
11				0.000		0.000	97.900	104.1	98.750	348.5	97.450	44.00
12				0.000	96.995	7.048	97.860	93.99	99.100	457.0	97.440	42.74 *
13				0.000	97.005	7.173	97.430	31.50 #	100.300	1478	97.430	42.87
14				0.000	96.740	0.928	97.410	29.72 #	99.600	690.1	97.470	47.60
15				0.000	96.670	0.361 *	97.870	96.62	99.300	608.5 *	97.470	46.63
16				0.000	96.770	1.026	100.200	1336	99.100	457.0	97.490	49.73
17				0.000	96.780	1.081	99.820	904.8	98.500	254.2	97.500	51.17
18				0.000	96.660	0.000	98.750	359.9	98.100	129.5	97.500	51.89
19				0.000		0.000	98.250	172.6	97.800	129.5 *	97.510	50.86 *
20				0.000		0.000	97.850	91.18	97.650	87.82 #	97.530	55.03
21				0.000		0.000	97.570	44.22	97.550	68.08 #	97.520	52.15
22				0.000		0.000	97.275	19.35 #	97.480	55.65 *	97.550	54.72
23				0.000		0.000	97.200	14.75 #	97.430	47.33 #	97.560	57.14
24				0.000		0.000	97.200	14.75 *	97.350	41.60 #	97.540	55.13
25				0.000		0.000	97.200	14.75 #	97.430	32.83 #	97.520	52.79
26				0.000		0.000	97.200	14.75 #	97.710	41.60 #	97.480	47.33 *
27				0.000	96.950	4.561 #	97.370	26.35 #	97.700	75.83	97.480	47.02
28				0.000	97.280	19.69 #	98.150	142.3	97.600	67.76 #	97.550	54.27
29				0.000	97.180	13.65 #	98.650	309.0	97.520	61.79 *	97.570	59.26
30				0.000	97.090	8.303	99.810	893.6	97.450	52.05 #	97.570	60.43
31				0.000	96.890	3.126 #			97.520	43.87 #		
Ten-Daily Mean												
I Ten-Daily				0.000		0.000	98.030	138.2	98.602	310.2	97.437	42.24
II Ten-Daily				0.000	96.803	1.762	98.334	322.1	98.820	464.0	97.479	48.25
III Ten-Daily				0.000	97.078	4.484	97.763	149.4	97.522	53.49	97.534	54.02
Monthly												
Min.				0.000	96.660	0.000	96.700	0.000	97.350	32.83	97.370	32.56
Max.				0.000	97.280	19.69	100.200	1336	100.300	1478	97.570	60.43
Mean				0	96.918	2.16	98.044	203.2	98.289	268.7	97.483	48.17

From 01-06-2017 to 04-07-2017 Observations not done due to no staff.

Annual Runoff in MCM = 1589 Annual Runoff in mm = 2676

Peak Observed Discharge = 1478 cumecs on 13/10/2017 Corres. Water Level :100.3 m

Lowest Observed Discharge = 0.000 cumecs on 05/07/2017

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 2017 - 2018

Station Name : MELAGANUR (030-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	97.570	60.67	97.000	2.357	97.100	9.411 #	97.350	33.13		0.000		0.000
2	97.560	56.87 *	97.000	2.068	97.080	7.882 #	97.300	27.63 *		0.000		0.000
3	97.580	59.32 *	96.990	1.963	97.050	5.722 #	97.280	25.99		0.000		0.000
4	97.590	61.19	96.980	1.879	97.040	5.041 *	97.250	22.65 *		0.000		0.000
5	97.520	52.63	96.980	1.869	97.070	7.143 #	97.100	9.966		0.000		0.000
6	97.480	49.35	97.000	2.035	97.020	3.749 #	97.060	5.123		0.000		0.000
7	97.490	50.20	97.050	5.722 *	97.050	6.194	97.040	4.615		0.000		0.000
8	97.500	50.50	97.020	3.749 #	97.000	2.222	97.020	3.301		0.000		0.000
9	97.520	51.97	96.980	1.700	96.980	1.493 #	96.960	0.595 #		0.000		0.000
10	97.500	49.68 *	96.980	1.776	96.980	1.493 #	96.780	0.000		0.000		0.000
11	97.520	51.24	97.860	100.7	96.980	1.493 *	96.810	0.000		0.000		0.000
12	97.550	54.96	97.800	85.71	97.000	2.127	96.750	0.000		0.000		0.000
13	97.580	60.79	97.780	80.88	97.020	3.749 #		0.000		0.000		0.000
14	97.560	59.61	97.750	74.08	97.000	2.049		0.000		0.000		0.000
15	97.500	54.46	97.850	98.14	96.980	1.785		0.000		0.000		0.000
16	97.450	45.61	97.880	105.9	96.980	1.760		0.000		0.000		0.000
17	97.400	38.26 *	97.820	90.76	97.250	19.26		0.000		0.000		0.000
18	97.350	32.44	97.500	49.68 #	97.300	27.63 *		0.000		0.000		0.000
19	97.300	25.72	97.380	36.06 #	97.230	18.33		0.000		0.000		0.000
20	97.250	20.70	97.280	24.85	97.140	13.21		0.000		0.000		0.000
21	97.220	17.66	97.170	15.24 *	97.070	6.103		0.000		0.000		0.000
22	97.180	14.82	97.120	11.00 #	97.050	5.722 #		0.000		0.000		0.000
23	97.140	14.08	97.050	5.722 #	97.000	2.568		0.000		0.000		0.000
24	97.120	11.00 *	97.060	7.371	97.030	4.383 #		0.000		0.000		0.000
25	97.110	10.20 *	97.050	7.232	97.050	5.722 *		0.000		0.000		0.000
26	97.100	8.179	97.060	6.423 *	97.730	78.27		0.000		0.000		0.000
27	97.060	7.498	97.100	9.411 #	97.500	53.24		0.000		0.000		0.000
28	97.080	8.728	97.120	11.00 *	97.500	52.12		0.000		0.000		0.000
29	97.030	3.088	97.100	9.411 #				0.000		0.000		0.000
30	97.030	4.383 #	97.130	13.26				0.000		0.000		0.000
31	97.010	3.139 *	97.120	13.25				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	97.531	54.24	96.998	2.512	97.037	5.035	97.114	13.30		0.000		0.000
II Ten-Daily	97.446	44.38	97.690	74.68	97.088	9.139	96.780	0.000		0.000		0.000
III Ten-Daily	97.098	9.343	97.098	9.938	97.241	26.02		0.000		0.000		0.000
Monthly												
Min.	97.010	3.088	96.980	1.700	96.980	1.493	96.750	0.000		0.000		0.000
Max.	97.590	61.19	97.880	105.9	97.730	78.27	97.350	33.13		0.000		0.000
Mean	97.350	35.13	97.257	28.43	97.114	12.5	97.058	4.29		0		0

Peak Computed Discharge = 608.5 cumecs on 15/10/2017 Corres. Water Level :99.3 m

Lowest Computed Discharge = 0.361 cumecs on 15/08/2017 Corres. Water Level :96.67 m

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

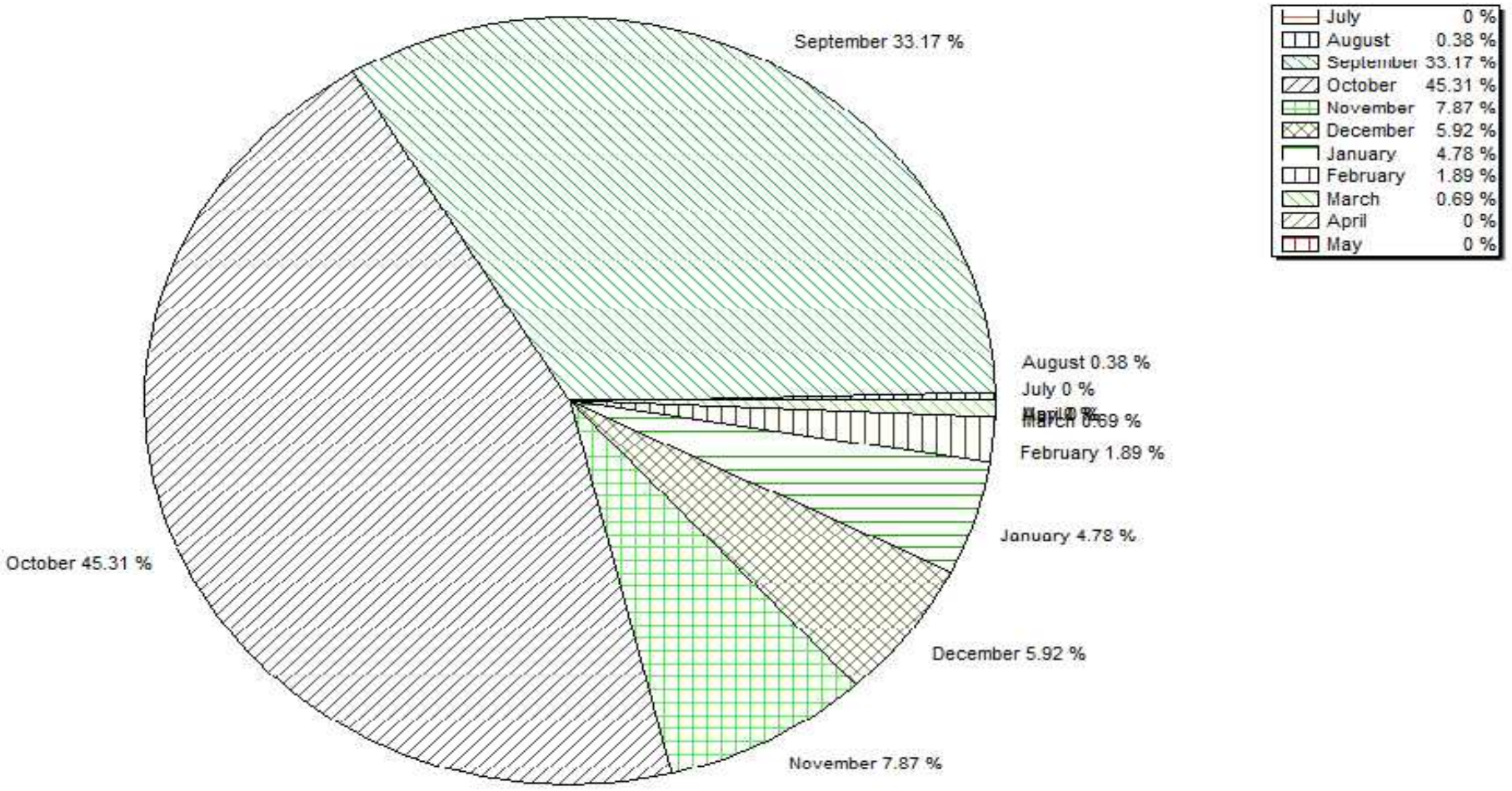
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

Monthly Runoff for the Year : 2017-2018

Station Name : MELAGANUR (030-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

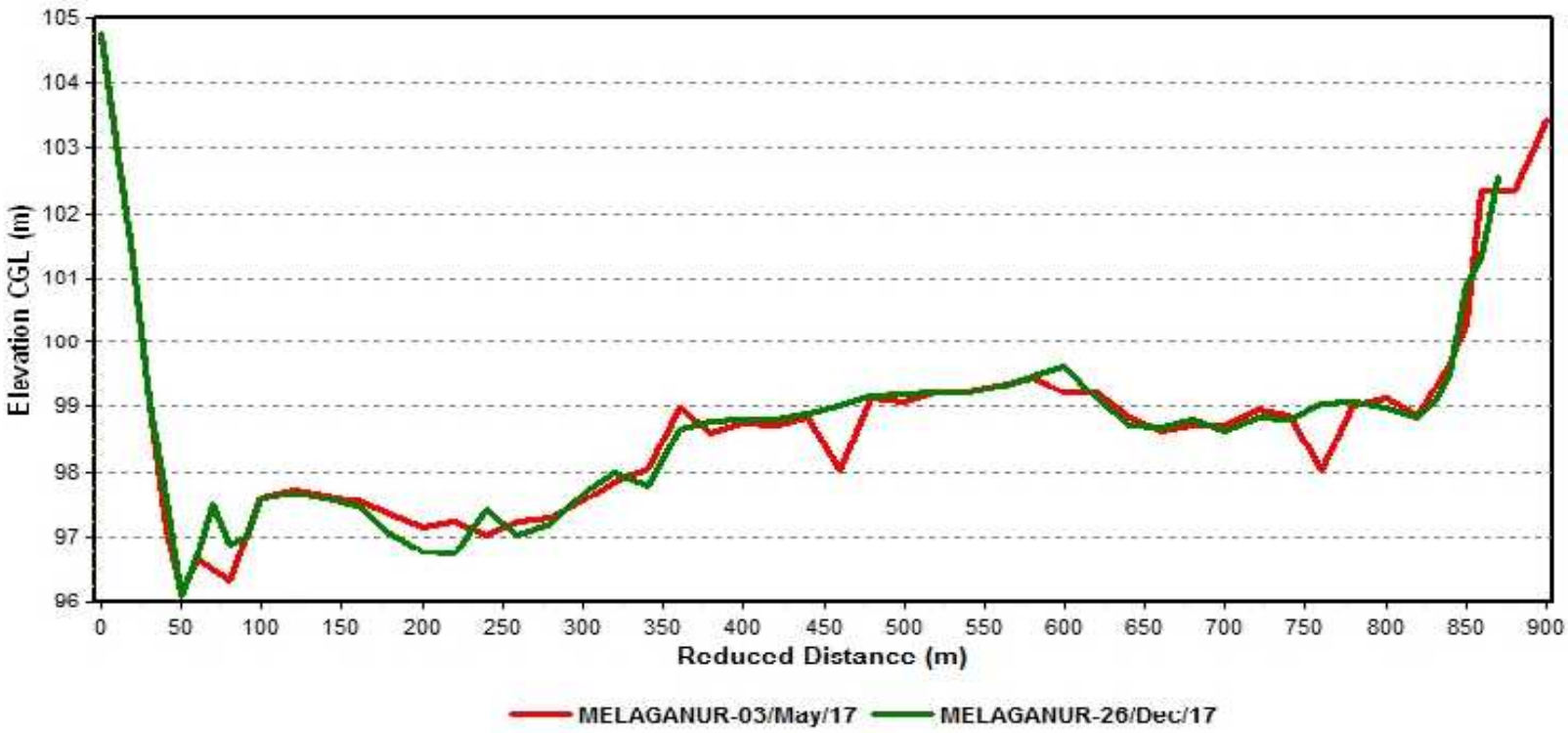
Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : MELAGANUR (030-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

Local River : Tungabhadra **Sub-Division : Lower Tungabhadra SD, Kurnool**



HISTORY SHEET

Water Year : 2017-2018

Site : T Ramapuram (Seasonal) **Code : AKL50A6**

State : Karnataka
District : Bellary
Basin : Krishna
Independent River : Krishna
Tributary : Tungabhadra
Sub Tributary : Hagari
Sub-Sub Tributary : -
Local River : Hagari
Division : Lower Krishna Divn., Hyderabad
Sub-Division : Lower Tungabhadra SD, Kurnool
Drainage Area : 23500 Sq. Km.
Bank : Right
Latitude : 15°39'40"
Longitude : 76°57'56"
Zero of Gauge (m) : 349.368 (m.s.l)
13/07/1963
Opening Date
Closing Date
Gauge : 13/07/1963
HFL During 2017-18 : 353.168m
Corres. Discharge : 1756(Estimated)
Discharge : 23/08/1964
Date & Time of occurance : 13/10/2017 04.00 hrs.
Sediment :
Water Quality : 01/01/1980

HFL Recorded so far in m : 356.478 dt 02-10-2009
Corresponding Discharge (cumecs) : 3720*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1966-1967	635.0	352.283	24/09/1966	0.200	350.253	02/06/1966
1967-1968	1022	352.966	04/10/1967	0.500	350.388	12/05/1968
1968-1969	939.6	353.098	09/10/1968	0.831	350.338	02/05/1969
1969-1970	506.6	352.018	21/10/1969	1.155	350.413	03/04/1970
1970-1971	1052	353.088	20/09/1970	0.617	350.268	15/05/1971
1971-1972	1923	353.858	14/10/1971	0.510	350.268	26/04/1972
1972-1973	740.0	352.508	18/09/1972	0.090	350.283	12/05/1973
1973-1974	1400	353.518	19/09/1973	0.000	350.228	02/06/1973
1974-1975	604.2	352.298	05/10/1974	0.100	350.193	27/05/1975
1975-1976	1084	353.118	05/11/1975	0.600	350.093	29/05/1976
1976-1977	156.0	351.388	22/08/1976	0.300	350.028	10/06/1976
1977-1978	407.8	351.928	11/10/1977	1.000	350.153	28/04/1978
1978-1979	1451	353.483	30/09/1978	0.200	350.153	29/05/1979
1979-1980	413.8	351.933	24/09/1979	0.200	350.113	27/05/1980
1980-1981	357.2	351.778	30/09/1980	0.100	350.118	16/04/1981
1981-1982	1046	353.158	12/09/1981	1.100	350.058	24/05/1982
1982-1983	1070	353.148	07/11/1982	0.200	350.028	08/05/1983
1983-1984	930.0	352.868	04/10/1983	0.100	350.018	02/06/1983
1984-1985	308.0	351.648	15/07/1984	0.100	349.918	27/06/1984

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**
1985-1986	144.9	351.228	29/09/1985	0.000	350.018	19/04/1986
1986-1987	1116	352.823	19/09/1986	0.000	349.828	28/04/1987
1987-1988	840.5	352.898	23/10/1987	0.000		06/05/1988
1988-1989	918.1	353.043	30/08/1988	0.000		04/04/1989
1989-1990	1112	353.018	24/09/1989	0.000		24/04/1990
1990-1991	142.0	351.358	14/10/1990	0.235	349.903	15/04/1991
1991-1992	660.5	352.451	06/06/1991	0.000		09/04/1992
1992-1993	955.4	352.958	19/11/1992	0.536	349.818	15/05/1993
1993-1994	299.1	351.828	10/10/1993	0.000		21/07/1993
1994-1995	573.5	352.398	04/10/1994	0.000		22/05/1995
1995-1996	591.2	352.438	30/08/1995	0.000		25/04/1996
1996-1997	1573	353.748	21/10/1996	0.000		25/05/1997
1997-1998	209.7	351.548	13/11/1997	0.000		09/06/1997
1998-1999	794.5	352.758	12/10/1998	0.000		04/05/1999
1999-2000	593.1	352.413	27/09/1999	0.000		30/04/2000
2000-2001	1032	353.118	10/10/2000	0.000		01/05/2001
2001-2002	904.7	352.963	29/09/2001	0.000		04/03/2002
2002-2003	290.3	351.768	15/10/2002	0.000		16/04/2003
2003-2004	230.2	351.563	07/10/2003	0.000		20/02/2004
2004-2005	262.6	351.483	06/09/2004	0.000		14/04/2005
2005-2006	878.6	352.818	06/09/2005	0.000		12/07/2005
2006-2007	901.5	352.898	04/11/2006	0.000		27/07/2006
2007-2008	1809	354.318	19/09/2007	0.000		24/07/2007
2008-2009	1433	353.458	29/08/2008	0.000	349.648	27/06/2008
2009-2010	3192	355.948	02/10/2009	0.000		19/07/2009
2010-2011	981.8	352.788	24/08/2010	0.000		31/07/2010
2011-2012	193.4	350.768	02/06/2011	0.000		12/08/2011
2012-2013	326.4	351.143	04/09/2012	0.000		16/07/2012
2013-2014	488.5	351.848	04/09/2013	0.000		26/07/2013
2014-2015	647.5	352.158	26/10/2014	0.000	349.508	19/07/2014
2015-2016	1117	353.458	07/09/2015	0.000		07/07/2015
2016-2017	243.3	350.858	03/06/2016	0.000		27/08/2016

Annual Runoff of Hagari at T-Ramapuram

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**		76	76
2	**1966-1967**	723	259	983
3	**1967-1968**	375	90	464
4	**1968-1969**	940	172	1112
5	**1969-1970**	543	234	777
6	**1970-1971**	923	152	1075
7	**1971-1972**	792	273	1065
8	**1972-1973**	535	80	614
9	**1973-1974**	928	150	1078
10	**1974-1975**	942	160	1102
11	**1975-1976**	2226	259	2485
12	**1976-1977**	298	137	435
13	**1977-1978**	790	148	938
14	**1978-1979**	939	177	1116
15	**1979-1980**	645	144	789
16	**1980-1981**	399	153	552
17	**1981-1982**	1381	163	1544
18	**1982-1983**	712	163	876
19	**1983-1984**	662	116	778
20	**1984-1985**	355	91	446
21	**1985-1986**	249	75	324
22	**1986-1987**	666	88	754
23	**1987-1988**	653	79	732
24	**1988-1989**	748	11	759
25	**1989-1990**	839	86	925
26	**1990-1991**	338	84	422
27	**1991-1992**	450	66	516
28	**1992-1993**	644	149	793
29	**1993-1994**	444	230	674
30	**1994-1995**	360	148	508
31	**1995-1996**	545	58	603
32	**1996-1997**	1270	121	1390
33	**1997-1998**	283	109	392
34	**1998-1999**	1016	94	1110
35	**1999-2000**	734	84	818
36	**2000-2001**	901	85	987
37	**2001-2002**	1263	77	1340
38	**2002-2003**	235	29	263
39	**2003-2004**	181	57	238
40	**2004-2005**	310	45	354
41	**2005-2006**	957	124	1081
42	**2006-2007**	461		461
43	**2007-2008**	914		914
44	**2008-2009**	1017		1017
45	**2009-2010**	1766		1766
46	**2010-2011**	772		772
47	**2011-2012**	289		289
48	**2012-2013**	384		384
49	**2013-2014**	456		456
50	**2014-2015**	425	96	521
51	**2015-2016**	713	68	781
52	**2016-2017**	102	0	102
53	**2017-2018**	716	82	798
Average		696	119	784

Stage-Discharge Data for the period 2017 - 2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**

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		0.000		0.000		0.000	350.628	124.1 *	349.798	21.87
2		0.000		0.000		0.000		0.000	350.688	136.6 *	349.818	22.55
3		0.000		0.000		0.000		0.000	350.803	162.8 #	349.778	18.47
4		0.000		0.000		0.000		0.000	350.888	184.3 #	349.748	19.06 *
5		0.000		0.000		0.000	349.668	14.13	350.678	134.4 #	349.698	16.44 *
6		0.000		0.000		0.000	351.168	231.5	350.383	70.85	349.758	18.44
7		0.000		0.000		0.000	350.498	99.90 #	350.443	95.28	349.873	27.72
8	350.003	32.67		0.000		0.000	350.668	99.54	350.828	168.9 *	349.888	28.52
9	349.658	15.64		0.000		0.000	350.418	86.73 #	350.838	216.2	349.828	22.30
10	349.328	4.622		0.000		0.000	350.038	31.00	350.428	78.92	349.778	17.77
11	349.298	3.621 *		0.000	349.803	21.44	349.813	25.33	350.568	128.3	349.768	20.18 *
12	349.208	1.788		0.000	349.378	5.214 #	349.703	16.16	350.858	176.5 #	349.768	20.18 *
13	349.158	1.358		0.000	349.168	1.803 *	349.568	11.42	352.783	1312	349.788	20.17
14		0.000		0.000		0.000	349.478	9.754	351.168	340.7	349.758	17.52
15		0.000		0.000		0.000	351.818	620.5	350.898	186.9 *	349.758	18.30
16		0.000		0.000		0.000	351.748	593.9	350.668	132.3 #	349.798	22.25
17		0.000		0.000		0.000	350.808	164.0 *	350.428	84.07	349.788	19.74
18		0.000		0.000		0.000	350.888	184.3 #	350.148	53.24	349.763	16.95
19		0.000		0.000		0.000	350.458	108.6	350.008	37.42 *	349.798	21.95 *
20		0.000		0.000		0.000	350.098	44.32	349.888	26.12	349.828	25.81
21		0.000		0.000		0.000	349.918	26.63	349.853	21.93	349.818	22.78
22	349.168	1.806		0.000		0.000	349.838	22.13	349.818	23.18 *	349.828	26.03
23	349.138	1.228		0.000		0.000	349.798	22.07	349.788	18.20	349.818	23.05
24	349.068	0.000		0.000		0.000	349.808	22.56 *	349.798	18.30	349.798	22.18
25		0.000		0.000		0.000	349.813	22.89	349.948	29.65	349.768	20.13
26		0.000		0.000	349.638	14.42	349.878	26.18	350.203	62.54	349.768	20.18 *
27		0.000		0.000	350.253	57.89	350.468	88.30	349.988	40.00	349.778	18.74
28		0.000		0.000	349.388	5.442 #	350.668	139.8	349.858	25.46	349.738	18.17
29		0.000		0.000	349.378	5.214 #	351.768	430.0	349.828	23.82 *	349.748	18.99
30		0.000		0.000	349.118	1.323	350.928	195.0 *	349.798	19.45	349.758	19.64
31				0.000		0.000			349.778	19.26		
Ten-Daily Mean												
I Ten-Daily	349.663	5.293		0.000		0.000	350.410	56.28	350.661	137.2	349.797	21.31
II Ten-Daily	349.221	0.677		0.000	349.450	2.846	350.438	177.8	350.741	247.7	349.782	20.30
III Ten-Daily	349.125	0.303		0.000	349.555	7.663	350.289	99.56	349.878	27.44	349.782	20.99
Monthly												
Min.	349.068	0.000		0.000	349.118	0.000	349.478	0.000	349.778	18.20	349.698	16.44
Max.	350.003	32.67		0.000	350.253	57.89	351.818	620.5	352.783	1312	349.888	28.52
Mean	349.336	2.091		0	349.516	3.637	350.374	111.2	350.409	133.9	349.787	20.87

Annual Runoff in MCM = 798 Annual Runoff in mm = 34

Peak Observed Discharge = 1312 cumecs on 13/10/2017 Corres. Water Level :352.783 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	349.778	19.91	349.378	4.791	349.398	6.312	349.288	3.357		0.000		0.000
2	349.778	20.76 *	349.388	5.936	349.328	4.339	349.278	3.283 *		0.000		0.000
3	349.788	21.35 *	349.398	6.137	349.318	4.071	349.218	2.106		0.000		0.000
4	349.798	22.80	349.378	4.582	349.388	5.442 *	349.198	2.148 *		0.000		0.000
5	349.758	19.74	349.418	6.907	349.458	8.127	349.168	1.420		0.000		0.000
6	349.738	17.03	349.558	11.62	349.448	7.668	349.118	0.000		0.000		0.000
7	349.758	18.81	349.548	10.09 *	349.378	5.136		0.000		0.000		0.000
8	349.778	19.98	349.538	10.70	349.358	4.978		0.000		0.000		0.000
9	349.783	20.66	349.548	11.15	349.388	6.082		0.000		0.000		0.000
10	349.768	20.18 *	349.608	13.31	349.508	9.025		0.000		0.000		0.000
11	349.798	23.58	349.668	16.07	349.538	9.741 *		0.000		0.000		0.000
12	349.818	25.75	349.728	18.93	349.538	10.41		0.000		0.000		0.000
13	349.768	19.64	349.568	12.81	349.538	10.08		0.000		0.000		0.000
14	349.718	16.44	349.518	9.066 *	349.498	8.946		0.000		0.000		0.000
15	349.688	15.34	349.468	7.520 *	349.508	9.159		0.000		0.000		0.000
16	349.628	12.71	349.558	12.03	349.508	9.264		0.000		0.000		0.000
17	349.658	14.54 *	349.508	9.423	349.518	9.496		0.000		0.000		0.000
18	349.608	11.98	349.478	8.723	349.528	9.399 *		0.000		0.000		0.000
19	349.598	11.66	349.528	10.68	349.448	7.733		0.000		0.000		0.000
20	349.638	14.32	349.508	9.575	349.418	6.281		0.000		0.000		0.000
21	349.548	10.79	349.538	9.741 *	349.418	6.190		0.000		0.000		0.000
22	349.478	9.204	349.538	10.83	349.408	5.807		0.000		0.000		0.000
23	349.458	8.677	349.538	10.63	349.388	4.451		0.000		0.000		0.000
24	349.448	6.957 *	349.528	10.53	349.318	3.151		0.000		0.000		0.000
25	349.468	7.520 *	349.538	10.86	349.318	3.982 *		0.000		0.000		0.000
26	349.448	8.387	349.508	8.741 *	349.378	4.723		0.000		0.000		0.000
27	349.428	6.580	349.478	8.445	349.338	4.184		0.000		0.000		0.000
28	349.408	6.040	349.468	7.520 *	349.288	3.229		0.000		0.000		0.000
29	349.418	6.708	349.448	6.386				0.000		0.000		0.000
30	349.428	7.150	349.428	5.869				0.000		0.000		0.000
31	349.398	5.677 *	349.418	6.500				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	349.773	20.12	349.476	8.522	349.397	6.118	349.211	1.231		0.000		0.000
II Ten-Daily	349.692	16.60	349.553	11.48	349.504	9.050		0.000		0.000		0.000
III Ten-Daily	349.448	7.608	349.493	8.733	349.357	4.465		0.000		0.000		0.000
Monthly												
Min.	349.398	5.677	349.378	4.582	349.288	3.151	349.118	0.000		0.000		0.000
Max.	349.818	25.75	349.728	18.93	349.538	10.41	349.288	3.357		0.000		0.000
Mean	349.631	14.54	349.507	9.552	349.424	6.693	349.211	0.397		0		0

Peak Computed Discharge = 195.0 cumecs on 30/09/2017 **Corres. Water Level :350.928 m**

Lowest Computed Discharge = 1.803 cumecs on 13/08/2017 **Corres. Water Level :349.168 m**

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

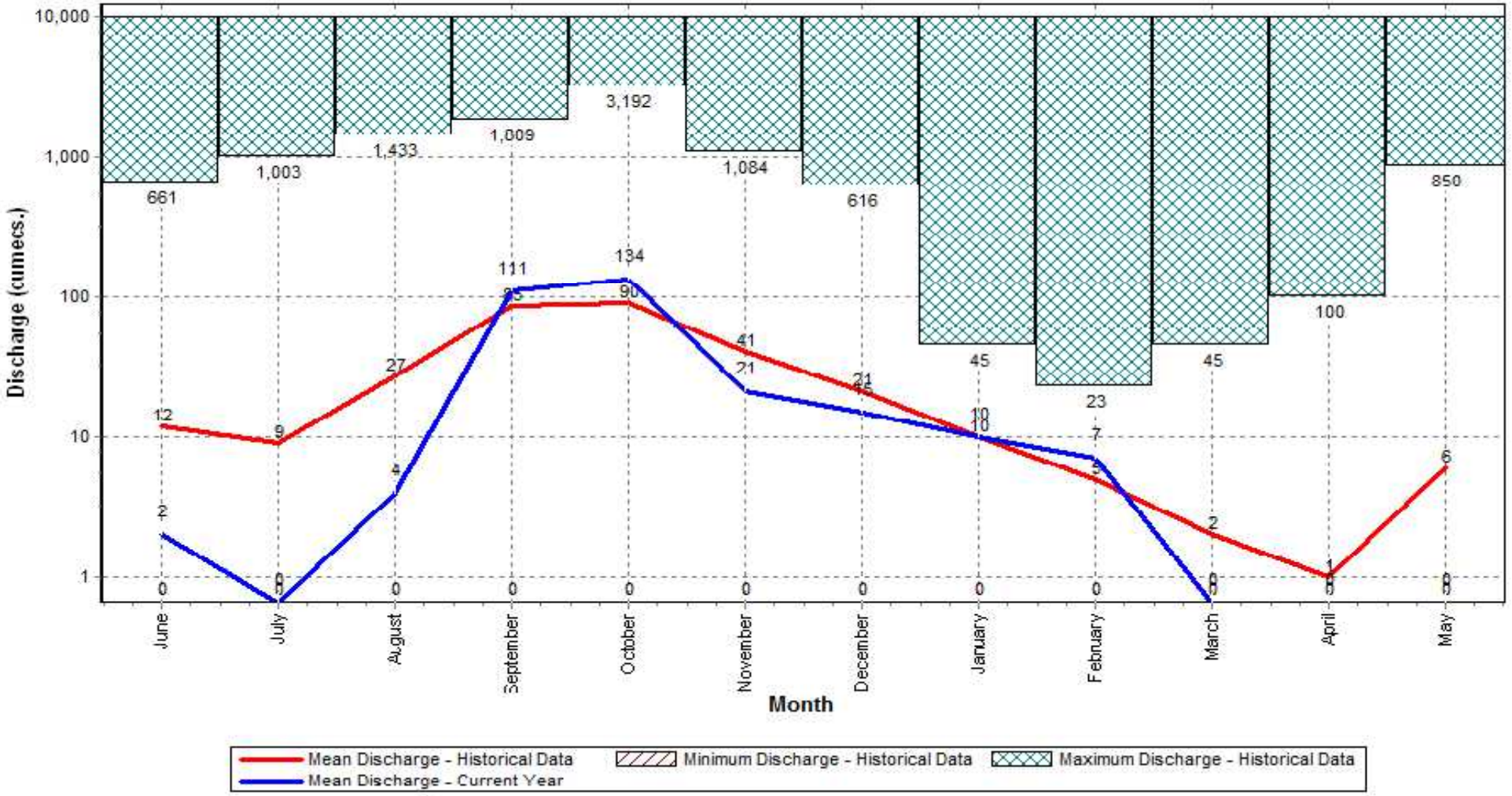
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Data considered : 1966-2018** **Division : Lower Krishna Divn., Hyderabad**

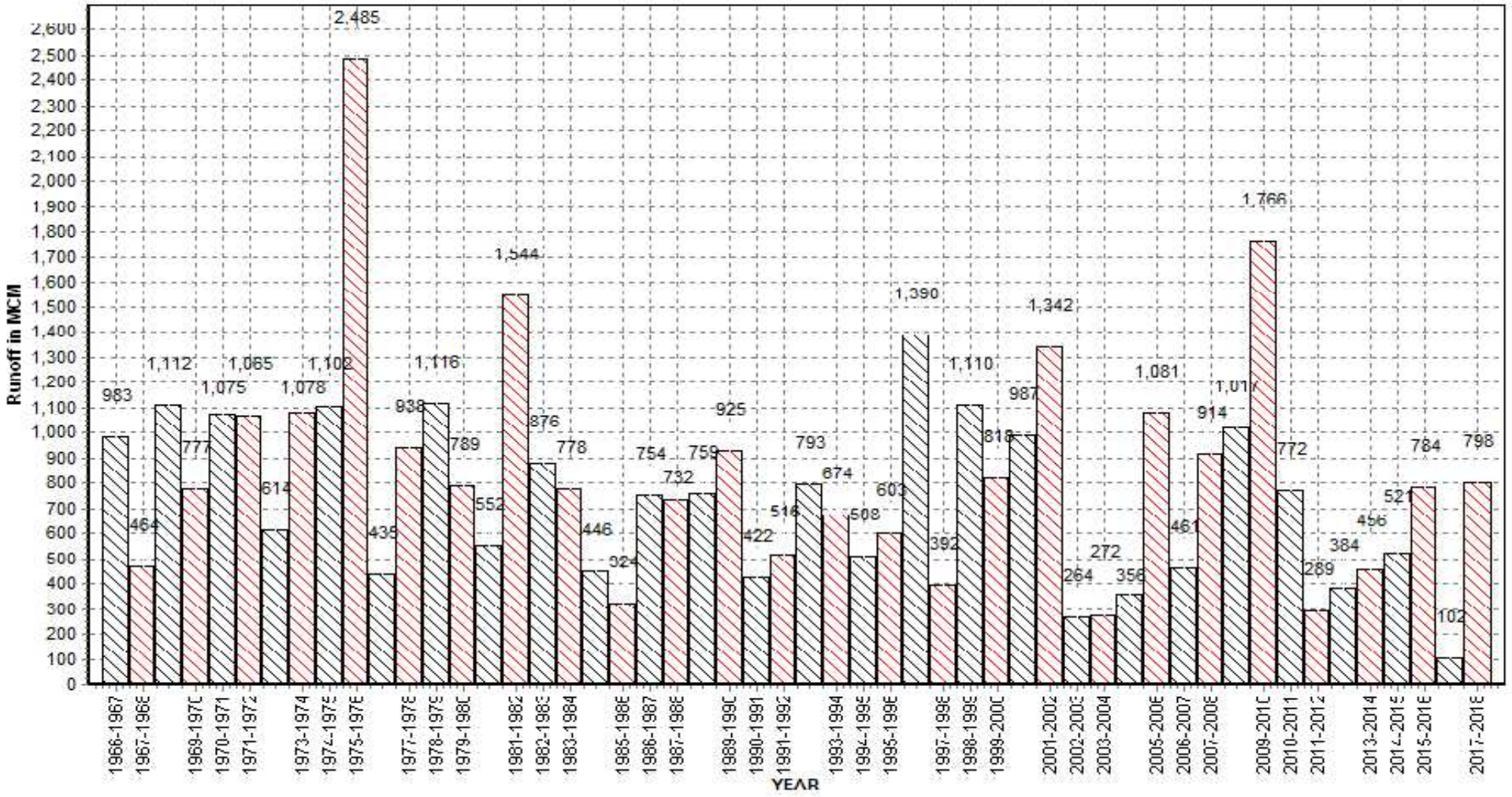
Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Annual Runoff Values for the period: 1966 - 2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**

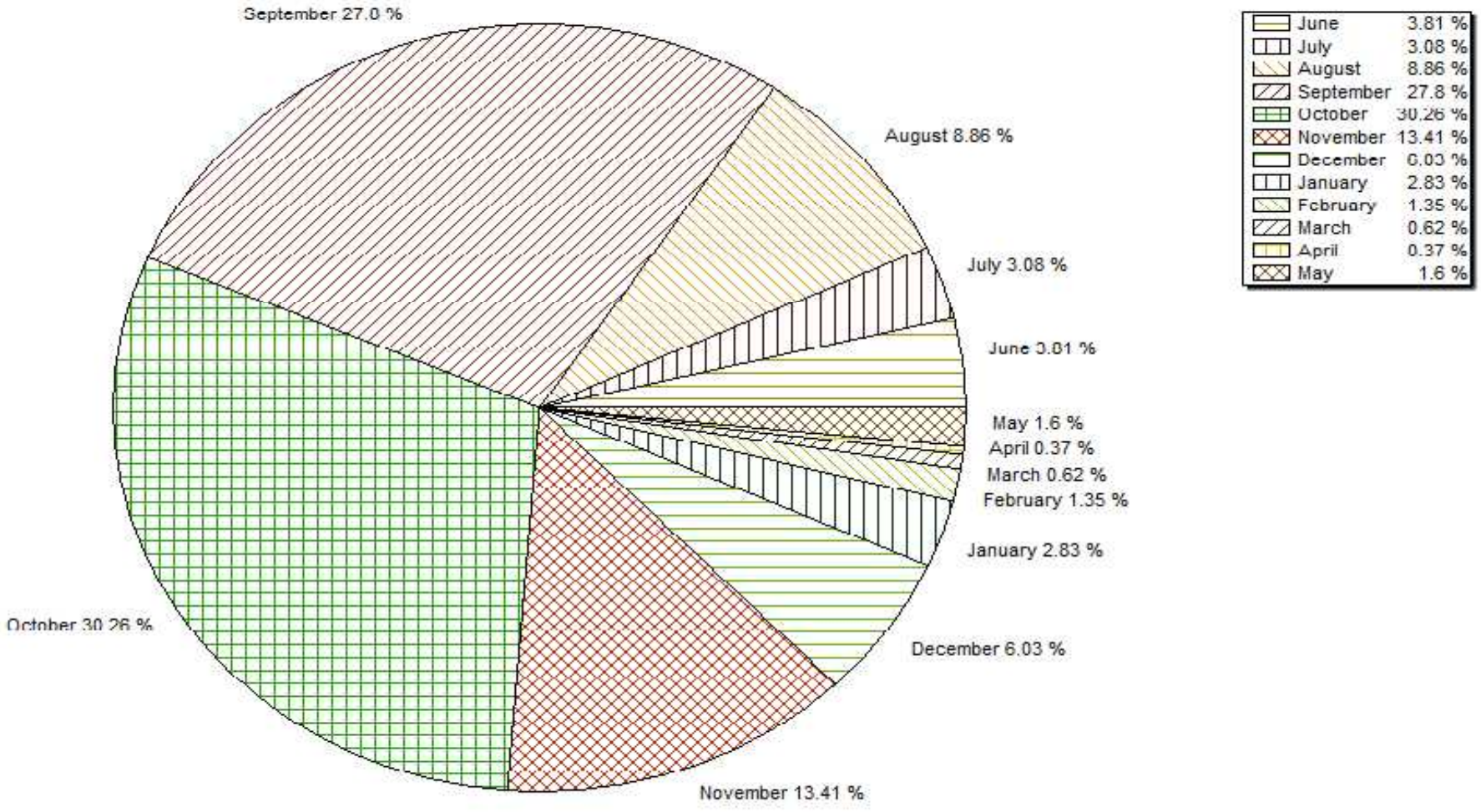


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1966-2017

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

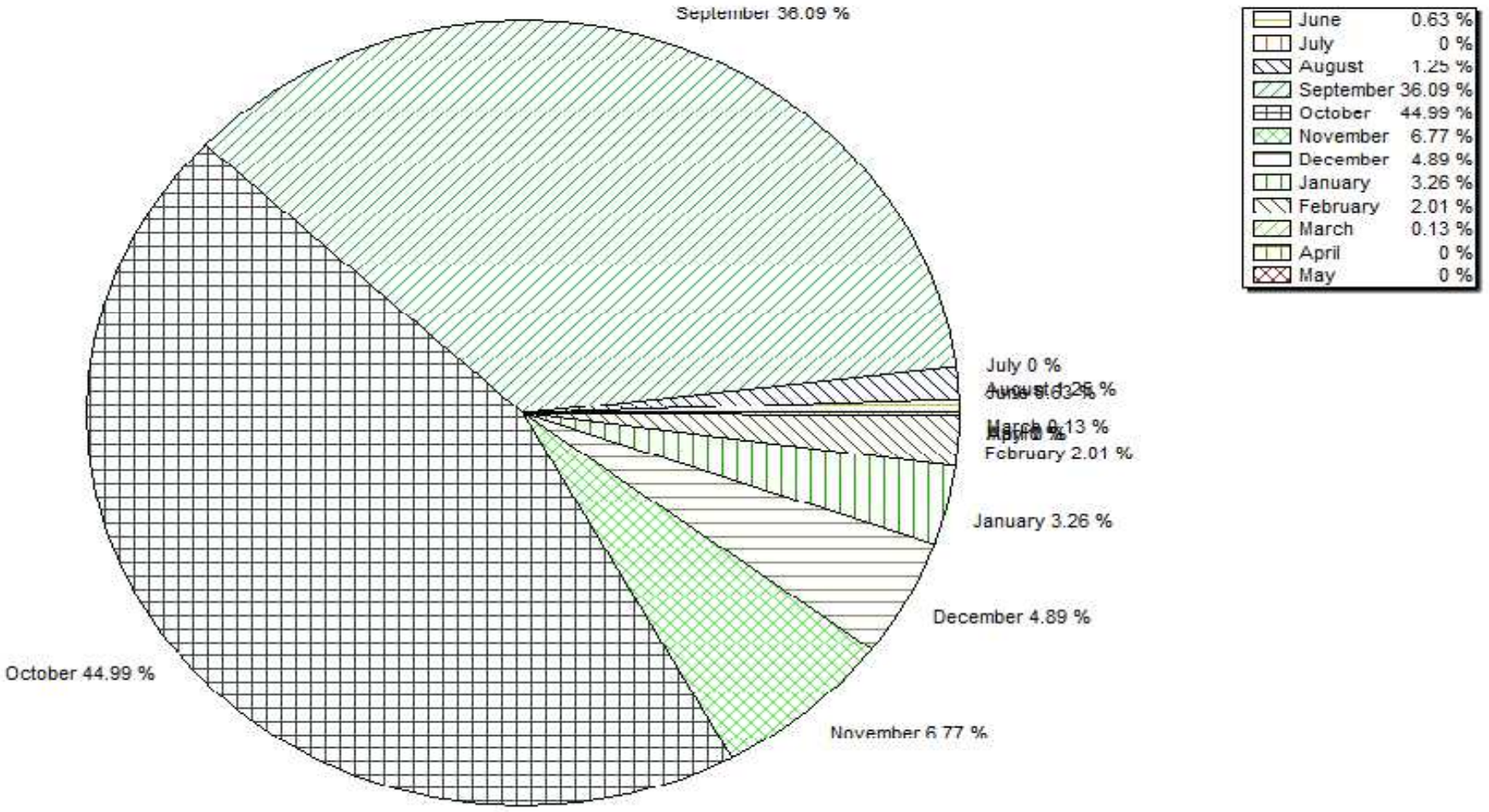
Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Monthly Runoff for the Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

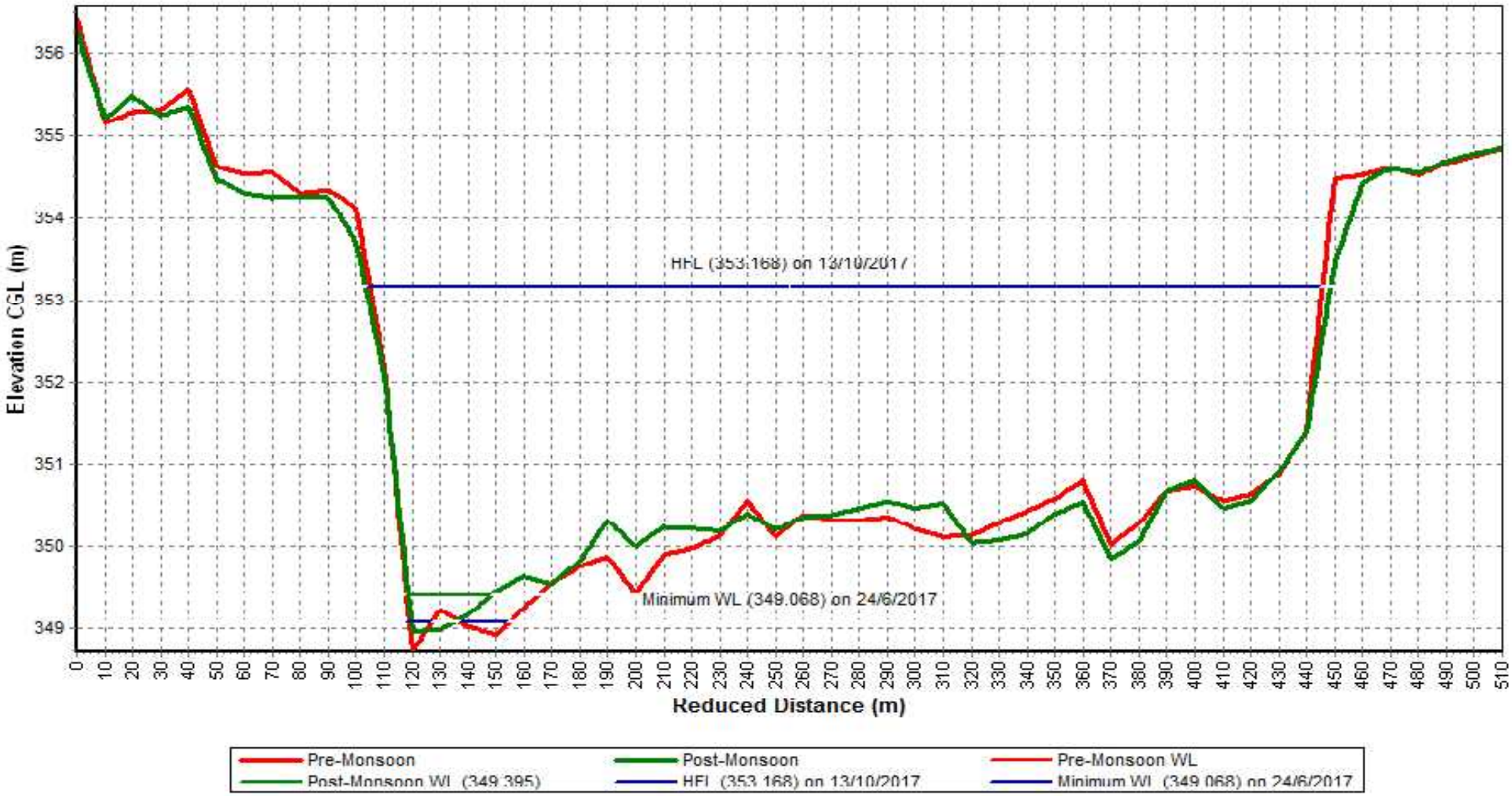
Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**

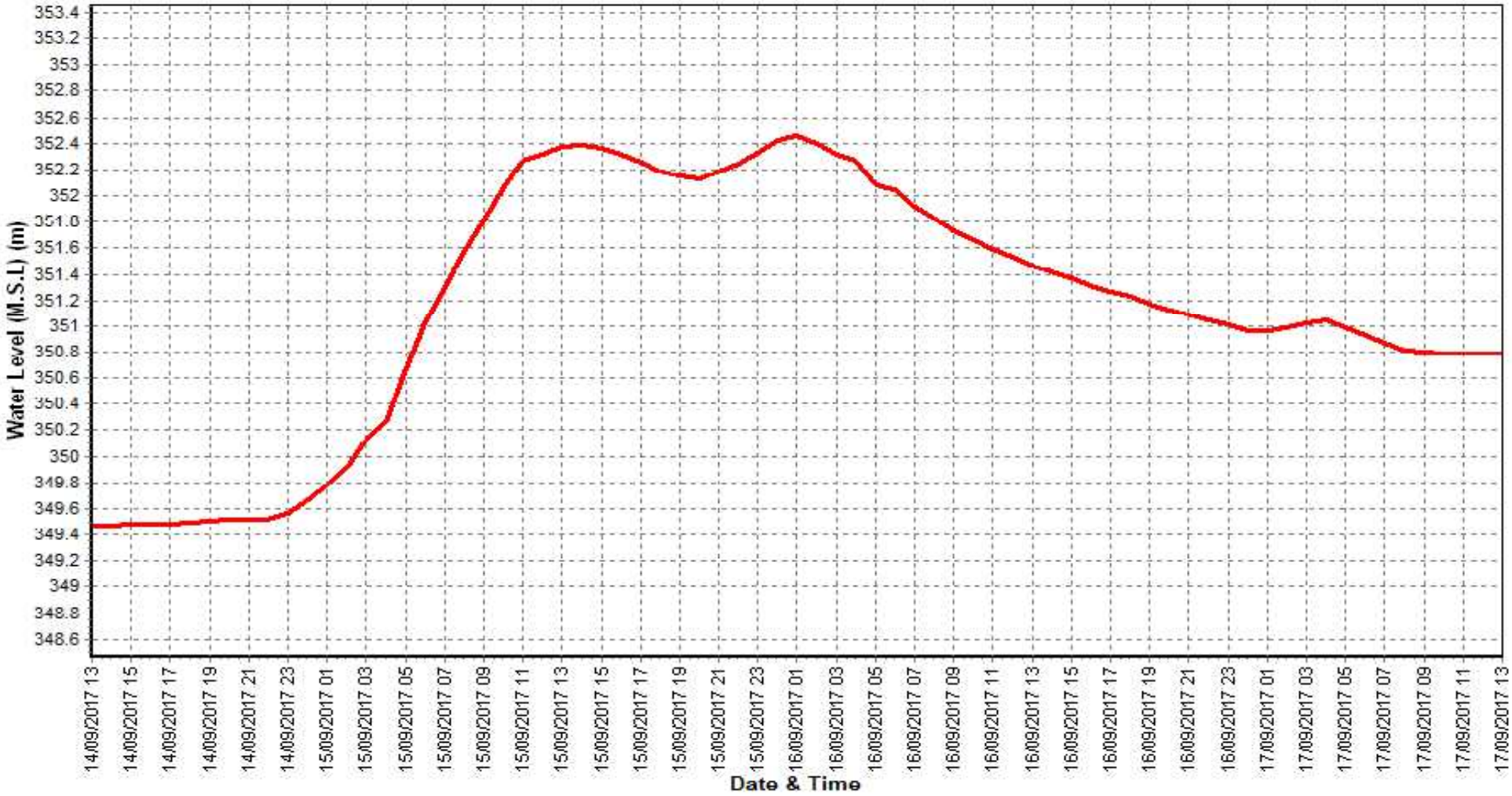


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : T Ramapuram (Seasonal) (AKL50A6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Hagari **Sub-Division : Lower Tungabhadra SD, Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: KELLODU**		**Code**	**: AKL50T9**	
State	: Karnataka		District	Chitradurga	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Tungabhadra		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Vedavathi	
Division	: Cauvery Division, Bangalore		Sub-Division	: Upper Tunga Subdn, Devangere	
Drainage Area	: 4320 Sq. Km.		Bank	: Left	
Latitude	: 13°45'15"		Longitude	: 76°19'11"	
Zero of Gauge (m)	: 644.75 (m.s.l)		01/06/2010		
	Opening Date		Closing Date		
Gauge	: 01/06/1990		HFL During 2017-18	: 647.26m	
			Corres. Discharge	: 12.21(Estimated)	
Discharge	: 11/07/1990		Date & Time of occurance	: 11/10/2017 : 04.00 hrs.	
Sediment	:				
Water Quality	: 01/07/1994				

HFL Recorded so far in m : 650.700 dt 12-11-2010
Corresponding Discharge (cumecs) : 360.2 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1991-1992	29.82	99.965	17/09/1991	0.000		01/04/1992
1992-1993	576.6	102.880	17/11/1992	0.245	98.920	15/04/1993
1993-1994	253.0	101.867	22/10/1993	0.000	98.930	28/03/1994
1994-1995	201.5	101.340	27/10/1994	0.000	99.010	22/06/1994
1995-1996	78.37	99.920	23/10/1995	0.000		27/02/1996
1996-1997	76.67	100.340	29/09/1996	0.000		31/03/1997
1997-1998	161.8	101.250	28/11/1997	0.000		12/04/1998
1998-1999	42.50	99.940	24/08/1998	0.000		23/03/1999
1999-2000	241.0	101.820	26/10/1999	0.000		12/07/1999
2000-2001	399.2	102.600	23/10/2000	0.000	98.615	27/01/2001
2001-2002	52.49	99.250	19/09/2001	0.000		14/04/2002
2002-2003	34.74	99.580	30/10/2002	0.000		25/01/2003
2003-2004	30.69	99.380	04/10/2003	0.000		03/07/2003
2004-2005	0.000		10/09/2004	0.000		25/01/2005
2005-2006	53.52	99.540	17/07/2005	0.000	97.540	06/03/2006
2006-2007	2.307	649.220	03/11/2006	0.000		25/12/2006
2007-2008	1.570	647.610	24/03/2008	0.000		20/01/2008
2008-2009	28.18	647.910	03/09/2008	0.000		24/01/2009
2009-2010	117.2	648.910	23/09/2009	0.000		15/03/2010

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**
2010-2011	300.8	650.250	13/11/2010	0.000	646.850	26/01/2011
2011-2012	48.55	647.825	15/10/2011	0.000	646.300	03/12/2011
2012-2013	11.56	647.060	01/10/2012	0.000		23/01/2013
2013-2014	4.716	647.290	17/09/2013	0.000		27/08/2013
2014-2015	128.9	649.540	27/10/2014	0.000		23/03/2015
2015-2016	77.90	648.390	03/11/2015	0.000		08/05/2016
2016-2017	0.000		05/04/2017	0.000		27/08/2016

Annual Runoff of Vedavathi at Kellodu

SLNo.	Season	Monsoon	Non-Monsoon	Annual
1	1990-1991	12	4	15
2	1991-1992	47	2	49
3	1992-1993	259	28	288
4	1993-1994	222	9	231
5	1994-1995	175	17	192
6	1995-1996	28	6	33
7	1996-1997	43	3	46
8	1997-1998	60	6	66
9	1998-1999	60	6	67
10	1999-2000	253	12	265
11	2000-2001	444	0	444
12	2001-2002	22	4	26
13	2002-2003	10	0	10
14	2003-2004	10	0	10
15	2004-2005	0	0	0
16	2005-2006	50	1	50
17	2006-2007	1	0	1
18	2007-2008	1	0	1
19	2008-2009	15	7	21
20	2009-2010	67	4	71
21	2010-2011	282	23	305
22	2011-2012	7	0	7
23	2012-2013	1	0	1
24	2013-2014	2	0	2
25	2014-2015	69	0	69
26	2015-2016	66	2	69
27	2016-2017	0	0	0
28	2017-2018	30	0	30
Average		80	5	85

Stage-Discharge Data for the period 2017 - 2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**

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	650.570	299.0		0.000		0.000	646.300	0.000	646.130	0.000
2		0.000		0.000		0.000		0.000	646.220	0.000	646.130	0.000
3		0.000		0.000		0.000		0.000	646.160	0.000	646.130	0.000
4		0.000		0.000		0.000		0.000	646.140	0.000	646.130	0.000
5		0.000		0.000		0.000		0.000	646.140	0.000	646.130	0.000
6		0.000		0.000		0.000		0.000	646.130	0.000	646.130	0.000
7		0.000		0.000		0.000		0.000	646.130	0.000	646.120	0.000
8		0.000		0.000		0.000		0.000	646.130	0.000	646.120	0.000
9		0.000		0.000		0.000		0.000	646.130	0.000	646.120	0.000
10		0.000		0.000		0.000		0.000	646.130	0.000	646.120	0.000
11		0.000		0.000		0.000		0.000	647.110	8.306	646.110	0.000
12		0.000		0.000		0.000		0.000	647.160	9.204	646.110	0.000
13		0.000		0.000		0.000		0.000	646.410	10.04 #	646.110	0.000
14		0.000		0.000		0.000		0.000	647.020	6.743	646.110	0.000
15		0.000		0.000		0.000		0.000	646.590	8.297 *	646.110	0.000
16		0.000		0.000		0.000		0.000	646.735	2.089 #	646.110	0.000
17		0.000		0.000		0.000		0.000	646.365	3.620 #	646.110	0.000
18		0.000		0.000		0.000		0.000	646.270	0.000	646.110	0.000
19		0.000		0.000		0.000		0.000	646.180	0.000	646.110	0.000
20		0.000		0.000		0.000		0.000	646.170	0.000	646.110	0.000
21		0.000		0.000		0.000		0.000	646.170	0.000	646.110	0.000
22		0.000		0.000		0.000		0.000	646.170	0.000	646.110	0.000
23		0.000		0.000		0.000		0.000	646.150	0.000	646.110	0.000
24		0.000		0.000		0.000		0.000	646.150	0.000	646.110	0.000
25		0.000		0.000		0.000		0.000	646.130	0.000	646.110	0.000
26		0.000		0.000		0.000		0.000	646.130	0.000	646.110	0.000
27		0.000		0.000		0.000		0.000	646.130	0.000	646.100	0.000
28		0.000		0.000		0.000		0.000	646.130	0.000		0.000
29		0.000		0.000		0.000		0.000	646.130	0.000		0.000
30		0.000		0.000		0.000	646.495	1.674	646.130	0.000		0.000
31				0.000		0.000			646.130	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000	65.057	29.90		0.000		0.000	646.161	0.000	646.126	0.000
II Ten-Daily		0.000		0.000		0.000		0.000	646.601	4.830	646.110	0.000
III Ten-Daily		0.000		0.000		0.000	64.649	0.167	646.141	0.000	452.276	0.000
Monthly												
Min.		0.000	0.000	0.000		0.000	0.000	0.000	646.130	0.00	0.000	0.000
Max.		0.000	650.570	299.0		0.000	646.495	1.674	647.160	10.04	646.130	0.000
Mean		0.001	20.986	9.646		0.001	21.550	0.056	646.296	1.558	581.504	0.000

Annual Runoff in MCM = 30 Annual Runoff in mm = 7

Peak Observed Discharge = 299.0 cumecs on 01/07/2017 Corres. Water Level :650.57 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 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 2017 - 2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1		0.000		0.000		0.000		0.000		0.000		0.000
2		0.000		0.000		0.000		0.000		0.000		0.000
3		0.000		0.000		0.000		0.000		0.000		0.000
4		0.000		0.000		0.000		0.000		0.000		0.000
5		0.000		0.000		0.000		0.000		0.000		0.000
6		0.000		0.000		0.000		0.000		0.000		0.000
7		0.000		0.000		0.000		0.000		0.000		0.000
8		0.000		0.000		0.000		0.000		0.000		0.000
9		0.000		0.000		0.000		0.000		0.000		0.000
10		0.000		0.000		0.000		0.000		0.000		0.000
11		0.000		0.000		0.000		0.000		0.000		0.000
12		0.000		0.000		0.000		0.000		0.000		0.000
13		0.000		0.000		0.000		0.000		0.000		0.000
14		0.000		0.000		0.000		0.000		0.000		0.000
15		0.000		0.000		0.000		0.000		0.000		0.000
16		0.000		0.000		0.000		0.000		0.000		0.000
17		0.000		0.000		0.000		0.000		0.000		0.000
18		0.000		0.000		0.000		0.000		0.000		0.000
19		0.000		0.000		0.000		0.000		0.000		0.000
20		0.000		0.000		0.000		0.000		0.000		0.000
21		0.000		0.000		0.000		0.000		0.000		0.000
22		0.000		0.000		0.000		0.000		0.000		0.000
23		0.000		0.000		0.000		0.000		0.000		0.000
24		0.000		0.000		0.000		0.000		0.000		0.000
25		0.000		0.000		0.000		0.000		0.000		0.000
26		0.000		0.000		0.000		0.000		0.000		0.000
27		0.000		0.000		0.000		0.000		0.000		0.000
28		0.000		0.000		0.000		0.000		0.000		0.000
29		0.000		0.000				0.000		0.000		0.000
30		0.000		0.000				0.000		0.000		0.000
31		0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.		0.000		0.000		0.000		0.000		0.000		0.000
Max.		0.000		0.000		0.000		0.000		0.000		0.000
Mean		0.000		0.000		0.000		0.000		0.000		0.000

Peak Computed Discharge = 8.297 cumecs on 15/10/2017 **Corres. Water Level :646.59 m**

Lowest Computed Discharge = 8.297 cumecs on 15/10/2017 **Corres. Water Level :646.59 m**

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

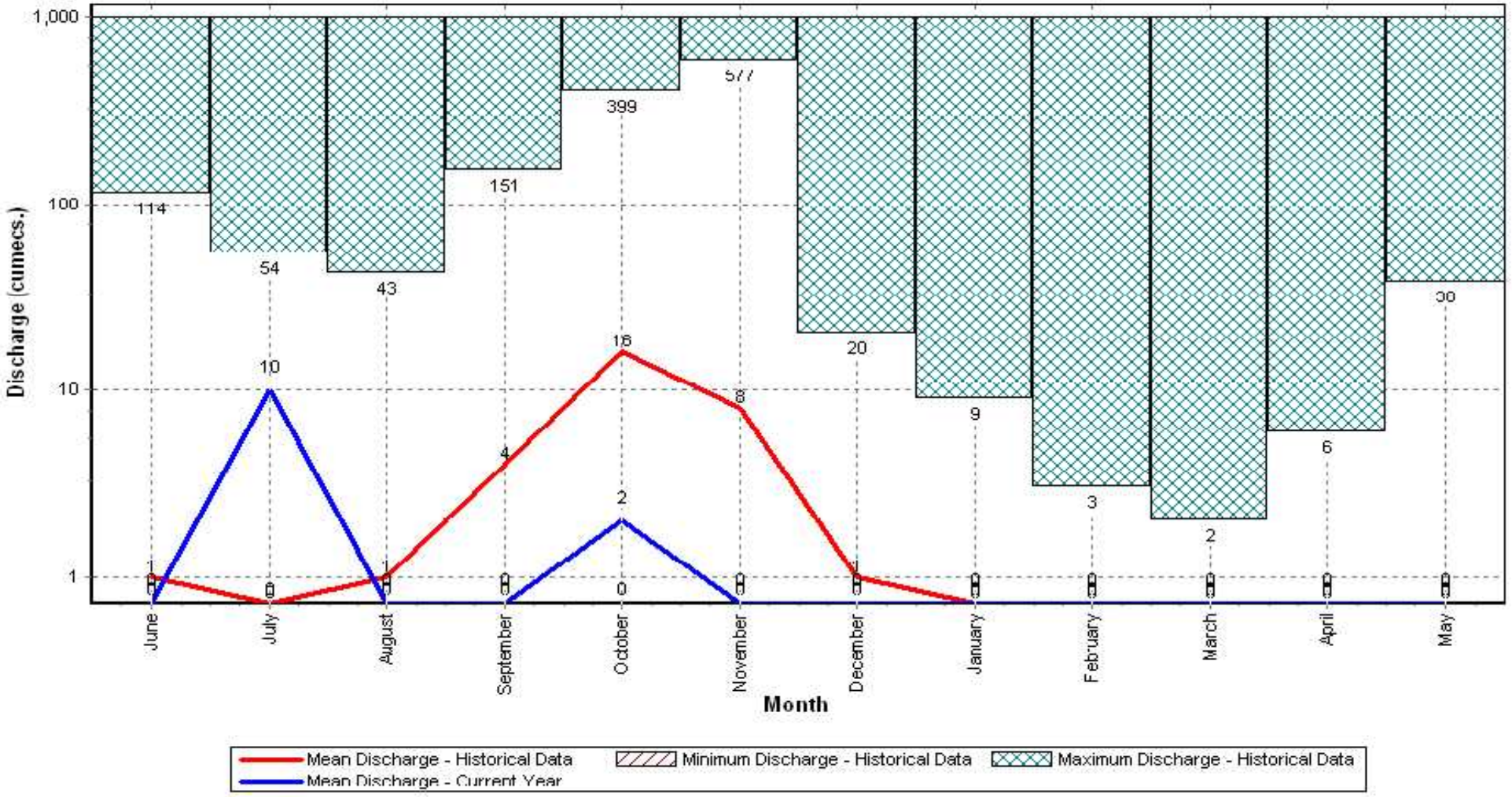
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : KELLODU (AKL50T9) **Data considered : 1991-2018** **Division : Cauvery Division, Bangalore**

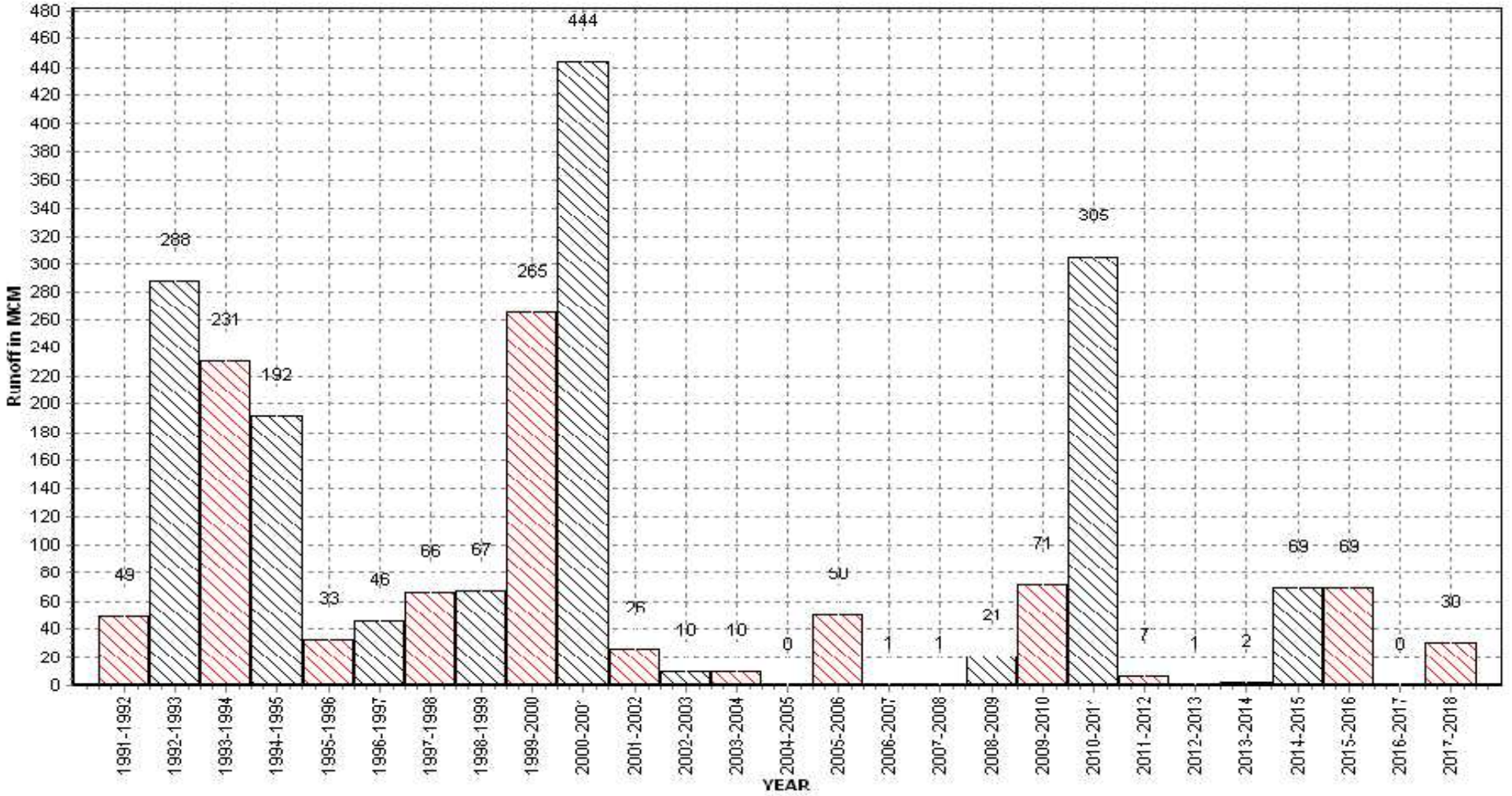
Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**



Annual Runoff Values for the period: 1991 - 2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**



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

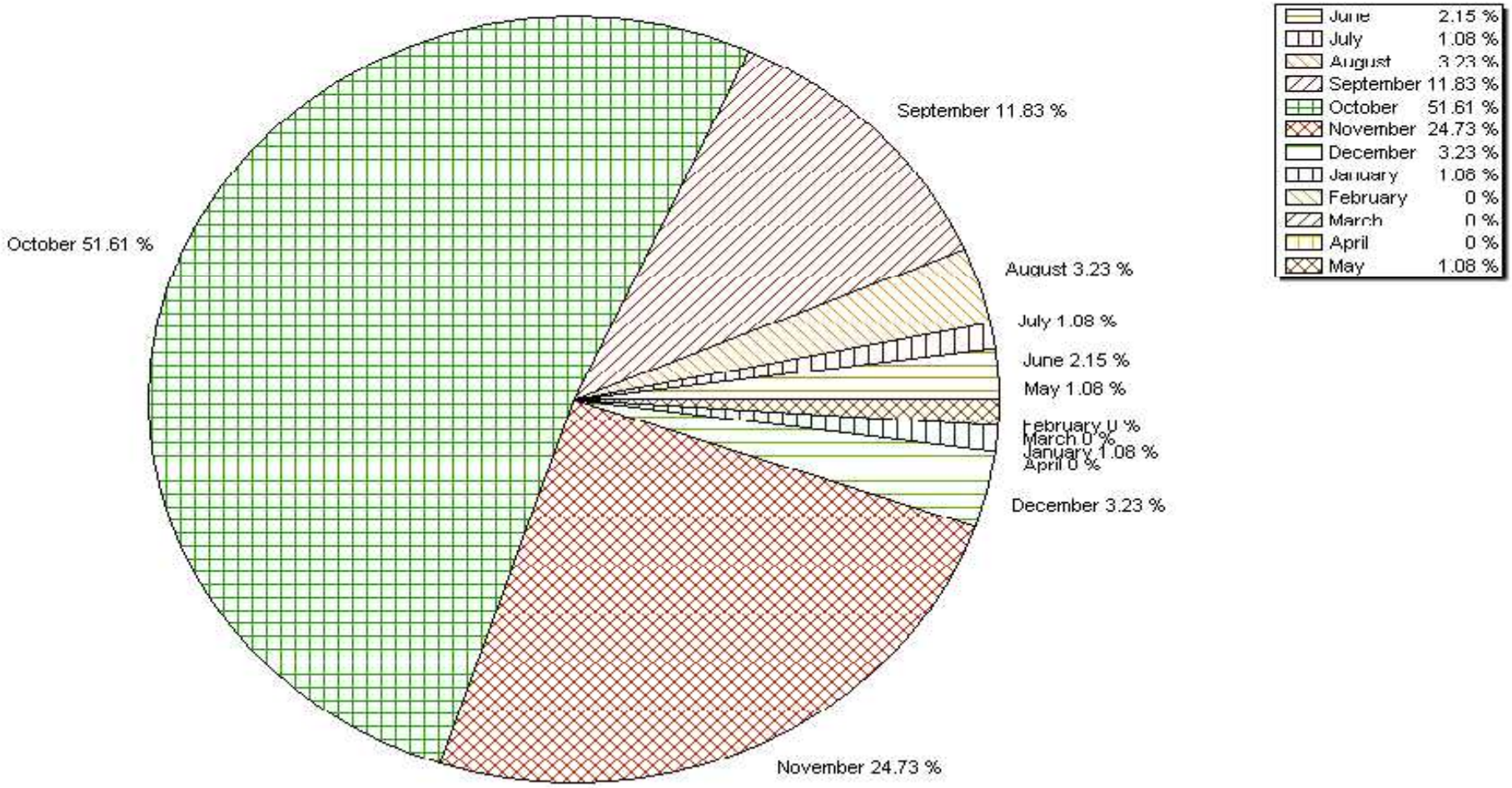
Monthly Average Runoff based on period : 1991-2017

Station Name : KELLODU (AKL50T9)

Local River : Vedavathi

Division : Cauvery Division, Bangalore

Sub-Division : Upper Tunga Subdn, Devangere



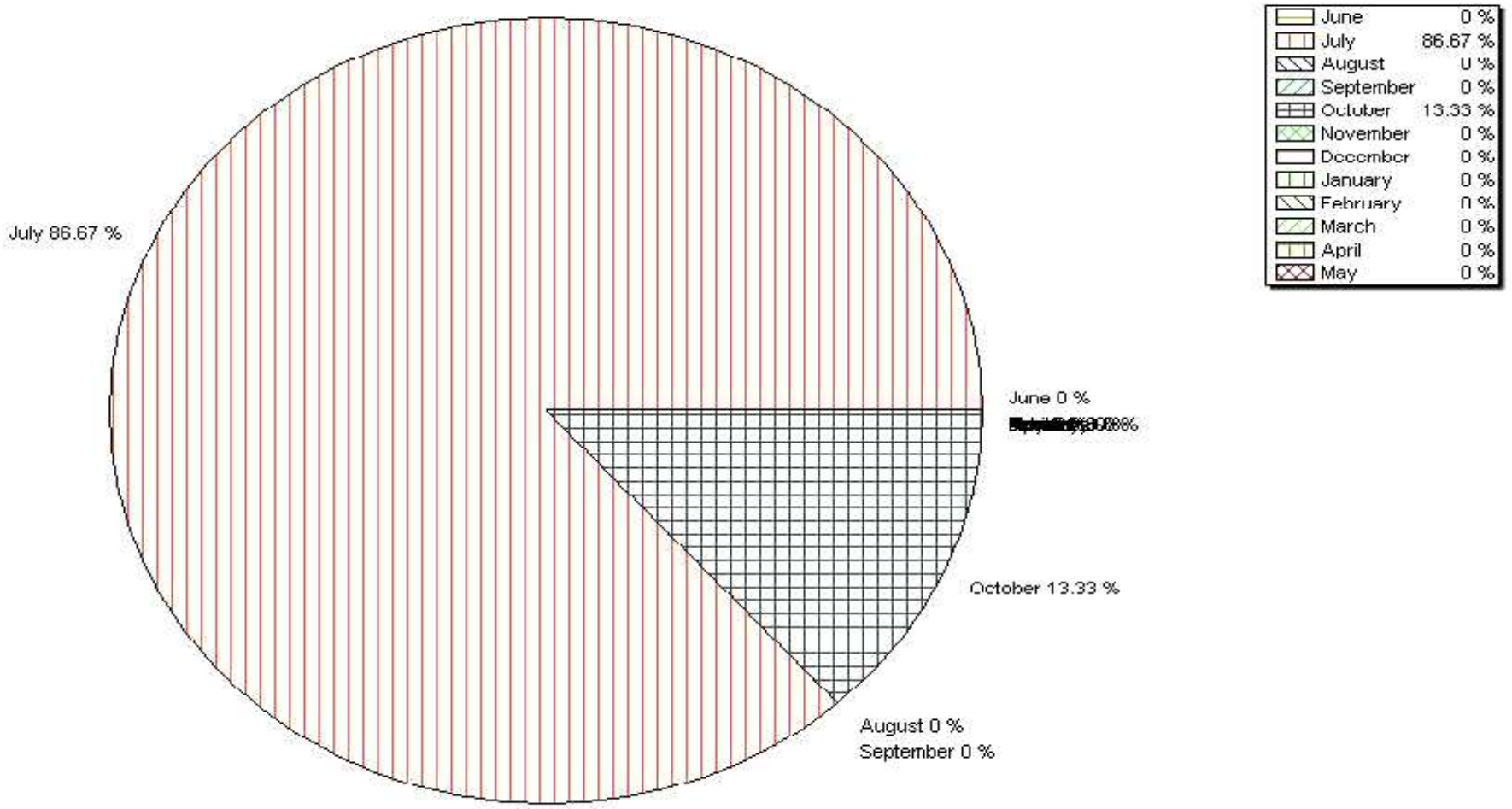
Monthly Runoff for the Year : 2017-2018

Station Name : KELLODU (AKL50T9)

Local River : Vedavathi

Division : Cauvery Division, Bangalore

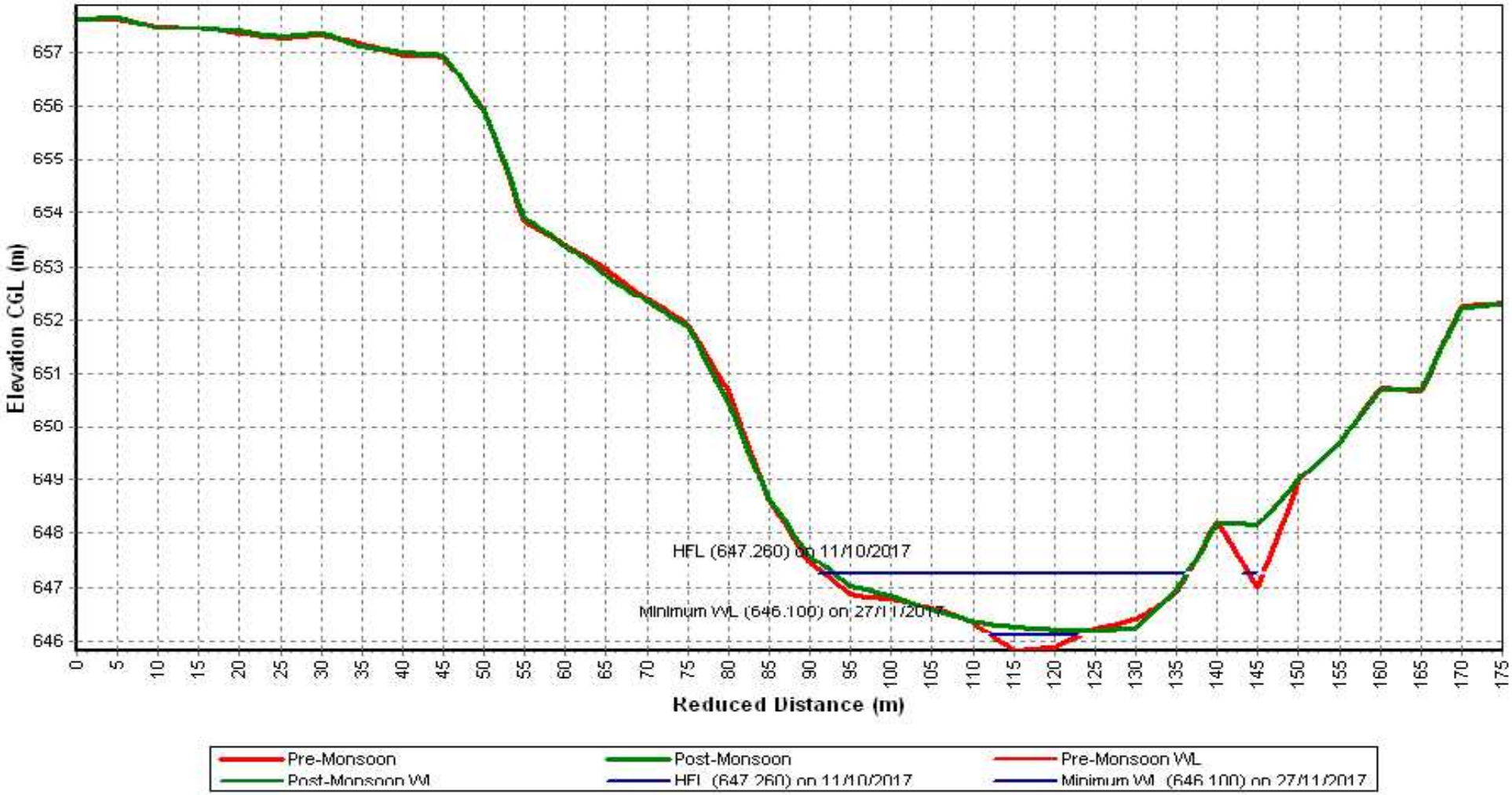
Sub-Division : Upper Tunga Subdn, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

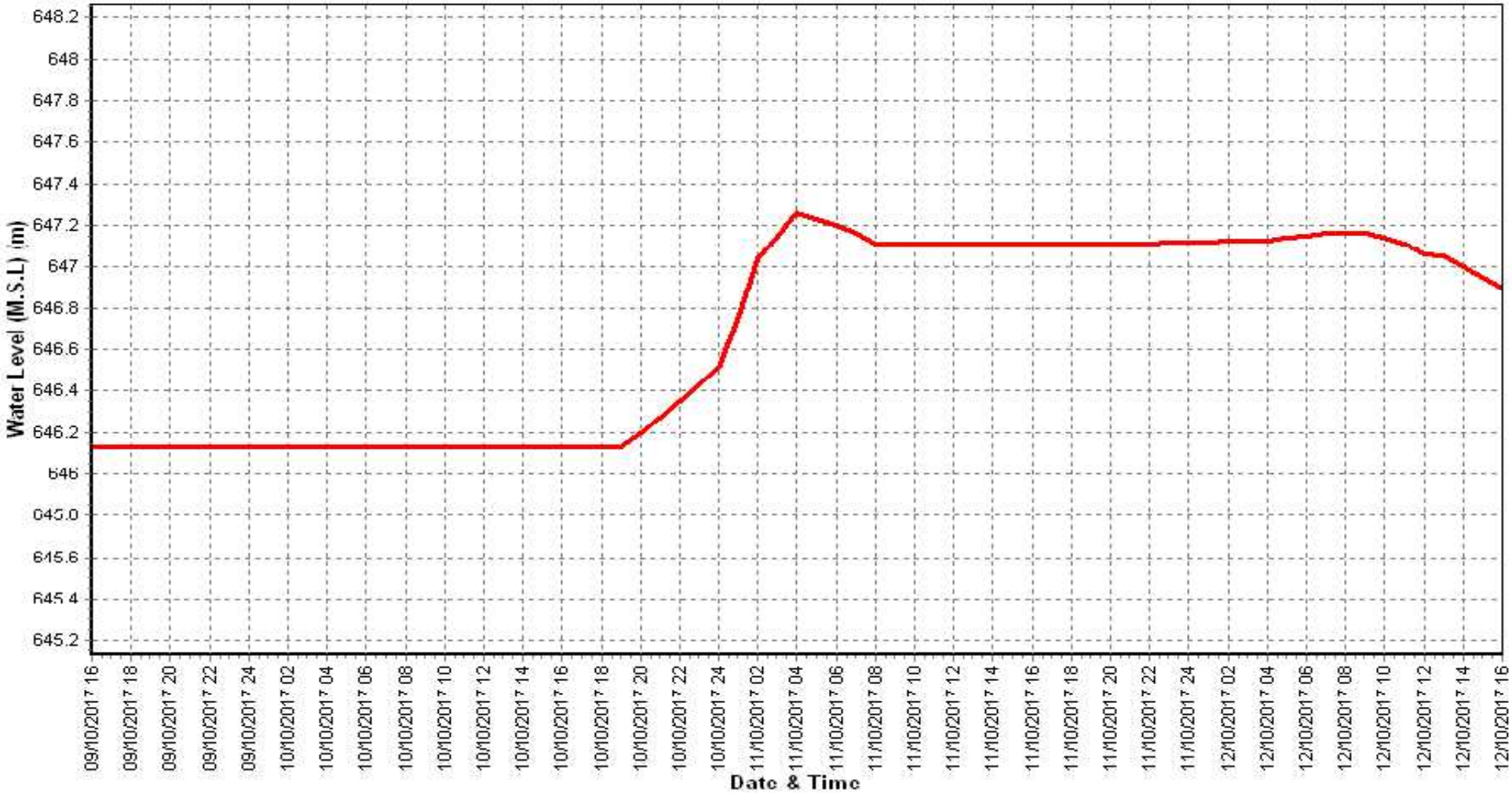
Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**

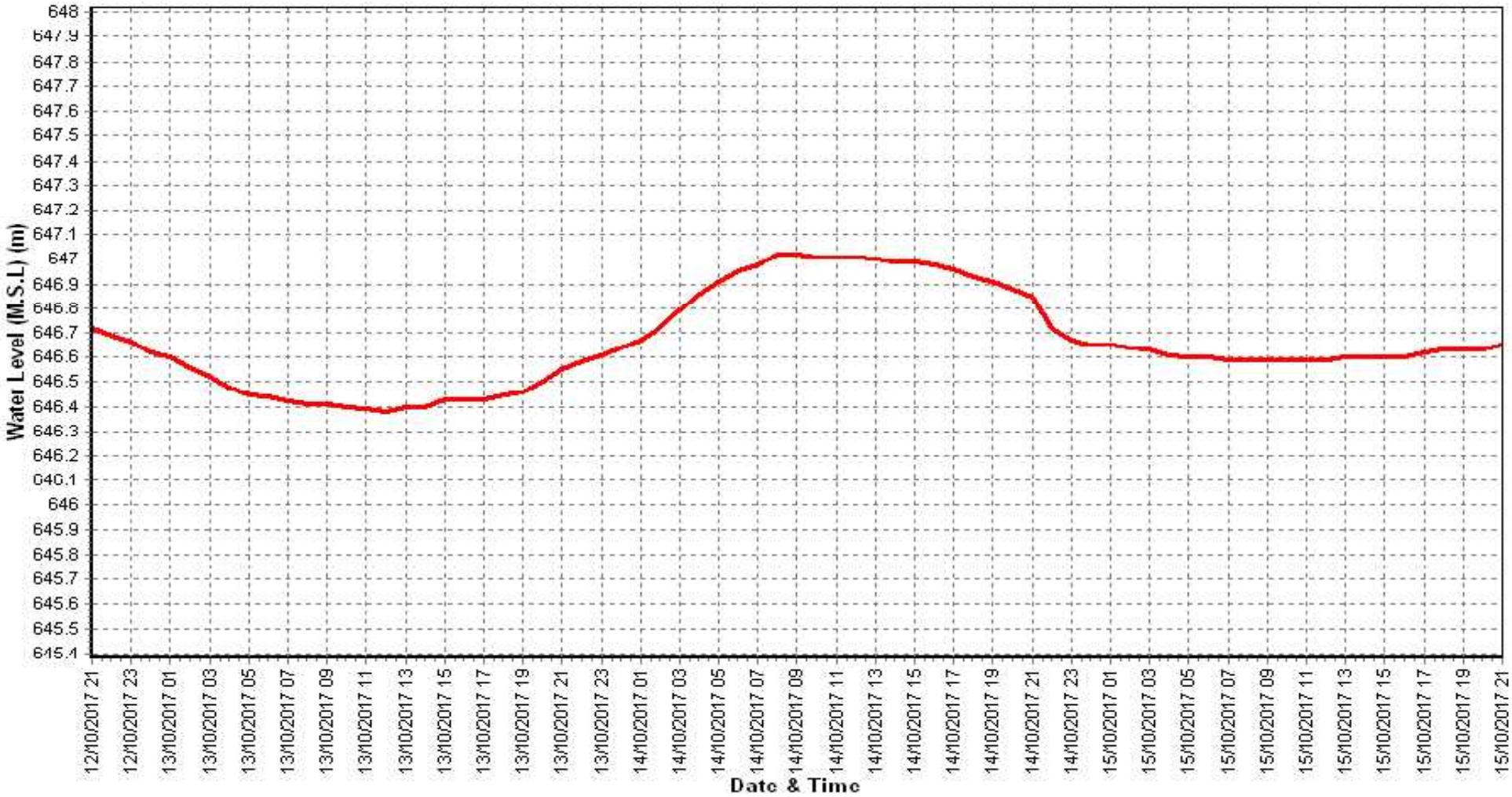


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**

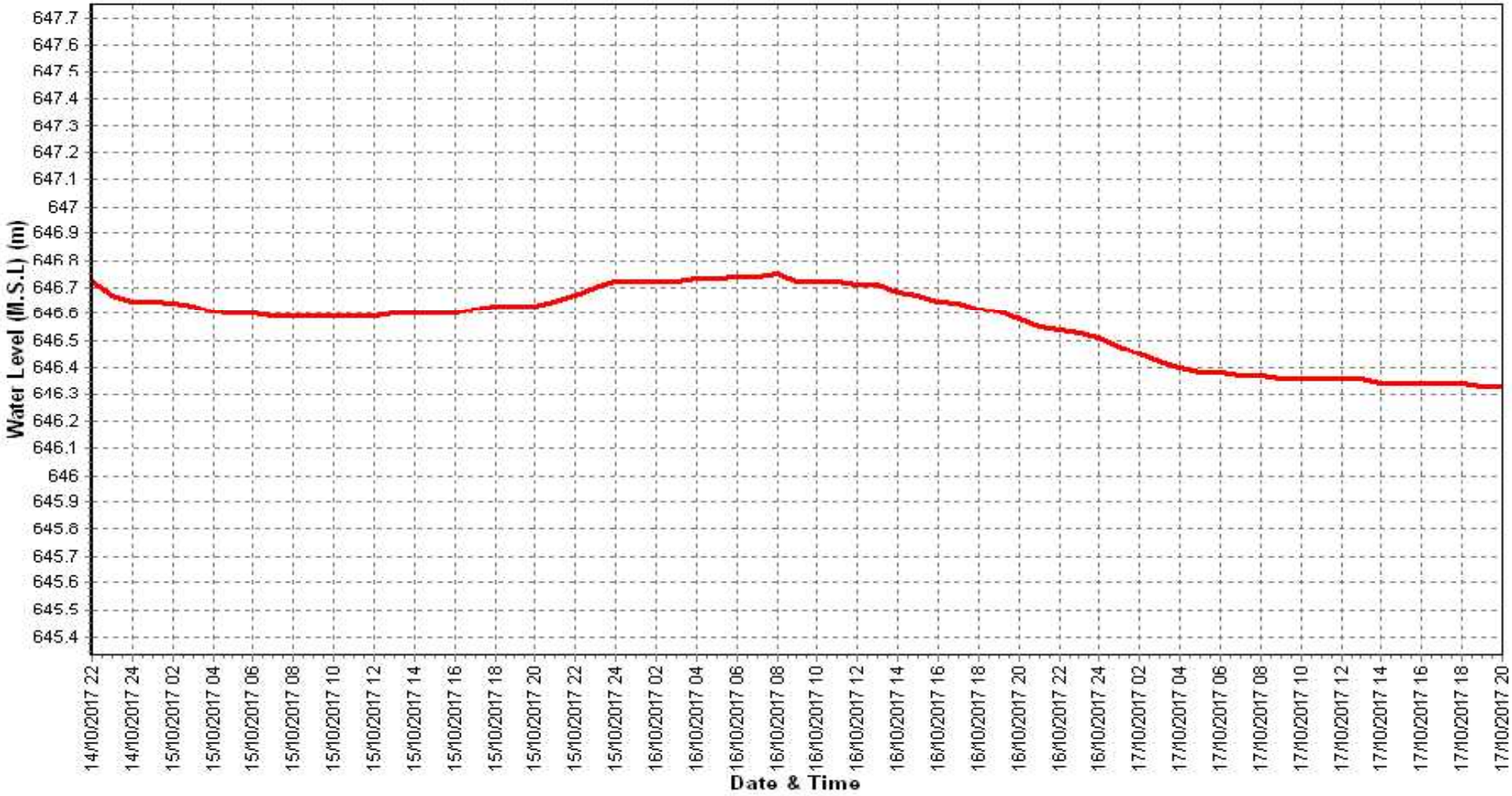


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : KELLODU (AKL50T9) **Division : Cauvery Division, Bangalore**

Local River : Vedavathi **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: HOOVINAHOLE**		**Code**	**: HOOVINAHOLE**	
State	: Karnataka		District	Chitradurga	
Basin	: Krishna		Independent River	: Krishna	
Tributary	:		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Suvarnamukhi	
Division	: Cauvery Division, Bangalore		Sub-Division	: Upper Tunga SD, Devangere	
Drainage Area	: 2585 Sq. Km.		Bank	: Right	
Latitude	: 13°58'57"		Longitude	: 76°44'57"	
Zero of Gauge (m)	: 93.5 (m.s.l)		28/11/1997		
	Opening Date		Closing Date		
Gauge	: 28/11/1997		HFL During 2017-18	: 94.980m	
			Corres. Discharge	: 16.99(Estimated)	
Discharge	: 02/10/2001		Date & Time of occurance	: 15/10/2017 : 09.00 hrs.	
Sediment	:				
Water Quality	: 01/06/2008				

HFL Recorded so far in m : 96.150 dt 06-09-2008
Corresponding Discharge (cumecs) : 111.9 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2002-2003	16.39	95.100	30/10/2002	0.000	94.240	07/12/2002
2003-2004	0.000		05/10/2003	0.000		26/01/2004
2004-2005	0.000		04/10/2004	0.000		25/01/2005
2005-2006	13.37	95.500	03/11/2005	0.000		06/04/2006
2006-2007	2.576	94.860	20/06/2006	0.000		03/01/2007
2007-2008	5.331	94.840	10/09/2007	0.000		26/01/2008
2008-2009	75.85	95.820	06/09/2008	0.000		17/03/2009
2009-2010	67.38	95.580	24/09/2009	0.000	94.450	27/12/2009
2010-2011	75.13	95.755	03/11/2010	0.000	94.230	23/01/2011
2011-2012	0.000		21/02/2012	0.000		18/05/2012
2012-2013	0.000		12/07/2012	0.000		09/12/2012
2013-2014	43.01	95.355	13/09/2013	0.000		01/10/2013
2014-2015	0.000		17/11/2014	0.000		25/01/2015
2015-2016	7.174	94.080	27/11/2015	0.000		30/05/2016
2016-2017	0.000		06/05/2017	0.000		27/08/2016

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

Annual Runoff of Swarnamukhi at Hoovinahole

Sl.no	**Season**	Monsoon	on-Monsoon	Annual
1	**2001-2002**	0	0	0
2	**2002-2003**	11	0	11
3	**2003-2004**	0	0	0
4	**2004-2005**	0	0	0
5	**2005-2006**	17	1	18
6	**2006-2007**	2	0	2
7	**2007-2008**	4	0	4
8	**2008-2009**	50	8	58
9	**2009-2010**	42	1	43
10	**2010-2011**	62	7	69
11	**2011-2012**		0	0
12	**2012-2013**	0	0	0
13	**2013-2014**	4	0	4
14	**2014-2015**	0	0	0
15	**2015-2016**	3	2	5
16	**2016-2017**	0	0	0
17	**2017-2018**	8	0	8
	Average	2	1	13

Stage-Discharge Data for the period 2017 - 2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**

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		0.000		0.000		0.000		0.000	93.620	0.000
2		0.000		0.000		0.000		0.000		0.000	93.620	0.000
3		0.000		0.000		0.000		0.000		0.000	93.620	0.000
4		0.000		0.000		0.000		0.000		0.000	93.620	0.000
5		0.000		0.000		0.000		0.000	94.170	6.435	93.600	0.000
6		0.000		0.000		0.000		0.000	93.780	0.000	93.560	0.000
7		0.000		0.000		0.000		0.000	93.800	0.000	93.560	0.000
8		0.000		0.000		0.000		0.000	93.960	0.000	93.550	0.000
9		0.000		0.000		0.000		0.000	93.820	0.000	93.540	0.000
10		0.000		0.000		0.000		0.000	93.820	0.000	93.540	0.000
11		0.000		0.000		0.000		0.000	93.810	0.000	93.530	0.000
12		0.000		0.000		0.000		0.000	93.830	0.000	93.530	0.000
13		0.000		0.000		0.000		0.000	93.830	0.000	93.530	0.000
14		0.000		0.000		0.000		0.000	93.840	0.000	93.530	0.000
15		0.000		0.000		0.000		0.000	94.950	16.50 *	93.530	0.000
16		0.000		0.000		0.000		0.000	94.630	11.53	93.530	0.000
17		0.000		0.000		0.000		0.000	94.620	11.53	93.520	0.000
18		0.000		0.000		0.000		0.000	94.610	11.51 *	93.520	0.000
19		0.000		0.000		0.000		0.000	94.080	6.391	93.520	0.000
20		0.000		0.000		0.000		0.000	94.060	5.657	93.520	0.000
21		0.000		0.000		0.000		0.000	94.080	6.393	93.520	0.000
22		0.000		0.000		0.000		0.000	94.080	5.726 *	93.520	0.000
23		0.000		0.000		0.000		0.000	94.000	4.168	93.520	0.000
24		0.000		0.000		0.000		0.000	93.750	0.574	93.520	0.000
25		0.000		0.000		0.000		0.000	93.750	0.568	93.520	0.000
26		0.000		0.000		0.000		0.000	93.740	0.530	93.520	0.000
27		0.000		0.000		0.000		0.000	93.740	0.532	93.520	0.000
28		0.000		0.000		0.000		0.000	93.750	0.576	93.520	0.000
29		0.000		0.000		0.000		0.000	93.750	0.587 *	93.510	0.000
30		0.000		0.000		0.000		0.000	93.700	0.258	93.510	0.000
31				0.000		0.000			93.640	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000	56.335	0.643	93.583	0.000
II Ten-Daily		0.000		0.000		0.000		0.000	94.226	6.312	93.526	0.000
III Ten-Daily		0.000		0.000		0.000		0.000	93.816	1.810	93.518	0.000
Monthly												
Min.		0.000		0.000		0.000		0.000	0.000	0.000	93.510	0.000
Max.		0.000		0.000		0.000		0.000	94.950	16.50	93.620	0.000
Mean		0.000		0.000		0.000		0.000	81.858	2.886	93.542	0.000

Annual Runoff in MCM = 8 Annual Runoff in mm = 3

Peak Observed Discharge = 11.53 cumecs on 17/10/2017 Corres. Water Level :94.62 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 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 2017 - 2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	93.510	0.000		0.000		0.000		0.000		0.000		0.000
2	93.510	0.000		0.000		0.000		0.000		0.000		0.000
3		0.000		0.000		0.000		0.000		0.000		0.000
4		0.000		0.000		0.000		0.000		0.000		0.000
5		0.000		0.000		0.000		0.000		0.000		0.000
6		0.000		0.000		0.000		0.000		0.000		0.000
7		0.000		0.000		0.000		0.000		0.000		0.000
8		0.000		0.000		0.000		0.000		0.000		0.000
9		0.000		0.000		0.000		0.000		0.000		0.000
10		0.000		0.000		0.000		0.000		0.000		0.000
11		0.000		0.000		0.000		0.000		0.000		0.000
12		0.000		0.000		0.000		0.000		0.000		0.000
13		0.000		0.000		0.000		0.000		0.000		0.000
14		0.000		0.000		0.000		0.000		0.000		0.000
15		0.000		0.000		0.000		0.000		0.000		0.000
16		0.000		0.000		0.000		0.000		0.000		0.000
17		0.000		0.000		0.000		0.000		0.000		0.000
18		0.000		0.000		0.000		0.000		0.000		0.000
19		0.000		0.000		0.000		0.000		0.000		0.000
20		0.000		0.000		0.000		0.000		0.000		0.000
21		0.000		0.000		0.000		0.000		0.000		0.000
22		0.000		0.000		0.000		0.000		0.000		0.000
23		0.000		0.000		0.000		0.000		0.000		0.000
24		0.000		0.000		0.000		0.000		0.000		0.000
25		0.000		0.000		0.000		0.000		0.000		0.000
26		0.000		0.000		0.000		0.000		0.000		0.000
27		0.000		0.000		0.000		0.000		0.000		0.000
28		0.000		0.000		0.000		0.000		0.000		0.000
29		0.000		0.000				0.000		0.000		0.000
30		0.000		0.000				0.000		0.000		0.000
31		0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	18.702	0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	0.000	0.000		0.000		0.000		0.000		0.000		0.000
Max.	93.510	0.000		0.000		0.000		0.000		0.000		0.000
Mean	6.033	0.000		0.000		0.000		0.000		0.000		0.000

Peak Computed Discharge = 16.50 cumecs on 15/10/2017 **Corres. Water Level :94.95 m**

Lowest Computed Discharge = 0.587 cumecs on 29/10/2017 **Corres. Water Level :93.75 m**

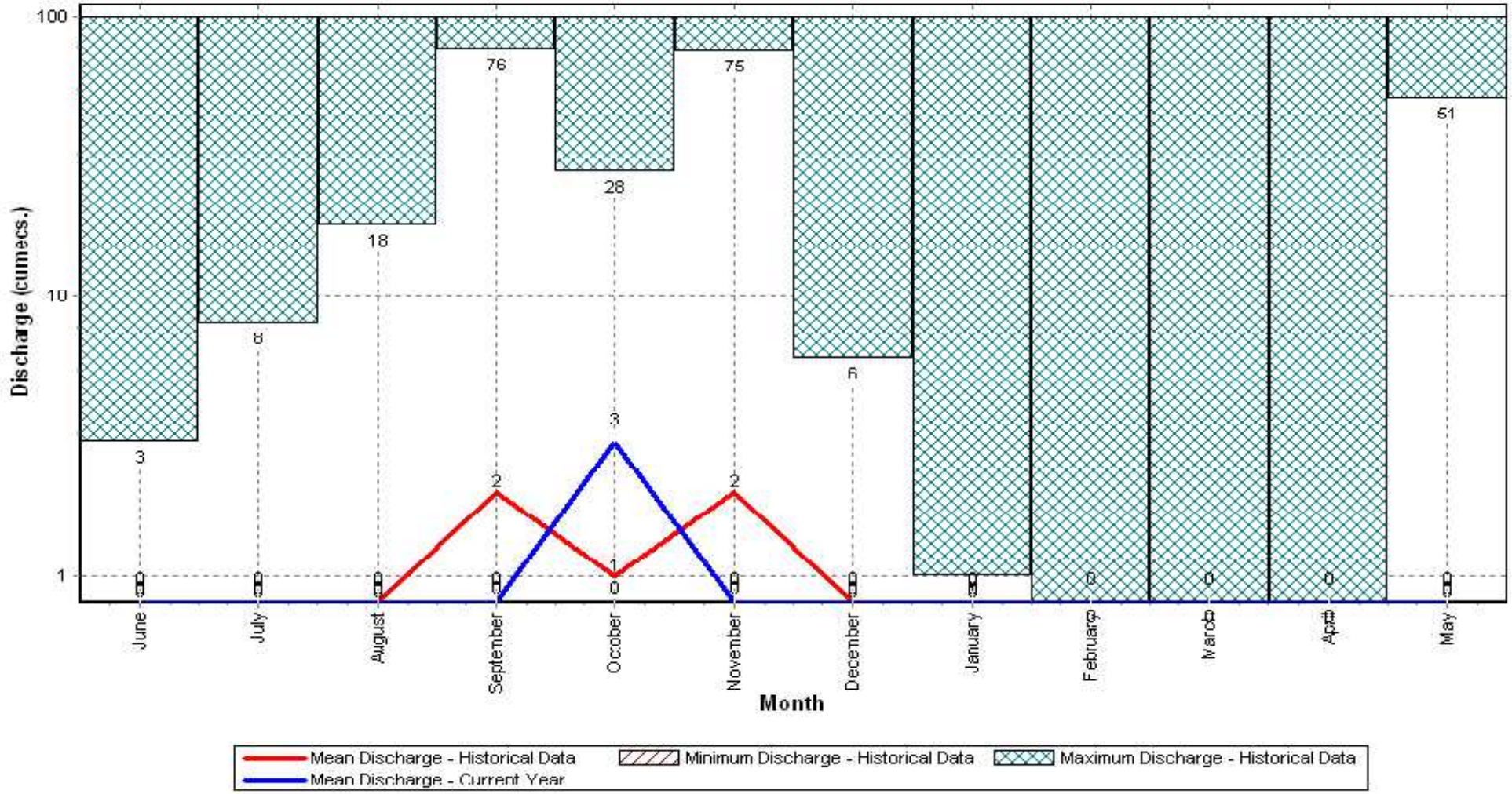
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Data considered : 2002-2018** **Division : Cauvery Division, Bangalore**

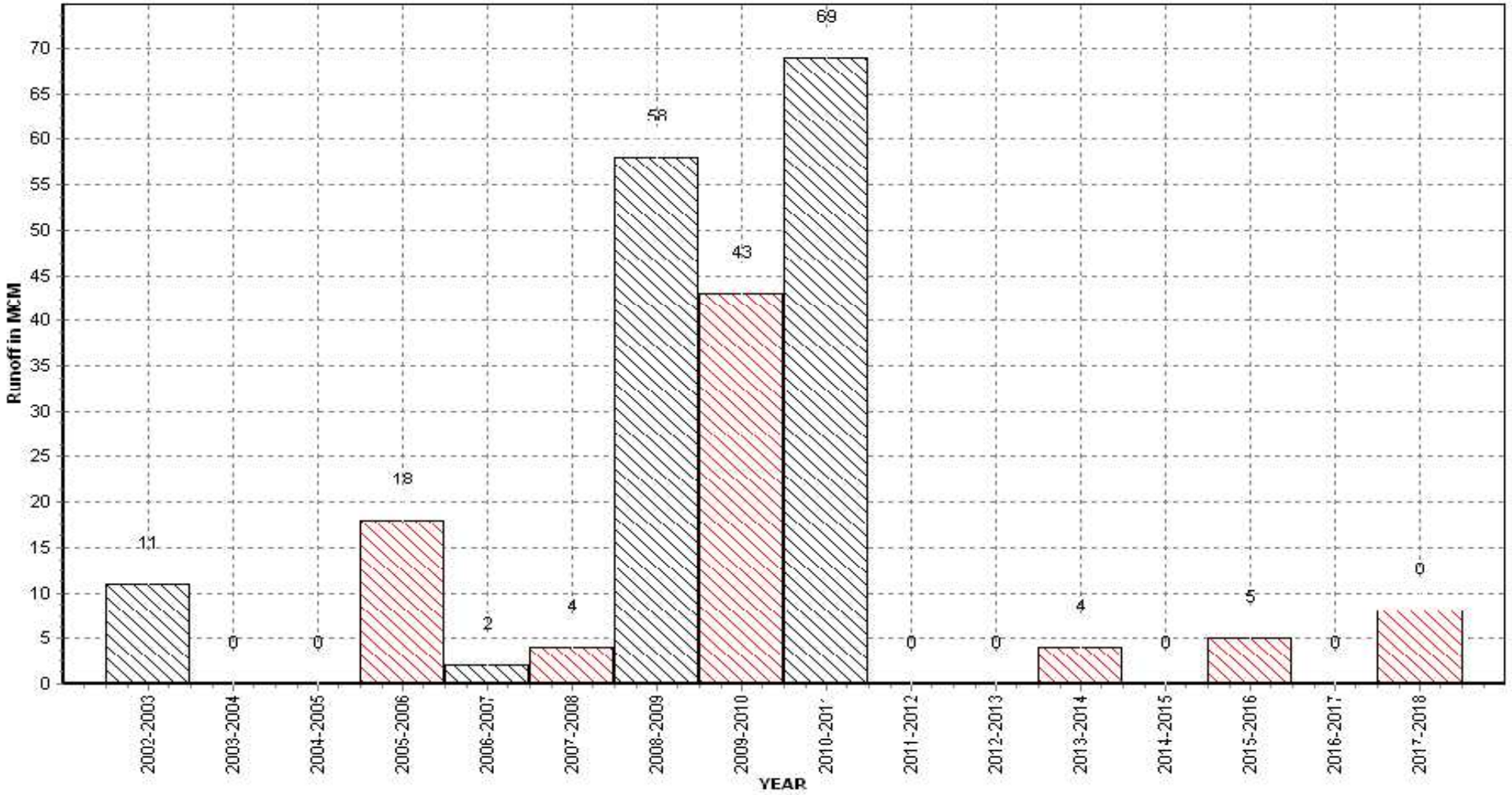
Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**



Annual Runoff Values for the period: 2002 - 2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**

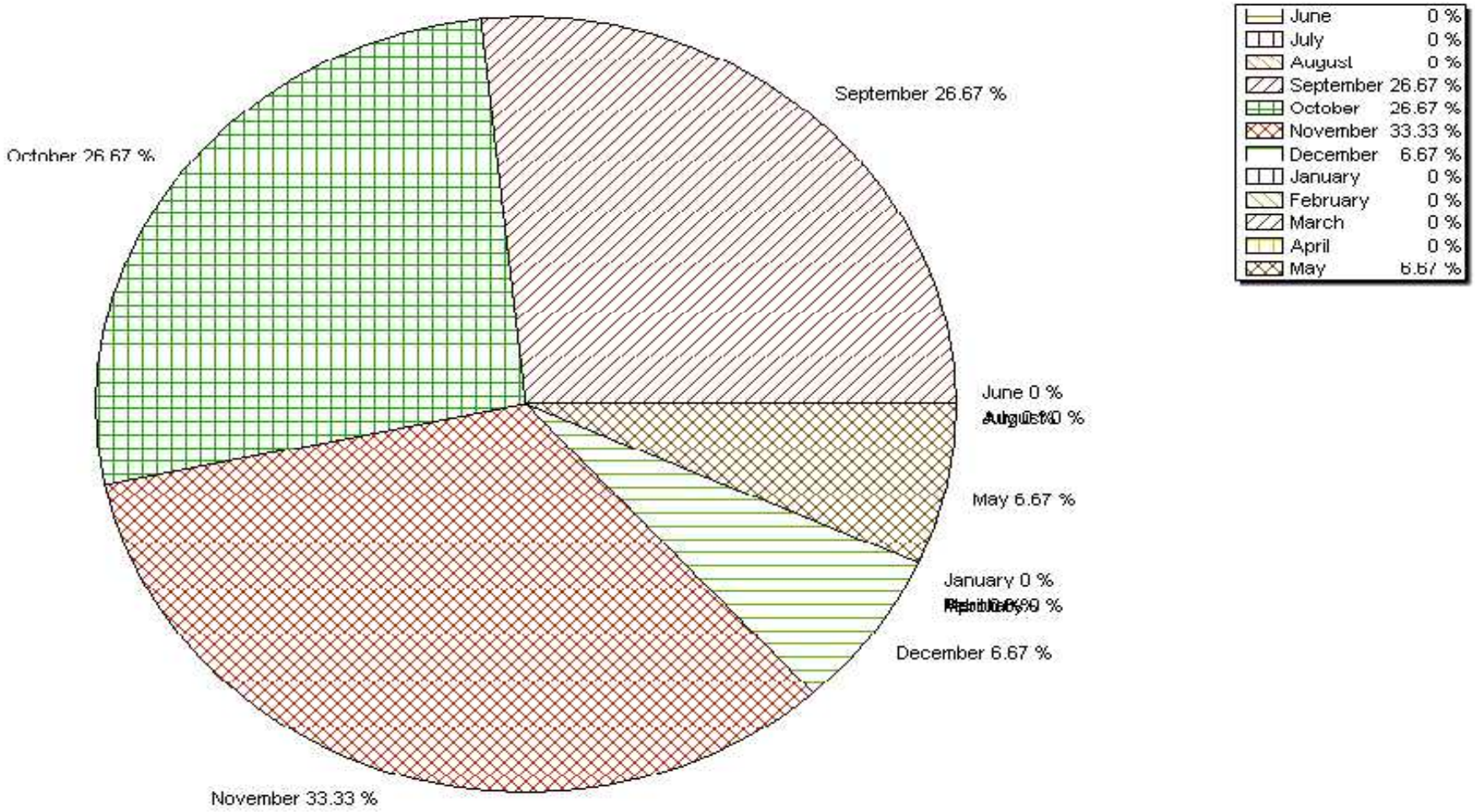


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2002-2017

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

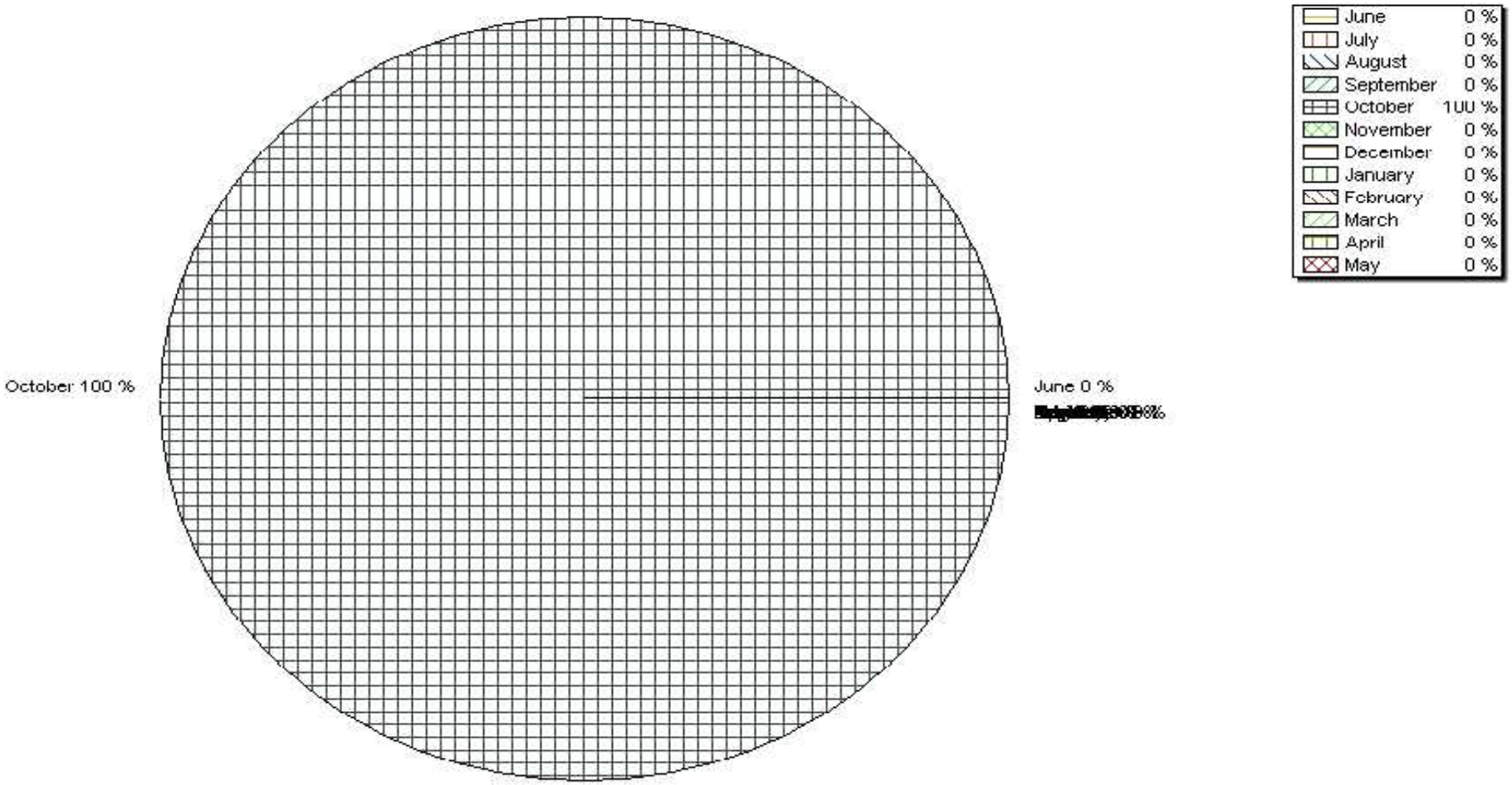
Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**



Monthly Runoff for the Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

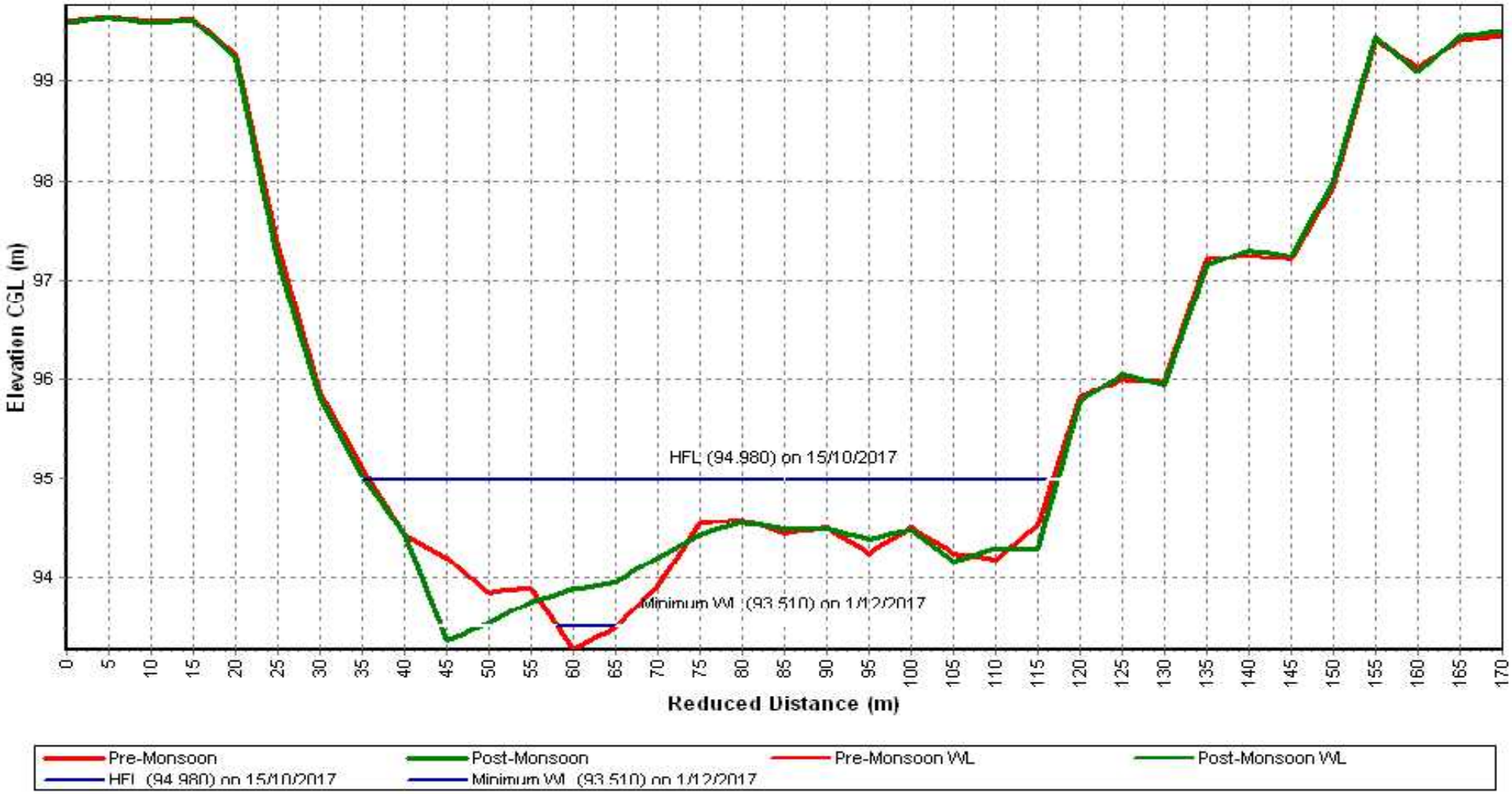
Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

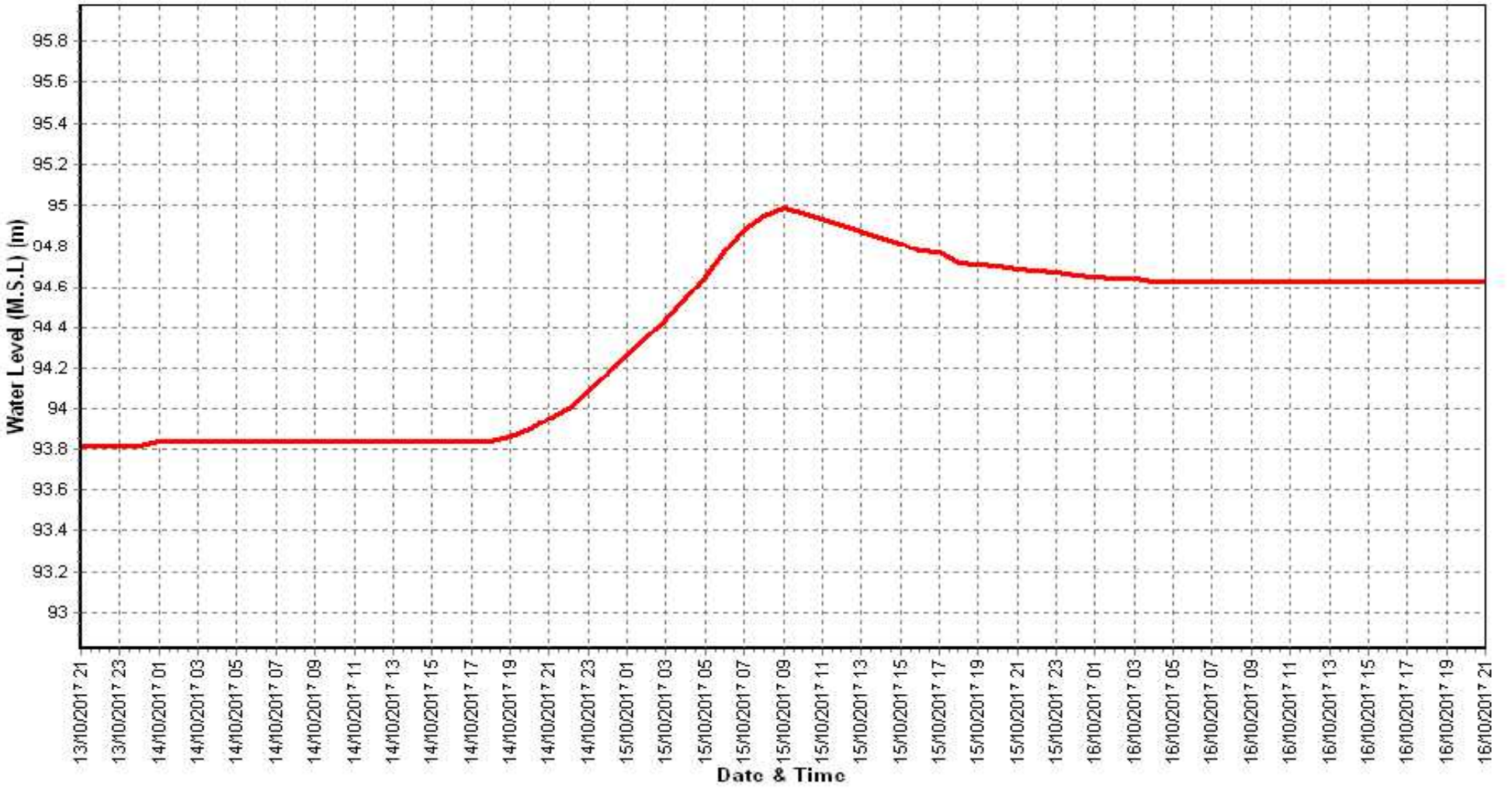
Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**

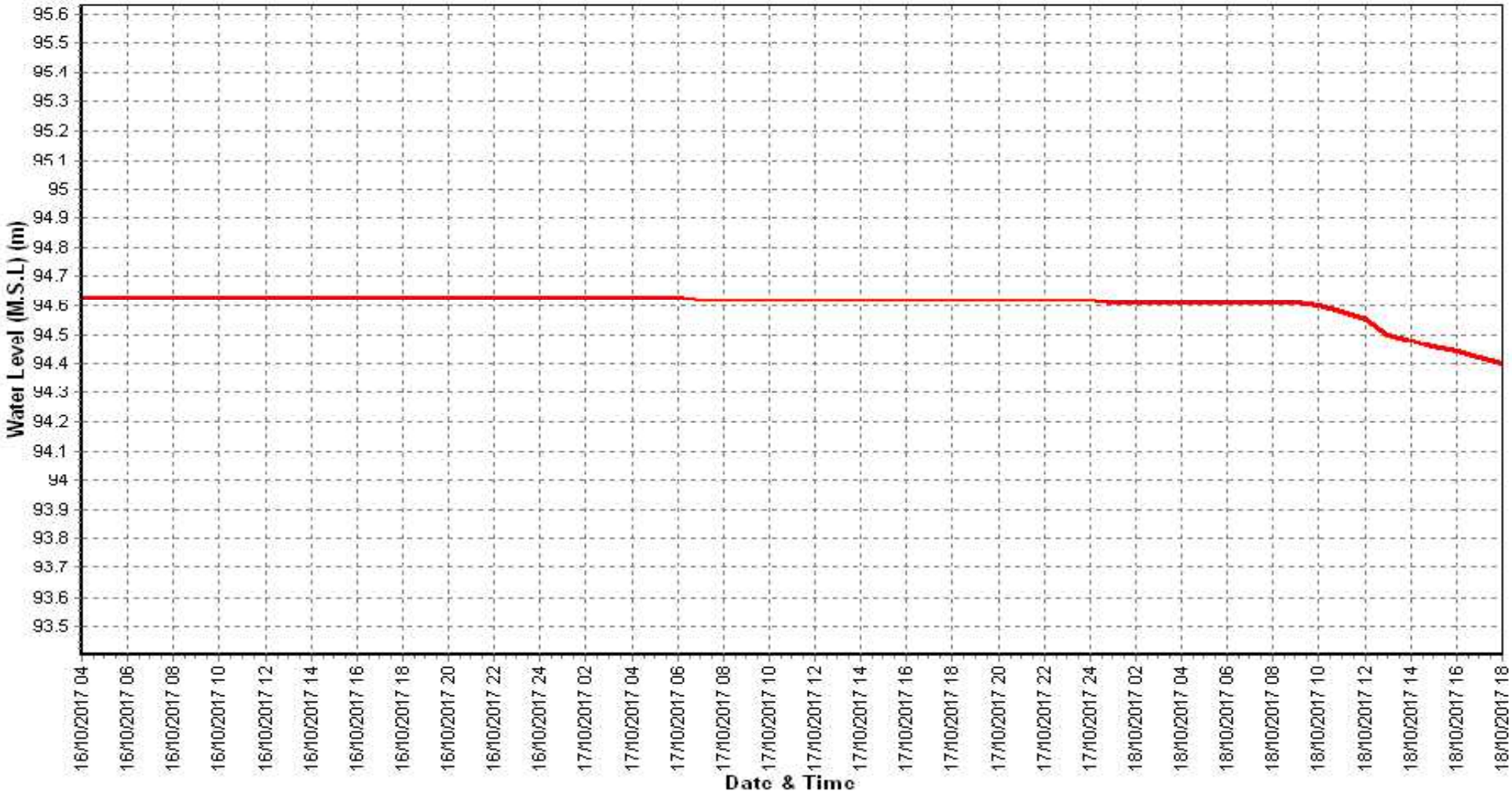


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**

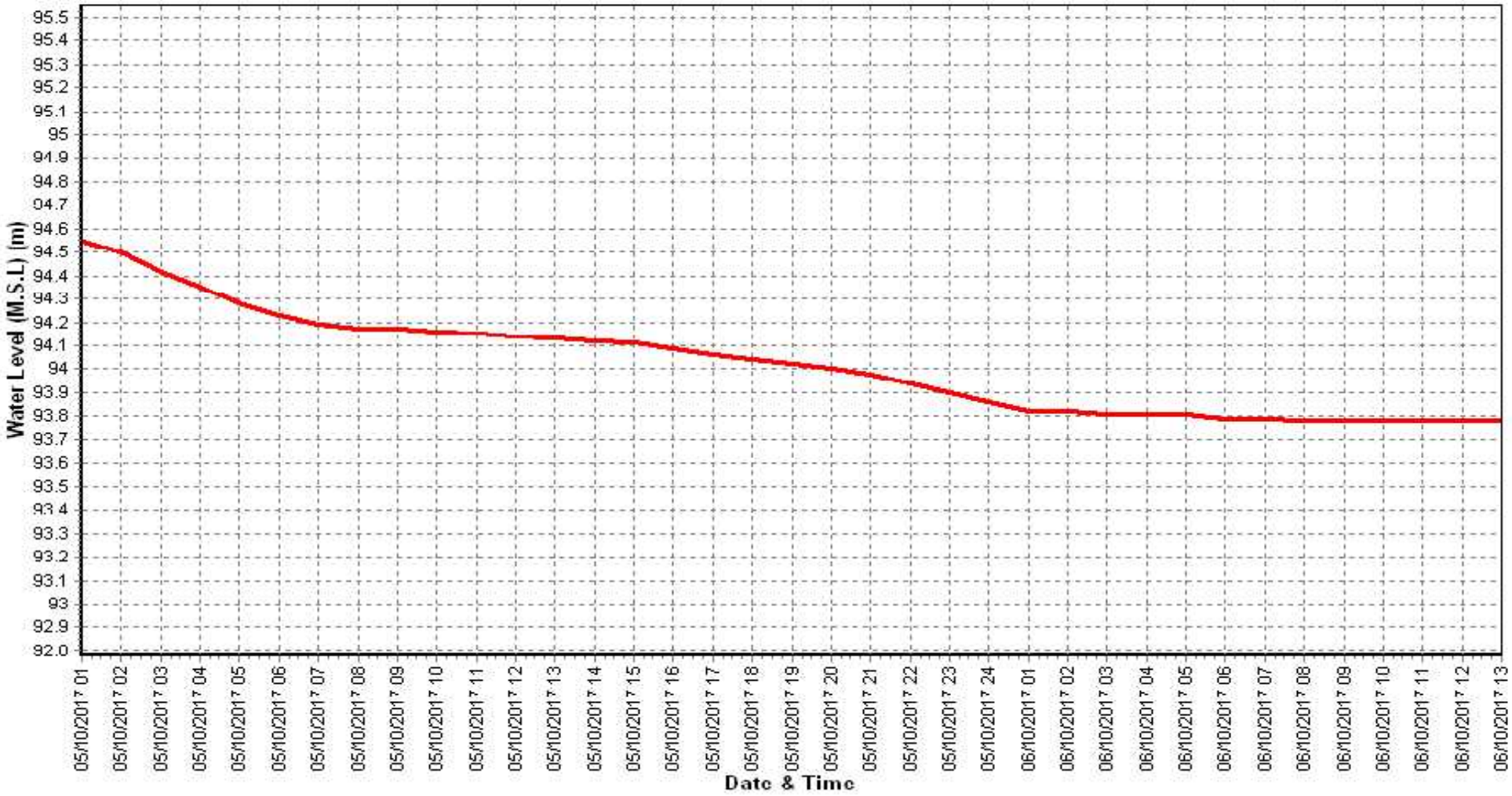


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : HOOVINAHOLE (HOOVINAHOLE) **Division : Cauvery Division, Bangalore**

Local River : Suvarnamukhi **Sub-Division : Upper Tunga SD, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: MAROL**		**Code**	**: AKLA0C4**	
State	: Karnataka		District	Haveri	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Tungabhadra		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Varada	
Division	: Cauvery Division, Bangalore		Sub-Division	: Upper Tunga Subdn, Devangere	
Drainage Area	: 4901 Sq. Km.		Bank	: Right	
Latitude	: 14°56'20"		Longitude	: 75°37'05"	
Zero of Gauge (m)	: 507.551 (m.s.l)		11/08/1965		
	Opening Date		Closing Date		
Gauge	: 05/02/1965		HFL During 2017-18	: 511.82m	
			Corres. Discharge	: 412.5(Estimated)	
Discharge	: 01/02/1966		Date & Time of occurance	: 22/07/2017 : 10.00 hrs.	
Sediment	: 16/09/1972				
Water Quality	: 01/02/1973				

HFL Recorded so far in m : 517.601 dt 18-11-1992
Corresponding Discharge (cumecs) : 1675 *

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	588.5	513.291	21/08/1981	0.000		02/03/1982
1982-1983	1430	516.881	06/08/1982	0.000	507.851	10/04/1983
1983-1984	1010	514.871	14/08/1983	0.000		17/04/1984
1984-1985	752.5	513.971	03/07/1984	0.000	508.231	27/02/1985
1985-1986	576.9	513.156	05/08/1985	0.000	508.301	06/02/1986
1986-1987	751.7	513.931	14/08/1986	0.000	508.051	10/02/1987
1987-1988	305.5	511.531	11/07/1987	0.000	509.551	02/02/1988
1988-1989	1180	515.511	22/07/1988	0.000		24/01/1989
1989-1990	644.9	513.799	27/07/1989	0.000	509.161	25/01/1990
1990-1991	485.0	512.854	20/08/1990	0.000		25/01/1991
1991-1992	1194	514.311	19/07/1991	0.000		28/01/1992
1992-1993	1525	517.459	18/11/1992	0.000	508.111	17/02/1993
1993-1994	640.5	513.406	18/10/1993	0.000		21/02/1994
1994-1995	1320	516.861	17/07/1994	0.000	510.051	01/02/1995
1995-1996	476.0	512.581	23/07/1995	0.000	509.001	26/01/1996
1996-1997	377.8	512.156	30/07/1996	0.000	509.991	25/01/1997
1997-1998	1191	515.861	09/08/1997	0.000	508.621	10/02/1998
1998-1999	475.0	512.971	06/07/1998	0.000	509.413	01/02/1999
1999-2000	1107	516.521	25/07/1999	0.000		29/01/2000

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	807.5	514.821	16/07/2000	0.000	510.261	25/01/2001
2001-2002	249.1	511.486	11/07/2001	0.000		25/01/2002
2002-2003	380.9	512.306	13/08/2002	0.000		25/01/2003
2003-2004	315.1	511.841	06/10/2003	0.000		26/01/2004
2004-2005	605.0	513.521	07/08/2004	0.000		25/01/2005
2005-2006	919.6	515.361	29/07/2005	0.000		25/01/2006
2006-2007	780.4	514.491	14/08/2006	0.000	508.901	25/01/2007
2007-2008	1540	517.451	09/08/2007	0.000	508.061	04/04/2008
2008-2009	1317	516.471	15/08/2008	0.000	509.051	25/01/2009
2009-2010	1076	515.591	19/07/2009	0.000	510.011	25/01/2010
2010-2011	677.5	513.951	05/10/2010	0.000		03/05/2011
2011-2012	700.4	514.031	05/09/2011	0.000	508.161	24/01/2012
2012-2013	571.6	513.316	10/08/2012	0.000	509.771	02/12/2012
2013-2014	915.6	515.141	05/08/2013	0.000		29/04/2014
2014-2015	1121	515.871	04/08/2014	0.000	510.041	26/01/2015
2015-2016	260.2	511.301	27/06/2015	0.000		22/05/2016
2016-2017	241.8	511.151	07/07/2016	0.000	508.381	16/09/2016

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

Annual Runoff of Varada at Marol

Sl.no	Season	Monsoon	Non-Monsoon	Annual
1	**1981-1982**	1835	17	1853
2	**1982-1983**	2860	16	2876
3	**1983-1984**	2396	13	2409
4	**1984-1985**	2162	8	2169
5	**1985-1986**	1320	2	1322
6	**1986-1987**	1498	3	1502
7	**1987-1988**	812	8	820
8	**1988-1989**	1908	0	1908
9	**1989-1990**	1251	0	1251
10	**1990-1991**	1822	0	1822
11	**1991-1992**	3253	1	3255
12	**1992-1993**	3406	87	3494
13	**1993-1994**	1902	99	2000
14	**1994-1995**	3428	4	3432
15	**1995-1996**	1225	0	1225
16	**1996-1997**	1045	0	1045
17	**1997-1998**	2517	48	2565
18	**1998-1999**	1835	2	1837
19	**1999-2000**	2120	0	2120
20	**2000-2001**	2017	0	2017
21	**2001-2002**	803	0	803
22	**2002-2003**	805	0	805
23	**2003-2004**	847	0	847
24	**2004-2005**	1394	0	1394
25	**2005-2006**	2325	0	2325
26	**2006-2007**	2541	0	2541
27	**2007-2008**	3420	0	3420
28	**2008-2009**	1901	0	1901
29	**2009-2010**	2325	0	2325
30	**2010-2011**	2025	41	2065
31	**2011-2012**	2528	40	2568
32	**2012-2013**	1344	0	1344
33	**2013-2014**	2622	0	2622
34	**2014-2015**	2727	0	2727
35	**2015-2016**	528	0	528
36	**2016-2017**	360	0	360
37	**2017-2018**	688	0	688

Stage-Discharge Data for the period 2017 - 2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**

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	509.001	26.37	509.421	57.08	511.211	247.2	511.381	0.000	510.381	0.000
2		0.000	509.001	25.17 *	509.221	41.30	510.941	237.2 *	511.411	0.000	510.311	0.000
3		0.000	509.291	48.71	509.031	26.85	510.551	175.8 *	511.361	0.000	510.251	0.000
4		0.000	509.911	98.86	508.901	19.87	510.131	119.9	511.471	0.000	510.181	0.000
5		0.000	510.281	132.4	508.801	15.78	509.951	100.9	511.481	0.000	510.111	0.000
6		0.000	509.921	99.31	508.971	23.65 *	509.791	86.56	511.361	0.000	510.061	0.000
7		0.000	509.786	87.02	509.631	74.86	509.711	82.08	511.321	0.000	510.001	0.000
8		0.000	509.646	76.48	509.641	75.45	509.651	75.88	511.411	0.000	509.951	0.000
9		0.000	509.491	57.20 *	509.511	64.37	509.781	86.84	511.521	0.000	509.891	0.000
10		0.000	509.141	32.52	509.271	44.99	509.901	94.88 *	511.431	0.000	509.821	0.000
11		0.000	508.946	21.88	509.131	34.00	509.791	86.38	511.381	0.000	509.761	0.000
12		0.000	508.721	13.08	508.941	21.58	509.731	81.92	511.461	0.000	509.751	0.000
13		0.000	508.571	6.882	508.851	18.09 *	509.651	75.88	511.221	0.000	509.791	0.000
14		0.000	508.511	4.734	508.761	14.18	509.511	64.37	511.171	0.000	509.811	0.000
15		0.000	508.541	5.232	509.201	36.57 *	509.661	76.78	511.431	0.000	509.861	0.000
16		0.000	508.661	10.88 *	509.371	53.36	509.661	71.59 *	511.561	0.000	509.881	0.000
17		0.000	509.411	57.01	508.931	19.26	509.871	91.78 *	511.551	0.000	509.831	0.000
18		0.000	509.701	80.55	508.731	13.38	509.691	79.20	511.451	0.000	509.791	0.000
19		0.000	509.771	85.70	508.641	9.335	509.791	86.38	511.361	0.000	509.751	0.000
20		0.000	510.281	134.9	508.751	14.05 *	510.051	111.8	511.281	0.000	509.751	0.000
21		0.000	511.221	248.5	508.701	12.13	509.891	94.73	511.221	0.000	509.751	0.000
22		0.000	511.801	330.4	508.701	12.13	509.771	84.65	511.221	0.000	509.721	0.000
23		0.000	511.681	381.2 *	508.791	15.57	509.681	78.12	511.151	0.000	509.681	0.000
24		0.000	511.481	283.9	509.281	47.21	509.641	69.81 *	511.061	0.000	509.641	0.000
25		0.000	511.211	245.6	509.291	42.45 *	509.371	53.36	511.001	0.000	509.601	0.000
26		0.000	510.911	203.0	509.111	32.61	509.441	59.18	510.961	0.000	509.561	0.000
27		0.000	510.711	181.2	508.931	21.71 *	509.481	62.33	510.881	0.000	509.521	0.000
28		0.000	510.471	152.9	508.891	19.26	510.351	139.6	510.781	0.000	509.481	0.000
29		0.000	510.031	107.9	508.931	21.52	511.101	265.3 *	510.601	0.000	509.401	0.000
30	508.631	10.20	509.751	79.92 *	510.101	117.2	511.321	306.6	510.501	0.000	509.361	0.000
31			509.541	66.43	510.911	204.4			510.451	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000	509.547	68.41	509.240	44.42	510.162	130.7	511.415	0.000	510.096	0.000
II Ten-Daily		0.000	509.112	42.08	508.931	23.38	509.741	82.61	511.387	0.000	509.798	0.000
III Ten-Daily	50.863	1.020	510.801	207.4	509.240	49.65	510.005	121.4	510.894	0.000	509.572	0.000
Monthly												
Min.	0.000	0.000	508.511	4.734	508.641	9.335	509.371	53.36	510.451	0.000	509.361	0.000
Max.	508.631	10.20	511.801	381.2	510.911	204.4	511.321	306.6	511.561	0.000	510.381	0.000
Mean	16.954	0.34	509.852	109.2	509.140	39.49	509.969	111.6	511.221	0.000	509.822	0.000

Annual Runoff in MCM = 688 Annual Runoff in mm = 140

Peak Observed Discharge = 330.4 cumecs on 22/07/2017 Corres. Water Level :511.801 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 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 2017 - 2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	509.301	0.000		0.000		0.000		0.000		0.000		0.000
2	509.241	0.000		0.000		0.000		0.000		0.000		0.000
3	509.151	0.000		0.000		0.000		0.000		0.000		0.000
4	509.071	0.000		0.000		0.000		0.000		0.000		0.000
5	508.991	0.000		0.000		0.000		0.000		0.000		0.000
6	508.931	0.000		0.000		0.000		0.000		0.000		0.000
7	508.871	0.000		0.000		0.000		0.000		0.000		0.000
8	508.811	0.000		0.000		0.000		0.000		0.000		0.000
9	508.731	0.000		0.000		0.000		0.000		0.000		0.000
10	508.651	0.000		0.000		0.000		0.000		0.000		0.000
11	508.561	0.000		0.000		0.000		0.000		0.000		0.000
12	508.471	0.000		0.000		0.000		0.000		0.000		0.000
13	508.431	0.000		0.000		0.000		0.000		0.000		0.000
14	508.431	0.000		0.000		0.000		0.000		0.000		0.000
15	508.331	0.000		0.000		0.000		0.000		0.000		0.000
16	508.321	0.000		0.000		0.000		0.000		0.000		0.000
17	508.261	0.000		0.000		0.000		0.000		0.000		0.000
18	508.191	0.000		0.000		0.000		0.000		0.000		0.000
19	508.111	0.000		0.000		0.000		0.000		0.000		0.000
20	508.031	0.000		0.000		0.000		0.000		0.000	508.401	0.000
21	507.951	0.000		0.000		0.000		0.000		0.000	508.671	0.000
22	507.851	0.000		0.000		0.000		0.000		0.000	508.371	0.000
23	507.831	0.000		0.000		0.000		0.000		0.000	508.301	0.000
24	507.761	0.000		0.000		0.000		0.000		0.000	508.171	0.000
25	507.751	0.000		0.000		0.000		0.000		0.000	508.181	0.000
26	507.721	0.000		0.000		0.000		0.000		0.000	508.581	0.000
27	507.661	0.000		0.000		0.000		0.000		0.000	508.351	0.000
28	507.581	0.000		0.000		0.000		0.000		0.000	508.181	0.000
29		0.000		0.000				0.000		0.000	508.111	0.000
30		0.000		0.000				0.000		0.000	508.551	0.000
31		0.000		0.000				0.000			508.301	0.000
Ten-Daily Mean												
I Ten-Daily	508.975	0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily	508.314	0.000		0.000		0.000		0.000		0.000	50.840	0.000
III Ten-Daily	369.283	0.000		0.000		0.000		0.000		0.000	508.343	0.000
Monthly												
Min.	0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Max.	509.301	0.000		0.000		0.000		0.000		0.000	508.671	0.000
Mean	459.193	0.000		0.000		0.000		0.000		0.000	196.780	0.000

Peak Computed Discharge = 381.2 cumecs on 23/07/2017 **Corres. Water Level :511.681 m**

Lowest Computed Discharge = 10.88 cumecs on 16/07/2017 **Corres. Water Level :508.661 m**

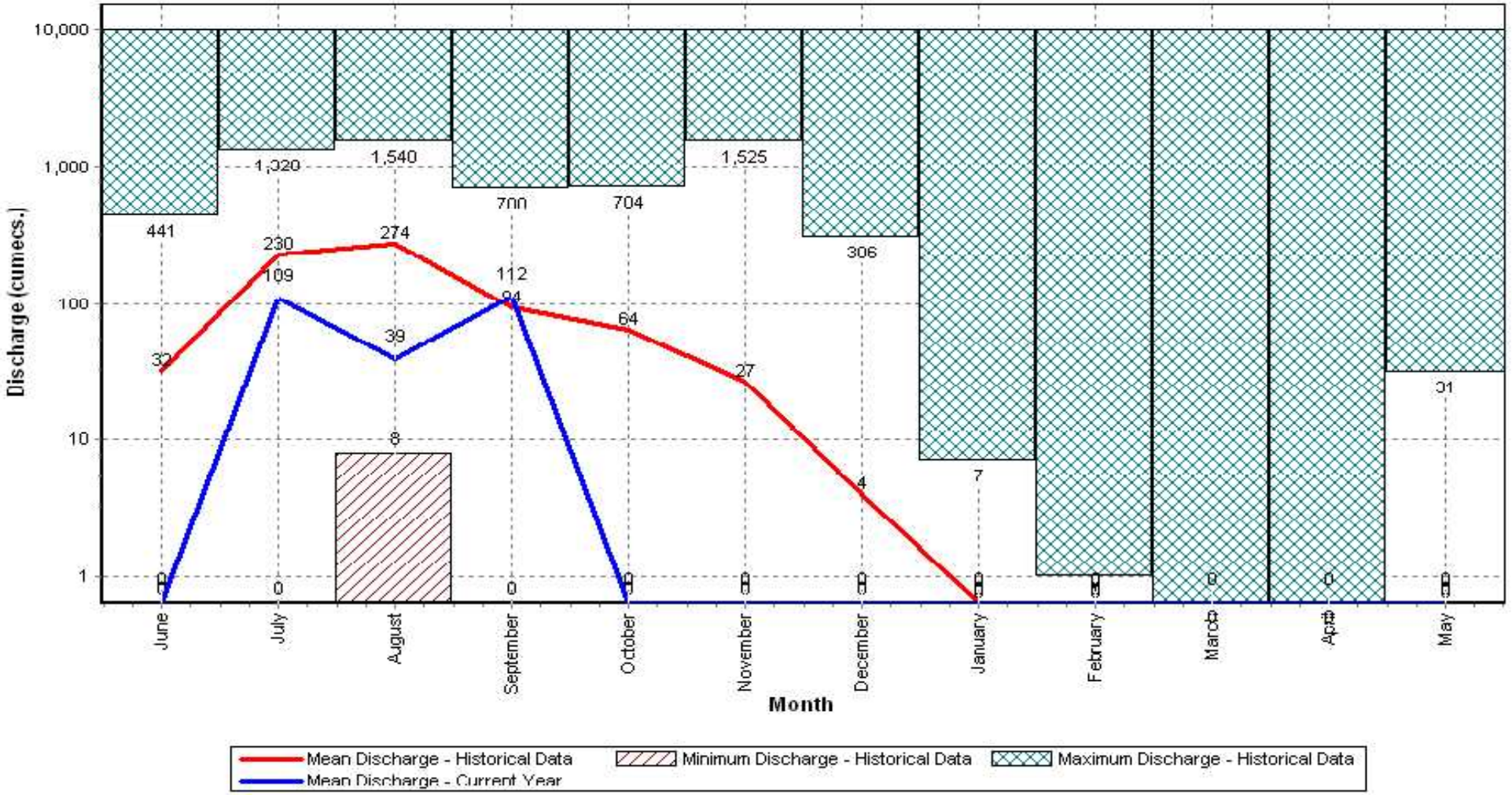
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : MAROL (AKLA0C4) **Data considered : 1981-2018** **Division : Cauvery Division, Bangalore**

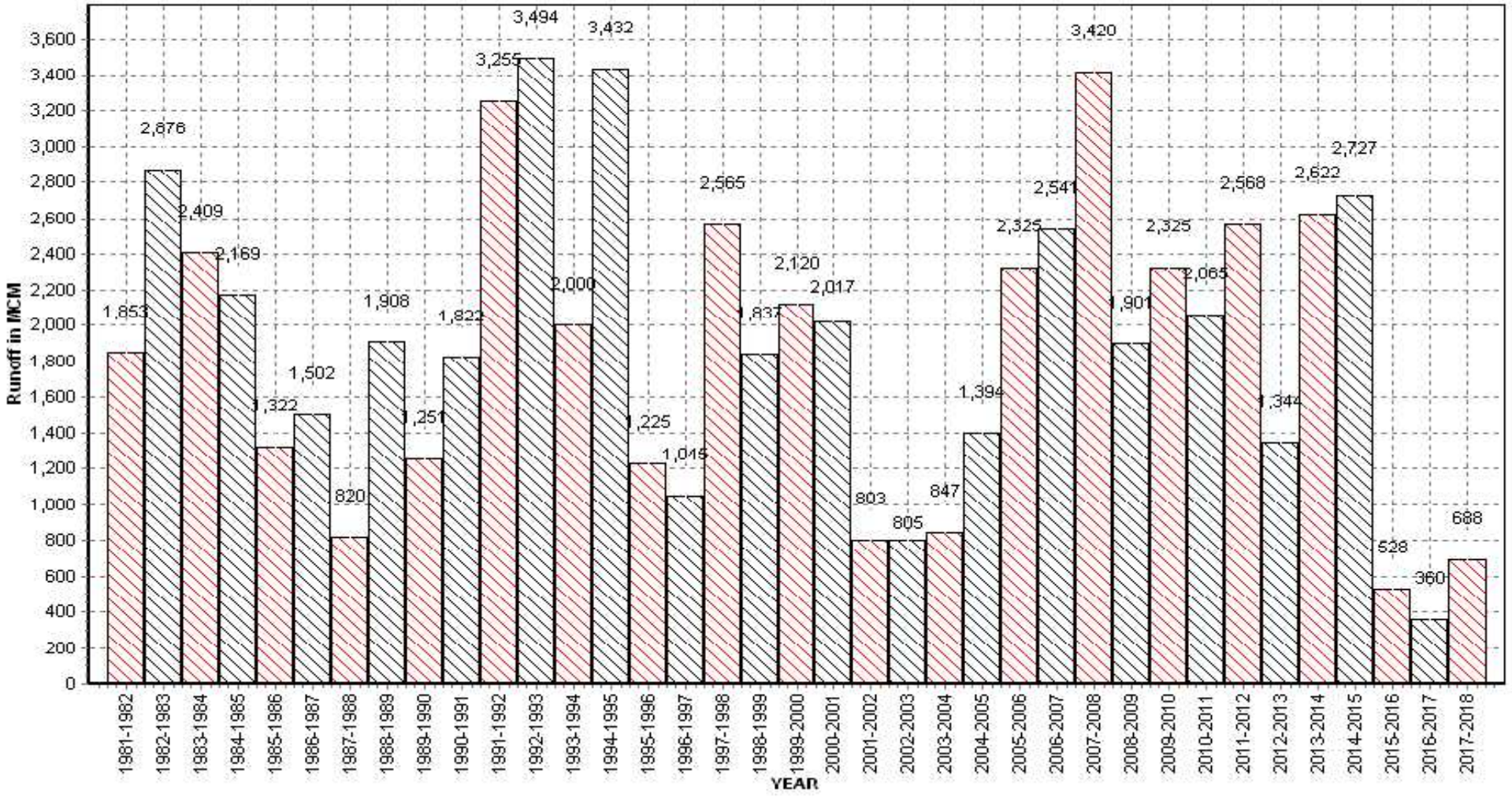
Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**


Discharge (cumecs.)
10,000
1,000
100
10
1
441
1,020
1,540
700
704
1,525
306
230
274
109
112
94
64
39
27
32
8
4
0
0
0

Annual Runoff Values for the period: 1981 - 2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**



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

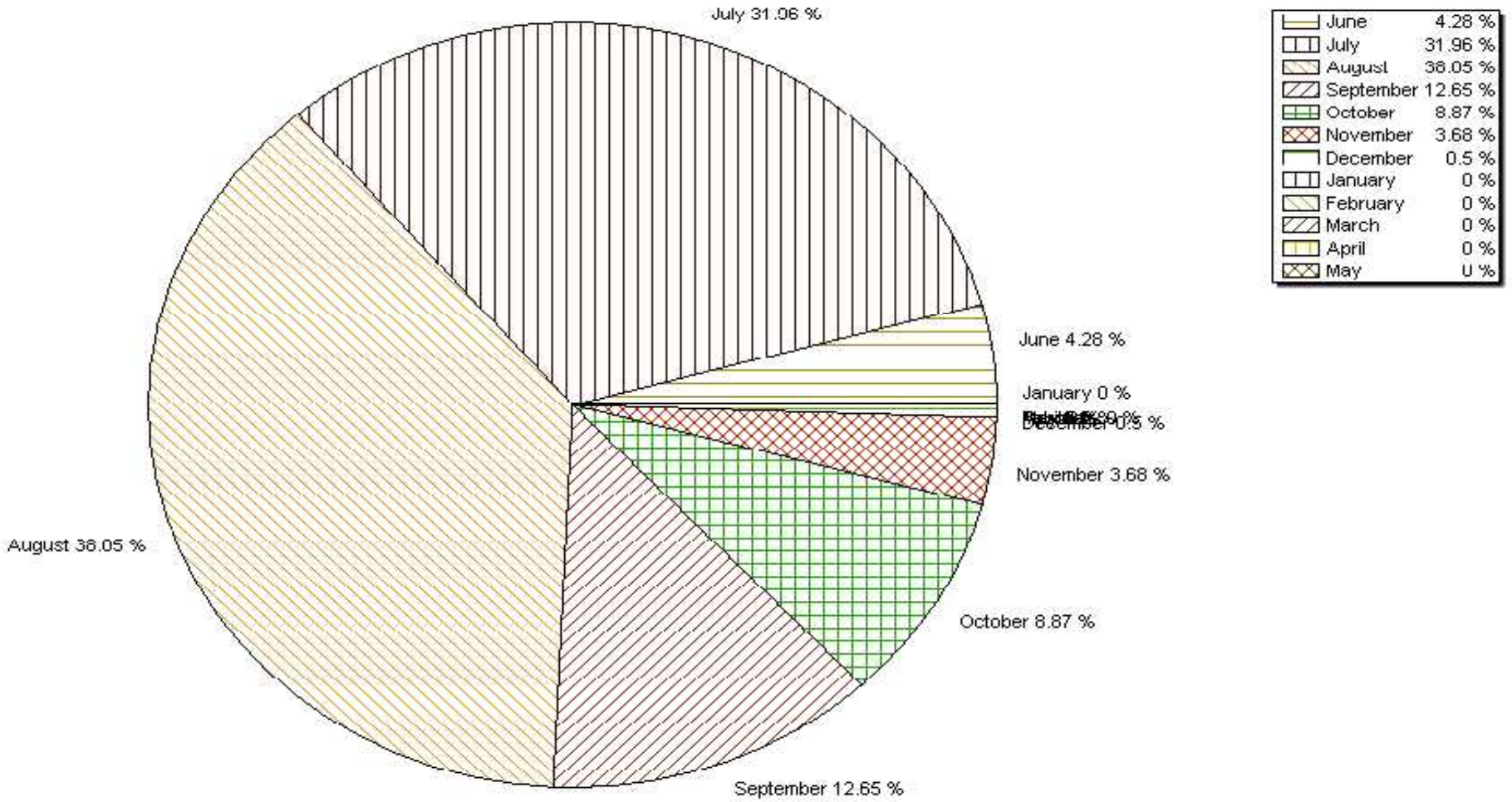
Monthly Average Runoff based on period : 1981-2017

Station Name : MAROL (AKLA0C4)

Local River : Varada

Division : Cauvery Division, Bangalore

Sub-Division : Upper Tunga Subdn, Devangere



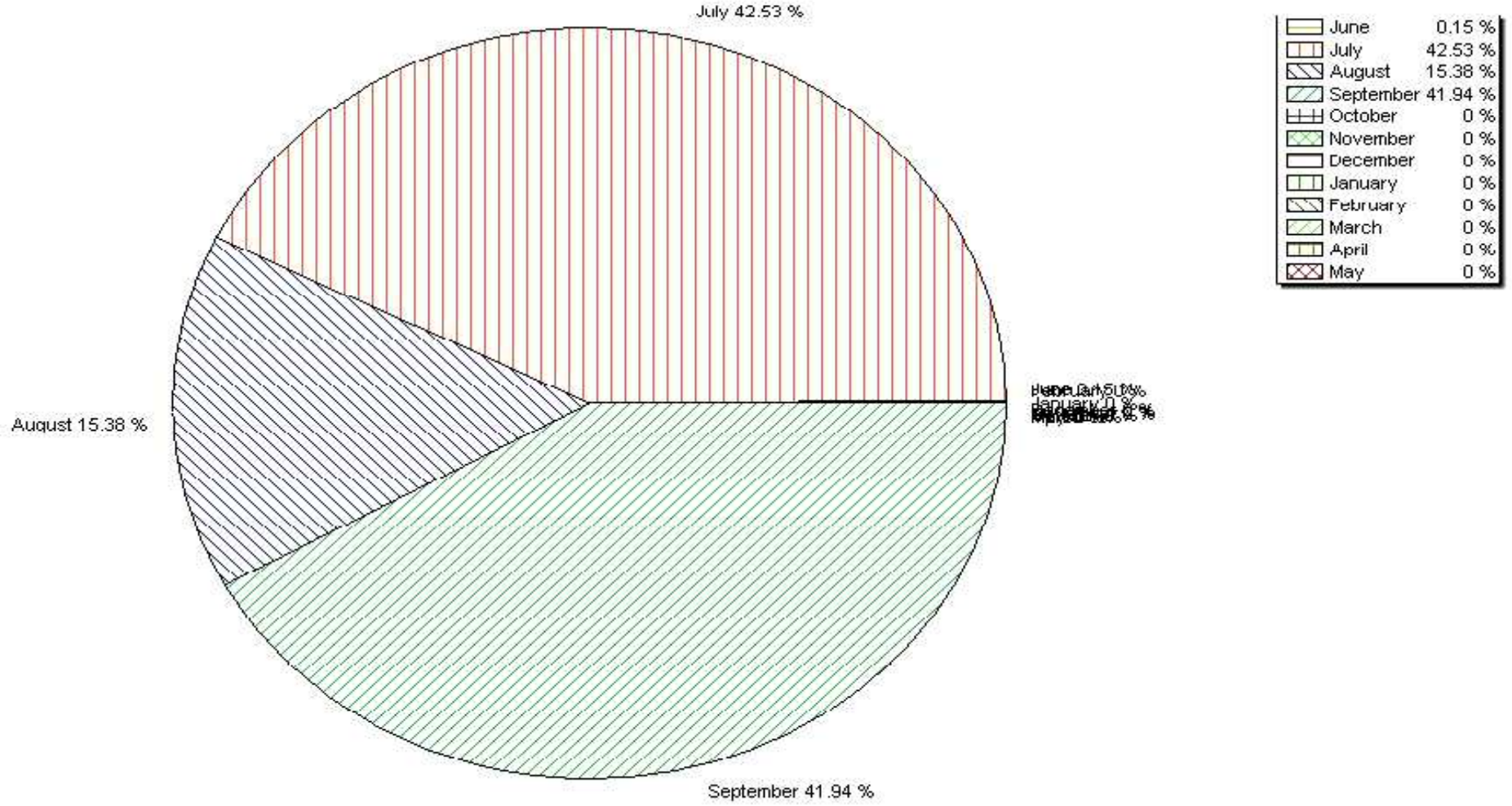
Monthly Runoff for the Year : 2017-2018

Station Name : MAROL (AKLA0C4)

Local River : Varada

Division : Cauvery Division, Bangalore

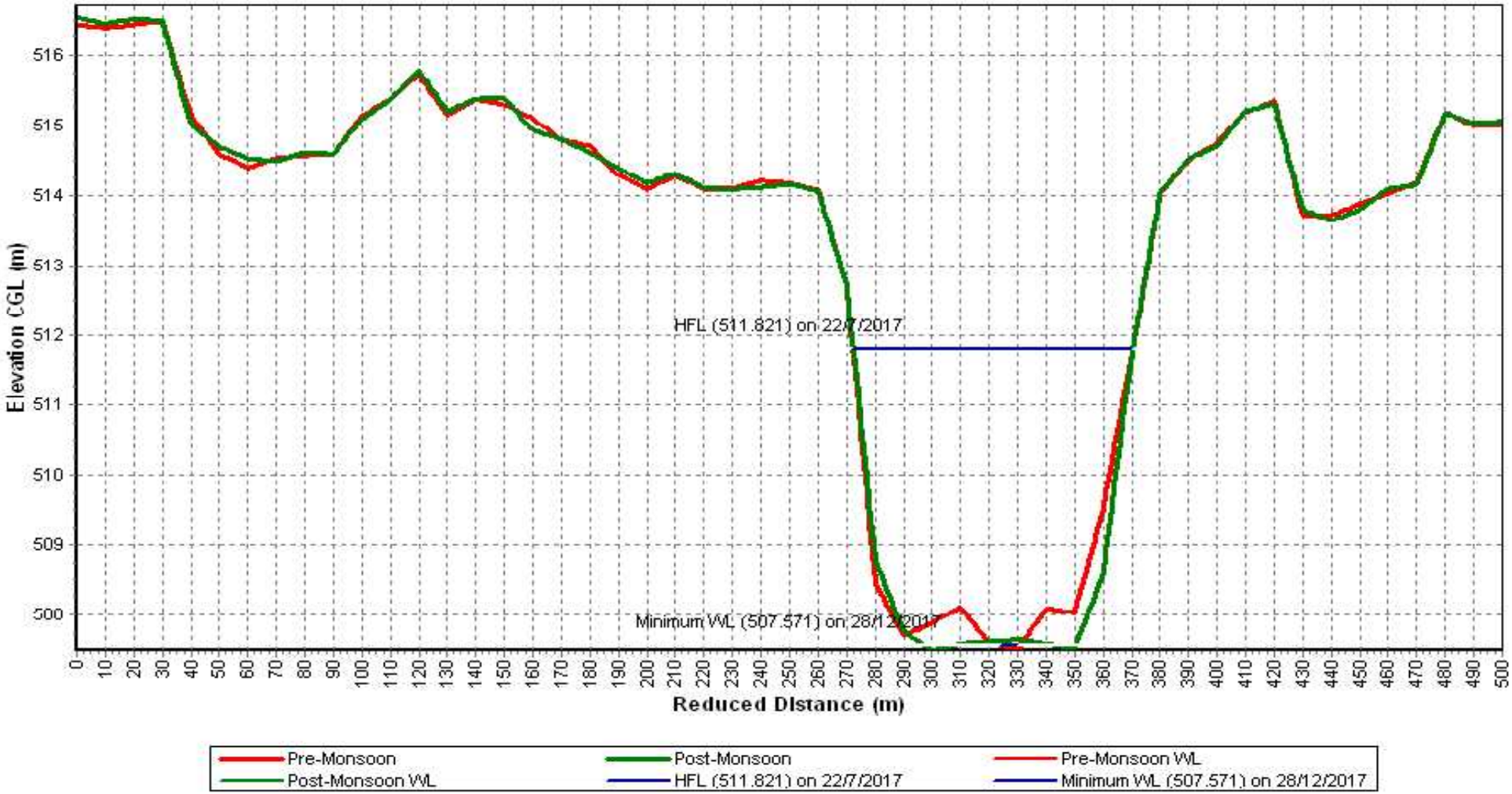
Sub-Division : Upper Tunga Subdn, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

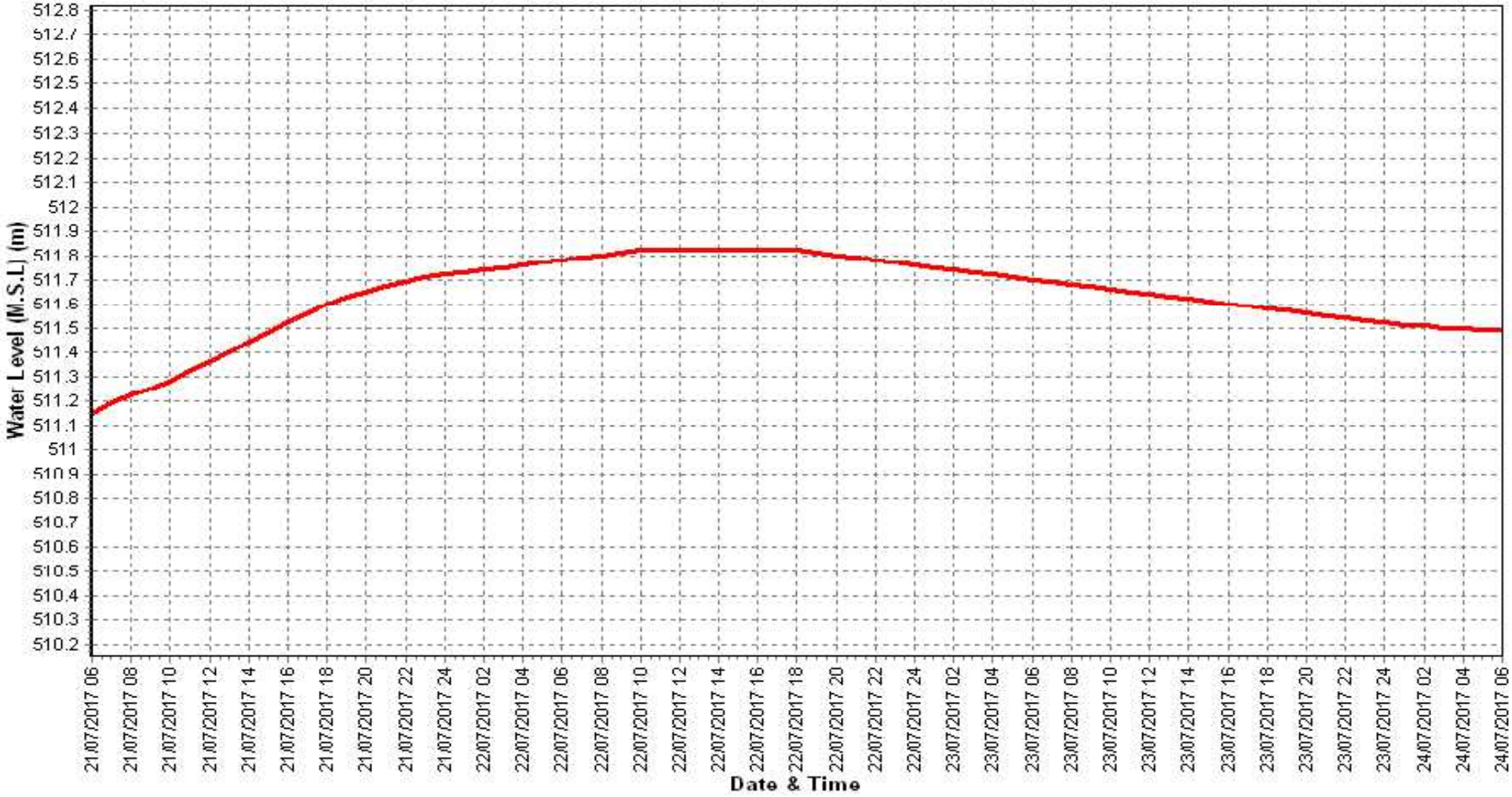
Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**

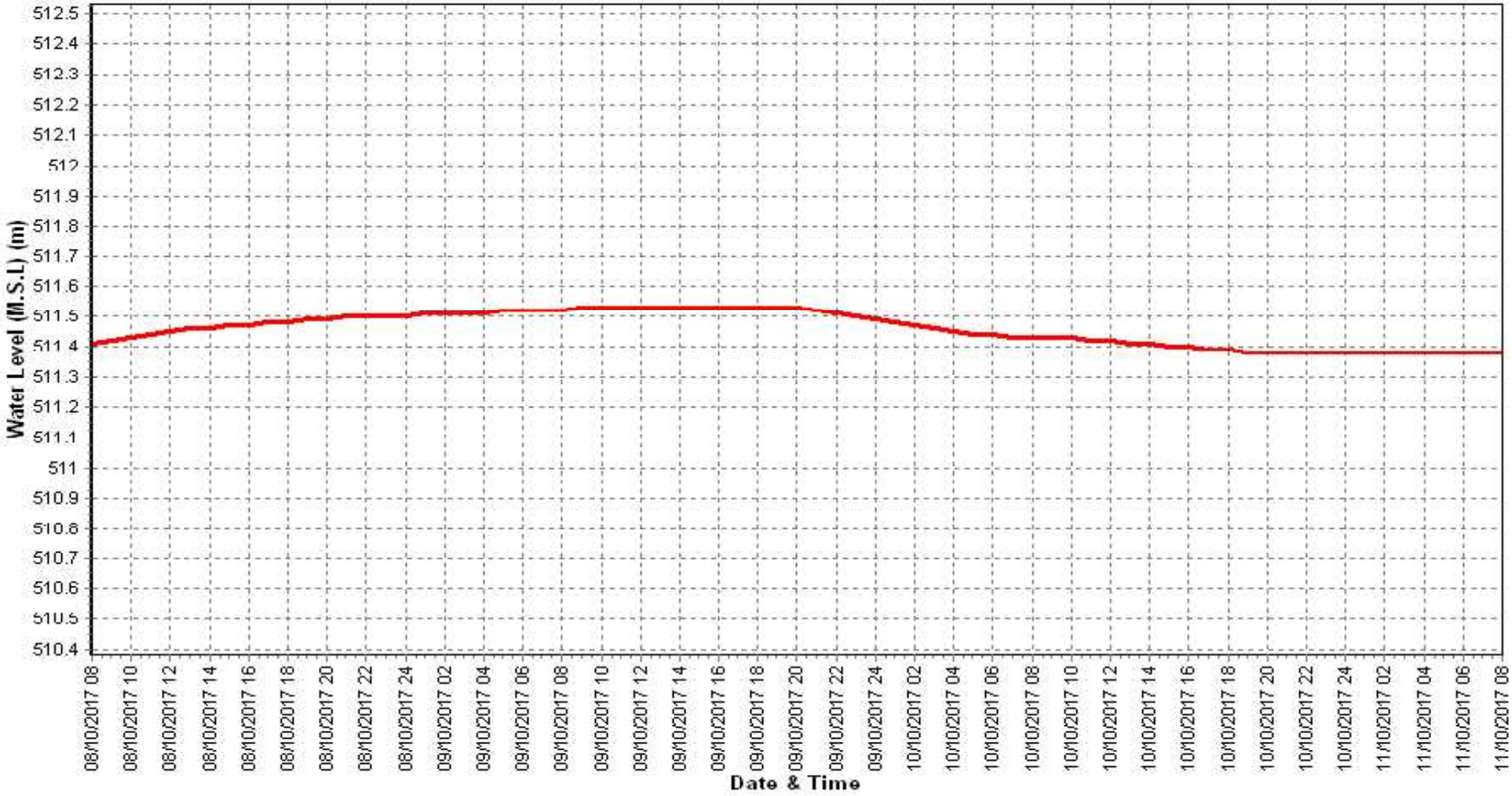


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : MAROL (AKLA0C4) **Division : Cauvery Division, Bangalore**

Local River : Varada **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: HARALAHALLI**		**Code**	**: AKL00S8**	
State	: Karnataka		District		Haveri
Basin	: Krishna		Independent River	:	Krishna
Tributary	: Tungabhadra		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Tungabhadra
Division	: Cauvery Division, Bangalore		Sub-Division	:	Upper Tunga Subdn, Devangere
Drainage Area	: 14582 Sq. Km.		Bank	:	Left
Latitude	: 14°49'50"		Longitude	:	75°40'28"
Zero of Gauge (m)	: 507.436 (m.s.l)		11/08/1965		
	Opening Date		Closing Date		
Gauge	: 11/08/1965		HFL During 2017-18	:	511.68m
			Corres. Discharge	:	1036.0(Estimated)
Discharge	: 13/12/1966		Date & Time of	:	21/07/2017
			occurance	:	18.00 hrs.
Sediment	: 01/11/1972				
Water Quality	: 01/11/1972				

HFL Recorded so far in m : 518.346 dt18-11-1992
Corresponding Discharge (cumecs) : 7120 *

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	2578	514.454	20/08/1981	11.70	507.901	16/03/1982
1982-1983	4559	516.426	04/08/1982	8.500	507.816	11/04/1983
1983-1984	2617	514.537	24/07/1983	9.700	507.886	07/03/1984
1984-1985	2595	514.664	20/07/1984	7.600	507.861	11/05/1985
1985-1986	1902	513.506	28/06/1985	0.400	507.636	04/04/1986
1986-1987	2498	514.431	11/08/1986	2.300	507.656	20/04/1987
1987-1988	1076	511.949	28/08/1987	0.000	507.466	13/04/1988
1988-1989	2743	514.496	20/07/1988	0.000	507.466	16/04/1989
1989-1990	2974	514.621	26/07/1989	2.000	507.721	15/04/1990
1990-1991	2314	513.936	19/08/1990	7.000	507.836	31/03/1991
1991-1992	3414	515.049	30/07/1991	0.000		26/03/1992
1992-1993	7357	518.109	18/11/1992	3.466	507.796	06/04/1993
1993-1994	1684	513.106	17/08/1993	7.226	507.818	03/06/1993
1994-1995	5840	517.566	17/07/1994	3.500	507.636	13/04/1995
1995-1996	1788	513.306	03/09/1995	2.000	507.586	10/05/1996
1996-1997	1538	512.761	25/07/1996	6.453	507.761	21/04/1997
1997-1998	3388	515.236	09/08/1997	2.500	507.666	22/04/1998
1998-1999	2286	513.891	15/09/1998	3.200	507.586	18/06/1998
1999-2000	2975	514.736	20/07/1999	7.212	507.766	24/03/2000

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	3036	514.846	15/07/2000	5.106	507.596	31/03/2001
2001-2002	1417	512.396	10/07/2001	0.000	507.076	07/04/2002
2002-2003	1452	512.476	19/08/2002	0.000		15/03/2003
2003-2004	1375	512.276	06/10/2003	0.000	507.186	17/02/2004
2004-2005	2993	514.736	06/08/2004	0.000		09/03/2005
2005-2006	3030	514.806	04/08/2005	0.000		28/03/2006
2006-2007	3516	515.146	14/08/2006	0.000		24/03/2007
2007-2008	5239	517.276	08/08/2007	0.000		10/02/2008
2008-2009	4550	516.676	15/08/2008	0.000	507.286	06/04/2009
2009-2010	3629	515.486	18/07/2009	0.000	507.276	12/04/2010
2010-2011	1741	513.016	31/07/2010	0.000	507.216	22/03/2011
2011-2012	2593	514.051	03/09/2011	0.000	507.376	19/03/2012
2012-2013	2544	513.946	09/08/2012	0.000	507.436	01/04/2013
2013-2014	3728	515.516	04/08/2013	0.000	507.296	02/02/2014
2014-2015	3986	515.376	08/08/2014	0.000	507.336	17/02/2015
2015-2016	1712	512.946	21/07/2015	0.000		17/01/2016
2016-2017	911.6	511.411	06/07/2016	0.000		17/04/2017

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

Annual Runoff of Tungabhdra at Harlahalli

SL.no	**Season**	Monsoon	Non-Monsoon	Annual
1	**1981-1982**	7062	539	7601
2	**1982-1983**	6550	446	6996
3	**1983-1984**	6518	554	7072
4	**1984-1985**	6576	501	7077
5	**1985-1986**	5294	262	5557
6	**1986-1987**	5113	321	5434
7	**1987-1988**	3582	344	3926
8	**1988-1989**	4919	377	5297
9	**1989-1990**	5532	318	5850
10	**1990-1991**	7141	570	7711
11	**1991-1992**	8167	381	8548
12	**1992-1993**	10976	690	11666
13	**1993-1994**	6746	505	7251
14	**1994-1995**	11754	426	12180
15	**1995-1996**	4648	356	5004
16	**1996-1997**	4885	388	5273
17	**1997-1998**	7375	480	7855
18	**1998-1999**	7033	614	7647
19	**1999-2000**	7902	576	8478
20	**2000-2001**	7062	710	7772
21	**2001-2002**	4747	329	5077
22	**2002-2003**	3583	121	3703
23	**2003-2004**	3274	95	3369
24	**2004-2005**	4841	131	4972
25	**2005-2006**	7208	352	7560
26	**2006-2007**	6839	340	7179
27	**2007-2008**	9667	565	10232
28	**2008-2009**	6269	399	6668
29	**2009-2010**	7248	576	7824
30	**2010-2011**	6554	539	7094
31	**2011-2012**	6034	451	6484
32	**2012-2013**	3993	160	4153
33	**2013-2014**	8167	303	8470
34	**2014-2015**	7025	243	7269
35	**2015-2016**	2985	79	3063
36	**2016-2017**	2170	43	2213
37	**2017-2018**	2317	111	2428
	Average	6156	384	6539

Stage-Discharge Data for the period 2017 - 2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

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	507.066	0.000	508.996	184.2	509.176	220.6	510.586	605.6	509.416	275.5 *	507.686	31.48
2	507.056	0.000	508.816	158.9 *	508.726	144.3	509.686	339.3 *	509.106	211.0 *	507.676	30.23
3		0.000	509.166	218.3	508.576	119.9	509.136	216.8 *	508.646	132.0	507.656	27.64
4		0.000	509.136	210.3	508.596	123.1	508.896	167.5	510.436	562.3	507.606	23.52 *
5		0.000	508.976	180.1	508.516	111.7	508.676	136.4	509.746	353.5	507.576	21.77 *
6		0.000	509.176	219.8	509.366	258.0 *	508.656	132.8	509.286	242.7	507.546	16.99
7		0.000	508.866	163.0	509.706	342.9	508.506	110.3	509.156	217.0	507.526	15.06
8		0.000	508.576	119.0	509.406	267.1	508.386	98.98	508.986	188.5 *	507.486	16.93 #
9		0.000	508.816	158.9 *	509.166	217.4	508.856	162.0	508.836	160.1	507.446	14.99 #
10		0.000	508.826	158.7	508.696	138.2	509.276	245.2 *	508.826	158.3	507.396	0.000
11		0.000	508.706	140.4	508.666	135.8	508.926	172.5	508.546	115.8	507.406	0.000
12		0.000	508.596	122.2	508.636	130.4	508.726	143.7	508.586	121.9	507.396	0.000
13		0.000	508.286	88.62	508.626	129.0 *	508.826	158.3	508.966	179.8	507.396	0.000
14		0.000	508.056	65.61	509.336	250.5	508.856	162.3	508.936	173.9	507.386	0.000
15		0.000	508.316	91.89	508.976	186.6 *	508.686	137.9	510.536	587.3 *	507.366	0.000
16		0.000	508.456	105.0 *	508.746	146.2	508.326	92.42	509.776	362.7	507.346	0.000
17		0.000	508.586	122.2	508.616	126.7	508.556	118.8 *	508.976	179.8	507.356	0.000
18		0.000	509.186	221.9	508.376	96.54	508.216	81.79	508.756	149.1 *	507.346	0.000
19	507.946	55.44	508.996	183.7	508.416	101.6	508.276	87.20	508.576	119.2	507.386	0.000
20	508.016	61.92	509.106	207.3	508.416	99.74 *	508.506	110.6	508.376	97.83	507.496	12.23
21	508.016	61.49	511.636	1002	508.436	102.8	508.986	182.7	508.216	81.47	507.516	14.12
22	507.936	54.27	511.616	988.9	509.556	298.4	508.756	148.3	508.006	54.10 *	507.446	14.99 #
23	507.766	37.74	510.276	503.7 *	510.126	467.1	508.636	130.2	507.886	48.34	507.406	0.000
24	507.786	38.83	510.176	482.7	509.596	310.3	508.296	84.85 *	507.836	43.36	507.716	33.69
25	507.806	37.13 *	509.556	299.5	509.336	258.0 *	508.286	88.31	507.826	42.51	507.766	37.14
26	507.746	32.70 *	509.386	263.3	509.006	186.7	508.906	169.7	507.876	47.52	507.716	30.60 *
27	507.876	47.22	509.326	251.1	508.896	172.4 *	508.446	105.3	507.836	43.57	507.646	25.94
28	510.371	540.3	509.136	212.4	509.476	280.3	508.376	97.54	507.836	43.57	507.576	20.13
29	509.676	333.7	509.106	207.1	510.286	515.5	508.506	111.8 *	507.866	41.86 *	507.536	16.36
30	509.346	253.1	509.026	195.8 *	510.046	442.9	509.996	428.4	507.806	40.32	507.516	14.05
31			509.366	260.0	510.396	549.3			507.676	30.26		
Ten-Daily Mean												
I Ten-Daily	101.412	0.000	508.935	177.1	508.993	194.3	509.066	221.5	509.244	250.1	507.560	19.86
II Ten-Daily	101.596	11.74	508.629	134.9	508.681	140.3	508.590	126.5	509.003	208.7	507.388	1.223
III Ten-Daily	508.433	143.6	509.873	424.2	509.560	325.8	508.719	154.7	507.879	46.99	507.584	20.70
Monthly												
Min.	0.000	0.000	508.056	65.61	508.376	96.54	508.216	81.79	507.676	30.26	507.346	0.000
Max.	510.371	540.3	511.636	1002	510.396	549.3	510.586	605.6	510.536	587.3	507.766	37.14
Mean	237.147	51.79	509.169	251.2	509.093	223.5	508.792	167.6	508.682	164.7	507.511	13.93

Annual Runoff in MCM = 2428 Annual Runoff in mm = 167

Peak Observed Discharge = 1002 cumecs on 21/07/2017 Corres. Water Level :511.636 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :507.066 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 2017 - 2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	507.506	13.09	507.806	0.000	507.466	9.041		0.000	507.806	38.87 *	507.186	0.000
2	507.496	12.29 *		0.000	507.366	0.000		0.000	507.606	22.91	507.206	0.000
3	507.526	14.12 *		0.000	507.276	0.000		0.000	507.456	8.087	507.216	0.000
4	507.516	14.10		0.000	507.186	0.000		0.000	507.346	0.000	507.206	0.000
5	507.476	10.04		0.000	507.116	0.000		0.000	507.456	8.087	507.176	0.000
6	507.426	0.000		0.000	507.026	0.000		0.000	507.356	0.000	507.106	0.000
7	507.386	0.000		0.000	506.896	0.000		0.000	507.236	0.000	507.036	0.000
8	507.376	0.000		0.000	506.736	0.000		0.000	507.106	0.000	506.986	0.000
9	507.366	0.000		0.000	506.626	0.000		0.000	506.986	0.000	506.936	0.000
10	507.386	0.000		0.000	506.486	0.000		0.000	506.906	0.000	506.896	0.000
11	507.426	0.000		0.000	506.396	0.000		0.000	506.836	0.000	506.996	0.000
12	507.426	0.000		0.000	506.276	0.000		0.000	506.786	0.000	507.236	0.000
13	507.406	0.000		0.000		0.000		0.000	506.736	0.000	507.736	31.32 *
14	507.366	0.000		0.000		0.000		0.000	506.676	0.000	508.186	78.27
15	507.346	0.000		0.000		0.000		0.000	506.636	0.000	508.006	60.28
16	507.336	0.000		0.000		0.000		0.000	506.626	0.000	507.876	47.07
17	507.326	0.000		0.000		0.000		0.000	506.606	0.000	507.786	38.57
18	507.316	0.000		0.000		0.000		0.000	506.566	0.000	507.836	43.51
19	507.316	0.000		0.000		0.000		0.000	506.536	0.000	507.776	37.77
20	507.306	0.000		0.000		0.000		0.000	506.506	0.000	507.606	19.74 *
21	507.296	0.000		0.000		0.000		0.000	506.506	0.000	507.516	14.17
22	507.296	0.000		0.000		0.000		0.000	506.686	0.000	507.836	43.51
23	507.286	0.000		0.000		0.000		0.000	506.946	0.000	507.766	37.22
24	507.256	0.000		0.000		0.000		0.000	507.036	0.000	507.936	53.75
25	507.236	0.000		0.000		0.000		0.000	507.036	0.000	507.886	48.55
26	507.216	0.000		0.000		0.000		0.000	507.056	0.000	507.816	41.33
27	507.196	0.000		0.000		0.000		0.000	507.036	0.000	507.796	37.74 *
28	507.176	0.000	507.786	36.62 *		0.000	508.046	64.08	507.026	0.000	507.746	35.76
29	507.146	0.000	507.756	36.77			508.056	74.02 *	507.096	0.000	507.696	31.92
30	507.116	0.000	507.656	27.51			508.076	77.41 *	507.136	0.000	507.606	23.30
31	507.086	0.000	507.576	20.09			508.006	60.02			507.486	11.10
Ten-Daily Mean												
I Ten-Daily	507.446	6.364	50.781	0.000	507.018	0.904		0.000	507.326	7.795	507.095	0.000
II Ten-Daily	507.357	0.000		0.000	101.267	0.000		0.000	506.651	0.000	507.704	35.65
III Ten-Daily	507.210	0.000	184.616	11.00		0.000	184.744	25.05	506.956	0.000	507.735	34.40
Monthly												
Min.	507.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	506.506	0.000	506.896	0.000
Max.	507.526	14.12	507.806	36.77	507.466	9.041	508.076	77.41	507.806	38.87	508.186	78.27
Mean	507.333	2.053	81.890	3.903	217.245	0.323	65.554	8.888	506.978	2.598	507.519	23.71

Peak Computed Discharge = 587.3 cumecs on 15/10/2017 **Corres. Water Level :510.536 m**

Lowest Computed Discharge = 12.29 cumecs on 02/12/2017 **Corres. Water Level :507.496 m**

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

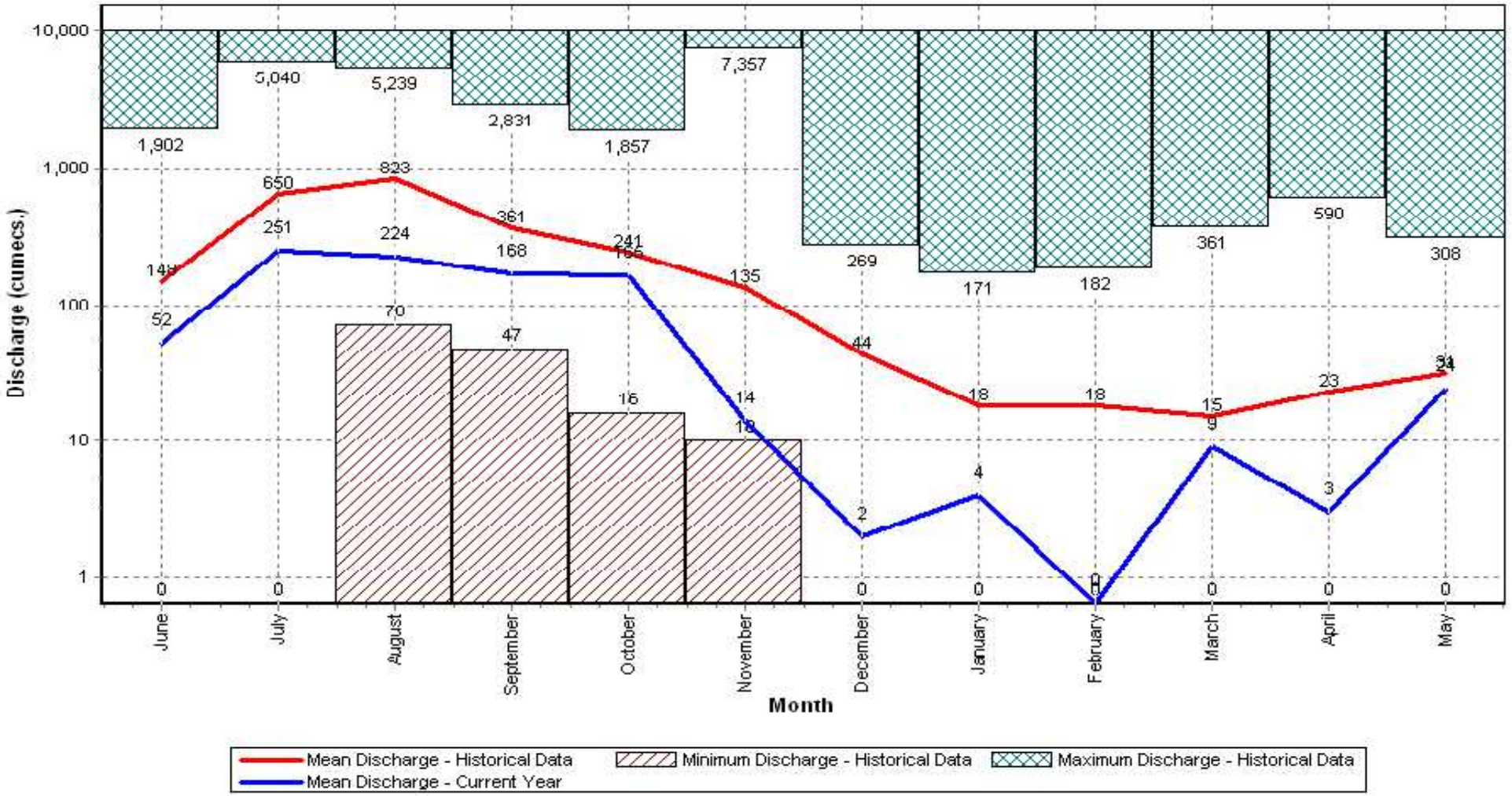
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8) **Data considered : 1981-2018** **Division : Cauvery Division, Bangalore**

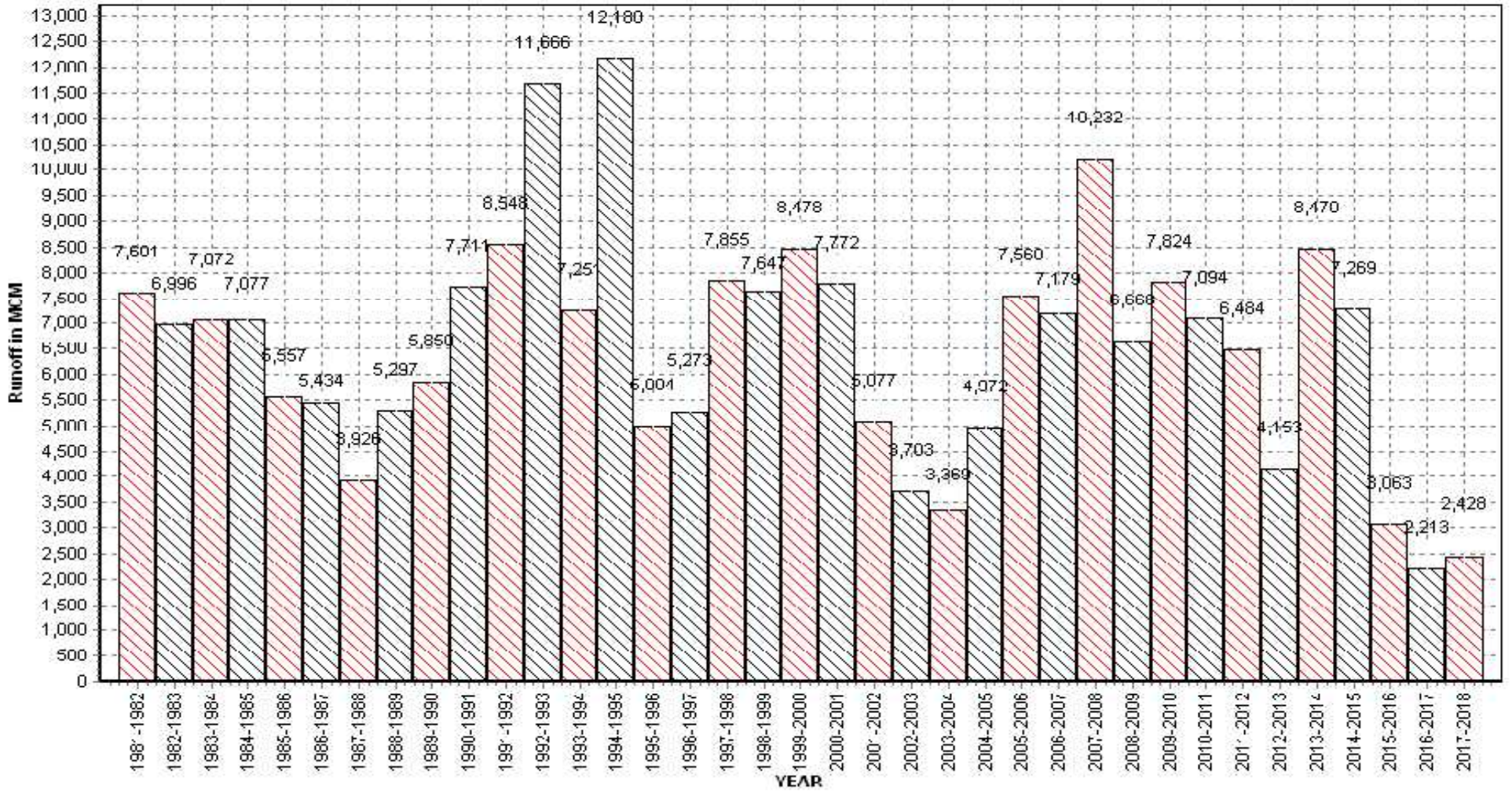
Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Annual Runoff Values for the period: 1981 - 2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



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

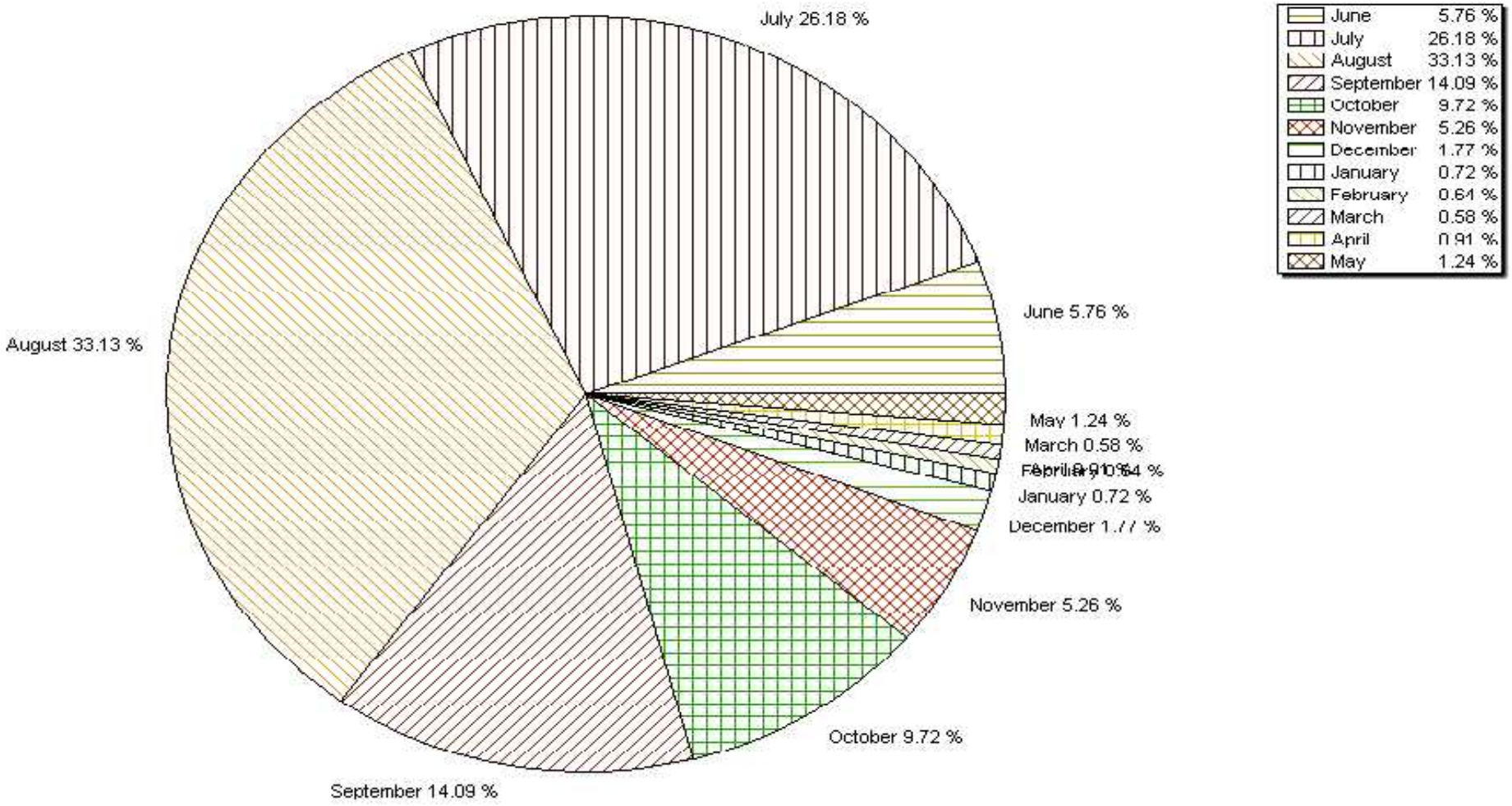
Monthly Average Runoff based on period : 1981-2017

Station Name : HARALAHALLI (AKL00S8)

Division : Cauvery Division, Bangalore

Local River : Tungabhadra

Sub-Division : Upper Tunga Subdn, Devangere



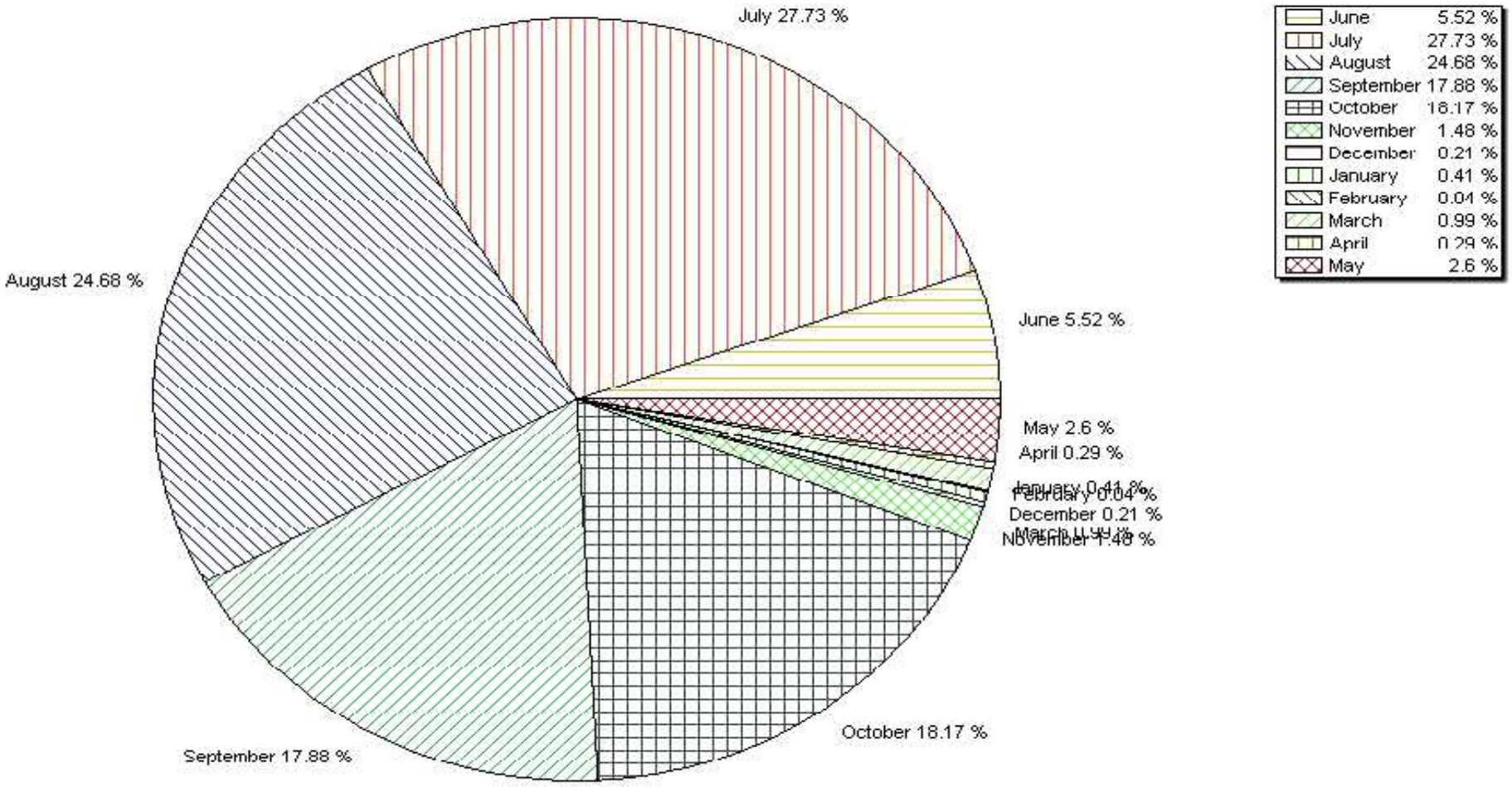
Monthly Runoff for the Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8)

Local River : Tungabhadra

Division : Cauvery Division, Bangalore

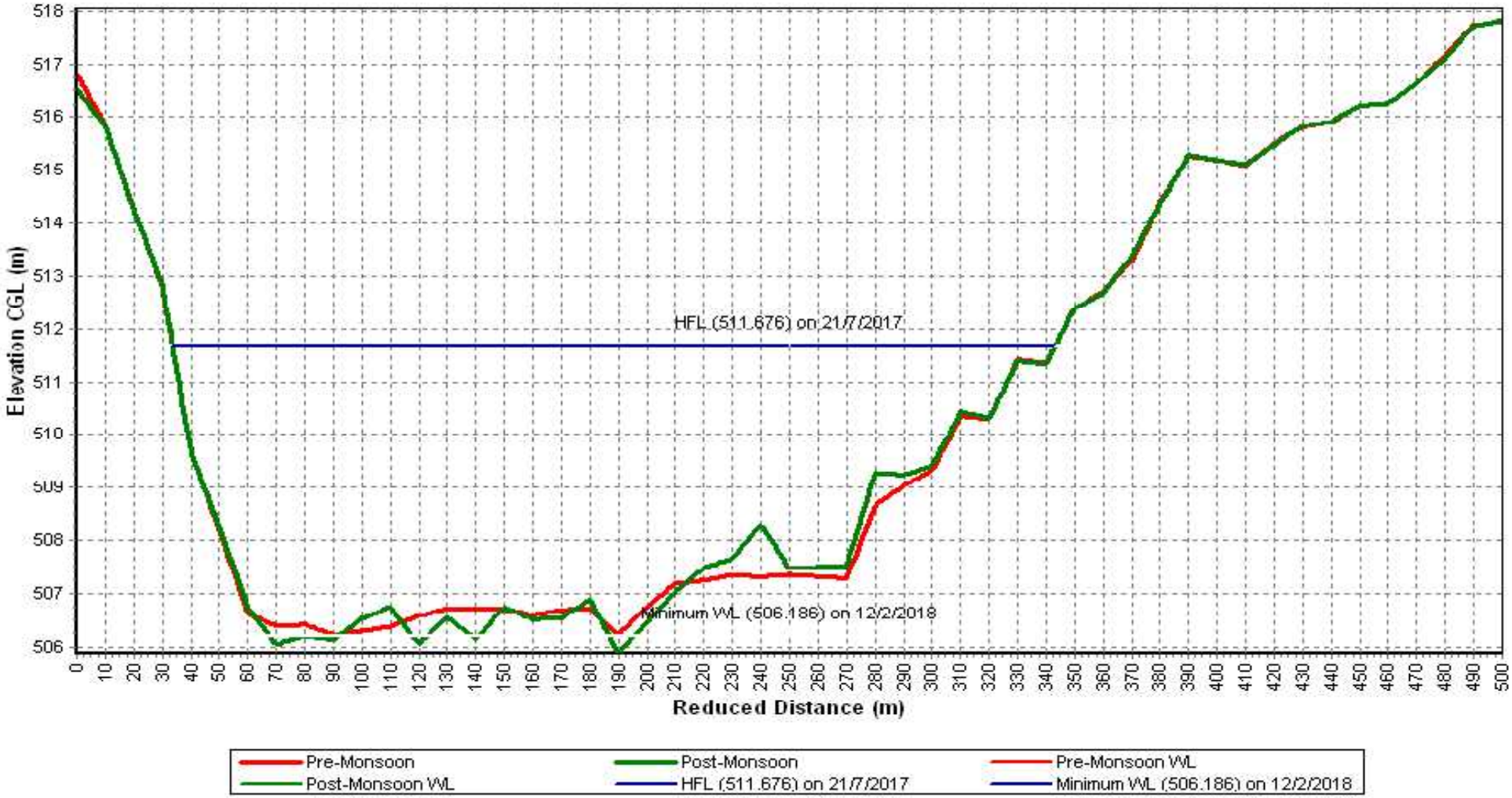
Sub-Division : Upper Tunga Subdn, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

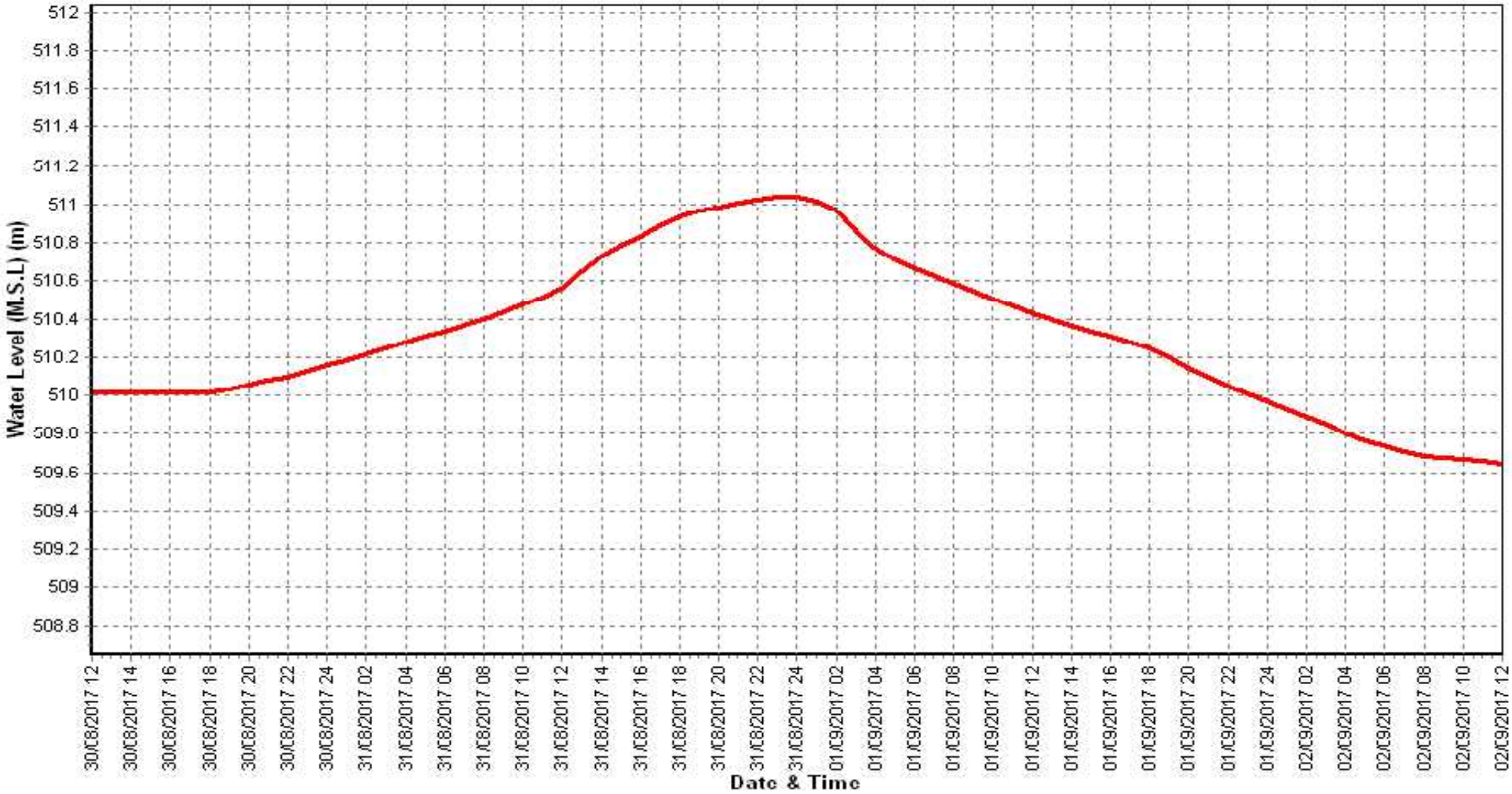


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

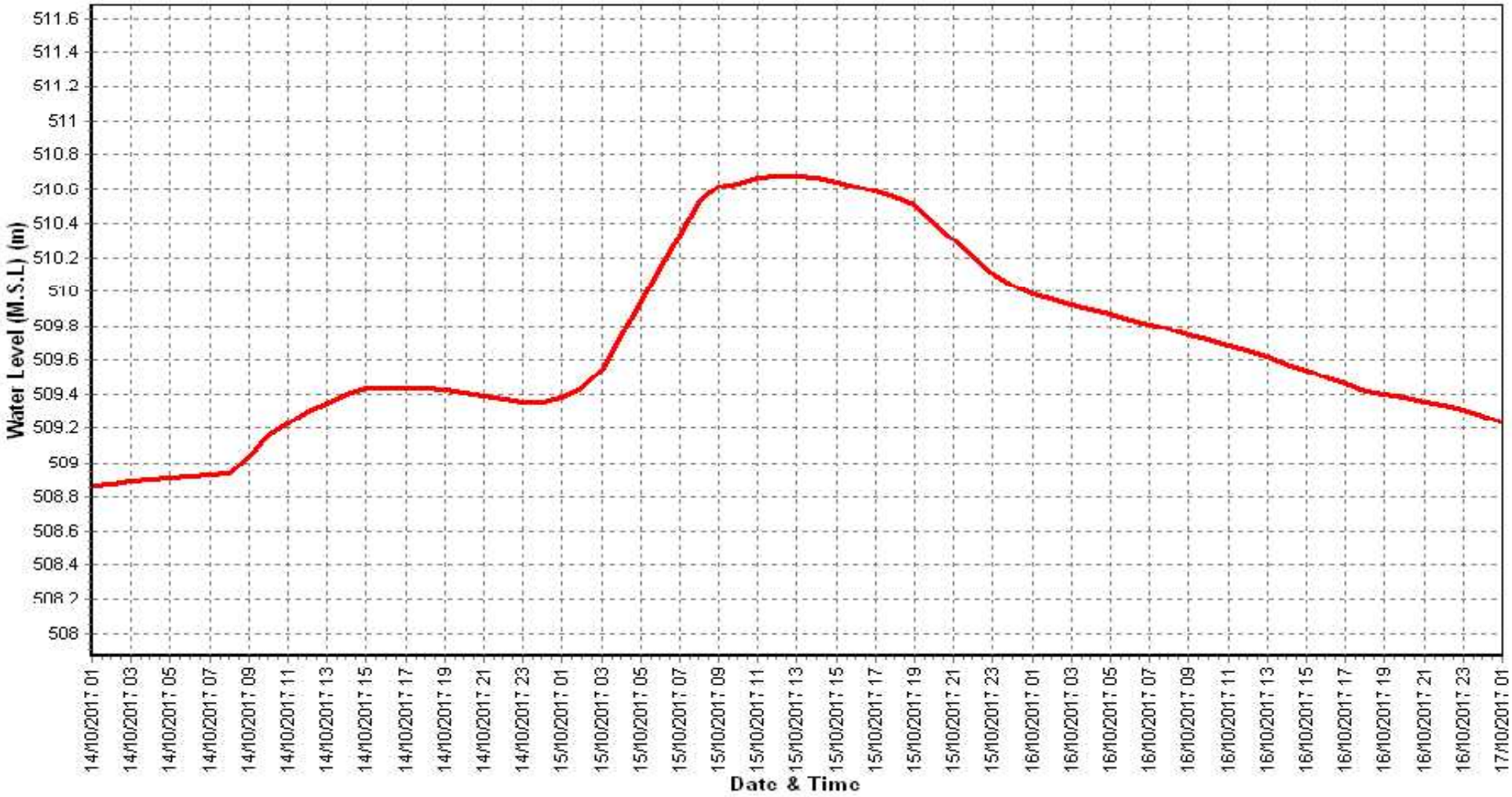


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : HARALAHALLI (AKL00S8) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**BYLADAHALLI**	**Code**	**:**	**AKLB0D3**
State	:	Karnataka	District		Davanagere
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Haridra
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga SD, Devangere
Drainage Area	:	2300 Sq. Km.	Bank	:	Right
Latitude	:	14°26'02"	Longitude	:	75°46'47"
Zero of Gauge (m)	:	528.4 (m.s.l)	01/06/2010		
		Opening Date	Closing Date		
Gauge	:	21/03/1985	HFL During 2017-18	:	533.39m
			Corres. Discharge	:	186.2(Estimated)
Discharge	:	11/06/1985	Date & Time of	:	04/10/2017
			occurance	:	17.00 hrs.
Sediment	:	10/12/1997			
Water Quality	:	02/06/1986			

HFL Recorded so far in m : 536.450 dt 17-11-1992
Corresponding Discharge (cumecs) : 1045 *

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	145.1	533.425	07/11/1986	0.500	531.160	08/06/1986
1987-1988	154.5	533.460	02/10/1987	0.500	530.800	07/06/1987
1988-1989	120.1	532.985	29/08/1988	0.200	531.060	05/03/1989
1989-1990	82.29	532.535	09/10/1989	0.169	531.080	06/07/1989
1990-1991	88.00	532.680	11/08/1990	0.511	531.180	12/06/1990
1991-1992	121.1	532.965	02/08/1991	0.000		16/04/1992
1992-1993	928.1	537.433	17/11/1992	0.668	530.945	02/06/1992
1993-1994	229.5	533.420	16/10/1993	0.317	530.720	03/07/1993
1994-1995	166.6	532.940	26/10/1994	0.325	530.750	21/12/1994
1995-1996	102.0	532.520	17/09/1995	0.000	530.750	09/05/1996
1996-1997	241.1	533.710	21/10/1996	0.000	530.800	08/07/1996
1997-1998	157.5	532.960	26/10/1997	0.000	530.700	12/05/1998
1998-1999	236.5	533.460	11/10/1998	0.000	530.700	12/12/1998
1999-2000	224.8	533.700	05/10/1999	0.000	530.700	07/02/2000
2000-2001	251.0	534.020	10/10/2000	0.000	530.620	30/01/2001
2001-2002	112.8	532.685	02/08/2001	0.000	530.460	04/02/2002
2002-2003	116.1	533.045	16/10/2002	0.000	530.480	06/01/2003
2003-2004	138.8	532.920	06/10/2003	0.000	530.580	24/01/2004
2004-2005	49.21	531.900	07/09/2004	0.000		27/02/2005
2005-2006	190.1	533.460	27/07/2005	0.000		21/02/2006

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**
2006-2007	179.9	533.740	04/11/2006	0.000	530.410	31/01/2007
2007-2008	99.30	532.580	19/09/2007	0.000		10/01/2008
2008-2009	104.3	532.570	06/10/2008	0.000		08/02/2009
2009-2010	167.8	533.470	02/10/2009	0.000		12/03/2010
2010-2011	257.3	534.040	09/11/2010	0.000	530.030	18/03/2011
2011-2012	90.51	532.200	15/10/2011	0.000	530.100	28/03/2012
2012-2013	339.9	534.650	02/11/2012	0.000		12/02/2013
2013-2014	92.30	532.370	18/09/2013	0.000	530.120	02/01/2014
2014-2015	243.0	534.000	28/10/2014	0.000	530.070	20/02/2015
2015-2016	117.3	532.680	09/09/2015	0.000	530.020	31/01/2016
2016-2017	23.65	531.380	26/09/2016	0.000	530.090	02/07/2016

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

Annual Runoff of Haridra at Byladahalli

SL.no.	**Season**	Monsoon	Non-Monsoon	Annual
1	**1985-1986**	230	38	268
2	**1986-1987**	234	56	290
3	**1987-1988**	244	51	296
4	**1988-1989**	190	72	262
5	**1989-1990**	232	98	329
6	**1990-1991**	297	211	508
7	**1991-1992**	387	4	391
8	**1992-1993**	591	74	666
9	**1993-1994**	456	103	559
10	**1994-1995**	494	70	564
11	**1995-1996**	245	46	290
12	**1996-1997**	406	84	490
13	**1997-1998**	353	44	397
14	**1998-1999**	410	111	521
15	**1999-2000**	317	28	345
16	**2000-2001**	460	115	576
17	**2001-2002**	233	10	244
18	**2002-2003**	127	4	131
19	**2003-2004**	47	0	47
20	**2004-2005**	100	0	100
21	**2005-2006**	344	51	395
22	**2006-2007**	189	41	230
23	**2007-2008**	127	38	166
24	**2008-2009**	244	40	283
25	**2009-2010**	322	8	330
26	**2010-2011**	617	35	652
27	**2011-2012**	261	60	321
28	**2012-2013**	212	1	213
29	**2013-2014**	351	2	353
30	**2014-2015**	340	18	358
31	**2015-2016**	243	6	249
32	**2016-2017**	62	2	65
33	**2017-2018**	98	0	98
Average		287	46	333

Stage-Discharge Data for the period 2017 - 2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**

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		0.000		0.000		0.000	530.000	0.000	530.930	0.000
2		0.000		0.000		0.000		0.000	530.020	0.000	530.940	0.000
3		0.000		0.000		0.000		0.000	530.020	0.000	530.950	0.000
4		0.000		0.000		0.000		0.000	533.320	178.2	530.950	0.000
5		0.000		0.000		0.000		0.000	532.270	71.77	530.930	0.000
6		0.000		0.000		0.000		0.000	532.230	72.33	530.930	0.000
7		0.000		0.000		0.000		0.000	532.180	68.61	530.940	0.000
8		0.000		0.000		0.000		0.000	531.530	31.23 *	530.930	0.000
9		0.000		0.000		0.000		0.000	531.420	24.92	530.940	0.000
10		0.000		0.000		0.000		0.000	531.400	24.40	530.650	0.000
11		0.000		0.000		0.000		0.000	531.430	25.36	530.170	0.000
12		0.000		0.000		0.000		0.000	532.180	68.85	530.170	0.000
13		0.000		0.000		0.000		0.000	532.180	67.96	530.160	0.000
14		0.000		0.000		0.000		0.000	532.230	72.53	530.160	0.000
15		0.000		0.000		0.000		0.000	532.340	80.68 *	530.150	0.000
16		0.000		0.000		0.000		0.000	532.580	113.7	530.150	0.000
17		0.000		0.000		0.000		0.000	532.560	109.8	530.160	0.000
18		0.000		0.000		0.000		0.000	531.590	34.01 *	530.160	0.000
19		0.000		0.000		0.000		0.000	531.430	25.34	530.160	0.000
20		0.000		0.000		0.000		0.000	531.380	23.49	530.160	0.000
21		0.000		0.000		0.000		0.000	531.370	23.26	530.130	0.000
22		0.000		0.000		0.000		0.000	530.780	7.193 *	530.130	0.000
23		0.000		0.000		0.000		0.000	530.440	2.239	530.130	0.000
24		0.000		0.000		0.000		0.000	530.410	2.134	530.130	0.000
25		0.000		0.000		0.000		0.000	530.410	2.034	530.130	0.000
26		0.000		0.000		0.000		0.000	530.410	2.029	530.130	0.000
27		0.000		0.000		0.000		0.000	530.420	2.132	530.130	0.000
28		0.000		0.000		0.000		0.000	530.410	2.026	530.110	0.000
29		0.000		0.000		0.000	529.960	0.000	530.360	1.469 *	530.100	0.000
30		0.000		0.000		0.000	529.990	0.000	530.290	0.870	530.090	0.000
31				0.000		0.000			530.270	0.743		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000	531.439	47.15	530.909	0.000
II Ten-Daily		0.000		0.000		0.000		0.000	531.990	62.17	530.160	0.000
III Ten-Daily		0.000		0.000		0.000	105.995	0.000	530.506	4.194	530.121	0.000
Monthly												
Min.		0.000		0.000		0.000	0.000	0.000	530.000	0.000	530.090	0.000
Max.		0.000		0.000		0.000	529.990	0.000	533.320	178.2	530.950	0.000
Mean		0.000		0.000		0.000	35.332	0.000	531.286	36.75	530.397	0.000

Annual Runoff in MCM = 98 Annual Runoff in mm = 43

Peak Observed Discharge = 178.2 cumecs on 04/10/2017 Corres. Water Level :533.32 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 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 2017 - 2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	530.090	0.000		0.000		0.000		0.000		0.000		0.000
2	530.100	0.000		0.000		0.000		0.000		0.000		0.000
3	530.100	0.000		0.000		0.000		0.000		0.000		0.000
4	530.100	0.000		0.000		0.000		0.000		0.000		0.000
5	530.100	0.000		0.000		0.000		0.000		0.000		0.000
6	530.100	0.000		0.000		0.000		0.000		0.000		0.000
7	530.100	0.000		0.000		0.000		0.000		0.000		0.000
8	530.100	0.000		0.000		0.000		0.000		0.000		0.000
9	530.100	0.000		0.000		0.000		0.000		0.000		0.000
10	530.100	0.000		0.000		0.000		0.000		0.000		0.000
11	530.100	0.000		0.000		0.000		0.000		0.000		0.000
12		0.000		0.000		0.000		0.000		0.000		0.000
13		0.000		0.000		0.000		0.000		0.000		0.000
14		0.000		0.000		0.000		0.000		0.000		0.000
15		0.000		0.000		0.000		0.000		0.000		0.000
16		0.000		0.000		0.000		0.000		0.000		0.000
17		0.000		0.000		0.000		0.000		0.000		0.000
18		0.000		0.000		0.000		0.000		0.000		0.000
19		0.000		0.000		0.000		0.000		0.000		0.000
20		0.000		0.000		0.000		0.000		0.000		0.000
21		0.000		0.000		0.000		0.000		0.000		0.000
22		0.000		0.000		0.000		0.000		0.000		0.000
23		0.000		0.000		0.000		0.000		0.000		0.000
24		0.000		0.000		0.000		0.000		0.000		0.000
25		0.000		0.000		0.000		0.000		0.000		0.000
26		0.000		0.000		0.000		0.000		0.000		0.000
27		0.000		0.000		0.000		0.000		0.000		0.000
28		0.000		0.000		0.000		0.000		0.000		0.000
29		0.000		0.000				0.000		0.000		0.000
30		0.000		0.000				0.000		0.000		0.000
31		0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	530.099	0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily	53.010	0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily		0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	0.000	0.000		0.000		0.000		0.000		0.000		0.000
Max.	530.100	0.000		0.000		0.000		0.000		0.000		0.000
Mean	188.100	0.000		0.000		0.000		0.000		0.000		0.000

Peak Computed Discharge = 80.68 cumecs on 15/10/2017 Corres. Water Level :532.34 m

Lowest Computed Discharge = 1.469 cumecs on 29/10/2017 Corres. Water Level :530.36 m

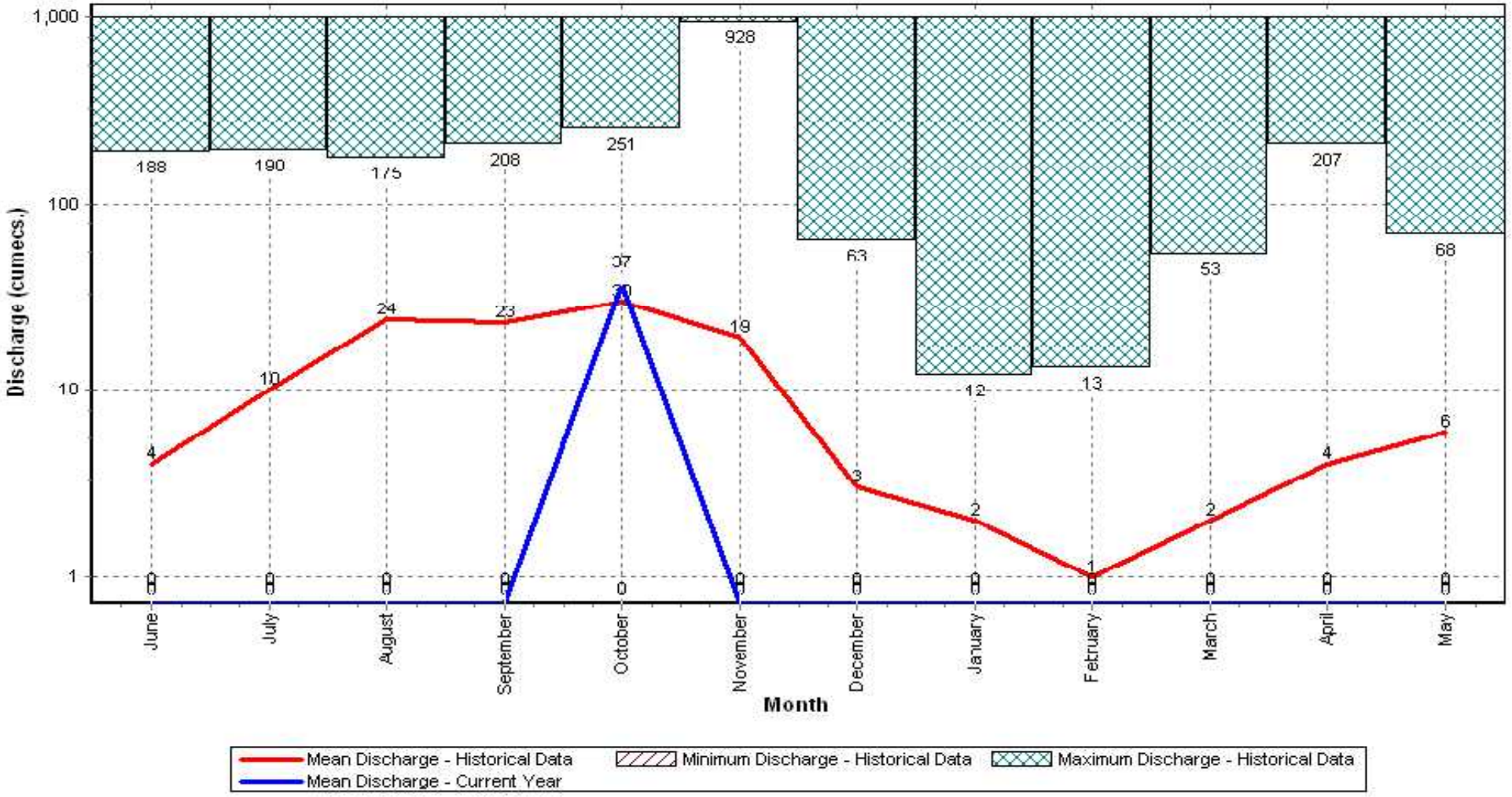
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3) **Data considered : 1986-2018** **Division : Cauvery Division, Bangalore**

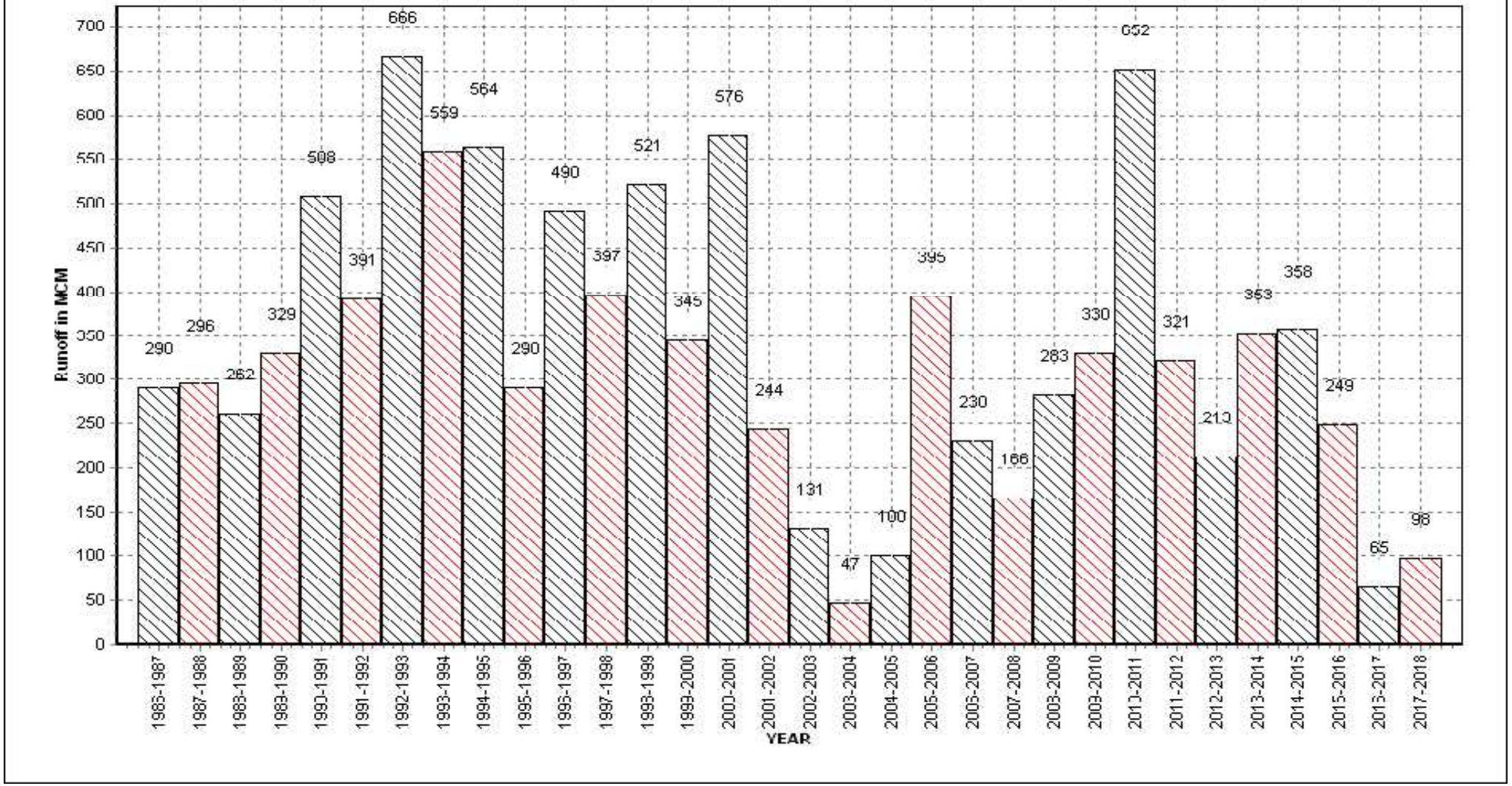
Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**



Annual Runoff Values for the period: 1986 - 2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**

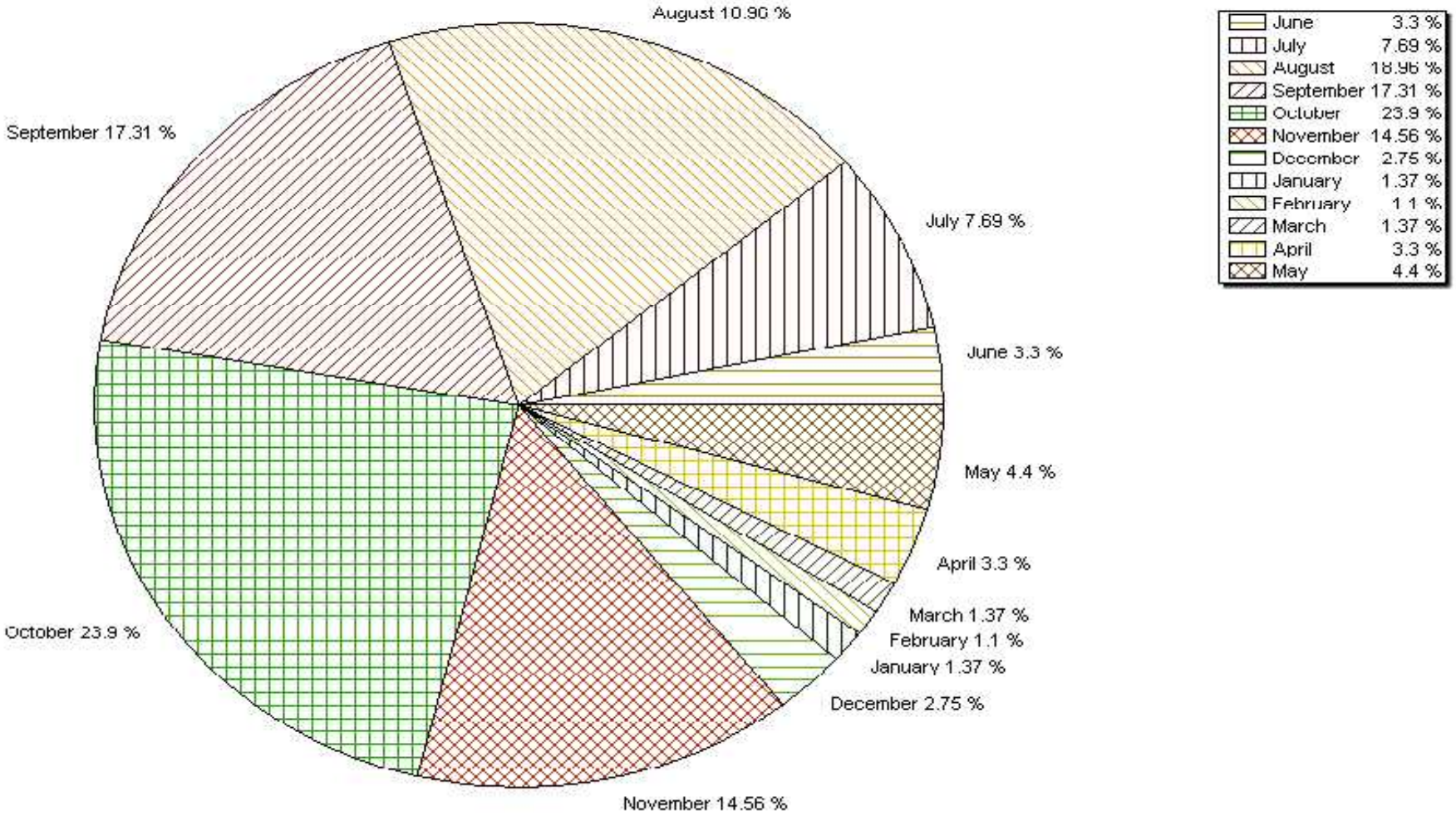


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1986-2017

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**



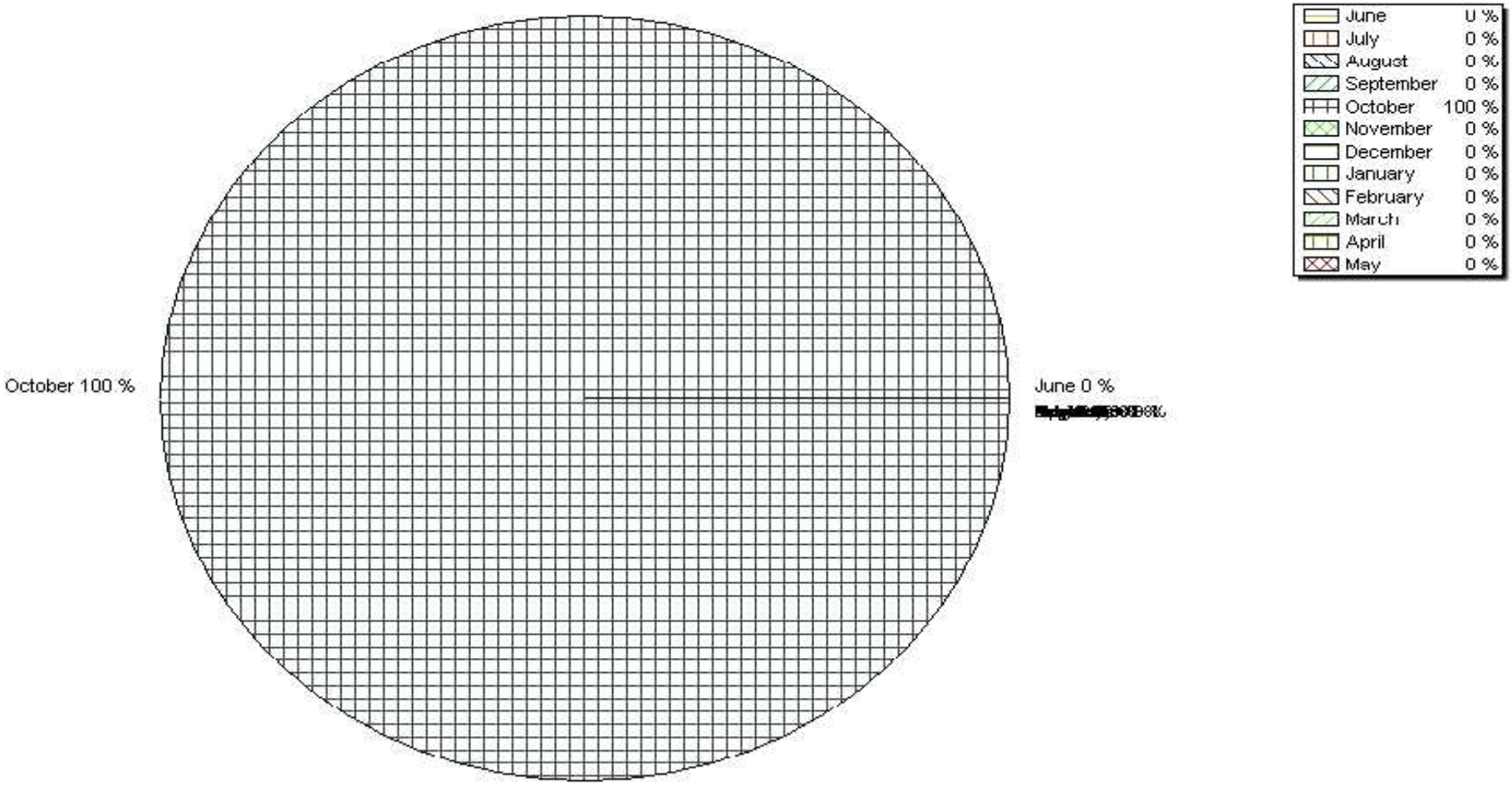
Monthly Runoff for the Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3)

Division : Cauvery Division, Bangalore

Local River : Haridra

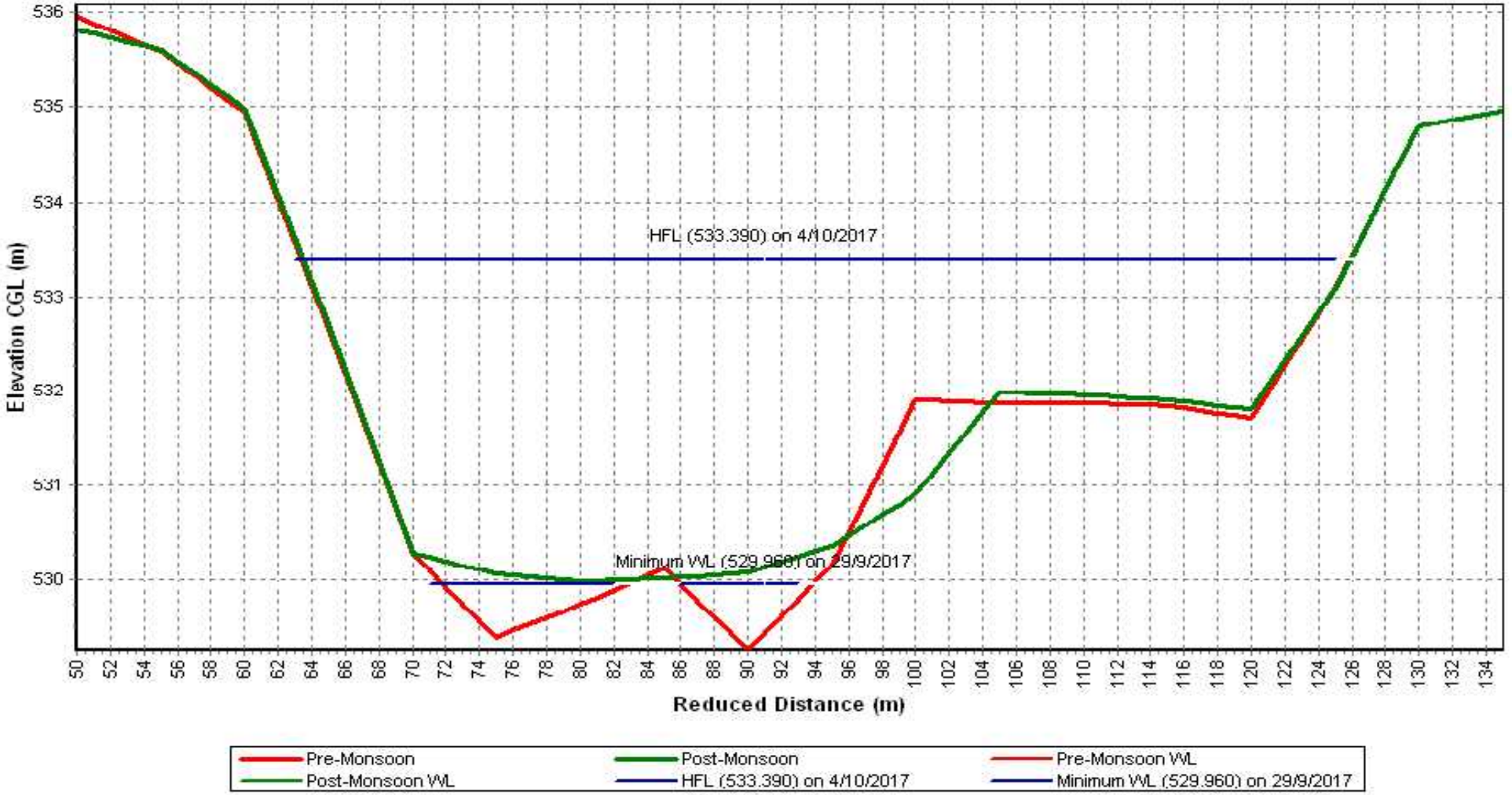
Sub-Division : Upper Tunga SD, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

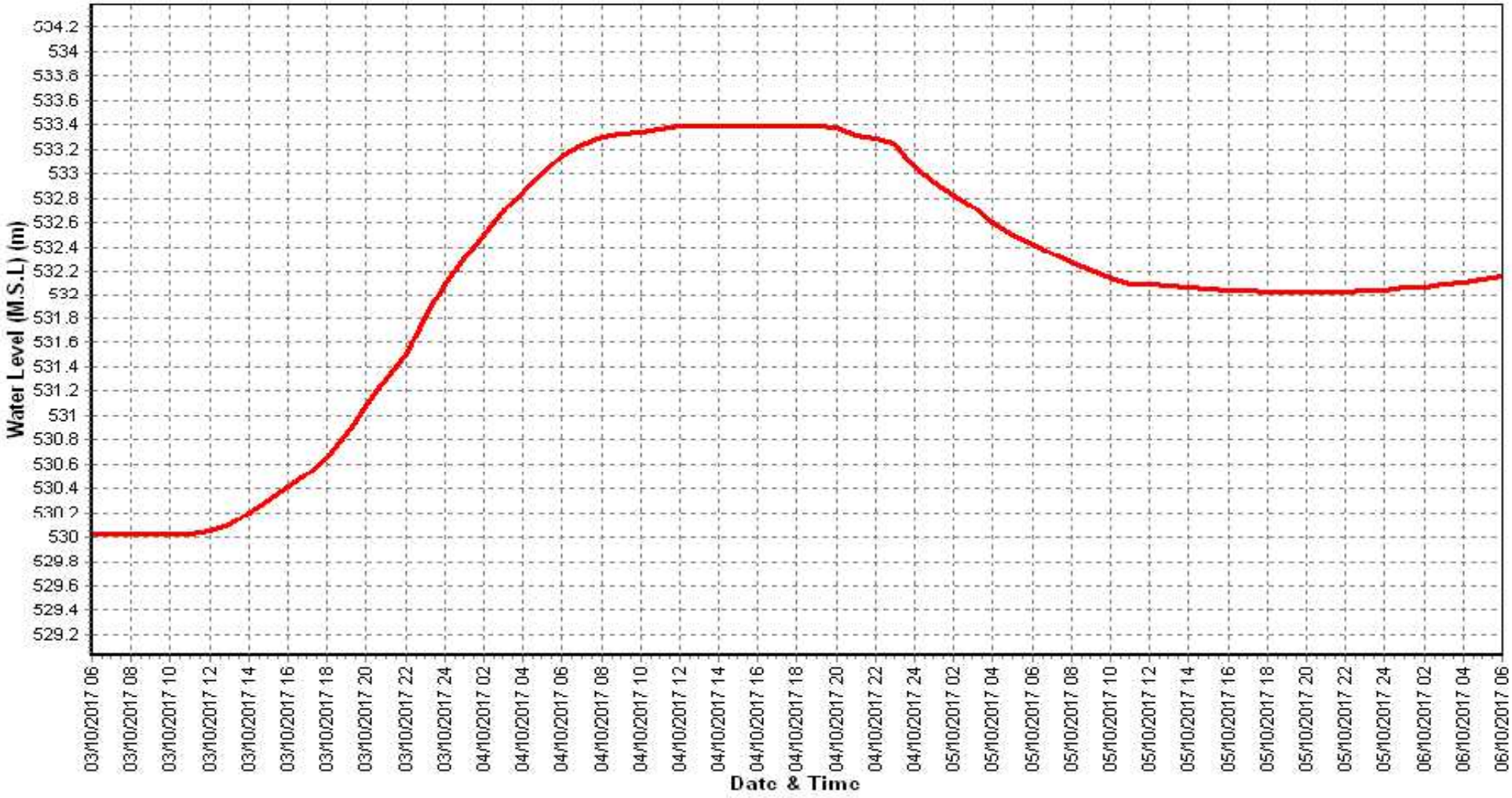
Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**

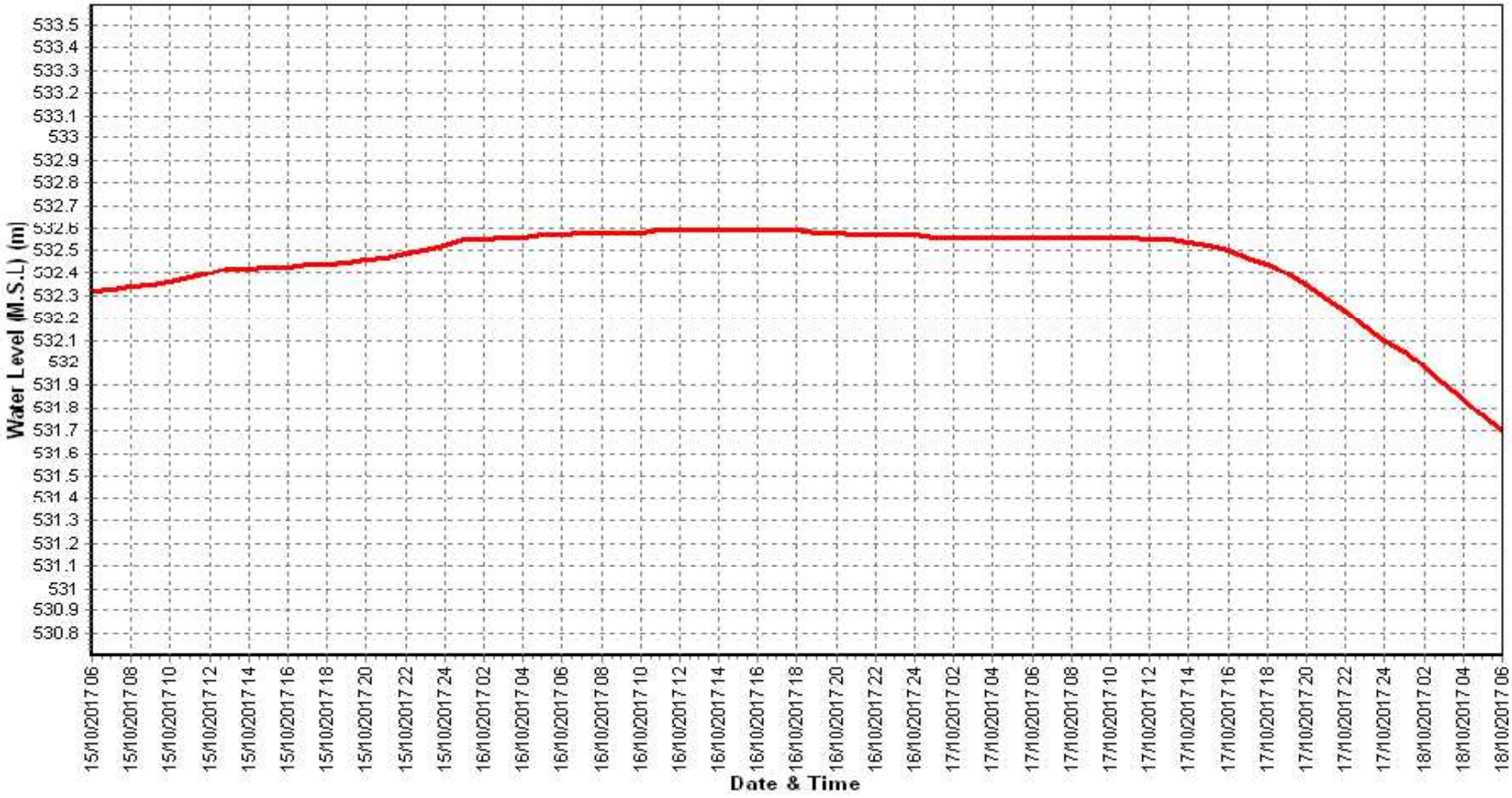


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**

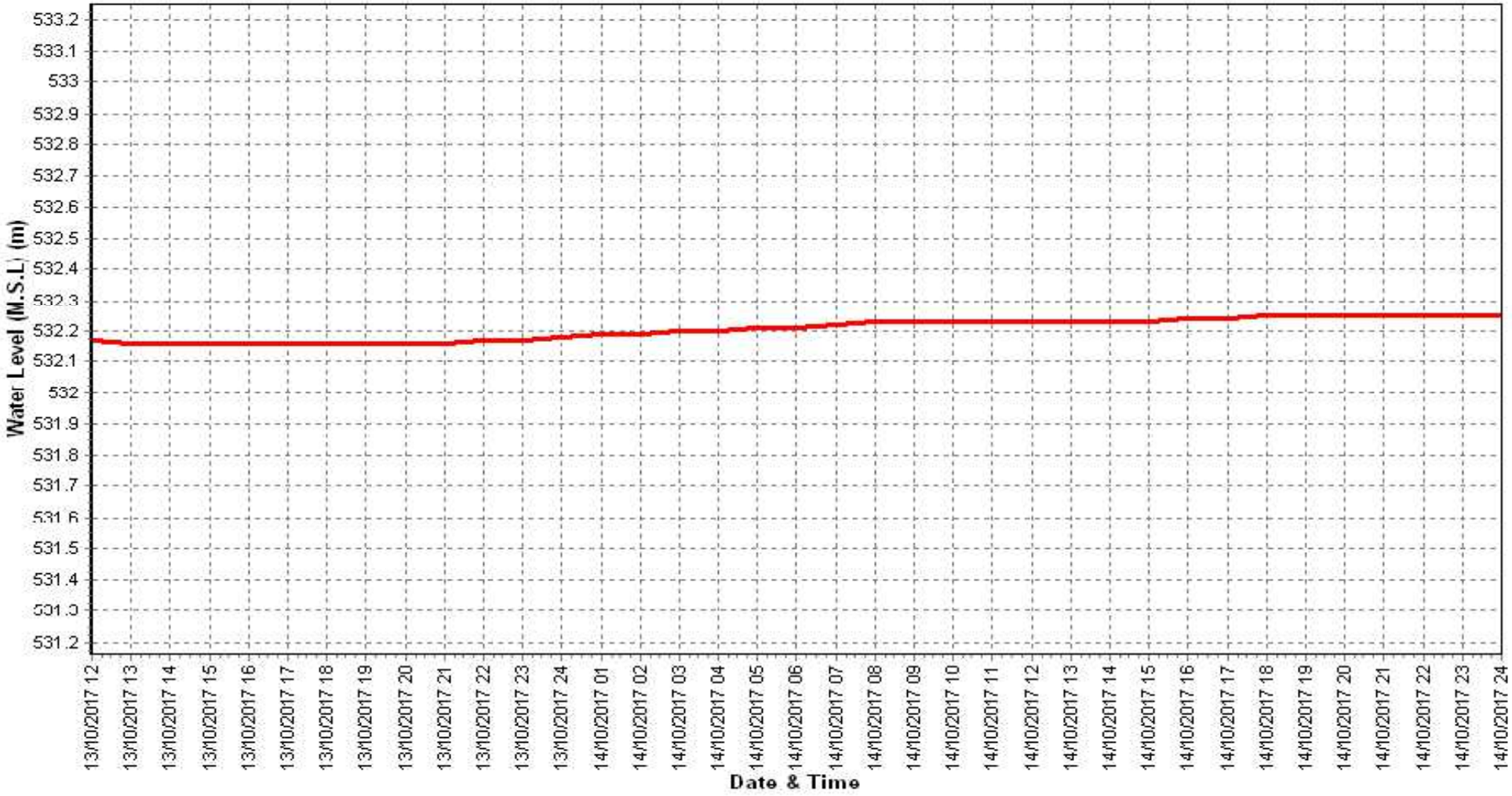


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : BYLADAHALLI (AKLB0D3) **Division : Cauvery Division, Bangalore**

Local River : Haridra **Sub-Division : Upper Tunga SD, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**KUPPELUR**	**Code**	**:**	**AKLC0B8**
State	:	Karnataka	District		Haveri
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Kumudavathi
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga SD, Devangere
Drainage Area	:	1850 Sq. Km.	Bank	:	Left
Latitude	:	14°30'00"	Longitude	:	75°38'02"
Zero of Gauge (m)	:	531.67 (m.s.l)	01/06/2010		
		Opening Date	Closing Date		
Gauge	:	01/06/1990	HFL During 2017-18	:	536.29m
			Corres. Discharge	:	0.000
Discharge	:	24/07/1990	Date & Time of	:	29/09/2017
			occurance	:	14.00 hrs.
Sediment	:	23/07/2014			
Water Quality	:	01/07/1994			

HFL Recorded so far in m : 541.900 dt 08-08-2007
Corresponding Discharge (cumecs) : 787.4 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1991-1992	206.9	98.566	29/07/1991	0.000		18/02/1992
1992-1993	538.3	100.919	18/11/1992	0.000	94.157	02/05/1993
1993-1994	145.2	97.698	17/10/1993	0.000	94.950	08/02/1994
1994-1995	430.0	100.590	17/07/1994	0.000	93.575	11/03/1995
1995-1996	91.85	536.770	05/09/1995	0.000		23/02/1996
1996-1997	48.13	536.530	31/07/1996	0.000		07/03/1997
1997-1998	412.6	539.650	08/08/1997	0.000		06/03/1998
1998-1999	149.4	538.060	13/10/1998	0.000	534.965	25/02/1999
1999-2000	293.2	539.410	24/07/1999	0.000		17/02/2000
2000-2001	215.7	538.830	15/07/2000	0.000		12/02/2001
2001-2002	29.82	536.210	30/09/2001	0.000		25/01/2002
2002-2003	30.26	536.380	15/10/2002	0.000	535.350	01/12/2002
2003-2004	173.3	538.040	04/10/2003	0.000		18/06/2003
2004-2005	312.4	538.945	07/08/2004	0.000		23/02/2005
2005-2006	301.7	539.670	04/08/2005	0.000	534.500	30/01/2006
2006-2007	283.3	538.600	13/08/2006	0.000		30/01/2007
2007-2008	776.3	541.840	08/08/2007	0.000	534.840	15/01/2008
2008-2009	509.7	540.500	14/08/2008	0.000	535.100	30/03/2009

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	394.1	540.050	18/07/2009	0.000	535.190	30/01/2010
2010-2011	798.2	539.970	04/10/2010	0.000	534.640	24/06/2010
2011-2012	133.3	536.940	05/09/2011	0.000	535.170	31/12/2011
2012-2013	64.26	536.090	03/11/2012	0.000	534.740	25/01/2013
2013-2014	594.4	539.370	03/08/2013	0.000	534.720	21/01/2014
2014-2015	421.5	539.670	02/08/2014	0.000	535.110	14/12/2014
2015-2016	34.12	535.665	21/07/2015	0.000		10/05/2016
2016-2017	8.782	535.490	15/09/2016	0.000	534.680	06/07/2016

Annual Runoff of Kumudavathi at Kuppelur

SL.No	**Season**	Monsoon	Non-Monsoon	Annual
1	**1990-1991**	165	0	165
2	**1991-1992**	474	2	476
3	**1992-1993**	634	24	658
4	**1993-1994**	292	14	306
5	**1994-1995**	658	18	676
6	**1995-1996**	176	2	178
7	**1996-1997**	133	4	138
8	**1997-1998**	428	10	438
9	**1998-1999**	398	5	403
10	**1999-2000**	329	2	331
11	**2000-2001**	407	2	408
12	**2001-2002**	45	0	45
13	**2002-2003**	49	1	50
14	**2003-2004**	73	1	74
15	**2004-2005**	240	0	240
16	**2005-2006**	472	2	475
17	**2006-2007**	301	0	301
18	**2007-2008**	773	9	782
19	**2008-2009**	400	6	406
20	**2009-2010**	586	2	588
21	**2010-2011**	930	27	957
22	**2011-2012**	360	29	389
23	**2012-2013**	88	0	88
24	**2013-2014**	615	0	615
25	**2014-2015**	609	0	609
26	**2015-2016**	96	0	96
27	**2016-2017**	23	0	23
28	**2017-2018**	0	0	0
Average		348	6	354

Stage-Discharge Data for the period 2017 - 2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**

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		0.000	534.610	0.000	534.800	0.000	535.610	0.000	534.900	0.000
2		0.000		0.000	534.670	0.000	534.780	0.000	535.400	0.000	534.900	0.000
3		0.000		0.000	534.630	0.000	534.750	0.000	535.260	0.000	534.910	0.000
4		0.000		0.000	534.610	0.000	534.680	0.000	535.250	0.000	534.920	0.000
5		0.000		0.000	534.640	0.000	534.620	0.000	535.230	0.000	534.930	0.000
6		0.000		0.000	534.650	0.000	534.570	0.000	535.200	0.000	534.940	0.000
7		0.000		0.000	534.650	0.000	534.770	0.000	535.260	0.000	534.990	0.000
8		0.000		0.000	534.620	0.000	534.890	0.000	535.280	0.000	534.920	0.000
9		0.000		0.000	534.560	0.000	534.870	0.000	535.260	0.000	534.820	0.000
10		0.000		0.000	534.530	0.000	535.070	0.000	535.160	0.000	534.840	0.000
11		0.000		0.000	534.490	0.000	534.950	0.000	535.130	0.000	535.000	0.000
12		0.000		0.000	534.400	0.000	534.950	0.000	535.240	0.000	535.140	0.000
13		0.000	533.920	0.000	534.310	0.000	535.170	0.000	535.190	0.000	535.050	0.000
14		0.000	535.030	0.000	534.230	0.000	535.120	0.000	535.180	0.000	534.960	0.000
15		0.000	534.750	0.000	534.130	0.000	535.050	0.000	535.200	0.000	534.860	0.000
16		0.000	534.720	0.000	534.170	0.000	535.050	0.000	535.150	0.000	534.870	0.000
17		0.000	534.730	0.000	534.200	0.000	535.000	0.000	535.260	0.000	534.950	0.000
18		0.000	534.920	0.000	534.250	0.000	534.960	0.000	535.230	0.000	534.930	0.000
19		0.000	534.750	0.000	534.440	0.000	534.930	0.000	535.140	0.000	534.910	0.000
20		0.000	534.740	0.000	534.680	0.000	534.990	0.000	535.080	0.000	534.880	0.000
21		0.000	534.740	0.000	534.830	0.000	534.990	0.000	535.040	0.000	534.860	0.000
22		0.000	534.670	0.000	534.800	0.000	534.960	0.000	535.040	0.000	534.820	0.000
23		0.000	534.640	0.000	534.710	0.000	534.930	0.000	535.050	0.000	534.790	0.000
24		0.000	534.640	0.000	534.660	0.000	534.930	0.000	535.040	0.000	534.750	0.000
25		0.000	534.670	0.000	534.630	0.000	534.910	0.000	535.020	0.000	534.710	0.000
26		0.000	534.670	0.000	534.690	0.000	534.930	0.000	534.990	0.000	534.690	0.000
27		0.000	534.650	0.000	534.790	0.000	534.940	0.000	534.960	0.000	534.670	0.000
28		0.000	534.630	0.000	534.790	0.000	534.950	0.000	534.960	0.000	534.670	0.000
29		0.000	534.630	0.000	534.820	0.000	536.090	0.000	534.950	0.000	534.650	0.000
30		0.000	534.630	0.000	534.830	0.000	535.830	0.000	534.940	0.000	534.640	0.000
31			534.620	0.000	534.820	0.000			534.920	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000	534.617	0.000	534.780	0.000	535.291	0.000	534.907	0.000
II Ten-Daily		0.000	427.756	0.000	534.330	0.000	535.017	0.000	535.180	0.000	534.955	0.000
III Ten-Daily		0.000	534.654	0.000	534.761	0.000	535.146	0.000	534.992	0.000	534.725	0.000
Monthly												
Min.		0.000	0.000	0.000	534.130	0.000	534.570	0.000	534.920	0.000	534.640	0.000
Max.		0.000	535.030	0.000	534.830	0.000	536.090	0.000	535.610	0.000	535.140	0.000
Mean		0.000	327.702	0.000	534.575	0.000	534.981	0.000	535.149	0.000	534.862	0.000

Annual Runoff in MCM = 0 Annual Runoff in mm = 0

Peak Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :0 m

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

Note:Missing values ignored while arriving at Annual Runoff

Stage-Discharge Data for the period 2017 - 2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	534.620	0.000	533.670	0.000		0.000		0.000		0.000		0.000
2	534.600	0.000	533.590	0.000		0.000		0.000		0.000		0.000
3	534.570	0.000	533.570	0.000		0.000		0.000		0.000		0.000
4	534.550	0.000	533.540	0.000		0.000		0.000		0.000		0.000
5	534.540	0.000	533.480	0.000		0.000		0.000		0.000		0.000
6	534.520	0.000	533.430	0.000		0.000		0.000		0.000		0.000
7	534.480	0.000	533.340	0.000		0.000		0.000		0.000		0.000
8	534.430	0.000	533.250	0.000		0.000		0.000		0.000		0.000
9	534.380	0.000	533.190	0.000		0.000		0.000		0.000		0.000
10	534.360	0.000	533.140	0.000		0.000		0.000		0.000		0.000
11	534.340	0.000	533.080	0.000		0.000		0.000		0.000		0.000
12	534.310	0.000	532.970	0.000		0.000		0.000		0.000		0.000
13	534.290	0.000		0.000		0.000		0.000		0.000		0.000
14	534.220	0.000		0.000		0.000		0.000		0.000		0.000
15	534.180	0.000		0.000		0.000		0.000		0.000		0.000
16	534.150	0.000		0.000		0.000		0.000		0.000		0.000
17	534.140	0.000		0.000		0.000		0.000		0.000		0.000
18	534.130	0.000		0.000		0.000		0.000		0.000		0.000
19	534.120	0.000		0.000		0.000		0.000		0.000		0.000
20	534.090	0.000		0.000		0.000		0.000		0.000		0.000
21	534.080	0.000		0.000		0.000		0.000		0.000		0.000
22	534.070	0.000		0.000		0.000		0.000		0.000		0.000
23	534.060	0.000		0.000		0.000		0.000		0.000		0.000
24	534.030	0.000		0.000		0.000		0.000		0.000		0.000
25	533.990	0.000		0.000		0.000		0.000		0.000		0.000
26	533.970	0.000		0.000		0.000		0.000		0.000		0.000
27	533.910	0.000		0.000		0.000		0.000		0.000		0.000
28	533.870	0.000		0.000		0.000		0.000		0.000		0.000
29	533.830	0.000		0.000				0.000		0.000		0.000
30	533.800	0.000		0.000				0.000		0.000		0.000
31	533.760	0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	534.505	0.000	533.420	0.000		0.000		0.000		0.000		0.000
II Ten-Daily	534.197	0.000	106.605	0.000		0.000		0.000		0.000		0.000
III Ten-Daily	533.943	0.000		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	533.760	0.000	0.000	0.000		0.000		0.000		0.000		0.000
Max.	534.620	0.000	533.670	0.000		0.000		0.000		0.000		0.000
Mean	534.206	0.000	206.460	0.000		0.000		0.000		0.000		0.000

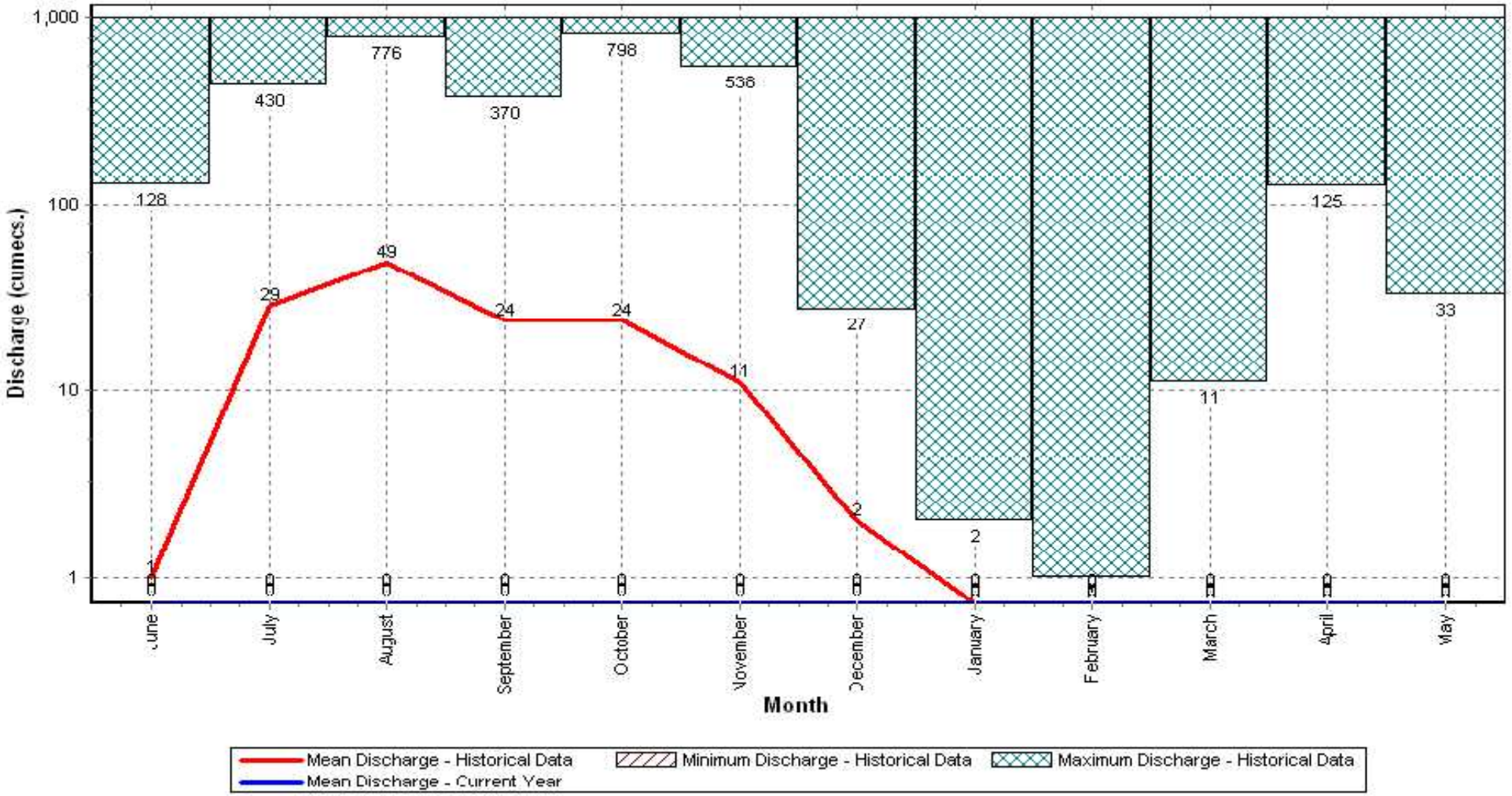
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8) | **Data considered : 1991-2018** | **Division : Cauvery Division, Bangalore**

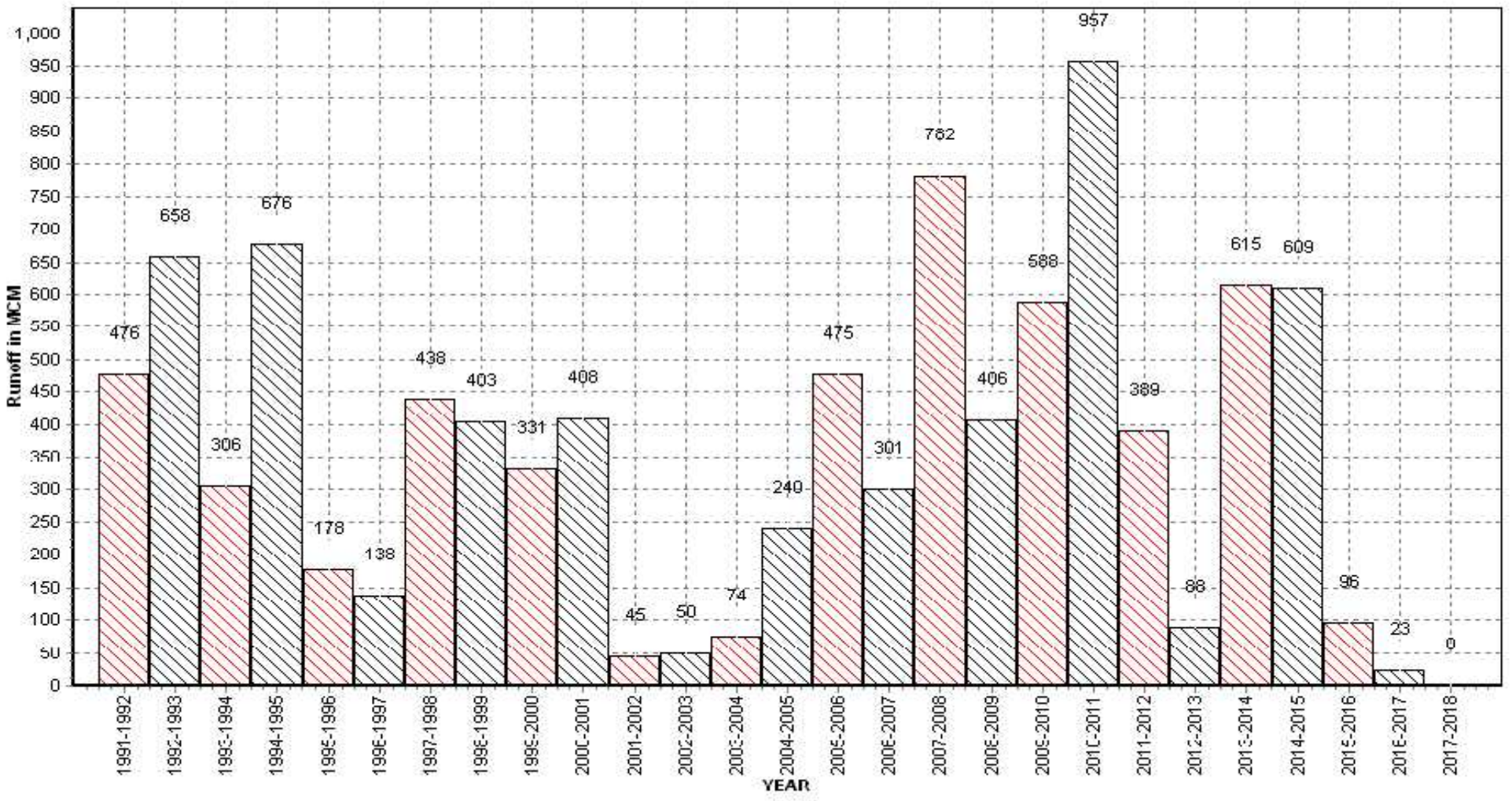
Local River : Kumudavathi | **Sub-Division : Upper Tunga SD, Devangere**



Annual Runoff Values for the period: 1991 - 2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**

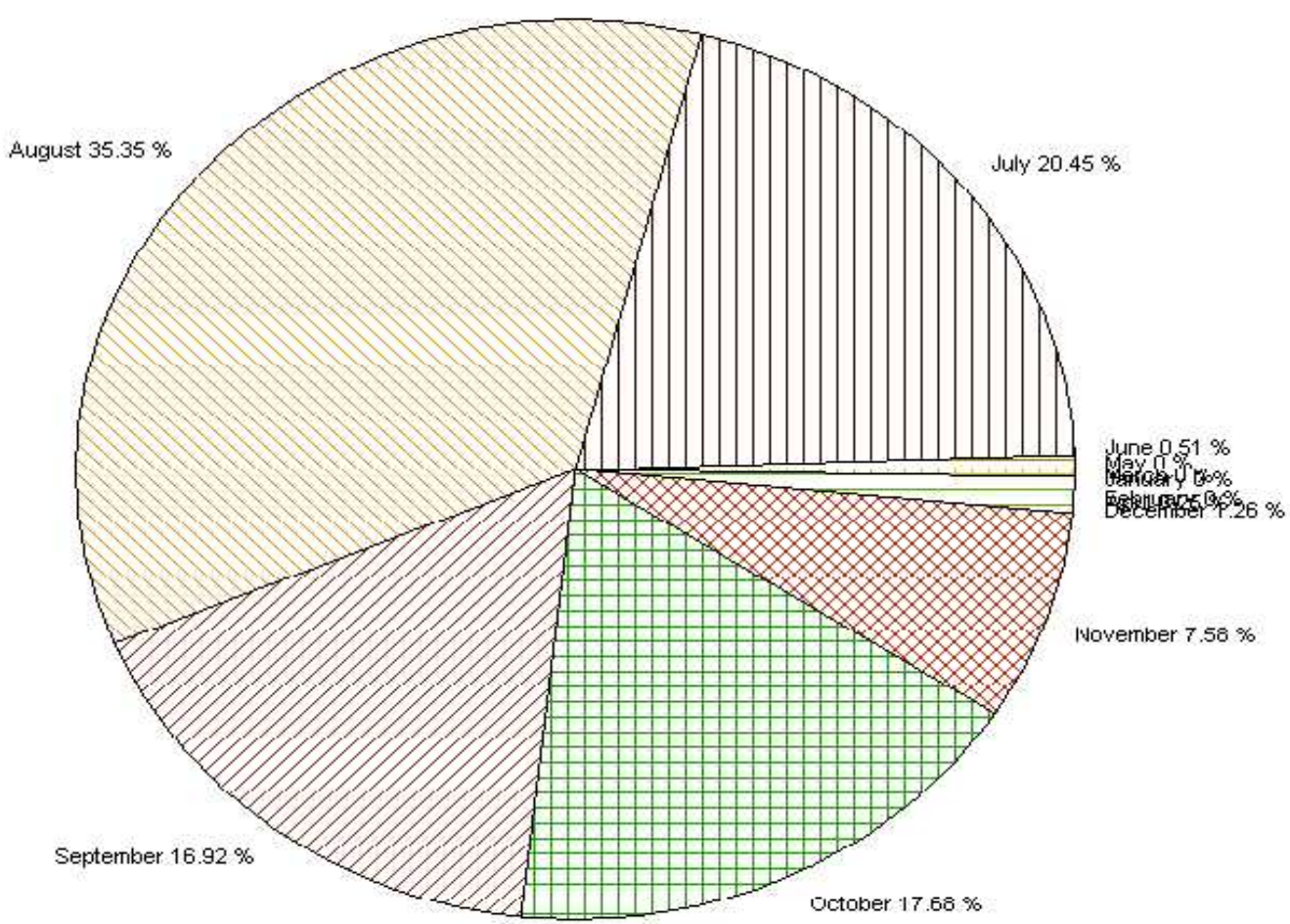


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1991-2017

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**



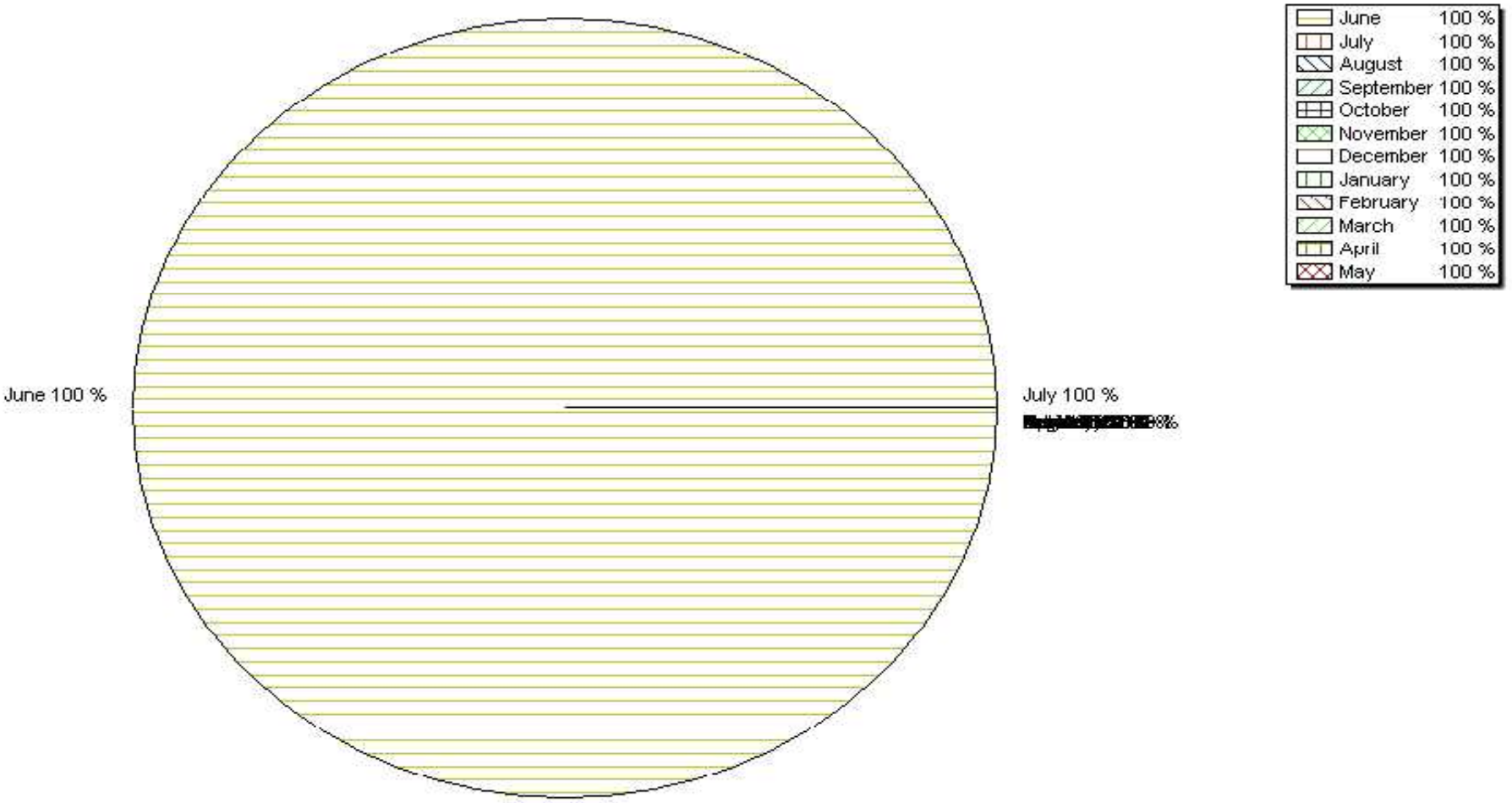
Monthly Runoff for the Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8)

Division : Cauvery Division, Bangalore

Local River : Kumudavathi

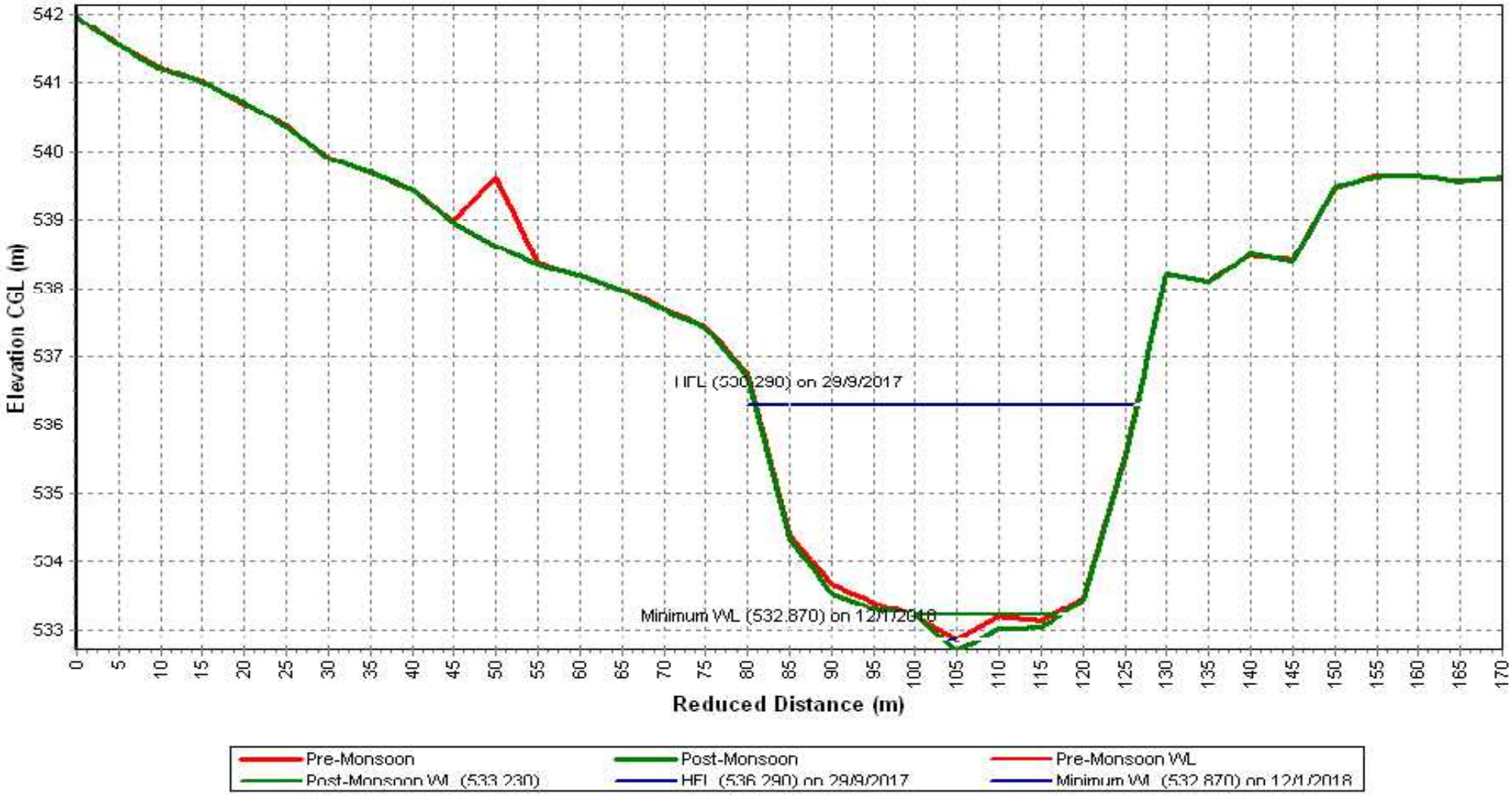
Sub-Division : Upper Tunga SD, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**

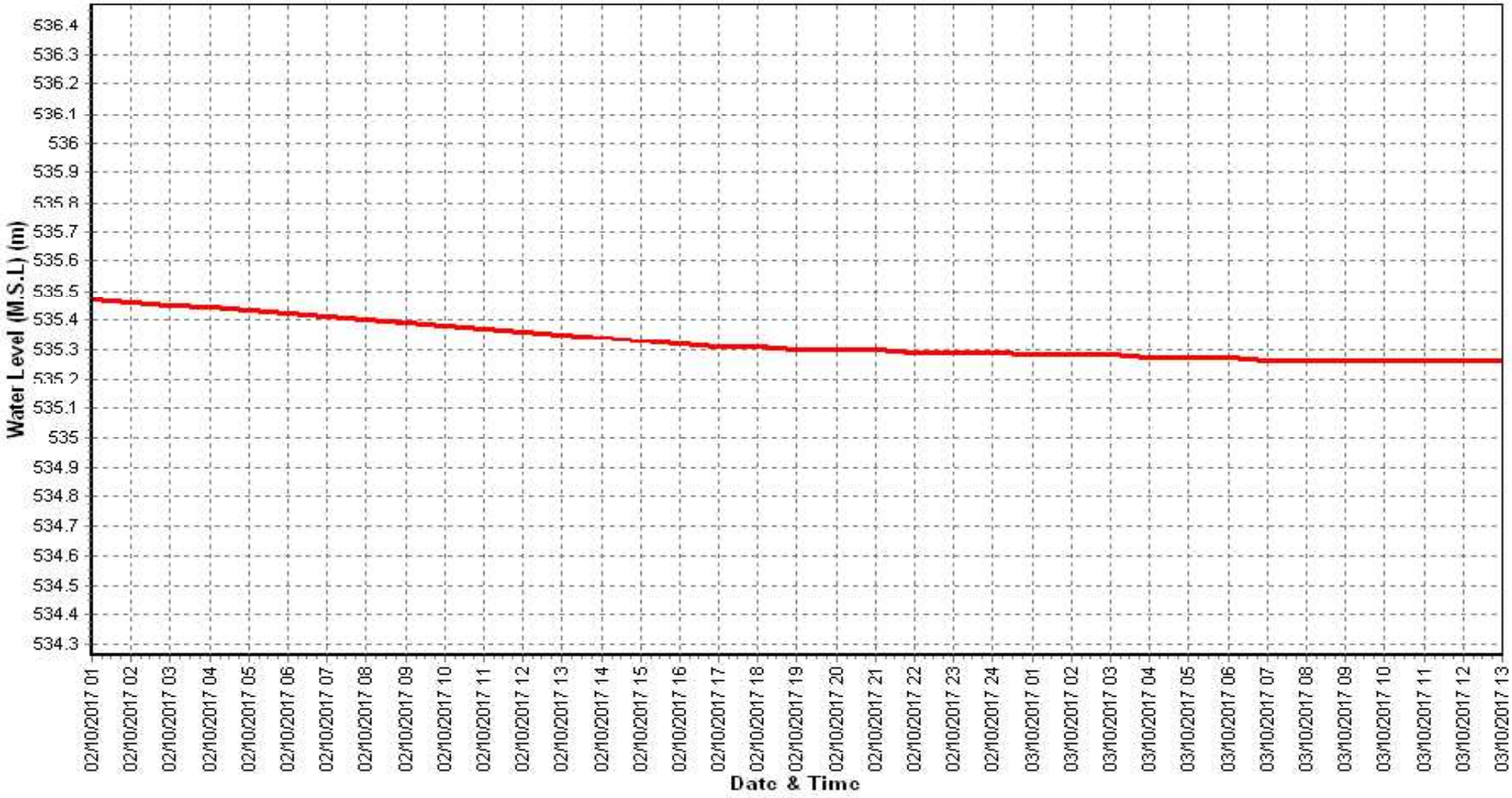


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**

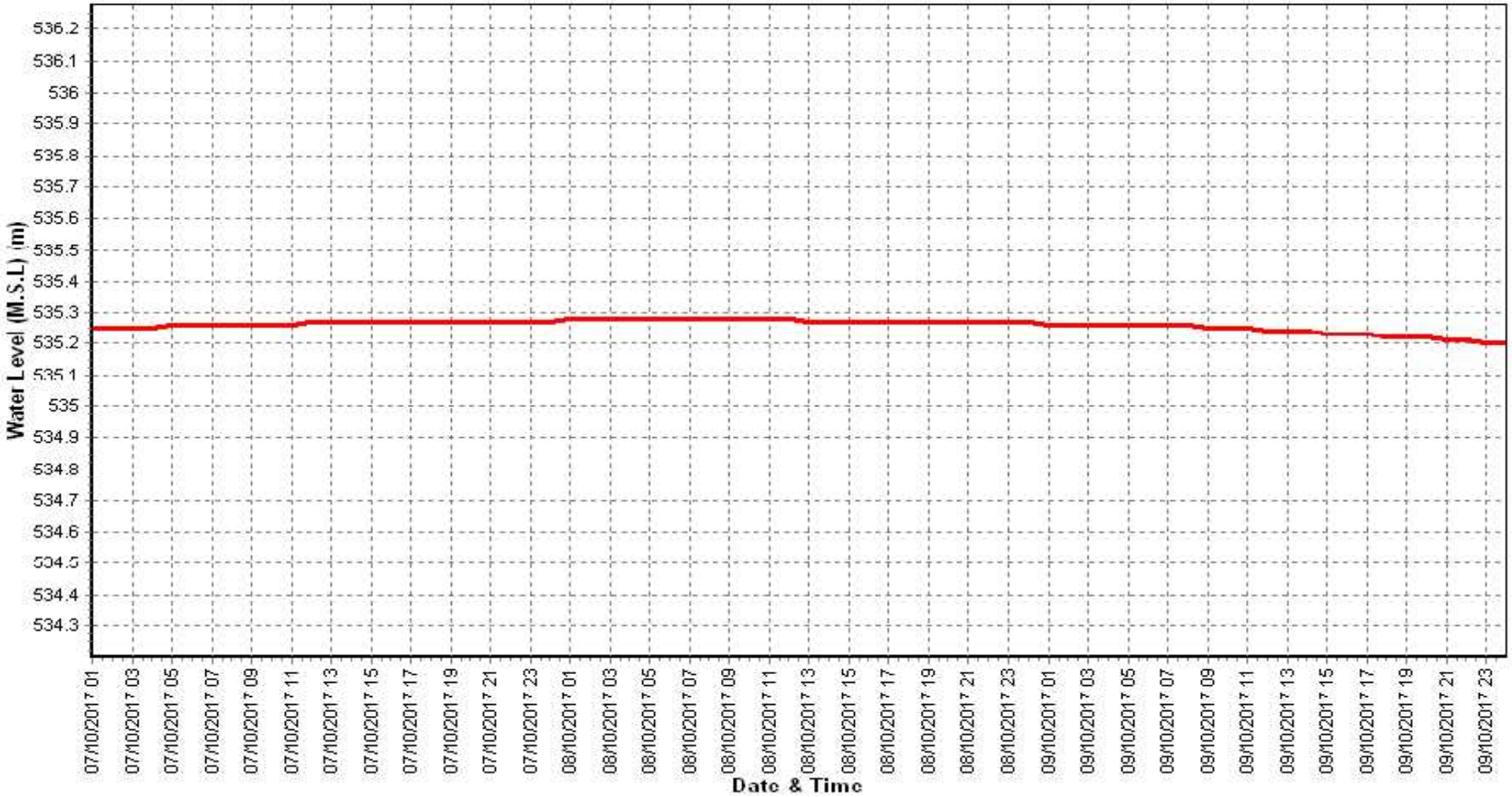


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : KUPPELUR (AKLC0B8) **Division : Cauvery Division, Bangalore**

Local River : Kumudavathi **Sub-Division : Upper Tunga SD, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**HONNALI**	**Code**	**:**	**AKL00X6**
State	:	Karnataka	District		Davanagere
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Tungabhadra
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga Subdn, Devangere
Drainage Area	:	7075 Sq. Km.	Bank	:	Left
Latitude	:	14°14'14"	Longitude	:	75°39'45"
Zero of Gauge (m)	:	533.9 (m.s.l)	21/06/1978		
		Opening Date	Closing Date		
Gauge	:	01/06/1980	HFL During 2017-18	:	542.36m
			Corres. Discharge	:	1360.0(Estimated)
Discharge	:	21/06/1980	Date & Time of	:	20/07/2017
			occurance	:	15.00 hrs.
Sediment	:	15/09/1995			
Water Quality	:	02/06/1986			

HFL Recorded so far in m : 546.470 dt 16-07-1994
Corresponding Discharge (cumecs) : 6760*

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	2337	93.330	19/08/1981	17.20	87.680	05/04/1982
1982-1983	4555	94.910	03/08/1982	12.80	87.620	21/04/1983
1983-1984	2234	93.000	23/07/1983	12.50	87.590	10/06/1983
1984-1985	3003	93.440	19/07/1984	11.20	87.590	10/05/1985
1985-1986	1973	92.450	27/06/1985	3.900	87.380	29/03/1986
1986-1987	2670	543.440	10/08/1986	7.500	537.865	12/06/1986
1987-1988	1223	541.890	27/08/1987	1.726	537.710	05/04/1988
1988-1989	2833	543.795	19/07/1988	2.882	537.730	15/04/1989
1989-1990	2970	543.745	24/07/1989	4.616	537.850	02/06/1989
1990-1991	2075	543.090	16/08/1990	6.287	537.880	02/06/1990
1991-1992	3385	544.027	29/07/1991	7.012	537.970	23/03/1992
1992-1993	3758	544.672	28/07/1992	4.676	538.040	01/05/1993
1993-1994	1510	542.558	16/08/1993	4.533	538.237	13/06/1993
1994-1995	6950	546.400	16/07/1994	11.72	538.045	24/03/1995
1995-1996	1851	542.900	02/09/1995	8.755	538.050	12/06/1995
1996-1997	1531	542.520	24/07/1996	11.91	537.990	21/04/1997
1997-1998	3708	544.250	23/08/1997	7.719	538.080	02/05/1998
1998-1999	2035	543.045	14/09/1998	6.953	537.960	12/06/1998
1999-2000	3561	544.105	19/07/1999	11.80	538.050	31/05/2000

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	2527	543.770	13/07/2000	9.900	538.010	07/06/2000
2001-2002	1266	542.360	09/07/2001	4.464	537.830	23/03/2002
2002-2003	1519	542.450	18/08/2002	0.011	537.390	26/05/2003
2003-2004	1146	541.930	24/08/2003	0.000	537.440	23/03/2004
2004-2005	3704	544.220	27/08/2004	5.880	537.880	17/02/2005
2005-2006	3685	544.090	17/08/2005	5.270	537.880	11/01/2006
2006-2007	4042	544.600	13/08/2006	3.024	537.820	13/01/2007
2007-2008	5361	546.300	07/08/2007	3.444	537.860	14/01/2008
2008-2009	6732	545.920	14/08/2008	0.576	537.650	08/01/2009
2009-2010	3651	544.710	17/07/2009	10.87	538.000	29/12/2009
2010-2011	1909	542.935	29/07/2010	15.69	538.100	19/03/2011
2011-2012	2639	543.785	02/09/2011	4.625	537.890	09/01/2012
2012-2013	3126	544.050	08/08/2012	3.056	537.790	17/06/2012
2013-2014	4528	544.975	03/08/2013	11.29	537.920	08/01/2014
2014-2015	4995	545.110	07/08/2014	11.48	537.930	20/06/2014
2015-2016	1870	543.090	20/07/2015	12.30	537.880	15/02/2016
2016-2017	1261	542.220	30/06/2016	5.295	537.480	06/05/2017

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

Annual Runoff of Tungadhadra at Honnali

SLNo.	**Season**	Monsoon	Non-Monsoon	Annual
1	**1981-1982**	6662	585	7247
2	**1982-1983**	6864	458	7322
3	**1983-1984**	6749	558	7308
4	**1984-1985**	6690	510	7200
5	**1985-1986**	5046	288	5333
6	**1986-1987**	4832	323	5154
7	**1987-1988**	2851	252	3102
8	**1988-1989**	4569	380	4949
9	**1989-1990**	5113	283	5396
10	**1990-1991**	6487	440	6927
11	**1991-1992**	6944	426	7370
12	**1992-1993**	8707	720	9428
13	**1993-1994**	5955	504	6459
14	**1994-1995**	10663	469	11132
15	**1995-1996**	4469	459	4928
16	**1996-1997**	4488	378	4866
17	**1997-1998**	7240	506	7746
18	**1998-1999**	6301	697	6998
19	**1999-2000**	7107	635	7742
20	**2000-2001**	6179	716	6895
21	**2001-2002**	4175	365	4540
22	**2002-2003**	3753	224	3977
23	**2003-2004**	3515	253	3768
24	**2004-2005**	8197	473	8670
25	**2005-2006**	4404	582	4987
26	**2006-2007**	7836	534	8371
27	**2007-2008**	10367	721	11087
28	**2008-2009**	7082	521	7604
29	**2009-2010**	7140	634	7775
30	**2010-2011**	6062	665	6727
31	**2011-2012**	6660	560	7219
32	**2012-2013**	4581	370	4951
33	**2013-2014**	9004	590	9594
34	**2014-2015**	7297	647	7944
35	**2015-2016**	4340	596	4936
36	**2016-2017**	3443	456	3900
37	**2017-2018**	3251	601	3852
Average		6082	497	6578

Stage-Discharge Data for the period 2017 - 2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

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	537.870	14.58	539.720	299.0	539.550	214.9	540.520	363.9	539.660	247.6 *	538.410	52.74
2	537.870	14.36	540.270	409.2 *	539.470	187.9	540.020	337.2 *	539.150	147.4 *	538.410	52.74
3	537.870	14.39	539.980	322.3	539.500	207.1	539.660	247.6 *	539.960	295.6	538.400	51.85
4	537.850	15.26 *	539.880	316.1	539.260	157.2	539.550	214.9	539.660	232.7	538.260	40.02 *
5	537.840	13.87	540.240	422.8	540.450	432.9	539.540	213.7	539.780	249.3	538.260	40.02 *
6	537.840	13.73	539.630	281.7	540.610	520.5 *	539.220	150.6	539.390	200.4	538.190	36.80
7	537.840	13.55	539.520	243.2	540.300	419.9	539.090	137.2	539.120	142.4	538.160	31.69
8	537.840	13.72	539.790	313.4	540.080	328.9	539.670	234.0	539.530	219.2 *	538.160	32.00
9	537.930	17.51	539.740	266.1 *	539.700	237.7	539.790	250.6	539.300	182.6	538.210	38.05
10	537.930	17.36	539.580	252.0	539.530	210.1	539.370	186.9 *	539.000	121.4	538.210	38.59
11	538.010	23.30 *	539.450	233.8	539.550	214.9	539.420	204.0	538.950	115.4	538.210	37.92
12	538.010	22.40	539.000	140.9	539.480	208.3	539.460	208.3	538.950	115.4	538.160	32.69 *
13	538.010	22.36	538.920	125.9	540.550	499.7 *	539.260	157.2	538.910	111.6	538.120	29.39
14	538.040	22.09	539.280	201.9	539.780	249.3	539.120	142.4	539.000	121.4	538.120	29.65
15	538.040	24.76	539.380	223.8	539.550	223.4 *	538.840	102.0	539.310	175.6 *	538.250	42.43
16	538.860	119.0	539.460	204.7 *	539.360	190.9	538.940	114.6	539.040	130.1	538.250	42.79
17	538.880	121.6	540.280	431.1	539.130	143.3	538.820	98.22 *	538.980	119.6	538.250	42.64
18	538.800	95.61 *	539.730	305.6	539.310	183.7	538.980	119.6	538.960	117.7 *	538.250	42.58
19	538.850	117.6	539.980	330.1	539.140	145.4	539.400	201.6	538.830	101.3	538.170	33.39 *
20	538.890	122.8	542.280	1317	539.360	185.0 *	540.100	332.1	538.510	60.39	538.170	32.78
21	538.580	81.09	542.340	1361	540.460	434.8	539.560	216.2	538.510	60.39	538.170	32.52
22	538.600	83.68	540.930	623.7	541.000	618.3	539.420	204.0	538.470	58.32 *	538.610	68.44
23	538.640	85.54	541.080	700.9 *	540.470	436.8	539.020	123.1	538.450	57.98	538.570	65.27
24	538.550	77.51	540.365	435.9	540.250	388.6	538.990	122.1 *	538.430	54.70	538.500	59.37
25	538.600	71.73 *	540.260	425.8	539.970	323.8 *	539.000	121.4	538.520	61.65	538.400	51.85
26	539.350	183.1 *	540.210	407.6	539.670	234.0	538.860	104.2	538.500	59.37	538.340	46.52 *
27	541.250	832.2	539.980	321.8	540.510	486.1 *	538.890	107.0	538.720	78.19	538.300	45.69
28	540.510	500.7	540.100	359.7	541.090	642.7	539.050	131.0	538.530	61.85	538.300	45.62
29	540.225	407.0	540.130	370.3	540.850	522.1	540.100	359.3 *	538.420	53.60 *	538.300	45.05
30	539.780	312.9	540.280	412.2 *	541.090	642.7	539.900	280.8	538.500	59.32	538.300	45.00
31			540.130	370.9	541.510	893.6			538.440	55.71		
Ten-Daily Mean												
I Ten-Daily	537.868	14.83	539.835	312.6	539.845	291.7	539.643	233.7	539.455	203.9	538.267	41.45
II Ten-Daily	538.439	69.16	539.776	351.5	539.521	224.4	539.234	168.0	538.944	116.8	538.195	36.63
III Ten-Daily	539.409	263.5	540.528	526.3	540.625	511.2	539.279	176.9	538.499	60.10	538.379	50.53
Monthly												
Min.	537.840	13.55	538.920	125.9	539.130	143.3	538.820	98.22	538.420	53.60	538.120	29.39
Max.	541.250	832.2	542.340	1361	541.510	893.6	540.520	363.9	539.960	295.6	538.610	68.44
Mean	538.572	115.8	540.062	401	540.017	347.9	539.385	192.9	538.951	124.8	538.280	42.87

Annual Runoff in MCM = 3852 Annual Runoff in mm = 544

Peak Observed Discharge = 1361 cumecs on 21/07/2017 Corres. Water Level :542.34 m

Lowest Observed Discharge = 13.55 cumecs on 07/06/2017 Corres. Water Level :537.84 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 2017 - 2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	538.300	45.49	537.980	21.31	538.200	36.38	538.030	22.31	538.130	30.58 *	538.060	25.69
2	538.260	40.31 *	537.980	21.56	538.200	36.08	538.030	22.49	538.090	27.81	538.060	25.29
3	538.210	36.38 *	537.980	21.35	538.200	36.63	538.030	22.07	538.090	27.55	538.060	25.63
4	538.210	37.70	537.980	21.43	538.160	32.68 *	538.100	28.55 *	538.090	27.34	538.060	25.23
5	538.210	37.09	537.980	21.31	538.160	31.69	538.100	28.55	538.090	27.50	538.060	25.74
6	538.210	37.28	537.980	21.48	538.160	31.17	538.100	28.15	538.150	31.48	538.140	31.27 *
7	538.210	37.24	537.970	20.71 *	538.160	31.41	538.100	28.65	538.150	31.41	538.260	42.78
8	538.280	43.29	537.960	19.87	538.160	31.34	538.130	30.51	538.050	25.36 *	538.260	42.24
9	538.280	43.67	538.070	26.52	538.200	36.76	538.130	30.80	538.080	26.86	538.300	46.22
10	538.280	41.95 *	537.990	22.05	538.200	36.35	538.130	30.43	538.080	26.64	538.300	46.75
11	538.260	42.07	537.900	17.04	538.200	35.62 *	538.130	30.58 *	538.080	26.61	538.430	54.70
12	538.260	41.59	537.900	17.17	538.200	36.47	538.080	27.16	538.080	26.96	539.000	121.4
13	538.220	37.89	537.900	17.25	538.240	41.68	538.080	27.68	538.080	26.54	538.700	85.67 *
14	538.220	37.16	538.000	22.39 *	538.240	41.35	538.080	27.16	538.080	26.23	538.450	57.98
15	538.220	37.07	538.000	22.39 *	538.240	41.41	538.080	27.63	538.140	31.27 *	538.400	51.85
16	538.220	37.40	538.000	22.26	538.240	41.38	538.100	28.66	538.240	41.57	538.280	43.56
17	538.200	35.62 *	538.000	22.17	538.240	40.69	538.160	32.43	538.240	41.25	538.280	43.21
18	538.190	35.69	538.040	23.43	538.220	37.14 *	538.230	37.92 *	538.240	41.77	538.280	43.11
19	538.190	35.88	538.040	23.22	538.210	37.55	538.200	42.65	538.200	36.22	538.430	54.70
20	538.190	35.37	538.040	23.47	538.210	37.38	538.260	42.26	538.200	36.40	538.430	55.48 *
21	538.170	33.59	538.030	24.15 *	538.210	36.94	538.300	46.10	538.200	35.96	538.340	50.80
22	538.170	33.31	538.450	57.98	538.190	35.75	538.240	41.09	538.180	34.13 *	538.500	59.37
23	538.170	33.46	538.640	70.73	538.190	35.36	538.180	34.41	538.200	36.64	538.440	55.71
24	538.120	29.89 *	538.740	83.62	538.190	35.61	538.180	34.76	538.200	36.39	538.400	51.85
25	538.080	27.25 *	538.740	83.62	538.150	31.97 *	538.100	28.55 *	538.100	31.50	538.400	51.85
26	538.050	24.45	538.740	90.80 *	538.030	22.67	538.870	105.0	538.160	31.22	538.400	51.85
27	538.050	24.65	538.740	83.62	538.030	22.45	538.920	112.5	538.160	31.31	538.300	43.62 *
28	538.050	24.50	538.660	80.70	538.030	22.10	538.920	112.5	538.160	31.04	538.160	31.26
29	538.050	24.43	538.450	57.98			538.920	116.1 *	538.120	29.89 *	538.160	31.64
30	538.050	24.59	538.400	51.85			538.700	85.67 *	538.060	25.98 *	538.160	31.52
31	538.010	22.97 *	538.200	35.88			538.430	54.70			538.160	31.19
Ten-Daily Mean												
I Ten-Daily	538.245	40.04	537.987	21.76	538.180	34.05	538.088	27.25	538.100	28.25	538.156	33.68
II Ten-Daily	538.217	37.57	537.982	21.08	538.224	39.07	538.140	32.41	538.158	33.48	538.468	61.16
III Ten-Daily	538.088	27.55	538.526	65.54	538.128	30.36	538.524	70.12	538.154	32.41	538.311	44.60
Monthly												
Min.	538.010	22.97	537.900	17.04	538.030	22.10	538.030	22.07	538.050	25.36	538.060	25.23
Max.	538.300	45.49	538.740	90.80	538.240	41.68	538.920	116.1	538.240	41.77	539.000	121.4
Mean	538.180	34.81	538.177	37.08	538.181	34.79	538.259	44.13	538.137	31.38	538.312	46.42

Peak Computed Discharge = 700.9 cumecs on 23/07/2017 Corres. Water Level :541.08 m

Lowest Computed Discharge = 15.26 cumecs on 04/06/2017 Corres. Water Level :537.85 m

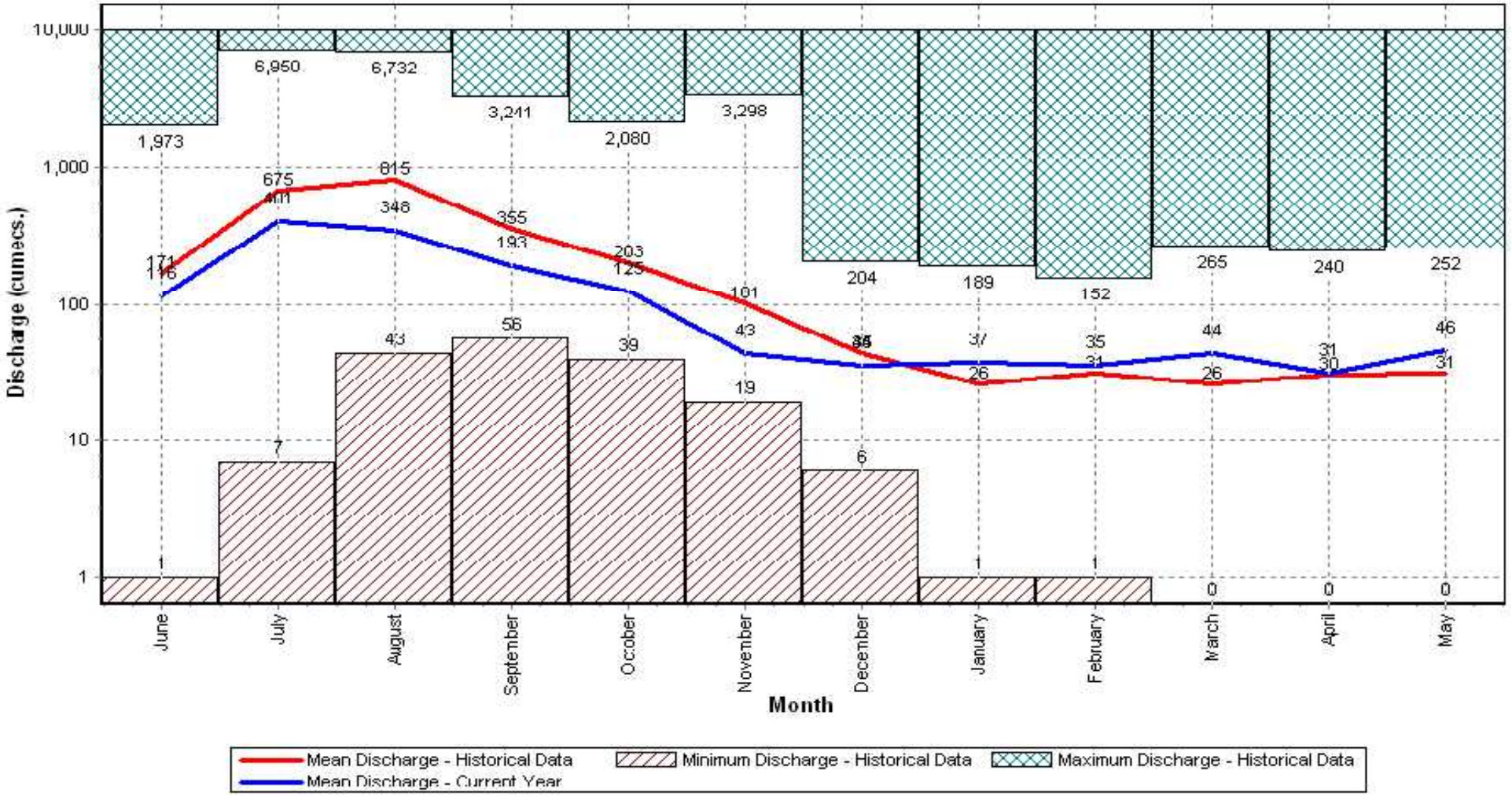
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Data considered : 1981-2018** **Division : Cauvery Division, Bangalore**

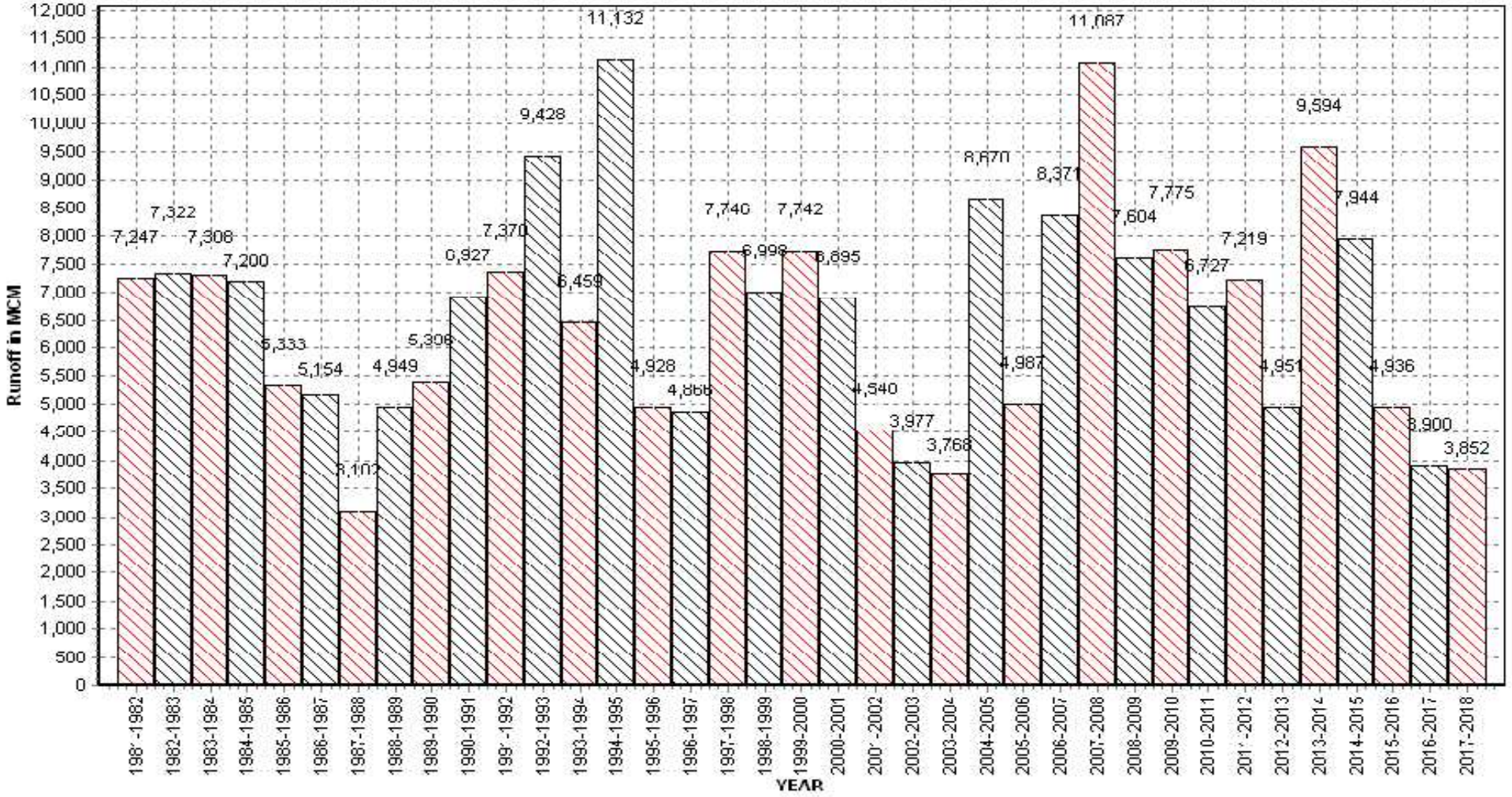
Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Annual Runoff Values for the period: 1981 - 2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



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

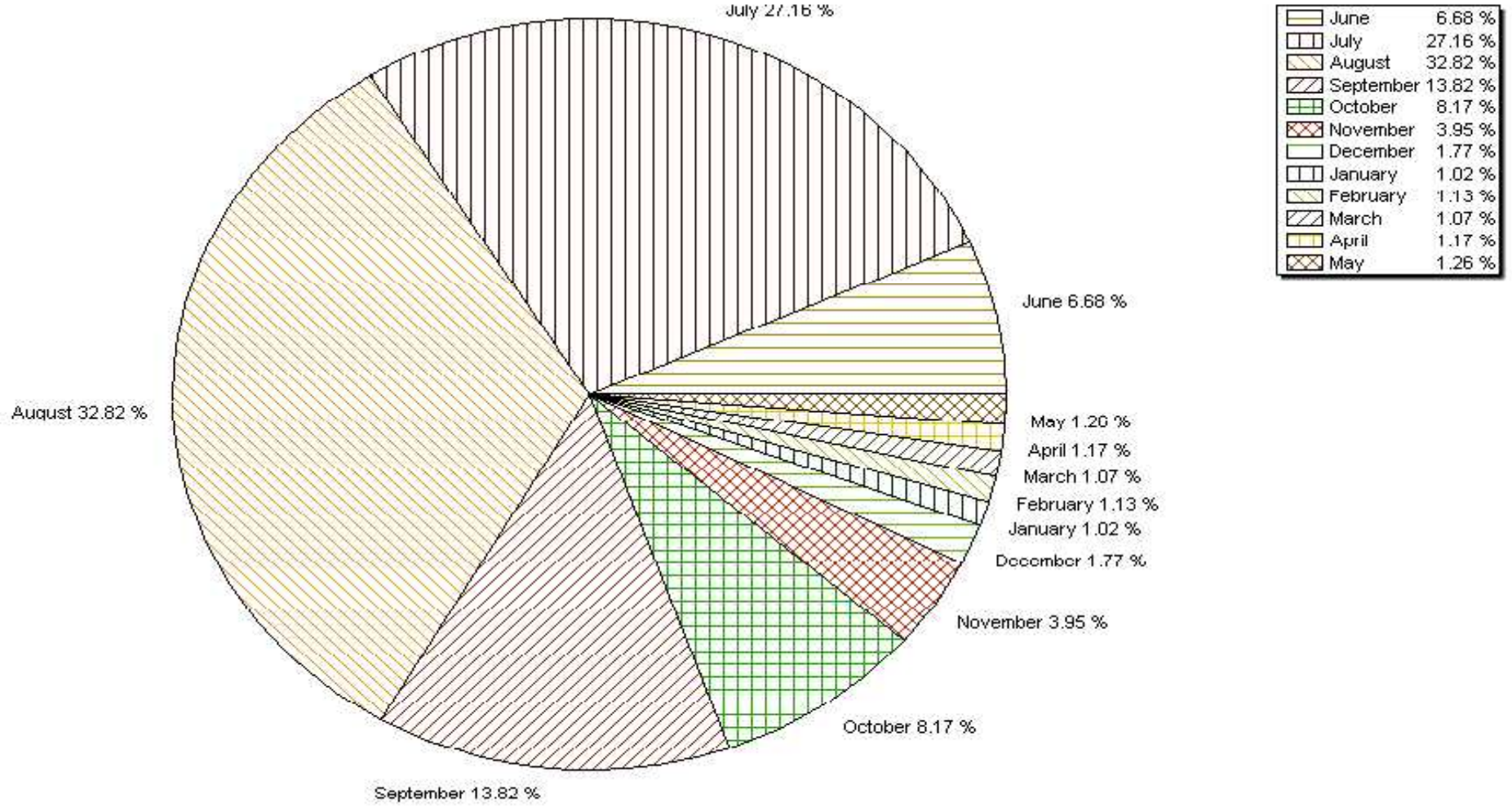
Monthly Average Runoff based on period : 1981-2017

Station Name : HONNALI (AKL00X6)

Division : Cauvery Division, Bangalore

Local River : Tungabhadra

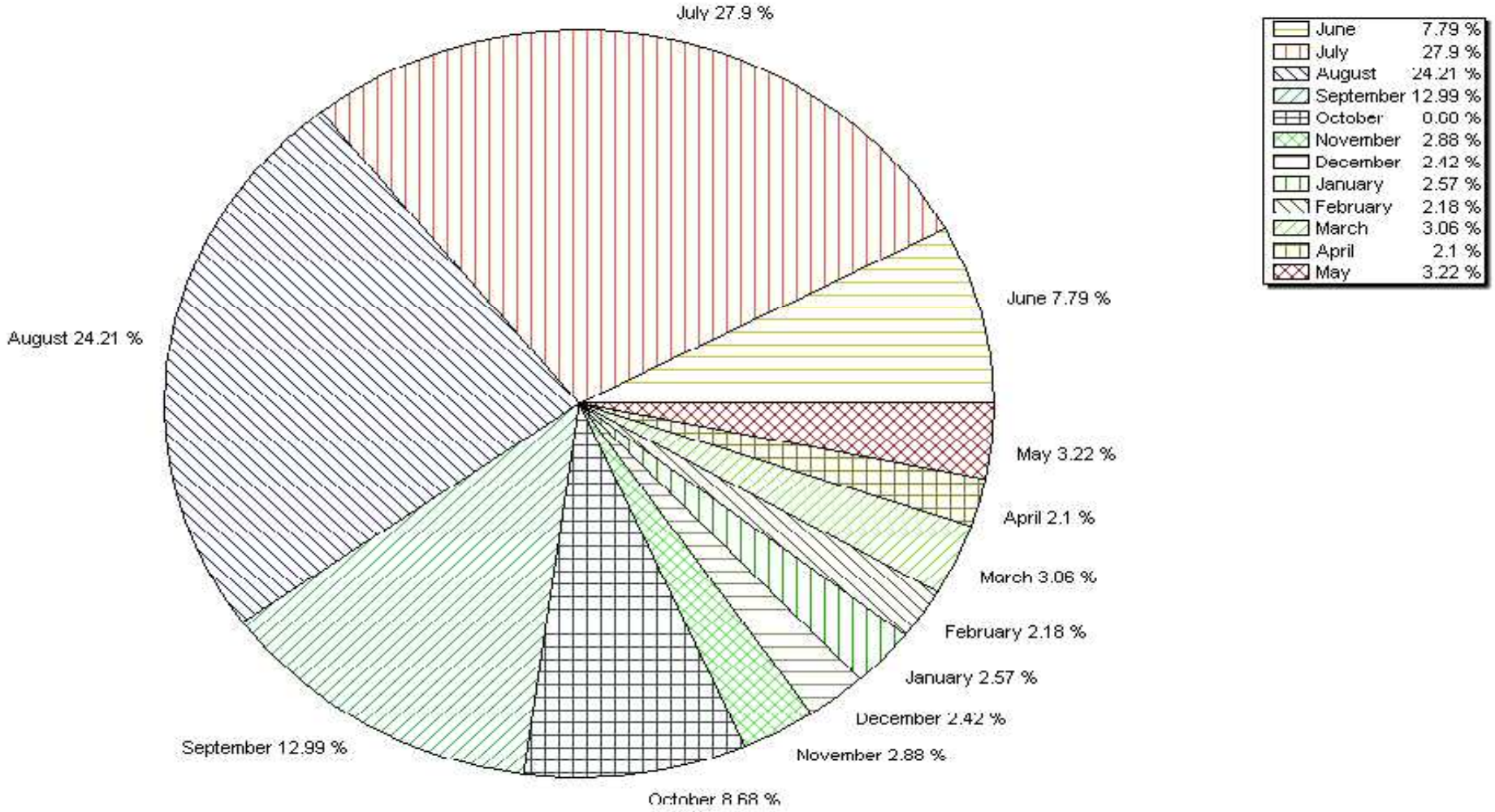
Sub-Division : Upper Tunga Subdn, Devangere



Monthly Runoff for the Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

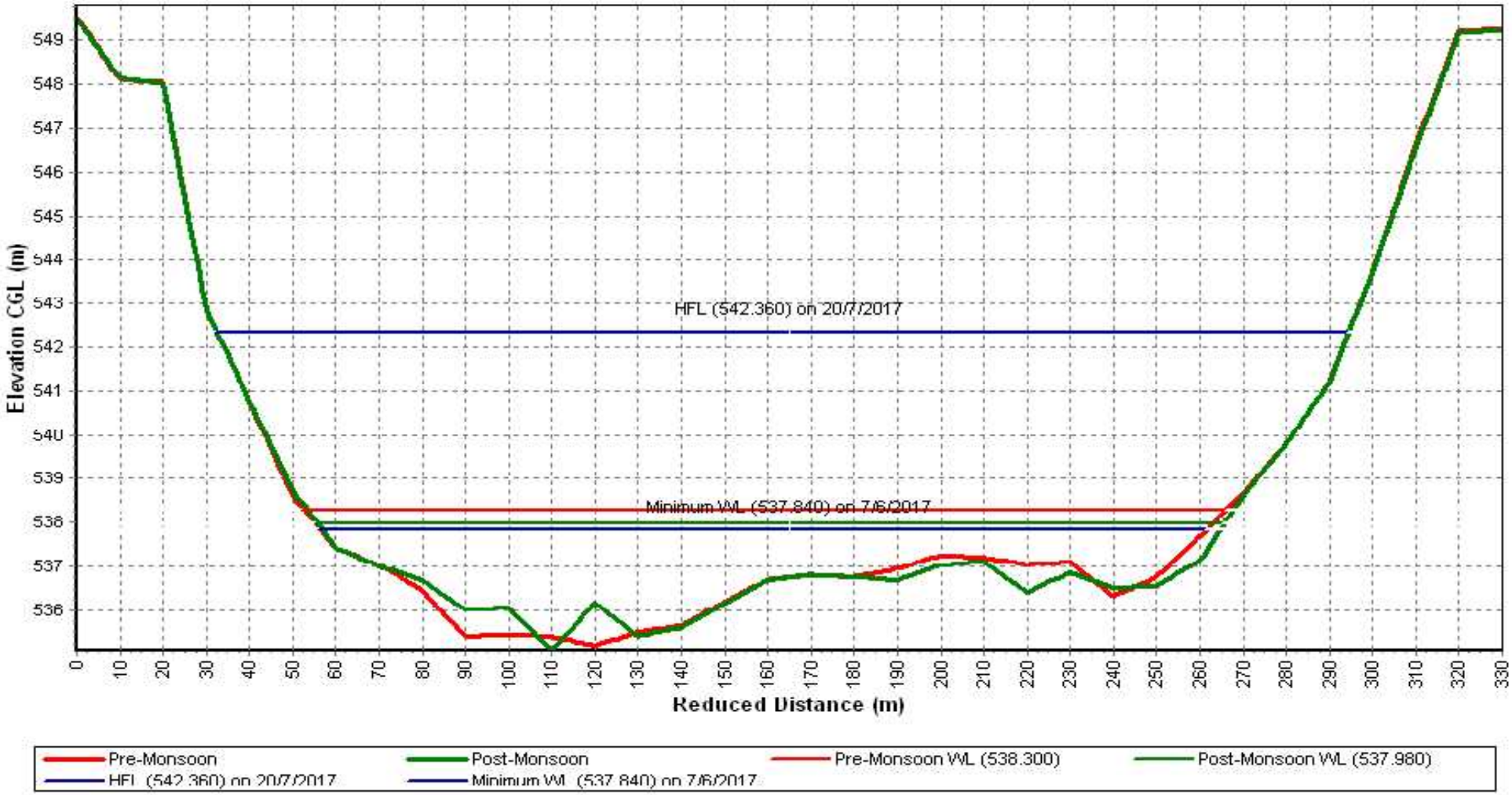
Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

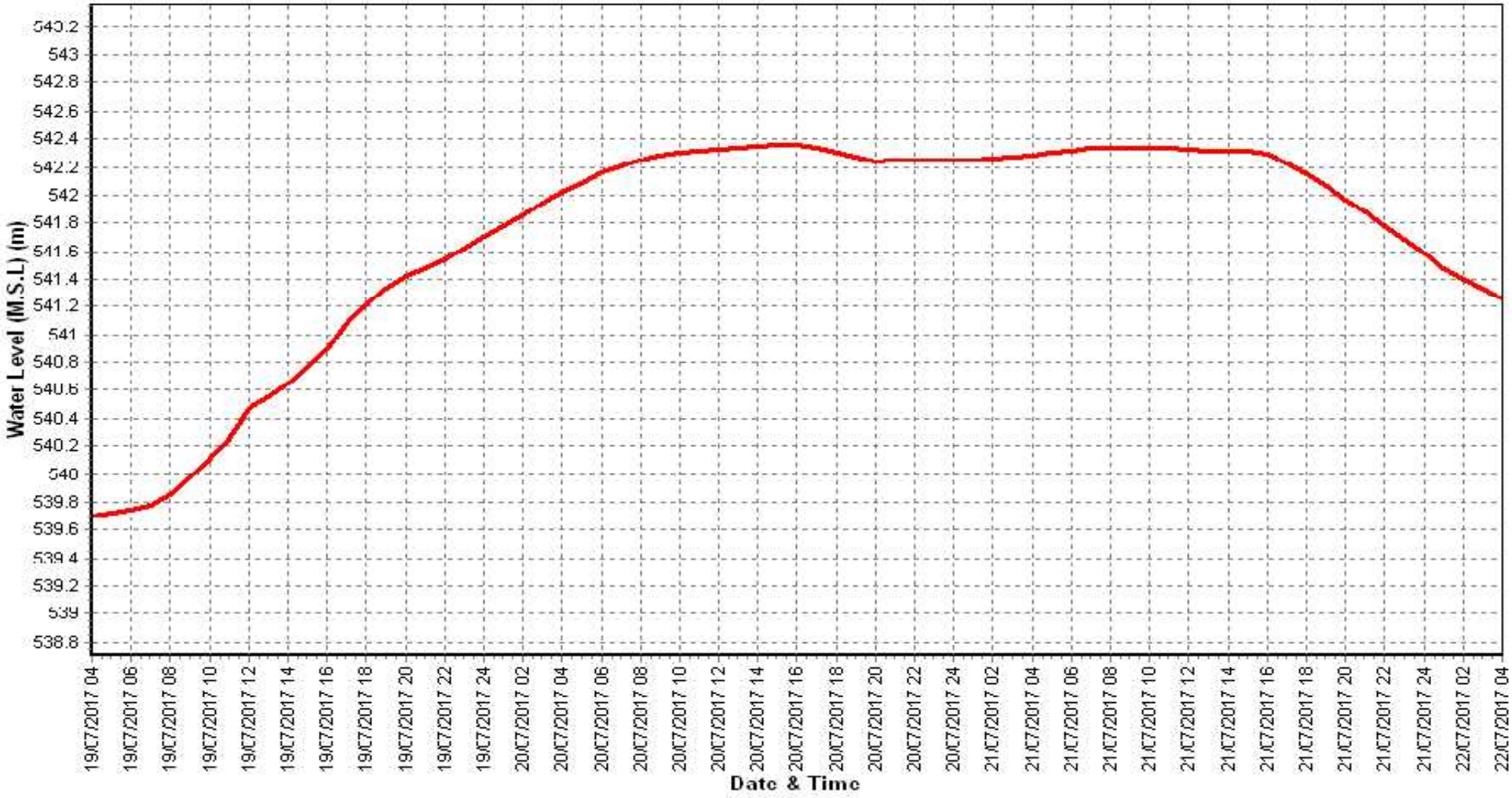
Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

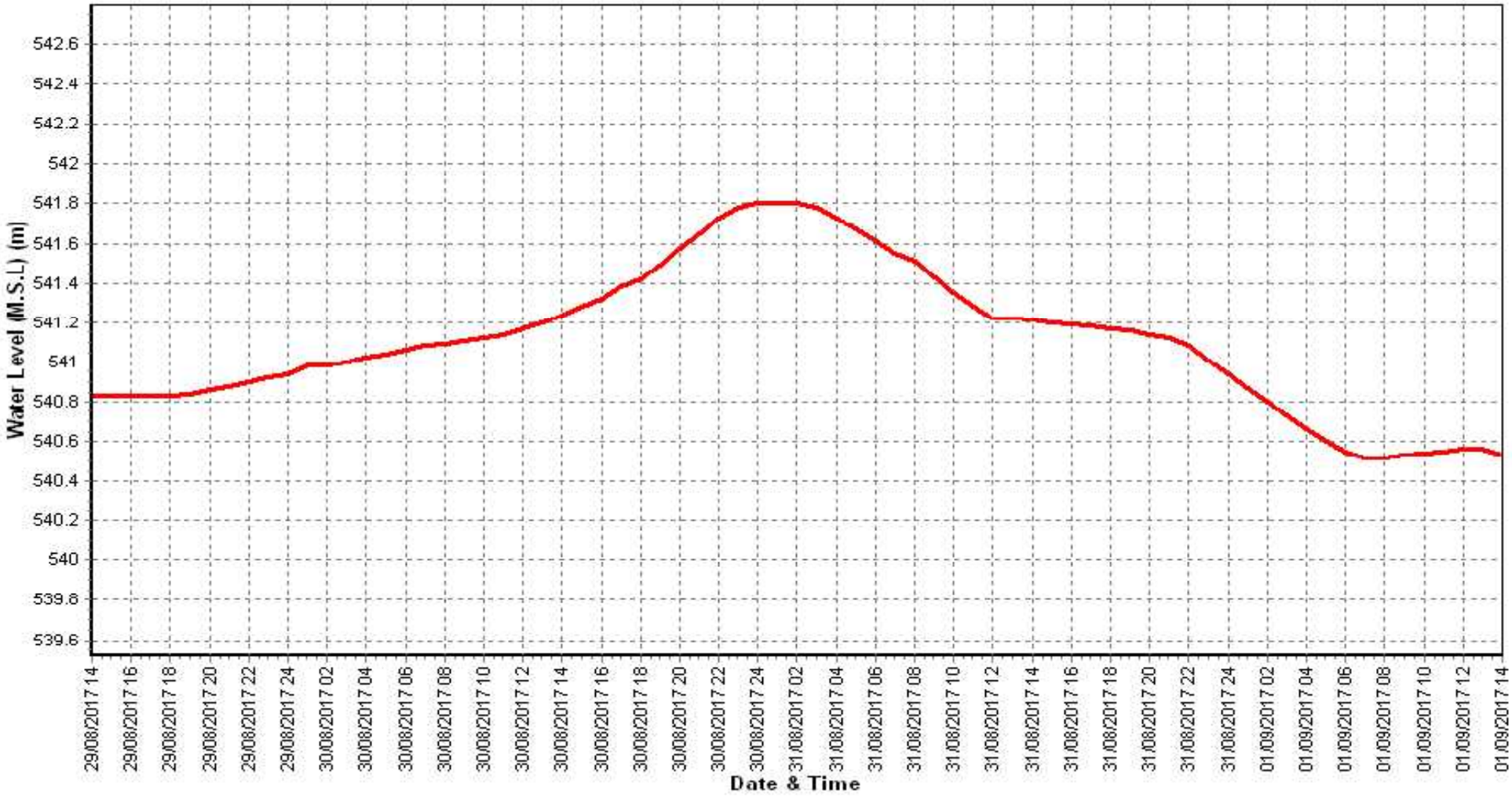


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**

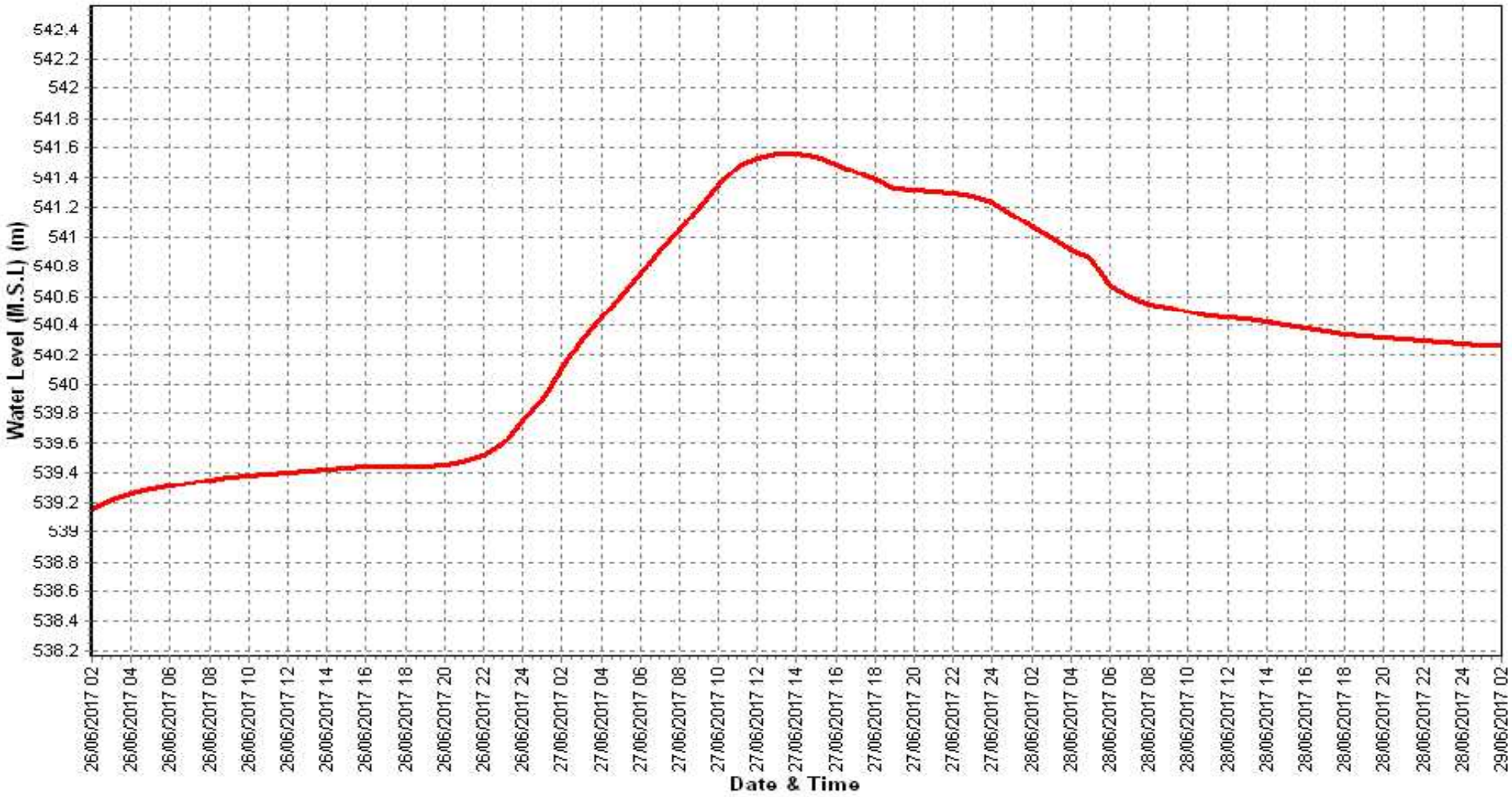


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

Local River : Tungabhadra **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: SHIMOGA**		**Code**	**: AKLD0C6**	
State	: Karnataka		District	Shimoga	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Tungabhadra		Sub Tributary	:	
Sub-Sub Tributary	:		Local River	: Tunga	
Division	: Cauvery Division, Bangalore		Sub-Division	: Upper Tunga Subdn, Devangere	
Drainage Area	: 2831 Sq. Km.		Bank	: Right	
Latitude	: 13°55'37"		Longitude	: 75°35'06"	
Zero of Gauge (m)	: 558.33 (m.s.l)		01/06/2010		
	Opening Date		Closing Date		
Gauge	: 21/06/1971		HFL During 2017-18	: 565.78m	
			Corres. Discharge	: 1920(Estimated)	
Discharge	: 22/01/1972		Date & Time of occurance	: 19/07/2017 : 21.00 hrs.	
Sediment	: 14/09/1972				
Water Quality	: 01/01/1973				

HFL Recorded so far in m : 567.950 dt 02-08-2014
Corresponding Discharge (cumecs) : 3236 *

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	2326	562.874	19/08/1981	0.300	557.110	18/04/1982
1982-1983	4124	564.760	03/08/1982	0.000	557.000	03/05/1983
1983-1984	2588	563.170	23/07/1983	0.000	557.040	10/06/1983
1984-1985	2907	563.420	19/07/1984	0.800	557.180	06/05/1985
1985-1986	2034	562.590	27/06/1985	0.600	557.170	29/05/1986
1986-1987	2452	562.910	10/08/1986	0.000	557.120	04/05/1987
1987-1988	1146	561.070	09/07/1987	0.370	557.140	02/03/1988
1988-1989	2513	563.080	19/07/1988	0.230	557.080	31/05/1989
1989-1990	2687	563.265	25/07/1989	0.000	557.100	14/04/1990
1990-1991	2141	562.570	18/08/1990	0.069	557.090	18/03/1991
1991-1992	2715	563.258	28/07/1991	0.027	557.083	03/04/1992
1992-1993	2238	562.658	27/07/1992	0.947	557.232	02/06/1992
1993-1994	1622	561.749	16/08/1993	0.167	557.187	13/03/1994
1994-1995	3080	563.950	16/07/1994	0.194	557.150	07/04/1995
1995-1996	1820	562.075	01/09/1995	0.000	557.030	08/05/1996
1996-1997	1546	561.650	24/07/1996	0.000	557.060	11/06/1996
1997-1998	2890	563.400	08/08/1997	0.000	557.180	04/05/1998
1998-1999	1890	562.240	04/07/1998	0.451	557.240	22/04/1999
1999-2000	3215	563.460	19/07/1999	0.286	557.240	04/04/2000

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	3020	563.340	14/07/2000	0.000	557.150	03/04/2001
2001-2002	1367	561.435	09/07/2001	0.000	557.150	06/04/2002
2002-2003	1539	561.430	18/08/2002	0.000	557.170	14/04/2003
2003-2004	1314	561.140	24/06/2003	0.000	557.160	08/04/2004
2004-2005	2203	563.530	05/08/2004	0.000	557.120	11/04/2005
2005-2006	2695	563.370	03/08/2005	0.010	557.120	04/04/2006
2006-2007	2452	563.460	12/08/2006	0.000	557.060	31/01/2007
2007-2008	2563	564.110	07/08/2007	0.000	557.185	19/06/2007
2008-2009	3069	564.120	12/08/2008	0.000	558.030	12/04/2009
2009-2010	3688	564.260	17/07/2009	0.000	557.630	05/02/2010
2010-2011	2017	566.110	29/07/2010	0.000	561.510	12/06/2010
2011-2012	2321	566.755	18/07/2011	0.000	561.370	01/06/2011
2012-2013	3153	567.635	08/08/2012	0.210	561.130	02/05/2013
2013-2014	2450	566.885	05/07/2013	0.078	561.470	30/11/2013
2014-2015	2834	567.910	02/08/2014	0.058	561.590	02/07/2014
2015-2016	2023	566.620	20/07/2015	0.708	561.080	18/04/2016
2016-2017	1394	565.520	05/07/2016	0.000	561.630	15/04/2017

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

Annual Runoff of Tunga at Shimoga

SLNo.	**Season**	Monsoon	Non-Monsoon	Annual
1	**1981-1982**	5744	119	5862
2	**1982-1983**	5272	86	5358
3	**1983-1984**	4953	199	5153
4	**1984-1985**	5097	119	5217
5	**1985-1986**	4104	115	4220
6	**1986-1987**	4100	90	4190
7	**1987-1988**	2464	145	2609
8	**1988-1989**	3962	80	4042
9	**1989-1990**	4507	85	4592
10	**1990-1991**	5866	126	5993
11	**1991-1992**	5615	91	5705
12	**1992-1993**	6438	252	6690
13	**1993-1994**	5141	196	5337
14	**1994-1995**	8325	150	8475
15	**1995-1996**	4064	78	4142
16	**1996-1997**	4040	105	4145
17	**1997-1998**	6163	188	6351
18	**1998-1999**	5318	213	5531
19	**1999-2000**	6065	120	6185
20	**2000-2001**	5481	96	5577
21	**2001-2002**	4218	76	4294
22	**2002-2003**	3538	77	3615
23	**2003-2004**	3426	57	3482
24	**2004-2005**	4218	56	4274
25	**2005-2006**	6070	150	6220
26	**2006-2007**	6277	89	6366
27	**2007-2008**	6989	314	7303
28	**2008-2009**	5743	147	5890
29	**2009-2010**	6010	75	6086
30	**2010-2011**	4989	73	5062
31	**2011-2012**	5902	117	6020
32	**2012-2013**	4497	75	4572
33	**2013-2014**	7577	136	7712
34	**2014-2015**	6497	176	6673
35	**2015-2016**	3542	128	3670
36	**2016-2017**	3439	93	3532
37	**2017-2018**	3643	105	3748
Average		5116	124	5240

Stage-Discharge Data for the period 2017 - 2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**

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	561.140	0.000	563.210	343.7	563.030	269.0	563.300	364.2	562.750	139.7 *	562.260	40.23
2	561.130	0.000	563.690	505.2 *	563.040	270.9	563.260	314.4 *	562.960	204.5 *	562.170	35.27
3	561.140	0.000	563.420	390.6	562.920	197.7	563.060	238.9 *	562.970	257.9	562.420	43.28
4	561.770	0.000	563.190	339.3	562.910	196.3	563.060	274.7	563.060	274.7	562.020	31.89 *
5	561.510	0.000	563.330	369.6	564.730	896.0	562.880	192.0	562.850	187.7	562.030	32.20 *
6	561.330	0.000	563.050	272.8	564.050	693.2 *	562.800	137.2	562.770	134.0	561.970	30.16
7	561.260	0.000	563.260	355.0	563.490	406.2	563.060	274.7	562.930	199.1	562.060	32.92
8	561.270	0.000	563.240	350.5	563.140	328.2	563.050	272.8	562.940	197.9 *	562.050	32.61
9	561.250	0.000	563.130	253.3 *	563.030	269.0	562.880	192.0	562.710	126.5	561.970	30.16
10	561.230	0.000	563.050	272.8	563.050	272.8	562.890	181.8 *	562.740	130.9	561.960	29.86
11	561.240	0.000	562.760	133.0	563.010	265.3	562.880	192.0	562.680	100.2	561.860	27.30
12	561.330	0.000	562.750	131.9	562.930	250.5	562.810	139.6	562.623	85.45	562.000	31.28 *
13	561.530	0.000	562.910	196.3	563.470	402.9 *	562.730	134.1	562.690	100.9	562.090	33.86
14	562.410	42.96	562.960	256.0	563.060	274.7	562.660	97.59	562.830	184.9	562.110	34.49
15	562.720	127.4	562.990	261.6	562.960	204.5 *	562.700	101.4	562.680	120.4 *	562.140	35.45
16	562.630	86.68	563.180	322.5 *	562.840	186.3	562.670	99.44	562.680	100.2	562.150	34.20
17	562.710	126.5	563.440	395.4	562.920	197.7	562.740	136.9 *	562.700	101.7	561.670	22.19
18	562.690	123.1 *	563.140	328.2	562.780	135.1	562.930	199.1	562.630	53.97 *	561.560	19.56 *
19	562.720	127.4	564.870	996.1	562.910	196.3	563.070	276.6	562.540	50.28 #	561.870	27.48 *
20	562.620	85.45	565.750	1625	563.810	565.1 *	563.070	276.6	562.410	42.96	562.280	40.93
21	562.590	85.32	565.710	1602	564.270	756.5	563.030	269.0	562.410	42.96	562.530	49.88 #
22	562.590	85.32	564.570	833.7	564.270	756.5	562.780	135.1	562.510	49.08 *	562.440	43.98
23	562.540	73.62	563.700	665.6 *	563.640	442.7	562.780	135.1	562.460	47.33	562.370	41.74
24	562.610	86.65	563.590	430.3	563.250	352.8	562.750	139.7 *	562.380	48.28	562.260	40.24
25	563.000	218.0 *	563.610	435.2	563.270	318.4 *	562.660	98.71	562.500	48.69 #	562.250	39.89
26	563.420	381.0 *	563.470	401.4	563.420	390.6	562.680	100.2	562.570	51.41 #	562.250	39.42 *
27	564.910	1013	563.330	369.6	564.150	749.8 *	562.690	100.9	562.330	46.46	562.310	42.32
28	563.770	583.5	562.950	254.2	564.680	876.4	563.080	278.5	562.410	42.96	562.320	42.33
29	563.470	402.5	563.790	589.8	564.110	697.8	563.110	257.0 *	562.510	49.08 *	562.350	47.22
30	563.180	337.0	563.440	389.7 *	564.730	896.0	563.050	272.8	562.420	43.29	562.200	39.55
31			563.100	319.4	564.500	807.8			562.340	46.85		
Ten-Daily Mean												
I Ten-Daily	561.303	0.000	563.257	345.3	563.339	379.9	563.024	244.3	562.868	185.3	562.091	33.86
II Ten-Daily	562.260	71.95	563.475	464.6	563.069	267.8	562.826	165.3	562.646	94.09	561.973	30.67
III Ten-Daily	563.208	326.6	563.751	571.9	564.026	640.5	562.861	178.7	562.440	46.94	562.328	42.66
Monthly												
Min.	561.130	0.000	562.750	131.9	562.780	135.1	562.660	97.59	562.330	42.96	561.560	19.56
Max.	564.910	1013	565.750	1625	564.730	896.0	563.300	364.2	563.060	274.7	562.530	49.88
Mean	562.257	132.9	563.503	464.2	563.496	436.2	562.904	196.1	562.645	106.8	562.131	35.73

Annual Runoff in MCM = 3748 Annual Runoff in mm = 1324

Peak Observed Discharge = 1625 cumecs on 20/07/2017 Corres. Water Level :565.75 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :561.14 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 2017 - 2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	562.080	33.54	562.020	31.68	561.340	0.000	561.470	0.000	561.340	0.000	561.360	0.000
2	562.130	36.01 *	561.850	22.63	561.340	0.000	561.500	0.000	561.340	0.000	561.350	0.000
3	562.100	34.55 *	561.910	28.38	561.330	0.000	561.500	0.000	561.350	0.000	561.330	0.000
4	562.110	34.49	561.840	22.24	561.330	0.000	561.480	0.000	561.340	0.000	561.500	0.000
5	562.130	35.13	561.580	0.000	561.370	0.000	561.500	0.000	561.350	0.000	561.600	0.000
6	562.290	41.27	562.230	39.25	561.400	0.000	561.490	0.000	561.340	0.000	561.570	0.000
7	562.330	46.46	561.950	27.79 *	561.430	0.000	561.500	0.000	561.350	0.000	561.600	0.000
8	562.110	34.49	561.550	0.000	561.450	0.000	561.500	0.000	561.380	0.000	561.610	0.000
9	562.180	41.33	561.450	0.000	561.490	0.000	561.450	0.000	561.410	0.000	561.670	0.000
10	562.090	34.08 *	561.780	20.96	561.520	0.000	561.470	0.000	561.330	0.000	561.680	0.000
11	562.080	33.54	561.540	0.000	561.520	0.000	561.480	0.000	561.260	0.000	561.860	22.87
12	562.090	33.86	561.500	0.000	561.610	0.000	561.360	0.000	561.320	0.000	561.780	20.96
13	562.090	33.86	561.500	0.000	561.620	0.000	561.340	0.000	561.460	0.000	561.650	0.000
14	562.090	33.86	561.530	0.000	561.630	0.000	561.380	0.000	561.520	0.000	561.550	0.000
15	562.070	33.23	561.530	0.000	561.610	0.000	561.410	0.000	561.560	0.000	561.480	0.000
16	562.130	35.13	561.490	0.000	561.540	0.000	561.460	0.000	561.570	0.000	561.480	0.000
17	562.010	30.39 *	561.480	0.000	561.480	0.000	561.400	0.000	561.550	0.000	561.440	0.000
18	562.020	31.68	561.450	0.000	561.430	0.000	561.340	0.000	561.530	0.000	561.560	0.000
19	561.990	30.77	561.490	0.000	561.410	0.000	561.380	0.000	561.530	0.000	561.710	0.000
20	561.940	29.27	561.450	0.000	561.400	0.000	561.400	0.000	561.480	0.000	561.580	0.000
21	561.850	22.51	561.400	0.000	561.380	0.000	561.470	0.000	561.460	0.000	561.450	0.000
22	562.000	31.07	561.390	0.000	561.360	0.000	561.510	0.000	561.440	0.000	561.430	0.000
23	561.950	29.56	561.380	0.000	561.350	0.000	561.580	0.000	561.490	0.000	561.410	0.000
24	561.910	26.13 *	561.430	0.000	561.340	0.000	561.590	0.000	561.480	0.000	561.360	0.000
25	561.910	26.13 *	561.430	0.000	561.370	0.000	561.590	0.000	561.460	0.000	561.350	0.000
26	561.930	28.97	561.430	0.000	561.360	0.000	561.540	0.000	561.450	0.000	561.330	0.000
27	561.910	28.38	561.420	0.000	561.450	0.000	561.490	0.000	561.460	0.000	561.310	0.000
28	561.810	21.67	561.410	0.000	561.450	0.000	561.440	0.000	561.420	0.000	561.290	0.000
29	561.840	22.39	561.370	0.000			561.410	0.000	561.390	0.000	561.280	0.000
30	561.850	22.63	561.360	0.000			561.390	0.000	561.370	0.000	561.330	0.000
31	561.830	23.00 *	561.350	0.000			561.360	0.000			561.370	0.000
Ten-Daily Mean												
I Ten-Daily	562.155	37.14	561.816	19.29	561.400	0.000	561.486	0.000	561.353	0.000	561.527	0.000
II Ten-Daily	562.051	32.56	561.496	0.000	561.525	0.000	561.395	0.000	561.478	0.000	561.609	4.383
III Ten-Daily	561.890	25.68	561.397	0.000	561.382	0.000	561.488	0.000	561.442	0.000	561.355	0.000
Monthly												
Min.	561.810	21.67	561.350	0.000	561.330	0.000	561.340	0.000	561.260	0.000	561.280	0.000
Max.	562.330	46.46	562.230	39.25	561.630	0.000	561.590	0.000	561.570	0.000	561.860	22.87
Mean	562.027	31.59	561.564	6.223	561.440	0.000	561.457	0.000	561.424	0.000	561.493	1.414

Peak Computed Discharge = 749.8 cumecs on 27/08/2017 Corres. Water Level :564.15 m

Lowest Computed Discharge = 19.56 cumecs on 18/11/2017 Corres. Water Level :561.56 m

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

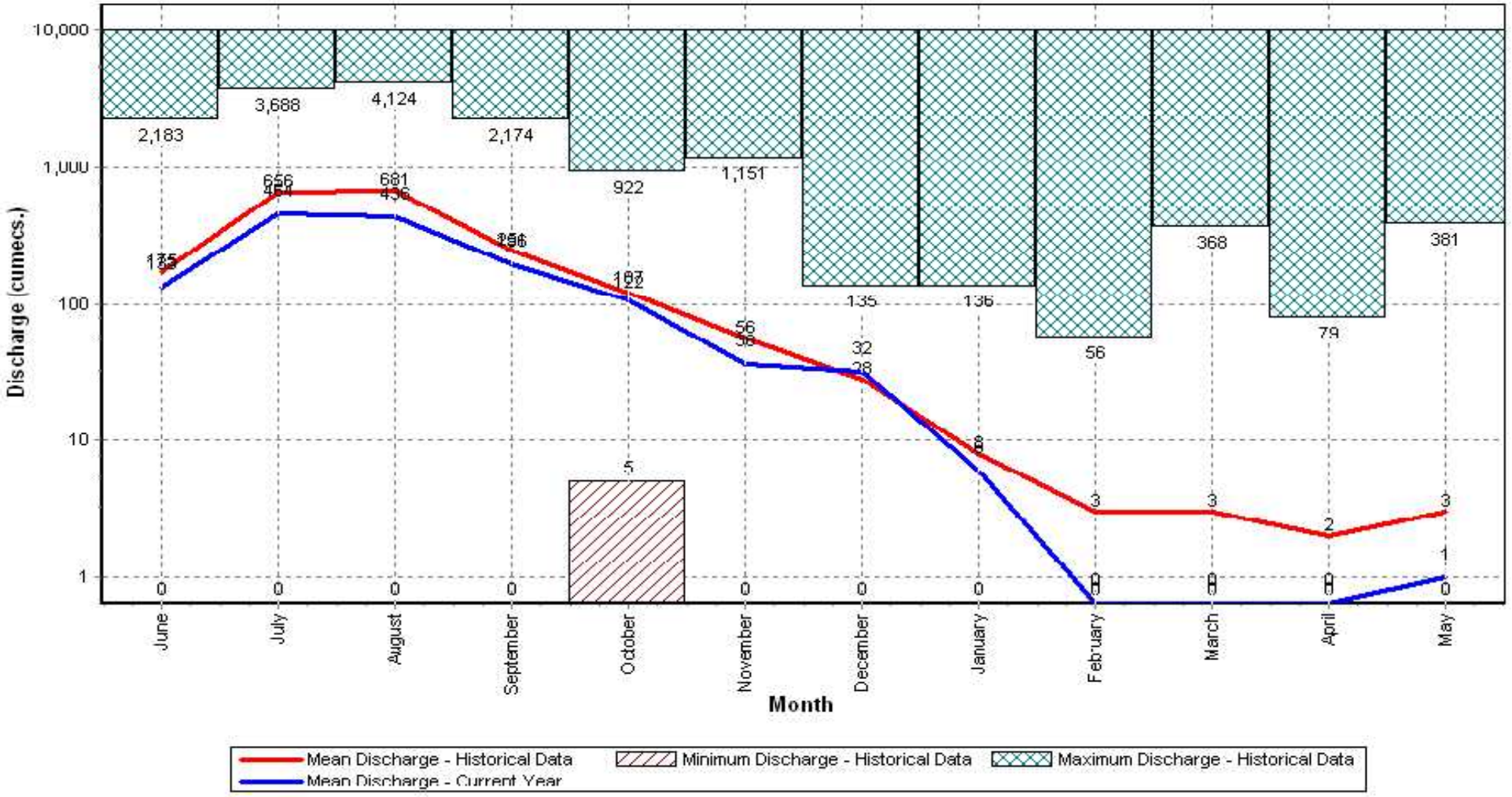
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6) **Data considered : 1981-2018** **Division : Cauvery Division, Bangalore**

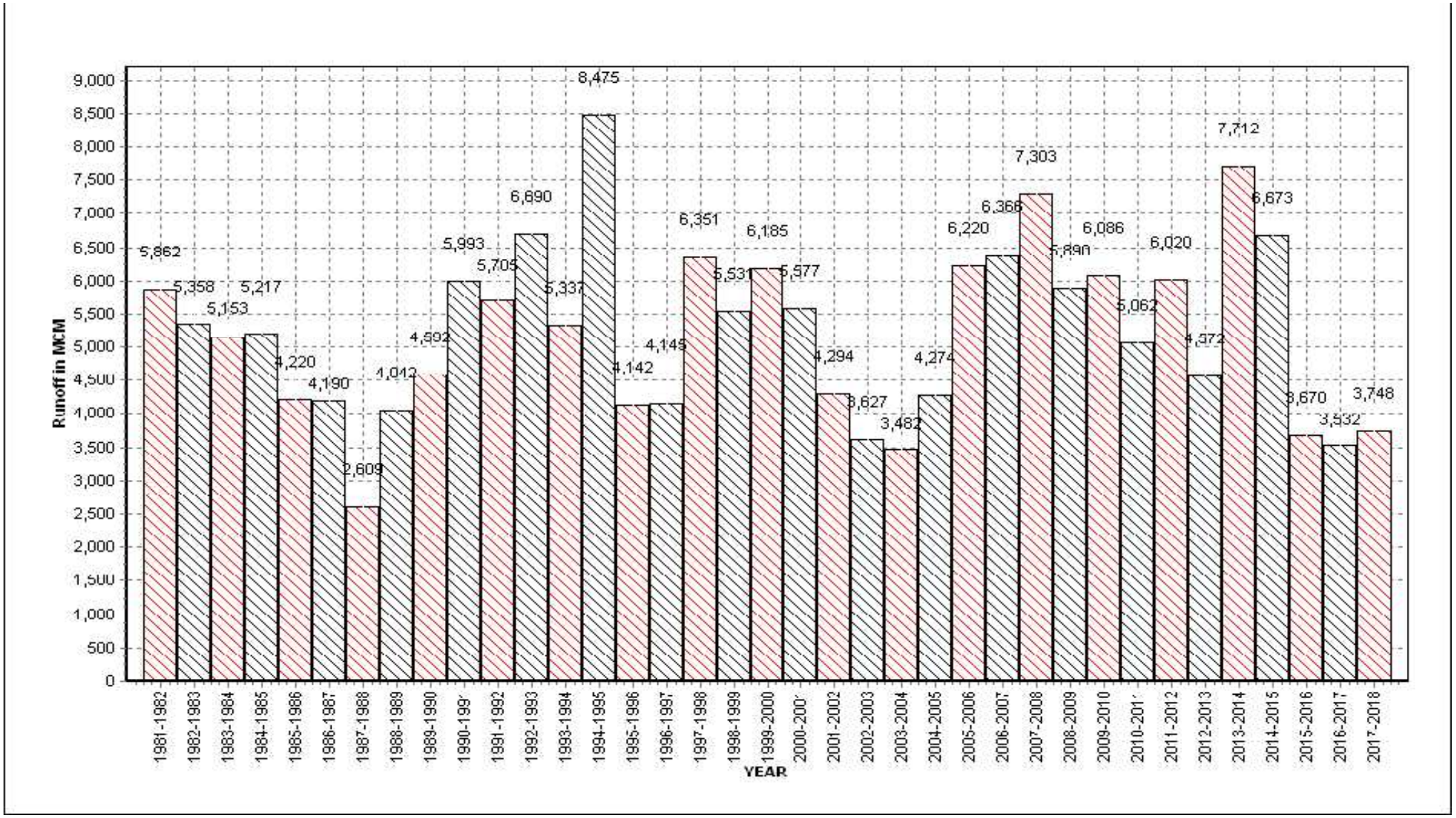
Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**



Annual Runoff Values for the period: 1981 - 2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**



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

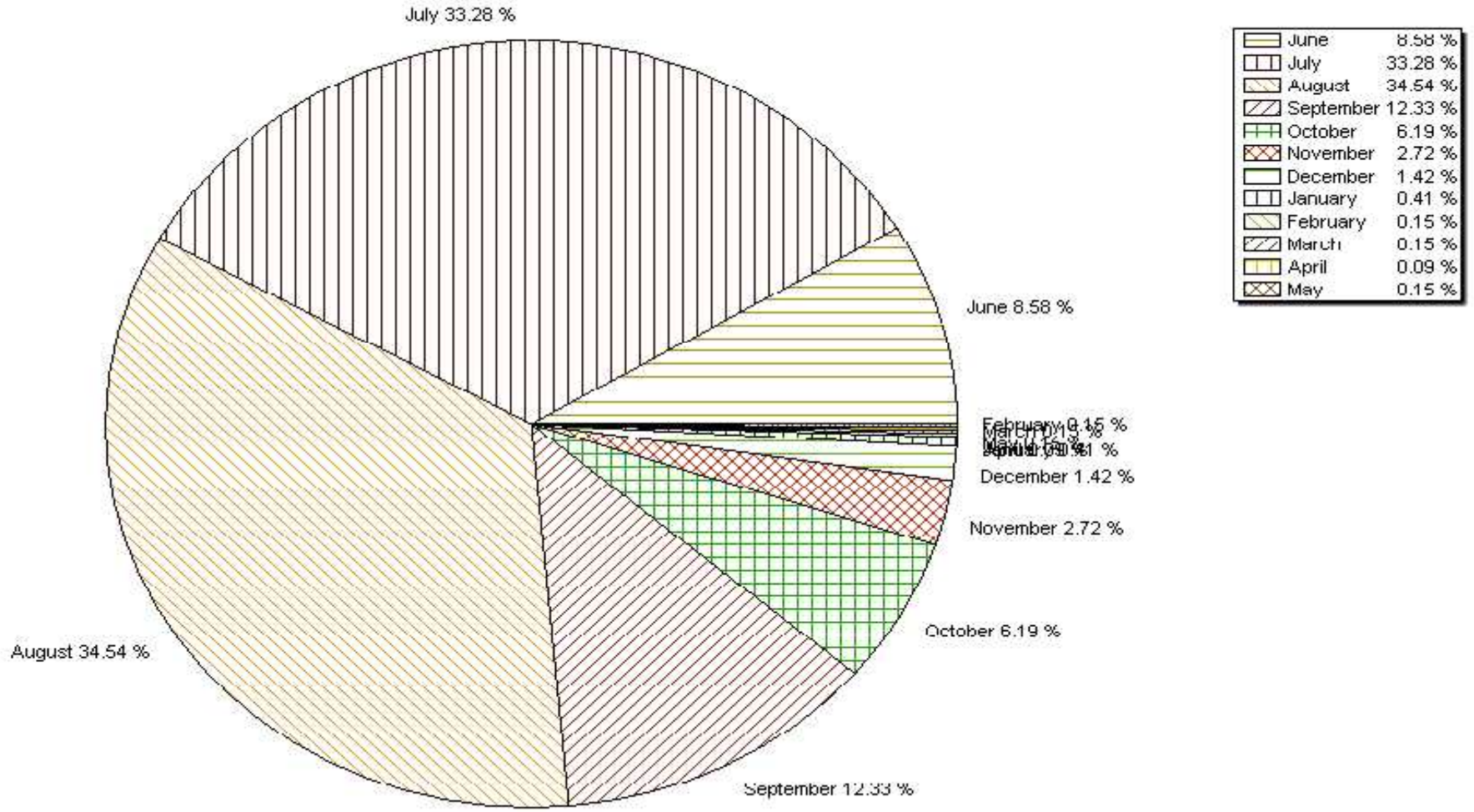
Monthly Average Runoff based on period : 1981-2017

Station Name : SHIMOGA (AKLD0C6)

Division : Cauvery Division, Bangalore

Local River : Tunga

Sub-Division : Upper Tunga Subdn, Devangere



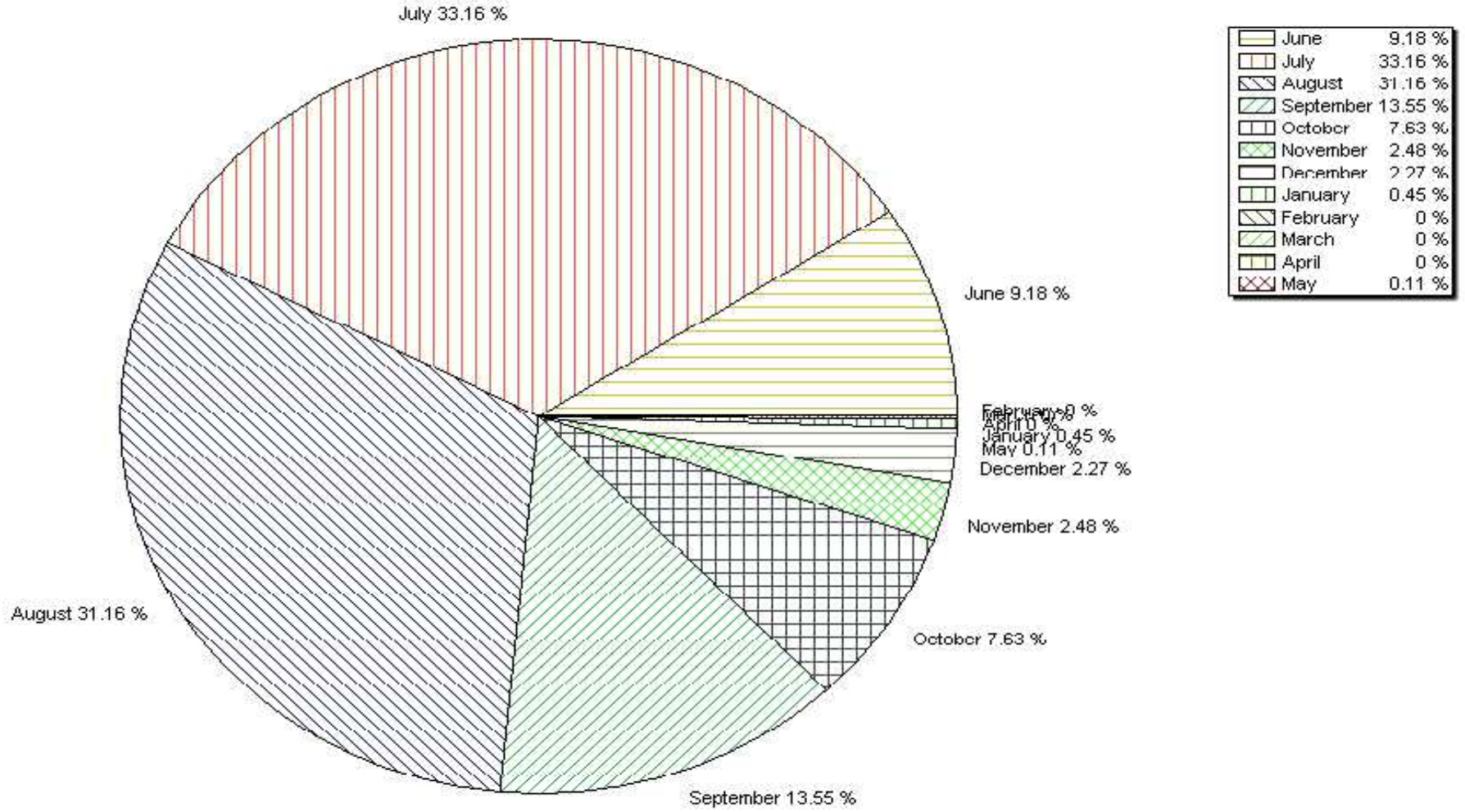
Monthly Runoff for the Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6)

Division : Cauvery Division, Bangalore

Local River : Tunga

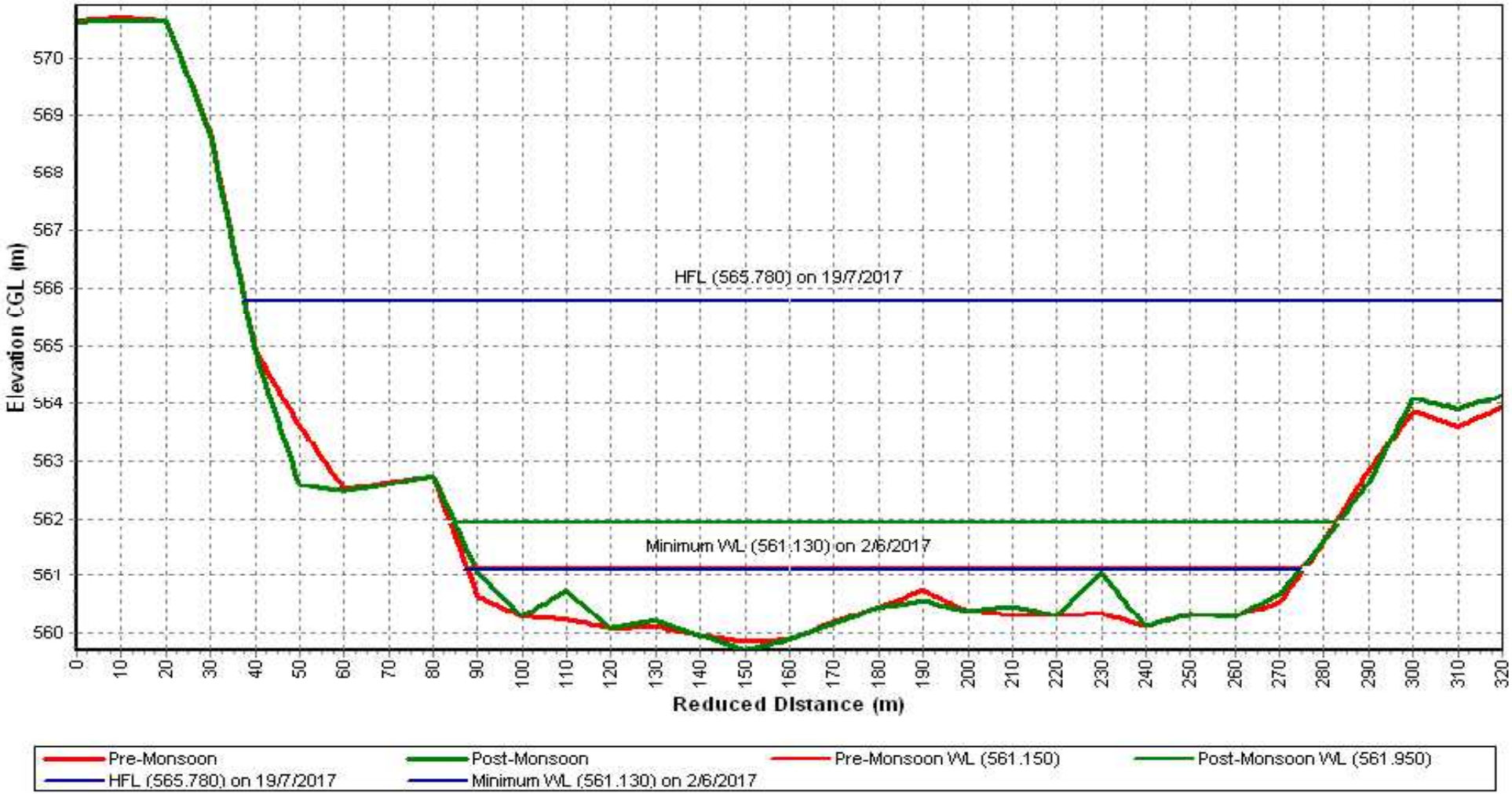
Sub-Division : Upper Tunga Subdn, Devangere



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

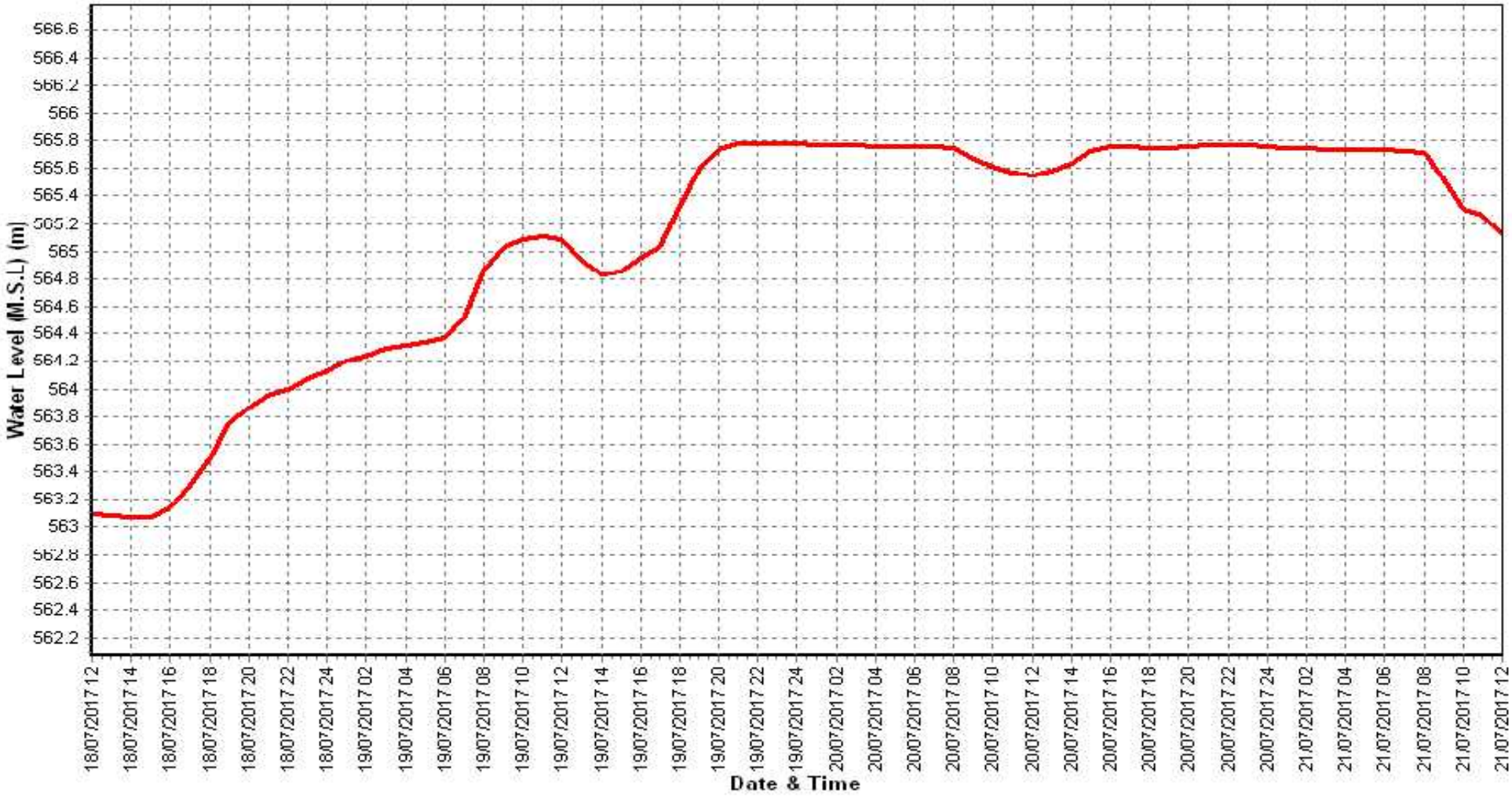
Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**

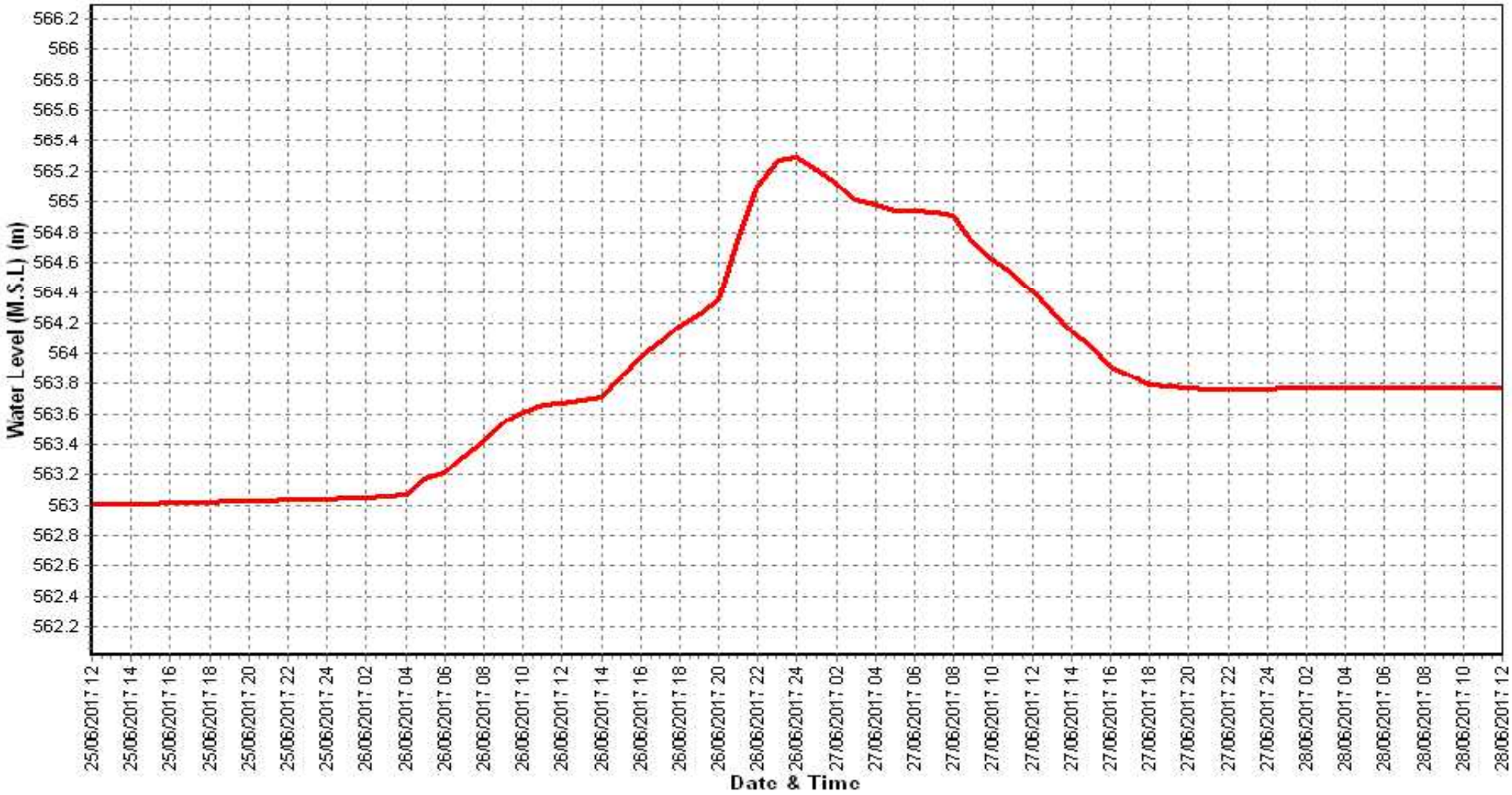


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

Local River : Tunga **Sub-Division : Upper Tunga Subdn, Devangere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**HOLEHONNUR**	**Code**	**:**	**AKLE0A4**
State	:	Karnataka	District		Shimoga
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	Bhadra
Sub-Sub Tributary	:	-	Local River	:	Bhadra
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga Subdn, Davanagere
Drainage Area	:	2990 Sq. Km.	Bank	:	Right
Latitude	:	13°58'34"	Longitude	:	75°41'07"
Zero of Gauge (m)	:	552.725 (m.s.l)	01/06/2010		
		Opening Date	Closing Date		
Gauge	:	26/11/1997	HFL During 2017-18	:	556.48m
			Corres. Discharge	:	106.2(Estimated)
Discharge	:	01/07/2003	Date & Time of occurance	:	13/08/2017 12.00 hrs.
Sediment	:				
Water Quality	:	01/07/2003			

HFL Recorded so far in m : 562.215 dt 02-08-2013
Corresponding Discharge (cumecs) : 1280 *

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	19.05	89.810	03/01/2005	0.000	89.860	08/01/2005
2005-2006	623.5	94.580	17/08/2005	1.620	89.450	09/01/2006
2006-2007	722.7	94.260	18/08/2006	1.205	89.268	06/01/2007
2007-2008	1176	95.760	07/08/2007	5.273	89.650	19/06/2007
2008-2009	1758	96.390	14/08/2008	0.000	90.130	20/04/2009
2009-2010	1114	94.850	06/09/2009	0.846	89.380	16/01/2010
2010-2011	629.7	559.570	05/10/2010	4.707	555.635	20/12/2010
2011-2012	939.0	560.870	02/09/2011	3.811	555.495	08/01/2012
2012-2013	462.0	559.215	08/08/2012	1.223	555.545	19/05/2013
2013-2014	1242	561.985	03/08/2013	8.715	555.705	13/12/2013
2014-2015	963.1	561.040	06/08/2014	6.642	555.625	30/06/2014
2015-2016	383.7	558.405	20/07/2015	9.460	555.735	05/01/2016
2016-2017	105.7	556.695	29/03/2017	10.98	555.785	06/03/2017

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

Annual Runoff of Bhadra at Holehonnur

SL.No	**Season**	Monsoon	Non-Monsoon	Annual
1	**2003-2004**	2	5	6
2	**2004-2005**	40	45	85
3	**2005-2006**	1074	382	1456
4	**2006-2007**	1057	414	1471
5	**2007-2008**	2426	482	2907
6	**2008-2009**	1501	761	2262
7	**2009-2010**	1834	683	2517
8	**2010-2011**	1579	776	2355
9	**2011-2012**	1507	735	2242
10	**2012-2013**	805	655	1460
11	**2013-2014**	2187	708	2895
12	**2014-2015**	1754	447	2201
13	**2015-2016**	920	540	1460
14	**2016-2017**	473	510	983
15	**2017-2018**	291	553	844
Average		1163	513	1676

Stage-Discharge Data for the period 2017 - 2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

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	555.855	14.07	555.865	14.74	555.835	14.77	555.995	28.84	556.035	32.17 *	555.795	11.20
2	555.825	12.84	555.865	16.31 *	555.805	12.25	555.945	22.99 *	555.985	26.84 *	555.805	12.79
3	555.825	12.99	555.895	18.58	555.785	12.00	555.925	21.19 *	556.035	33.24	555.785	10.98
4	555.815	12.81 *	555.925	24.59	555.765	11.37	555.905	17.96	555.985	28.53	555.755	9.252 *
5	555.855	14.32	555.815	12.30	555.825	13.20	555.815	13.44	556.045	33.91	555.785	10.94 *
6	555.805	12.66	555.785	12.21	555.895	18.66 *	555.775	11.78	556.035	33.03	555.795	11.34
7	555.775	11.74	555.805	12.39	555.905	18.83	555.785	11.91	556.015	32.20	555.765	10.81
8	555.825	13.15	555.835	13.60	555.945	25.15	555.805	12.49	555.985	26.84 *	555.785	11.32
9	555.835	13.45	555.805	12.17 *	555.995	30.35	555.975	28.04	555.915	18.30	555.805	11.43
10	555.865	15.44	555.825	13.79	556.015	31.41	556.005	28.91 *	555.835	14.06	555.785	10.84
11	555.865	16.31 *	555.845	14.86	555.955	25.36	556.045	33.70	555.815	13.32	555.775	11.09
12	555.885	18.87	555.875	15.05	556.025	32.34	556.025	32.60	556.035	33.26	555.795	11.55 *
13	555.915	24.52	555.835	13.26	556.415	93.04 *	555.995	28.74	556.015	31.95	555.795	11.14
14	555.875	17.75	555.875	15.25	556.045	33.48	555.935	24.20	556.045	34.07	555.825	12.67
15	555.855	14.32	555.855	14.60	555.975	25.84 *	555.895	17.44	556.015	29.98 *	555.835	12.92
16	555.875	17.69	555.815	12.81 *	555.905	18.75	555.845	14.74	555.925	18.74	555.805	11.44
17	555.895	18.41	555.845	13.97	555.885	17.91	555.875	17.07 *	555.915	18.14	555.795	10.94
18	555.835	14.15 *	555.865	15.08	555.835	14.48	555.875	15.11	555.835	14.15 *	555.815	12.46
19	555.815	12.27	555.905	18.76	555.985	28.21	555.845	14.61	555.815	13.14	555.815	12.81 *
20	555.855	14.03	555.985	27.73	555.965	24.87 *	555.805	13.04	555.835	13.95	555.855	15.12
21	555.875	15.25	556.035	32.28	555.885	17.57	555.805	13.22	555.835	13.91	556.015	27.94
22	555.885	15.59	556.045	32.59	555.825	14.20	555.775	12.17	555.855	15.57 *	556.045	29.90
23	555.815	12.13	556.025	31.07 *	555.875	15.08	555.825	13.80	555.855	14.99	556.005	27.51
24	555.805	11.84	556.015	31.25	555.825	13.40	555.845	14.85 *	555.825	13.56	555.955	24.59
25	555.805	12.17 *	555.975	27.11	555.875	17.07 *	555.855	15.06	555.805	13.03	555.885	19.16
26	555.795	11.55 *	555.935	25.04	555.815	13.36	555.815	13.65	555.785	12.28	555.835	14.15 *
27	555.775	11.98	555.845	15.02	555.835	14.15 *	555.805	13.15	555.825	13.90	555.805	11.43
28	555.875	14.85	555.805	12.13	555.875	15.30	555.885	15.84	555.795	11.26	555.795	11.30
29	555.835	13.39	555.825	14.51	555.985	28.91	556.015	29.98 *	555.785	10.94 *	555.815	12.15
30	555.805	11.96	555.845	14.85 *	556.015	31.79	556.045	33.53	555.835	12.81	555.855	15.13
31			555.855	14.87	556.045	34.11			555.805	11.49		
Ten-Daily Mean												
I Ten-Daily	555.828	13.35	555.842	15.07	555.877	18.80	555.893	19.75	555.987	27.91	555.786	11.09
II Ten-Daily	555.867	16.83	555.870	16.14	555.999	31.43	555.914	21.13	555.925	22.07	555.811	12.21
III Ten-Daily	555.827	13.07	555.928	22.79	555.896	19.54	555.867	17.53	555.819	13.07	555.901	19.33
Monthly												
Min.	555.775	11.55	555.785	12.13	555.765	11.37	555.775	11.78	555.785	10.94	555.755	9.252
Max.	555.915	24.52	556.045	32.59	556.415	93.04	556.045	33.70	556.045	34.07	556.045	29.90
Mean	555.841	14.42	555.881	18.15	555.923	23.14	555.891	19.47	555.907	20.76	555.833	14.21

Annual Runoff in MCM = 844 Annual Runoff in mm = 282

Peak Observed Discharge = 136.1 cumecs on 28/03/2018 Corres. Water Level :557.075 m

Lowest Observed Discharge = 9.347 cumecs on 08/01/2018 Corres. Water Level :555.705 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 2017 - 2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	555.825	12.31	555.745	11.73	556.025	28.61	555.935	23.32	555.995	26.37 *	555.985	24.60
2	555.795	13.98 *	555.735	12.07	556.005	27.36	555.905	22.28	555.955	23.77	555.925	22.54
3	555.805	14.50 *	555.695	9.952	556.035	29.29	555.915	22.77	556.005	28.08	555.885	16.35
4	555.815	11.85	555.705	10.01	556.045	30.13 *	555.955	23.55 *	556.045	30.49	555.905	17.48
5	555.825	12.25	555.735	11.54	556.045	29.51	556.005	27.70	556.045	29.87	556.035	30.74
6	555.785	11.14	555.755	12.22	556.015	28.36	556.005	28.09	556.035	29.43	556.045	30.13 *
7	555.805	11.45	555.725	10.63 *	556.045	30.00	556.025	28.73	556.025	28.62	556.005	29.35
8	555.765	11.06	555.705	9.347	556.035	29.54	556.015	28.21	556.025	28.59 *	556.045	32.39
9	555.815	12.06	555.695	9.951	556.015	28.25	555.995	25.89	556.005	27.30	556.015	30.37
10	555.795	13.98 *	555.715	9.869	556.025	28.98	556.005	27.95	555.975	24.22	556.045	30.97
11	555.775	11.33	555.765	12.95	556.035	28.59 *	556.015	27.84 *	555.985	24.49	556.685	102.6
12	555.795	11.36	555.755	12.79	556.005	28.01	555.985	26.28	556.025	28.93	556.965	127.0
13	555.785	11.51	555.985	27.54	556.045	29.84	555.995	26.68	556.045	30.04	556.465	72.87 *
14	555.765	12.18	555.905	20.27 *	556.035	29.34	556.015	28.15	556.035	28.76	556.035	30.50
15	555.745	11.77	555.865	17.84 *	556.045	30.30	555.985	25.93	556.135	37.60 *	556.045	31.06
16	555.735	11.30	555.875	18.42	556.015	27.96	556.005	27.41	556.045	29.13	556.295	66.94
17	555.735	11.08 *	555.915	17.74	555.995	26.14	556.045	30.02	556.045	29.67	555.995	29.01
18	555.755	12.03	555.915	18.01	555.965	24.24 *	556.205	44.04 *	556.035	29.05	555.925	23.64
19	555.735	11.55	555.885	18.34	555.975	25.68	556.045	28.15	556.045	29.74	556.675	101.5
20	555.765	13.13	556.035	28.62	556.015	28.22	556.365	74.04	556.035	29.60	556.715	108.1 *
21	555.735	12.13	556.175	41.21 *	556.025	28.42	556.045	29.95	556.025	28.76	556.715	103.8
22	555.745	11.67	556.365	73.03	556.035	29.14	556.005	28.19	556.025	28.59 *	556.465	82.17
23	555.745	11.76	556.945	126.5	555.965	25.42	555.945	23.41	556.045	29.90	556.315	68.68
24	555.755	12.01 *	556.835	116.2	555.935	23.10	555.925	22.49	556.045	30.23	556.305	66.59
25	555.735	11.08 *	556.775	109.1	555.915	20.90 *	557.085	174.5 *	556.025	29.18	556.515	84.54
26	555.705	10.03	556.725	109.7 *	555.905	21.98	557.015	131.7	556.035	29.69	556.365	72.10
27	555.725	10.24	556.765	108.1	555.935	23.38	557.045	132.1	556.045	30.00	556.075	32.52 *
28	555.745	11.55	556.695	105.0 *	555.915	22.64	557.075	136.1	556.015	28.61	555.905	22.47
29	555.715	9.882	556.275	66.07			556.745	112.9 *	555.975	24.93 *	555.930	29.35 #
30	555.695	9.652	556.025	28.93			556.675	102.0 *	555.985	25.64 *	556.495	83.75
31	555.725	10.63 *	556.035	29.52			556.045	29.95			556.415	76.14
Ten-Daily Mean												
I Ten-Daily	555.803	12.46	555.721	10.73	556.029	29.00	555.976	25.85	556.011	27.67	555.989	26.49
II Ten-Daily	555.759	11.72	555.890	19.25	556.013	27.83	556.066	33.85	556.043	29.70	556.380	69.31
III Ten-Daily	555.730	10.97	556.510	83.04	555.954	24.37	556.510	83.93	556.022	28.55	556.318	65.65
Monthly												
Min.	555.695	9.652	555.695	9.347	555.905	20.90	555.905	22.28	555.955	23.77	555.885	16.35
Max.	555.825	14.50	556.945	126.5	556.045	30.30	557.085	174.5	556.135	37.60	556.965	127.0
Mean	555.763	11.69	556.056	39.14	556.002	27.26	556.194	49.04	556.025	28.64	556.232	54.2

Peak Computed Discharge = 174.5 cumecs on 25/03/2018 Corres. Water Level :557.085 m

Lowest Computed Discharge = 9.252 cumecs on 04/11/2017 Corres. Water Level :555.755 m

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

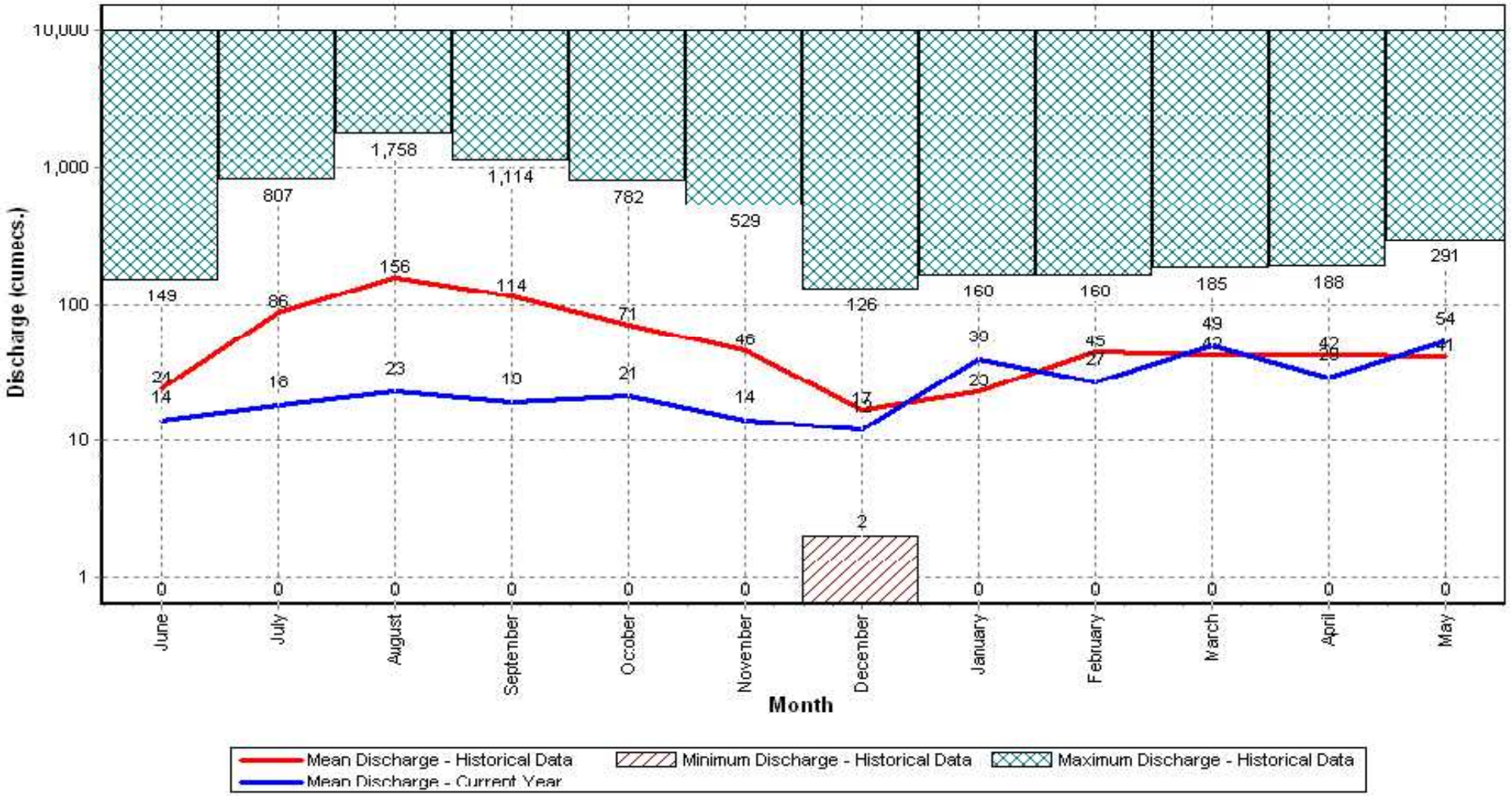
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Data considered : 2004-2018** **Division : Cauvery Division, Bangalore**

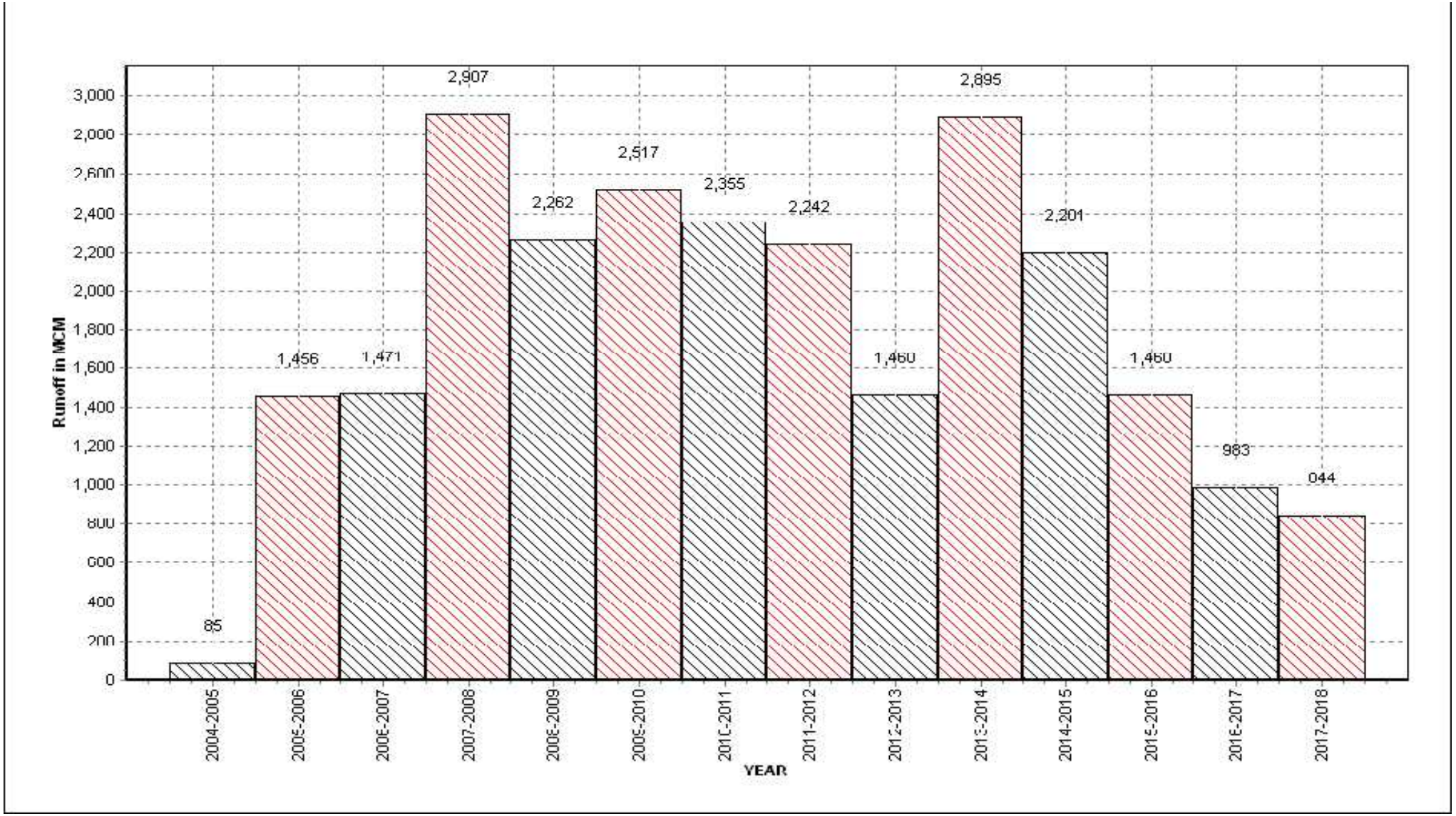
Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**



Annual Runoff Values for the period: 2004 - 2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**



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

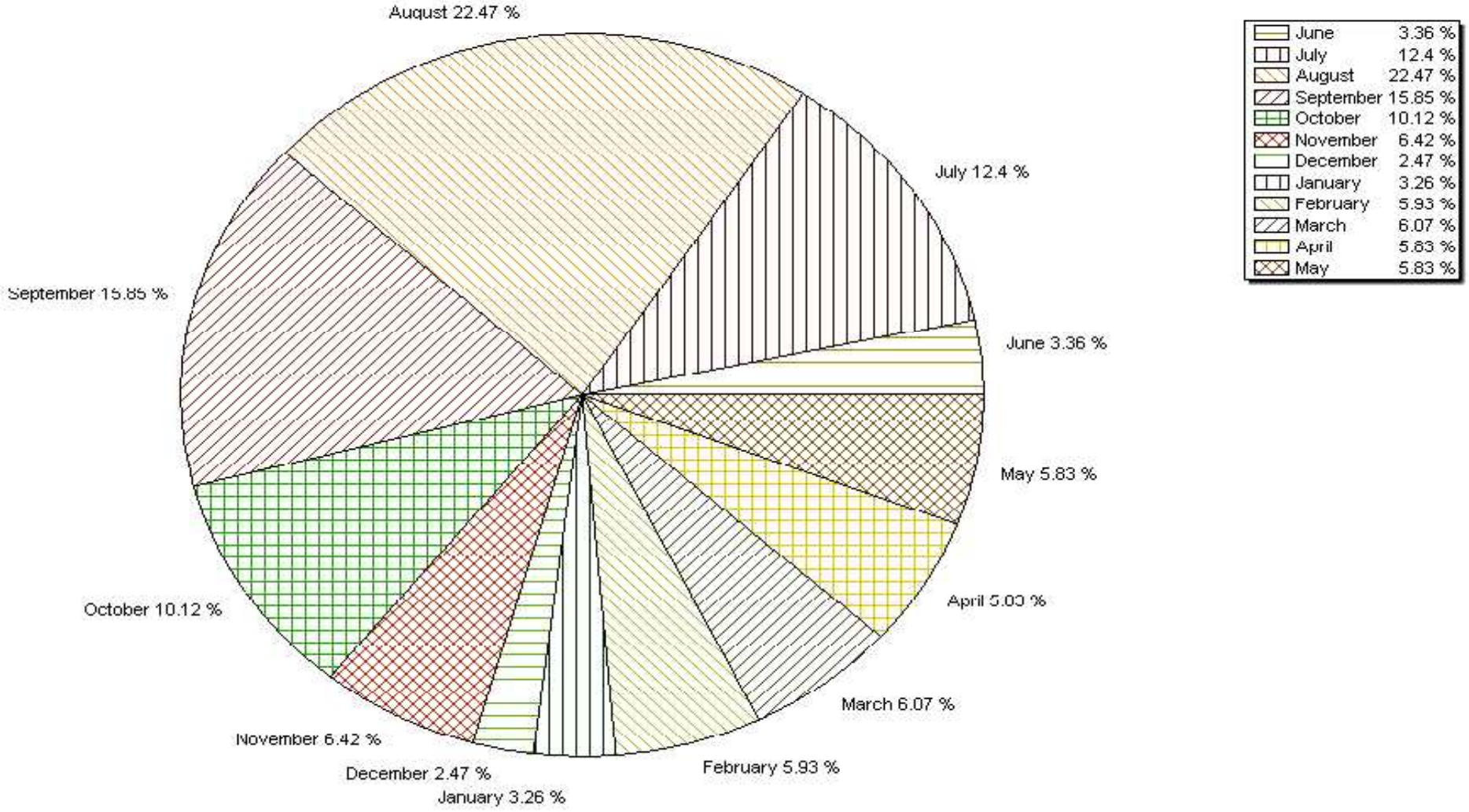
Monthly Average Runoff based on period : 2004-2017

Station Name : HOLEHONNUR (AKLE0A4)

Division : Cauvery Division, Bangalore

Local River : Bhadra

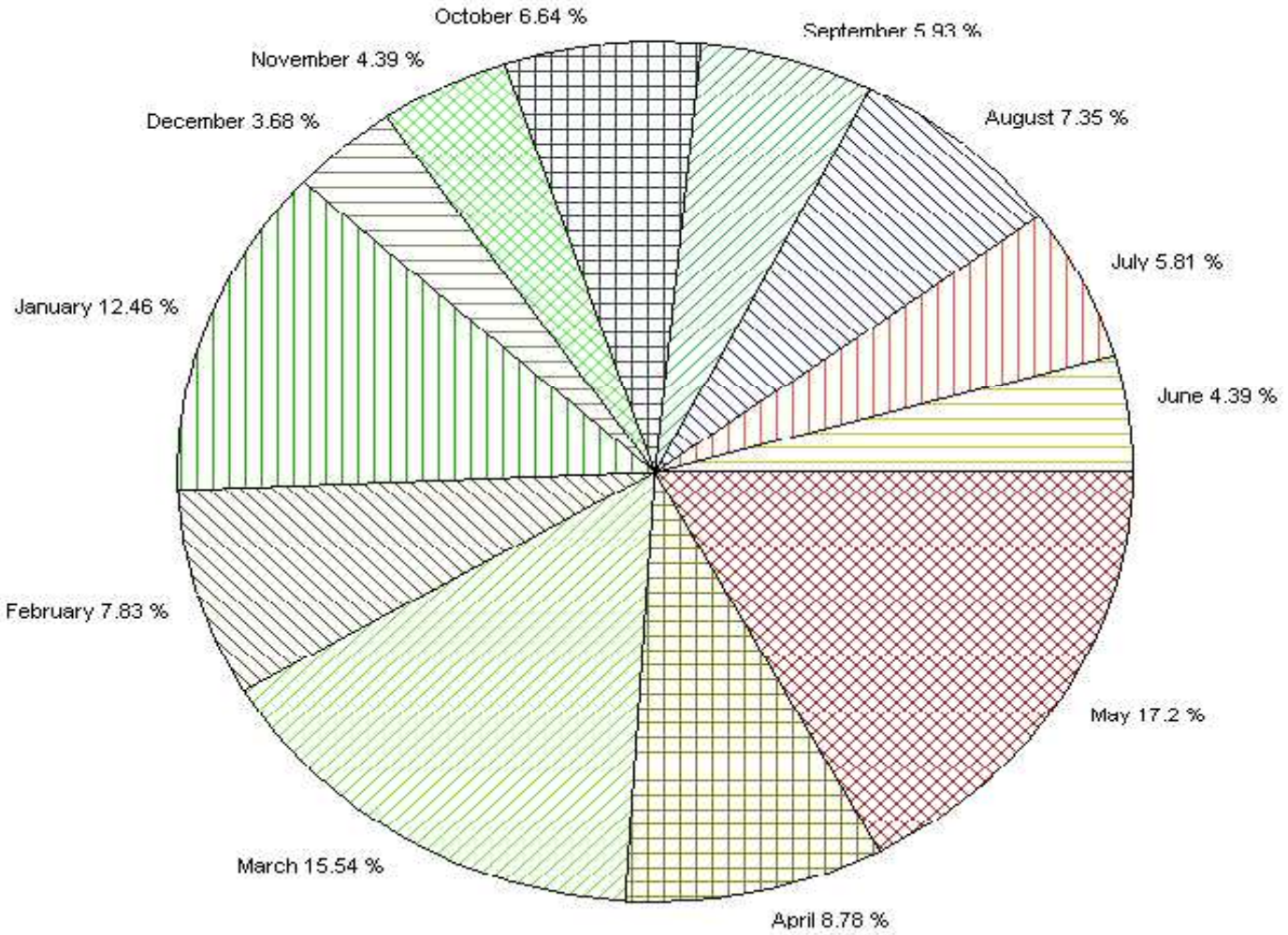
Sub-Division : Upper Tunga Subdn, Davanagere

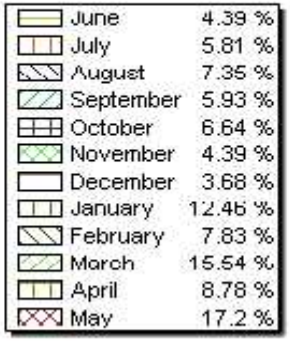


Monthly Runoff for the Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

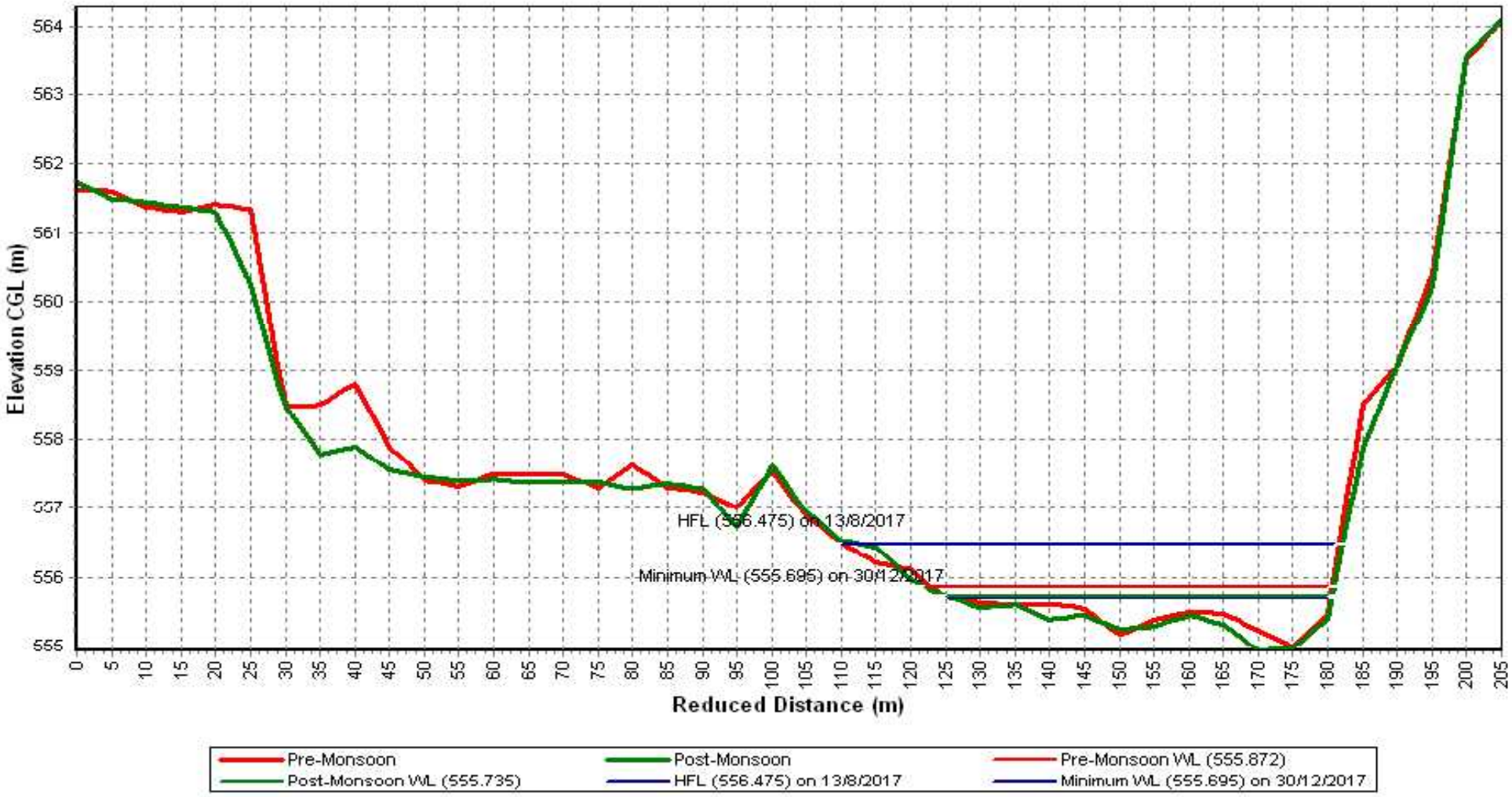




Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

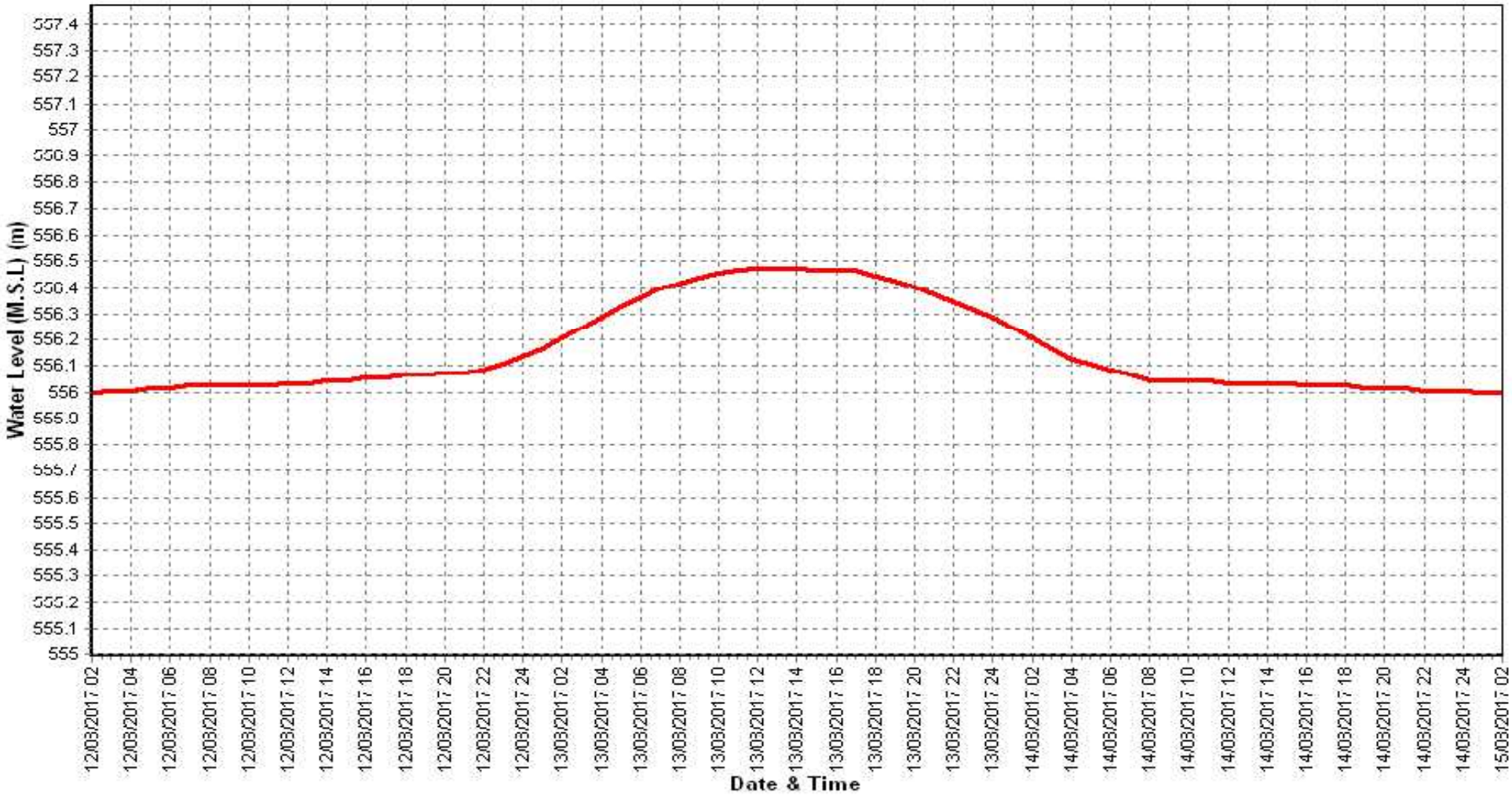
Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

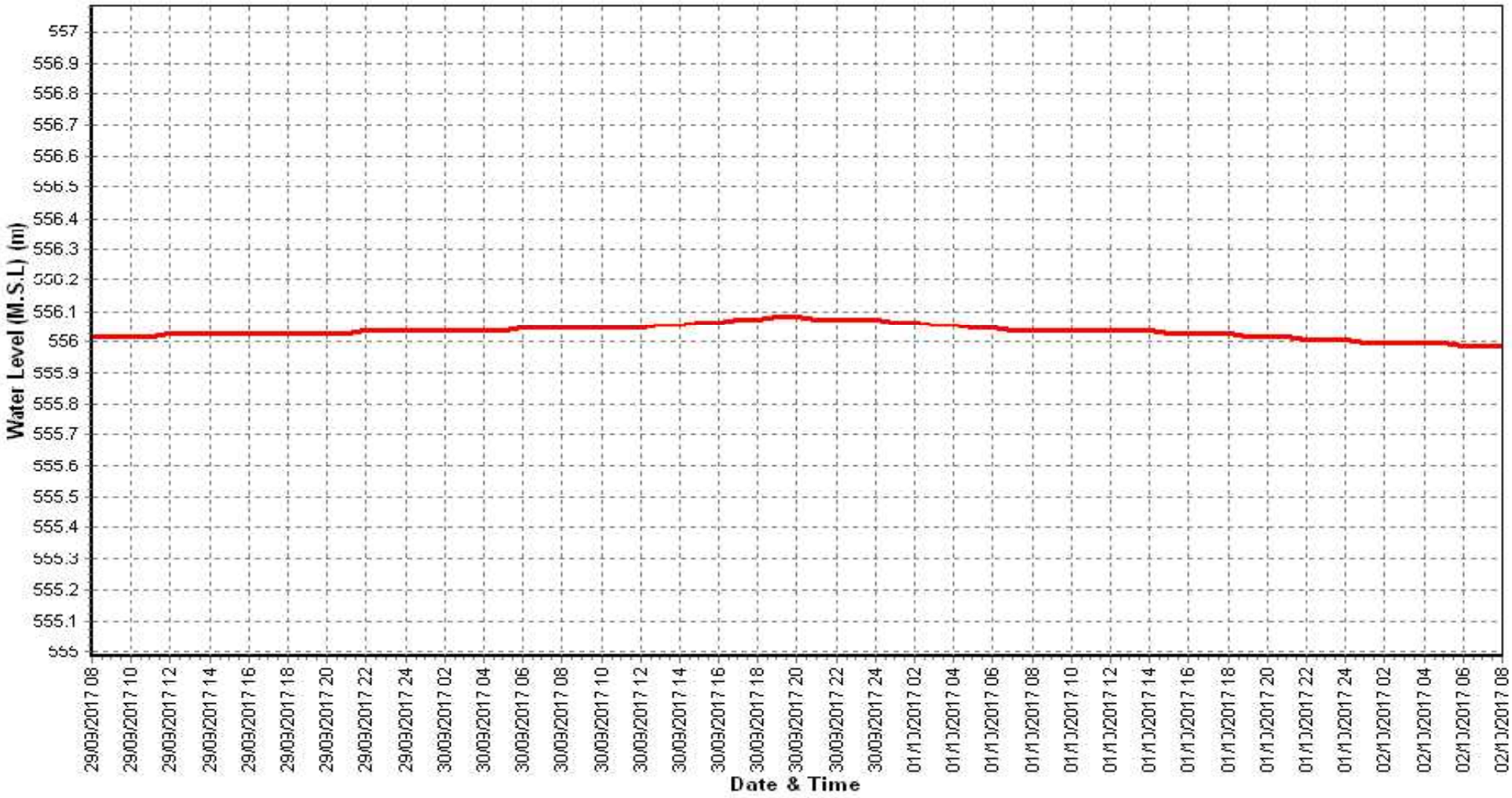


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

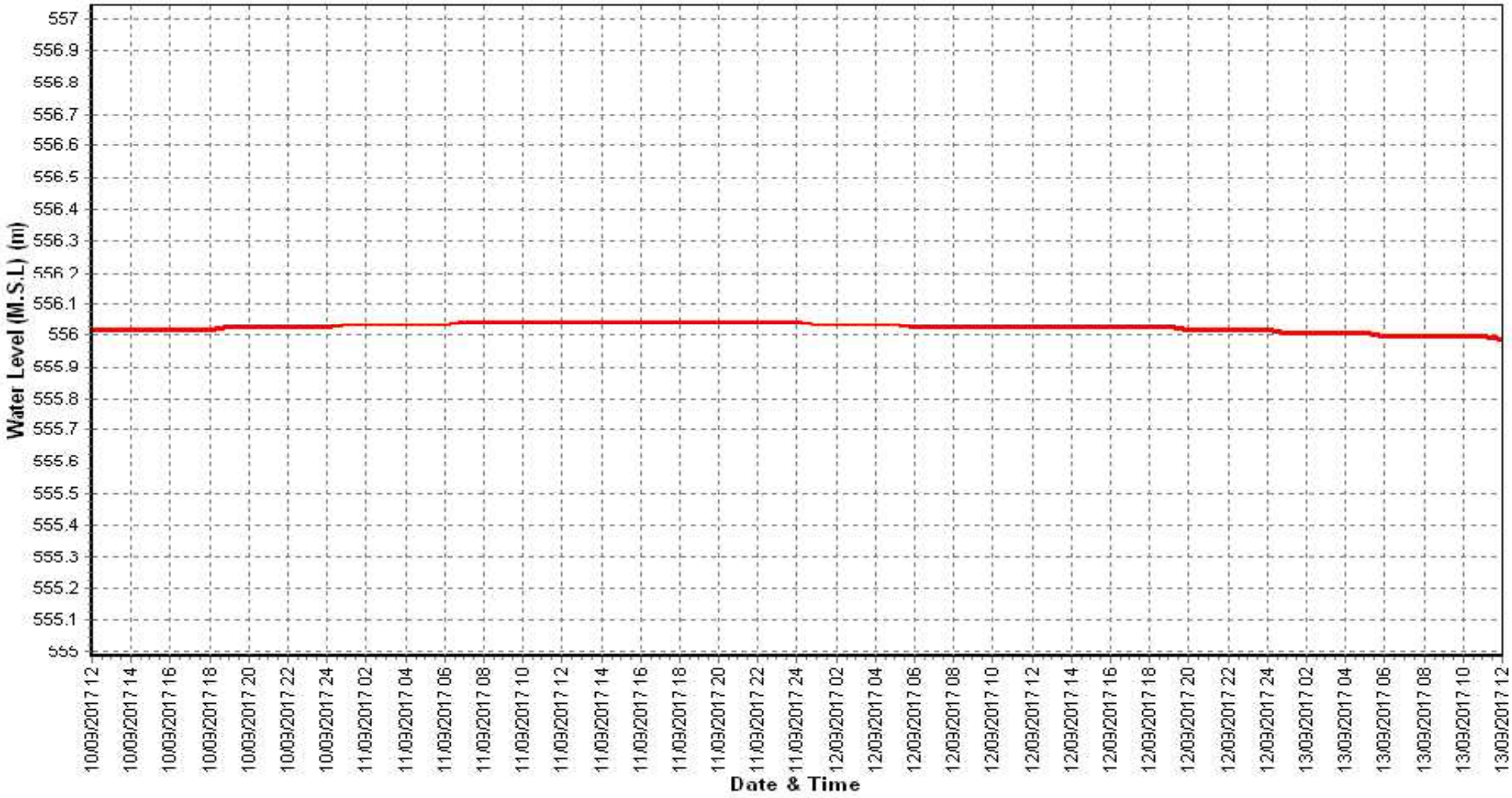


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Yadgir (Teriminal site of River Bhima)**	**Code**	:	**AKP00B6**
State	:	Karnataka	District		Yadgir
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Bhima
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Middle Krishna SD 2 , Kurnool
Drainage Area	:	69863 Sq. Km.	Bank	:	Left
Latitude	:	16°44'15"	Longitude	:	77°07'31"
Zero of Gauge (m)	:	350.503 (m.s.l)	01/01/1960		
		Opening Date	Closing Date		
Gauge	:	05/09/1963	HFL During 2017-18	:	356.943m
			Corres. Discharge	:	3560(Estimated)
Discharge	:	11/11/1964	Date & Time of	:	19/09/2017
			occurance	:	04.00 hrs.
Sediment	:	01/06/1965			
Water Quality	:	01/01/1972			

HFL Recorded so far in m : 361.913 dt 07-09-1969
Corresponding Discharge (cumecs) : 10609 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	4909	357.798	21/09/1965	0.456	350.703	23/04/1966
1966-1967	3607	356.745	03/08/1966	0.665	350.713	02/05/1967
1967-1968	7780	359.763	03/08/1967	0.000	350.678	03/06/1967
1968-1969	3405	356.785	02/10/1968	0.400	350.668	11/05/1969
1969-1970	10255	361.873	07/09/1969	0.530	350.623	16/05/1970
1970-1971	4903	359.033	21/09/1970	0.940	350.693	15/05/1971
1971-1972	4349	357.480	28/09/1971	0.000	350.513	03/05/1972
1972-1973	2796	356.513	13/07/1972	0.000	350.048	21/04/1973
1973-1974	4719	357.528	29/10/1973	0.000		08/06/1973
1974-1975	4408	357.813	24/10/1974	5.400	350.918	13/05/1975
1975-1976	5769	359.203	11/10/1975	0.600	350.663	31/05/1976
1976-1977	6098	359.031	07/08/1976	0.500	350.528	27/04/1977
1977-1978	2149	355.393	13/08/1977	1.800	350.748	07/06/1977
1978-1979	5033	357.828	22/08/1978	1.000	350.668	13/05/1979
1979-1980	9479	360.333	29/09/1979	0.600	350.728	28/05/1980
1980-1981	2600	356.453	09/07/1980	0.200	350.473	12/05/1981
1981-1982	6940	359.708	24/09/1981	4.100	350.813	01/05/1982
1982-1983	2006	355.253	23/08/1982	0.000	350.423	26/05/1983
1983-1984	6986	359.633	25/09/1983	0.000	350.393	01/06/1983

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1984-1985	4213	357.583	12/10/1984	3.500	350.863	02/06/1984
1985-1986	2247	355.523	07/08/1985	0.000	350.513	23/04/1986
1986-1987	2297	355.698	14/08/1986	0.000		23/04/1987
1987-1988	1619	354.878	16/08/1987	0.000		15/06/1987
1988-1989	6579	359.293	21/09/1988	0.113	350.568	01/06/1988
1989-1990	8487	359.968	29/09/1989	0.000		29/04/1990
1990-1991	6041	358.888	17/08/1990	1.000	350.753	12/05/1991
1991-1992	3691	356.899	01/08/1991	0.000		14/04/1992
1992-1993	2519	356.005	02/09/1992	0.000		15/05/1993
1993-1994	2133	355.885	21/10/1993	0.000		12/05/1994
1994-1995	5178	358.523	20/07/1994	0.000		24/04/1995
1995-1996	1301	354.633	18/10/1995	0.000		24/04/1996
1996-1997	4112	357.518	08/10/1996	0.000		29/05/1997
1997-1998	6164	359.083	30/08/1997	0.000	350.803	06/04/1998
1998-1999	10057	361.543	16/10/1998	0.000	350.773	13/05/1999
1999-2000	1645	354.818	03/08/1999	0.000	350.593	06/05/2000
2000-2001	1538	354.743	31/08/2000	0.000	351.833	28/03/2001
2001-2002	2468	355.708	11/10/2001	0.000	352.193	15/03/2002
2002-2003	681.6	353.538	17/10/2002	0.000	351.333	09/01/2003
2003-2004	1370	354.403	24/08/2003	0.000	350.793	06/05/2004
2004-2005	869.6	353.953	05/10/2004	0.000	352.103	14/02/2005
2005-2006	7899	359.703	09/08/2005	0.000	352.353	12/02/2006
2006-2007	9807	360.343	16/08/2006	0.000	352.053	25/01/2007
2007-2008	3177	356.613	23/09/2007	0.000	352.193	25/01/2008
2008-2009	3189	356.563	13/09/2008	0.000	351.443	25/01/2009
2009-2010	7980	359.733	04/10/2009	0.000	352.023	01/04/2010
2010-2011	3013	356.403	26/08/2010	0.000	352.173	27/02/2011
2011-2012	4939	357.253	08/09/2011	0.000	351.333	27/04/2012
2012-2013	415.5	352.803	05/09/2012	0.000	350.393	24/03/2013
2013-2014	3306	357.483	22/09/2013	0.000	351.173	25/02/2014
2014-2015	2084	355.293	02/09/2014	0.000	352.043	29/12/2014
2015-2016	297.0	352.383	18/09/2015	0.000	350.123	10/04/2016
2016-2017	2640	357.523	25/09/2016	0.000	350.713	25/01/2017

Annual Runoff of Bhima at Yadgir

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	9509	653	10162
2	**1966-1967**	7762	272	8034
3	**1967-1968**	14211	694	14905
4	**1968-1969**	8198	229	8426
5	**1969-1970**	15058	351	15409
6	**1970-1971**	11301	261	11562
7	**1971-1972**	10840	253	11094
8	**1972-1973**	3290	17	3307
9	**1973-1974**	13988	411	14399
10	**1974-1975**	11173	634	11807
11	**1975-1976**	19829	831	20660
12	**1976-1977**	12771	304	13075
13	**1977-1978**	7450	1314	8764
14	**1978-1979**	11529	481	12011
15	**1979-1980**	11867	1111	12979
16	**1980-1981**	8329	234	8564
17	**1981-1982**	12795	525	13320
18	**1982-1983**	4223	131	4354
19	**1983-1984**	14827	342	15169
20	**1984-1985**	7437	248	7685
21	**1985-1986**	3881	67	3947
22	**1986-1987**	3678	52	3731
23	**1987-1988**	3286	303	3588
24	**1988-1989**	13834	230	14064
25	**1989-1990**	10238	312	10550
26	**1990-1991**	14777	313	15089
27	**1991-1992**	9201	64	9265
28	**1992-1993**	2669	44	2714
29	**1993-1994**	4845	357	5203
30	**1994-1995**	10491	86	10577
31	**1995-1996**	2761	99	2860
32	**1996-1997**	8206	158	8364
33	**1997-1998**	5068	136	5203
34	**1998-1999**	20729	337	21066
35	**1999-2000**	3381	122	3503
36	**2000-2001**	3634	228	3862
37	**2001-2002**	2421	60	2481
38	**2002-2003**	724	43	766
39	**2003-2004**	896	723	1619
40	**2004-2005**	2473	82	2555
41	**2005-2006**	13485	55	13541
42	**2006-2007**	14191	0	14191
43	**2007-2008**	7322	303	7626
44	**2008-2009**	4736	0	4736
45	**2009-2010**	7290	262	7553
46	**2010-2011**	7835	218	8053
47	**2011-2012**	3892	64	3956
48	**2012-2013**	995	48	1043
49	**2013-2014**	4237	91	4328
50	**2014-2015**	2195	0	2195
51	**2015-2016**	401	0	401
52	**2016-2017**	4143	0	4143
53	**2017-2018**	6713	0	6713
	Average	7944	267	8211

Stage-Discharge Data for the period 2017 - 2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**

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	351.163	0.000	352.453	0.000	351.333	135.8	352.663	149.9	353.703	730.8 *	352.723	183.5
2	351.163	0.000	352.153	0.000	351.303	132.7	352.653	156.8 *	353.703	730.8 *	352.783	100.7
3	351.163	0.000	352.143	0.000	351.283	131.4	352.643	152.7 *	354.033	993.0	352.783	99.59
4	351.163	0.000	352.123	0.000	351.013	25.70	354.173	1050	353.548	750.0	352.483	91.52 *
5	351.163	0.000	352.103	0.000	350.923	11.57	353.773	823.2	353.493	604.3	351.893	0.000
6	351.153	0.000	352.103	0.000	350.993	11.86 *	352.993	314.6 #	353.463	531.8	351.313	0.000
7	351.153	0.000	352.083	0.000	351.183	0.000	352.713	182.3 #	353.518	627.5	351.313	0.000
8	351.143	0.000	351.983	0.000	351.543	0.000	352.713	182.3 #	353.473	584.9 *	351.563	0.000
9	351.113	0.000	351.923	0.000	351.773	0.000	354.053	970.4 *	353.173	488.4	351.623	0.000
10	351.083	0.000	351.643	0.000	351.883	0.000	353.503	603.4 *	353.648	747.8	351.653	0.000
11	351.083	0.000	351.483	0.000	351.763	0.000	354.113	995.9	354.603	1395	351.673	0.000
12	351.083	0.000	351.463	0.000	351.753	0.000	354.323	1138	353.983	879.2	351.683	0.000
13	351.083	0.000	351.453	0.000	351.793	0.000	353.653	791.9	354.853	1514	351.683	0.000
14	351.083	0.000	351.203	0.000	351.863	0.000	353.303	607.7	356.103	2711 *	351.773	0.000
15	351.093	0.000	350.873	0.000	351.973	0.000	355.303	2111	355.403	2060 *	351.843	0.000
16	351.103	0.000	350.703	0.000	351.983	0.000	355.043	1785	355.153	1797	351.893	0.000
17	351.193	99.13 *	350.703	0.000	352.023	0.000	355.403	2060 *	355.143	1705	351.763	0.000
18	352.943	462.9 *	350.703	0.000	352.013	0.000	356.503	3107 #	355.623	2355	351.753	0.000
19	352.933	469.5	350.803	0.000	351.983	0.000	356.803	3414 #	355.653	2286 *	351.733	0.000
20	352.933	469.5	351.118	43.28	351.933	0.000	355.593	2291	355.373	1940	351.713	0.000
21	353.043	496.3	352.303	331.1	351.933	0.000	354.333	1153	354.598	1386	352.243	0.000
22	352.683	411.5	352.123	301.6	351.983	0.000	354.333	1139	354.283	1138 *	352.263	0.000
23	352.503	373.9	352.123	308.4 *	352.003	0.000	354.063	989.7	353.573	559.9	352.323	0.000
24	352.503	373.9	352.123	301.6	352.003	0.000	354.603	1385 *	353.373	452.0	352.323	0.000
25	352.503	382.1 *	352.123	301.6	352.013	0.000	354.768	1509	353.598	595.7	352.263	0.000
26	352.503	382.1 *	351.543	152.4	352.013	0.000	355.903	2474	353.533	552.3	352.203	0.000
27	352.503	373.9	351.633	220.9	352.013	0.000	355.248	1923	353.413	507.9	352.063	0.000
28	352.463	371.5	351.653	224.4	352.023	0.000	354.493	1292	353.113	348.5	352.063	0.000
29	352.453	367.4	351.673	227.0	352.113	0.000	354.043	1029	352.963	299.4 *	352.023	0.000
30	352.453	367.5	351.673	214.4 *	352.113	0.000	353.803	797.2 *	352.803	273.4	352.023	0.000
31			351.653	224.6	352.643	132.8			352.723	260.8		
Ten-Daily Mean												
I Ten-Daily	351.146	0.000	352.071	0.000	351.323	44.90	353.188	458.6	353.576	678.9	352.013	47.53
II Ten-Daily	351.653	150.1	351.051	4.328	351.908	0.000	355.004	1830	355.189	1864	351.751	0.000
III Ten-Daily	352.561	390.0	351.875	255.3	352.078	12.07	354.559	1369	353.452	579.5	352.179	0.000
Monthly												
Min.	351.083	0.000	350.703	0.000	350.923	0.000	352.643	149.9	352.723	260.8	351.313	0.000
Max.	353.043	496.3	352.453	331.1	352.643	135.8	356.803	3414	356.103	2711	352.783	183.5
Mean	351.787	180	351.672	91.98	351.779	18.77	354.250	1219	354.052	1026	351.981	15.84

Annual Runoff in MCM = 6713 Annual Runoff in mm = 96

Peak Observed Discharge = 3414 cumecs on 19/09/2017 Corres. Water Level :356.803 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :351.163 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 2017 - 2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	352.053	0.000	352.173	0.000	352.143	0.000	352.063	0.000	352.083	0.000	352.053	0.000
2	352.063	0.000	352.173	0.000	352.143	0.000	352.063	0.000	352.083	0.000	352.063	0.000
3	352.103	0.000	352.143	0.000	352.133	0.000	352.063	0.000	352.073	0.000	352.023	0.000
4	352.153	0.000	352.153	0.000	352.133	0.000	352.073	0.000	352.073	0.000	352.013	0.000
5	352.183	0.000	352.153	0.000	352.123	0.000	352.083	0.000	352.073	0.000	352.003	0.000
6	352.203	0.000	352.153	0.000	352.103	0.000	352.013	0.000	352.073	0.000	352.003	0.000
7	352.103	0.000	352.153	0.000	352.063	0.000	351.983	0.000	352.063	0.000	352.003	0.000
8	352.023	0.000	352.153	0.000	352.043	0.000	351.883	0.000	352.063	0.000	351.983	0.000
9	351.903	0.000	352.143	0.000	352.013	0.000	351.813	0.000	352.063	0.000	351.983	0.000
10	351.753	0.000	352.123	0.000	351.993	0.000	351.743	0.000	352.073	0.000	351.923	0.000
11	351.603	0.000	352.083	0.000	351.823	0.000	351.713	0.000	352.073	0.000	351.863	0.000
12	351.543	0.000	352.023	0.000	351.793	0.000	351.643	0.000	352.063	0.000	351.853	0.000
13	351.503	0.000	351.953	0.000	351.743	0.000	351.623	0.000	352.053	0.000	351.853	0.000
14	351.483	0.000	351.883	0.000	351.693	0.000	351.613	0.000	352.053	0.000	351.853	0.000
15	351.473	0.000	351.783	0.000	351.643	0.000	351.603	0.000	352.053	0.000	351.853	0.000
16	351.463	0.000	351.723	0.000	351.603	0.000	351.603	0.000	352.053	0.000	351.843	0.000
17	351.453	0.000	351.683	0.000	351.543	0.000	351.603	0.000	352.043	0.000	351.843	0.000
18	351.453	0.000	351.503	0.000	351.603	0.000	351.643	0.000	352.023	0.000	351.803	0.000
19	351.363	0.000	351.433	0.000	351.683	0.000	351.713	0.000	352.003	0.000	351.793	0.000
20	351.293	0.000	351.433	0.000	351.783	0.000	351.713	0.000	351.993	0.000	351.763	0.000
21	351.283	0.000	351.433	0.000	351.843	0.000	351.713	0.000	351.993	0.000	351.713	0.000
22	351.263	0.000	351.443	0.000	351.913	0.000	352.023	0.000	352.033	0.000	351.513	0.000
23	351.263	0.000	351.713	0.000	351.953	0.000	352.083	0.000	352.053	0.000	351.483	0.000
24	351.283	0.000	352.143	0.000	351.953	0.000	352.083	0.000	352.083	0.000	351.453	0.000
25	351.293	0.000	352.133	0.000	351.983	0.000	352.063	0.000	352.093	0.000	351.403	0.000
26	351.303	0.000	352.133	0.000	352.013	0.000	352.063	0.000	352.103	0.000	351.353	0.000
27	351.333	0.000	352.133	0.000	352.043	0.000	352.063	0.000	352.103	0.000	351.343	0.000
28	352.153	0.000	352.143	0.000	352.043	0.000	352.023	0.000	352.073	0.000	351.343	0.000
29	352.153	0.000	352.143	0.000			352.033	0.000	352.053	0.000	351.313	0.000
30	352.173	0.000	352.153	0.000			352.083	0.000	352.053	0.000	351.263	0.000
31	352.173	0.000	352.153	0.000			352.083	0.000			351.223	0.000
Ten-Daily Mean												
I Ten-Daily	352.054	0.000	352.152	0.000	352.089	0.000	351.978	0.000	352.072	0.000	352.005	0.000
II Ten-Daily	351.463	0.000	351.750	0.000	351.691	0.000	351.647	0.000	352.041	0.000	351.832	0.000
III Ten-Daily	351.607	0.000	351.975	0.000	351.968	0.000	352.028	0.000	352.064	0.000	351.400	0.000
Monthly												
Min.	351.263	0.000	351.433	0.000	351.543	0.000	351.603	0.000	351.993	0.000	351.223	0.000
Max.	352.203	0.000	352.173	0.000	352.143	0.000	352.083	0.000	352.103	0.000	352.063	0.000
Mean	351.705	0	351.960	0	351.912	0	351.889	0	352.059	0	351.735	0

Peak Computed Discharge = 2711 cumecs on 14/10/2017 Corres. Water Level :356.103 m

Lowest Computed Discharge = 11.86 cumecs on 06/08/2017 Corres. Water Level :350.993 m

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

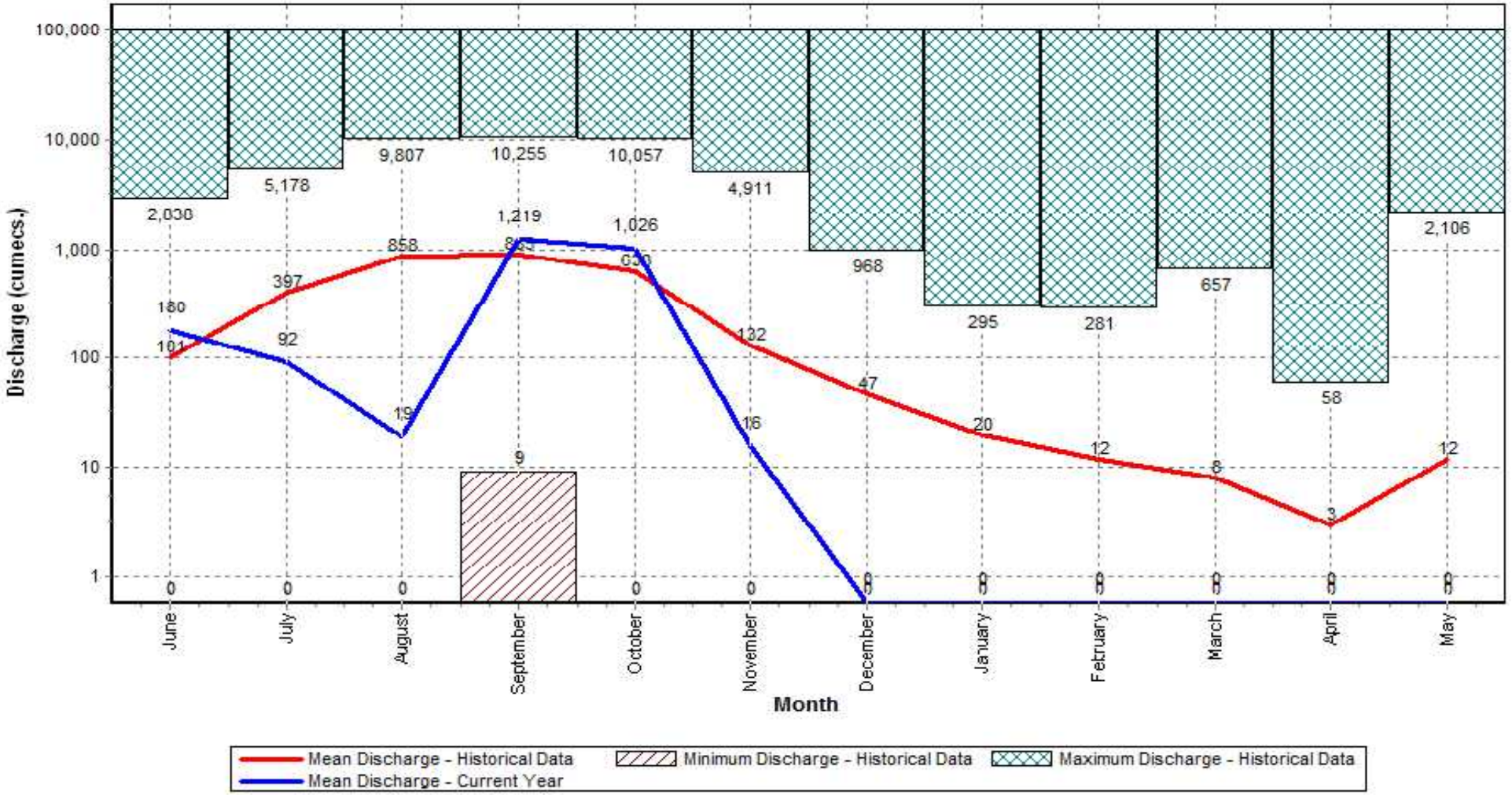
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Yadgir (AKP00B6) | **Data considered : 1965-2018** | **Division : Lower Krishna Divn., Hyderabad**

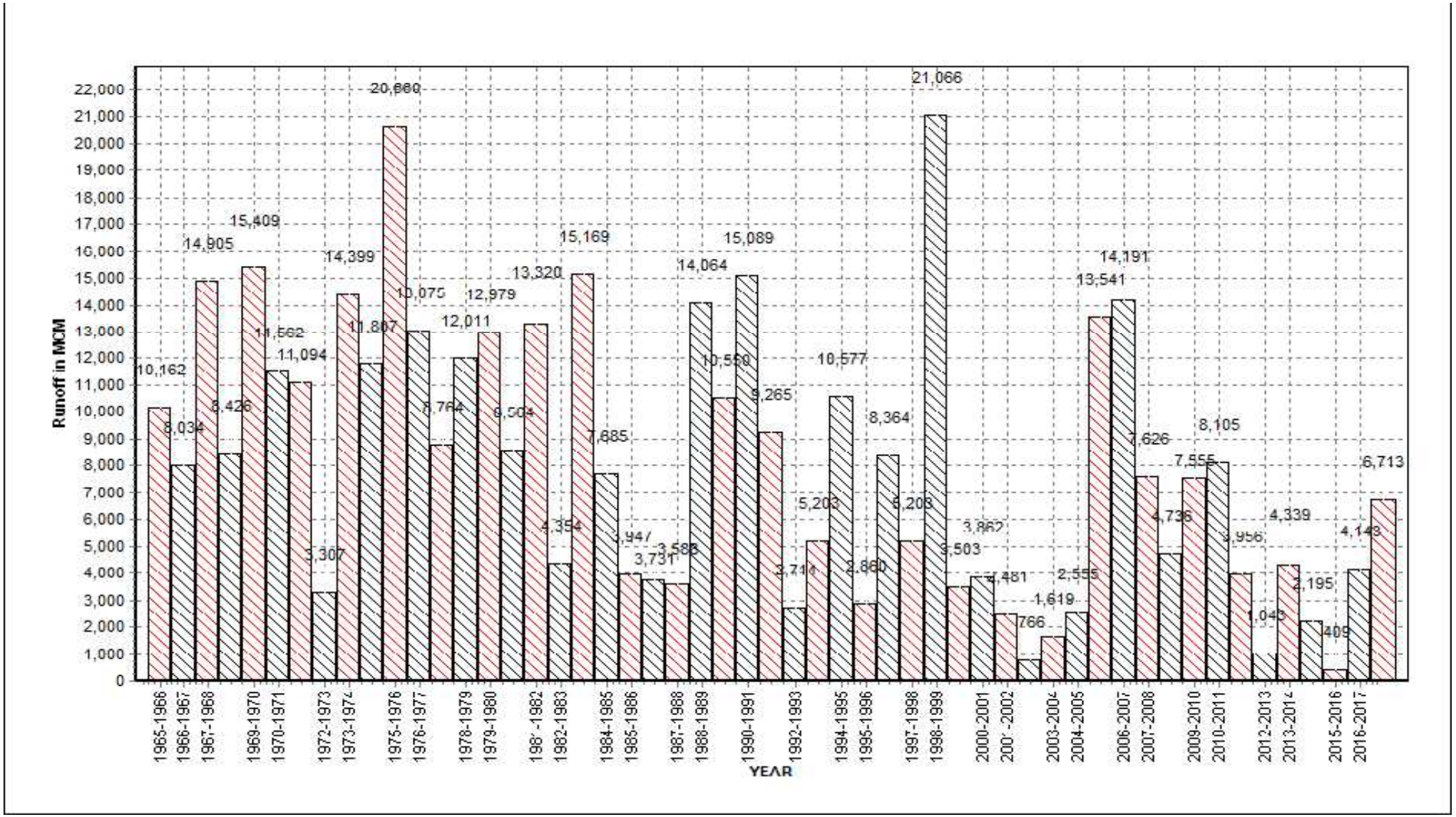
Local River : Bhima | **Sub-Division : Middle Krishna SD 2 , Kurnool**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**

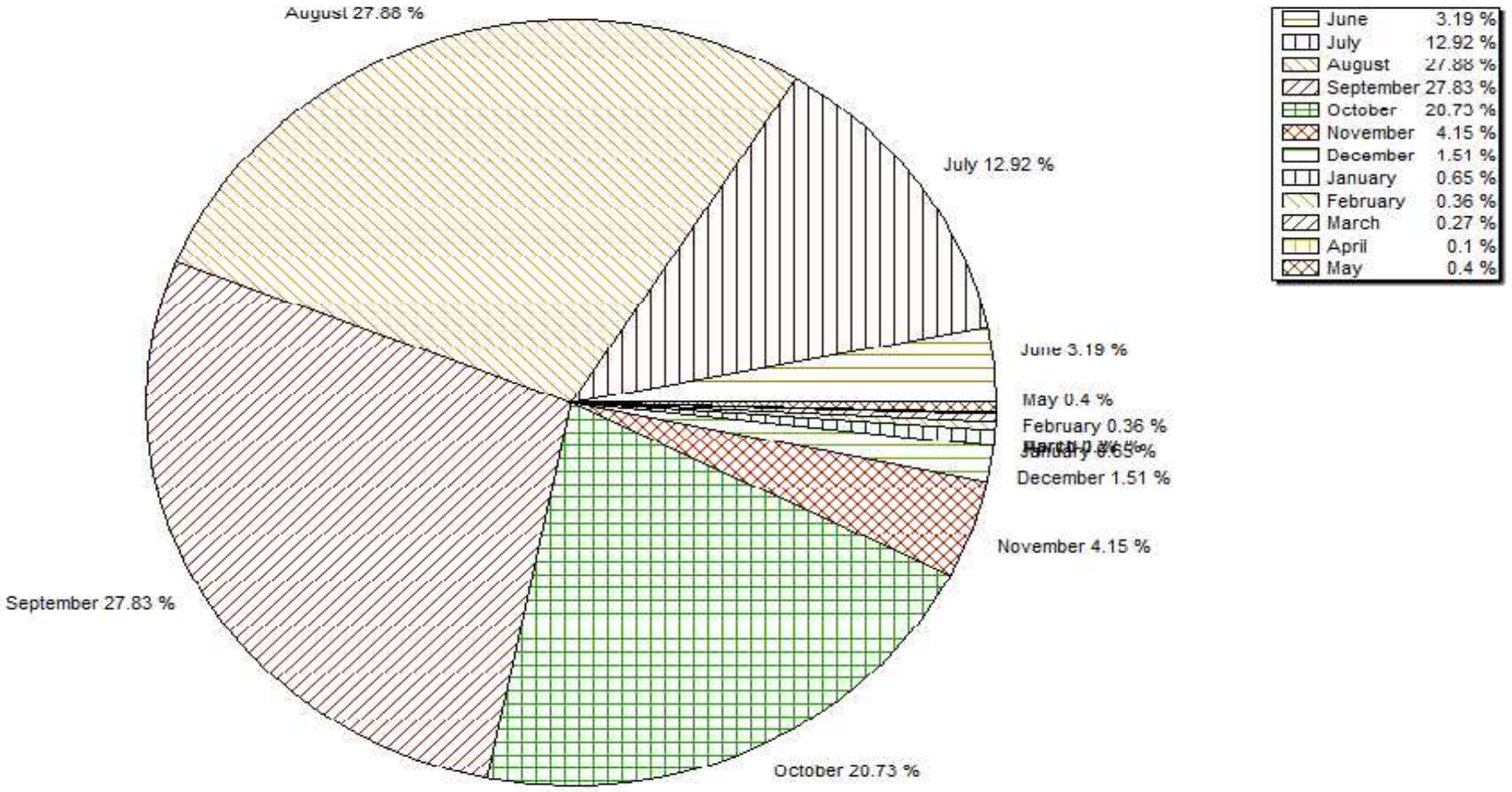


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

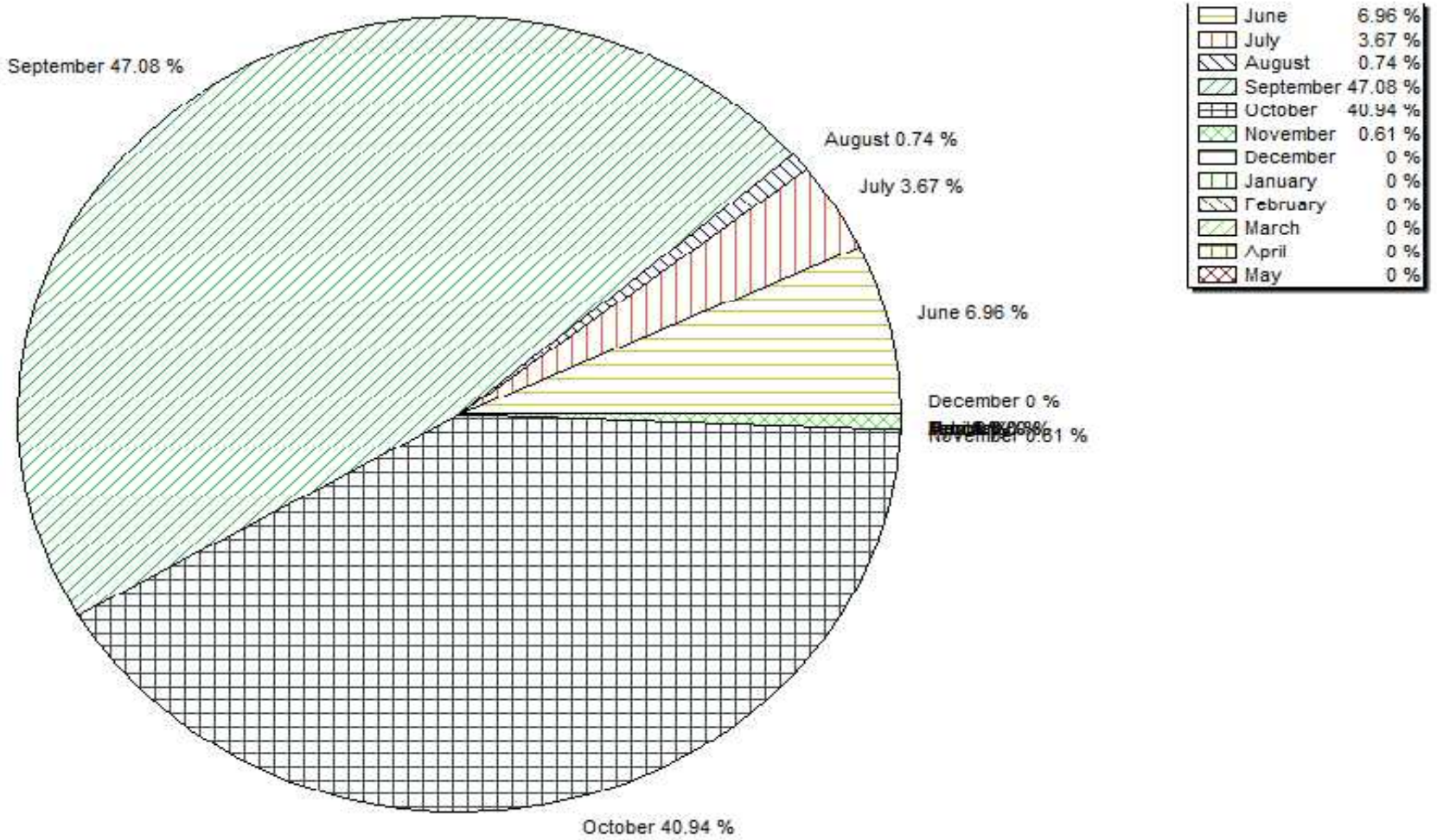
Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**



Monthly Runoff for the Year : 2017-2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

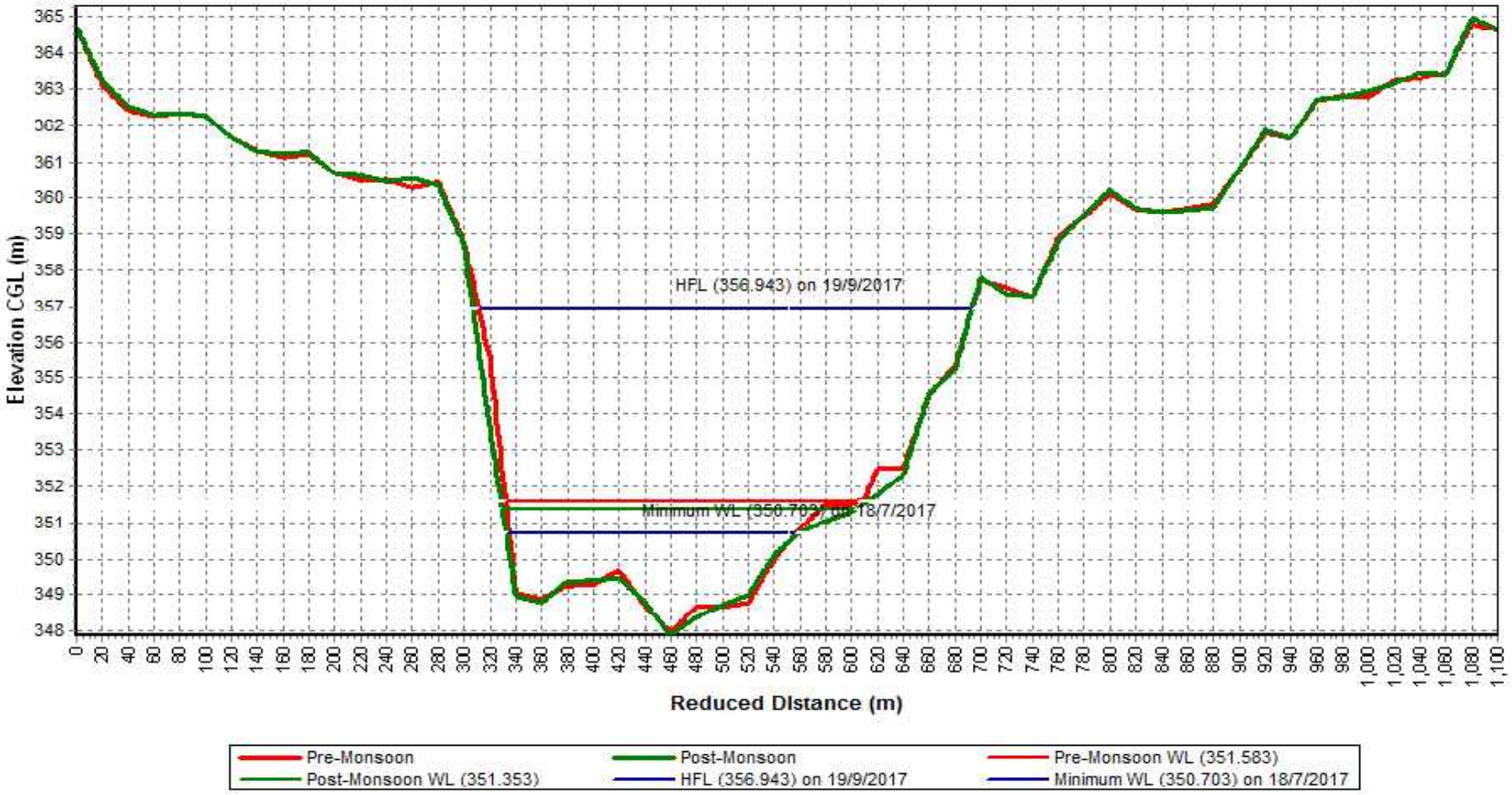
Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

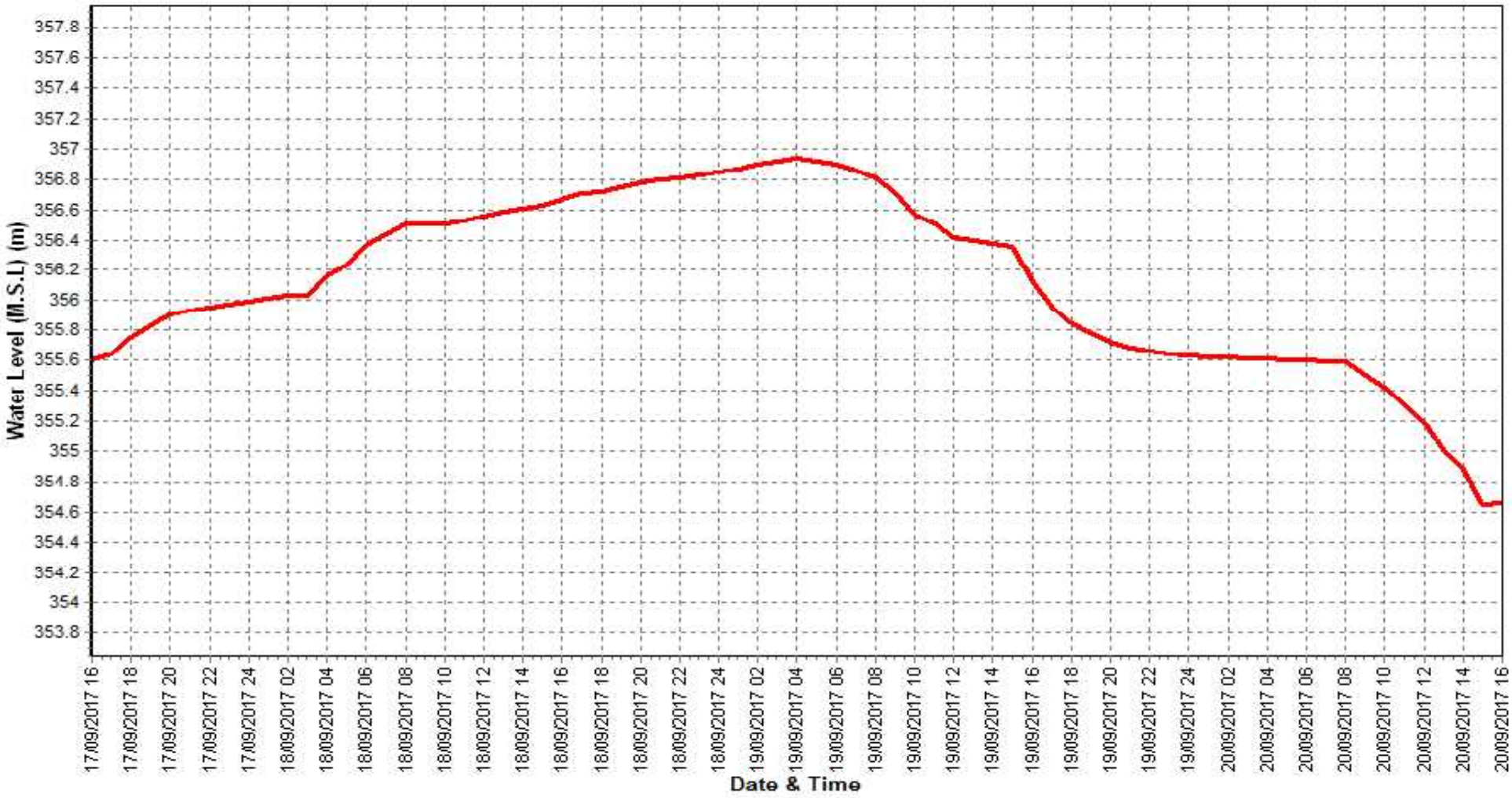
Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**

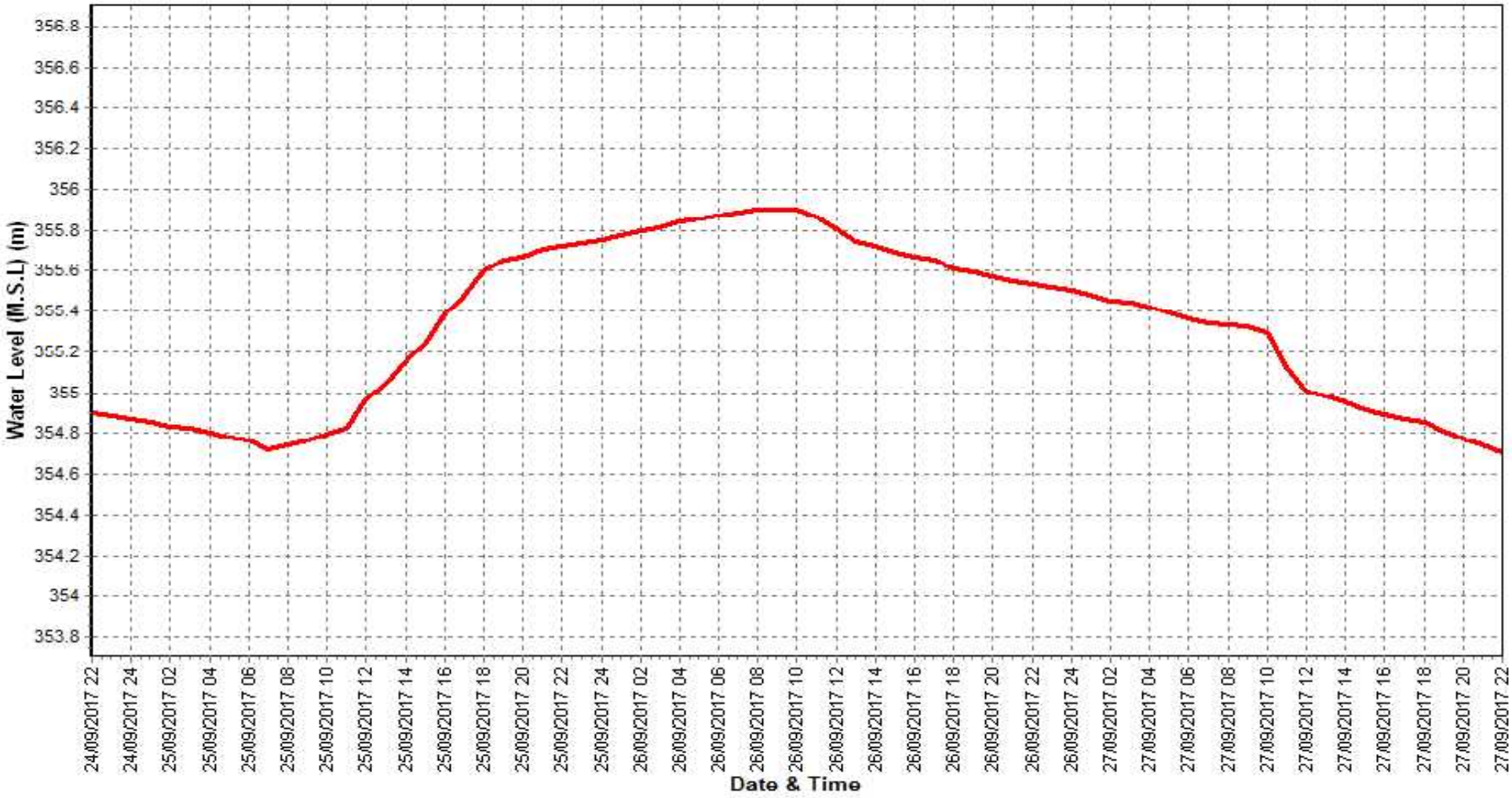


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Malkhed**		**Code**	**: AKP10E1**	
State	: Karnataka		District	Gulbarga	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Bhima		Sub Tributary	: Kagna	
Sub-Sub Tributary	: -		Local River	: Kagna	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Middle Krishna SD 2 , Kurnool	
Drainage Area	: 7650 Sq. Km.		Bank	: Left	
Latitude	: 17°12'12"		Longitude	: 77°09'23"	
Zero of Gauge (m)	: 390 (m.s.l)		15/08/1990		
	Opening Date		Closing Date		
Gauge	: 29/09/1989		HFL During 2017-18	: 396.850m	
			Corres. Discharge	: 1080(Estimated)	
Discharge	: 15/08/1990		Date & Time of	: 10/10/2017	
			occurance	: 15.00 hrs.	
Sediment	: 08/09/1992				
Water Quality	: 01/06/1992				

HFL Recorded so far in m : 401.010 dt 24-09-2016
Corresponding Discharge (cumecs) : 4209 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1991-1992	979.2	396.154	09/07/1991	0.050	392.450	17/04/1992
1992-1993	1176	396.118	02/09/1992	0.000		01/05/1993
1993-1994	611.3	395.019	22/09/1993	0.000		21/05/1994
1994-1995	274.7	393.990	06/10/1994	0.000		21/04/1995
1995-1996	1101	396.530	17/10/1995	0.000		18/06/1995
1996-1997	959.3	396.285	17/09/1996	0.109	392.150	01/06/1996
1997-1998	148.2	393.600	27/09/1997	0.000		18/05/1998
1998-1999	2215	398.270	15/10/1998	0.000		11/06/1998
1999-2000	414.3	394.600	03/08/1999	0.063	392.140	24/05/2000
2000-2001	1577	396.975	24/08/2000	0.157	391.995	31/05/2001
2001-2002	1228	396.460	01/10/2001	0.152	391.990	04/06/2001
2002-2003	438.9	394.660	16/10/2002	0.000		07/05/2003
2003-2004	711.3	395.440	23/08/2003	0.000		18/03/2004
2004-2005	152.9	393.750	06/10/2004	0.000	392.430	03/03/2005
2005-2006	843.5	396.290	10/09/2005	0.000	392.520	06/07/2005
2006-2007	32.93	393.980	28/09/2006	0.000	392.740	15/05/2007
2007-2008	922.7	396.450	20/09/2007	0.000	392.820	02/06/2007
2008-2009	1499	397.450	10/08/2008	0.000	392.700	15/07/2008
2009-2010	1254	397.500	03/09/2009	0.000	392.790	04/07/2009

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**
2010-2011	1269	397.580	26/08/2010	0.536	392.800	13/06/2010
2011-2012	1500	397.200	31/07/2011	0.732	392.680	18/03/2012
2012-2013	550.0	395.600	04/09/2012	0.781	392.710	03/06/2012
2013-2014	1188	397.400	20/09/2013	0.457	392.740	04/03/2014
2014-2015	1320	397.720	01/09/2014	0.070	392.720	06/07/2014
2015-2016	120.7	393.850	15/09/2015	0.488	392.700	01/11/2015
2016-2017	2611	400.650	24/09/2016	0.373	392.550	17/06/2016

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

Annual Runoff of Kagna at Malkhed

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1990-1991**	1610	76	1685
2	**1991-1992**	579	12	591
3	**1992-1993**	331	14	345
4	**1993-1994**	416	26	442
5	**1994-1995**	98	4	102
6	**1995-1996**	987	50	1037
7	**1996-1997**	1046	63	1109
8	**1997-1998**	125	17	142
9	**1998-1999**	3031	71	3102
10	**1999-2000**	449	24	472
11	**2000-2001**	1013	34	1047
12	**2001-2002**	542	42	584
13	**2002-2003**	208	21	228
14	**2003-2004**	218	35	253
15	**2004-2005**	149	28	177
16	**2005-2006**	1058	33	1092
17	**2006-2007**	69	27	95
18	**2007-2008**	729	192	921
19	**2008-2009**	818	101	919
20	**2009-2010**	1207	100	1307
21	**2010-2011**	2182	114	2297
22	**2011-2012**	653	31	684
23	**2012-2013**	564	43	607
24	**2013-2014**	980	101	1081
25	**2014-2015**	740	66	806
26	**2015-2016**	94	57	151
27	**2016-2017**	2335	50	2386
28	**2017-2018**	950	30	979
Average		828	52	880

Stage-Discharge Data for the period 2017 - 2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**

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	392.690	0.000	392.940	4.323	392.850	2.620	393.270	57.63	393.470	77.40 *	393.260	47.46
2	392.690	0.000	392.960	4.585 *	392.840	2.522	393.190	48.97 *	394.100	168.9 *	393.270	48.19
3	392.690	0.000	392.950	4.479	392.830	2.272	393.090	40.54 *	393.950	141.6	393.270	48.19
4	392.720	0.000	392.940	4.315	392.820	2.046	393.200	52.14	393.700	111.1	393.110	17.50 *
5	392.770	0.663	392.970	5.111	392.820	2.039	393.020	35.17 #	393.920	138.9	393.090	15.00 *
6	392.770	1.300 *	392.930	3.923	392.800	2.646 *	393.410	68.55	393.580	95.66	393.070	10.64
7	392.760	1.200 *	392.930	3.651	392.780	1.751	393.240	54.71	393.850	128.9	393.060	9.845
8	392.770	1.300 *	392.920	3.481	392.770	1.245	394.040	153.8	393.600	93.08 *	393.040	10.58
9	392.790	1.600 *	392.940	4.343 *	392.760	0.840	393.650	104.3	393.770	118.5	393.030	10.26
10	392.780	1.500 *	392.930	3.575	392.770	1.161	393.600	93.08 *	396.500	911.6	393.030	10.09
11	392.800	1.800 *	392.940	4.224	392.760	0.834	393.550	93.50	394.880	350.4	393.010	9.520
12	392.800	1.800 *	392.890	3.550	392.780	1.770	393.500	88.28	394.530	275.1	393.000	10.00 *
13	393.400	68.24	392.880	3.446	392.860	3.373 *	393.450	71.42	394.150	169.5	392.970	8.238
14	394.500	220.0	392.870	3.316	392.890	3.555	394.580	286.7	394.150	169.5	392.970	8.134
15	394.400	203.7	392.870	3.352	392.890	3.737 *	394.150	169.5	394.630	277.3 *	392.920	6.714
16	394.400	203.7	392.870	3.494 *	392.890	3.688	393.990	146.9	394.390	204.7	392.900	5.679
17	394.460	214.1	392.860	3.257	392.920	3.916	394.050	160.1 *	394.460	215.3	392.890	5.320
18	394.470	216.4 *	392.860	3.240	392.890	3.627	394.930	361.3	394.040	153.8	392.880	5.106
19	394.520	224.2 #	392.900	4.444	392.860	3.286	394.440	212.6	393.960	145.1 *	392.880	5.110 *
20	394.460	214.1	392.900	4.399	392.880	3.616 *	393.600	98.69	393.500	88.28	392.880	5.048
21	393.610	101.5	392.890	4.134	392.890	3.738	393.500	88.28	393.410	68.66	392.870	4.914
22	393.480	76.11	392.900	4.435	392.860	2.870	393.600	98.69	393.540	85.64 *	392.860	4.829
23	393.300	60.22	392.890	3.737 *	392.870	3.199	393.500	88.28	393.470	85.33	392.790	1.795
24	393.430	70.35	392.880	4.064	392.870	3.175	393.540	85.64 *	393.540	92.60	392.780	1.789
25	393.400	71.65 *	392.880	4.024	392.850	3.252 *	393.420	69.53	393.410	68.66	392.780	1.782
26	393.340	64.82 *	392.890	4.529	392.840	2.934	393.420	69.53	393.340	62.76	392.770	1.750 *
27	393.290	59.40	392.880	4.247	392.860	3.373 *	393.470	73.90	393.330	61.94	392.770	1.758
28	393.320	61.87	392.860	3.228	393.220	53.69	393.410	68.66	393.350	63.59	392.770	1.709
29	393.270	57.63	392.860	3.230	393.260	56.83	393.400	67.81	393.320	61.27 *	392.760	1.630
30	392.960	4.581	392.860	3.373 *	393.650	106.0	393.450	75.13 *	393.330	61.94	392.760	1.628
31			392.850	3.072	393.380	66.92			393.290	58.49		
Ten-Daily Mean												
I Ten-Daily	392.743	0.756	392.941	4.178	392.804	1.914	393.371	70.89	394.044	198.6	393.123	22.78
II Ten-Daily	394.021	156.8	392.884	3.672	392.862	3.140	394.024	168.9	394.269	204.9	392.930	6.887
III Ten-Daily	393.340	62.82	392.876	3.825	393.050	27.82	393.471	78.54	393.394	70.08	392.791	2.358
Monthly												
Min.	392.690	0.000	392.850	3.072	392.760	0.834	393.020	35.17	393.290	58.49	392.760	1.628
Max.	394.520	224.2	392.970	5.111	393.650	106.0	394.930	361.3	396.500	911.6	393.270	48.19
Mean	393.368	73.46	392.900	3.89	392.910	11.5	393.622	106.1	393.886	155	392.948	10.67

Annual Runoff in MCM = 979 Annual Runoff in mm = 128

Peak Observed Discharge = 911.6 cumecs on 10/10/2017 Corres. Water Level :396.5 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :392.69 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 2017 - 2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	392.750	1.426	392.760	1.394	392.810	2.461	392.760	1.097	392.750	0.644 *	392.760	0.606
2	392.750	1.350 *	392.760	1.385	392.820	2.500 *	392.760	0.840 *	392.750	0.673	392.760	0.602
3	392.750	1.350 *	392.780	1.522	392.830	2.889	392.760	1.087	392.750	0.651	392.760	0.600
4	392.750	1.408	392.800	2.485	392.830	2.750 *	392.760	0.840 *	392.750	0.622	392.760	0.598
5	392.880	5.150	392.830	2.967	392.830	2.779	392.760	0.951	392.750	0.648	392.760	0.599
6	392.880	5.121	392.840	3.032	392.820	2.387	392.760	0.941	392.750	0.649	392.760	0.840 *
7	392.880	5.123	392.840	3.200 *	392.810	2.261	392.760	0.958	392.750	0.644	392.760	0.591
8	392.880	5.123	392.840	3.018	392.810	2.264	392.760	0.968	392.750	0.644 *	392.740	0.385
9	392.880	5.054	392.850	3.470	392.800	2.253	392.760	0.952	392.750	0.635	392.740	0.393
10	392.880	4.995 *	392.850	3.371	392.800	2.237	392.760	0.950	392.750	0.647	392.740	0.378
11	392.880	5.003	392.850	3.314	392.800	2.100 *	392.760	0.840 *	392.750	0.646	392.740	0.387
12	392.880	4.917	392.860	3.825	392.800	2.279	392.760	0.945	392.760	0.879	392.740	0.386
13	392.870	4.750	392.860	3.825	392.780	2.175	392.760	0.934	392.760	0.876	392.740	0.450 *
14	392.880	5.040	392.860	4.000 *	392.770	2.150	392.760	0.928	392.760	0.887	392.740	0.386
15	392.880	4.955	392.870	4.300 *	392.760	2.089	392.760	0.925	392.760	0.840 *	392.740	0.473
16	392.880	4.948	392.870	5.407	392.760	2.095	392.760	0.932	392.760	0.882	392.740	0.546
17	392.880	4.995 *	392.880	5.427	392.760	2.098	392.760	0.942	392.760	0.879	392.740	0.541
18	392.880	5.002	392.880	5.448	392.760	1.380 *	392.760	0.840 *	392.760	0.884	392.740	0.540
19	392.860	4.139	392.880	5.364	392.760	2.078	392.760	0.851	392.760	0.886	392.740	0.534
20	392.850	3.500 #	392.880	5.350	392.760	2.045	392.760	0.853	392.760	0.870	392.740	0.450 *
21	392.850	3.500 #	392.870	4.300 *	392.760	2.028	392.760	0.853	392.760	0.873	392.740	0.536
22	392.850	3.500 #	392.860	3.975	392.760	1.761	392.760	0.853	392.760	0.840 *	392.740	0.530
23	392.850	3.500 #	392.840	2.714	392.760	1.758	392.760	0.864	392.760	0.873	392.740	0.450
24	392.840	3.200 *	392.820	2.418	392.760	1.794	392.760	0.867	392.760	0.873	392.740	0.459
25	392.830	3.200 *	392.820	2.363	392.760	1.380 *	392.760	0.840 *	392.760	0.863	392.740	0.453
26	392.820	3.000 #	392.800	2.300 *	392.760	1.798	392.760	0.862	392.760	0.751	392.740	0.452
27	392.880	4.962	392.800	2.326	392.760	1.401	392.750	0.677	392.760	0.695	392.740	0.450 *
28	392.880	4.928	392.800	2.300 *	392.760	1.096	392.750	0.671	392.760	0.607	392.740	0.450
29	392.760	1.487	392.790	1.973			392.750	0.644 *	392.760	0.840 *	392.740	0.450 *
30	392.760	1.390	392.790	1.969			392.750	0.644 *	392.760	0.840 *	392.740	0.444
31	392.760	1.380 *	392.800	2.338			392.750	0.672			392.740	0.436
Ten-Daily Mean												
I Ten-Daily	392.828	3.610	392.815	2.584	392.816	2.478	392.760	0.958	392.750	0.646	392.754	0.559
II Ten-Daily	392.874	4.725	392.869	4.626	392.771	2.049	392.760	0.899	392.759	0.853	392.740	0.469
III Ten-Daily	392.825	3.095	392.817	2.634	392.760	1.627	392.755	0.768	392.760	0.805	392.740	0.464
Monthly												
Min.	392.750	1.350	392.760	1.385	392.760	1.096	392.750	0.644	392.750	0.607	392.740	0.378
Max.	392.880	5.150	392.880	5.448	392.830	2.889	392.760	1.097	392.760	0.887	392.760	0.840
Mean	392.842	3.787	392.833	3.261	392.784	2.082	392.758	0.872	392.756	0.768	392.745	0.497

Peak Computed Discharge = 277.3 cumecs on 15/10/2017 **Corres. Water Level :394.63 m**

Lowest Computed Discharge = 0.450 cumecs on 13/05/2018 **Corres. Water Level :392.74 m**

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

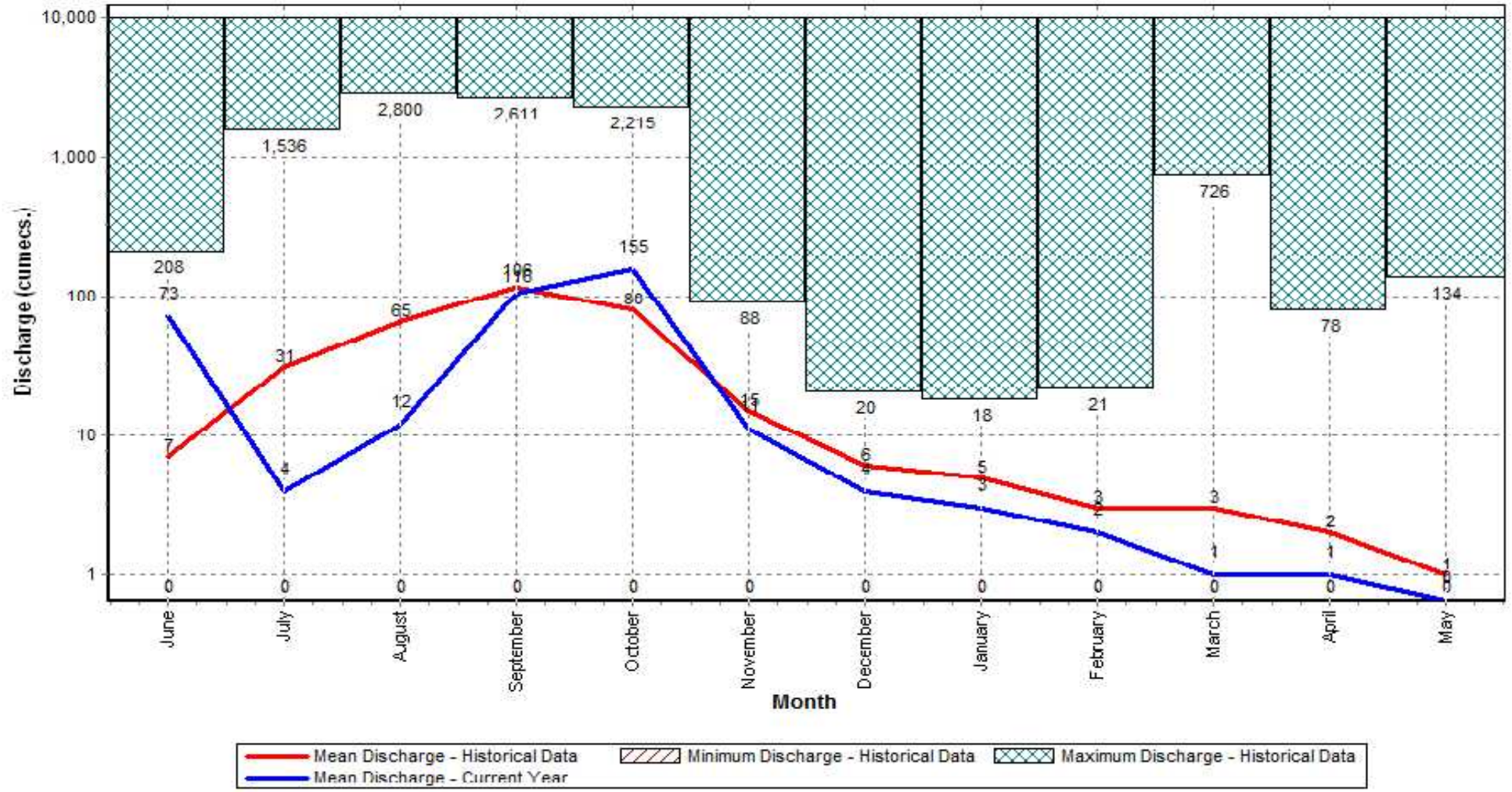
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Malkhed (AKP10E1) | **Data considered : 1991-2018** | **Division : Lower Krishna Divn., Hyderabad**

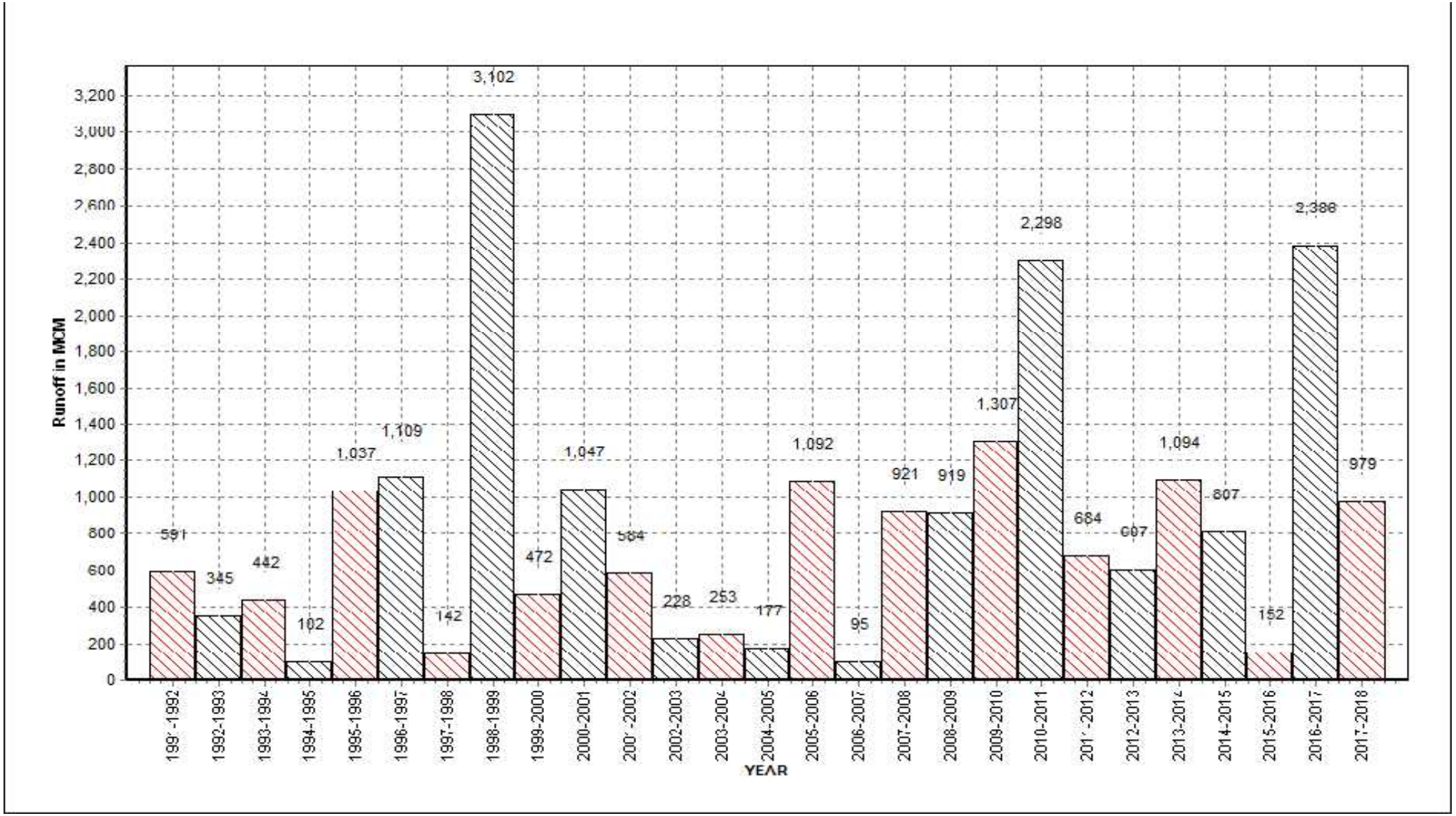
Local River : Kagna | **Sub-Division : Middle Krishna SD 2 , Kurnool**



Annual Runoff Values for the period: 1991 - 2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**



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

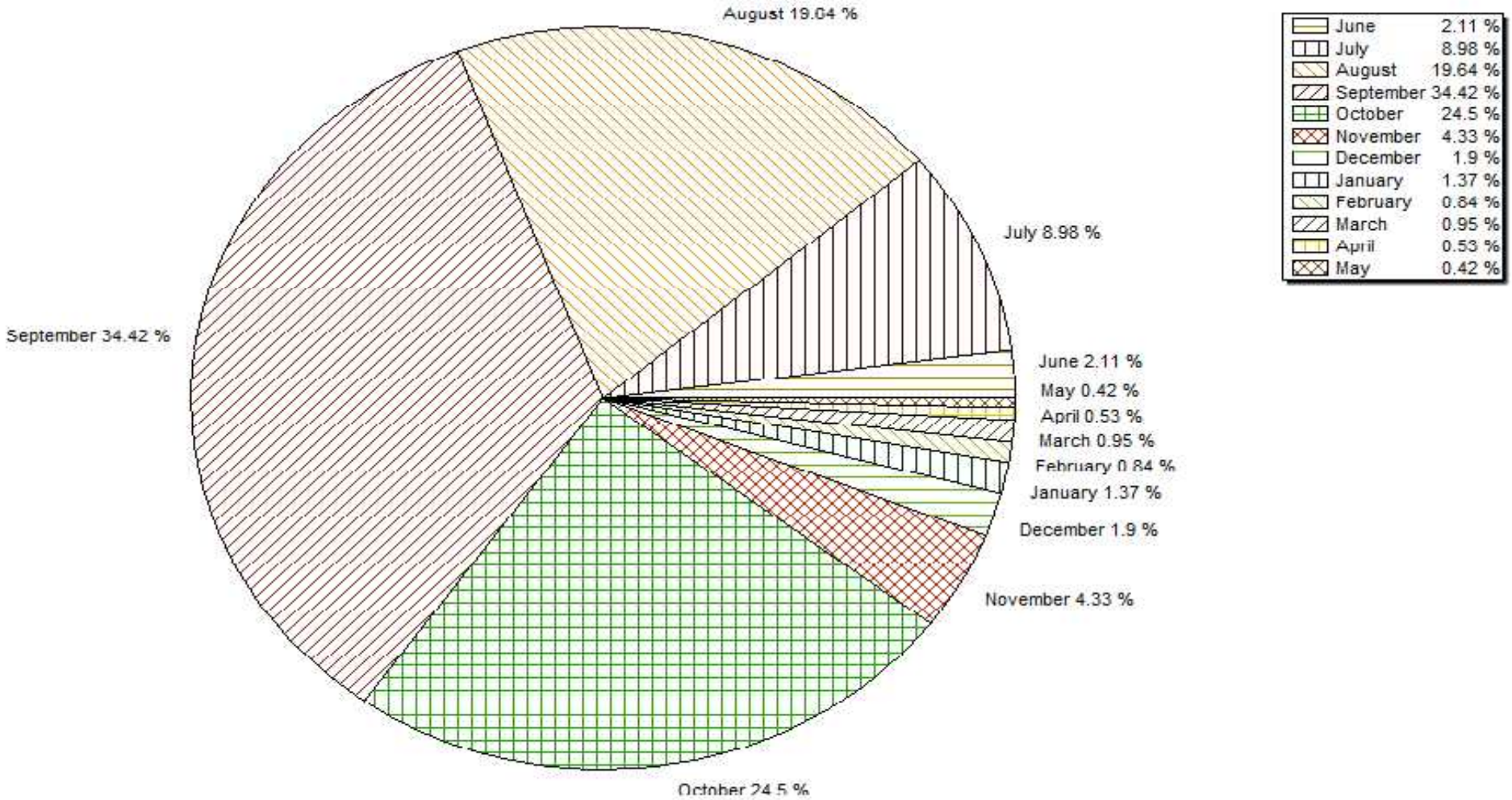
Monthly Average Runoff based on period : 1991-2017

Station Name : Malkhed (AKP10E1)

Local River : Kagna

Division : Lower Krishna Divn., Hyderabad

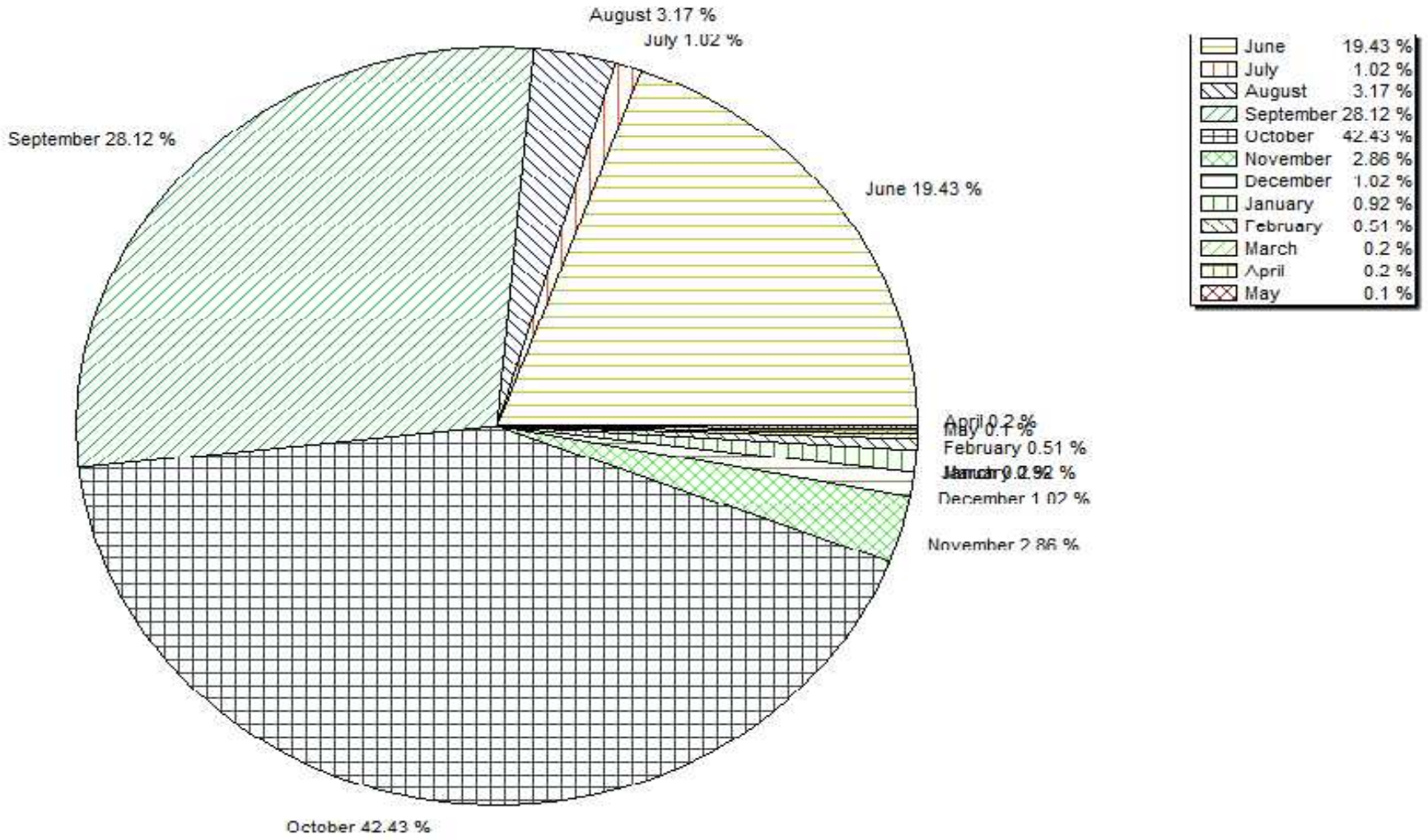
Sub-Division : Middle Krishna SD 2 , Kurnool



Monthly Runoff for the Year : 2017-2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

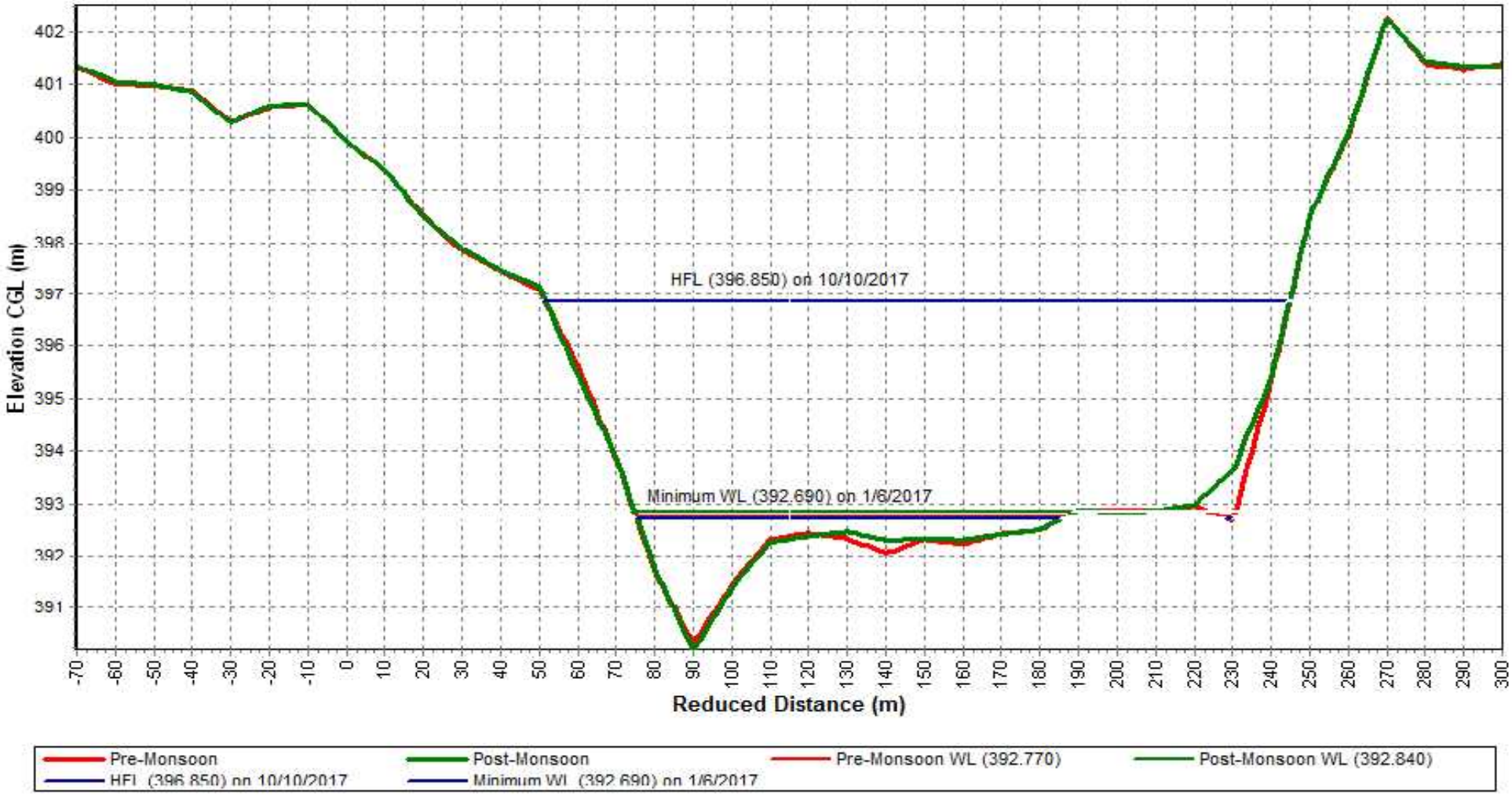
Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

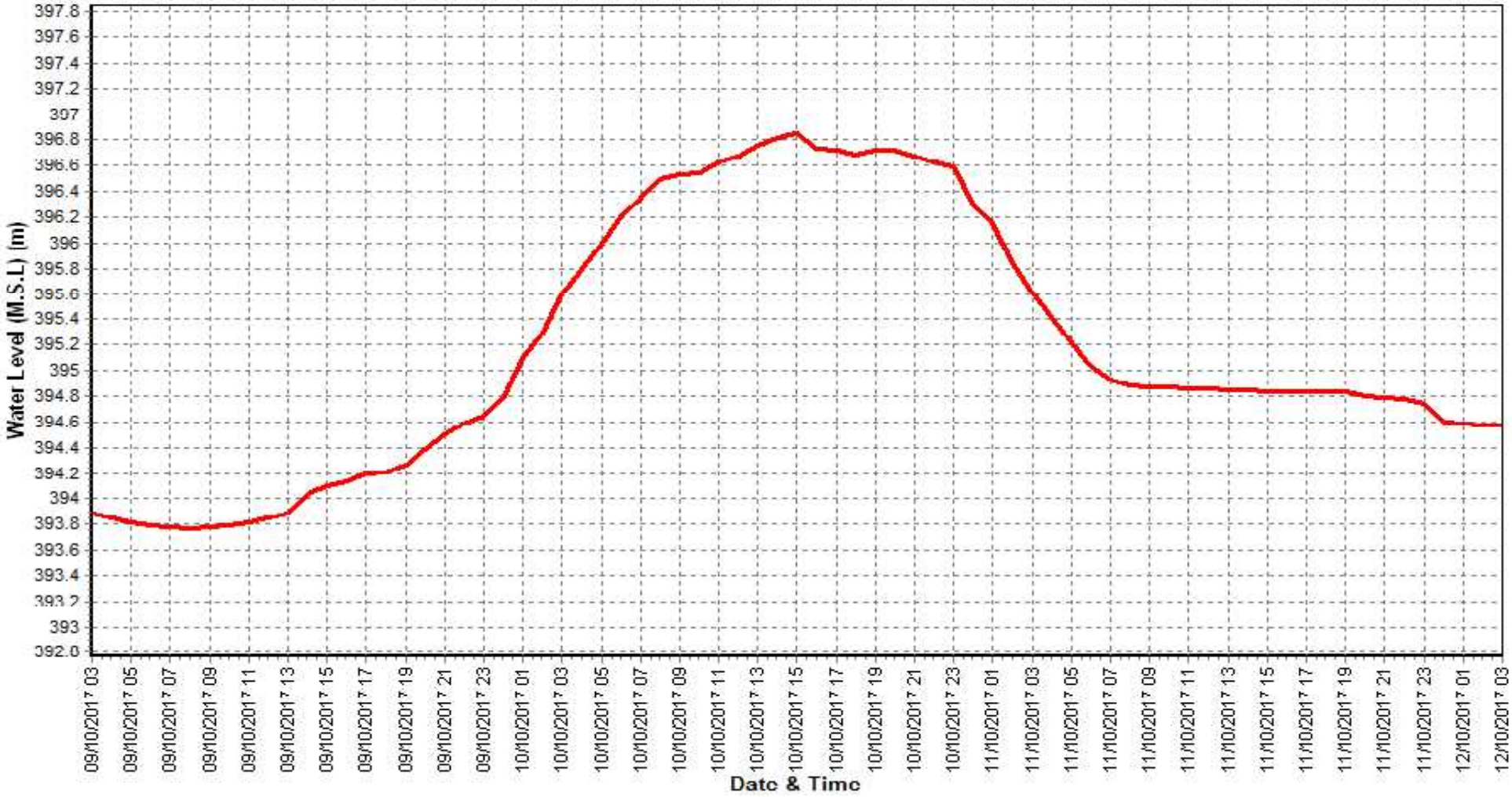
Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**

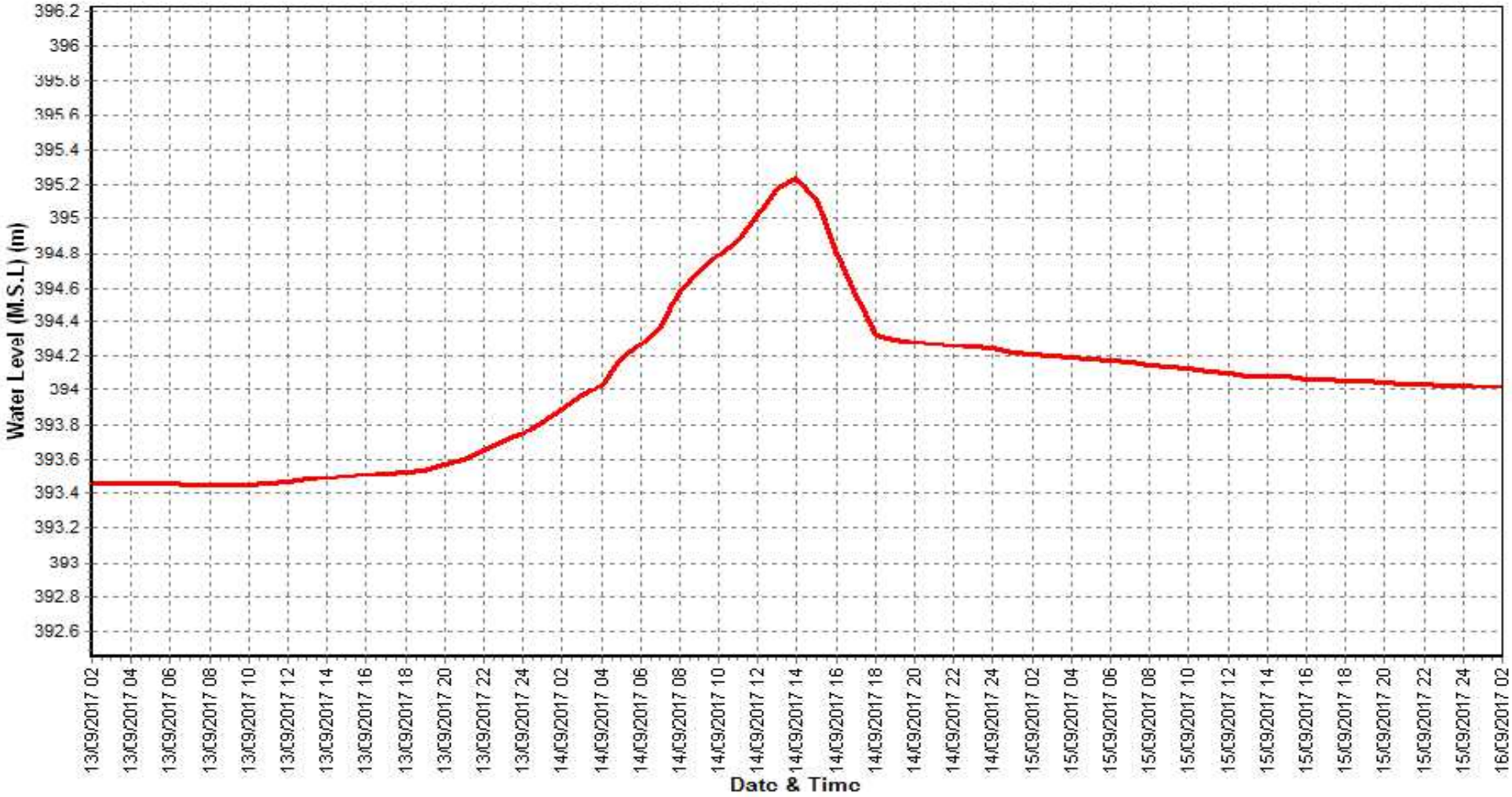


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**

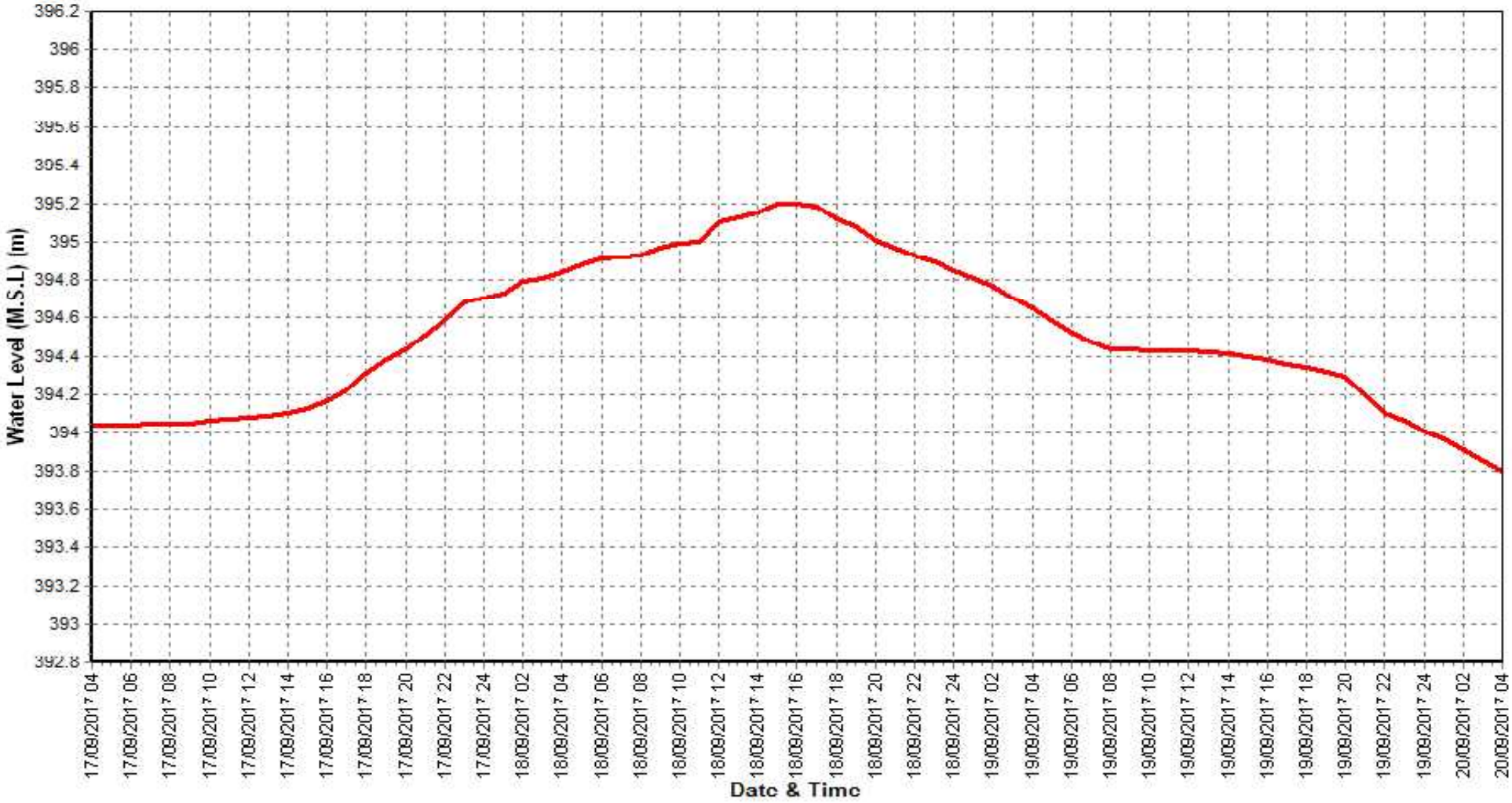


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Wadakbal**		**Code**	**: AKP60C4**	
State	: Maharashtra		District	Sholapur	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Bhima		Sub Tributary	: Sina	
Sub-Sub Tributary	: -		Local River	: Sina	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Bhima SD, Sholapur	
Drainage Area	: 12092 Sq. Km.		Bank	: Right	
Latitude	: 17°32'03"		Longitude	: 75°53'06"	
Zero of Gauge (m)	: 418.883 (m.s.l)		19/07/1963	- 31/10/1966	
	418.383 (m.s.l)		01/11/1966	- 31/05/1969	
	416.883 (m.s.l)		01/06/1969	- 31/05/2011	
	417 (m.s.l)		01/06/2011		
	Opening Date		Closing Date		
			HFL During 2017-18	: 424.75m	
Gauge	: 19/07/1963		Corres. Discharge	: 850.6(Estimated)	
			Date & Time of	: 24/09/2017	
Discharge	: 06/08/1964		occurance	: 03.00 hrs.	
Sediment	: 01/06/1965		31/05/2006		
Water Quality	: 01/09/1972		31/05/2006		

HFL Recorded so far in m : 428.563 dt 29-09-1989
Corresponding Discharge (cumecs) : 3271 observed

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	1480	425.303	05/05/1966	0.040	418.898	27/03/1966
1966-1967	2025	426.693	15/11/1966	0.030	418.933	19/05/1967
1967-1968	1733	425.793	28/09/1967	0.000	418.848	13/06/1967
1968-1969	762.3	423.603	02/10/1968	0.000		30/04/1969
1969-1970	2488	426.783	05/09/1969	0.000	418.508	02/06/1969
1970-1971	3070	427.753	19/09/1970	0.100	418.728	03/05/1971
1971-1972	1495	425.603	26/09/1971	0.000	418.803	13/05/1972
1972-1973	201.2	421.263	08/09/1972	0.000		03/02/1973
1973-1974	934.7	424.141	20/09/1973	0.000	418.888	08/05/1974
1974-1975	731.1	423.573	23/10/1974	0.000	418.873	06/05/1975
1975-1976	1330	425.343	10/10/1975	0.000	418.763	15/05/1976
1976-1977	359.5	422.176	26/08/1976	0.000	418.633	27/03/1977
1977-1978	882.1	424.435	24/11/1977	0.000	418.618	20/04/1978
1978-1979	1156	425.128	12/06/1978	0.000	418.473	30/04/1979
1979-1980	1671	426.388	27/09/1979	0.000	418.543	01/07/1979
1980-1981	1051	424.938	22/08/1980	0.000	418.553	05/04/1981
1981-1982	912.9	424.718	22/09/1981	0.000	418.453	09/03/1982

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**
1982-1983	209.7	421.720	23/09/1982	0.000	418.733	25/01/1983
1983-1984	2439	427.709	24/09/1983	0.000	418.673	15/04/1984
1984-1985	1169	425.977	10/10/1984	0.000	418.583	05/02/1985
1985-1986	562.0	423.611	06/10/1985	0.000		10/01/1986
1986-1987	539.2	423.298	23/09/1986	0.000	418.753	10/01/1987
1987-1988	591.5	423.791	19/10/1987	0.000	418.583	03/03/1988
1988-1989	1571	427.148	17/09/1988	0.000	418.663	28/01/1989
1989-1990	2746	428.538	29/09/1989	0.000	418.633	29/01/1990
1990-1991	821.7	424.946	17/08/1990	0.000		03/03/1991
1991-1992	570.6	423.210	09/06/1991	0.000	418.383	26/01/1992
1992-1993	142.1	421.007	03/09/1992	0.000		25/01/1993
1993-1994	558.8	423.854	15/10/1993	0.000	419.383	29/01/1994
1994-1995	20.00	419.963	16/10/1994	0.000	419.763	25/01/1995
1995-1996	321.8	422.508	14/09/1995	0.000	418.513	26/01/1996
1996-1997	631.0	424.653	13/09/1996	0.000	419.883	25/01/1997
1997-1998	325.2	422.508	28/10/1997	0.000	419.463	25/01/1998
1998-1999	2302	428.033	29/09/1998	0.000	419.083	15/02/1999
1999-2000	156.9	421.483	17/06/1999	0.000		24/11/1999
2000-2001	936.0	426.278	28/08/2000	0.000	418.643	23/01/2001
2001-2002	522.1	424.533	09/10/2001	0.000		25/01/2002
2002-2003	73.17	420.498	03/08/2002	0.000	418.723	24/01/2003
2003-2004	8.000	419.218	28/12/2003	0.000		27/01/2004
2004-2005	200.4	421.978	06/06/2004	0.000		25/01/2005
2005-2006	480.0	423.488	10/09/2005	0.000	419.313	22/01/2006
2006-2007	488.6	423.683	24/09/2006	0.000	418.763	21/01/2007
2007-2008	565.6	423.668	21/09/2007	0.000	418.783	16/01/2008
2008-2009	1159	426.543	15/09/2008	0.000		07/01/2009
2009-2010	381.3	422.933	05/10/2009	0.000		15/04/2010
2010-2011	1213	426.423	29/08/2010	0.000	419.763	01/05/2011
2011-2012	64.69	420.155	22/08/2011	0.000		19/01/2012
2012-2013	60.76	420.280	07/10/2012	0.000		14/06/2012
2013-2014	421.5	422.760	21/09/2013	0.000		01/02/2014
2014-2015	120.9	420.740	31/08/2014	0.000		03/07/2014
2015-2016	21.03	419.345	11/09/2015	0.000		13/11/2015
2016-2017	970.6	425.565	04/10/2016	0.000	418.540	23/01/2017

Annual runoff of Sina at Wadakbal

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	760	192	952
2	**1966-1967**	801	43	844
3	**1967-1968**	1347	126	1473
4	**1968-1969**	658	18	676
5	**1969-1970**	2378	55	2432
6	**1970-1971**	1844	54	1897
7	**1971-1972**	1333	26	1359
8	**1972-1973**	110	0	110
9	**1973-1974**	1411	43	1454
10	**1974-1975**	1255	51	1306
11	**1975-1976**	2060	99	2159
12	**1976-1977**	266	3	269
13	**1977-1978**	460	191	651
14	**1978-1979**	905	25	930
15	**1979-1980**	1179	168	1347
16	**1980-1981**	878	28	906
17	**1981-1982**	575	7	582
18	**1982-1983**	142	0	142
19	**1983-1984**	2646	34	2680
20	**1984-1985**	555	4	558
21	**1985-1986**	206	3	209
22	**1986-1987**	240	5	245
23	**1987-1988**	486	19	505
24	**1988-1989**	2416	2	2418
25	**1989-1990**	1936	46	1982
26	**1990-1991**	1826	7	1833
27	**1991-1992**	415	0	415
28	**1992-1993**	58	0	58
29	**1993-1994**	417	14	431
30	**1994-1995**	42	0	42
31	**1995-1996**	169	0	169
32	**1996-1997**	565	0	565
33	**1997-1998**	123	0	123
34	**1998-1999**	3691	5	3696
35	**1999-2000**	199	16	215
36	**2000-2001**	743	6	749
37	**2001-2002**	188	0	188
38	**2002-2003**	15	3	18
39	**2003-2004**	1	2	3
40	**2004-2005**	193	0	193
41	**2005-2006**	311	5	316
42	**2006-2007**	868	4	872
43	**2007-2008**	550	18	568
44	**2008-2009**	686	95	781
45	**2009-2010**	344	189	534
46	**2010-2011**	2035	101	2136
47	**2011-2012**	112	2	115
48	**2012-2013**	17	1	18
49	**2013-2014**	222	3	225
50	**2014-2015**	100	7	108
51	**2015-2016**	3	0	3
52	**2016-2017**	440	5	445
53	**2017-2018**	985	4	989
Average		796	33	828

Stage-Discharge Data for the period 2017 - 2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**

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	418.580	0.000		0.000	419.970	53.60 #	420.570	105.1 *	419.410	0.000
2		0.000	418.540	0.000		0.000	419.810	42.53 *	420.355	96.93	419.900	0.000
3		0.000	418.520	0.000		0.000	419.710	36.20 *	420.345	94.22	419.890	0.000
4		0.000		0.000		0.000	419.535	20.93	420.330	89.14	419.620	0.000
5		0.000		0.000		0.000	419.440	18.14	420.220	66.57	419.360	0.000
6		0.000		0.000		0.000	419.455	22.05	420.070	60.94	419.420	0.000
7		0.000		0.000		0.000	419.375	18.27	419.925	42.03	419.530	0.000
8		0.000		0.000		0.000	420.005	60.52	420.010	56.55 *	419.660	0.000
9	418.670	0.000		0.000		0.000	420.945	137.6	420.105	62.17	419.590	0.000
10	418.710	0.000		0.000		0.000	420.370	86.22 *	420.650	103.3	419.460	0.000
11	418.840	1.838 *		0.000		0.000	420.000	60.71	421.805	253.7	419.370	0.000
12	418.895	3.362		0.000		0.000	419.980	57.08	422.480	361.1	419.270	0.000
13	419.610	24.15		0.000		0.000	419.903	47.57	421.625	237.7	419.170	0.000
14	419.050	6.318		0.000	418.860	2.203	421.073	174.5	421.150	172.9	419.070	0.000
15	420.195	71.10 #		0.000	418.930	3.517 *	422.958	438.5	423.305	551.7	418.830	0.000
16	419.740	36.79		0.000	418.935	4.978	423.755	613.1	422.590	406.2	418.740	0.000
17	421.040	164.7		0.000	419.095	6.905	423.915	654.9	421.990	315.5	418.640	0.000
18	420.070	61.10 *		0.000	419.125	7.560	422.475	359.9	421.680	264.4	418.600	0.000
19	419.500	23.22		0.000	418.905	4.373	421.755	240.2	420.920	142.1 *	418.590	0.000
20	419.310	13.72		0.000	418.920	3.307 *	421.330	189.7	420.700	122.6	418.570	0.000
21	419.165	9.657		0.000	419.315	14.69	421.100	187.9	420.115	68.63	418.520	0.000
22	419.075	7.197		0.000	419.775	36.81	420.995	166.8	420.510	99.26 *		0.000
23	419.035	6.841		0.000	419.260	13.40	423.995	667.5	420.205	73.04		0.000
24	419.020	5.592		0.000	419.030	6.117	424.660	820.2	420.550	114.6		0.000
25	418.970	4.417 *		0.000	418.880	2.524 *	422.900	435.9	420.220	76.47		0.000
26	418.820	1.532 *		0.000	418.895	2.806 #	421.630	245.2	419.800	37.37		0.000
27	418.710	0.000		0.000	418.880	2.524 *	421.180	181.5	419.980	40.54		0.000
28	418.690	0.000		0.000	419.005	6.040	420.880	135.2	419.520	24.50		0.000
29	418.660	0.000		0.000	419.060	6.832	420.640	115.6	419.770	39.94 *		0.000
30	418.610	0.000		0.000	420.570	106.3	420.870	136.5 *	419.520	24.27		0.000
31				0.000	420.485	89.30			419.200	10.30		
Ten-Daily Mean												
I Ten-Daily	418.690	0.000	418.547	0.000		0.000	419.862	49.61	420.258	77.70	419.584	0.000
II Ten-Daily	419.625	40.62		0.000	418.967	3.284	421.714	283.6	421.825	282.8	418.885	0.000
III Ten-Daily	418.875	3.524		0.000	419.378	26.13	421.885	309.2	419.945	55.35	418.520	0.000
Monthly												
Min.	418.610	0.000	418.520	0.000	418.860	0.000	419.375	18.14	419.200	10.30	418.520	0.000
Max.	421.040	164.7	418.580	0.000	420.570	106.3	424.660	820.2	423.305	551.7	419.900	0.000
Mean	419.199	14.72	418.547	0	419.218	10.33	421.154	214.1	420.652	135.9	419.201	0

Annual Runoff in MCM = 989 Annual Runoff in mm = 82

Peak Observed Discharge = 820.2 cumecs on 24/09/2017 Corres. Water Level :424.66 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1		0.000		0.000	419.060	0.000		0.000		0.000	418.930	0.000
2		0.000		0.000	419.590	0.000		0.000		0.000	418.830	0.000
3		0.000		0.000	419.610	0.000		0.000		0.000	418.700	0.000
4		0.000		0.000	419.580	0.000		0.000		0.000	418.620	0.000
5		0.000		0.000	419.470	0.000		0.000		0.000		0.000
6		0.000		0.000	419.350	0.000		0.000		0.000		0.000
7		0.000		0.000	419.160	0.000		0.000		0.000		0.000
8		0.000		0.000	419.060	0.000		0.000		0.000		0.000
9		0.000		0.000	418.950	0.000		0.000		0.000		0.000
10		0.000		0.000	418.880	0.000		0.000		0.000		0.000
11		0.000		0.000	418.790	0.000		0.000	419.030	5.964		0.000
12		0.000		0.000	418.710	0.000		0.000	418.910	2.480		0.000
13		0.000		0.000	418.620	0.000		0.000	418.725	0.434 #		0.000
14		0.000		0.000	418.620	0.000		0.000	418.680	0.000		0.000
15		0.000		0.000	418.610	0.000		0.000	418.730	0.000		0.000
16		0.000		0.000	418.600	0.000		0.000	418.670	0.000		0.000
17		0.000		0.000	418.600	0.000		0.000	418.630	0.000		0.000
18		0.000		0.000	418.590	0.000		0.000	418.600	0.000		0.000
19		0.000		0.000	418.580	0.000		0.000	418.620	0.000		0.000
20		0.000		0.000	418.570	0.000		0.000	418.580	0.000		0.000
21		0.000		0.000	418.560	0.000		0.000	418.530	0.000		0.000
22		0.000		0.000	418.540	0.000		0.000	418.510	0.000		0.000
23		0.000		0.000	418.530	0.000		0.000		0.000		0.000
24		0.000		0.000	418.520	0.000		0.000		0.000		0.000
25		0.000	419.350	17.98		0.000		0.000	418.920	3.925		0.000
26		0.000	419.950	0.000		0.000		0.000	418.970	4.514		0.000
27		0.000	419.470	0.000		0.000		0.000	418.925	3.007		0.000
28		0.000	419.370	0.000		0.000		0.000	418.900	2.922		0.000
29		0.000	419.270	0.000				0.000	418.980	4.500		0.000
30		0.000	419.100	0.000				0.000	418.990	4.700		0.000
31		0.000	419.060	0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily		0.000		0.000	419.271	0.000		0.000		0.000	418.770	0.000
II Ten-Daily		0.000		0.000	418.629	0.000		0.000	418.718	0.888		0.000
III Ten-Daily		0.000	419.367	1.635	418.538	0.000		0.000	418.841	2.357		0.000
Monthly												
Min.		0.000	419.060	0.000	418.520	0.000		0.000	418.510	0.000	418.620	0.000
Max.		0.000	419.950	17.98	419.610	0.000		0.000	419.030	5.964	418.930	0.000
Mean		0	419.367	0.58	418.881	0		0	418.772	1.082	418.770	0

Peak Computed Discharge = 142.1 cumecs on 19/10/2017 Corres. Water Level :420.92 m

Lowest Computed Discharge = 1.532 cumecs on 26/06/2017 Corres. Water Level :418.82 m

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

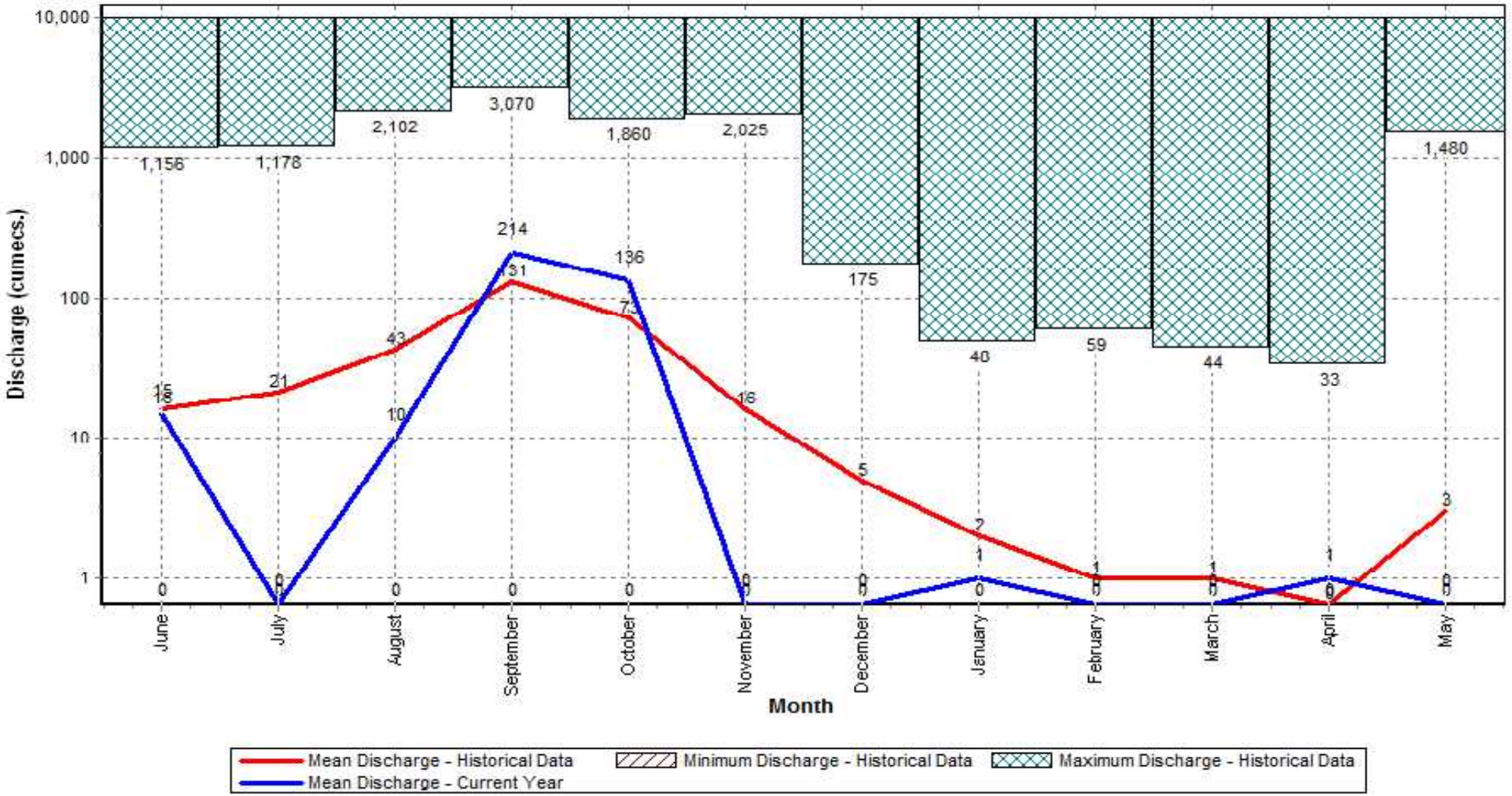
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Wadakbal (AKP60C4) **Data considered : 1965-2018** **Division : Upper Krishna Divn, Pune**

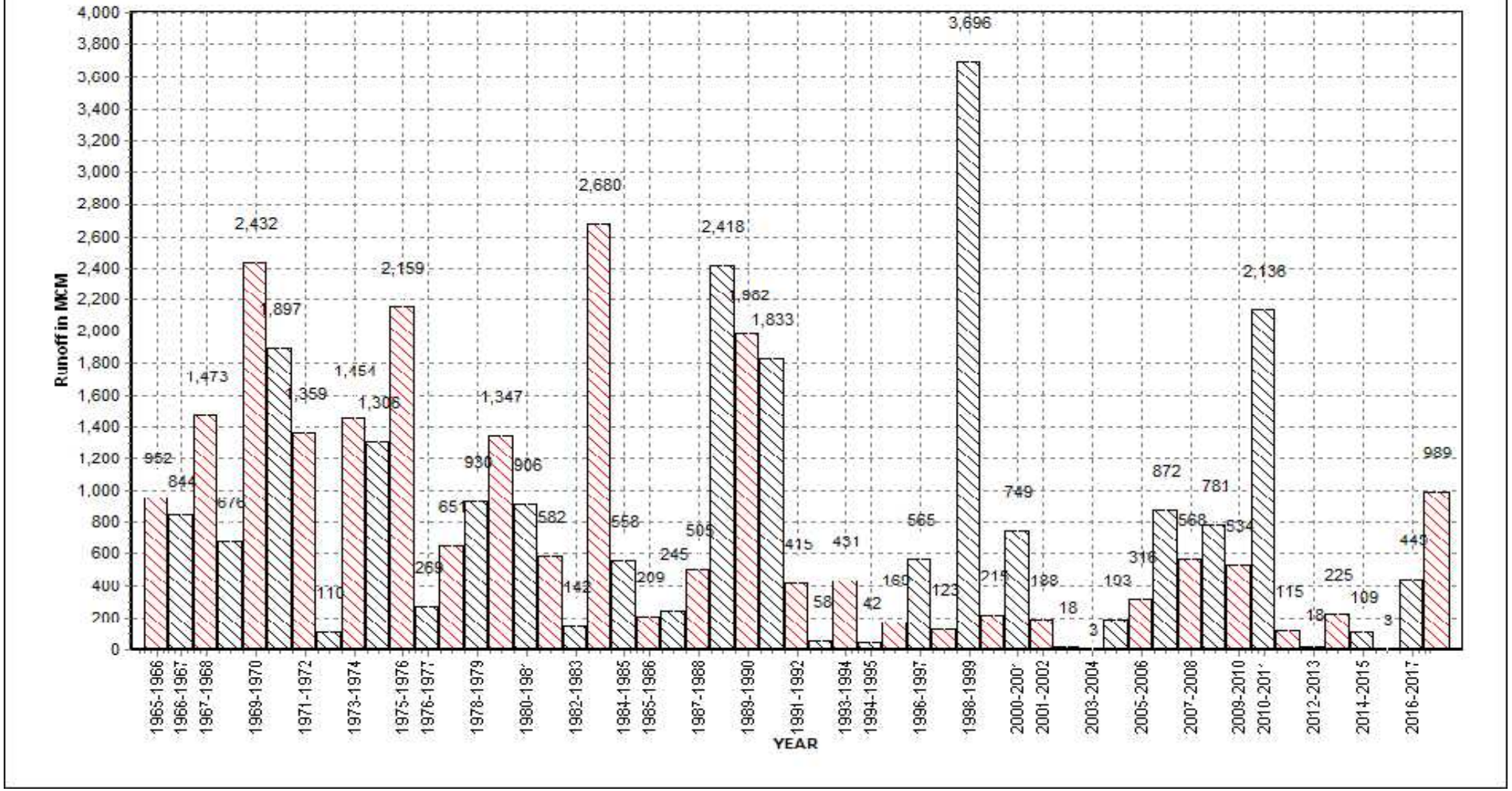
Local River : Sina **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**

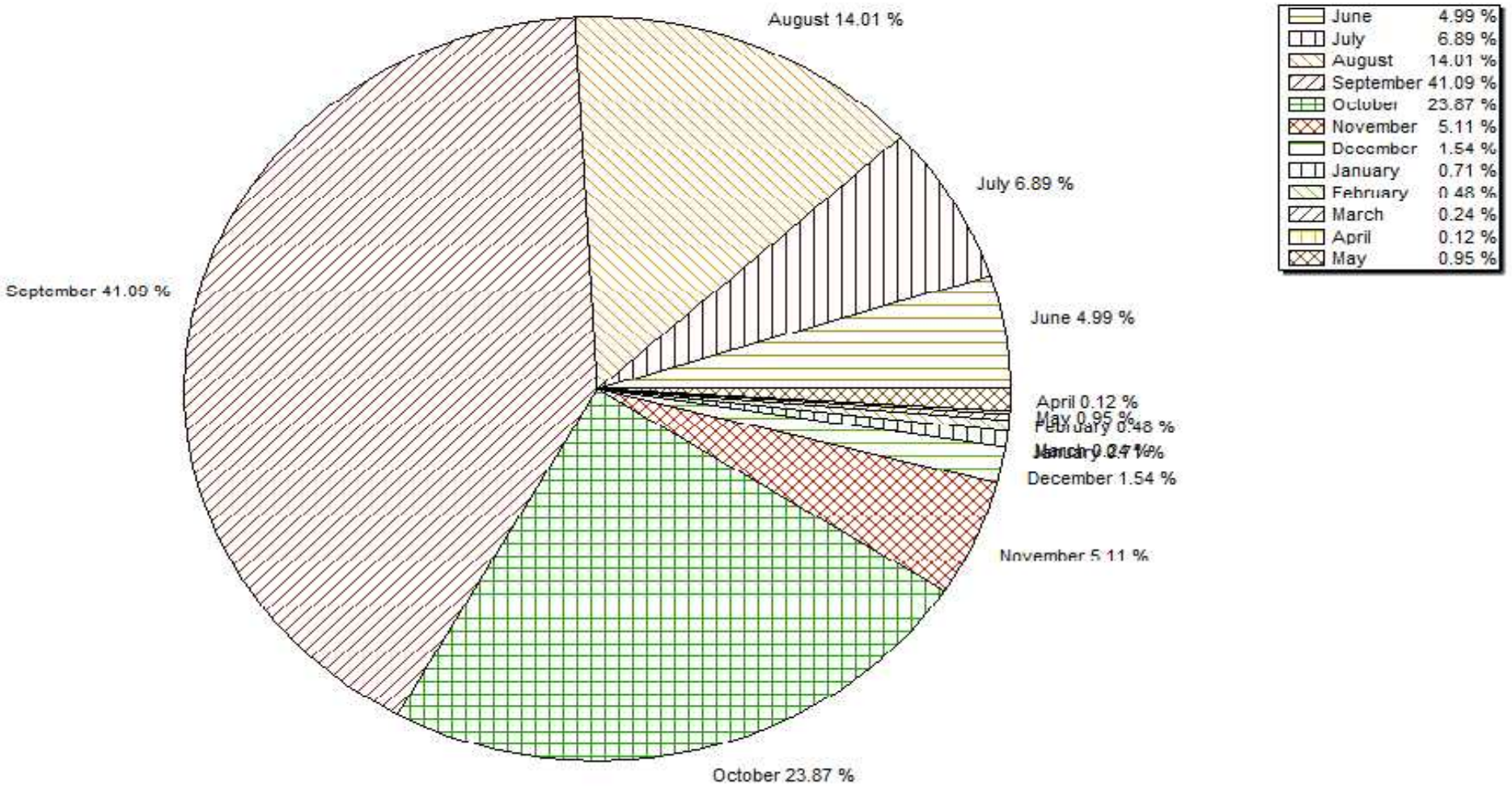


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**



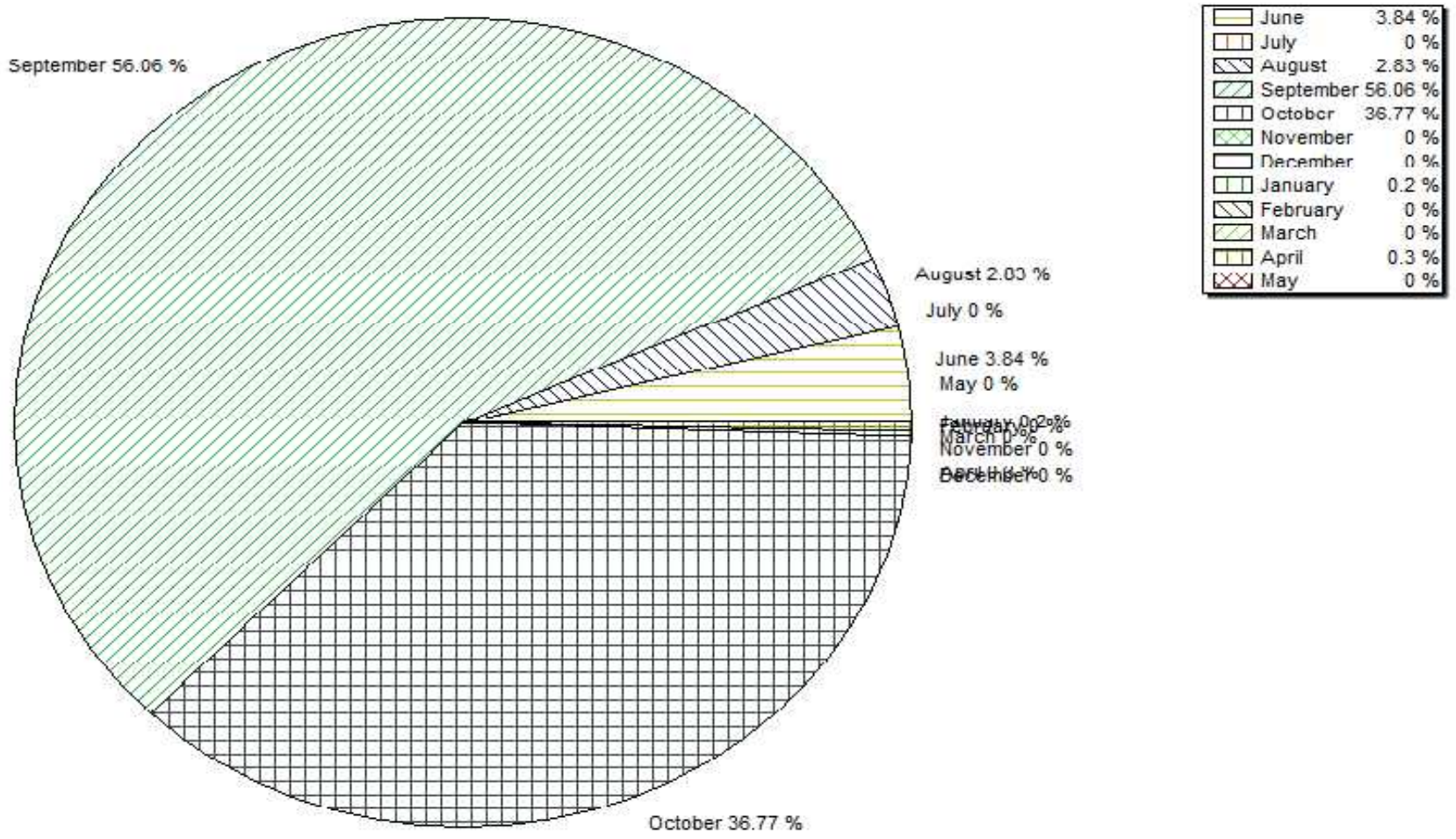
Monthly Runoff for the Year : 2017-2018

Station Name : Wadakbal (AKP60C4)

Local River : Sina

Division : Upper Krishna Divn, Pune

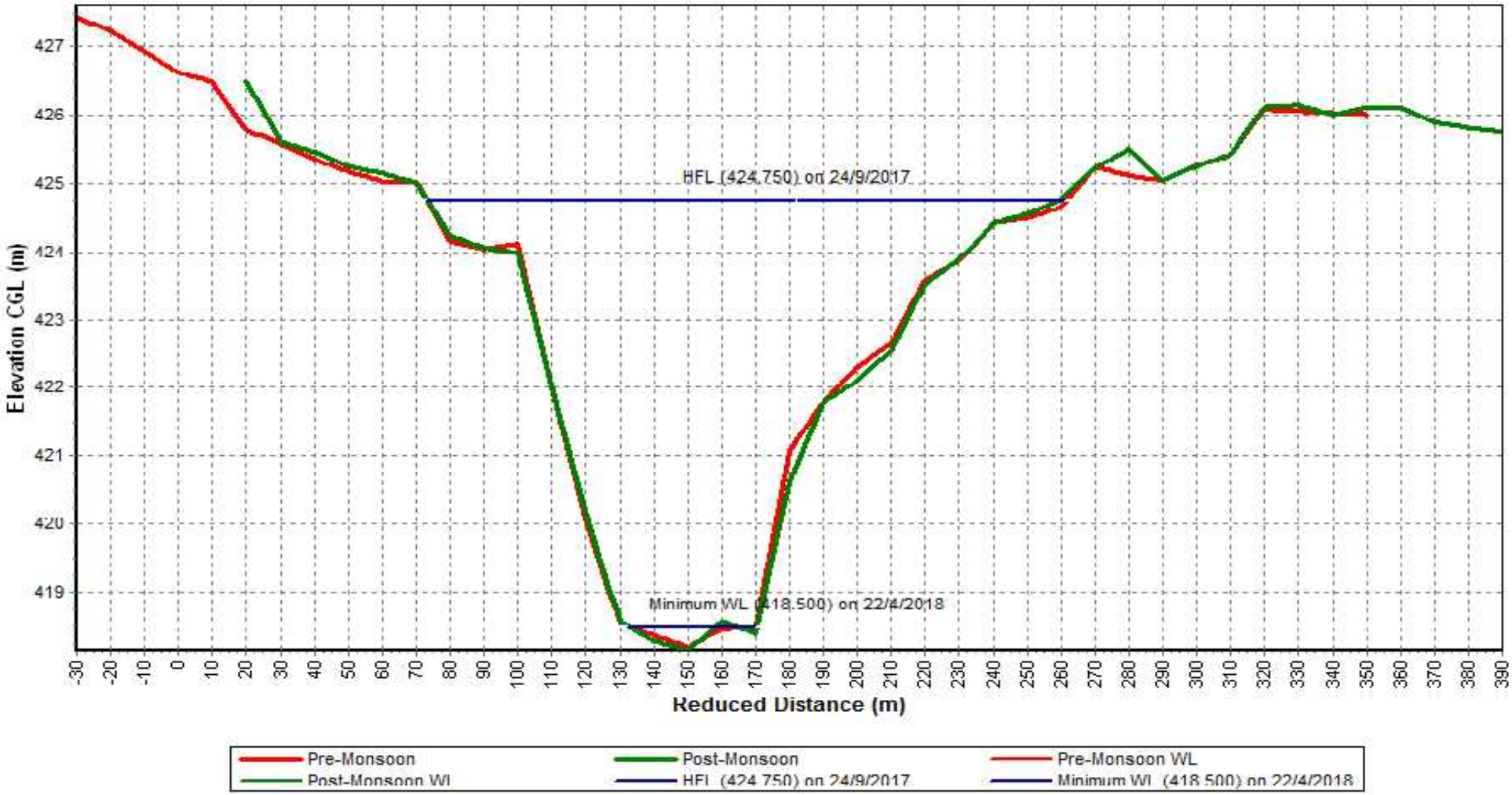
Sub-Division : Bhima SD, Sholapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

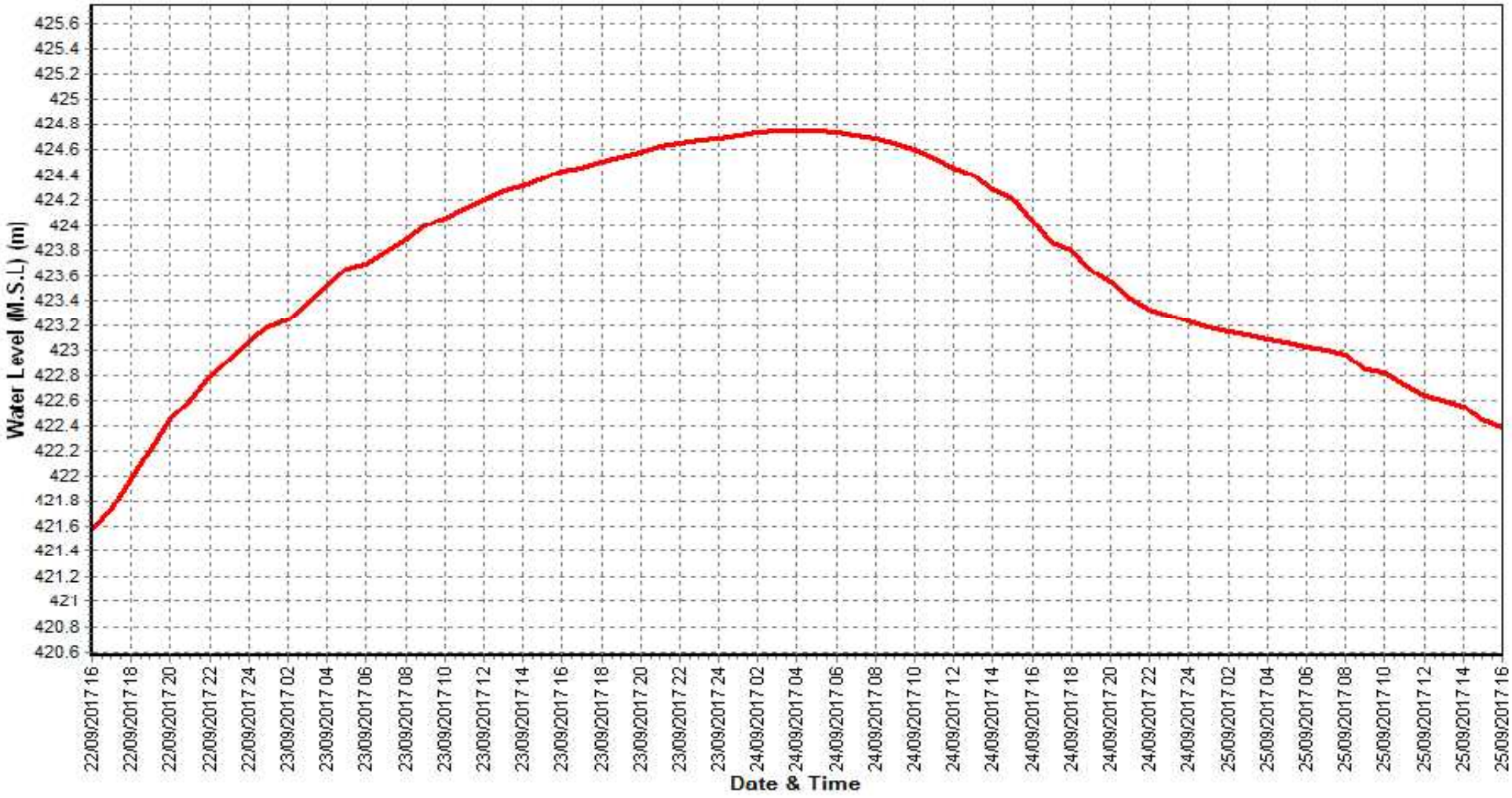
Local River : Sina **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Takli**		**Code**	**: AKP00K4**	
State	: Maharashtra		District	Sholapur	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Bhima		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Bhima	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Bhima SD, Sholapur	
Drainage Area	: 33916 Sq. Km.		Bank	: Left	
Latitude	: 17°24'51"		Longitude	: 75°50'52"	
Zero of Gauge (m)	: 410.778 (m.s.l) 409.278 (m.s.l) 408 (m.s.l)		20/07/1963 25/06/1969 01/06/2011	- 24/06/1969 - 31/05/2011	
	Opening Date		Closing Date		
Gauge	: 14/07/1965		HFL During 2017-18	: 418.040m	
			Corres. Discharge	: 2402(Estimated)	
Discharge	: 01/06/1965		Date & Time of occurance	: 16/09/2017 : 22.00 hrs.	
Sediment	: 01/12/1966				
Water Quality	: 01/09/1972				

HFL Recorded so far in m : 423.718 dt 12-08-2006
Corresponding Discharge (cumecs) : 7662 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	4240	420.038	02/08/1965	0.400	411.223	02/05/1966
1966-1967	3898	418.868	01/08/1966	0.600	411.048	25/04/1967
1967-1968	8333	422.753	31/07/1967	0.700	411.183	24/05/1968
1968-1969	2480	417.869	09/08/1968	0.000	411.953	21/05/1969
1969-1970	5511	421.123	04/08/1969	0.100	411.163	05/05/1970
1970-1971	2244	416.738	20/09/1970	0.000		01/05/1971
1971-1972	4357	419.588	02/09/1971	0.000		04/05/1972
1972-1973	3351	418.808	11/07/1972	0.000	410.913	27/03/1973
1973-1974	3655	418.593	11/07/1973	0.000	411.133	31/03/1974
1974-1975	3030	418.013	24/09/1974	6.000	411.053	29/04/1975
1975-1976	4150	418.773	17/08/1975	0.000	410.408	19/05/1976
1976-1977	8296	422.094	05/08/1976	0.000	412.026	18/04/1977
1977-1978	1943	416.621	31/07/1977	1.300	411.028	05/04/1978
1978-1979	2164	417.273	04/09/1978	0.000	410.108	24/04/1979
1979-1980	8700	422.843	27/09/1979	0.000	411.125	31/05/1980
1980-1981	3285	419.032	06/08/1980	0.000	411.658	07/04/1981
1981-1982	4960	420.483	12/07/1981	0.000	411.718	02/04/1982
1982-1983	2036	416.975	25/08/1982	0.000	411.308	21/04/1983

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**
1983-1984	6691	421.942	19/08/1983	2.200	411.113	15/06/1983
1984-1985	2910	418.323	22/07/1984	0.000	411.508	06/06/1984
1985-1986	2373	417.488	05/08/1985	0.000	411.333	26/01/1986
1986-1987	2740	417.443	12/08/1986	0.000	411.403	05/01/1987
1987-1988	821.4	414.296	19/10/1987	0.000	411.428	22/03/1988
1988-1989	4005	420.358	19/09/1988	0.000	411.978	14/03/1989
1989-1990	4887	420.318	29/09/1989	0.000	411.728	08/04/1990
1990-1991	3934	419.588	19/08/1990	0.000	411.878	01/04/1991
1991-1992	4261	419.723	30/07/1991	0.000	411.291	20/10/1991
1992-1993	1624	416.201	08/09/1992	0.000	411.308	05/02/1993
1993-1994	2344	417.617	19/10/1993	0.000	411.608	10/04/1994
1994-1995	7698	422.453	18/07/1994	0.000	411.068	25/01/1995
1995-1996	232.7	412.418	01/07/1995	0.000	411.203	26/01/1996
1996-1997	5211	420.393	06/10/1996	0.000	411.318	20/02/1997
1997-1998	8120	423.293	28/08/1997	0.000	411.643	22/03/1998
1998-1999	5458	420.738	14/10/1998	0.000	411.538	30/03/1999
1999-2000	1050	414.558	01/08/1999	0.000	410.898	03/03/2000
2000-2001	148.6	412.238	30/09/2000	0.000		22/01/2001
2001-2002	1412	415.098	08/10/2001	0.000		25/01/2002
2002-2003	188.9	412.698	19/10/2002	0.000	409.878	16/01/2003
2003-2004	23.78	411.178	12/07/2003	0.000	411.473	26/01/2004
2004-2005	1054	414.563	15/08/2004	0.000	410.938	25/01/2005
2005-2006	7103	419.428	30/07/2005	0.000	410.873	25/01/2006
2006-2007	7672	423.653	12/08/2006	0.000	414.328	25/01/2007
2007-2008	2303	417.313	21/09/2007	0.000	412.978	26/01/2008
2008-2009	2412	417.878	22/09/2008	0.000	414.038	25/01/2009
2009-2010	3669	419.693	04/10/2009	0.000	413.798	25/01/2010
2010-2011	1375	415.188	07/10/2010	0.000	413.658	25/01/2011
2011-2012	4219	419.275	06/09/2011	0.000	411.885	24/02/2012
2012-2013	0.000	413.070	05/04/2013	0.000	411.220	07/06/2012
2013-2014	3399	418.570	21/09/2013	0.000	412.870	27/12/2013
2014-2015	1084	415.160	08/09/2014	0.000	410.430	05/01/2015
2015-2016	0.000	412.845	05/06/2015	0.000	411.325	26/09/2015
2016-2017	927.6	414.975	08/08/2016	0.000	412.980	25/01/2017

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

Annual Runoff of Bhima at Takali

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	6577	471	7048
2	**1966-1967**	5009	158	5167
3	**1967-1968**	8733	404	9137
4	**1968-1969**	5225	141	5366
5	**1969-1970**	10442	182	10624
6	**1970-1971**	7040	228	7269
7	**1971-1972**	7974	145	8120
8	**1972-1973**	2719	17	2736
9	**1973-1974**	8591	237	8828
10	**1974-1975**	7258	370	7628
11	**1975-1976**	10813	341	11154
12	**1976-1977**	11016	236	11252
13	**1977-1978**	4893	719	5611
14	**1978-1979**	6029	231	6259
15	**1979-1980**	8500	539	9040
16	**1980-1981**	6598	125	6723
17	**1981-1982**	8997	217	9214
18	**1982-1983**	2552	85	2636
19	**1983-1984**	7267	229	7496
20	**1984-1985**	5189	229	5418
21	**1985-1986**	2819	6	2824
22	**1986-1987**	2830	21	2850
23	**1987-1988**	1003	115	1118
24	**1988-1989**	7118	69	7188
25	**1989-1990**	5009	93	5102
26	**1990-1991**	8773	33	8806
27	**1991-1992**	8037	92	8129
28	**1992-1993**	2042	16	2058
29	**1993-1994**	3151	140	3291
30	**1994-1995**	11421	0	11421
31	**1995-1996**	222	0	222
32	**1996-1997**	4157	23	4179
33	**1997-1998**	4844	69	4913
34	**1998-1999**	9071	55	9126
35	**1999-2000**	2303	12	2315
36	**2000-2001**	253	26	278
37	**2001-2002**	726	0	726
38	**2002-2003**	42	7	49
39	**2003-2004**	8	0	8
40	**2004-2005**	1481	0	1481
41	**2005-2006**	9277	0	9277
42	**2006-2007**	11671	0	11671
43	**2007-2008**	5348	0	5348
44	**2008-2009**	2094	0	2094
45	**2009-2010**	3490	0	3490
46	**2010-2011**	1470	0	1470
47	**2011-2012**	2056	0	2056
48	**2012-2013**	0	0	0
49	**2013-2014**	2022	0	2022
50	**2014-2015**	1733	0	1733
51	**2015-2016**	0	0	0
52	**2016-2017**	814	0	814
53	**2017-2018**	**2868**	**0**	**2868**
Average		4898	115	5012

Stage-Discharge Data for the period 2017 - 2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

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	413.570	0.000	412.515	0.000	409.970	0.000	415.360	738.3 #	414.410	263.3 *	414.870	0.000
2	413.515	0.000	412.400	0.000	409.850	0.000	415.660	904.6 #	414.430	272.2 *	414.755	0.000
3	413.410	0.000	412.245	0.000	409.730	0.000	413.575	0.000	414.410	236.6	414.665	0.000
4	413.290	0.000	412.150	0.000	409.610	0.000	413.010	0.000	414.460	279.8	414.280	0.000
5	413.170	0.000	411.950	0.000	409.490	0.000	413.250	0.000	414.240	185.2	413.950	0.000
6	413.090	0.000	411.825	0.000	409.370	0.000	413.830	0.000	414.000	0.000	414.110	0.000
7	412.930	0.000	411.780	0.000	409.250	0.000	413.740	0.000	413.840	0.000	414.550	0.000
8	412.815	0.000	411.765	0.000	409.130	0.000	414.460	344.0	414.090	0.000	414.665	0.000
9	412.700	0.000	411.675	0.000	409.700	0.000	414.615	348.1	414.050	0.000	414.645	0.000
10	412.640	0.000	411.600	0.000	412.820	0.000	415.555	845.5	414.200	0.000	414.575	0.000
11	412.550	0.000	411.700	0.000	413.820	0.000	414.690	369.0	415.960	830.8	414.540	0.000
12	412.700	0.000	411.680	0.000	413.750	0.000	414.510	307.9	416.740	1357	414.455	0.000
13	412.850	0.000	411.600	0.000	413.710	0.000	414.770	456.7	416.355	1109 *	414.310	0.000
14	412.935	0.000	411.670	0.000	413.590	0.000	414.820	469.8	416.310	1083 *	414.200	0.000
15	412.950	0.000	411.950	0.000	413.460	0.000	415.970	1033	416.070	945.4 *	414.080	0.000
16	412.955	0.000	412.060	0.000	413.360	0.000	417.545	2076	416.490	1179	413.960	0.000
17	412.940	0.000	411.990	0.000	413.270	0.000	417.470	1958	416.700	1312	413.840	0.000
18	412.910	0.000	411.840	0.000	413.190	0.000	415.305	712.8	416.435	1140	413.760	0.000
19	412.890	0.000	411.720	0.000	413.090	0.000	415.410	785.1	415.500	620.5 *	413.835	0.000
20	412.840	0.000	411.590	0.000	413.020	0.000	415.300	716.0	415.570	674.7	413.885	0.000
21	412.765	0.000	411.460	0.000	412.940	0.000	415.030	562.7	415.030	375.9	413.860	0.000
22	412.705	0.000	411.340	0.000	412.865	0.000	416.100	1130	415.000	337.8 *	413.690	0.000
23	412.645	0.000	411.220	0.000	412.770	0.000	417.330	1996	415.020	374.6	413.650	0.000
24	412.560	0.000	411.070	0.000	412.775	0.000	416.290	1273 *	414.855	258.1	413.545	0.000
25	412.490	0.000	410.890	0.000	412.725	0.000	415.860	1023	414.660	136.8	413.445	0.000
26	412.405	0.000	410.740	0.000	412.680	0.000	415.090	602.2	414.450	0.000	413.350	0.000
27	412.315	0.000	410.635	0.000	412.650	0.000	414.645	362.5	414.660	0.000	413.230	0.000
28	412.420	0.000	410.490	0.000	412.625	0.000	414.665	373.7	414.660	0.000	413.150	0.000
29	412.565	0.000	410.380	0.000	412.680	0.000	414.830	473.9	414.550	0.000	413.075	0.000
30	412.615	0.000	410.165	0.000	412.920	0.000	414.620	360.0 *	414.455	0.000	412.965	0.000
31			410.065	0.000	412.845	0.000			414.490	0.000		
Ten-Daily Mean												
I Ten-Daily	413.113	0.000	411.990	0.000	409.892	0.000	414.306	318.0	414.213	123.7	414.507	0.000
II Ten-Daily	412.852	0.000	411.780	0.000	413.426	0.000	415.579	888.5	416.213	1025	414.087	0.000
III Ten-Daily	412.548	0.000	410.769	0.000	412.770	0.000	415.446	815.7	414.712	134.8	413.396	0.000
Monthly												
Min.	412.315	0.000	410.065	0.000	409.130	0.000	413.010	0.000	413.840	0.000	412.965	0.000
Max.	413.570	0.000	412.515	0.000	413.820	0.000	417.545	2076	416.740	1357	414.870	0.000
Mean	412.838	0	411.489	0	412.053	0	415.110	674.1	415.035	418.4	413.996	0

Annual Runoff in MCM = 2868 Annual Runoff in mm = 85

Peak Observed Discharge = 2076 cumecs on 16/09/2017 Corres. Water Level :417.545 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :413.57 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 2017 - 2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	412.840	0.000	412.540	0.000	414.100	0.000	412.060	0.000	409.530	0.000	412.750	0.000
2	412.730	0.000	412.480	0.000	414.020	0.000	412.200	0.000	409.400	0.000	413.220	0.000
3	412.630	0.000	412.340	0.000	413.950	0.000	412.240	0.000	409.320	0.000	413.350	0.000
4	412.520	0.000	412.270	0.000	413.870	0.000	412.180	0.000	411.550	0.000	413.300	0.000
5	412.870	0.000	412.200	0.000	413.780	0.000	412.070	0.000	415.030	0.000	413.150	0.000
6	413.030	0.000	412.150	0.000	413.700	0.000	411.930	0.000	414.890	0.000	413.110	0.000
7	413.030	0.000	412.050	0.000	413.610	0.000	411.840	0.000	414.540	0.000	413.030	0.000
8	412.960	0.000	411.930	0.000	413.520	0.000	412.060	0.000	414.490	0.000	412.930	0.000
9	412.830	0.000	411.830	0.000	413.450	0.000	412.500	0.000	414.390	0.000	412.810	0.000
10	412.730	0.000	411.750	0.000	413.350	0.000	412.700	0.000	414.200	0.000	412.680	0.000
11	412.610	0.000	411.630	0.000	413.250	0.000	412.590	0.000	413.990	0.000	412.590	0.000
12	412.500	0.000	411.510	0.000	413.160	0.000	412.490	0.000	413.850	0.000	412.540	0.000
13	412.710	0.000	411.380	0.000	413.080	0.000	412.370	0.000	413.730	0.000	412.470	0.000
14	413.260	0.000	411.250	0.000	412.930	0.000	412.180	0.000	413.640	0.000	412.380	0.000
15	413.340	0.000	411.070	0.000	413.040	0.000	412.060	0.000	413.470	0.000	412.270	0.000
16	413.360	0.000	410.960	0.000	413.090	0.000	411.910	0.000	413.280	0.000	412.160	0.000
17	413.250	0.000	410.820	0.000	413.050	0.000	411.745	0.000	413.200	0.000	412.110	0.000
18	413.080	0.000	410.680	0.000	412.960	0.000	411.580	0.000	413.500	0.000	412.060	0.000
19	412.950	0.000	410.590	0.000	412.860	0.000	411.440	0.000	413.530	0.000	411.890	0.000
20	412.760	0.000	410.470	0.000	412.960	0.000	411.300	0.000	413.590	0.000	411.750	0.000
21	412.630	0.000	410.360	0.000	413.000	0.000	411.200	0.000	413.480	0.000	411.550	0.000
22	412.510	0.000	410.250	0.000	412.940	0.000	411.080	0.000	413.300	0.000	411.410	0.000
23	412.390	0.000	410.140	0.000	412.810	0.000	410.950	0.000	413.180	0.000	411.230	0.000
24	412.530	0.000	410.090	0.000	412.680	0.000	410.830	0.000	413.210	0.000	411.130	0.000
25	412.770	0.000	410.040	0.000	412.550	0.000	410.690	0.000	413.330	0.000	411.010	0.000
26	412.900	0.000	409.960	0.000	412.430	0.000	410.510	0.000	413.360	0.000	410.840	0.000
27	412.920	0.000	410.960	0.000	412.300	0.000	410.370	0.000	413.300	0.000	410.740	0.000
28	412.860	0.000	414.820	0.000	412.140	0.000	410.200	0.000	413.220	0.000	410.590	0.000
29	412.790	0.000	414.650	0.000			410.050	0.000	413.080	0.000	410.440	0.000
30	412.710	0.000	414.450	0.000			409.860	0.000	412.910	0.000	410.240	0.000
31	412.620	0.000	414.220	0.000			409.700	0.000			410.120	0.000
Ten-Daily Mean												
I Ten-Daily	412.817	0.000	412.154	0.000	413.735	0.000	412.178	0.000	412.734	0.000	413.033	0.000
II Ten-Daily	412.982	0.000	411.036	0.000	413.038	0.000	411.966	0.000	413.578	0.000	412.222	0.000
III Ten-Daily	412.694	0.000	411.813	0.000	412.606	0.000	410.495	0.000	413.237	0.000	410.845	0.000
Monthly												
Min.	412.390	0.000	409.960	0.000	412.140	0.000	409.700	0.000	409.320	0.000	410.120	0.000
Max.	413.360	0.000	414.820	0.000	414.100	0.000	412.700	0.000	415.030	0.000	413.350	0.000
Mean	412.826	0	411.672	0	413.164	0	411.512	0	413.183	0	411.995	0

Peak Computed Discharge = 1273 cumecs on 24/09/2017 Corres. Water Level :416.29 m

Lowest Computed Discharge = 263.3 cumecs on 01/10/2017 Corres. Water Level :414.41 m

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

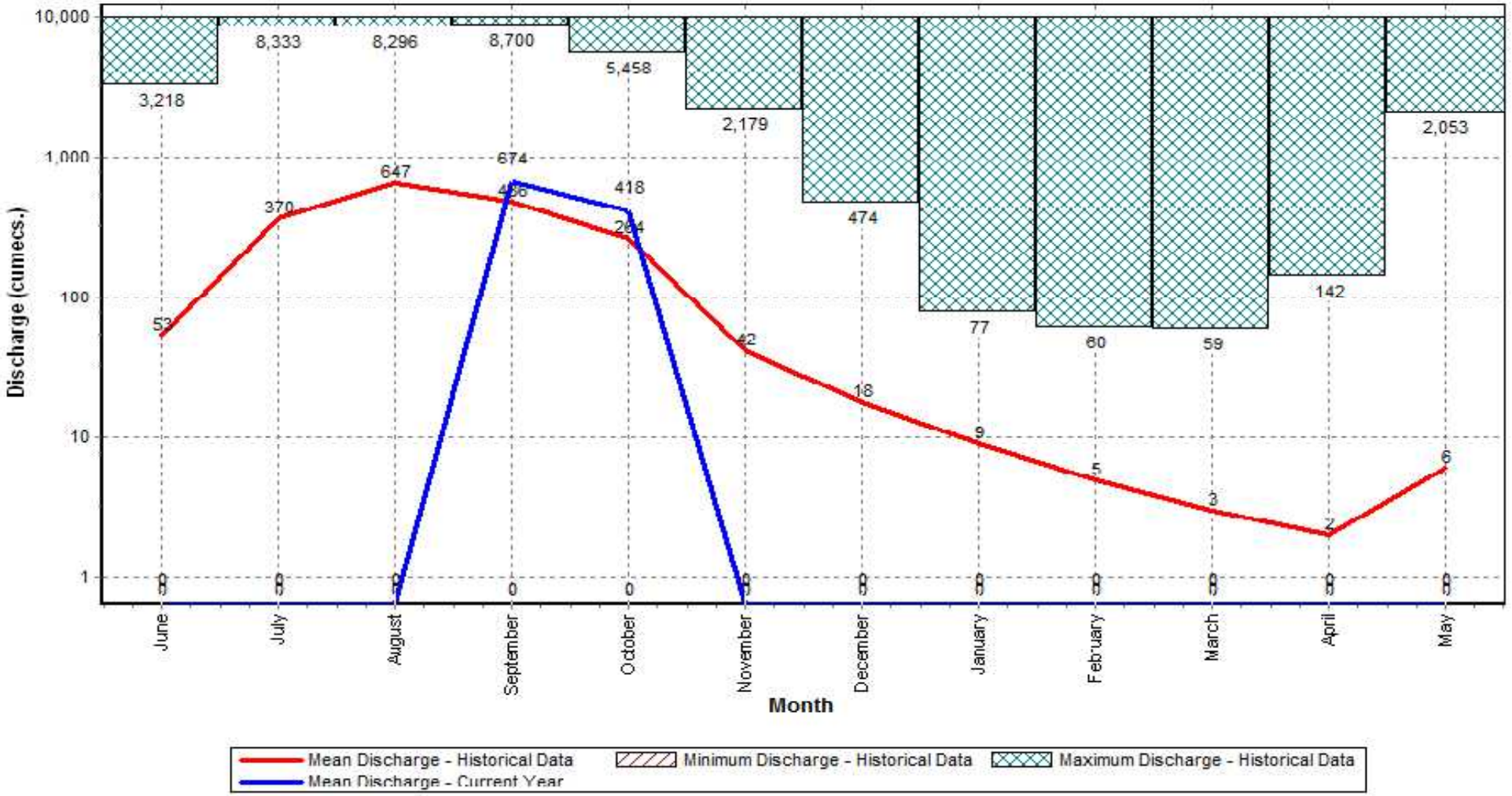
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Takli (AKP00K4) **Data considered : 1965-2018** **Division : Upper Krishna Divn, Pune**

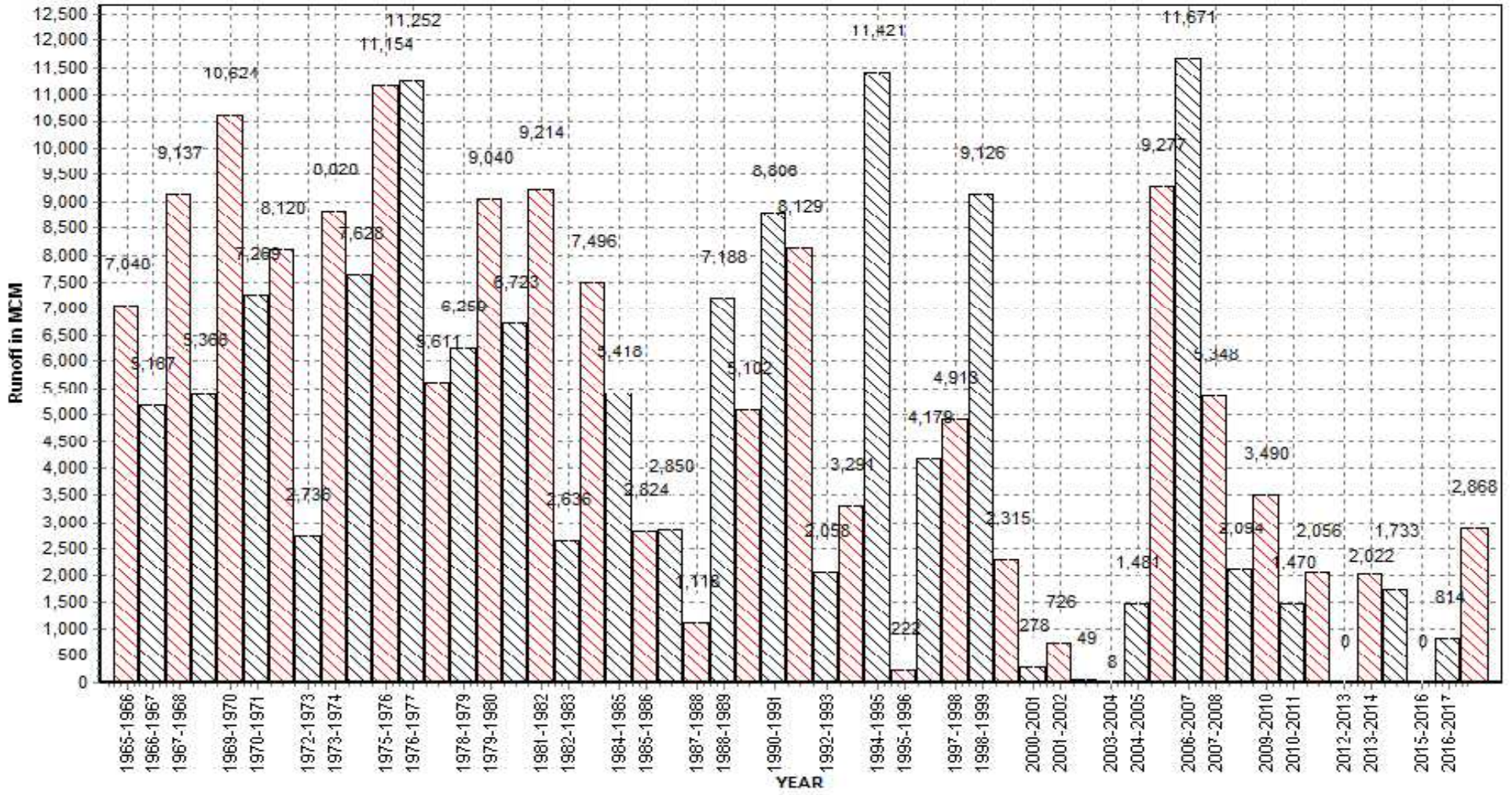
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

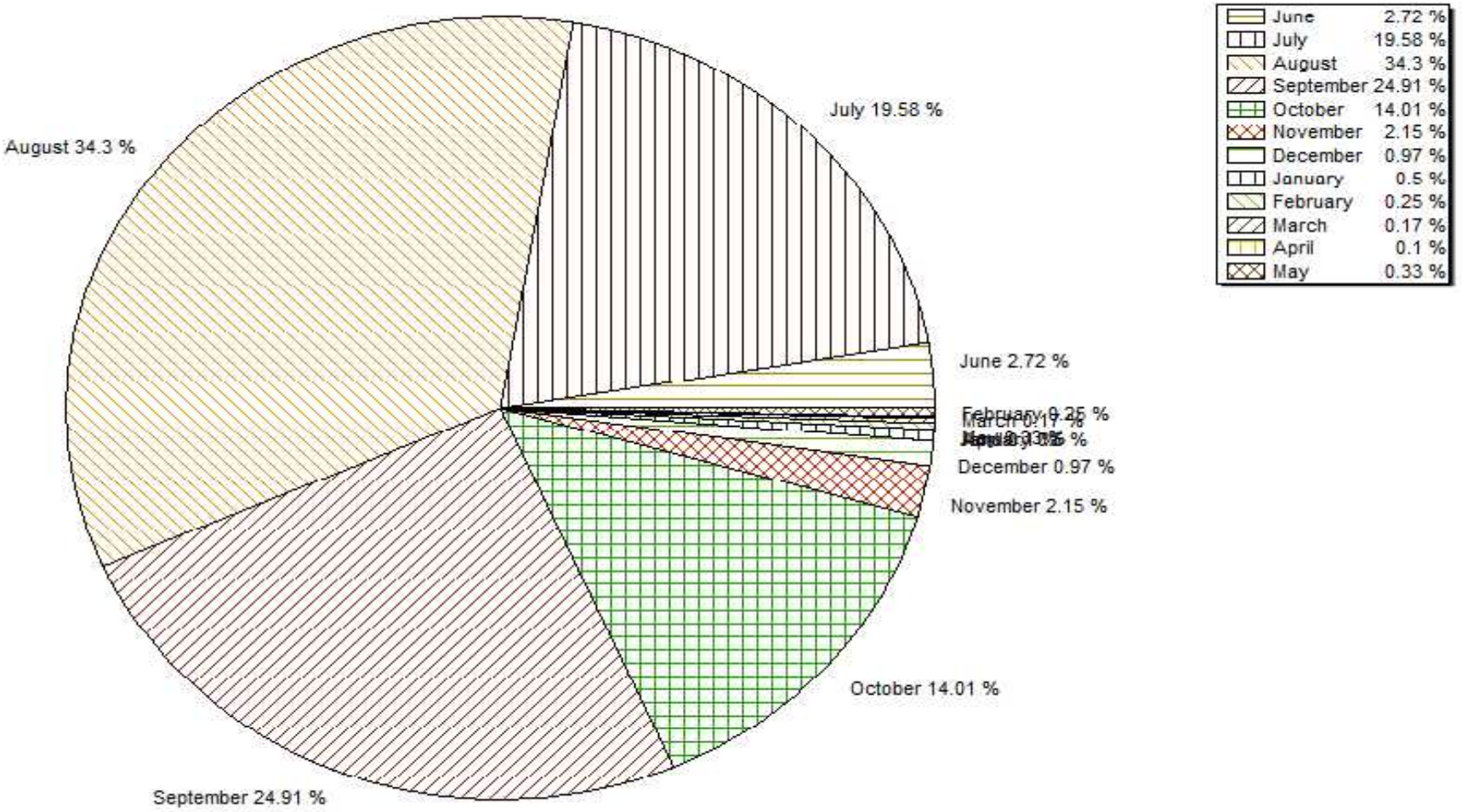


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



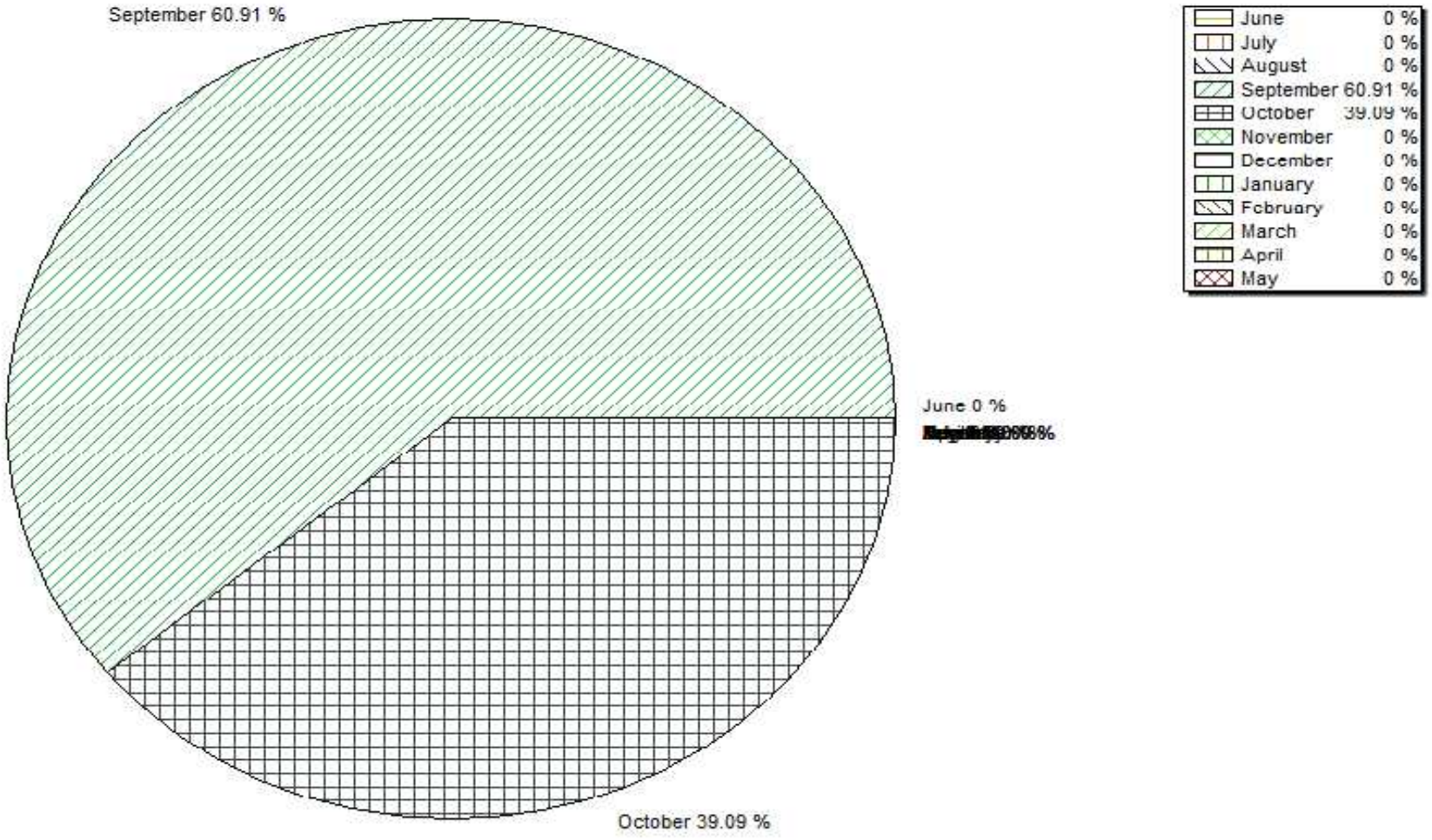
Monthly Runoff for the Year : 2017-2018

Station Name : Takli (AKP00K4)

Local River : Bhima

Division : Upper Krishna Divn, Pune

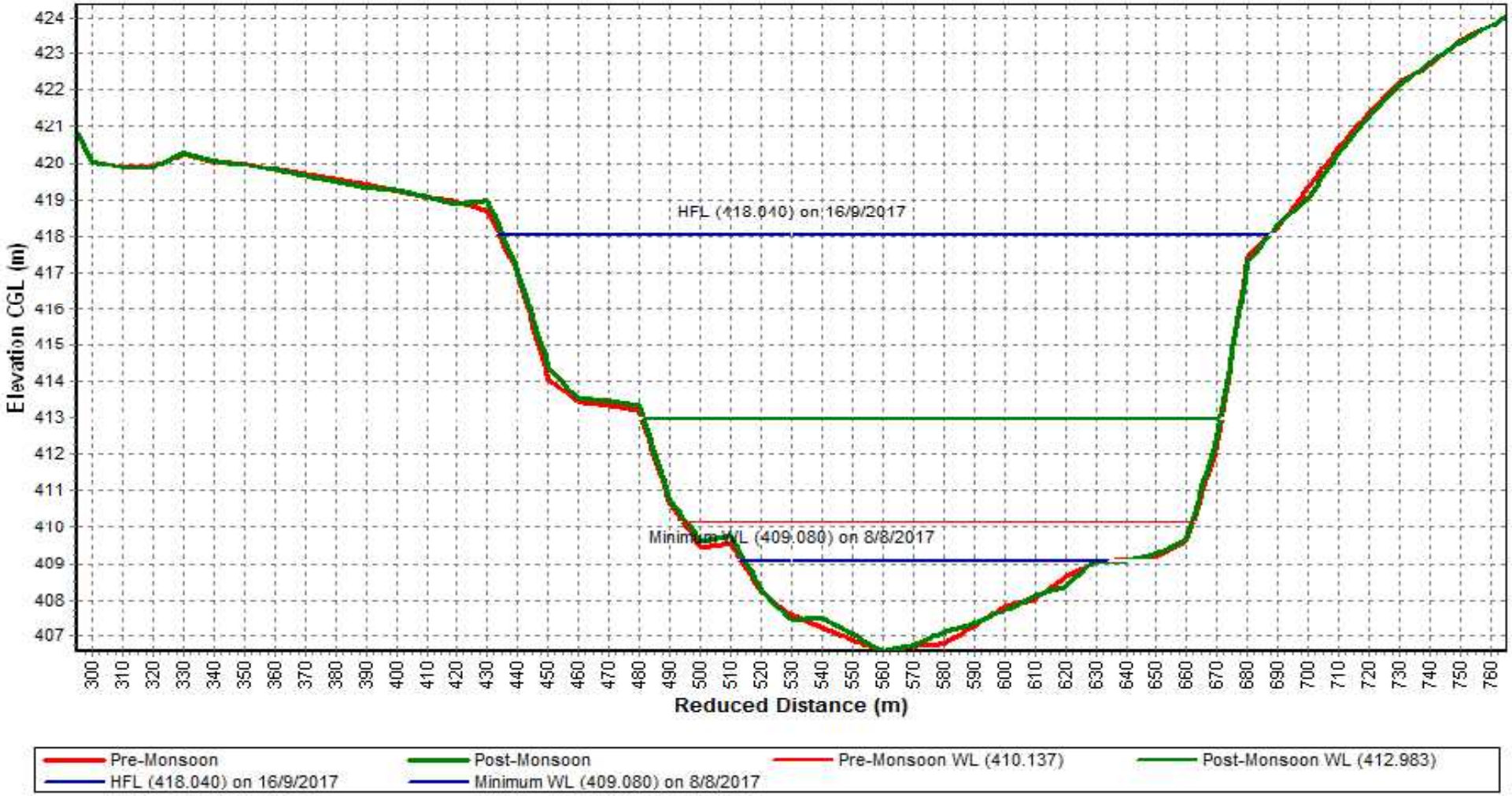
Sub-Division : Bhima SD, Sholapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

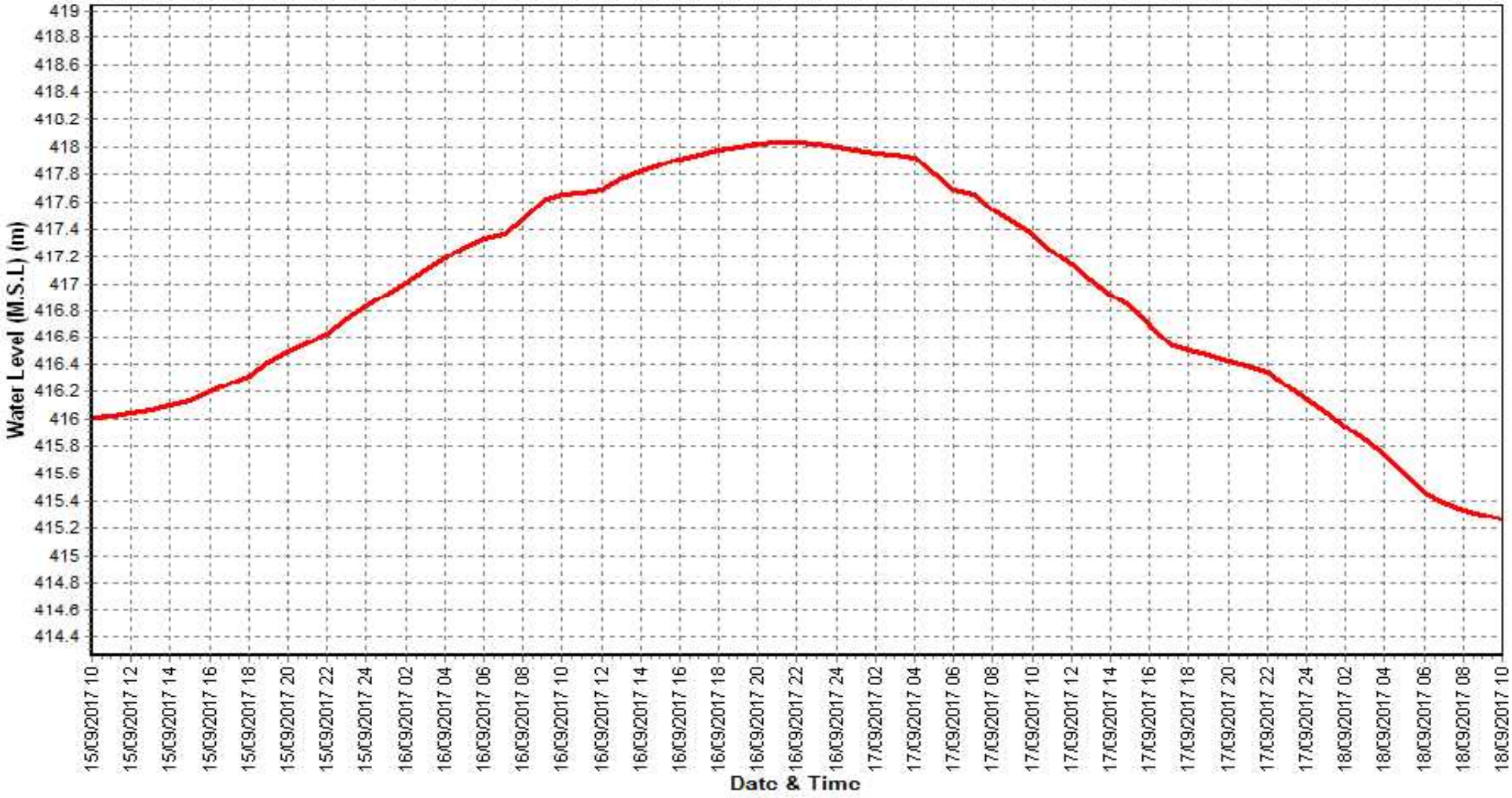
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

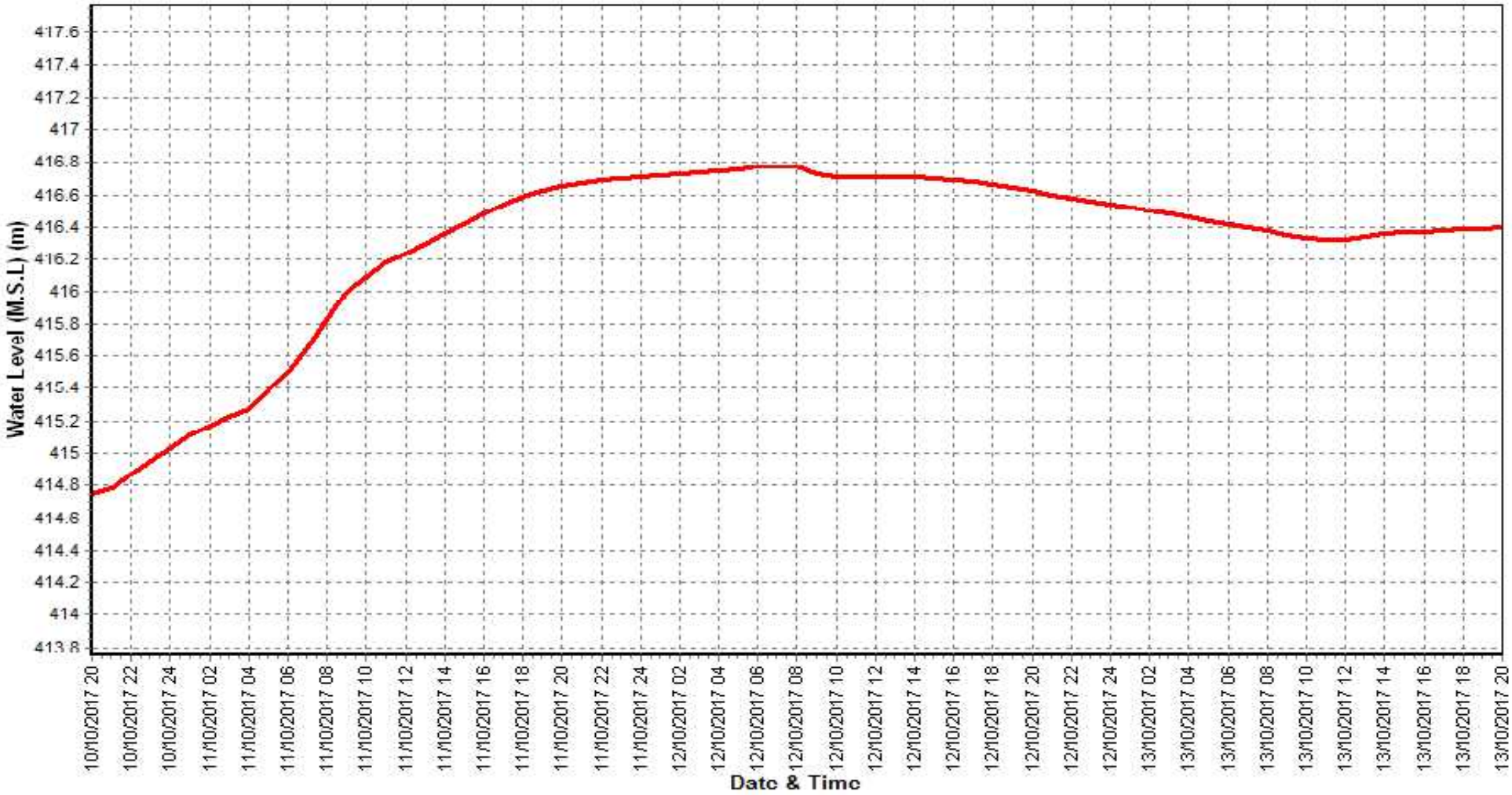


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Narasingpur**	**Code**	**:**	**AKP00Q4**
State	:	Maharashtra	District		Sholapur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Bhima
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Bhima SD, Sholapur
Drainage Area	:	22856 Sq. Km.	Bank	:	Right
Latitude	:	17°58'17"	Longitude	:	75°08'21"
Zero of Gauge (m)	:	448.243 (m.s.l)	01/06/1964		
		Opening Date	Closing Date		
Gauge	:	01/06/1965	HFL During 2017-18	:	454.933m
			Corres. Discharge	:	2997(Estimated)
Discharge	:	22/02/1966	Date & Time of	:	15/09/2017
			occurance	:	22.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 462.393 dt 10-08-2006
Corresponding Discharge (cumecs) : 8873 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1967-1968	6620	461.498	30/07/1967	1.200	448.563	27/04/1968
1968-1969	3394	455.986	08/08/1968	0.100	448.398	09/05/1969
1969-1970	5988	459.908	02/08/1969	0.300	448.453	21/04/1970
1970-1971	2112	454.238	22/08/1970	0.200	448.333	29/04/1971
1971-1972	5241	457.618	31/08/1971	0.400	448.763	04/05/1972
1972-1973	4350	457.196	10/07/1972	0.000	448.443	16/03/1973
1973-1974	4255	457.156	10/07/1973	2.000	448.743	26/06/1973
1974-1975	1601	453.528	26/10/1974	4.100	448.503	22/06/1974
1975-1976	3967	457.244	16/08/1975	0.700	448.368	15/05/1976
1976-1977	6677	460.218	03/08/1976	0.100	448.573	07/04/1977
1977-1978	2422	454.326	30/07/1977	1.700	448.458	30/03/1978
1978-1979	2470	455.200	03/09/1978	0.000	448.213	19/04/1979
1979-1980	3593	457.108	12/08/1979	0.700	448.658	17/03/1980
1980-1981	3590	456.872	06/07/1980	1.200	448.850	01/03/1981
1981-1982	6990	459.693	11/07/1981	0.500	448.843	03/03/1982
1982-1983	2665	454.821	24/08/1982	0.600	448.583	04/03/1983
1983-1984	7602	460.181	17/08/1983	2.100	448.723	10/06/1983
1984-1985	3220	456.458	20/07/1984	2.000	449.053	27/11/1984
1985-1986	2509	455.381	03/08/1985	0.500	449.043	25/10/1985

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**
1986-1987	2478	455.318	11/08/1986	0.000	448.738	26/02/1987
1987-1988	726.2	451.763	18/10/1987	0.000	448.838	19/03/1988
1988-1989	3192	456.256	18/09/1988	0.000	448.878	02/03/1989
1989-1990	2998	455.941	28/07/1989	0.000	449.103	23/01/1990
1990-1991	4225	457.066	18/08/1990	0.000	448.983	19/03/1991
1991-1992	3860	457.632	29/07/1991	0.000	449.148	26/01/1992
1992-1993	1824	453.862	07/09/1992	0.000	448.988	25/01/1993
1993-1994	2392	454.510	30/07/1993	0.000		25/03/1994
1994-1995	7290	461.433	16/07/1994	0.000	449.128	25/01/1995
1995-1996	515.1	450.913	24/07/1995	0.000	448.853	26/01/1996
1996-1997	4560	457.473	05/10/1996	0.000	448.843	25/01/1997
1997-1998	7450	462.043	26/08/1997	0.000	449.393	25/01/1998
1998-1999	3446	456.593	13/10/1998	0.000	449.433	25/01/1999
1999-2000	1581	452.963	30/07/1999	0.000	449.143	28/11/1999
2000-2001	152.2	450.323	28/11/2000	0.000	448.813	30/12/2000
2001-2002	350.0	450.693	26/03/2002	0.000	448.533	16/01/2002
2002-2003	450.0	451.213	17/10/2002	0.000	448.833	07/01/2003
2003-2004	148.4	450.408	22/12/2003	0.000		15/01/2004
2004-2005	1606	453.598	13/08/2004	0.000	448.463	09/12/2004
2005-2006	7109	461.793	04/08/2005	0.000	448.933	07/01/2006
2006-2007	8863	462.383	10/08/2006	0.000	448.973	06/01/2007
2007-2008	2533	454.713	10/08/2007	0.000	449.113	20/01/2008
2008-2009	2853	455.643	21/09/2008	0.000	448.883	14/01/2009
2009-2010	1627	453.493	18/11/2009	0.000	449.423	11/12/2009
2010-2011	1321	452.903	01/10/2010	0.000	449.243	18/01/2011
2011-2012	5098	457.733	05/09/2011	0.000	449.843	25/02/2012
2012-2013	128.9	450.110	20/08/2012	0.000	449.560	28/08/2012
2013-2014	3725	456.081	20/09/2013	0.000	449.423	02/01/2014
2014-2015	1493	451.943	07/09/2014	0.000	449.303	10/07/2014
2015-2016	119.3	450.043	20/07/2015	0.000	448.658	24/11/2015
2016-2017	1432	452.323	05/08/2016	0.000	448.313	23/01/2017

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

Annual Runoff of Bhima at Narsingpur

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1966-1967**		110	110
2	**1967-1968**	6443	260	6703
3	**1968-1969**	5032	98	5131
4	**1969-1970**	10301	133	10434
5	**1970-1971**	6263	161	6424
6	**1971-1972**	7265	115	7380
7	**1972-1973**	3059	49	3108
8	**1973-1974**	8010	194	8204
9	**1974-1975**	5581	333	5914
10	**1975-1976**	7731	280	8010
11	**1976-1977**	10466	213	10679
12	**1977-1978**	5356	709	6065
13	**1978-1979**	5923	163	6087
14	**1979-1980**	6627	463	7090
15	**1980-1981**	7307	140	7446
16	**1981-1982**	7596	202	7799
17	**1982-1983**	2520	115	2635
18	**1983-1984**	6407	244	6651
19	**1984-1985**	4791	242	5034
20	**1985-1986**	2400	158	2558
21	**1986-1987**	2383	12	2395
22	**1987-1988**	289	51	340
23	**1988-1989**	5854	10	5863
24	**1989-1990**	3713	3	3716
25	**1990-1991**	8495	14	8509
26	**1991-1992**	7395	0	7395
27	**1992-1993**	1988	0	1988
28	**1993-1994**	4083	132	4215
29	**1994-1995**	11618	0	11618
30	**1995-1996**	447	0	447
31	**1996-1997**	3627	0	3627
32	**1997-1998**	4661	0	4661
33	**1998-1999**	5436	0	5436
34	**1999-2000**	3049	87	3136
35	**2000-2001**	130	243	372
36	**2001-2002**	221	125	346
37	**2002-2003**	205	196	401
38	**2003-2004**	106	204	310
39	**2004-2005**	1573	360	1933
40	**2005-2006**	10141	307	10448
41	**2006-2007**	11393	172	11565
42	**2007-2008**	4562	211	4773
43	**2008-2009**	2449	365	2814
44	**2009-2010**	1380	157	1537
45	**2010-2011**	1772	85	1857
46	**2011-2012**	2055	0	2055
47	**2012-2013**	65	0	65
48	**2013-2014**	1964	0	1964
49	**2014-2015**	993	0	993
50	**2015-2016**	10	53	63
51	**2016-2017**	957	376	1333
52	**2017-2018**	3102	167	3269
Average		4416	148	4479

Stage-Discharge Data for the period 2017 - 2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

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	447.638	0.000		0.000	451.958	1172	449.623	229.0 *	450.013	0.000
2		0.000	447.633	0.000		0.000	448.743	59.62 *	449.603	224.1 *	449.853	0.000
3		0.000	447.628	0.000	449.878	269.7	448.703	54.30 *	449.603	220.0	449.703	0.000
4		0.000	447.623	0.000	449.933	287.4	448.683	41.97	448.658	57.14	449.463	0.000
5		0.000	447.623	0.000	449.508	189.6	448.683	55.55	449.158	120.2	449.033	0.000
6		0.000	447.618	0.000	449.193	134.1 *	448.663	50.58	448.803	73.56	448.623	0.000
7		0.000	447.603	0.000	449.073	108.6	448.683	54.94	448.703	54.98	448.273	0.000
8		0.000	447.593	0.000	448.513	37.26	448.833	71.96	449.313	158.3 *	448.183	0.000
9		0.000	447.583	0.000	448.133	0.000	451.148	716.3	450.133	369.8 #	448.163	0.000
10		0.000	447.573	0.000	447.893	0.000	449.813	278.0 *	451.148	728.6	448.113	0.000
11		0.000	447.563	0.000	447.843	0.000	449.703	225.0	452.178	1180	448.063	0.000
12		0.000	447.553	0.000	447.843	0.000	450.518	502.4	451.893	1071	448.013	0.000
13	447.733	0.000	447.543	0.000	447.818	0.000	449.648	171.3	451.823	1025	447.953	0.000
14	447.803	0.000	447.543	0.000	447.783	0.000	451.938	1254	451.768	939.3	447.893	0.000
15	447.783	0.000		0.000	447.763	0.000	454.403	2629	452.543	1410 *	447.853	0.000
16	447.993	0.000		0.000	447.753	0.000	453.568	1795	452.493	1305	447.813	0.000
17	448.063	0.000		0.000	447.743	0.000	450.693	557.8 *	452.243	1214	447.793	0.000
18	448.063	0.000		0.000	447.733	0.000	451.213	762.4 #	451.083	702.4	447.763	0.000
19	448.093	0.000		0.000	447.713	0.000	451.003	658.7	451.343	818.0 *	447.743	0.000
20	448.103	0.000		0.000	447.703	0.000	450.778	618.8	450.448	245.3	447.723	0.000
21	448.103	0.000		0.000	447.793	0.000	451.533	1050	450.473	248.3	447.703	0.000
22	448.053	0.000		0.000	447.923	0.000	454.228	2469	450.603	277.6 *	447.683	0.000
23	447.938	0.000		0.000	447.898	0.000	451.693	1150	450.118	142.5	447.663	0.000
24	447.803	0.000		0.000	447.848	0.000	451.823	1038 *	449.823	14.60 #	447.653	0.000
25	447.718	0.000		0.000	447.823	0.000	450.168	366.6	449.833	14.67 #	447.643	0.000
26	447.663	0.000		0.000	447.808	0.000	449.843	281.3	450.103	167.1	447.633	0.000
27	447.648	0.000		0.000	447.773	0.000	449.843	281.0	449.938	88.58	447.623	0.000
28	447.648	0.000		0.000	447.743	0.000	450.203	391.5	449.913	76.86	447.613	0.000
29	447.643	0.000		0.000	447.703	0.000	449.463	184.1	450.283	0.000	447.613	0.000
30	447.643	0.000		0.000	450.493	571.0	449.513	202.6 *	450.203	0.000	447.603	0.000
31				0.000	453.053	1988			449.988	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000	447.612	0.000	449.016	102.7	449.391	255.5	449.475	223.6	448.942	0.000
II Ten-Daily	447.954	0.000	447.551	0.000	447.769	0.000	451.346	917.4	451.781	990.9	447.861	0.000
III Ten-Daily	447.786	0.000		0.000	448.533	232.6	450.831	741.4	450.116	93.65	447.643	0.000
Monthly												
Min.	447.643	0.000	447.543	0.000	447.703	0.000	448.663	41.97	448.658	0.000	447.603	0.000
Max.	448.103	0.000	447.638	0.000	453.053	1988	454.403	2629	452.543	1410	450.013	0.000
Mean	447.861	0	447.594	0	448.403	115.6	450.523	638.1	450.446	425	448.149	0

Annual Runoff in MCM = 3269 Annual Runoff in mm = 143

Peak Observed Discharge = 2629 cumecs on 15/09/2017 Corres. Water Level :454.403 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	447.593	0.000		0.000	448.643	0.000		0.000	449.243	108.0 *	448.523	0.000
2	447.593	0.000		0.000	448.513	0.000		0.000	449.743	143.0 *	448.473	0.000
3		0.000		0.000	448.413	0.000		0.000	449.743	143.0 *	448.413	0.000
4		0.000		0.000	448.363	0.000		0.000	449.543	132.0 *	448.393	0.000
5		0.000		0.000	448.333	0.000		0.000	449.243	108.0 *	448.323	0.000
6		0.000		0.000	448.313	0.000		0.000	448.493	53.00 *	448.268	0.000
7		0.000		0.000	448.303	0.000		0.000	448.373	0.000	448.253	0.000
8		0.000		0.000	448.293	0.000		0.000	448.343	0.000	448.143	0.000
9		0.000		0.000	448.273	0.000		0.000	448.313	0.000	447.943	0.000
10		0.000		0.000	448.263	0.000		0.000	448.283	0.000		0.000
11		0.000		0.000	448.253	0.000		0.000	448.283	0.000		0.000
12		0.000		0.000	448.243	0.000		0.000	448.343	0.000		0.000
13		0.000		0.000	448.043	0.000		0.000	448.523	0.000		0.000
14		0.000		0.000	447.913	0.000		0.000	448.693	0.000		0.000
15		0.000		0.000	447.793	0.000		0.000	448.693	0.000		0.000
16		0.000		0.000	447.693	0.000		0.000	448.683	0.000		0.000
17		0.000		0.000	447.623	0.000		0.000	448.693	0.000		0.000
18		0.000		0.000		0.000		0.000	448.743	0.000		0.000
19		0.000		0.000		0.000		0.000	448.743	0.000		0.000
20		0.000		0.000		0.000		0.000	448.753	0.000		0.000
21		0.000	449.913	76.53 *		0.000		0.000	448.753	0.000		0.000
22		0.000	449.813	74.10 *		0.000		0.000	448.743	0.000		0.000
23		0.000	449.553	60.00 *		0.000		0.000	448.733	0.000		0.000
24		0.000	449.453	55.00 *		0.000		0.000	448.723	0.000		0.000
25		0.000	449.353	50.00 *		0.000		0.000	448.693	0.000		0.000
26		0.000	449.273	45.00 *		0.000	450.053	145.0 *	448.673	0.000		0.000
27		0.000	449.243	42.00 *		0.000	450.093	148.5 *	448.653	0.000		0.000
28		0.000	449.233	39.00 *		0.000	449.553	128.0 *	448.633	0.000		0.000
29		0.000	449.043	32.00 *			449.443	124.0 *	448.583	0.000		0.000
30		0.000	448.843	0.000			449.383	118.0 *	448.553	0.000		0.000
31		0.000	448.743	0.000			449.283	110.0 *				0.000
Ten-Daily Mean												
I Ten-Daily	447.593	0.000		0.000	448.371	0.000		0.000	448.932	68.70	448.304	0.000
II Ten-Daily		0.000		0.000	447.937	0.000		0.000	448.615	0.000		0.000
III Ten-Daily		0.000	449.315	43.06		0.000	449.635	70.32	448.674	0.000		0.000
Monthly												
Min.	447.593	0.000	448.743	0.000	447.623	0.000	449.283	0.000	448.283	0.000	447.943	0.000
Max.	447.593	0.000	449.913	76.53	448.643	0.000	450.093	148.5	449.743	143.0	448.523	0.000
Mean	447.593	0	449.315	15.28	448.192	0	449.635	24.95	448.740	22.9	448.304	0

Peak Computed Discharge = 1410 cumecs on 15/10/2017 Corres. Water Level :452.543 m

Lowest Computed Discharge = 32.00 cumecs on 29/01/2018 Corres. Water Level :449.043 m

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

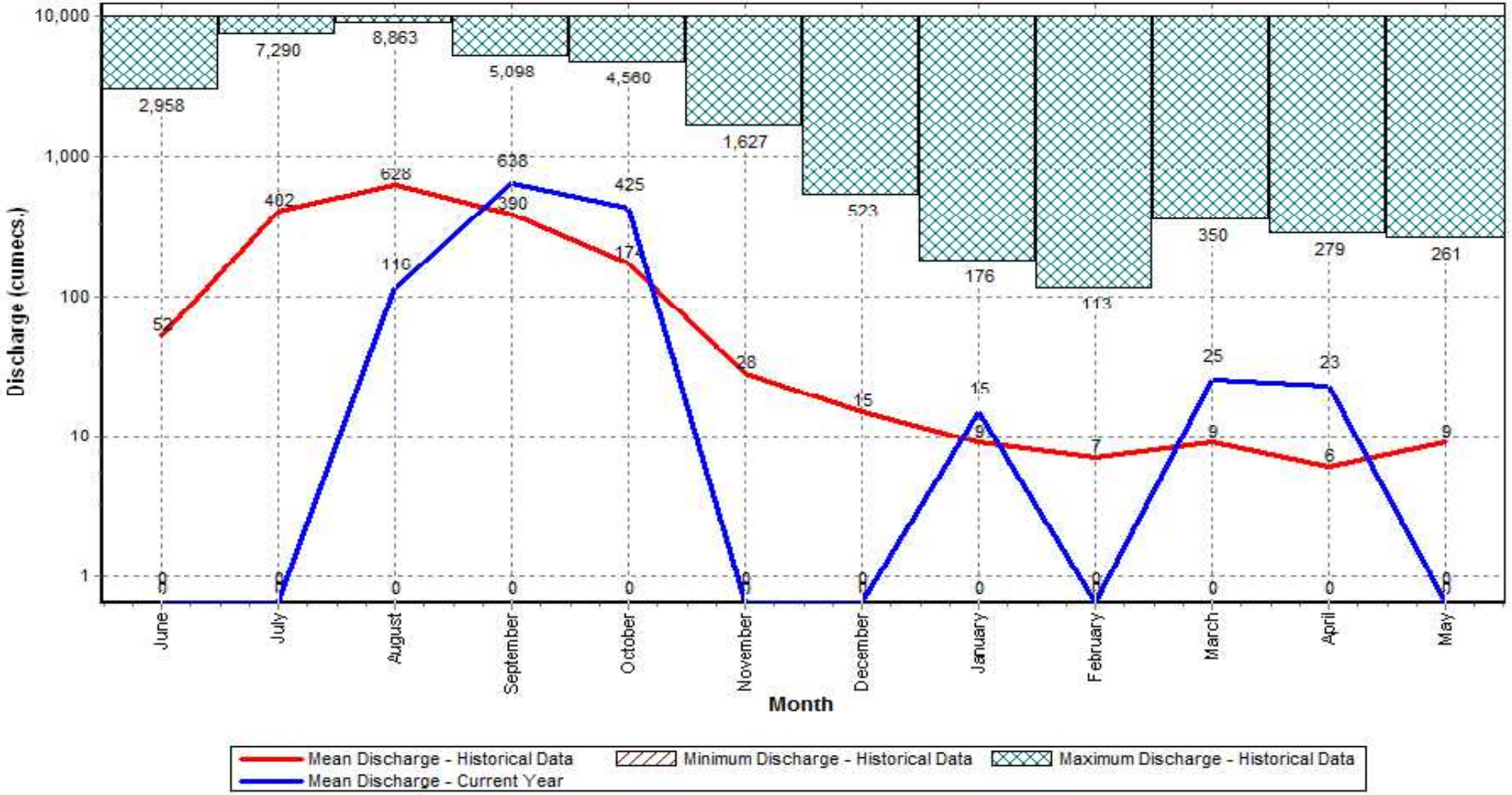
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Data considered : 1967-2018** **Division : Upper Krishna Divn, Pune**

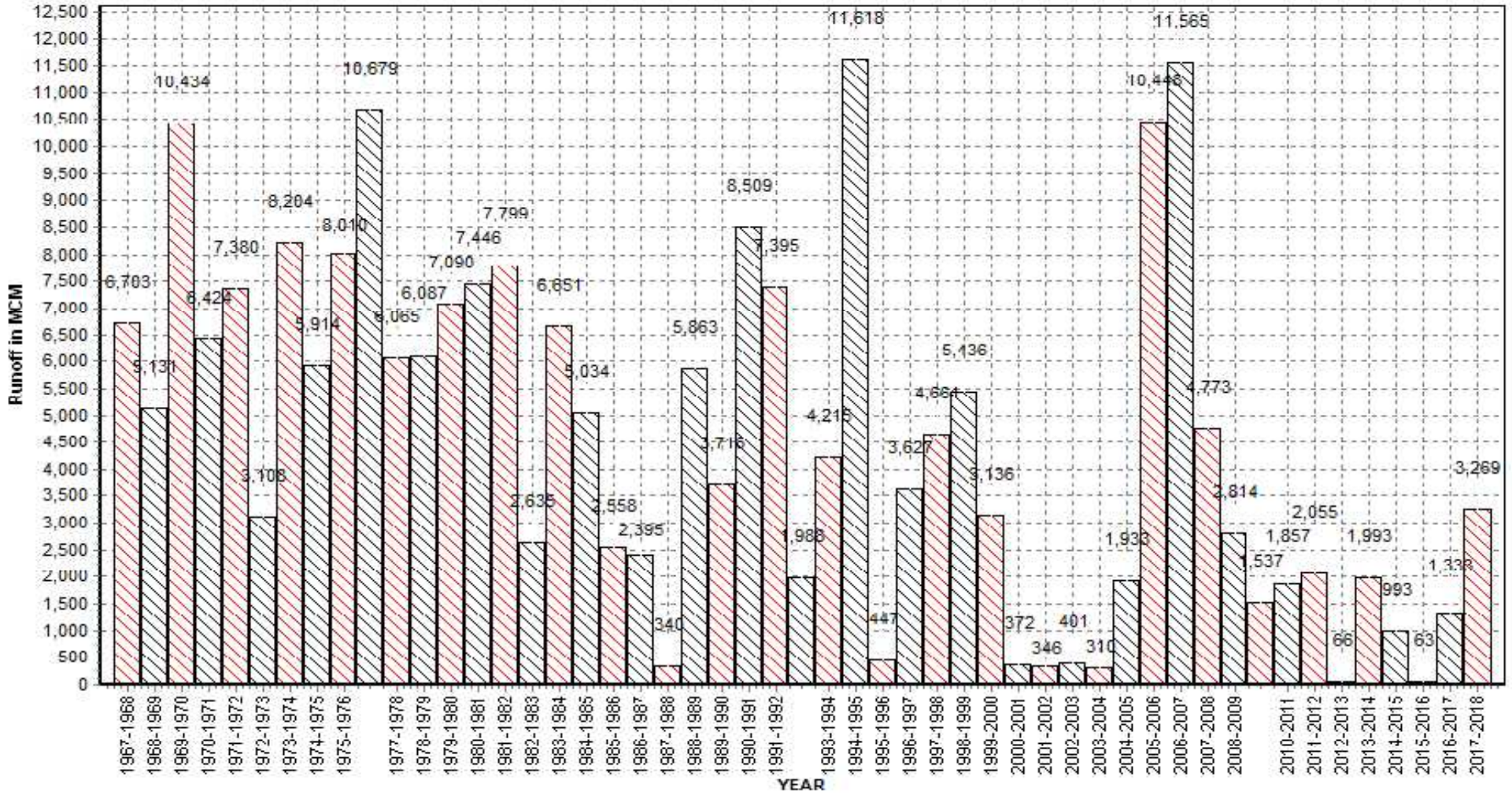
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 1967 - 2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



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

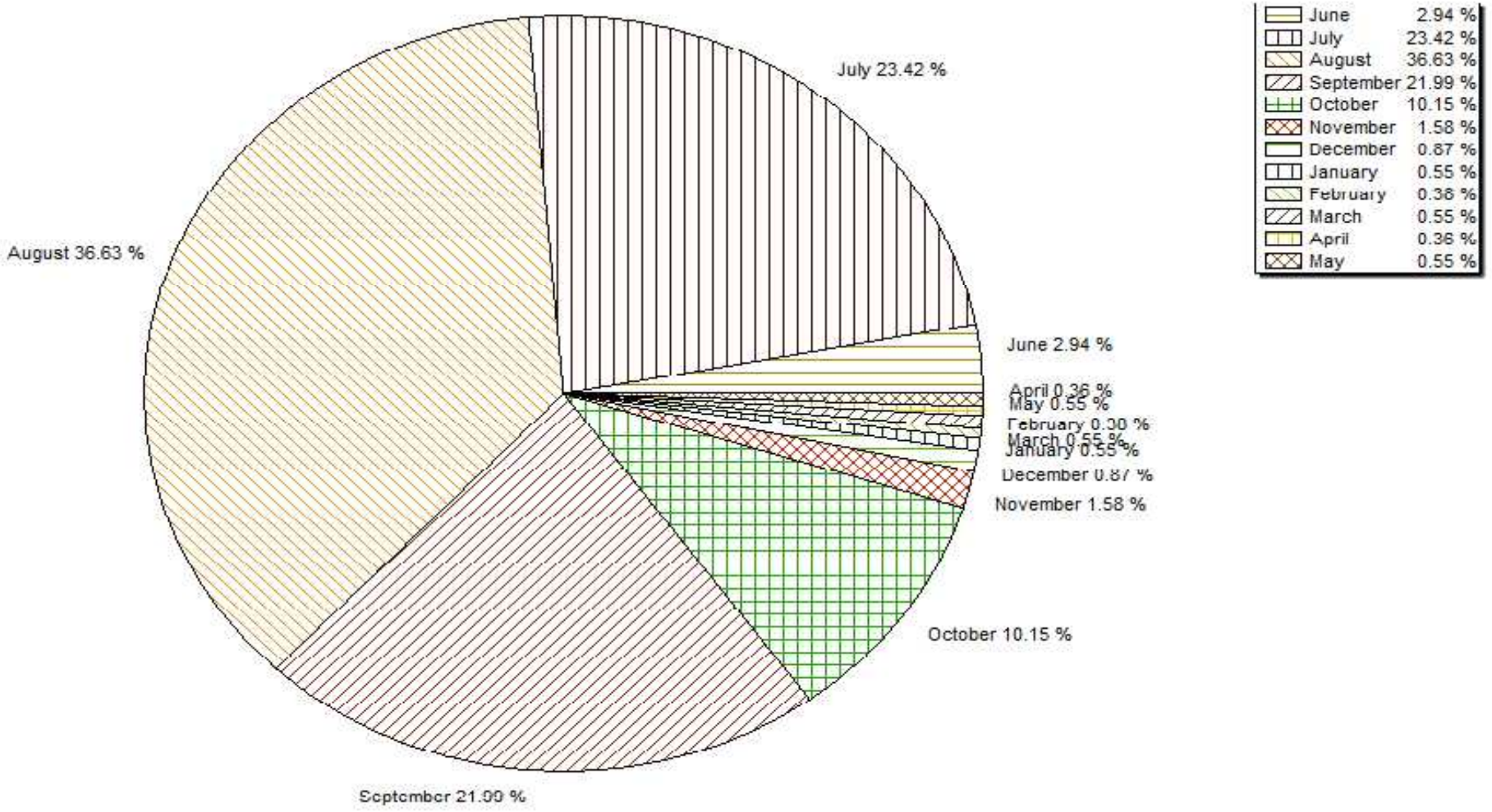
Monthly Average Runoff based on period : 1967-2017

Station Name : Narasingpur (AKP00Q4)

Local River : Bhima

Division : Upper Krishna Divn, Pune

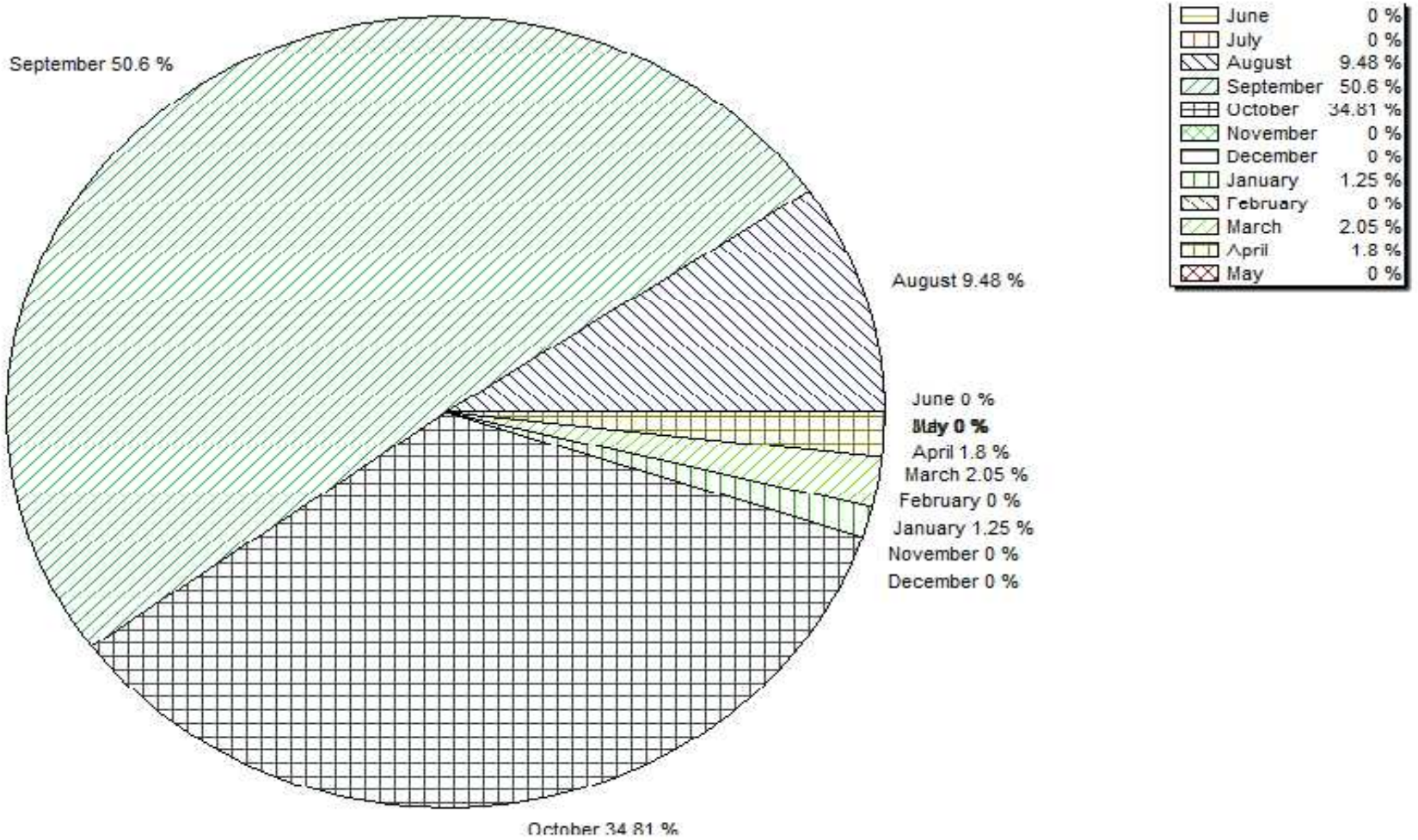
Sub-Division : Bhima SD, Sholapur



Monthly Runoff for the Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

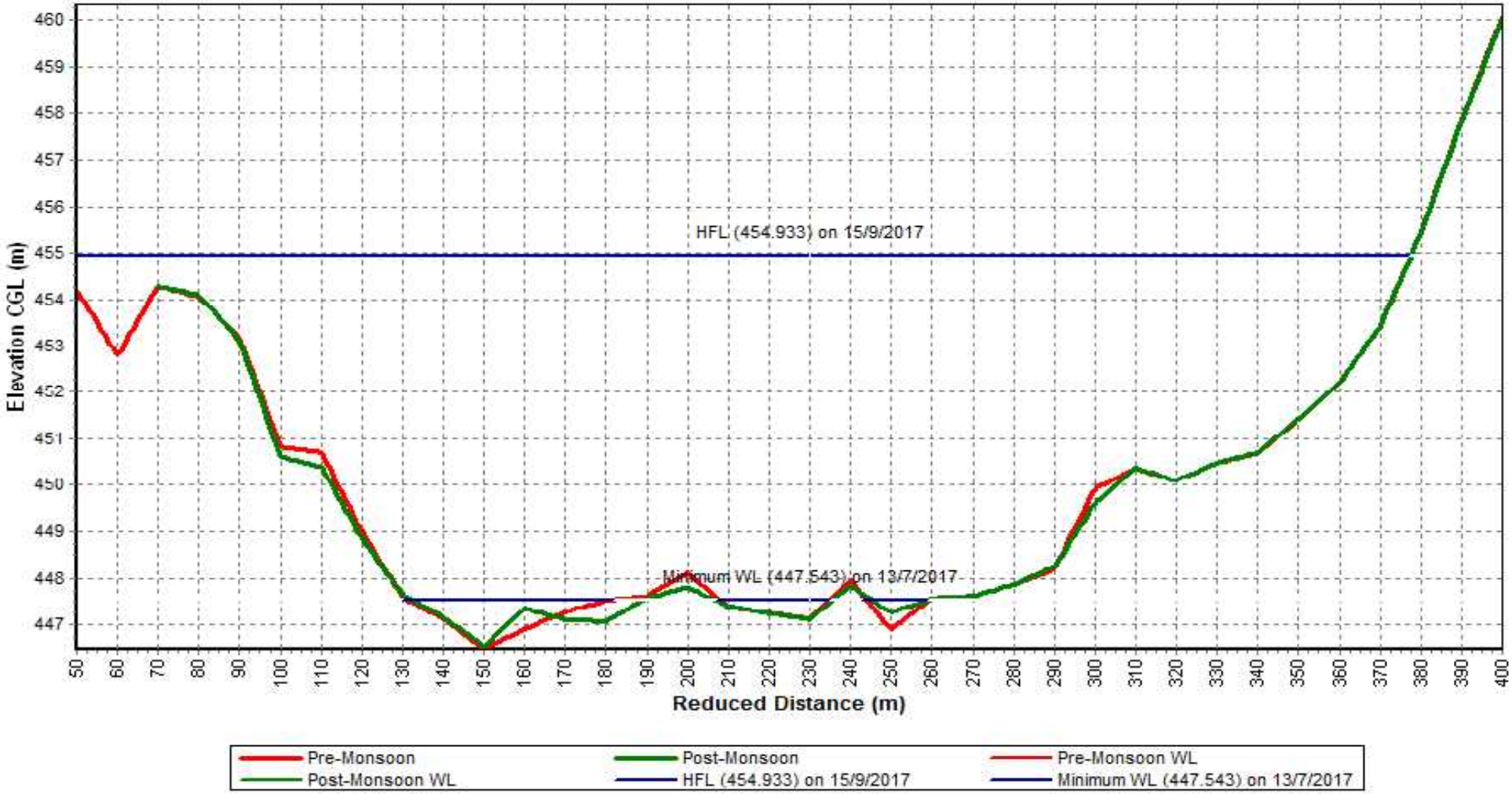
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

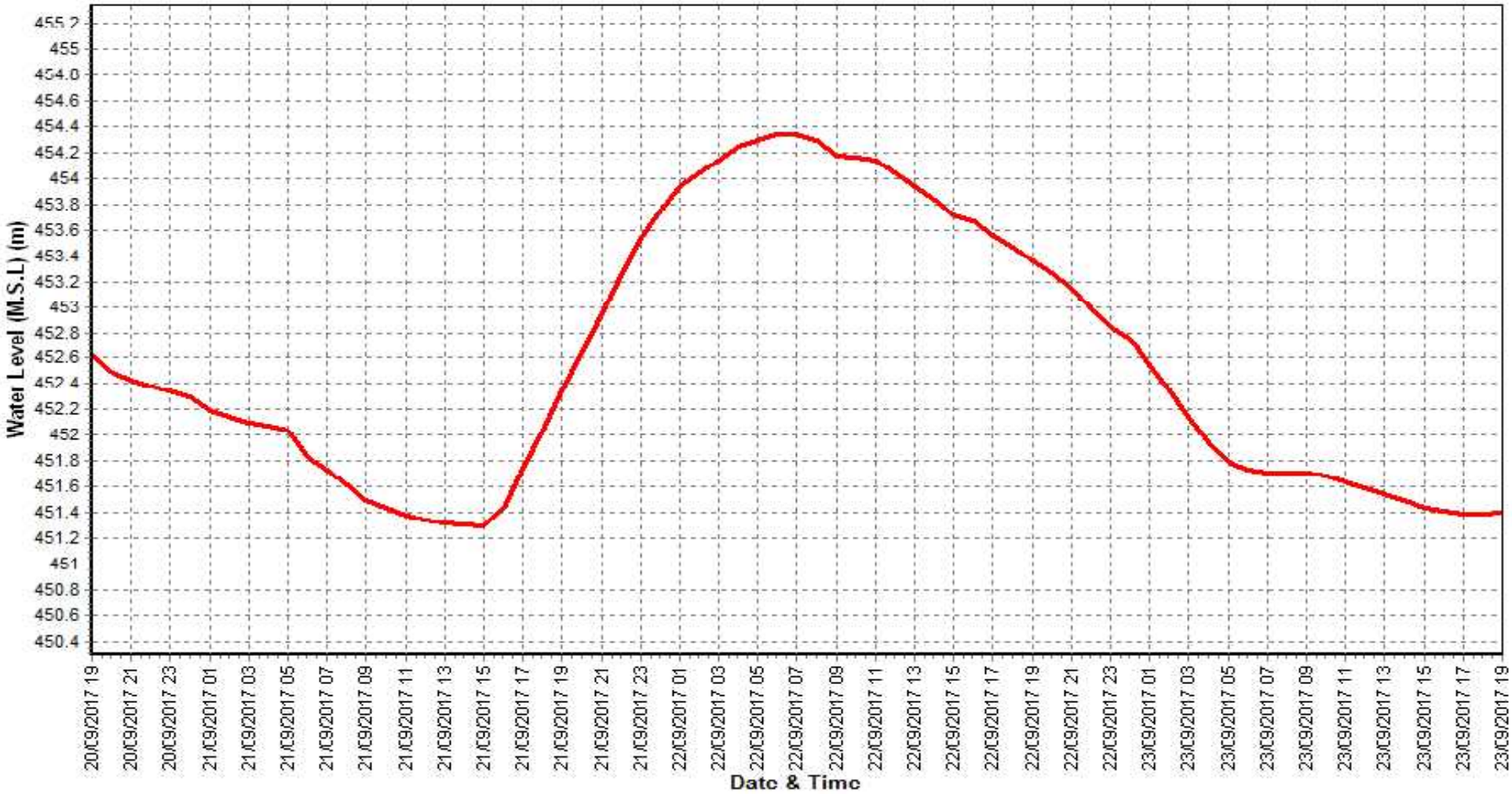


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

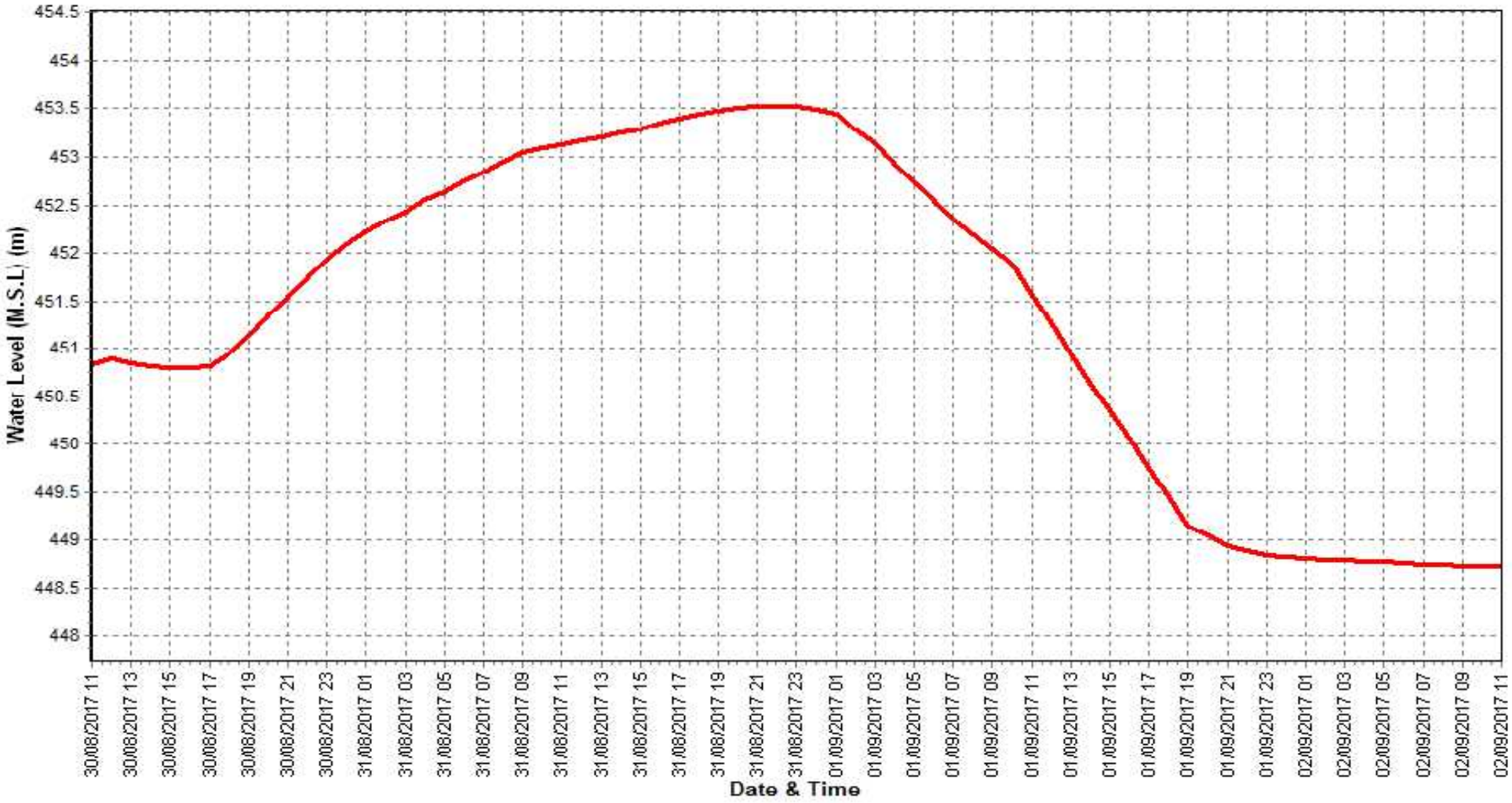


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Narasingpur (AKP00Q4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Sarati**	**Code**	:	**AKPA0C2**
State	:	Maharashtra	District		Pune
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	Nira
Sub-Sub Tributary	:	-	Local River	:	Nira
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Bhima SD, Sholapur
Drainage Area	:	7200 Sq. Km.	Bank	:	Left
Latitude	:	17°54'43"	Longitude	:	75°00'27"
Zero of Gauge (m)	:	468.128 (m.s.l) 466.128 (m.s.l)	25/08/1963 01/06/2003	-	31/05/2003
		Opening Date	Closing Date		
Gauge	:	01/06/1965	HFL During 2017-18	:	471.588m
			Corres. Discharge	:	729.6(Estimated)
Discharge	:	01/06/1965	Date & Time of	:	15/09/2017
			occurance	:	10.00 hrs.
Sediment	:	01/06/1966			
Water Quality	:	01/09/1972			

HFL Recorded so far in m : 476.788 dt 02-08-1976
Corresponding Discharge (cumecs) : 3233*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	2214	474.843	04/05/1966	0.644	468.608	30/03/1966
1966-1967	1084	472.848	14/11/1966	0.500	468.718	22/04/1967
1967-1968	2404	475.678	28/07/1967	0.925	468.753	07/06/1967
1968-1969	696.2	471.803	01/10/1968	0.000	468.333	10/05/1969
1969-1970	2254	475.008	31/08/1969	0.100	468.343	02/06/1969
1970-1971	772.7	471.968	30/08/1970	0.000	468.293	03/05/1971
1971-1972	1355	473.388	25/09/1971	0.000	468.368	18/04/1972
1972-1973	918.9	472.183	09/07/1972	0.000	468.248	10/04/1973
1973-1974	1104	472.963	09/07/1973	0.000	468.218	20/06/1973
1974-1975	1278	473.011	24/10/1974	0.100	468.308	13/04/1975
1975-1976	1426	473.174	16/08/1975	0.100	468.338	06/05/1976
1976-1977	2757	476.089	02/08/1976	0.000	468.268	16/04/1977
1977-1978	958.7	472.128	23/11/1977	0.000	468.453	25/04/1978
1978-1979	929.6	472.086	30/08/1978	0.000	468.433	25/04/1979
1979-1980	2930	475.178	26/09/1979	0.000	468.393	23/05/1980
1980-1981	1908	474.112	04/08/1980	0.000	468.388	02/05/1981
1981-1982	2120	474.338	21/09/1981	0.000	468.328	16/04/1982
1982-1983	490.0	470.958	16/08/1982	0.000	468.283	02/04/1983

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**
1983-1984	2410	475.276	16/08/1983	0.000	468.438	17/04/1984
1984-1985	565.3	471.128	05/07/1984	0.000	468.283	31/03/1985
1985-1986	1240	472.888	03/08/1985	0.000	468.433	25/01/1986
1986-1987	507.9	471.011	30/06/1986	0.000	468.388	28/01/1987
1987-1988	502.0	471.163	18/10/1987	0.000	468.423	06/02/1988
1988-1989	1671	473.218	03/08/1988	0.000	468.458	25/01/1989
1989-1990	976.4	471.923	26/07/1989	0.000	468.433	25/01/1990
1990-1991	1733	473.468	17/08/1990	0.000	468.508	12/03/1991
1991-1992	1008	472.663	28/07/1991	0.000	468.298	26/01/1992
1992-1993	1219	473.040	18/08/1992	0.000		25/01/1993
1993-1994	831.3	471.555	18/10/1993	0.000	468.413	15/03/1994
1994-1995	2237	474.173	30/06/1994	0.000	468.468	26/01/1995
1995-1996	251.1	470.443	24/07/1995	0.000		26/01/1996
1996-1997	2046	474.346	05/10/1996	0.000	468.718	25/01/1997
1997-1998	2165	474.628	24/08/1997	0.000	468.438	25/01/1998
1998-1999	1000	472.638	15/10/1998	0.000	468.268	25/01/1999
1999-2000	476.0	471.058	21/07/1999	0.000		26/01/2000
2000-2001	10.00	468.868	09/06/2000	0.000		25/01/2001
2001-2002	225.0	469.828	14/10/2001	0.000		25/01/2002
2002-2003	194.6	469.878	17/10/2002	0.000		25/01/2003
2003-2004	57.59	469.188	18/05/2004	0.000		16/01/2004
2004-2005	1368	472.883	13/08/2004	0.000		25/01/2005
2005-2006	2073	474.078	03/08/2005	0.000	468.138	25/01/2006
2006-2007	2103	474.078	08/08/2006	0.000	468.148	19/02/2007
2007-2008	1341	472.578	09/08/2007	0.000	468.138	26/01/2008
2008-2009	918.5	471.678	09/09/2008	0.000	468.158	25/01/2009
2009-2010	1207	472.378	04/10/2009	0.000	468.108	07/11/2009
2010-2011	613.5	470.953	01/10/2010	0.000	468.213	19/04/2011
2011-2012	1699	473.628	04/09/2011	0.000	468.218	11/02/2012
2012-2013	93.53	469.158	13/09/2012	0.000		19/06/2012
2013-2014	1318	472.348	19/09/2013	0.000	468.208	22/12/2013
2014-2015	120.8	470.508	07/09/2014	0.000		25/01/2015
2015-2016	0.000	468.898	18/09/2015	0.000		24/06/2015
2016-2017	1143	472.608	05/08/2016	0.000		08/12/2016

Annual Runoff of Nira at Sarati

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	1232	293	1525
2	**1966-1967**	826	87	913
3	**1967-1968**	1445	194	1639
4	**1968-1969**	721	64	785
5	**1969-1970**	2197	80	2277
6	**1970-1971**	1074	109	1183
7	**1971-1972**	1142	54	1196
8	**1972-1973**	377	4	381
9	**1973-1974**	1529	102	1631
10	**1974-1975**	1359	102	1462
11	**1975-1976**	1752	99	1852
12	**1976-1977**	2111	53	2164
13	**1977-1978**	1466	133	1599
14	**1978-1979**	1384	55	1439
15	**1979-1980**	2192	79	2270
16	**1980-1981**	1902	43	1945
17	**1981-1982**	2245	39	2283
18	**1982-1983**	474	22	496
19	**1983-1984**	1244	33	1278
20	**1984-1985**	919	12	931
21	**1985-1986**	414	0	414
22	**1986-1987**	497	6	504
23	**1987-1988**	172	31	202
24	**1988-1989**	1725	0	1725
25	**1989-1990**	863	0	863
26	**1990-1991**	1702	10	1712
27	**1991-1992**	1656	0	1656
28	**1992-1993**	806	0	806
29	**1993-1994**	1083	115	1198
30	**1994-1995**	3603	1	3603
31	**1995-1996**	192	0	192
32	**1996-1997**	1210	0	1210
33	**1997-1998**	1259	0	1259
34	**1998-1999**	1819	0	1819
35	**1999-2000**	960	0	960
36	**2000-2001**	7	0	7
37	**2001-2002**	133	0	133
38	**2002-2003**	72	0	72
39	**2003-2004**	7	7	14
40	**2004-2005**	991	0	991
41	**2005-2006**	2600	0	2600
42	**2006-2007**	3050	18	3068
43	**2007-2008**	1865	0	1865
44	**2008-2009**	748	0	748
45	**2009-2010**	1326	68	1394
46	**2010-2011**	1026	20	1046
47	**2011-2012**	678	0	678
48	**2012-2013**	36	0	36
49	**2013-2014**	1170	0	1170
50	**2014-2015**	250	0	250
51	**2015-2016**	0	0	0
52	**2016-2017**	644	0	644
53	**2017-2018**	618	0	618
Average		1147	36	1183

Stage-Discharge Data for the period 2017 - 2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**

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		0.000		0.000		0.000	468.748	59.78 *	468.368	19.05 *
2		0.000		0.000	468.888	78.70 *		0.000	468.593	42.95	468.198	0.000
3		0.000		0.000	468.288	11.47		0.000	468.578	41.29		0.000
4		0.000		0.000	468.028	0.000		0.000	468.528	33.21		0.000
5		0.000		0.000	467.983	0.000		0.000	468.398	25.89		0.000
6		0.000		0.000	467.928	0.000		0.000	468.301	14.66		0.000
7		0.000		0.000		0.000		0.000	468.298	12.99		0.000
8		0.000		0.000		0.000		0.000	468.488	30.07 *		0.000
9		0.000		0.000		0.000	469.153	126.8	468.823	69.68 #		0.000
10		0.000		0.000		0.000	468.663	45.35	469.603	202.2 #		0.000
11		0.000		0.000		0.000	468.758	53.34	469.443	171.0 #		0.000
12		0.000		0.000		0.000	468.698	51.09	469.518	185.4 #		0.000
13		0.000		0.000		0.000	468.928	76.37	469.523	186.4 #		0.000
14		0.000		0.000		0.000	470.463	327.7	469.278	140.9 #		0.000
15		0.000		0.000		0.000	471.508	694.0	469.458	173.8 *		0.000
16		0.000		0.000		0.000	471.088	591.1	469.478	177.7 #		0.000
17		0.000		0.000		0.000	469.848	232.0	469.913	230.7		0.000
18		0.000		0.000		0.000	469.388	150.4	469.288	142.6 #		0.000
19		0.000		0.000		0.000	469.063	96.49	468.998	94.87 *		0.000
20		0.000		0.000		0.000	469.703	226.9	469.058	123.0		0.000
21		0.000		0.000		0.000	470.568	493.4	468.828	70.36 #		0.000
22		0.000		0.000		0.000	469.668	220.9	468.768	62.36 *		0.000
23		0.000		0.000		0.000	469.833	251.8	468.748	59.78 #		0.000
24		0.000		0.000		0.000	469.608	199.1	468.738	58.50 #		0.000
25		0.000		0.000		0.000	469.008	107.5	468.718	55.98 #		0.000
26		0.000		0.000		0.000	469.058	116.2	468.603	42.29 #		0.000
27		0.000		0.000		0.000	469.173	130.6	468.403	23.26		0.000
28		0.000		0.000		0.000	468.748	60.24	468.553	47.35		0.000
29		0.000		0.000		0.000	468.633	52.16	468.568	38.41 *		0.000
30		0.000		0.000		0.000	468.843	79.00	468.398	16.93		0.000
31				0.000		0.000			468.508	25.10		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000	468.223	9.017	468.908	17.21	468.636	53.28	468.283	1.905
II Ten-Daily		0.000		0.000		0.000	469.744	250.0	469.396	162.6		0.000
III Ten-Daily		0.000		0.000		0.000	469.314	171.1	468.621	45.48		0.000
Monthly												
Min.		0.000		0.000	467.928	0.000	468.633	0.000	468.298	12.99	468.198	0.000
Max.		0.000		0.000	468.888	78.70	471.508	694.0	469.913	230.7	468.368	19.05
Mean		0		0	468.223	2.909	469.473	146.1	468.876	85.79	468.283	0.635

Annual Runoff in MCM = 618 Annual Runoff in mm = 86

Peak Observed Discharge = 694.0 cumecs on 15/09/2017 Corres. Water Level :471.508 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1		0.000	466.908	0.000	467.598	0.000		0.000		0.000		0.000
2		0.000	466.908	0.000	467.598	0.000		0.000		0.000		0.000
3		0.000	467.098	0.000	467.588	0.000		0.000		0.000		0.000
4		0.000	467.498	0.000	467.578	0.000		0.000		0.000		0.000
5		0.000	467.713	0.000	467.578	0.000		0.000		0.000		0.000
6		0.000	467.713	0.000	467.568	0.000		0.000		0.000		0.000
7		0.000	467.708	0.000	467.568	0.000		0.000		0.000		0.000
8		0.000	467.698	0.000	467.558	0.000		0.000		0.000		0.000
9		0.000	467.698	0.000	467.558	0.000		0.000		0.000		0.000
10		0.000	467.698	0.000	467.548	0.000		0.000		0.000		0.000
11		0.000	467.693	0.000	467.538	0.000		0.000		0.000		0.000
12		0.000	467.693	0.000	467.528	0.000		0.000		0.000		0.000
13		0.000	467.688	0.000	467.518	0.000		0.000		0.000		0.000
14		0.000	467.688	0.000	467.508	0.000		0.000		0.000		0.000
15		0.000	467.683	0.000	467.498	0.000		0.000		0.000		0.000
16		0.000	467.683	0.000	467.478	0.000		0.000		0.000		0.000
17		0.000	467.678	0.000	467.448	0.000		0.000		0.000		0.000
18		0.000	467.678	0.000	467.418	0.000		0.000		0.000		0.000
19		0.000	467.673	0.000	467.388	0.000		0.000		0.000		0.000
20	466.928	0.000	467.668	0.000	467.368	0.000		0.000		0.000		0.000
21	466.928	0.000	467.663	0.000	467.348	0.000		0.000		0.000		0.000
22	466.928	0.000	467.658	0.000	467.278	0.000		0.000		0.000		0.000
23	466.928	0.000	467.653	0.000	467.128	0.000		0.000		0.000		0.000
24	466.928	0.000	467.648	0.000	467.038	0.000		0.000		0.000		0.000
25	466.918	0.000	467.628	0.000		0.000		0.000		0.000		0.000
26	466.918	0.000	467.628	0.000		0.000		0.000		0.000		0.000
27	466.918	0.000	467.623	0.000		0.000		0.000		0.000		0.000
28	466.918	0.000	467.613	0.000		0.000		0.000		0.000		0.000
29	466.918	0.000	467.608	0.000				0.000		0.000		0.000
30	466.913	0.000	467.603	0.000				0.000		0.000		0.000
31	466.913	0.000	467.598	0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily		0.000	467.464	0.000	467.574	0.000		0.000		0.000		0.000
II Ten-Daily	466.928	0.000	467.683	0.000	467.469	0.000		0.000		0.000		0.000
III Ten-Daily	466.921	0.000	467.629	0.000	467.198	0.000		0.000		0.000		0.000
Monthly												
Min.	466.913	0.000	466.908	0.000	467.038	0.000		0.000		0.000		0.000
Max.	466.928	0.000	467.713	0.000	467.598	0.000		0.000		0.000		0.000
Mean	466.921	0	467.593	0	467.468	0		0		0		0

Peak Computed Discharge = 173.8 cumecs on 15/10/2017 Corres. Water Level :469.458 m

Lowest Computed Discharge = 19.05 cumecs on 01/11/2017 Corres. Water Level :468.368 m

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

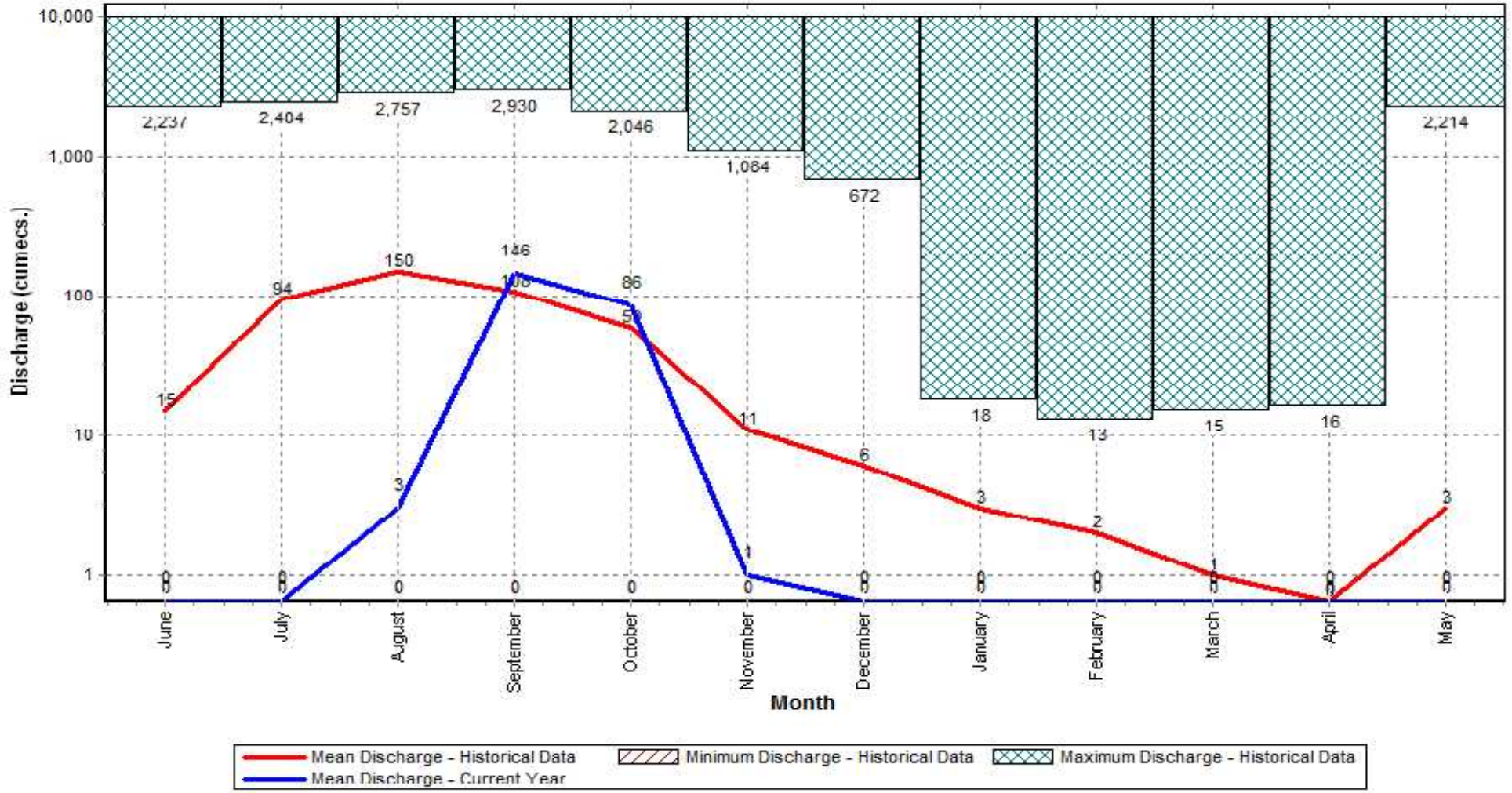
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Sarati (AKPA0C2) | **Data considered : 1965-2018** | **Division : Upper Krishna Divn, Pune**

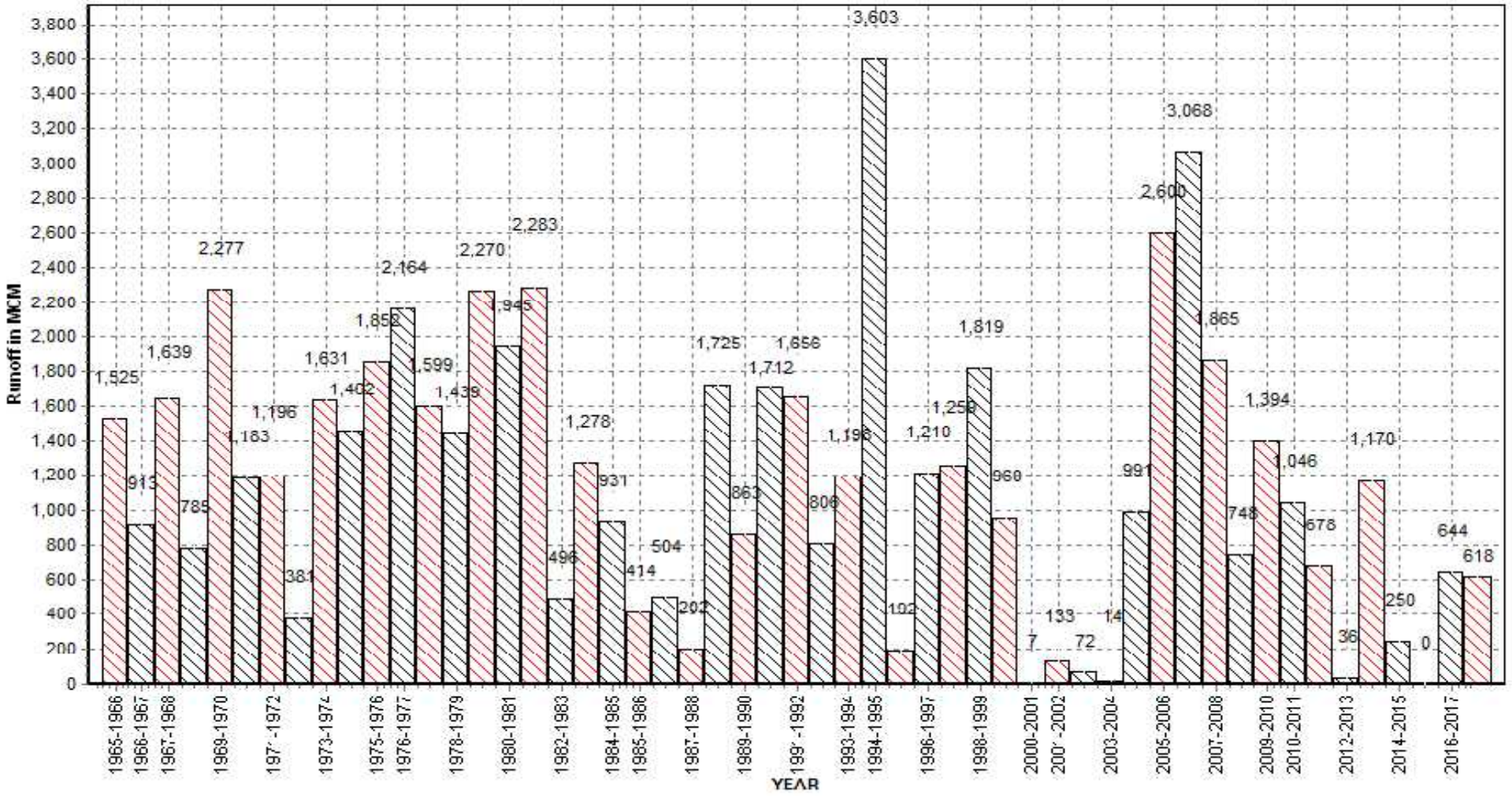
Local River : Nira | **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**

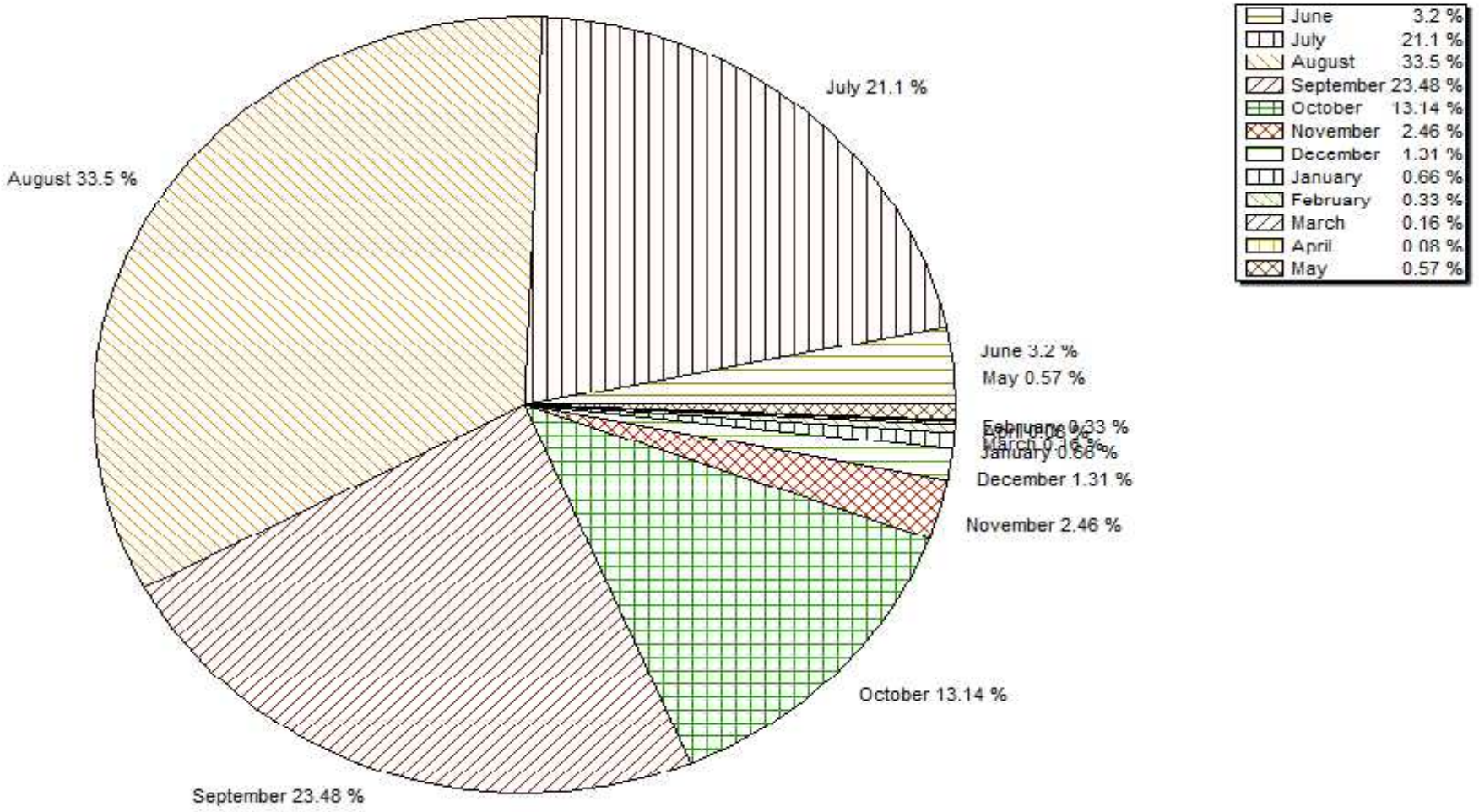


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**



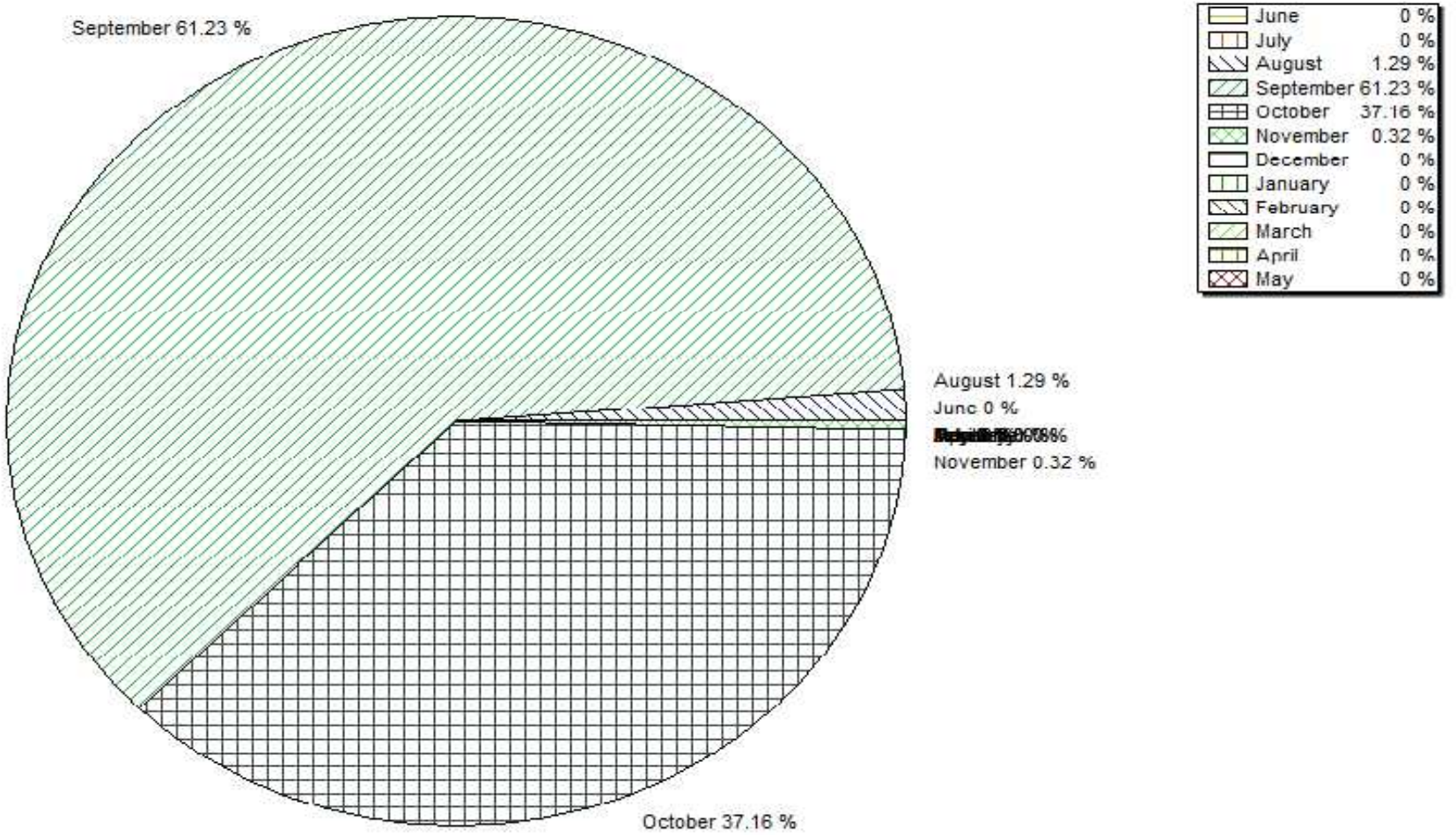
Monthly Runoff for the Year : 2017-2018

Station Name : Sarati (AKPA0C2)

Local River : Nira

Division : Upper Krishna Divn, Pune

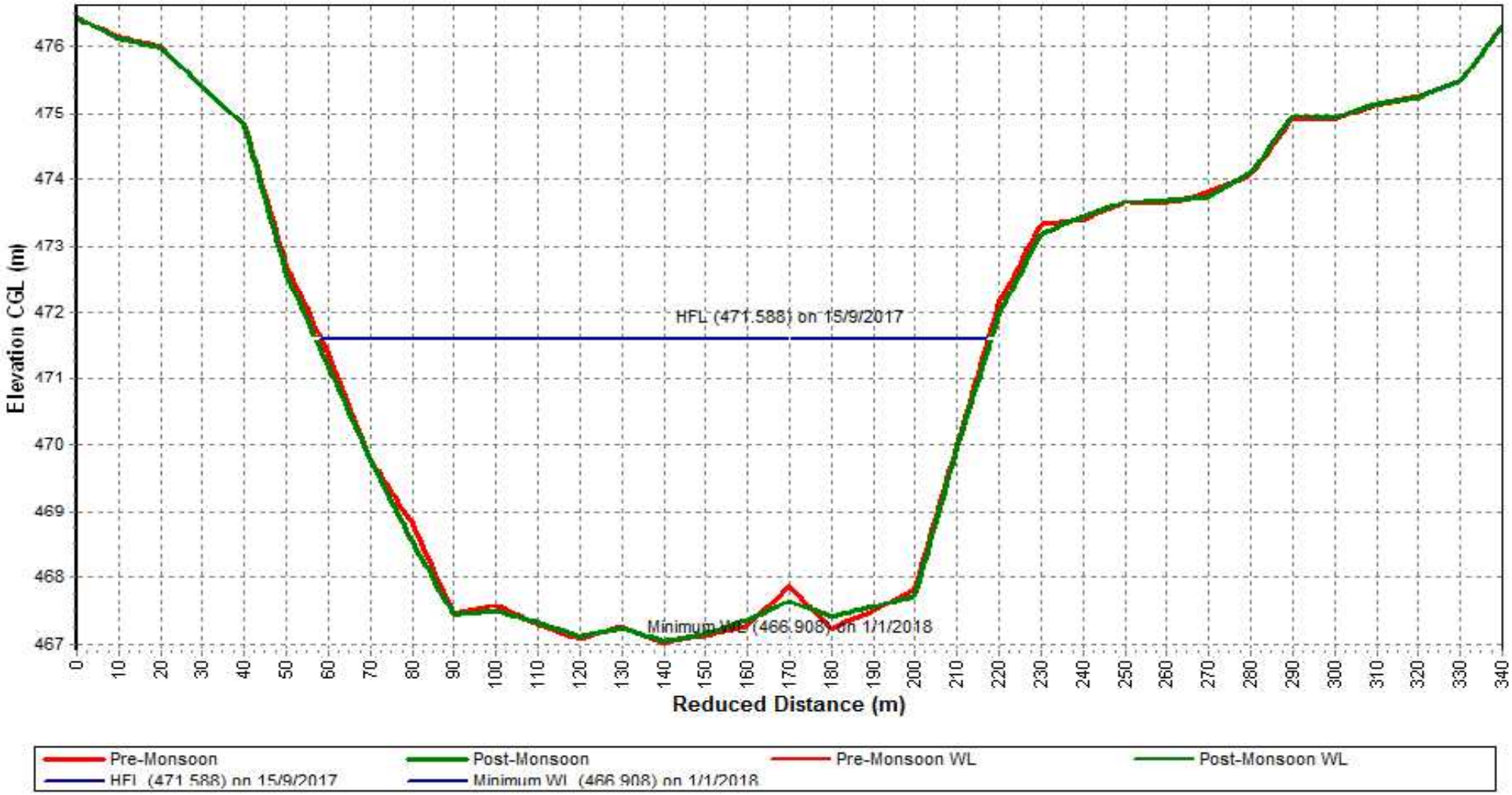
Sub-Division : Bhima SD, Sholapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**

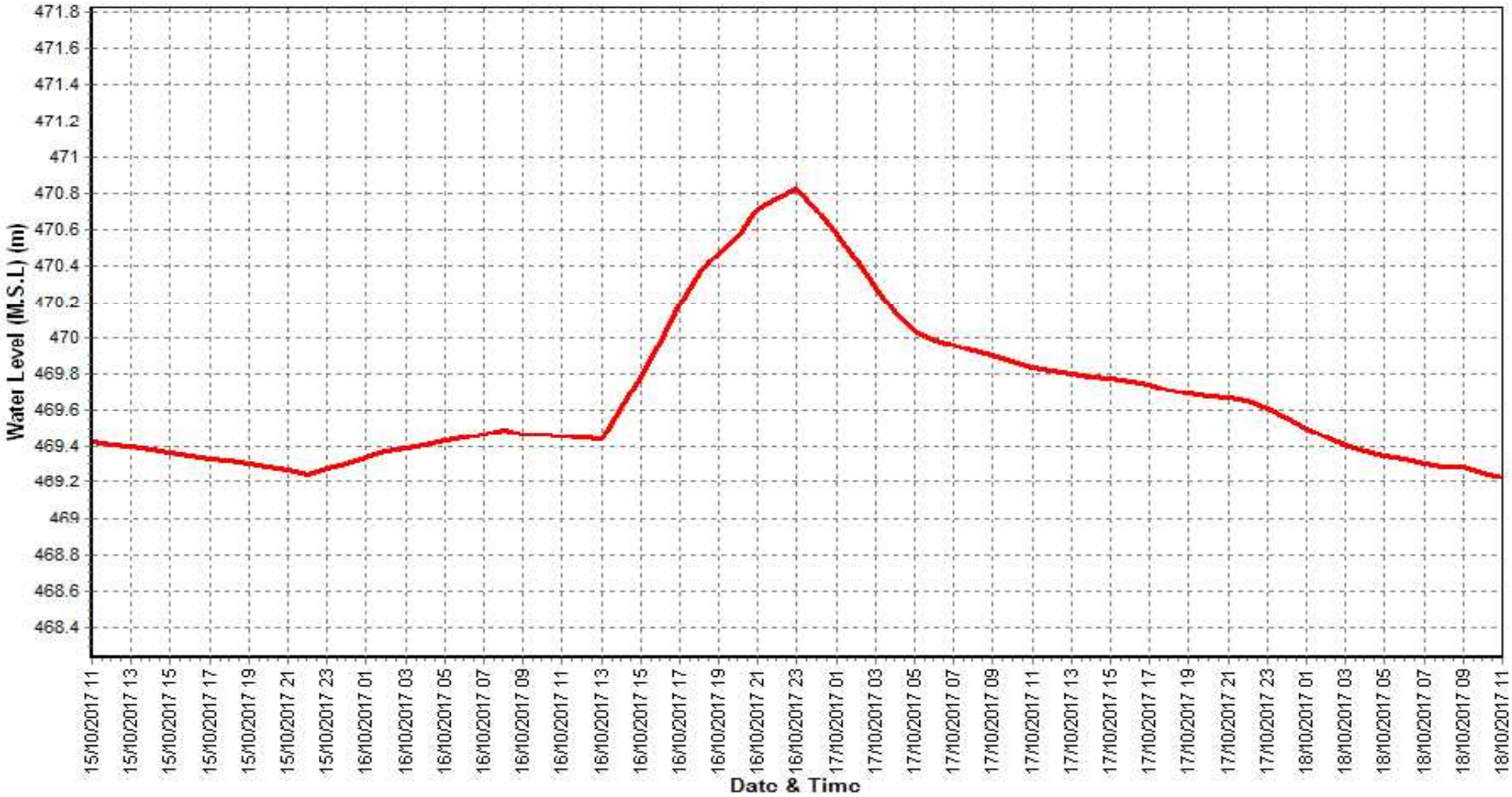


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Phulgaon (Seasonal)**	**Code**	:	**AKP00X5**
State	:	Maharashtra	District		Pune
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Bhima
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Bhima SD, Sholapur
Drainage Area	:	2205 Sq. Km.	Bank	:	Right
Latitude	:	18°40'01"	Longitude	:	74°00'08"
Zero of Gauge (m)	:	81 (m.s.l) 537 (m.s.l)	05/07/1986 01/06/2010	-	31/05/2010
		Opening Date	Closing Date		
Gauge	:	06/06/1986	HFL During 2017-18	:	544.955m
			Corres. Discharge	:	1498(Estimated)
Discharge	:	20/06/1992	Date & Time of	:	22/07/2017
			occurance	:	22.00 hrs.
Sediment	:				
Water Quality	:	02/08/1993			

HFL Recorded so far in m : 93.950 dt 23-08-1997
Corresponding Discharge (cumecs) : 5998*

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	1022	86.829	14/08/1992	0.000	82.435	25/01/1993
1993-1994	710.4	85.868	13/07/1993	0.000	82.380	02/02/1994
1994-1995	2965	89.880	14/07/1994	0.000	82.370	31/01/1995
1995-1996	1390	87.600	03/09/1995	0.000	84.910	26/01/1996
1996-1997	1580	87.880	03/10/1996	0.000	85.590	25/01/1997
1997-1998	3006	90.300	23/08/1997	0.000	85.250	25/01/1998
1998-1999	402.0	85.250	09/07/1998	0.000	84.400	25/01/1999
1999-2000	465.0	85.560	17/07/1999	0.000	85.830	26/01/2000
2000-2001	519.6	85.680	14/07/2000	0.000	85.670	25/01/2001
2001-2002	387.6	84.980	17/08/2001	0.000	85.500	25/01/2002
2002-2003	724.0	86.350	27/06/2002	0.000	84.950	25/01/2003
2003-2004	2196	88.890	28/07/2003	0.000	85.520	26/01/2004
2004-2005	2297	88.180	12/08/2004	0.000	84.380	25/01/2005
2005-2006	3029	91.475	27/07/2005	0.000	85.180	25/01/2006
2006-2007	2212	90.080	09/08/2006	0.000	86.065	04/11/2006
2007-2008	1256	87.225	08/08/2007	0.000	83.220	17/09/2007
2008-2009	1725	87.950	11/08/2008	0.000	85.080	18/10/2008
2009-2010	459.9	85.285	16/07/2009	0.000	86.110	23/10/2009

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**
2010-2011	442.9	541.750	01/09/2010	0.000	539.190	07/10/2010
2011-2012	1735	545.000	30/08/2011	0.000	540.060	04/11/2011
2012-2013	300.8	542.200	05/09/2012	0.000	542.180	12/11/2012
2013-2014	1271	543.450	25/07/2013	0.000	540.480	10/07/2013
2014-2015	1101	543.950	05/08/2014	0.000	541.655	09/11/2014
2015-2016	310.8	541.950	24/06/2015	0.000	542.070	24/11/2015
2016-2017	763.8	543.580	04/08/2016	0.000	540.260	10/10/2016

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

Annual Runoff of Bhima at Phulgaon(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1992-1993**	1161	0	1161
2	**1993-1994**	1358	0	1358
3	**1994-1995**	2703	0	2703
4	**1995-1996**	859	0	859
5	**1996-1997**	1478	0	1478
6	**1997-1998**	1952	0	1952
7	**1998-1999**	1284	0	1284
8	**1999-2000**	957	0	957
9	**2000-2001**	539	0	539
10	**2001-2002**	610	0	610
11	**2002-2003**	964	0	964
12	**2003-2004**	674	0	674
13	**2004-2005**	1224	0	1224
14	**2005-2006**	2801	0	2801
15	**2006-2007**	2720	Seasonal	2720
16	**2007-2008**	964		964
17	**2008-2009**	1106		1106
18	**2009-2010**	620		620
19	**2010-2011**	359		359
20	**2011-2012**	890		890
21	**2012-2013**	470		470
22	**2013-2014**	2672		2672
23	**2014-2015**	1170		1170
24	**2015-2016**	255		255
25	**2016-2017**	1041		1041
26	**2017-2018**	1459		1459
Average		1242	0	1242

Stage-Discharge Data for the period 2017 - 2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

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	539.410	0.000	541.950	0.000	541.430	187.3	541.755	223.9	540.455	0.000	540.960	0.000
2	539.365	0.000	541.170	0.000	541.393	192.7	541.120	121.8 *	540.330	0.000	540.800	0.000
3	539.370	0.000	541.330	0.000	541.275	164.0	540.835	77.60 *	540.290	0.000	540.605	0.000
4	539.510	0.000	540.963	91.99	540.970	107.2	540.730	58.71	540.215	0.000	540.460	0.000
5	539.655	0.000	540.705	62.32	540.773	73.09	540.688	57.92	540.235	0.000	540.305	0.000
6	539.805	0.000	540.805	65.65	540.655	53.92 *	540.593	41.30	540.205	0.000	540.180	0.000
7	539.885	0.000	540.643	50.13	540.560	51.04	540.480	35.70	540.185	0.000	540.095	0.000
8	539.740	0.000	540.593	46.11	540.498	45.98	540.555	52.08	540.235	0.000	540.035	0.000
9	539.845	0.000	540.675	56.38 *	540.450	31.38	540.863	67.28	541.535	215.1	539.790	0.000
10	539.775	0.000	540.395	24.73	540.385	22.44	540.625	50.32 *	541.240	142.8 #	539.705	0.000
11	539.815	0.000	540.280	0.000	540.475	33.84 *	540.525	33.07	542.120	334.7 #	539.635	0.000
12	539.875	0.000	540.215	0.000	540.500	36.40 *	540.495	31.98	541.540	200.9 #	539.625	0.000
13	539.885	0.000	540.370	0.000	540.575	44.53 *	540.503	37.07	541.020	80.80	540.145	0.000
14	540.095	0.000	540.375	0.000	540.485	34.85 *	542.453	434.1	541.038	88.70	540.480	0.000
15	540.145	0.000	542.558	456.2	540.520	38.50 *	541.058	101.5	541.600	213.4 *	540.765	0.000
16	540.095	0.000	542.190	352.6 *	540.485	36.48	541.085	94.30	541.320	157.5 *	541.100	0.000
17	540.120	0.000	541.665	227.4 #	540.475	38.36	540.725	62.72 *	541.190	133.9 *	541.220	0.000
18	540.280	0.000	541.693	233.4 #	540.465	35.30	540.593	48.61	540.775	0.000	541.290	0.000
19	540.115	0.000	542.075	325.7	540.423	29.99	540.535	40.04	540.525	0.000	541.470	0.000
20	540.095	0.000	541.555	204.2	540.560	42.85 *	540.760	67.75	540.545	0.000	541.510	0.000
21	539.945	0.000	542.280	399.8	542.948	600.5	542.433	369.4	541.120	0.000	541.420	0.000
22	539.870	0.000	543.780	855.3 #	541.975	311.4	541.445	174.7	542.220	0.000	541.380	0.000
23	539.835	0.000	543.860	885.1 *	541.230	145.0	541.310	151.2	542.350	0.000	541.390	0.000
24	539.805	0.000	542.820	580.9	540.908	80.45	540.960	96.02 *	542.305	0.000	541.380	0.000
25	539.800	0.000	541.950	320.3	540.780	70.00 *	540.813	74.87	542.260	0.000	541.350	0.000
26	541.060	0.000	541.868	291.2	542.805	484.4	540.790	66.39	542.205	0.000	541.340	0.000
27	540.640	0.000	541.610	254.4	542.190	352.6 *	540.645	51.14	542.190	0.000	541.310	0.000
28	541.730	0.000	541.630	247.6	542.428	395.8	540.450	33.57	541.920	0.000	541.280	0.000
29	540.875	0.000	542.265	405.0	542.500	449.4	540.530	41.87	541.710	0.000	541.250	0.000
30	541.270	0.000	541.975	298.7 *	543.830	873.9 *	540.435	29.89 *	541.540	0.000	541.230	0.000
31			541.475	203.8	542.653	433.4			541.200	0.000		
Ten-Daily Mean												
I Ten-Daily	539.636	0.000	540.923	39.73	540.839	92.91	540.824	78.66	540.492	35.79	540.294	0.000
II Ten-Daily	540.052	0.000	541.298	179.9	540.496	37.11	540.873	95.11	541.167	121.0	540.724	0.000
III Ten-Daily	540.483	0.000	542.319	431.1	542.204	381.5	540.981	108.9	541.911	0.000	541.333	0.000
Monthly												
Min.	539.365	0.000	540.215	0.000	540.385	22.44	540.435	29.89	540.185	0.000	539.625	0.000
Max.	541.730	0.000	543.860	885.1	543.830	873.9	542.453	434.1	542.350	334.7	541.510	0.000
Mean	540.057	0	541.539	223.8	541.213	177.3	540.893	94.23	541.213	50.57	540.784	0

Annual Runoff in MCM = 1454 Annual Runoff in mm = 659

Peak Observed Discharge = 855.3 cumecs on 22/07/2017 Corres. Water Level :543.78 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :539.41 m

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

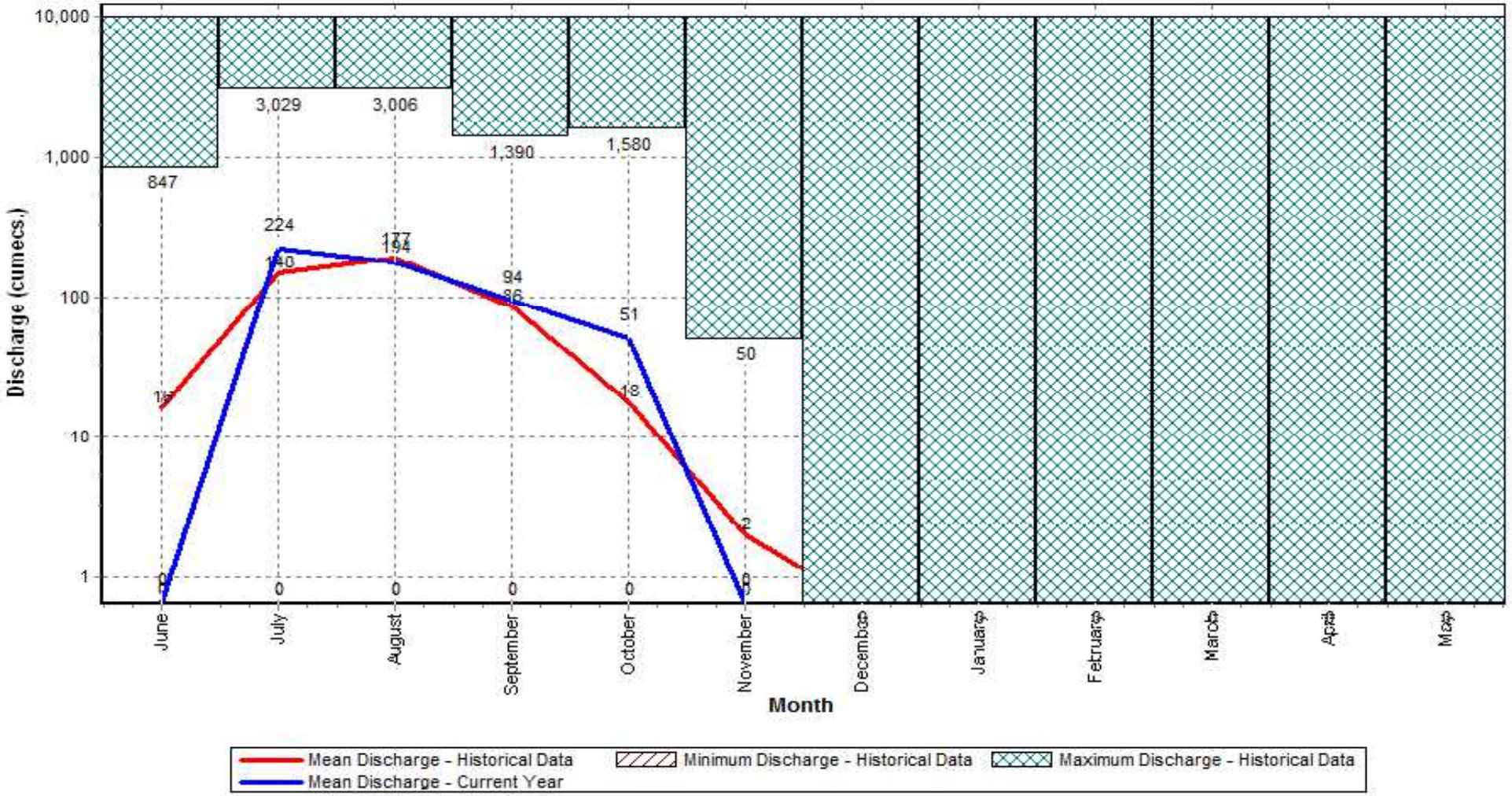
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Data considered : 1992-2018** **Division : Upper Krishna Divn, Pune**

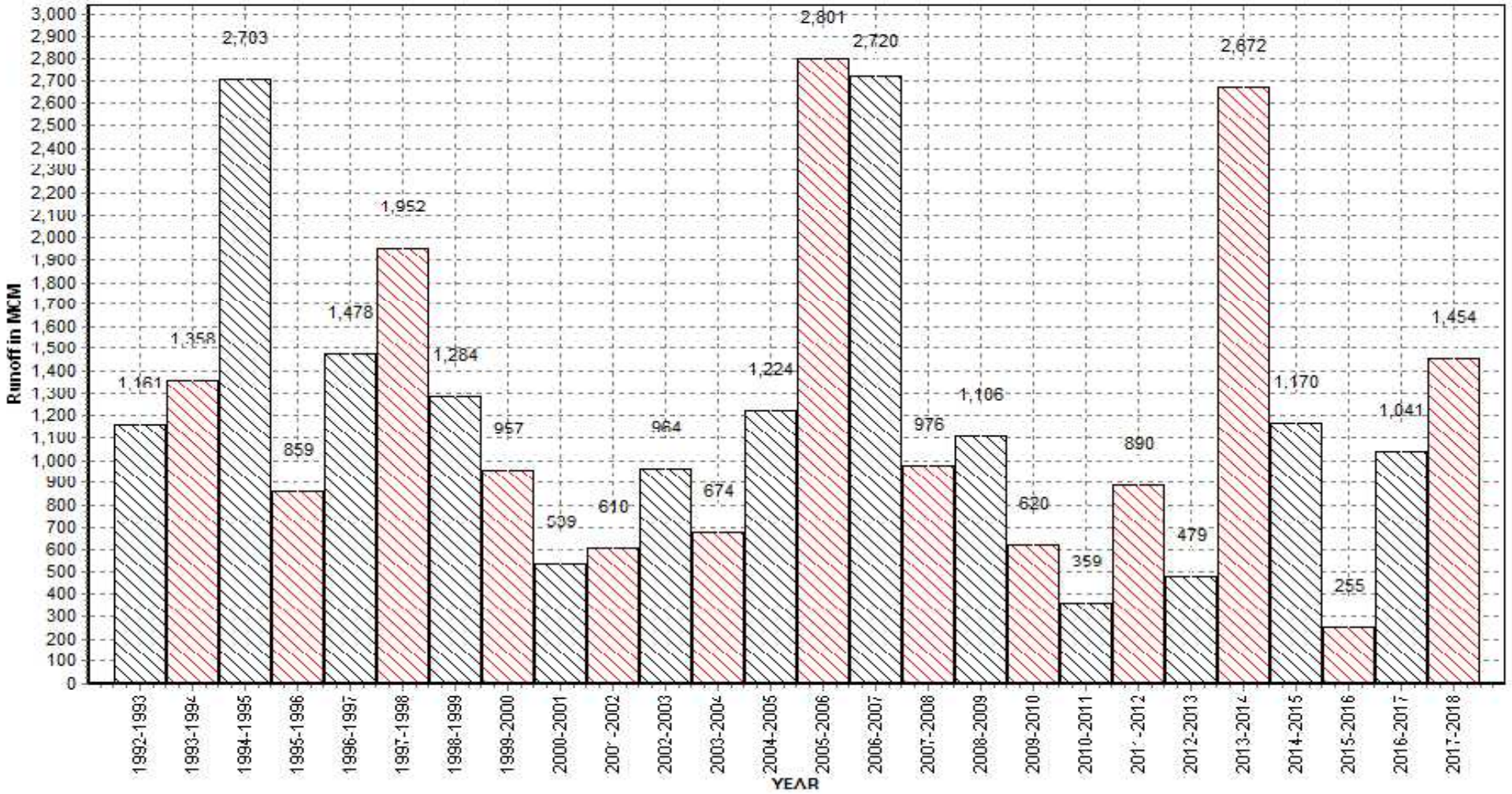
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 1992 - 2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

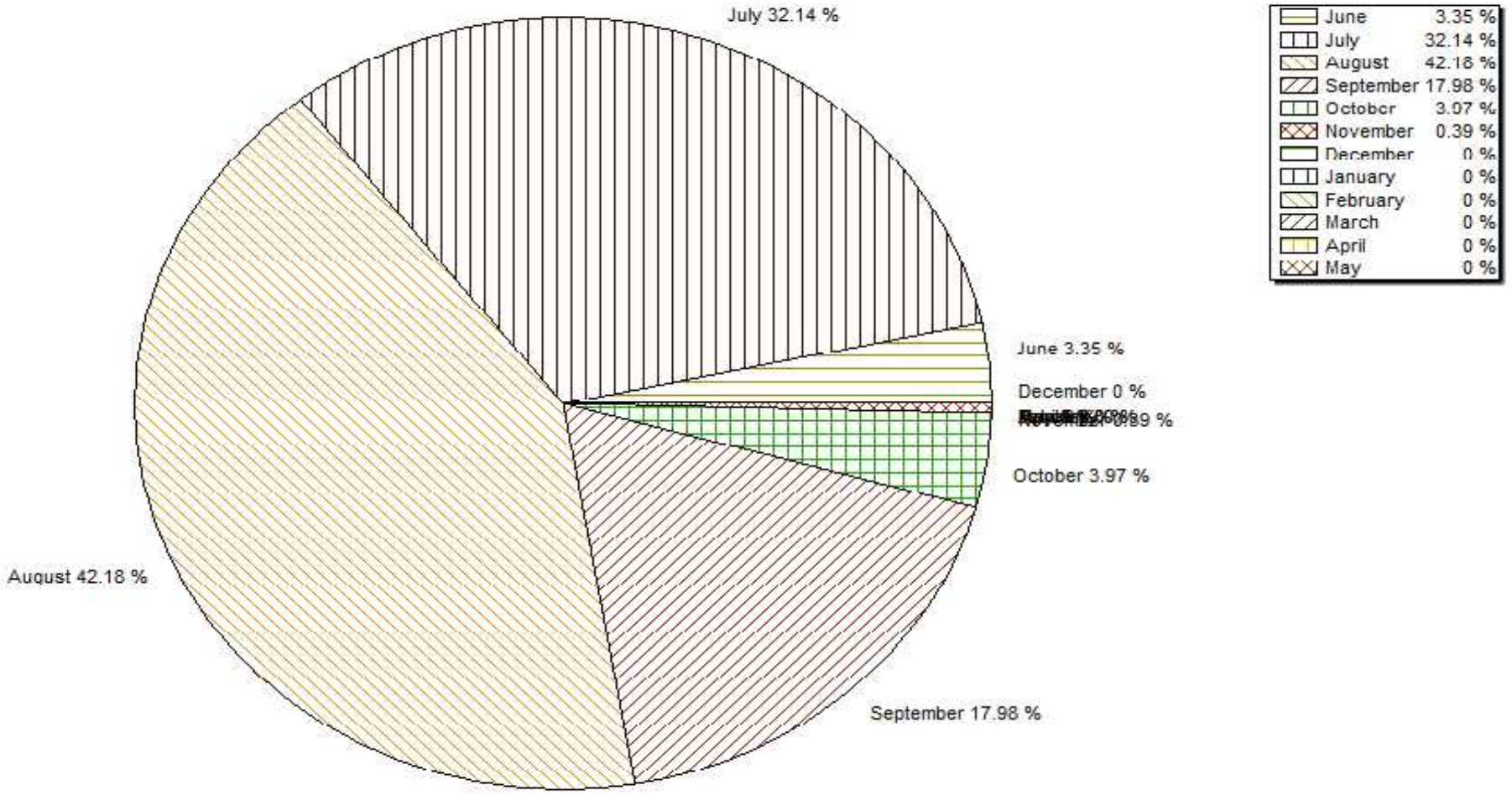


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1992-2017

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



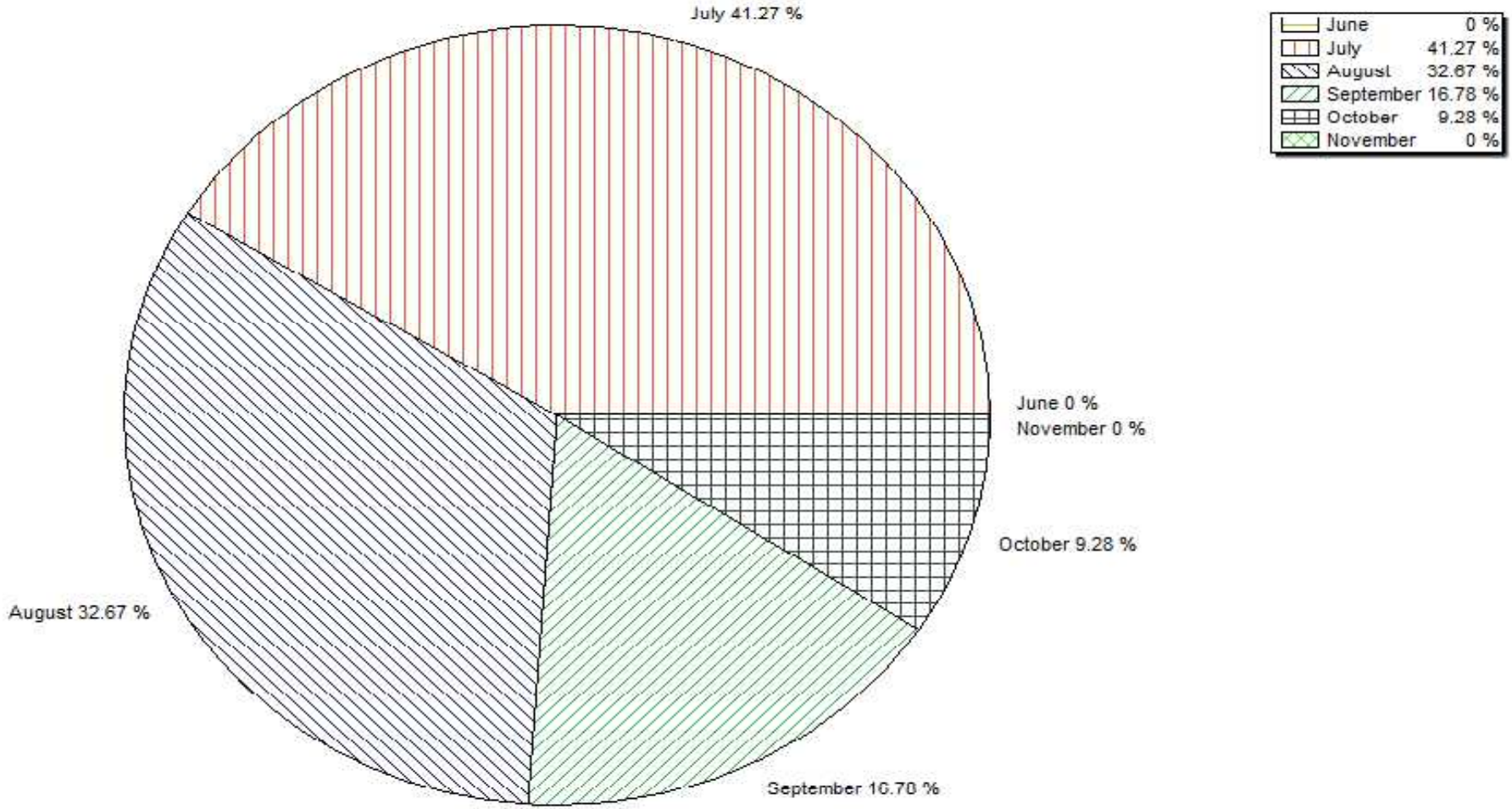
Monthly Runoff for the Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5)

Division : Upper Krishna Divn, Pune

Local River : Bhima

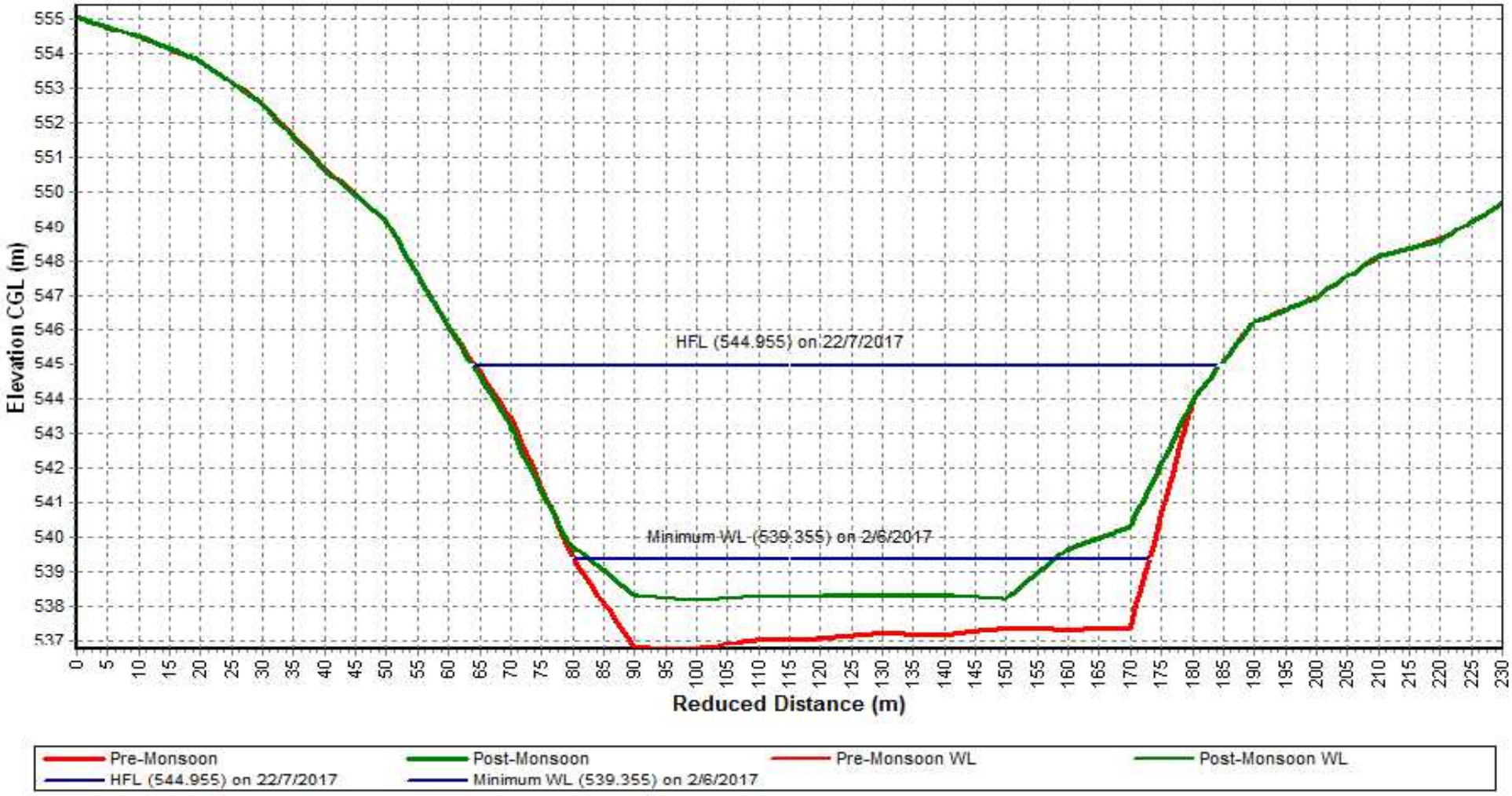
Sub-Division : Bhima SD, Sholapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

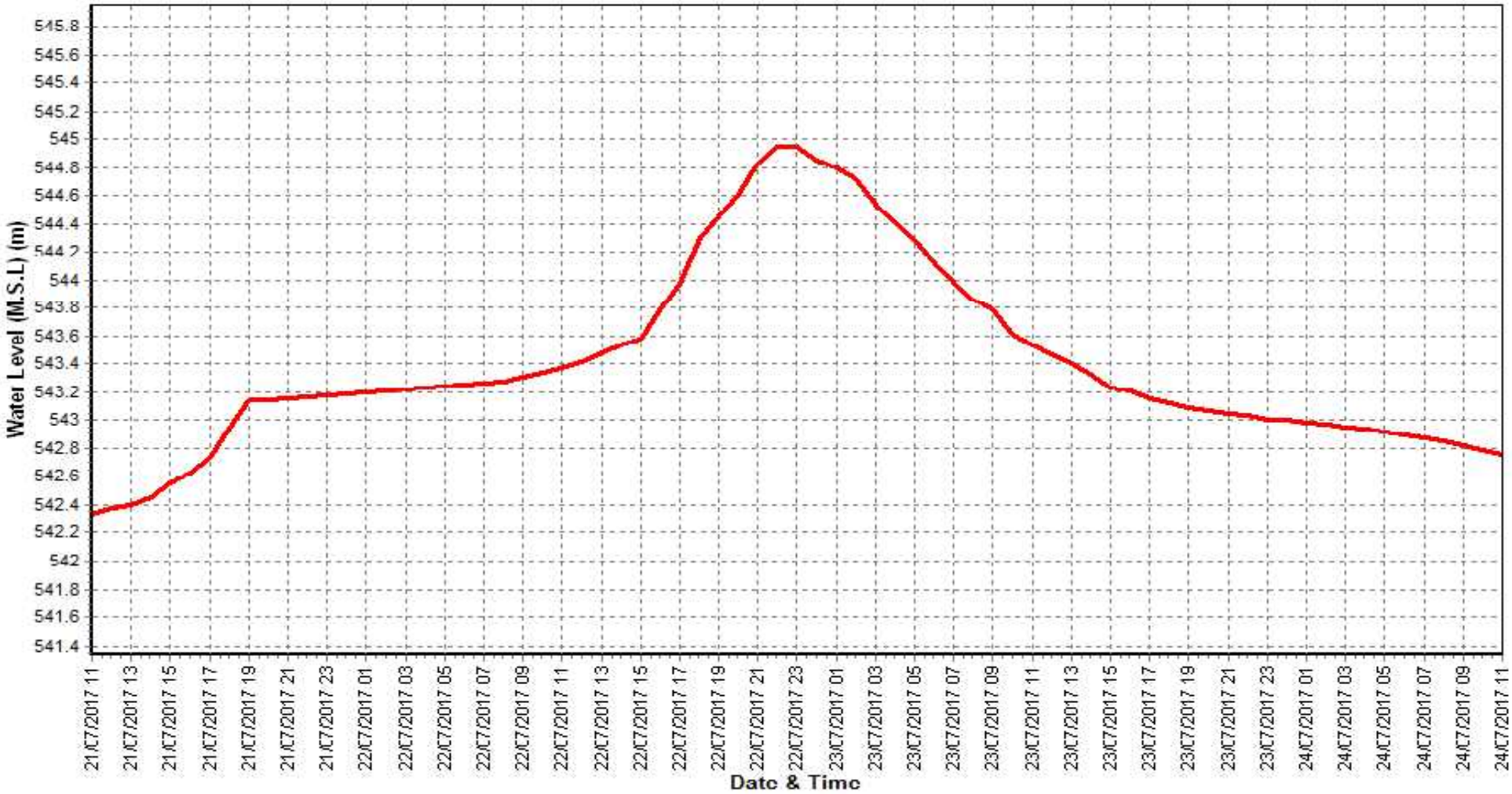
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

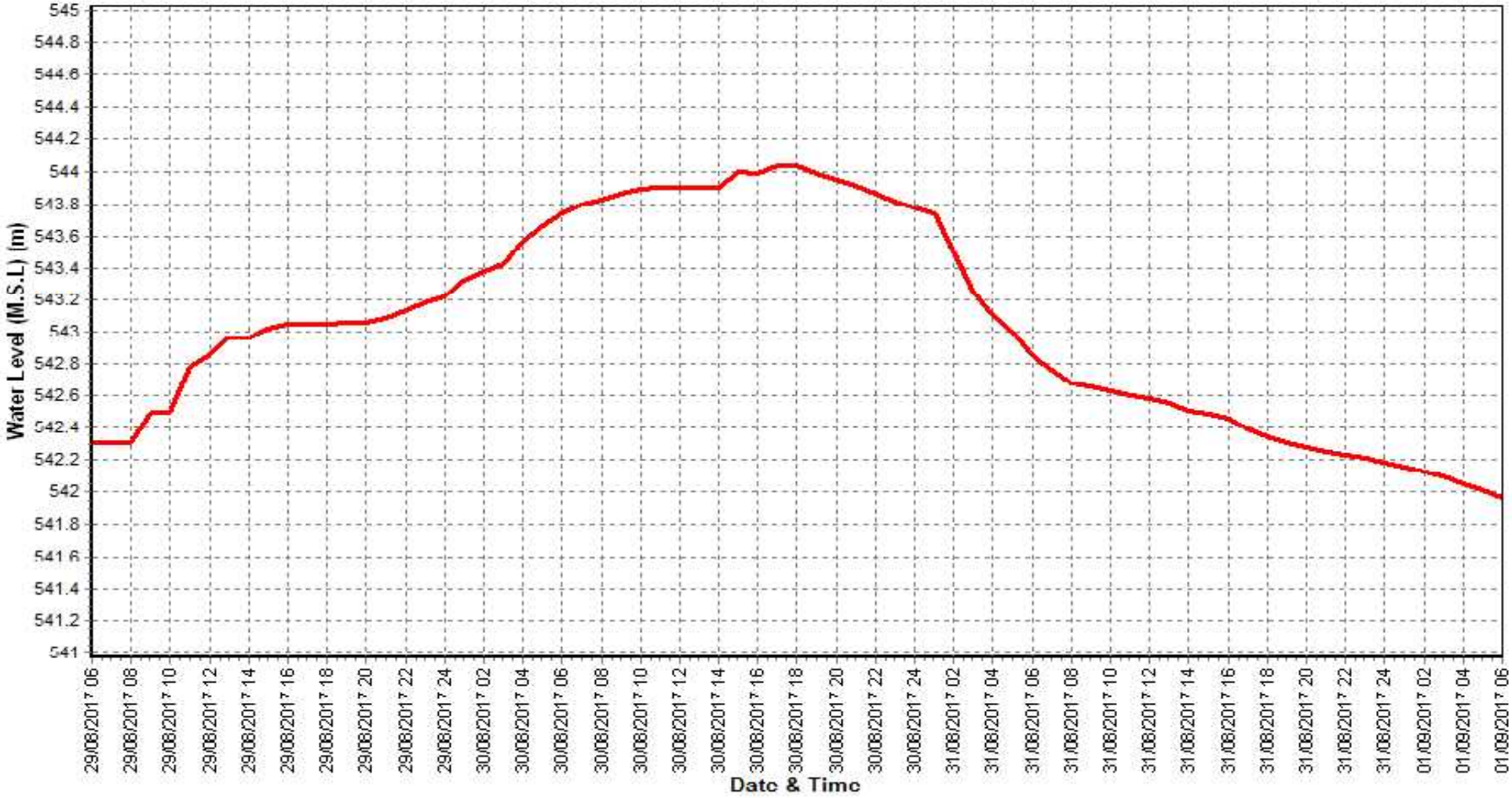


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

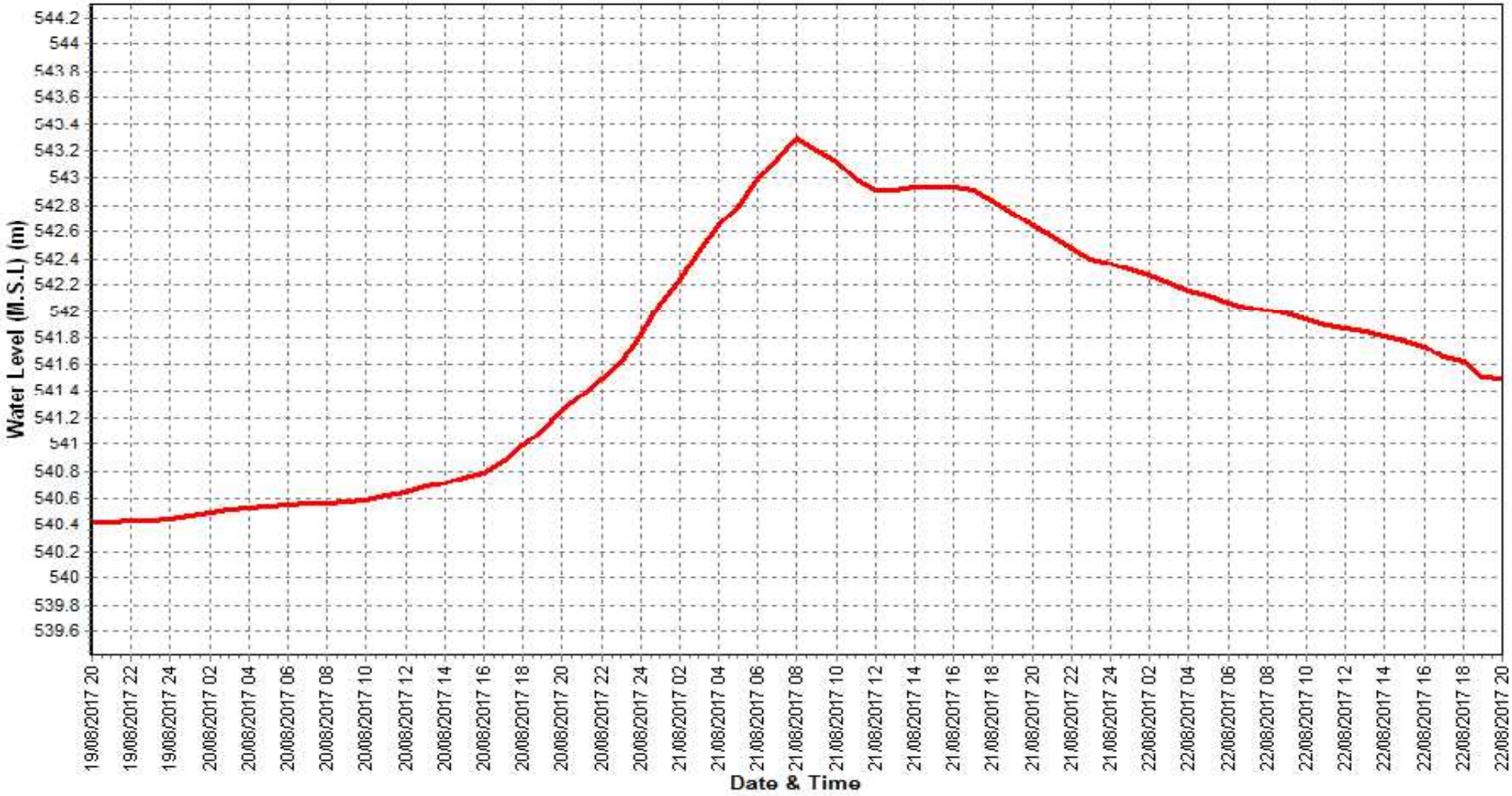


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Paragaon**	**Code**	**:**	**AKP00V9**
State	:	Maharashtra	District		Pune
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Bhima
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Bhima SD, Sholapur
Drainage Area	:	6251 Sq. Km.	Bank	:	
Latitude	:	18°33'30"	Longitude	:	74°22'30"
Zero of Gauge (m)	:	85 (m.s.l)	01/06/2015		
		Opening Date	Closing Date		
Gauge	:	28/11/2014	HFL During 2017-18	:	92.200m
			Corres. Discharge	:	1821(Estimated)
Discharge	:	02/09/2015	Date & Time of	:	23/07/2017
			occurance	:	08.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 94.10 dt 06-08-2016
Corresponding Discharge (cumecs) : 3736 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2016-2017	3267	93.570	06/08/2016	0.000	89.250	04/01/2017

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

Annual Runoff of Bhima at Paragaon

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**2015-2016**	376	54	430
2	**2016-2017**	2815	0	2815
3	**2017-2018**	3427	0	3427
Average		2206	18	2224

Stage-Discharge Data for the period 2017 - 2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

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	87.180	0.000	88.980	448.3 *	88.700	368.7	89.500	622.3 #	87.980	177.3 *	87.140	30.53 *
2	87.200	0.000	88.700	363.5 *	88.600	346.1	88.540	318.0 *	87.860	151.2 *	87.070	22.72 *
3	87.180	0.000	88.280	265.2 *	88.840	382.1	88.290	251.5 *	87.580	105.1	87.060	21.68 *
4	87.130	0.000	88.530	315.2 *	88.440	323.9	88.020	187.1	87.560	100.6	87.020	17.68 *
5	87.090	0.000	88.140	214.4 *	88.430	297.1	87.900	164.5	87.360	71.29	87.000	15.79 *
6	87.060	0.000	88.010	184.1 *	88.130	212.0 *	87.890	159.9	87.220	44.55	87.060	21.68 *
7	87.140	0.000	87.990	151.6	87.600	88.55	87.850	150.1	87.220	44.06	87.010	16.73 *
8	87.110	0.000	87.805	116.1	87.440	82.66	87.620	110.6	87.400	66.27 *	87.000	15.79 *
9	87.100	0.000	87.750	128.6 *	87.400	85.84	87.940	170.5	87.900	159.8	86.960	0.000
10	87.160	0.000	87.705	92.64	87.350	80.70	88.250	241.4 *	88.790	399.8	86.930	0.000
11	87.190	0.000	87.450	57.57	87.260	61.91	87.990	185.5	88.390	277.4 *	86.920	0.000
12	87.150	0.000	87.350	38.14	87.280	62.91	88.020	189.7	88.700	365.8	86.900	0.000
13	87.180	0.000	87.300	29.22	87.380	63.18 *	87.990	186.0	88.400	242.2	86.880	0.000
14	87.250	0.000	87.350	39.47	87.500	95.31	88.350	280.7	88.660	362.6	86.870	0.000
15	87.300	0.000	89.840	695.2	87.920	164.1 *	89.030	450.7	88.650	349.0 *	86.900	0.000
16	87.270	0.000	89.810	735.8 *	87.540	99.24	88.250	272.7	88.700	364.5	86.930	0.000
17	87.240	0.000	89.145	486.3	87.330	74.26	88.310	256.6 *	88.650	347.4	86.950	0.000
18	87.220	0.000	89.030	445.3	87.300	64.79	88.110	213.2	88.220	250.5	86.910	0.000
19	87.230	0.000	89.140	482.3	87.340	74.22	87.960	187.5	87.910	161.9 *	86.900	0.000
20	87.200	0.000	88.960	417.8	87.360	60.14 *	88.125	240.7	87.740	127.0	86.880	0.000
21	87.190	0.000	89.560	643.2	90.350	1134	91.130	1289	87.570	94.36	86.850	0.000
22	87.170	0.000	90.500	1039	90.060	843.9	89.350	550.9	87.520	85.95 *	87.190	0.000
23	87.150	0.000	92.200	1821 *	89.040	452.6	89.270	538.9	87.550	84.74	87.340	0.000
24	87.130	0.000	90.125	883.3	88.410	295.0	88.770	384.1 *	87.450	66.89	87.540	0.000
25	87.100	0.000	90.050	780.1	88.090	202.5 *	88.260	262.1	87.440	64.60	87.400	0.000
26	87.060	0.000	89.400	592.1	87.980	176.5	88.150	209.1	87.420	58.41	87.980	0.000
27	87.190	0.000	89.170	534.6	89.760	717.0 *	88.020	191.1	87.380	54.49	88.250	0.000
28	87.280	0.000	89.110	512.1	90.140	956.0	87.900	160.2	87.370	50.50	88.360	0.000
29	87.970	0.000	89.670	666.8	90.060	806.4	87.830	142.8	87.300	51.35 *	88.400	0.000
30	88.560	0.000	89.780	724.5 *	91.500	1491	87.890	157.6 *	87.260	39.15	88.500	0.000
31			89.070	456.2	91.370	1400			87.140	31.26		
Ten-Daily Mean												
I Ten-Daily	87.135	0.000	88.189	228.0	88.093	226.8	88.180	237.6	87.687	132.0	87.025	16.26
II Ten-Daily	87.223	0.000	88.538	342.7	87.421	82.00	88.214	246.3	88.402	284.8	86.904	0.000
III Ten-Daily	87.380	0.000	89.876	786.6	89.705	770.5	88.657	388.6	87.400	61.97	87.781	0.000
Monthly												
Min.	87.060	0.000	87.300	29.22	87.260	60.14	87.620	110.6	87.140	31.26	86.850	0.000
Max.	88.560	0.000	92.200	1821	91.500	1491	91.130	1289	88.790	399.8	88.500	30.53
Mean	87.246	0	88.900	463.2	88.448	373	88.350	290.8	87.816	156.5	87.237	5.42

Annual Runoff in MCM = 3427 Annual Runoff in mm = 548

Peak Observed Discharge = 1491 cumecs on 30/08/2017 Corres. Water Level :91.5 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :87.18 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 2017 - 2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	88.750	0.000	89.220	0.000	89.190	0.000	89.130	0.000	89.000	0.000	88.690	0.000
2	88.800	0.000	89.200	0.000	89.180	0.000	89.130	0.000	88.950	0.000	88.670	0.000
3	88.850	0.000	89.200	0.000	89.160	0.000	89.140	0.000	88.900	0.000	88.850	0.000
4	89.030	0.000	89.240	0.000	89.150	0.000	89.150	0.000	88.770	0.000	89.120	0.000
5	88.850	0.000	89.250	0.000	89.150	0.000	89.170	0.000	88.600	0.000	89.150	0.000
6	88.750	0.000	89.250	0.000	89.150	0.000	89.170	0.000	88.500	0.000	89.170	0.000
7	88.700	0.000	89.240	0.000	89.140	0.000	89.190	0.000	88.500	0.000	89.180	0.000
8	88.680	0.000	89.220	0.000	89.160	0.000	89.200	0.000	88.400	0.000	89.170	0.000
9	88.700	0.000	89.200	0.000	89.170	0.000	89.200	0.000	88.100	0.000	89.160	0.000
10	88.740	0.000	89.200	0.000	89.160	0.000	89.200	0.000	88.030	0.000	89.100	0.000
11	88.600	0.000	89.220	0.000	89.160	0.000	89.190	0.000	88.200	0.000	89.050	0.000
12	88.510	0.000	89.220	0.000	89.150	0.000	89.190	0.000	88.350	0.000	89.030	0.000
13	88.500	0.000	89.210	0.000	89.150	0.000	89.180	0.000	88.370	0.000	89.010	0.000
14	88.590	0.000	89.200	0.000	89.160	0.000	89.180	0.000	88.390	0.000	89.000	0.000
15	88.650	0.000	89.200	0.000	89.160	0.000	89.170	0.000	88.350	0.000	89.000	0.000
16	88.700	0.000	89.200	0.000	89.160	0.000	89.150	0.000	88.900	0.000	88.980	0.000
17	88.700	0.000	89.200	0.000	89.150	0.000	89.150	0.000	88.900	0.000	88.960	0.000
18	88.730	0.000	89.200	0.000	89.150	0.000	89.110	0.000	88.860	0.000	88.940	0.000
19	88.800	0.000	89.190	0.000	89.150	0.000	89.000	0.000	88.800	0.000	88.900	0.000
20	88.750	0.000	89.190	0.000	89.140	0.000	89.000	0.000	88.800	0.000	88.880	0.000
21	89.100	0.000	89.200	0.000	89.120	0.000	89.100	0.000	88.830	0.000	88.800	0.000
22	89.200	0.000	89.200	0.000	89.110	0.000	89.170	0.000	88.800	0.000	88.770	0.000
23	89.200	0.000	89.210	0.000	89.100	0.000	89.190	0.000	88.780	0.000	88.790	0.000
24	89.200	0.000	89.220	0.000	89.100	0.000	89.190	0.000	88.800	0.000	88.760	0.000
25	89.190	0.000	89.220	0.000	89.100	0.000	89.190	0.000	88.800	0.000	88.700	0.000
26	89.200	0.000	89.220	0.000	89.090	0.000	89.130	0.000	88.700	0.000	88.500	0.000
27	89.180	0.000	89.210	0.000	89.100	0.000	89.060	0.000	88.690	0.000	88.430	0.000
28	89.150	0.000	89.200	0.000	89.120	0.000	89.040	0.000	88.650	0.000	88.350	0.000
29	89.180	0.000	89.200	0.000			89.040	0.000	88.650	0.000	87.900	0.000
30	89.200	0.000	89.200	0.000			89.030	0.000	88.700	0.000	87.590	0.000
31	89.200	0.000	89.200	0.000			89.030	0.000			87.580	0.000
Ten-Daily Mean												
I Ten-Daily	88.785	0.000	89.222	0.000	89.161	0.000	89.168	0.000	88.575	0.000	89.026	0.000
II Ten-Daily	88.653	0.000	89.203	0.000	89.153	0.000	89.132	0.000	88.592	0.000	88.975	0.000
III Ten-Daily	89.182	0.000	89.207	0.000	89.105	0.000	89.106	0.000	88.740	0.000	88.379	0.000
Monthly												
Min.	88.500	0.000	89.190	0.000	89.090	0.000	89.000	0.000	88.030	0.000	87.580	0.000
Max.	89.200	0.000	89.250	0.000	89.190	0.000	89.200	0.000	89.000	0.000	89.180	0.000
Mean	88.883	0	89.211	0	89.142	0	89.135	0	88.636	0	88.780	0

Peak Computed Discharge = 1821 cumecs on 23/07/2017 Corres. Water Level :92.2 m

Lowest Computed Discharge = 15.79 cumecs on 05/11/2017 Corres. Water Level :87 m

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

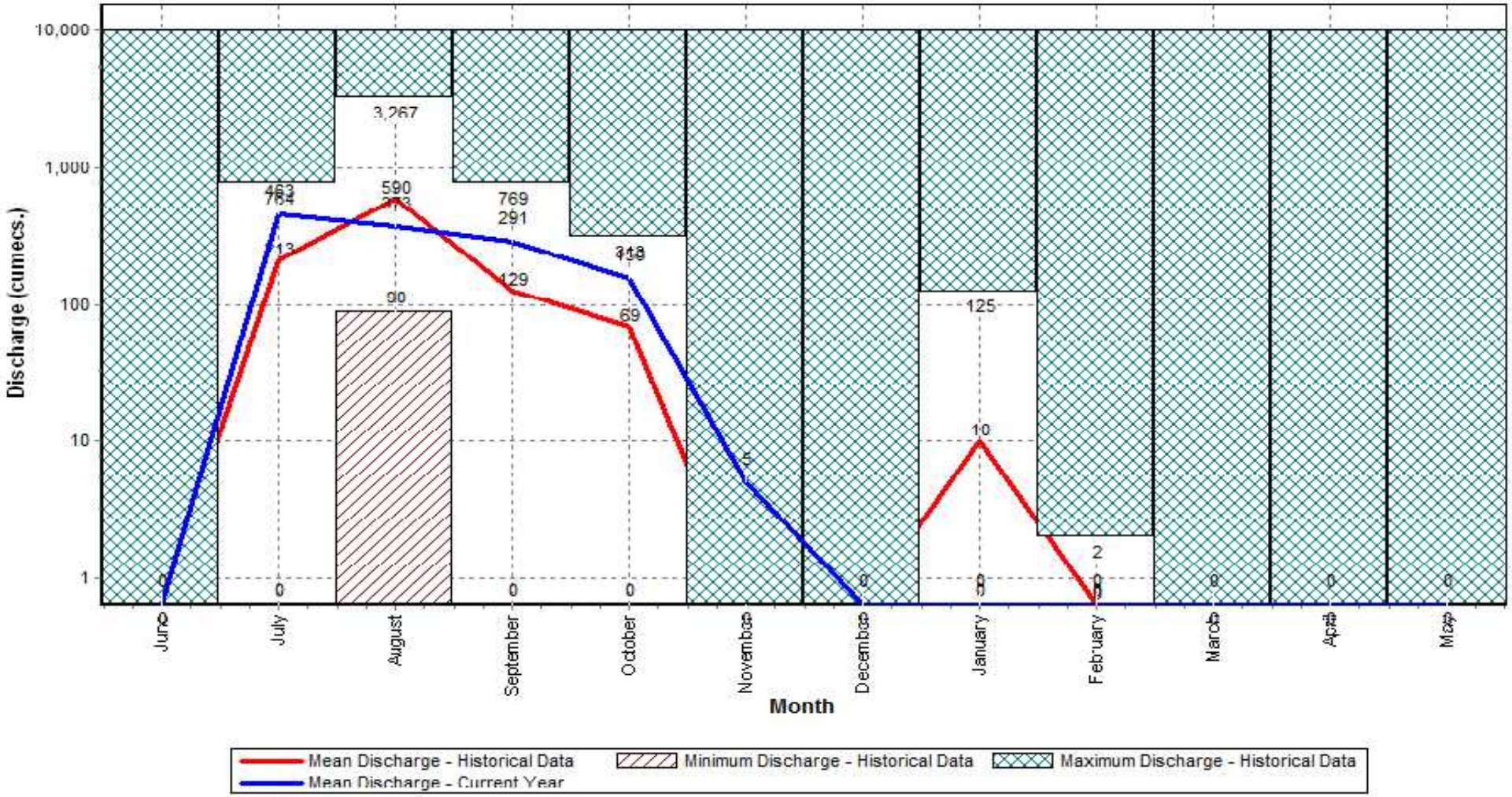
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Paragaon (AKP00V9) **Data considered : 2016-2018** **Division : Upper Krishna Divn, Pune**

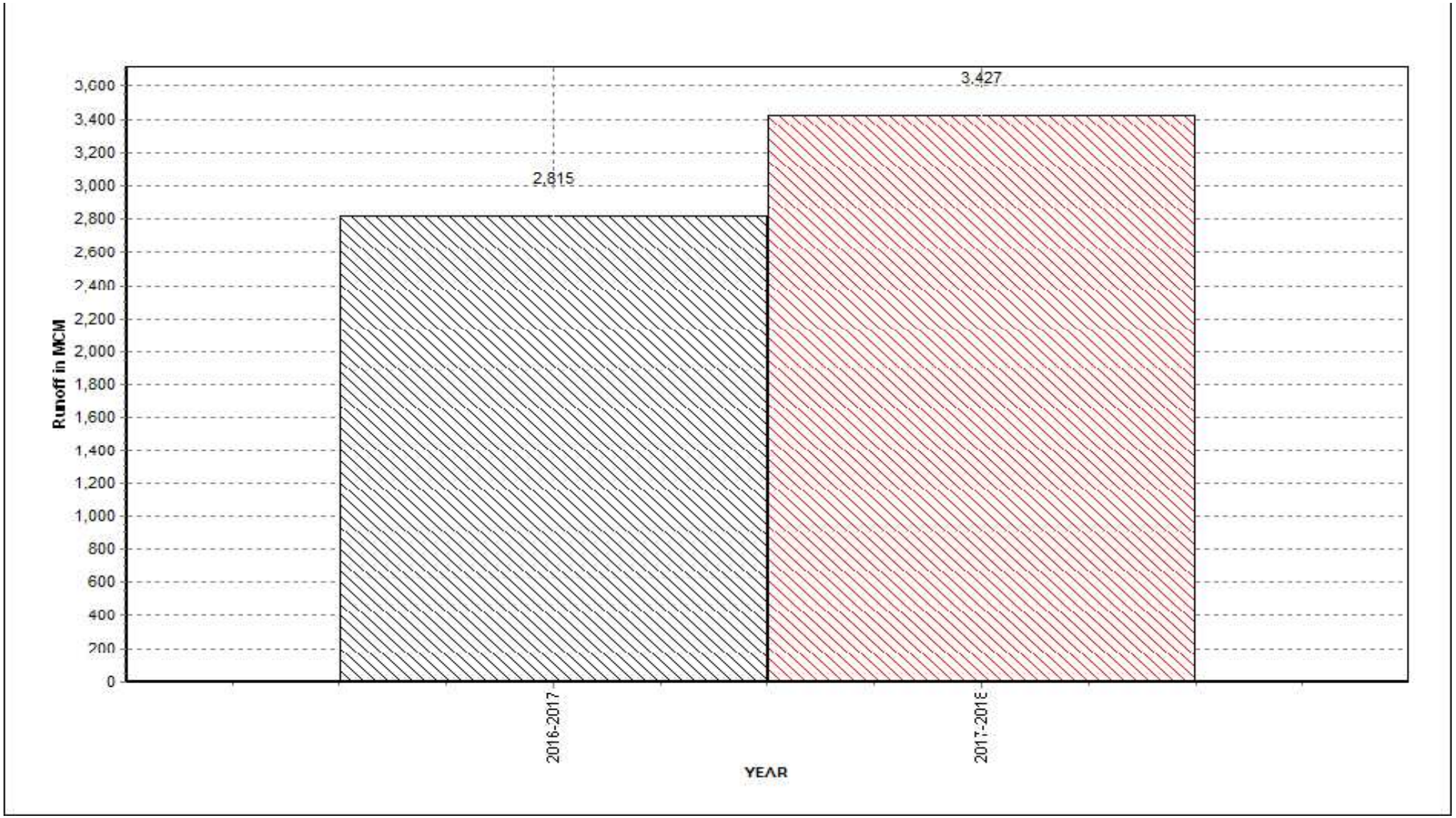
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Annual Runoff Values for the period: 2016 - 2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



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

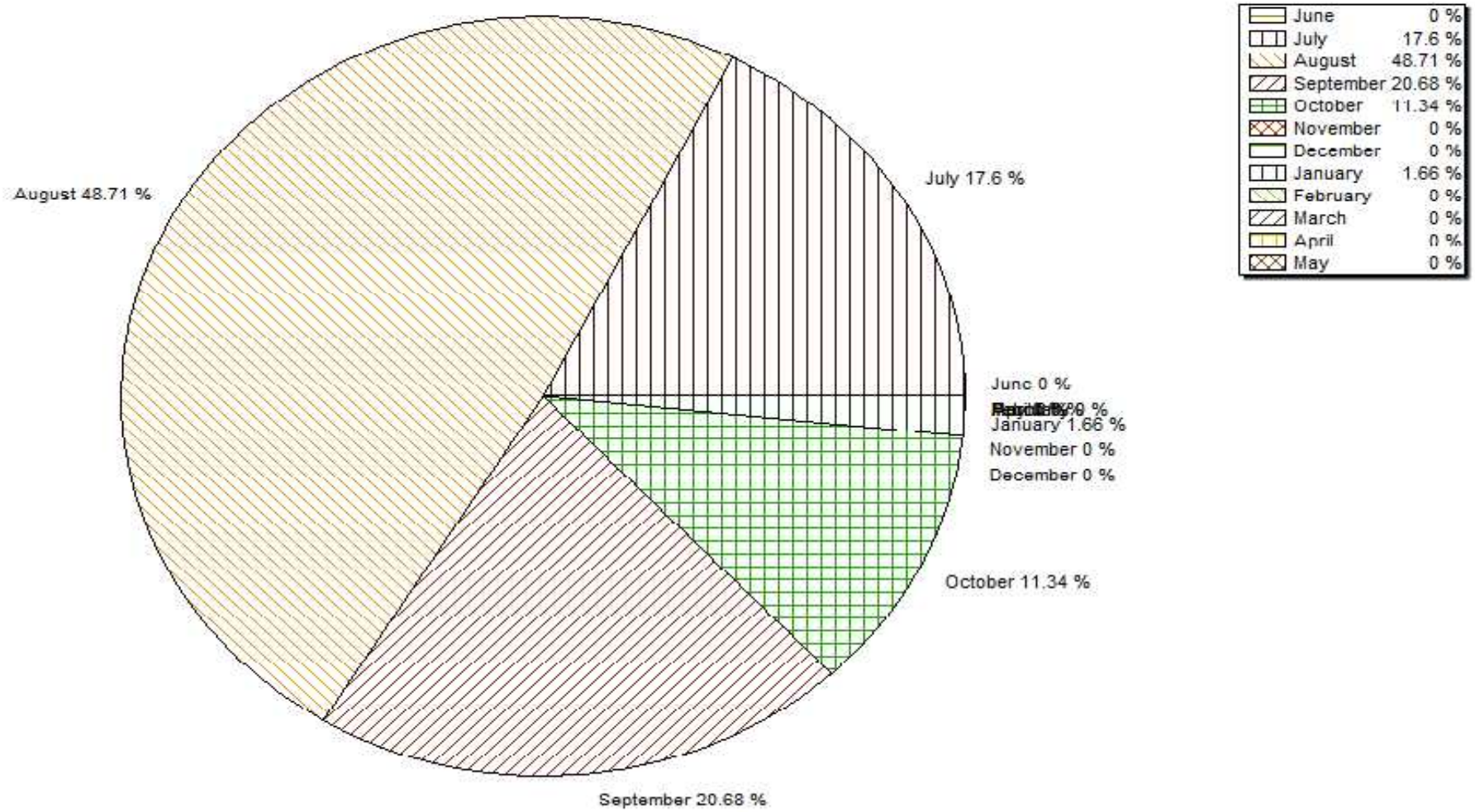
Monthly Average Runoff based on period : 2016-2017

Station Name : Paragaon (AKP00V9)

Local River : Bhima

Division : Upper Krishna Divn, Pune

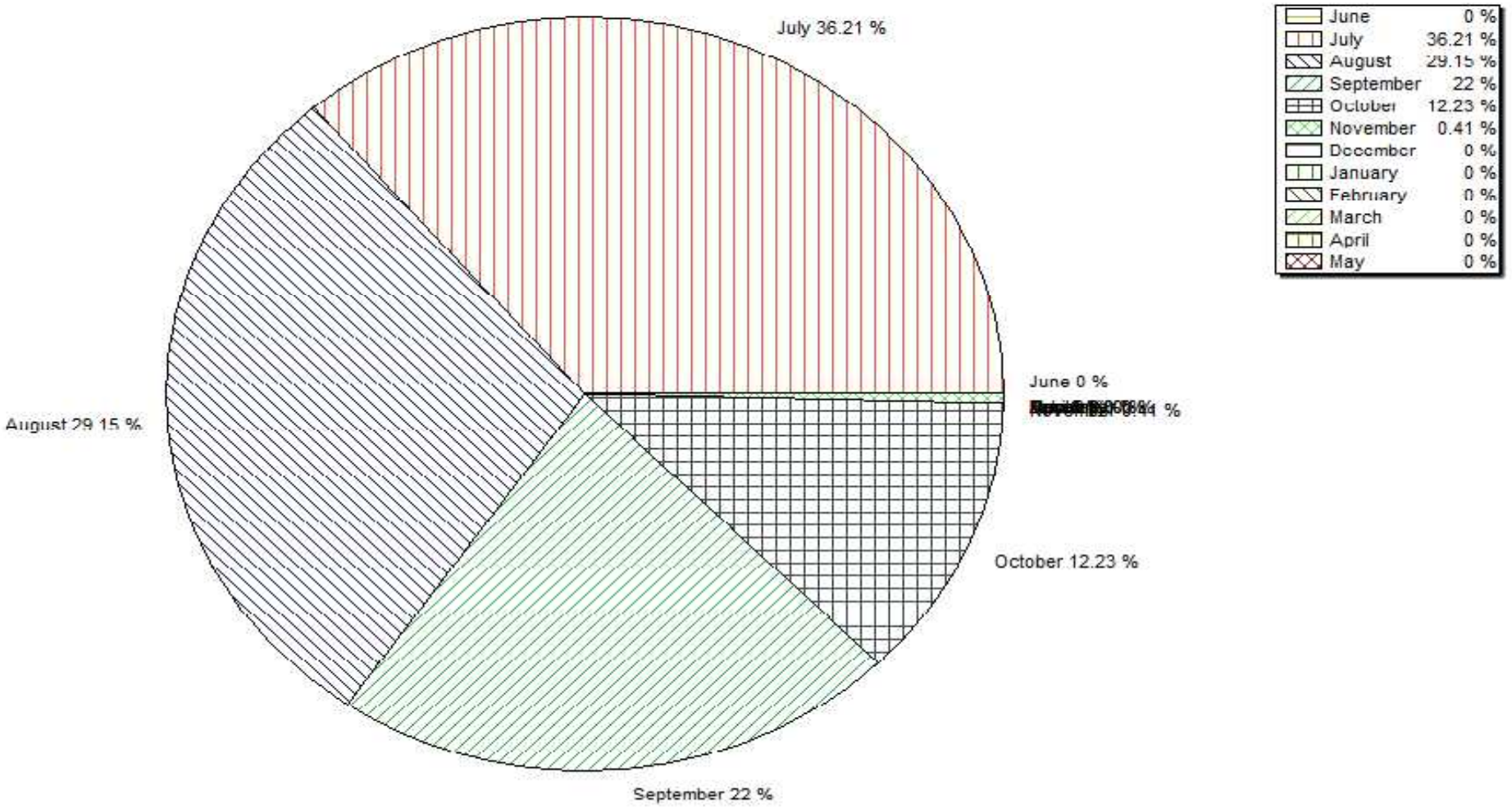
Sub-Division : Bhima SD, Sholapur



Monthly Runoff for the Year : 2017-2018

Station Name : Paragaon (AKP00V9)
Local River : Bhima

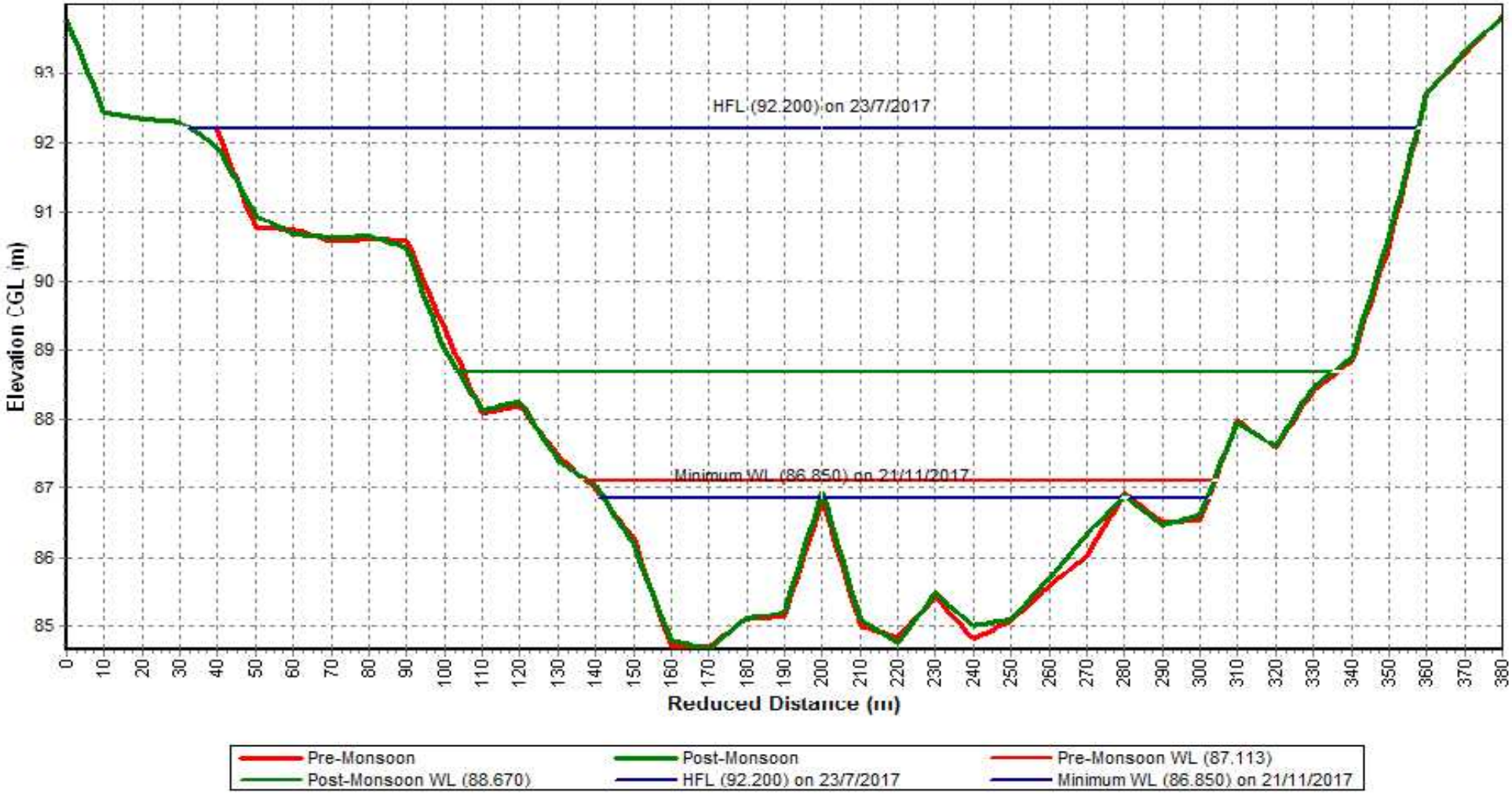
Division : Upper Krishna Divn, Pune
Sub-Division : Bhima SD, Sholapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

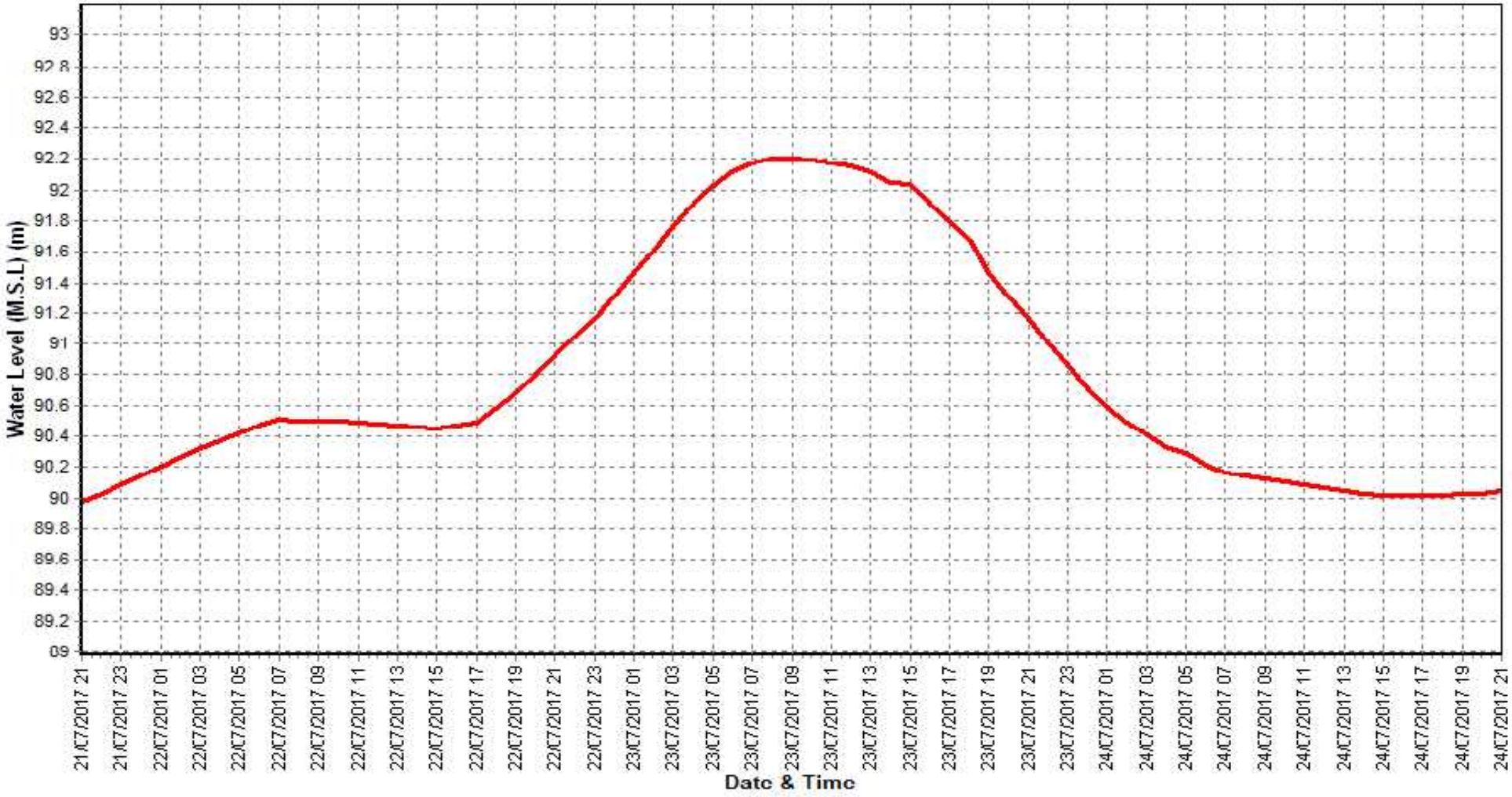
Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**

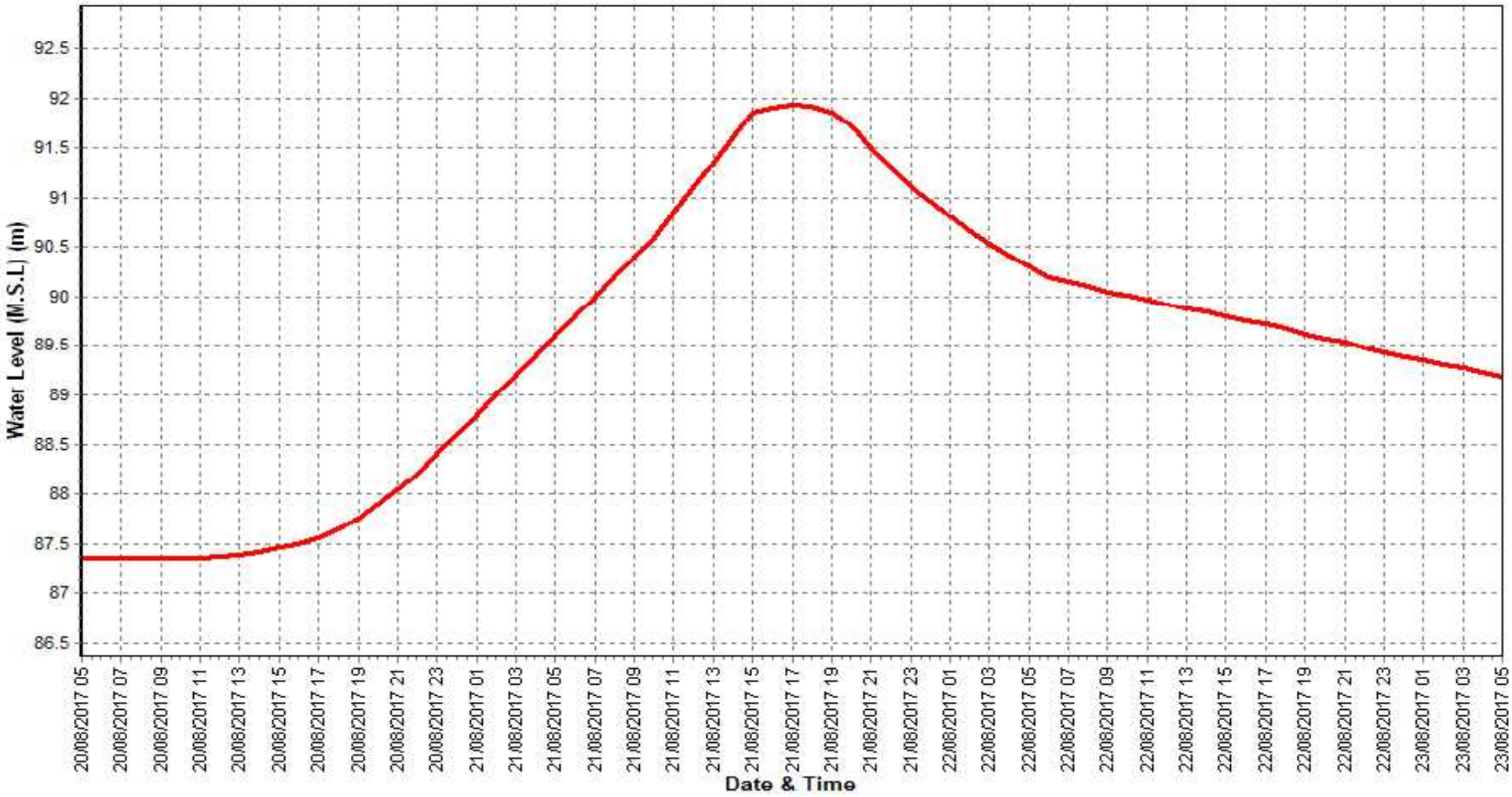


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Bhima SD, Sholapur**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Suddakallu**	**Code**	:	**SUDDAKALLU**
State	:	Telangana	District		Nagarkurnool
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Dindi	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Dindi
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Middle Krishna SD 2 , Kurnool
Drainage Area	:	2340 Sq. Km.	Bank	:	
Latitude	:	16°34'22"	Longitude	:	78°25'24"
Zero of Gauge (m)	:	95.5 (m.s.l)	01/06/2016		
		Opening Date	Closing Date		
Gauge	:	20/11/2014	HFL During 2017-18	:	98.670m
			Corres. Discharge	:	45.45(Estimated)
Discharge	:	05/10/2017	Date & Time of occurance	:	10/10/2017 18.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 98.670 dt 10-10-2017
Corresponding Discharge (cumecs) : 45.45 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2016-2017	0.000		04/10/2016	0.000		25/01/2017

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

Annual Runoff of Dinidi at Suddakallu

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	2016-2017	0	0	0
2	2017-2018	33	0	33
Average		16	0	16

Stage-Discharge Data for the period 2017 - 2018

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**

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		0.000		0.000		0.000		0.000	96.600	0.000
2		0.000		0.000		0.000		0.000		0.000	96.590	0.000
3		0.000		0.000		0.000		0.000		0.000	97.215	10.12 *
4		0.000		0.000		0.000		0.000		0.000	96.905	4.864 *
5		0.000		0.000		0.000		0.000	96.860	4.200 *	96.650	1.526 *
6		0.000		0.000		0.000		0.000	96.840	3.914 *		0.000
7		0.000		0.000		0.000		0.000	96.890	4.639 *		0.000
8		0.000		0.000		0.000		0.000	96.920	5.091 *		0.000
9		0.000		0.000		0.000		0.000	96.935	5.322 *		0.000
10		0.000		0.000		0.000		0.000	97.665	19.43 *		0.000
11		0.000		0.000		0.000		0.000	97.660	20.39		0.000
12		0.000		0.000		0.000		0.000	97.300	12.40		0.000
13		0.000		0.000		0.000		0.000	97.110	9.457		0.000
14		0.000		0.000		0.000		0.000	98.300	35.16		0.000
15		0.000		0.000		0.000		0.000	98.400	38.170	96.800	3.360 *
16		0.000		0.000		0.000		0.000	97.650	19.28	96.770	2.961 *
17		0.000		0.000		0.000		0.000	97.700	19.89	96.900	4.789 *
18		0.000		0.000		0.000		0.000	97.600	18.75	97.010	6.518 *
19		0.000		0.000		0.000		0.000	97.305	11.84 *	96.820	3.634 *
20		0.000		0.000		0.000		0.000	96.900	4.789 *	96.810	3.496 *
21		0.000		0.000		0.000		0.000	96.915	5.015 *	96.805	3.428 *
22		0.000		0.000		0.000		0.000	97.100	8.042 *	96.805	3.428 *
23		0.000		0.000		0.000		0.000	96.915	5.015 *	96.805	3.428 *
24		0.000		0.000		0.000		0.000	97.490	13.50	96.800	3.360 *
25		0.000		0.000		0.000		0.000	96.905	4.864 *	96.800	3.360 *
26		0.000		0.000		0.000		0.000	96.980	6.031 *	96.800	3.360 *
27		0.000		0.000		0.000		0.000	96.950	5.555 *	96.800	3.360 *
28		0.000		0.000		0.000		0.000	97.600	19.23	96.800	3.360 *
29		0.000		0.000		0.000		0.000	97.260	10.97 *	96.790	0.532
30		0.000		0.000		0.000		0.000	96.700	0.000	96.800	0.440
31				0.000		0.000			96.650	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000		0.000		0.000		0.000	97.018	4.259	96.792	1.651
II Ten-Daily		0.000		0.000		0.000		0.000	97.592	16.88	96.852	2.476
III Ten-Daily		0.000		0.000		0.000		0.000	97.042	7.110	96.800	2.805
Monthly												
Min.		0.000		0.000		0.000		0.000	96.650	0.000	96.590	0.000
Max.		0.000		0.000		0.000		0.000	98.400	35.16	97.215	10.12
Mean		0		0		0		0	97.241	9.092	96.813	2.311

Annual Runoff in MCM = 30 Annual Runoff in mm = 13

Peak Observed Discharge = 35.16 cumecs on 14/10/2017 Corres. Water Level :98.3 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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 2017 - 2018

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	96.580	0.000		0.000		0.000		0.000		0.000		0.000
2				0.000		0.000		0.000		0.000		0.000
3				0.000		0.000		0.000		0.000		0.000
4	96.570	0.000		0.000		0.000		0.000		0.000		0.000
5	96.570	0.000		0.000		0.000		0.000		0.000		0.000
6	96.560	0.000		0.000		0.000		0.000		0.000		0.000
7		0.000		0.000		0.000		0.000		0.000		0.000
8		0.000		0.000		0.000		0.000		0.000		0.000
9		0.000		0.000		0.000		0.000		0.000		0.000
10		0.000		0.000		0.000		0.000		0.000		0.000
11		0.000		0.000		0.000		0.000		0.000		0.000
12		0.000		0.000		0.000		0.000		0.000		0.000
13		0.000		0.000		0.000		0.000		0.000		0.000
14		0.000		0.000		0.000		0.000		0.000		0.000
15		0.000		0.000		0.000		0.000		0.000		0.000
16		0.000		0.000		0.000		0.000		0.000		0.000
17		0.000		0.000		0.000		0.000		0.000		0.000
18	96.540	0.000		0.000		0.000		0.000		0.000		0.000
19	96.580	0.000		0.000		0.000		0.000		0.000		0.000
20		0.000		0.000		0.000		0.000		0.000		0.000
21		0.000		0.000		0.000		0.000		0.000		0.000
22	96.530	0.000		0.000		0.000		0.000		0.000		0.000
23	96.740	0.306		0.000		0.000		0.000		0.000		0.000
24		0.000		0.000		0.000		0.000		0.000		0.000
25		0.000		0.000		0.000		0.000		0.000		0.000
26		0.000		0.000		0.000		0.000		0.000		0.000
27		0.000		0.000		0.000		0.000		0.000		0.000
28		0.000		0.000		0.000		0.000		0.000		0.000
29		0.000		0.000				0.000		0.000		0.000
30		0.000		0.000				0.000		0.000		0.000
31		0.000		0.000				0.000				0.000
Ten-Daily Mean												
I Ten-Daily	96.570	0.000		0.000		0.000		0.000		0.000		0.000
II Ten-Daily	96.560	0.000		0.000		0.000		0.000		0.000		0.000
III Ten-Daily	96.635	0.028		0.000		0.000		0.000		0.000		0.000
Monthly												
Min.	96.530	0.000		0.000		0.000		0.000		0.000		0.000
Max.	96.740	0.306		0.000		0.000		0.000		0.000		0.000
Mean	96.584	0.011		0		0		0		0		0

Peak Computed Discharge = 19.43 cumecs on 10/10/2017 **Corres. Water Level :97.665 m**

Lowest Computed Discharge = 1.526 cumecs on 05/11/2017 **Corres. Water Level :96.65 m**

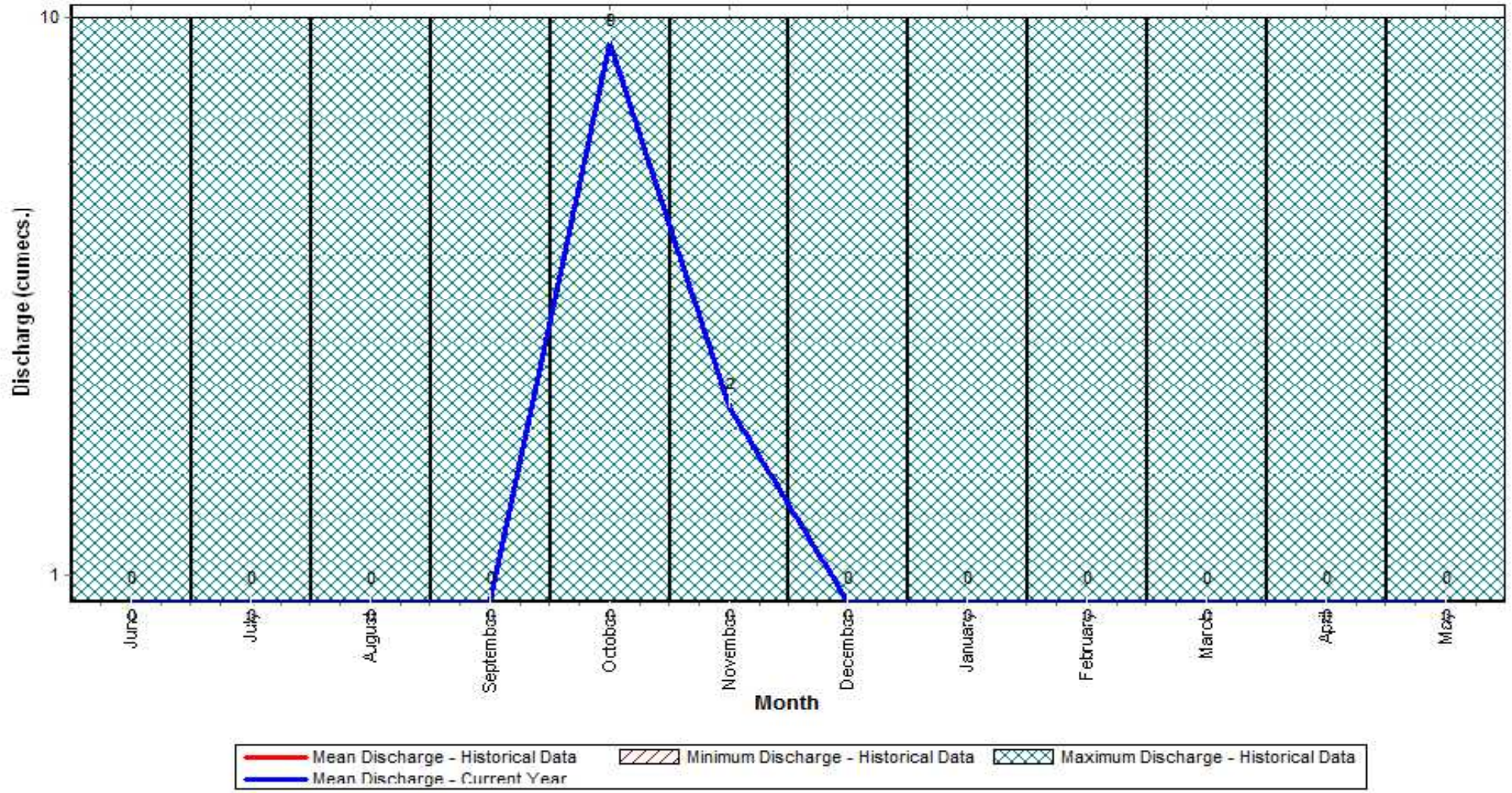
Q: Observed/Computed Discharge in cumecs WL:Corresponding Mean Water Level(m.s.l) in m *:Computed Discharge

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Suddakallu (SUDDAKALLU) **Data considered : 2016-2018** **Division : Lower Krishna Divn., Hyderabad**

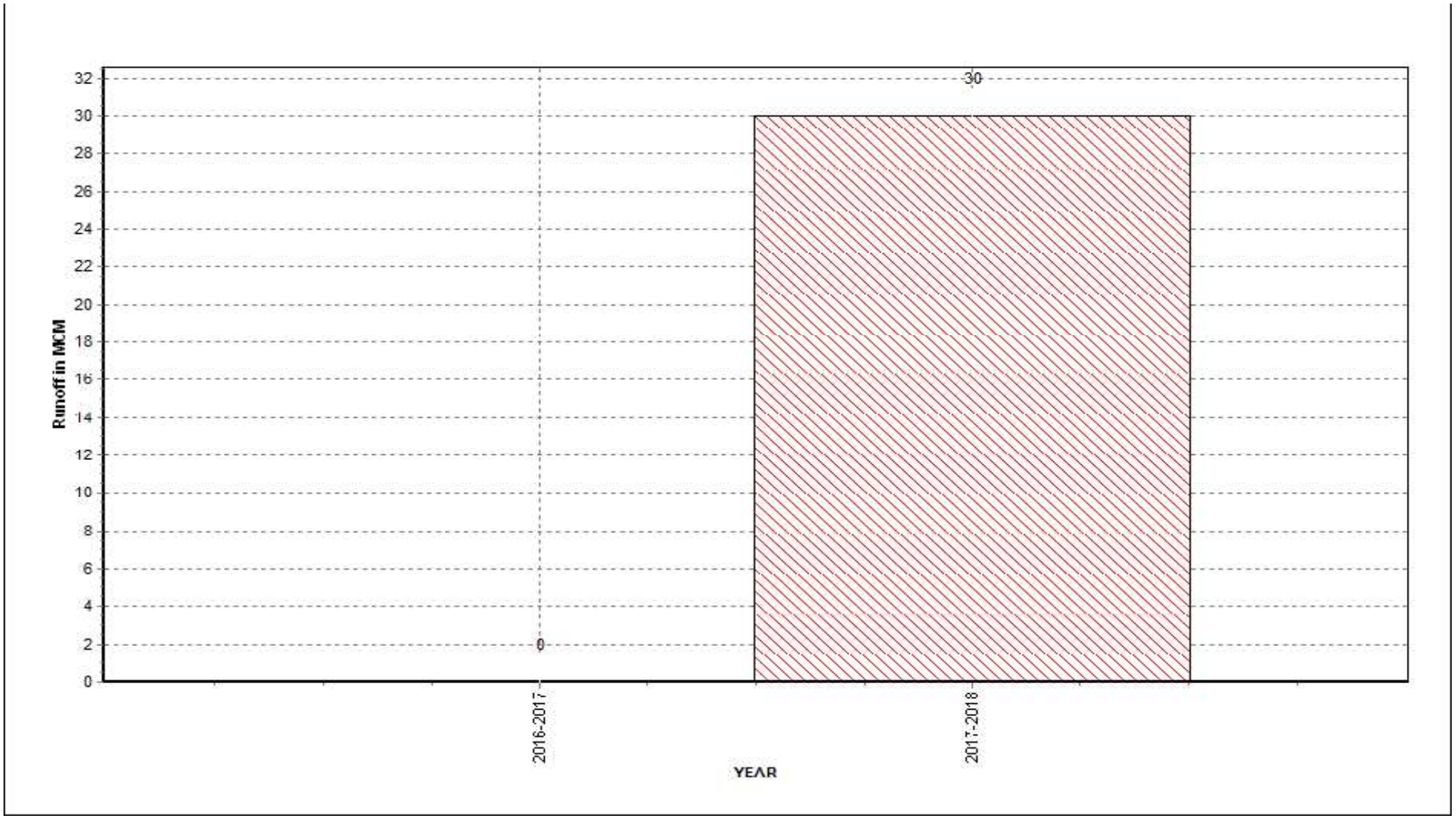
Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**



Annual Runoff Values for the period: 2016 - 2018

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**

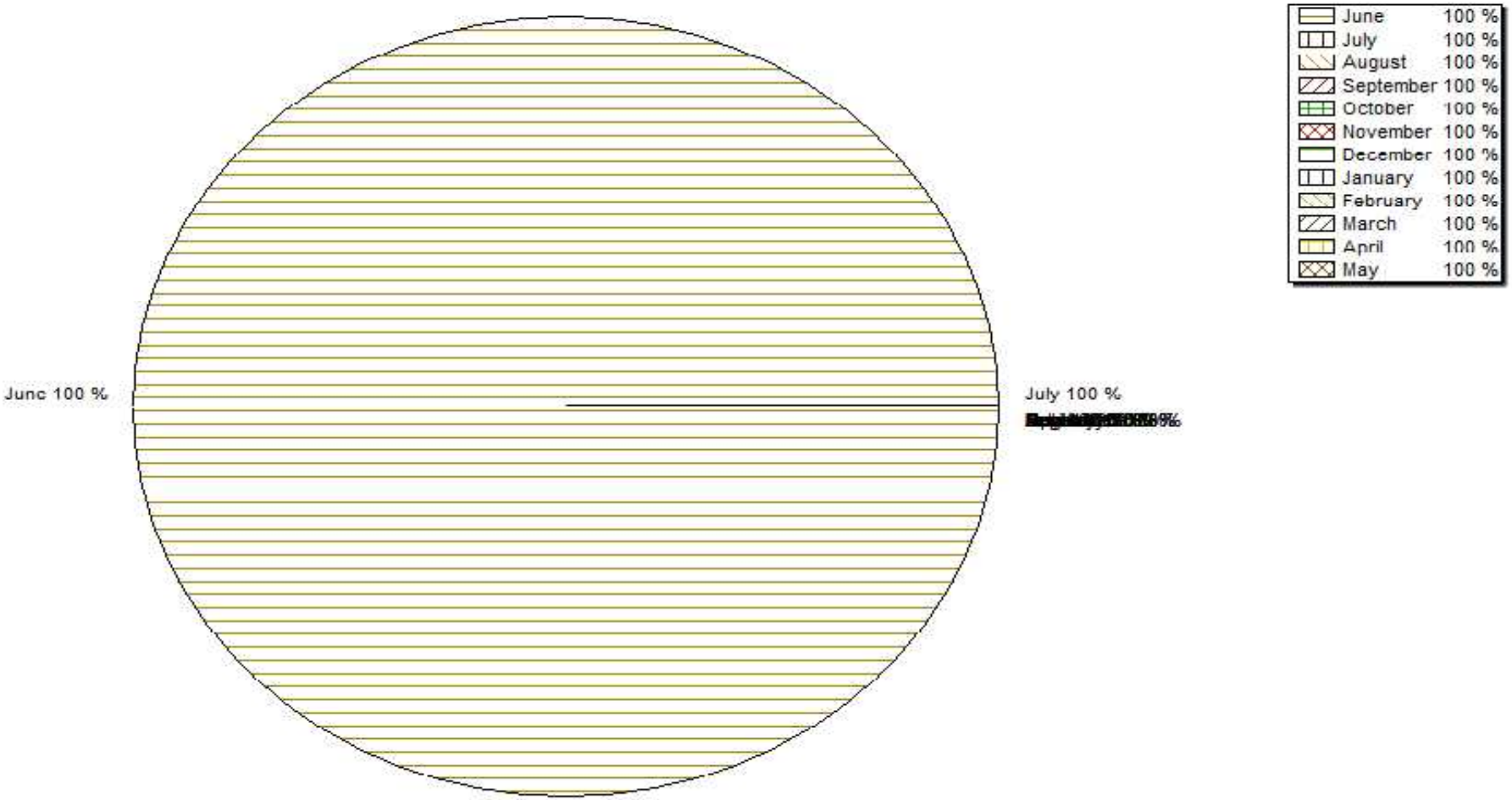


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 2016-2017

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

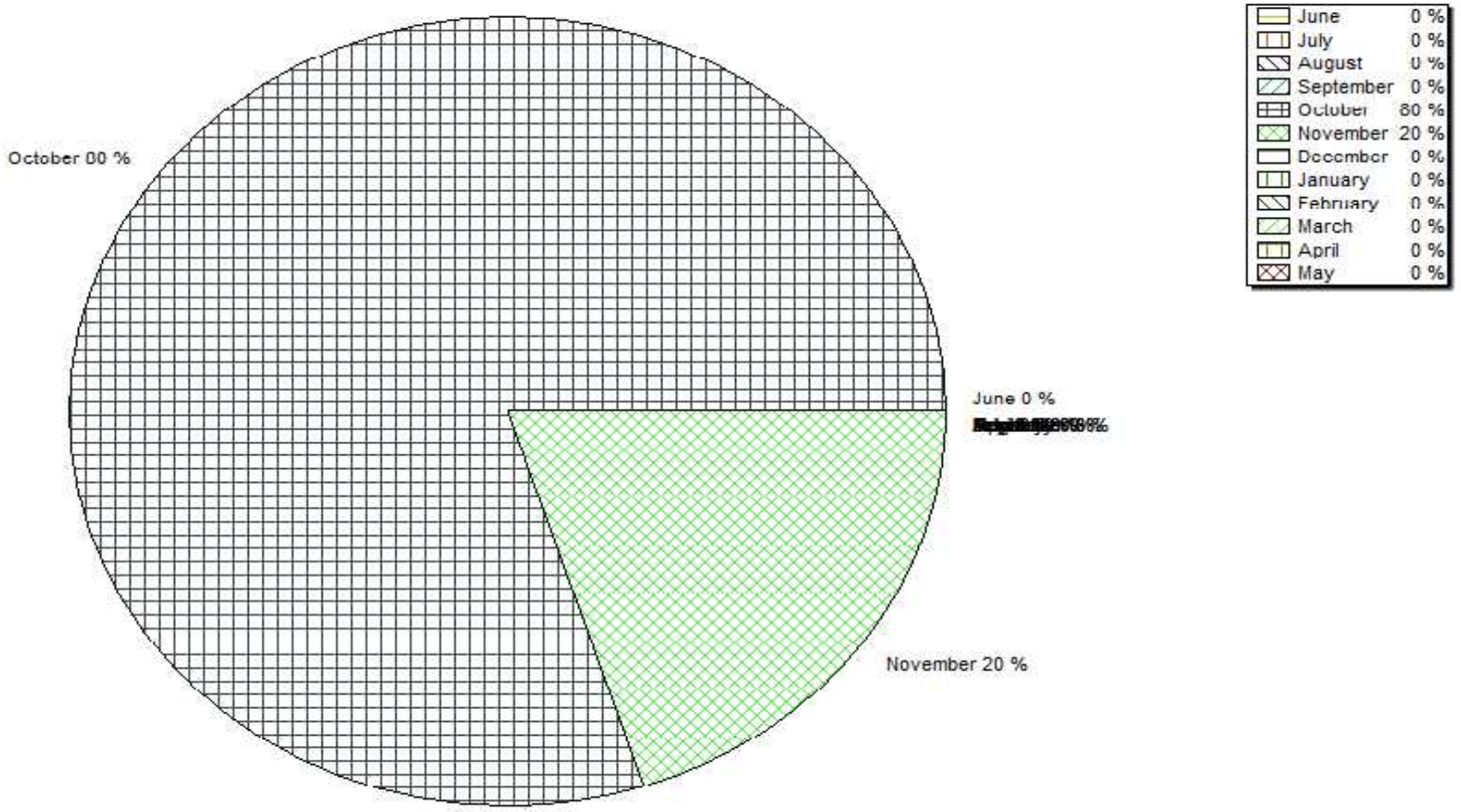
Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**



Monthly Runoff for the Year : 2017-2018

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

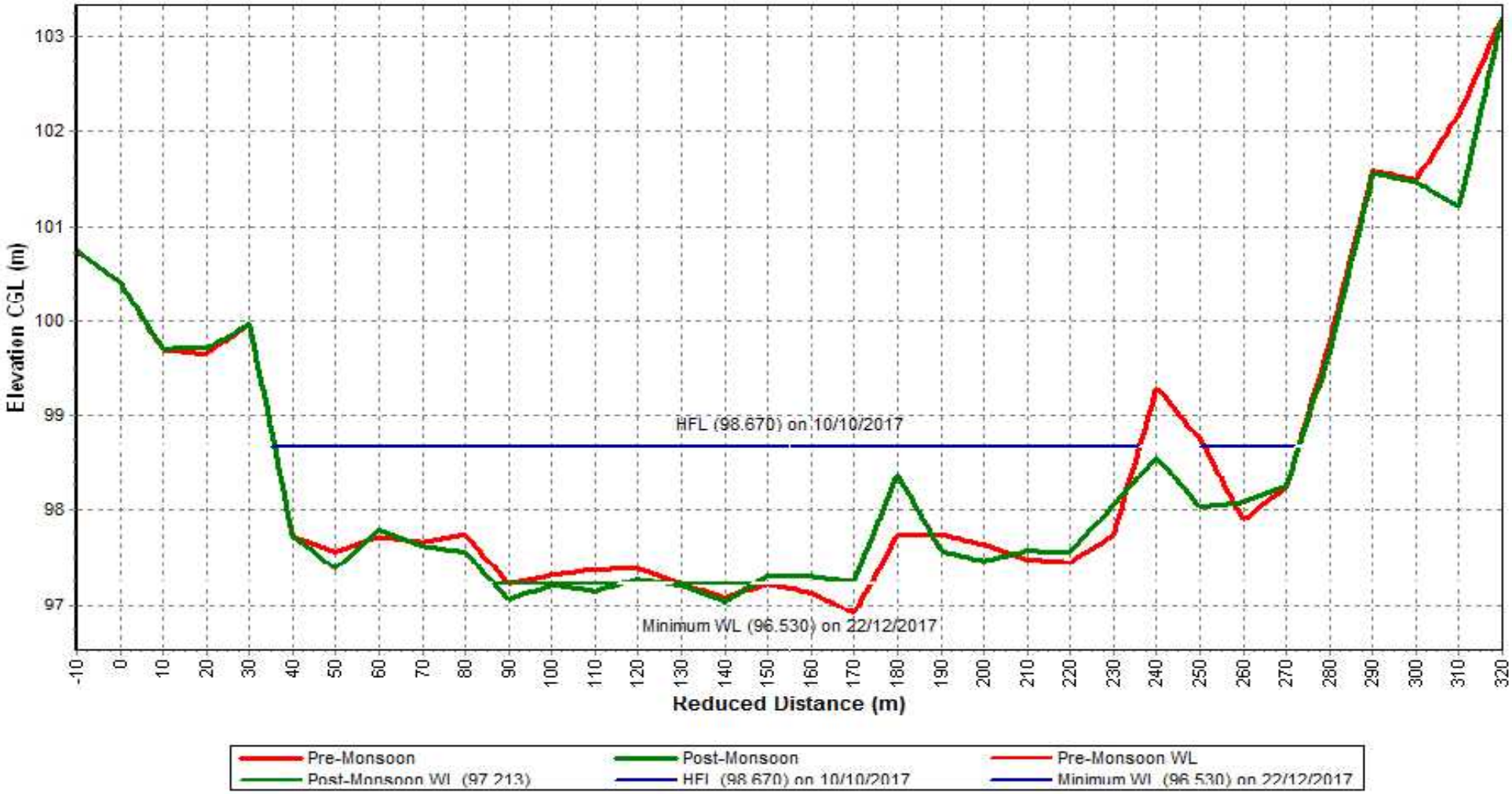
Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Suddakallu (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : Dindi **Sub-Division : Middle Krishna SD 2 , Kurnool**



HISTORY SHEET

Water Year : 2017-2018

Site	**: Huvinhedigi**		**Code**	**: AK000N2**	
State	: Karnataka		District	Raichur	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: -		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Krishna	
Division	: Lower Krishna Divn., Hyderabad		Sub-Division	: Middle Krishna SD 2 , Kurnool	
Drainage Area	: 55150 Sq. Km.		Bank	: Right	
Latitude	: 16°29'25"		Longitude	: 76°55'23"	
Zero of Gauge (m)	: 339.008 (m.s.l) 342.24 (m.s.l)		01/02/1976 01/06/1981	- 31/05/1981	
	Opening Date		Closing Date		
Gauge	: 01/02/1976		HFL During 2017-18	: 352.02m	
Discharge	: 01/02/1976		Corres. Discharge Date & Time of occurance	: 4956(Estimated) : 16/10/2017 : 14.00 hrs.	
Sediment	: 01/06/1976				
Water Quality	: 01/02/1976				

HFL Recorded so far in m : 358.420 dt 02-10-2009
Corresponding Discharge (cumecs) : 15095 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1976-1977	8742	350.758	07/08/1976	4.600	342.151	21/04/1977
1977-1978	6312	349.493	31/07/1977	6.200	342.248	06/04/1978
1978-1979	6174	349.833	21/08/1978	0.776	341.968	13/05/1979
1979-1980	8830	351.353	15/08/1979	1.500	341.993	04/06/1979
1980-1981	7912	350.651	09/07/1980	0.100	342.343	05/05/1981
1981-1982	7245	352.949	13/07/1981	6.500	345.670	01/06/1981
1982-1983	6505	352.700	19/08/1982	1.210	345.500	08/05/1983
1983-1984	9510	353.860	02/07/1983	5.900	345.620	14/06/1983
1984-1985	6601	352.940	23/07/1984	13.40	345.790	29/05/1985
1985-1986	5487	352.570	06/08/1985	8.500	345.800	10/05/1986
1986-1987	5225	352.670	16/08/1986	5.500	345.745	02/05/1987
1987-1988	4741	351.975	11/07/1987	5.000	345.740	15/06/1987
1988-1989	8935	353.790	09/08/1988	7.236	345.740	29/05/1989
1989-1990	7764	353.865	30/07/1989	8.064	345.760	01/06/1989
1990-1991	7752	353.460	23/08/1990	9.147	345.870	12/05/1991
1991-1992	8748	354.040	03/08/1991	7.884	346.030	24/05/1992
1992-1993	4415	352.055	18/08/1992	0.855	345.770	16/05/1993
1993-1994	5411	352.660	20/10/1993	13.65	345.988	03/06/1993

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**
1994-1995	10126	355.120	21/07/1994	3.003	345.750	11/05/1995
1995-1996	3911	351.385	25/07/1995	1.847	345.660	11/05/1996
1996-1997	5342	352.870	08/10/1996	6.111	345.760	31/05/1997
1997-1998	8910	354.290	12/08/1997	3.343	345.650	24/05/1998
1998-1999	5464	352.810	15/10/1998	8.130	345.800	09/05/1999
1999-2000	7267	353.785	28/07/1999	4.176	345.760	21/05/2000
2000-2001	4831	352.400	17/07/2000	2.091	345.680	27/05/2001
2001-2002	4254	351.970	09/10/2001	1.130	345.650	15/07/2001
2002-2003	3916	351.770	16/08/2002	2.087	345.700	09/07/2002
2003-2004	1369	348.440	02/08/2003	7.423	345.890	04/06/2003
2004-2005	5307	353.195	09/08/2004	5.675	345.910	23/07/2004
2005-2006	10459	356.350	08/08/2005	9.191	345.980	04/05/2006
2006-2007	9193	355.260	17/08/2006	5.940	345.670	10/05/2007
2007-2008	7772	353.950	10/08/2007	6.255	345.630	18/05/2008
2008-2009	8300	354.290	20/08/2008	3.201	345.550	20/07/2008
2009-2010	13909	357.840	02/10/2009	3.073	345.560	05/06/2009
2010-2011	8097	354.240	31/07/2010	10.38	345.610	15/05/2011
2011-2012	8470	354.770	08/09/2011	0.460	345.210	04/04/2012
2012-2013	4313	351.340	06/09/2012	0.276	345.320	19/03/2013
2013-2014	6962	353.360	28/07/2013	1.669	345.250	07/07/2013
2014-2015	4783	351.710	05/08/2014	0.924	345.300	27/07/2014
2015-2016	714.8	348.060	12/09/2015	0.000	345.230	24/03/2016
2016-2017	7054	353.230	11/08/2016	0.000	345.310	16/05/2017

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

Annual Runoff of Krishna at Huvinhedgi

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1975-1976**		209	209
2	**1976-1977**	21720	462	22181
3	**1977-1978**	18932	907	19839
4	**1978-1979**	21395	392	21787
5	**1979-1980**	20765	737	21502
6	**1980-1981**	23442	362	23804
7	**1981-1982**	23055	595	23650
8	**1982-1983**	16675	724	17399
9	**1983-1984**	22211	694	22905
10	**1984-1985**	14325	397	14722
11	**1985-1986**	11097	275	11372
12	**1986-1987**	10227	216	10444
13	**1987-1988**	9185	355	9540
14	**1988-1989**	20319	386	20705
15	**1989-1990**	13439	554	13993
16	**1990-1991**	18675	503	19178
17	**1991-1992**	23993	412	24405
18	**1992-1993**	12676	685	13361
19	**1993-1994**	18579	1594	20173
20	**1994-1995**	31454	626	32080
21	**1995-1996**	9493	363	9855
22	**1996-1997**	13597	570	14166
23	**1997-1998**	21439	626	22065
24	**1998-1999**	15964	636	16600
25	**1999-2000**	16569	562	17131
26	**2000-2001**	7368	689	8056
27	**2001-2002**	7243	720	7963
28	**2002-2003**	3833	859	4692
29	**2003-2004**	2439	1093	3532
30	**2004-2005**	9321	958	10279
31	**2005-2006**	25654	923	26578
32	**2006-2007**	25856	939	26794
33	**2007-2008**	20848	846	21694
34	**2008-2009**	10759	806	11564
35	**2009-2010**	11348	1158	12505
36	**2010-2011**	9657	869	10526
37	**2011-2012**	13622	511	14134
38	**2012-2013**	4728	423	5151
39	**2013-2014**	11674	496	12171
40	**2014-2015**	10483	396	10880
41	**2015-2016**	982	177	1158
42	**2016-2017**	7948	195	8143
43	**2017-2018**	5907	118	6025

Stage-Discharge Data for the period 2017 - 2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

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	345.310	0.000	345.420	0.000	345.990	50.66 *	346.050	72.59	349.540	1968 *	346.130	63.77
2	345.310	0.000	345.390	0.000	346.990	309.8 *	348.790	1331 *	349.200	1664 *	346.110	61.72 *
3	345.310	0.000	345.370	0.000	346.740	224.4 *	348.090	849.1 *	348.490	1181	346.110	61.72 *
4	345.310	0.000	345.340	0.000	346.730	221.3 *	347.200	351.4	348.670	1288	346.050	48.13 *
5	345.310	0.000	345.310	0.000	346.660	200.0 *	346.880	270.5 #	348.160	979.5	345.990	37.19 *
6	345.310	0.000	345.270	0.000	346.720	218.1 *	347.200	353.8	347.820	692.1 *	345.860	20.55 *
7	345.310	0.000	345.250	0.000	346.840	256.9 *	347.520	494.7	347.340	394.3	345.830	17.78 *
8	345.310	0.000	345.240	0.000	346.440	140.0 *	346.835	255.2 #	347.440	498.2 *	345.790	14.60 *
9	345.310	0.000	345.180	0.000	346.020	55.24 #	347.325	435.9	349.060	1601	345.780	13.89 *
10	345.310	0.000	345.140	0.000	346.020	55.24 #	347.370	466.0 *	348.200	977.1	345.780	13.89 *
11	345.310	0.000	345.100	0.000	346.020	55.24 #	347.020	321.6	348.780	1379	345.780	11.98
12	345.310	0.000	345.060	0.000	346.020	55.24 #	346.910	281.0 *	348.580	1256	345.780	13.89 *
13	345.310	0.000	344.970	0.000	346.020	55.24 *	346.710	236.2	349.540	1997	345.780	12.23
14	345.310	0.000	344.900	0.000	346.020	55.24 #	346.660	196.8	348.900	1417	345.910	25.97 *
15	345.310	0.000	344.870	0.000	346.020	55.24 *	347.920	805.6	349.000	1497 *	345.950	31.15 *
16	345.310	0.000	344.870	0.000	346.000	58.79	349.790	2152	351.320	4237	346.050	48.13 *
17	345.310	0.000	345.120	0.000	346.000	56.76	348.090	849.1 *	350.840	3195	346.070	53.11
18	345.310	0.000	345.140	0.000	346.000	57.66	349.390	1733	350.050	2242	346.050	48.13 *
19	345.310	0.000	345.140	0.000	345.900	38.13 *	347.410	466.7	347.740	648.6 *	346.050	48.13 *
20	345.310	0.000	345.140	0.000	345.840	30.76 *	347.880	724.1	347.150	371.7 *	346.070	54.93
21	345.420	0.000	345.110	0.000	345.850	28.39	349.740	2082	346.940	291.6 *	346.090	58.30
22	346.160	79.20 #	345.060	0.000	345.850	31.93 *	350.640	3125 #	347.020	321.0 *	346.090	58.83
23	345.982	49.48 #	345.000	0.000	345.850	28.89	351.210	3775	346.975	315.3	346.090	57.51
24	345.980	49.18 #	344.880	0.000	345.850	29.45	349.780	2197 *	347.160	343.7	346.090	58.37
25	345.980	49.18 *	344.800	0.000	345.850	31.93 *	348.670	1297	346.990	301.3	346.090	57.81
26	345.980	49.18 *	344.670	0.000	345.850	28.64	348.780	1374	346.900	280.1	346.090	56.86 *
27	345.980	49.18 #	344.600	0.000	345.850	31.93 *	347.780	676.9	346.800	195.2	346.090	58.03
28	345.510	0.000	344.550	0.000	346.320	133.0	347.560	556.0 *	346.290	91.70	346.090	58.58
29	345.470	0.000	344.520	0.000	346.660	195.8	348.890	1409 *	346.180	81.62 *	346.070	53.88
30	345.450	0.000	347.340	452.5 *	346.540	172.9	349.610	2033 *	346.140	69.02	346.070	54.21
31			346.750	227.5 *	346.320	134.1			346.080	45.74		
Ten-Daily Mean												
I Ten-Daily	345.310	0.000	345.291	0.000	346.515	173.2	347.326	488.0	348.392	1124	345.943	35.32
II Ten-Daily	345.310	0.000	345.031	0.000	345.984	51.83	347.778	776.7	349.190	1824	345.949	34.76
III Ten-Daily	345.791	32.54	345.207	61.82	346.072	77.00	349.266	1853	346.680	212.4	346.086	57.24
Monthly												
Min.	345.310	0.000	344.520	0.000	345.840	28.39	346.050	72.59	346.080	45.74	345.780	11.98
Max.	346.160	79.20	347.340	452.5	346.990	309.8	351.210	3775	351.320	4237	346.130	63.77
Mean	345.470	10.85	345.177	21.94	346.186	99.9	348.123	1039	348.042	1026	345.993	42.44

Annual Runoff in MCM = 6025 Annual Runoff in mm = 109

Peak Observed Discharge = 4237 cumecs on 16/10/2017 Corres. Water Level :351.32 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :345.31 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

Stage-Discharge Data for the period 2017 - 2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	346.070	53.95	345.740	11.32 *	345.460	0.000	345.280	0.000	345.270	0.000	345.380	0.000
2	346.010	40.57 *	345.710	9.671 *	345.440	0.000	345.280	0.000	345.270	0.000	345.380	0.000
3	345.920	27.19 *	345.710	9.671 *	345.440	0.000	345.280	0.000	345.270	0.000	345.380	0.000
4	345.880	20.95	345.710	9.671 *	345.430	0.000	345.280	0.000	345.270	0.000	345.380	0.000
5	345.840	18.67 *	345.710	9.671 *	345.420	0.000	345.280	0.000	345.270	0.000	345.380	0.000
6	345.790	14.60 *	345.710	9.671 *	345.400	0.000	345.280	0.000	345.270	0.000	345.380	0.000
7	345.790	13.59	345.710	9.671 *	345.390	0.000	345.280	0.000	345.370	0.000	345.370	0.000
8	345.820	14.95	345.710	9.671 *	345.390	0.000	345.280	0.000	345.450	0.000	345.370	0.000
9	345.810	16.12 *	345.710	9.671 *	345.390	0.000	345.280	0.000	345.490	0.000	345.370	0.000
10	345.780	13.89 *	345.710	9.671 *	345.470	0.000	345.280	0.000	345.490	0.000	345.370	0.000
11	345.740	11.32 *	345.710	9.671 *	345.760	12.55 *	345.280	0.000	345.490	0.000	345.370	0.000
12	345.740	11.32 *	345.770	13.20 *	345.980	35.59 *	345.280	0.000	345.490	0.000	345.370	0.000
13	345.740	11.32 *	345.870	21.54 *	345.980	35.59 *	345.280	0.000	345.490	0.000	345.370	0.000
14	345.790	13.79	345.920	27.19 *	345.940	29.78 *	345.280	0.000	345.490	0.000	345.370	0.000
15	345.790	13.95	345.960	32.57 *	345.850	19.59 *	345.280	0.000	345.490	0.000	345.370	0.000
16	345.790	13.49	345.940	31.86	345.780	13.89 *	345.280	0.000	345.470	0.000	345.370	0.000
17	345.790	14.60 *	345.970	35.95	345.720	10.20 #	345.280	0.000	345.470	0.000	345.380	0.000
18	345.790	13.65	345.990	39.18	345.640	6.604 *	345.280	0.000	345.450	0.000	345.400	0.000
19	345.920	27.19 #	345.990	39.48	345.590	5.770	345.280	0.000	345.450	0.000	345.380	0.000
20	345.920	27.19 #	345.990	38.81	345.500	0.000	345.280	0.000	345.430	0.000	345.370	0.000
21	345.840	19.62	345.960	32.57 *	345.480	0.000	345.280	0.000	345.410	0.000	345.360	0.000
22	345.880	21.46	345.930	29.63	345.440	0.000	345.280	0.000	345.400	0.000	345.340	0.000
23	345.920	27.19 #	345.860	20.55 #	345.430	0.000	345.270	0.000	345.390	0.000	345.340	0.000
24	345.940	29.78 *	345.780	13.89 #	345.430	0.000	345.270	0.000	345.390	0.000	345.340	0.000
25	345.980	35.59 *	345.720	10.20 *	345.390	0.000	345.270	0.000	345.390	0.000	345.320	0.000
26	345.990	37.19 *	345.680	8.233 *	345.340	0.000	345.270	0.000	345.390	0.000	345.320	0.000
27	345.970	34.05 *	345.640	6.604 #	345.320	0.000	345.270	0.000	345.390	0.000	345.320	0.000
28	345.930	28.46 *	345.610	5.572 *	345.300	0.000	345.270	0.000	345.390	0.000	345.320	0.000
29	345.850	19.59 #	345.580	5.608			345.270	0.000	345.390	0.000	345.320	0.000
30	345.800	15.35 *	345.560	4.129			345.270	0.000	345.390	0.000	345.320	0.000
31	345.770	13.20 *	345.490	0.000			345.270	0.000			345.320	0.000
Ten-Daily Mean												
I Ten-Daily	345.871	23.45	345.713	9.836	345.423	0.000	345.280	0.000	345.342	0.000	345.376	0.000
II Ten-Daily	345.801	15.78	345.911	28.95	345.774	16.95	345.280	0.000	345.472	0.000	345.375	0.000
III Ten-Daily	345.897	25.59	345.710	12.45	345.391	0.000	345.272	0.000	345.393	0.000	345.329	0.000
Monthly												
Min.	345.740	11.32	345.490	0.000	345.300	0.000	345.270	0.000	345.270	0.000	345.320	0.000
Max.	346.070	53.95	345.990	39.48	345.980	35.59	345.280	0.000	345.490	0.000	345.400	0.000
Mean	345.858	21.73	345.776	16.93	345.539	6.055	345.277	0	345.402	0	345.359	0

Peak Computed Discharge = 2197 cumecs on 24/09/2017 Corres. Water Level :349.78 m

Lowest Computed Discharge = 5.572 cumecs on 28/01/2018 Corres. Water Level :345.61 m

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

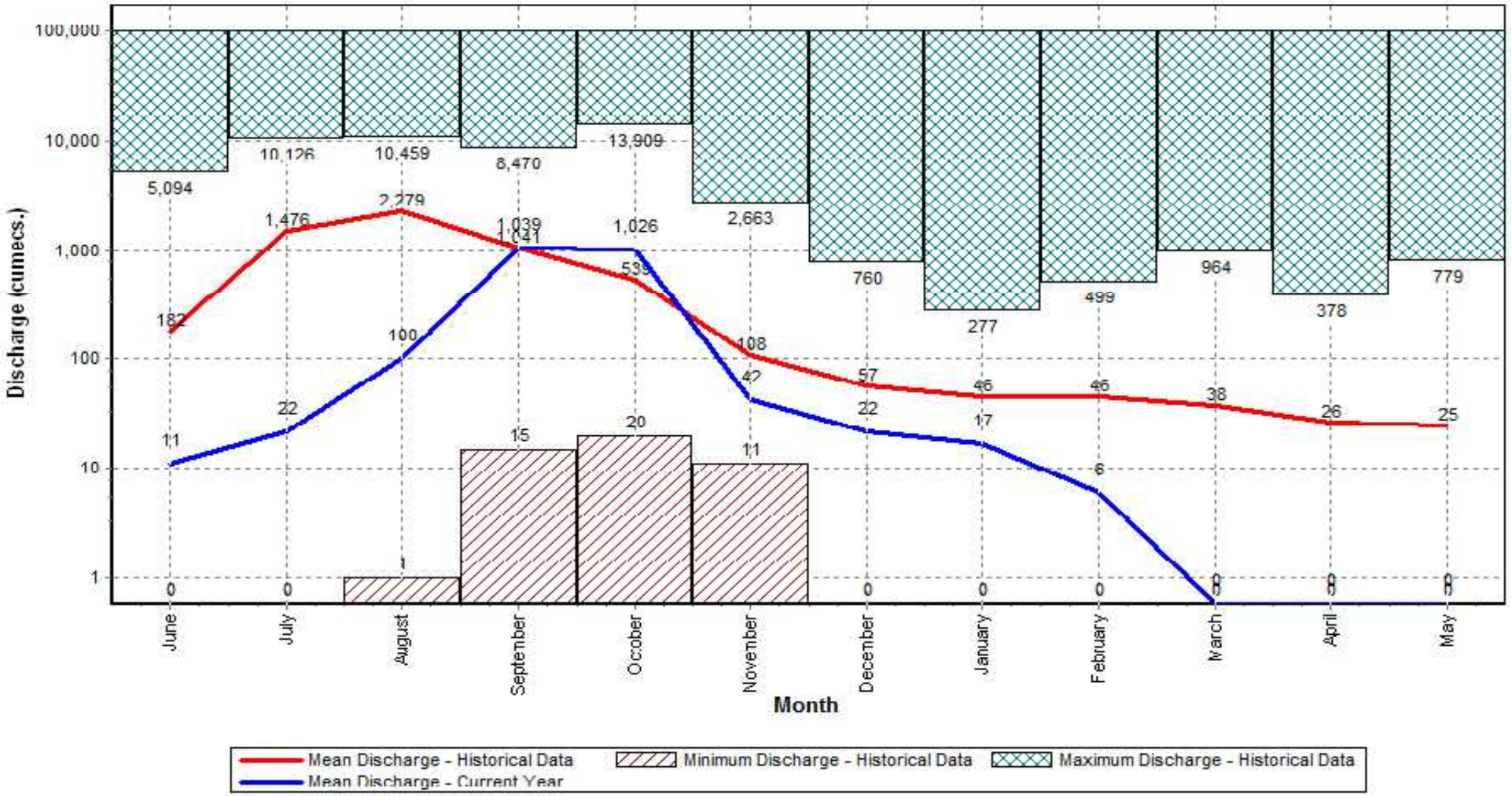
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Data considered : 1976-2018** **Division : Lower Krishna Divn., Hyderabad**

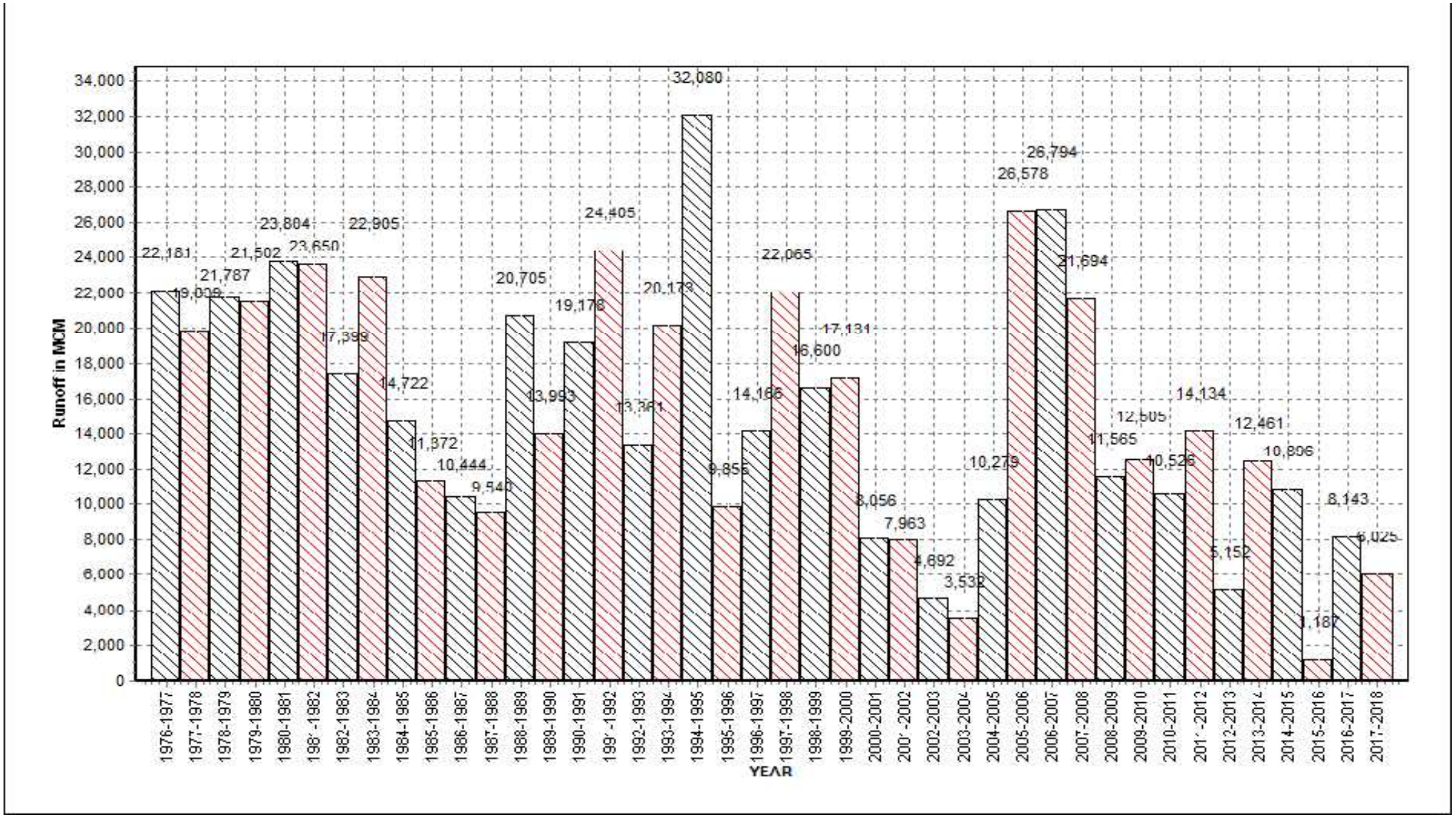
Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Annual Runoff Values for the period: 1976 - 2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

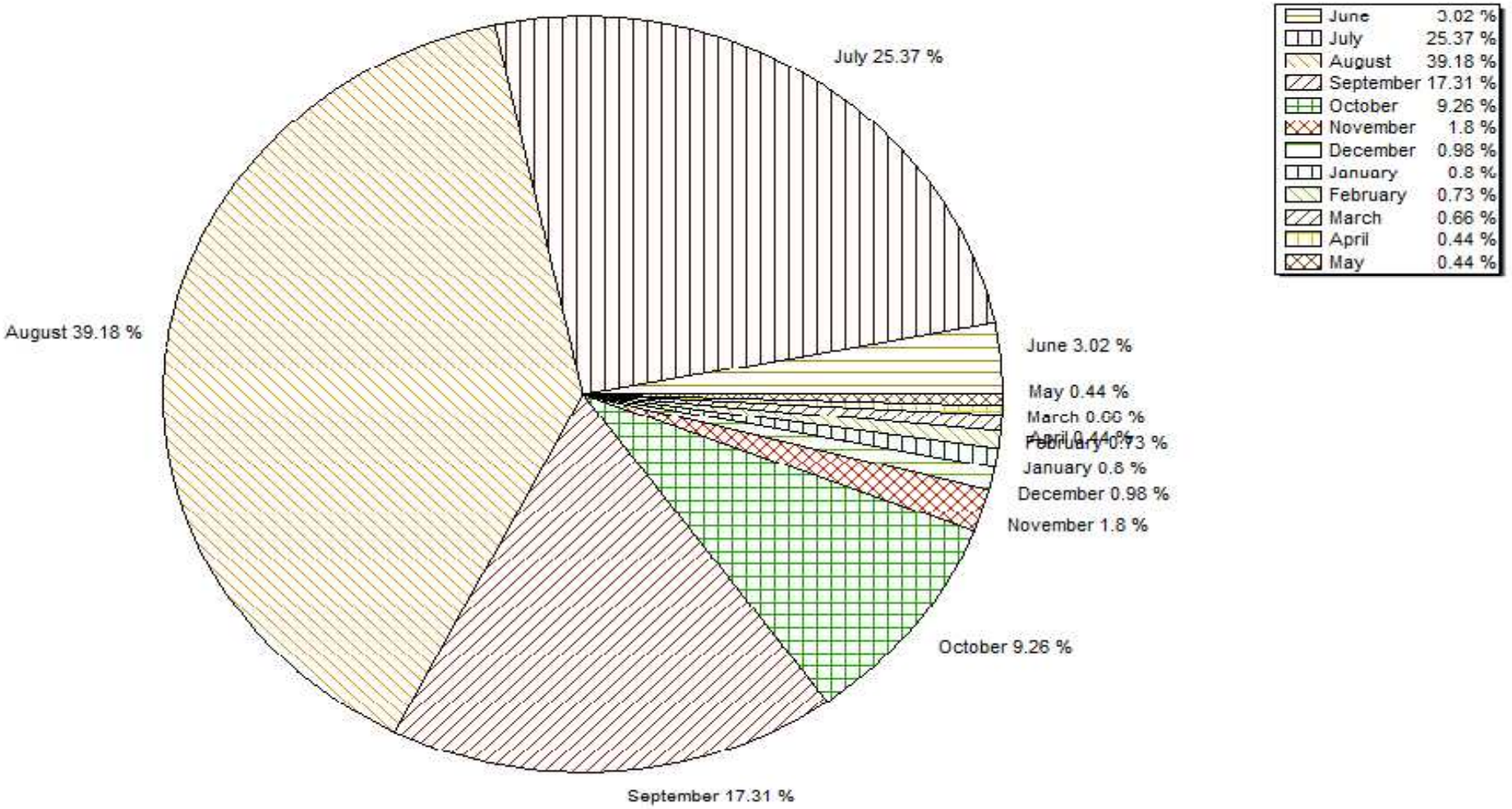


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1976-2017

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

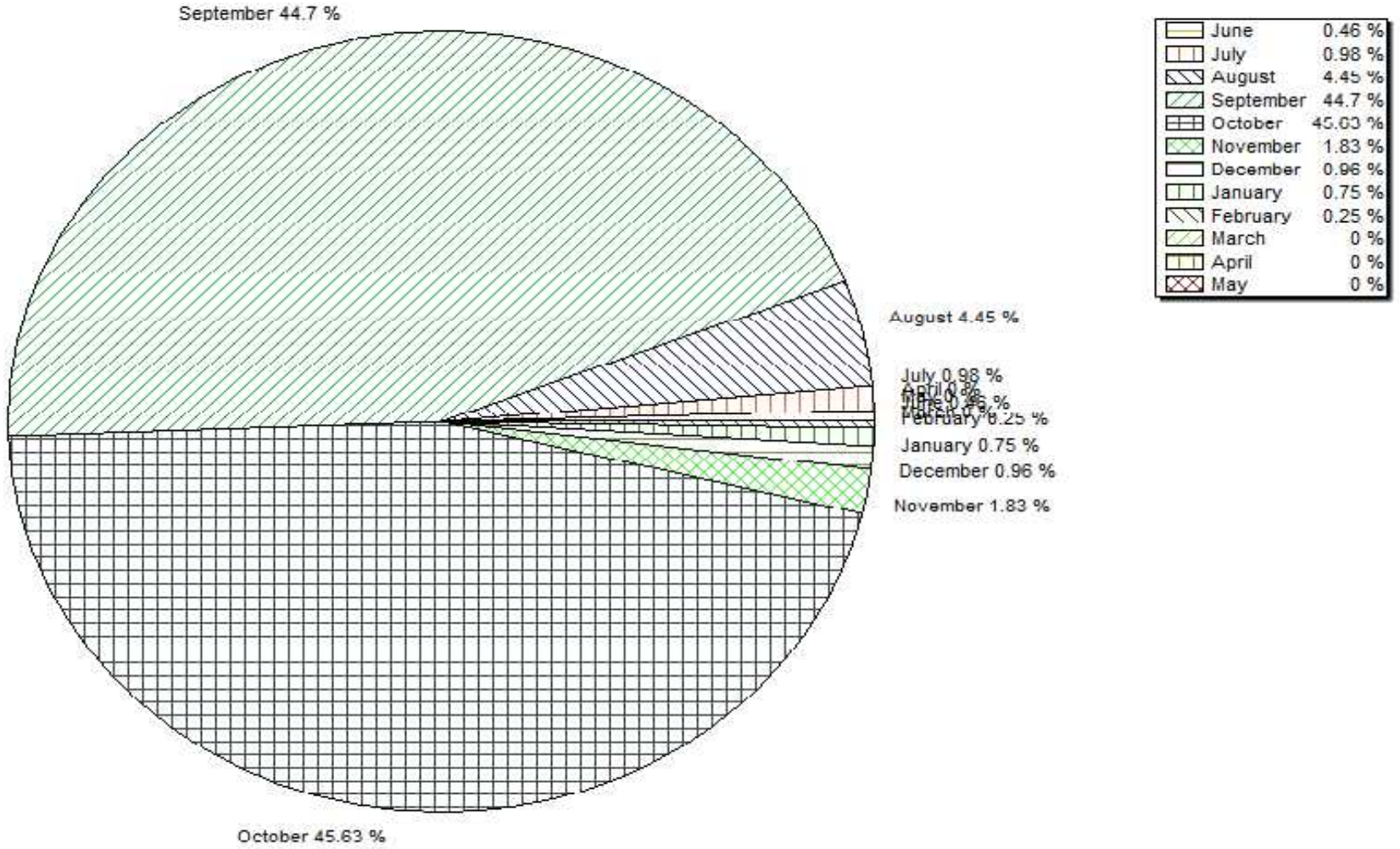
Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Monthly Runoff for the Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

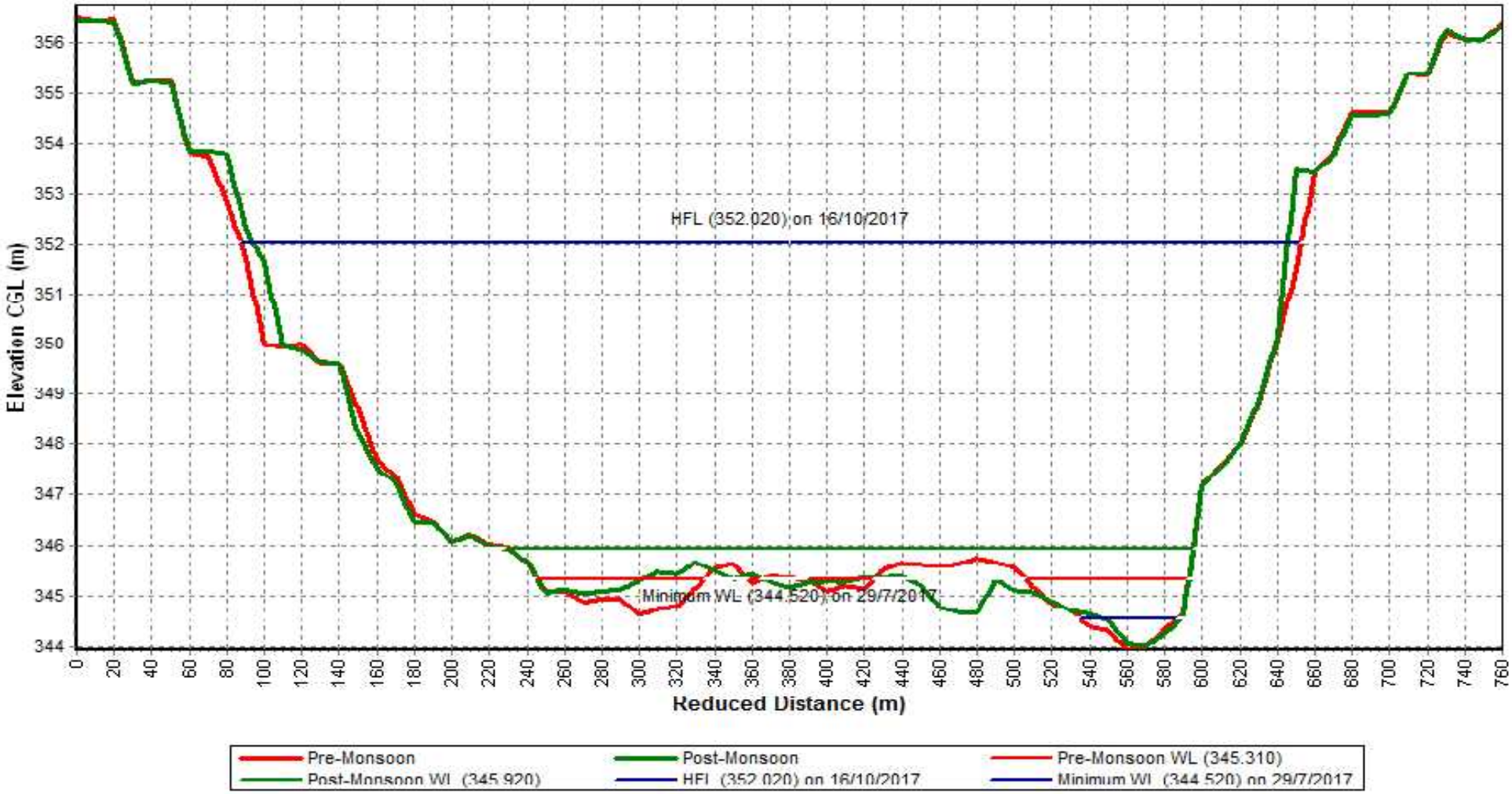
Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

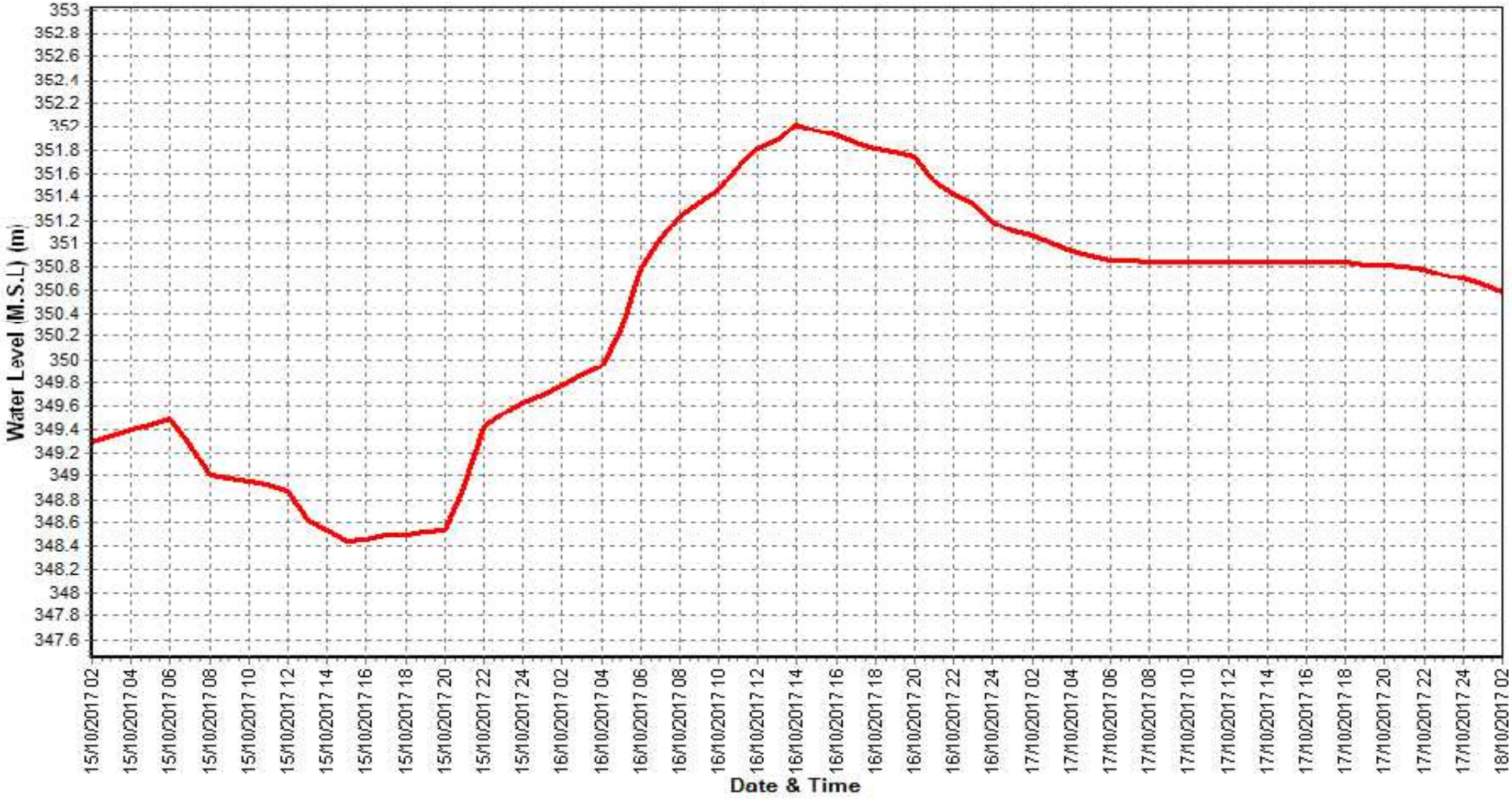
Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

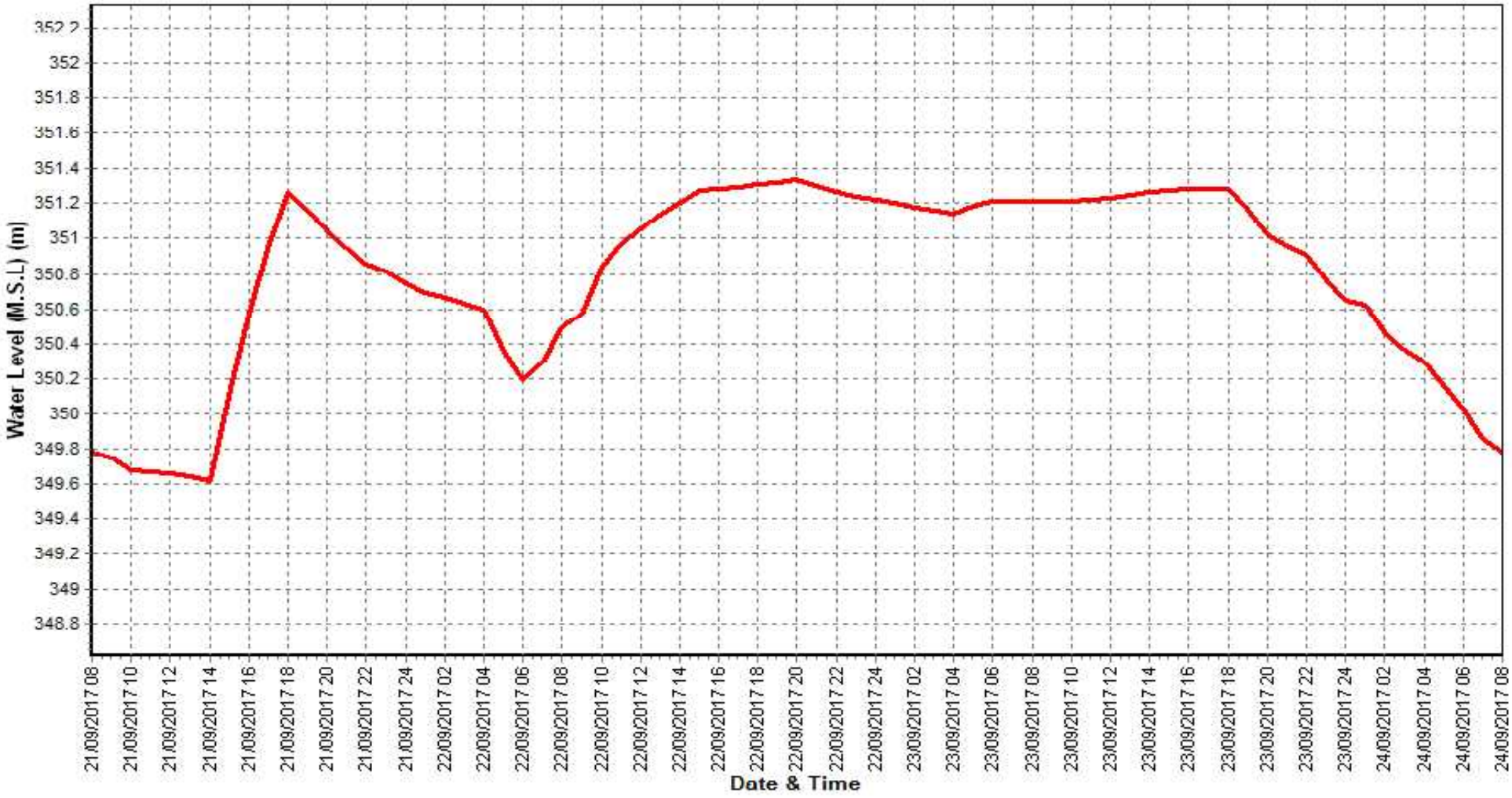


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Talikot (Seasonal)**	**Code**	**:**	**AKQ00E2**
State	:	Karnataka	District		Bijapur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Don	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Don
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Middle Krishna SD 1, Bagalkot
Drainage Area	:	2486 Sq. Km.	Bank	:	Left
Latitude	:	16°29'01"	Longitude	:	76°17'03"
Zero of Gauge (m)	:	48 (m.s.l) 496 (m.s.l)	21/03/1990 01/06/2010	-	31/05/2010
		Opening Date	Closing Date		
Gauge	:	07/06/1990	HFL During 2017-18	:	499.990m
			Corres. Discharge	:	107.6(Estimated)
Discharge	:	21/09/1995	Date & Time of	:	08/09/2017
			occurance	:	21.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 56.660 dt 01-10-2009
Corresponding Discharge (cumecs) : 1203 *

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	375.7	54.995	12/09/1996	0.000	50.095	31/03/1997
1997-1998	182.0	52.940	28/10/1997	0.000	50.150	30/04/1998
1998-1999	486.0	55.055	14/10/1998	0.000	50.365	18/07/1998
1999-2000	141.0	52.380	12/06/1999	0.000	50.130	23/03/2000
2000-2001	457.4	54.695	30/09/2000	0.000	50.130	01/03/2001
2001-2002	631.9	55.020	09/10/2001	0.000	50.050	25/01/2002
2002-2003	446.9	53.710	13/10/2002	0.000	50.130	25/01/2003
2003-2004	158.8	52.650	03/10/2003	0.000	50.185	22/01/2004
2004-2005	143.9	52.315	05/10/2004	0.000		10/01/2005
2005-2006	190.7	53.140	08/09/2005	0.000	50.295	22/01/2006
2006-2007	234.7	53.180	20/06/2006	0.000	50.300	28/08/2006
2007-2008	748.5	55.290	24/06/2007	0.000	50.310	17/08/2007
2008-2009	337.8	53.820	26/08/2008	0.000	50.180	23/07/2008
2009-2010	1278	56.520	01/10/2009	0.390	50.260	07/06/2009
2010-2011	432.0	501.215	26/08/2010	0.000	497.720	10/06/2010
2011-2012	78.36	498.800	21/08/2011	0.000	497.070	26/06/2011
2012-2013	98.94	499.000	07/10/2012	0.000	496.990	05/07/2012
2013-2014	115.7	499.585	20/09/2013	0.000	497.230	21/07/2013
2014-2015	234.1	500.600	28/08/2014	0.000	497.360	31/07/2014
2015-2016	182.5	501.200	11/09/2015	0.000	497.370	27/06/2015
2016-2017	60.00	499.030	31/07/2016	0.000		03/10/2016

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

Annual Runoff of Don at Talikot(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1995-1996**	72	0	72
2	**1996-1997**	335	2	337
3	**1997-1998**	119	11	130
4	**1998-1999**	655	40	695
5	**1999-2000**	141	2	143
6	**2000-2001**	321	5	326
7	**2001-2002**	415	0	415
8	**2002-2003**	169	0	169
9	**2003-2004**	33	3	36
10	**2004-2005**	118	10	129
11	**2005-2006**	101	19	120
12	**2006-2007**	173		173
13	**2007-2008**	264		264
14	**2008-2009**	172		172
15	**2009-2010**	704		704
16	**2010-2011**	163		163
17	**2011-2012**	41		41
18	**2012-2013**	53		53
19	**2013-2014**	115		115
20	**2014-2015**	170		170
21	**2015-2016**	167		167
22	**2016-2017**	12		12
23	**2017-2018**	123		123
Average		202	8	206

Stage-Discharge Data for the period 2017 - 2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**

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	497.460	0.824 *		0.000	497.550	0.535	499.200	51.31	497.440	0.000
2		0.000	497.450	0.764 *		0.000	497.460	0.472	497.810	3.259	497.440	0.000
3		0.000	497.450	0.931		0.000	497.430	0.547	497.720	3.188	497.440	0.000
4		0.000	497.450	0.944		0.000	497.400	0.000	497.740	3.533 #	497.430	0.000
5		0.000	497.450	0.925		0.000	497.495	1.154	497.850	5.158 #	497.430	0.000
6		0.000	497.450	0.907		0.000	497.400	0.000	497.625	1.588	497.430	0.000
7	499.055	45.57 #	497.673	2.228		0.000	497.590	0.535	498.480	25.13	497.425	0.000
8	499.175	51.98 #	497.505	1.330		0.000	497.620	1.470	498.550	27.66	497.425	0.000
9	497.800	4.379 #	497.490	1.228		0.000	499.565	75.93 #	497.900	3.634	497.420	0.000
10	497.620	2.126 #	497.820	4.683 #		0.000	497.945	6.826 #	497.500	1.276	497.420	0.000
11	497.518	1.323	497.990	6.061		0.000	497.710	2.169	499.125	45.29	497.420	0.000
12	497.463	1.023	499.105	56.48		0.000	497.560	1.090	499.950	104.3 #	497.420	0.000
13	497.420	0.835	497.720	3.273 #		0.000	497.485	0.939	498.215	13.44	497.420	0.000
14	497.395	0.576	497.595	1.583		0.000	498.450	22.17	499.565	75.93 #	497.420	0.000
15	497.520	1.385	497.540	1.205		0.000	497.970	7.306 #	499.425	66.78 #	497.415	0.000
16	497.845	5.077 #	497.500	1.272		0.000	498.800	33.42 #	499.600	78.32 #	497.415	0.000
17	497.420	0.848	497.500	1.277		0.000	498.610	24.02	499.825	94.59 #	497.415	0.000
18	497.545	1.556	497.470	0.000		0.000	499.145	59.81	498.840	35.20 #	497.415	0.000
19	498.560	23.79 #	497.450	0.000		0.000	498.565	23.98 #	497.775	4.414	497.410	0.000
20	499.070	46.35 #	497.440	0.000		0.000	497.700	2.229	497.700	1.735	497.410	0.000
21	499.905	99.07	497.440	0.000		0.000	497.615	1.579	497.645	1.543	497.410	0.000
22	498.490	21.31 #	497.440	0.000		0.000	497.550	0.515	497.550	1.089	497.410	0.000
23	497.700	3.022 #	497.440	0.000		0.000	497.500	0.726	497.470	1.046	497.410	0.000
24	497.570	2.271	497.440	0.000		0.000	497.410	0.000	497.460	1.241	497.410	0.000
25	497.500	1.229	497.410	0.000		0.000	497.400	0.000	497.460	1.707	497.410	0.000
26	497.490	1.020 *	497.370	0.000		0.000	497.400	0.000	497.460	1.421	497.410	0.000
27	497.480	0.952 *	497.340	0.000		0.000	497.700	2.070	497.460	1.890	497.400	0.000
28	497.480	0.952 *	497.330	0.000	498.070	3.491	497.550	1.565	497.460	0.699	497.400	0.000
29	497.470	0.887 *	497.330	0.000	497.775	2.813	498.800	33.42 *	497.450	0.764 *	497.400	0.000
30	497.470	0.887 *	497.330	0.000	497.875	3.719	499.075	46.49	497.450	0.704	497.400	0.000
31			497.330	0.000	497.570	1.019			497.450	0.809		
Ten-Daily Mean												
I Ten-Daily	498.413	10.41	497.520	1.476		0.000	497.745	8.747	498.038	12.57	497.430	0.000
II Ten-Daily	497.775	8.277	497.731	7.115		0.000	498.200	17.71	499.002	52.00	497.416	0.000
III Ten-Daily	497.856	13.16	497.382	0.000	497.823	1.004	497.800	8.637	497.483	1.174	497.406	0.000
Monthly												
Min.	497.395	0.000	497.330	0.000	497.570	0.000	497.400	0.000	497.450	0.699	497.400	0.000
Max.	499.905	99.07	499.105	56.48	498.070	3.719	499.565	75.93	499.950	104.3	497.440	0.000
Mean	497.915	10.61	497.539	2.771	497.823	0.356	497.915	11.7	498.152	21.25	497.417	0

Annual Runoff in MCM = 128 Annual Runoff in mm = 50

Peak Observed Discharge = 104.3 cumecs on 12/10/2017 Corres. Water Level :499.95 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

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

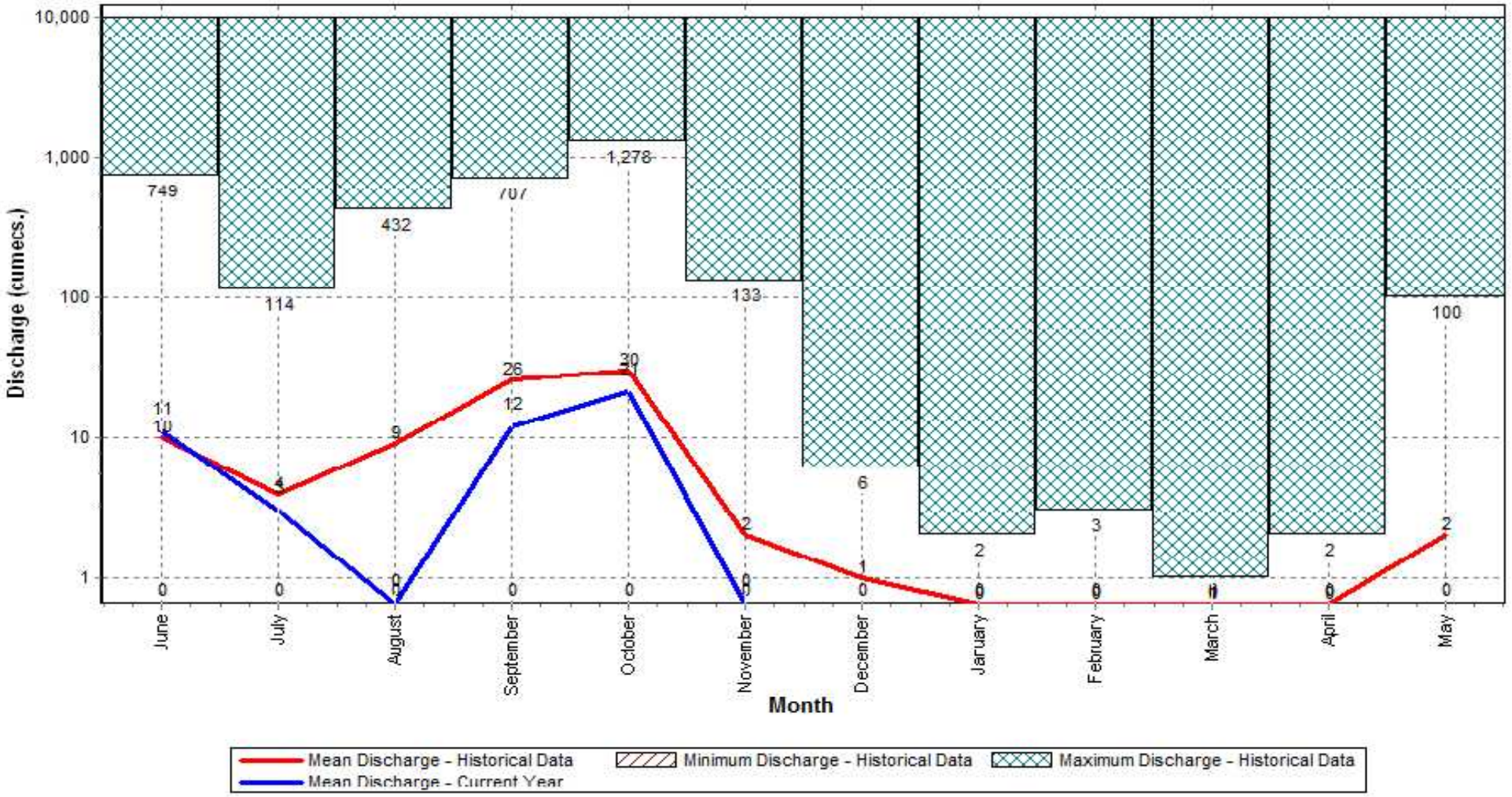
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Data considered : 1996-2018** **Division : Upper Krishna Divn, Pune**

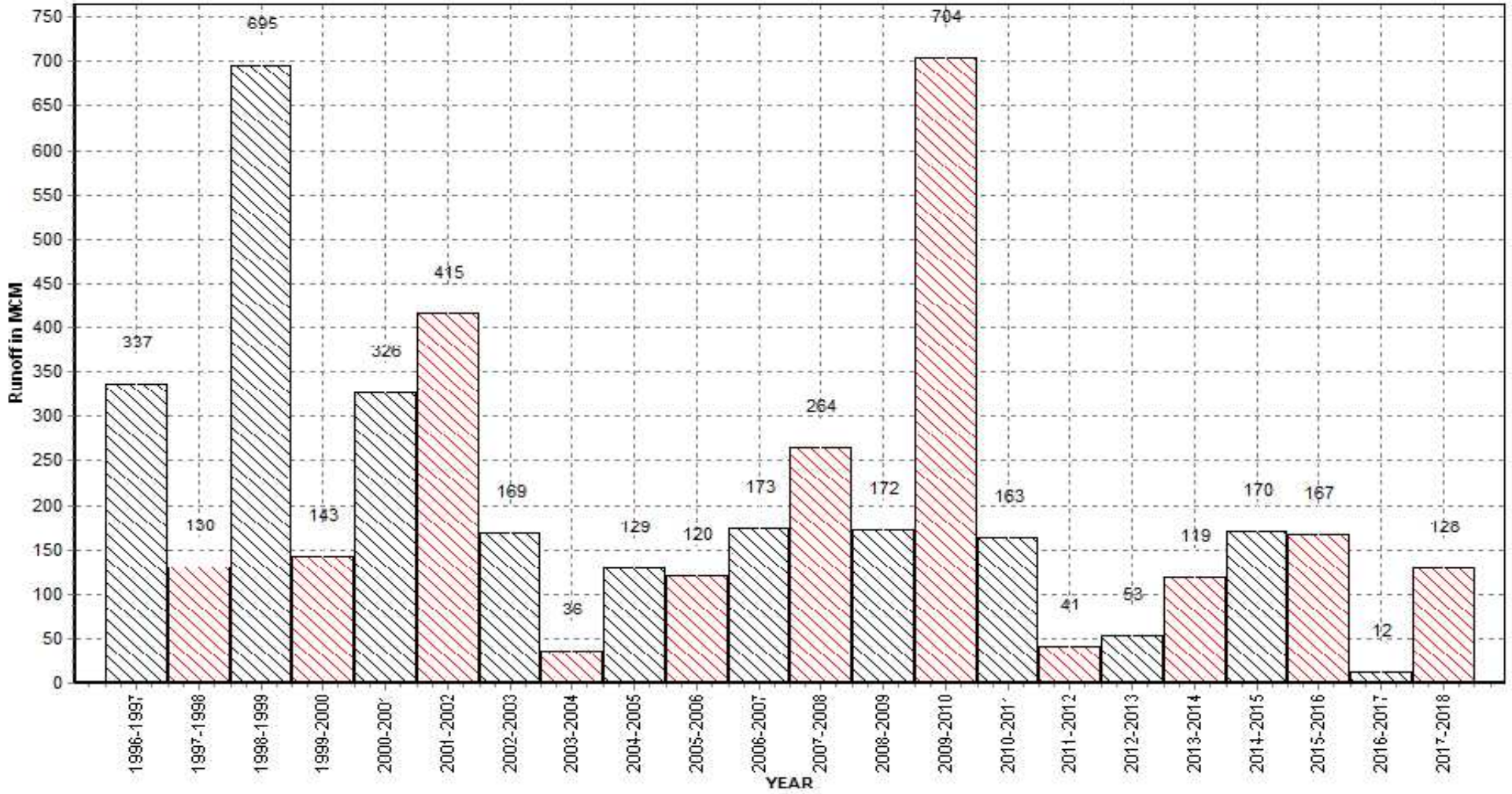
Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Annual Runoff Values for the period: 1996 - 2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**

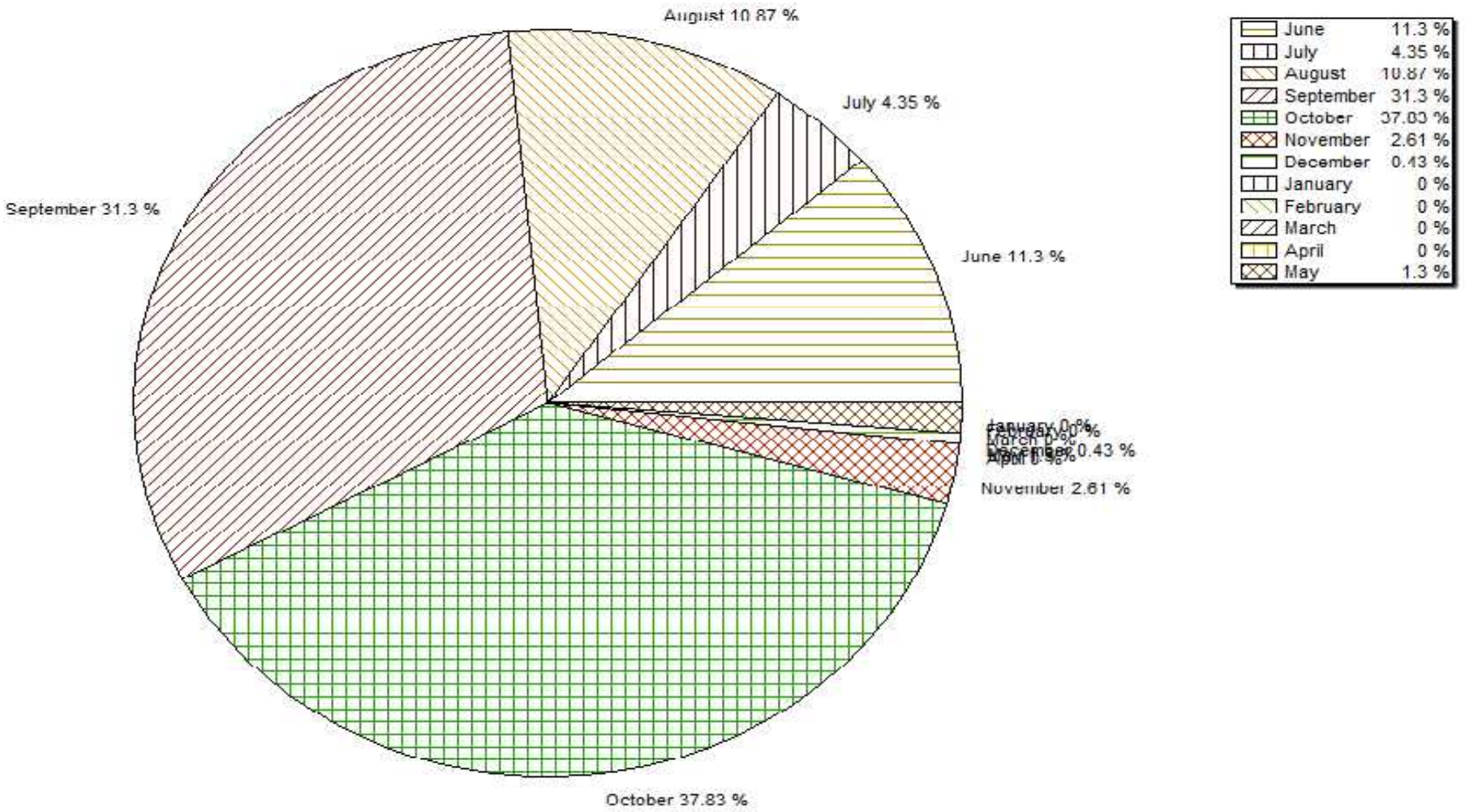


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1996-2017

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

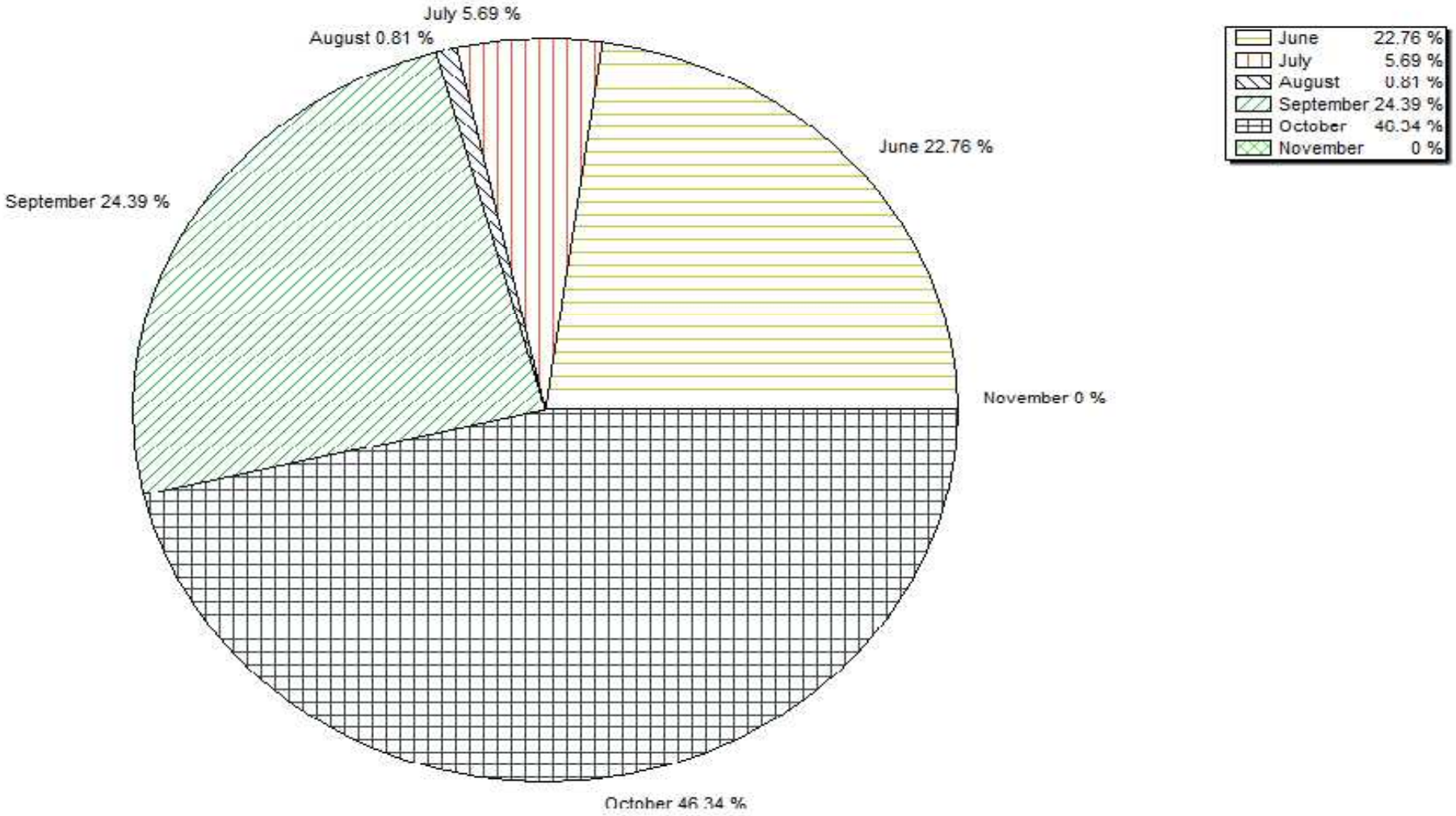
Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Monthly Runoff for the Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

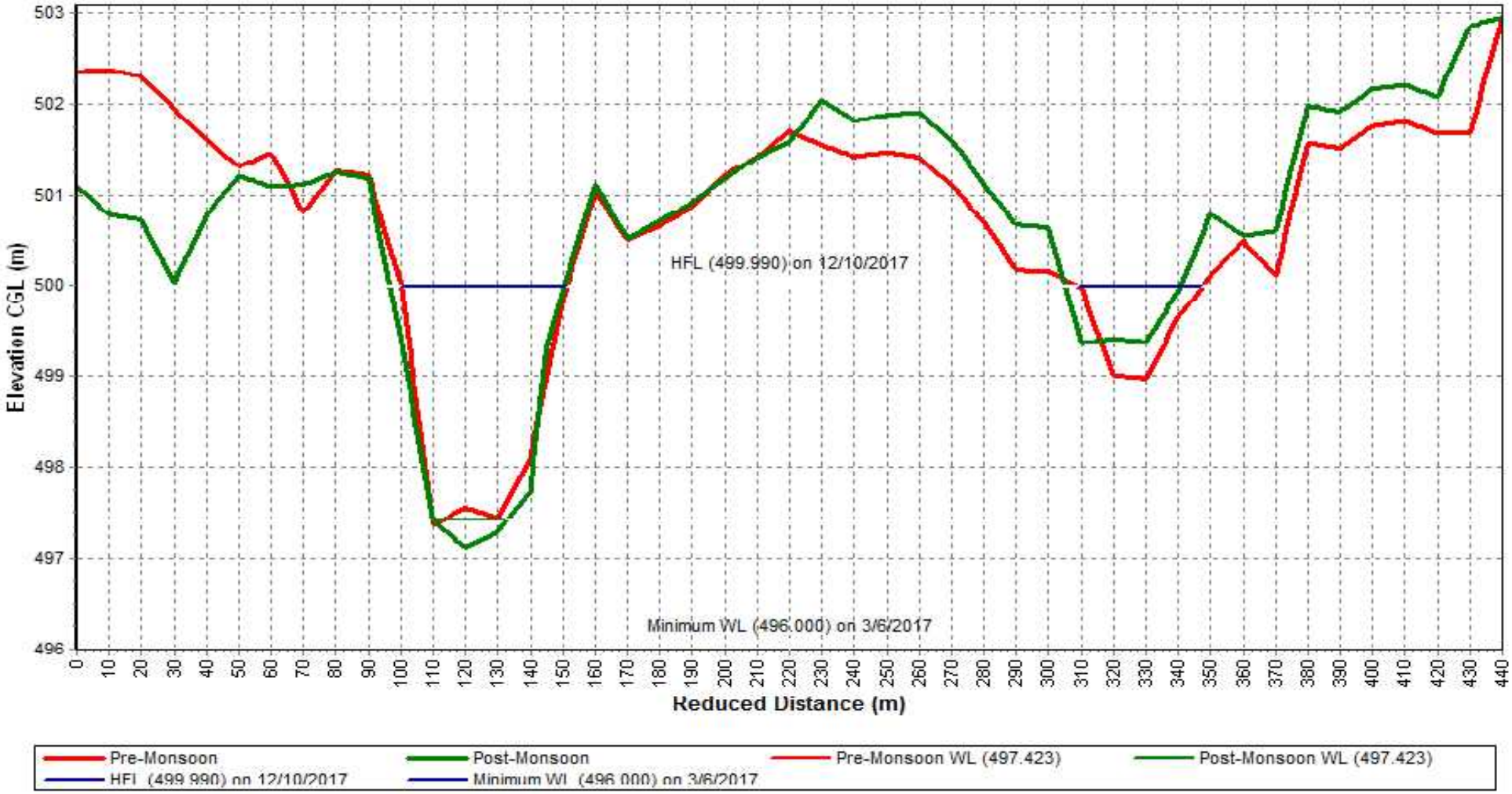
Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Talikot (Seasonal) (AKQ00E2) **Division : Upper Krishna Divn, Pune**

Local River : Don **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Cholachguda (Seasonal)**	**Code**	:	**AKS00H1**
State	:	Karnataka	District		Bijapur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Malaprabha	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Malaprabha
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Middle Krishna SD 1, Bagalkot
Drainage Area	:	9373 Sq. Km.	Bank	:	Left
Latitude	:	15°52'43"	Longitude	:	75°43'16"
Zero of Gauge (m)	:	522.5 (m.s.l) 522 (m.s.l)	01/06/1982 01/06/2010	-	31/05/2010
		Opening Date	Closing Date		
Gauge	:	01/06/1982	HFL During 2017-18	:	529.340m
			Corres. Discharge	:	821.5(Estimated)
Discharge	:	01/06/1982	Date & Time of	:	16/10/2017
			occurance	:	15.00 hrs.
Sediment	:	01/06/1982			
Water Quality	:	01/06/1982			

HFL Recorded so far in m : 536.840 dt 02-10-2009
Corresponding Discharge (cumecs) : 2747 *

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	987.2	530.410	06/11/1982	2.300	523.820	15/04/1983
1983-1984	577.3	528.150	18/08/1983	1.400	523.765	02/06/1983
1984-1985	600.0	528.310	24/10/1984	1.700	523.800	27/06/1984
1985-1986	356.5	527.500	31/05/1986	0.000		07/03/1986
1986-1987	685.7	529.375	24/09/1986	0.000		14/03/1987
1987-1988	812.9	529.900	07/08/1987	0.000		08/03/1988
1988-1989	878.2	529.380	18/09/1988	0.000	523.740	27/07/1988
1989-1990	1298	531.155	20/09/1989	0.000		11/02/1990
1990-1991	145.5	526.250	23/05/1991	0.000		10/05/1991
1991-1992	1472	531.637	29/06/1991	0.000	523.670	27/04/1992
1992-1993	1814	535.600	18/11/1992	0.000	523.820	10/05/1993
1993-1994	1625	533.289	19/10/1993	0.000		13/05/1994
1994-1995	499.6	528.400	03/09/1994	0.000	523.610	01/07/1994
1995-1996	572.8	528.865	26/09/1995	0.000		13/05/1996
1996-1997	1240	530.700	03/10/1996	0.000	523.600	26/07/1996
1997-1998	1360	530.800	23/09/1997	0.000		23/07/1997
1998-1999	1173	530.590	16/10/1998	0.000		17/04/1999
1999-2000	582.0	529.100	15/10/1999	0.000		01/04/2000

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
2000-2001	571.2	529.000	19/09/2000	0.000	523.530	24/03/2001
2001-2002	530.3	528.900	24/09/2001	0.000	523.590	27/02/2002
2002-2003	413.4	528.150	03/08/2002	0.000		06/04/2003
2003-2004	747.0	529.780	08/10/2003	0.000	523.630	11/12/2003
2004-2005	934.5	530.345	13/07/2004	0.000	523.585	31/01/2005
2005-2006	553.8	529.010	26/09/2005	0.000	523.660	27/03/2006
2006-2007	452.8	528.475	15/08/2006	0.000	523.500	20/07/2006
2007-2008	2181	534.300	20/09/2007	0.000	523.650	21/06/2007
2008-2009	356.7	527.900	06/09/2008	0.000	523.540	01/08/2008
2009-2010	2752	536.610	02/10/2009	0.000	523.620	09/08/2009
2010-2011	1023	531.000	09/11/2010	0.000	523.605	08/07/2010
2011-2012	232.9	527.260	11/09/2011	0.000	523.610	04/08/2011
2012-2013	88.68	525.720	28/09/2012	0.000		02/11/2012
2013-2014	254.9	528.210	03/09/2013	0.000	523.640	09/08/2013
2014-2015	189.8	527.870	07/06/2014	0.000	523.580	24/07/2014
2015-2016	167.5	527.520	18/09/2015	0.000	524.840	24/08/2015
2016-2017	77.52	527.950	20/06/2016	0.000	523.120	30/10/2016

Annual Runoff of Malaprabha at Cholachagudd(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1982-1983**	1297	199	1496
2	**1983-1984**	1042	220	1262
3	**1984-1985**	516	197	713
4	**1985-1986**	245	88	333
5	**1986-1987**	679	51	730
6	**1987-1988**	628	48	676
7	**1988-1989**	710	175	885
8	**1989-1990**	599	64	663
9	**1990-1991**	241	63	304
10	**1991-1992**	1387	211	1598
11	**1992-1993**	861	195	1056
12	**1993-1994**	848	157	1005
13	**1994-1995**	1045	268	1313
14	**1995-1996**	745	124	868
15	**1996-1997**	1072	221	1293
16	**1997-1998**	734	252	986
17	**1998-1999**	904	163	1067
18	**1999-2000**	642	250	893
19	**2000-2001**	837	170	1006
20	**2001-2002**	427	63	490
21	**2002-2003**	318	47	365
22	**2003-2004**	200	105	305
23	**2004-2005**	561	84	645
24	**2005-2006**	789	233	1022
25	**2006-2007**	784		784
26	**2007-2008**	1596		1596
27	**2008-2009**	352		352
28	**2009-2010**	1347		1347
29	**2010-2011**	533		533
30	**2011-2012**	392		392
31	**2012-2013**	64		64
32	**2013-2014**	287		287
33	**2014-2015**	305		305
34	**2015-2016**	266		266
35	**2016-2017**	55		55
36	**2017-2018**	696		696
Average		667	152	768

Stage-Discharge Data for the period 2017 - 2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

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	523.400	0.000		0.000		0.000	523.580	0.000	528.640	583.9 *	523.350	0.447
2	523.030	0.000		0.000		0.000	523.410	0.000	527.100	235.7 *	523.285	0.391
3		0.000		0.000		0.000	523.320	0.000	526.975	186.9	523.280	0.380
4		0.000		0.000		0.000	523.120	0.000	527.790	365.2 *	523.245	0.000
5		0.000		0.000		0.000	523.000	0.000	527.490	264.7	523.220	0.000
6		0.000		0.000		0.000	524.400	15.95 *	524.580	24.32	523.160	0.000
7		0.000		0.000		0.000	525.060	38.84 *	525.490	72.02	523.100	0.000
8		0.000		0.000		0.000	526.265	126.4 *	524.550	19.97 *	523.080	0.000
9		0.000		0.000		0.000	526.190	118.8 *	523.950	7.277 #	523.070	0.000
10		0.000		0.000		0.000	526.300	130.1 *	523.565	3.158		0.000
11		0.000		0.000	523.960	7.421 #	526.110	111.0 #	523.550	2.873		0.000
12		0.000		0.000	523.670	4.165	525.560	66.80 *	528.315	505.8		0.000
13		0.000		0.000	524.270	10.00	525.680	75.15 *	526.090	122.8		0.000
14		0.000		0.000	523.300	0.000	526.800	191.0 *	528.860	633.9		0.000
15		0.000		0.000	523.010	0.000	528.080	431.9 #	528.320	493.2 *		0.000
16		0.000		0.000	523.000	0.000	526.530	156.1 *	529.130	753.4		0.000
17		0.000		0.000	524.135	8.298	527.610	327.6 *	526.055	114.1		0.000
18		0.000		0.000	524.850	31.61	525.520	64.17 #	525.990	105.9		0.000
19	524.795	29.18		0.000	524.580	21.80	524.470	4.622	523.760	4.888 *		0.000
20	524.570	21.50		0.000	524.670	23.65 *	523.755	0.485	523.610	3.436 #		0.000
21	523.190	0.844		0.000	524.810	27.87	523.315	0.313	523.505	5.305		0.000
22	523.080	0.000		0.000	524.860	29.31	523.310	0.290	523.500	2.584 *	523.150	0.000
23	523.050	0.000		0.000	524.415	3.218	523.300	0.231	523.500	5.946	523.160	0.000
24	523.050	0.000		0.000	523.850	1.013	523.300	1.429 *	523.500	5.755	523.160	0.000
25	523.020	0.000		0.000	524.730	25.65 *	528.058	429.1	523.500	5.722	523.355	0.563
26		0.000		0.000	524.520	5.053	527.740	336.4	523.500	5.717	523.580	13.97 *
27		0.000		0.000	524.210	11.71 *	525.510	73.56	523.465	4.044	523.530	6.277
28		0.000		0.000	524.000	9.000	526.100	109.3	523.450	4.059	524.085	19.06
29		0.000		0.000	524.320	2.927	527.180	222.6	523.450	2.250 *	523.570	7.330
30		0.000		0.000	524.340	3.051	526.390	139.9 *	523.410	3.074	523.520	6.056
31				0.000	523.990	0.000			523.370	0.542		
Ten-Daily Mean												
I Ten-Daily	523.215	0.000		0.000		0.000	524.464	43.01	526.013	176.3	523.199	0.122
II Ten-Daily	524.682	5.068		0.000	523.944	10.69	526.012	142.9	526.368	274.0		0.000
III Ten-Daily	523.078	0.084		0.000	524.368	10.80	525.420	131.3	523.468	4.091	523.457	5.325
Monthly												
Min.	523.020	0.000		0.000	523.000	0.000	523.000	0.000	523.370	0.542	523.070	0.000
Max.	524.795	29.18		0.000	524.860	31.61	528.080	431.9	529.130	753.4	524.085	19.06
Mean	523.465	1.717		0	524.166	7.282	525.299	105.7	525.225	146.7	523.328	1.816

Annual Runoff in MCM = 736 Annual Runoff in mm = 74

Peak Observed Discharge = 753.4 cumecs on 16/10/2017 Corres. Water Level :529.13 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :523.4 m

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

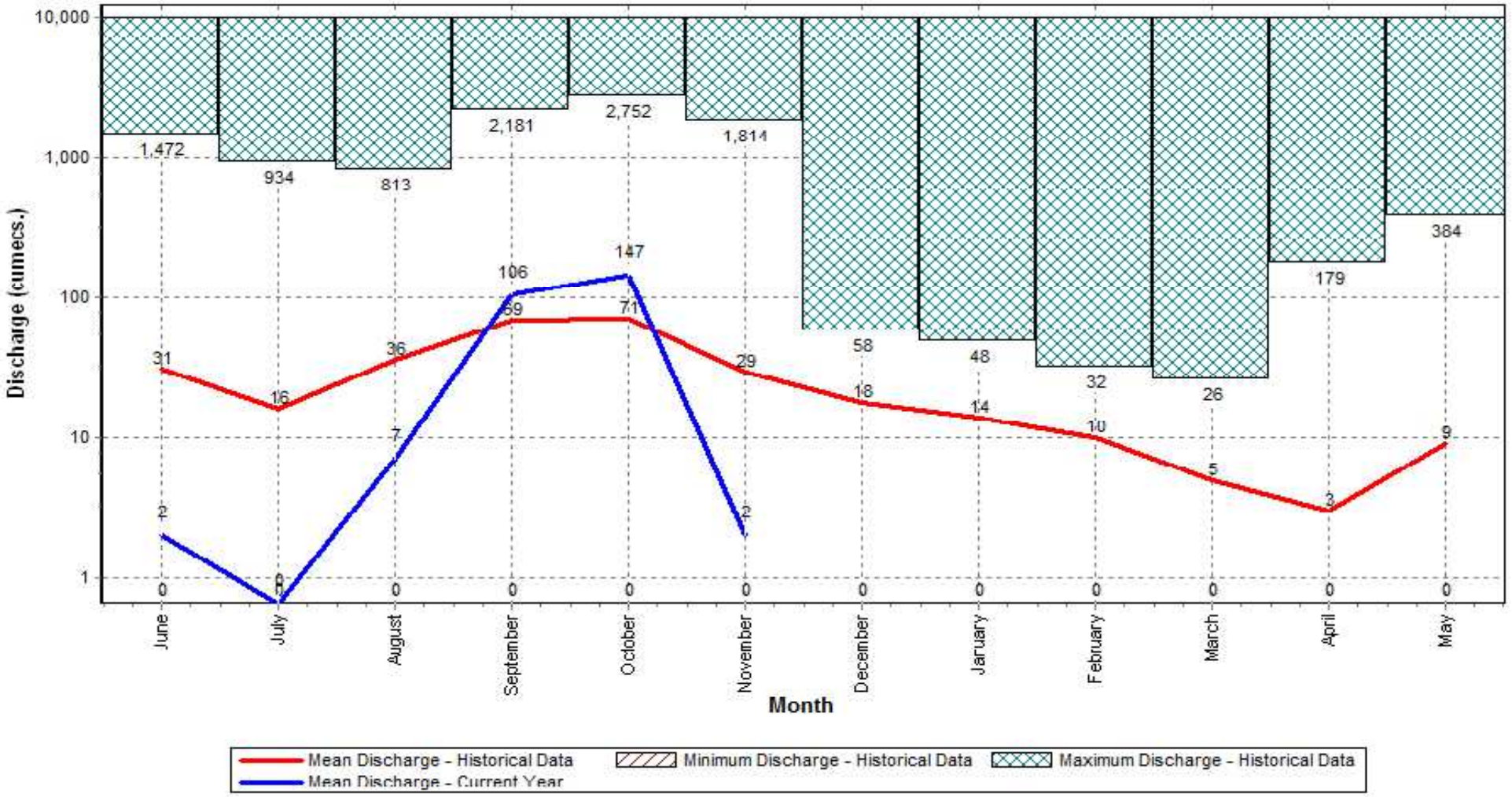
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Data considered : 1982-2018** **Division : Upper Krishna Divn, Pune**

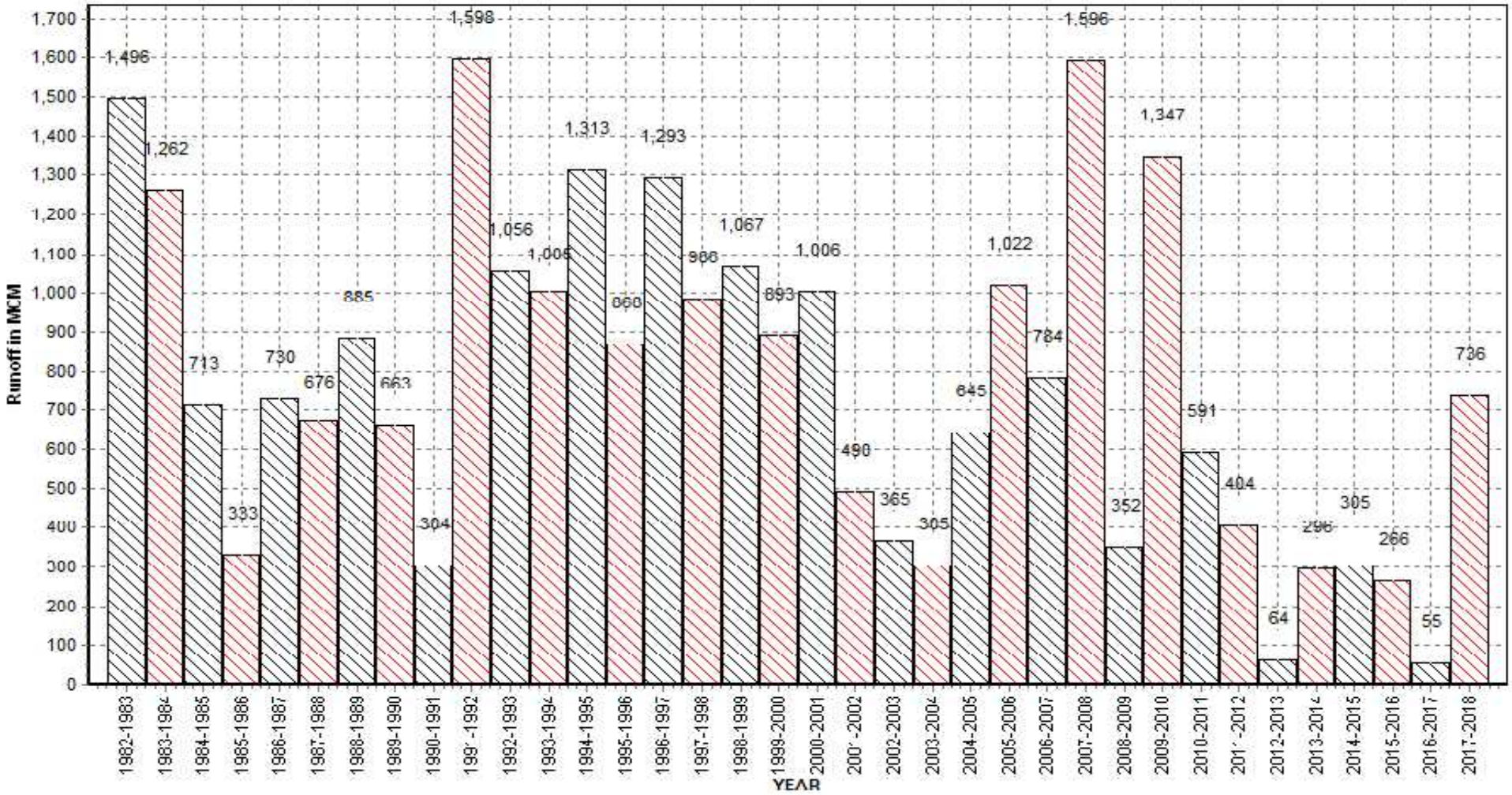
Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Annual Runoff Values for the period: 1982 - 2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

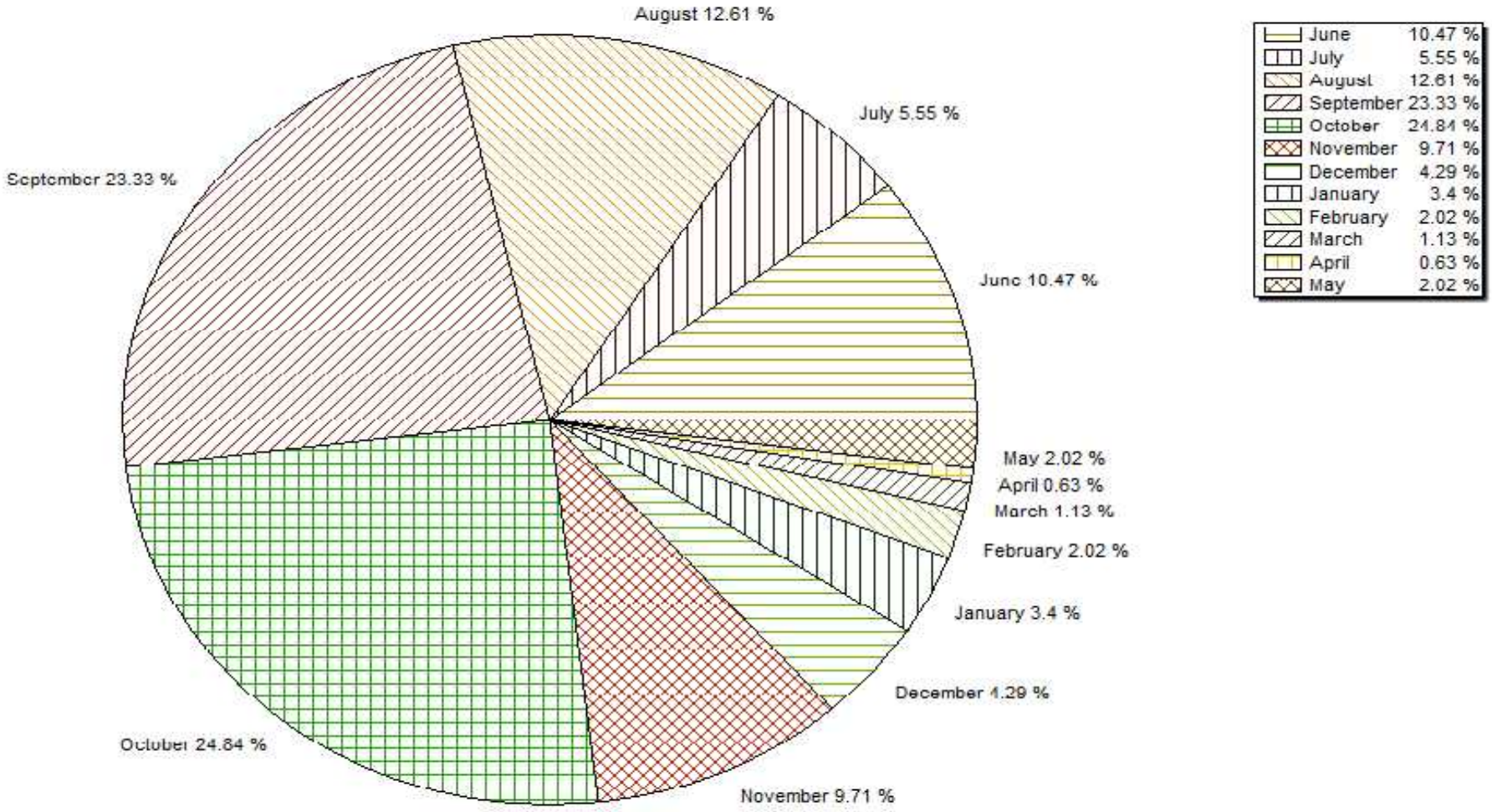


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1982-2017

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



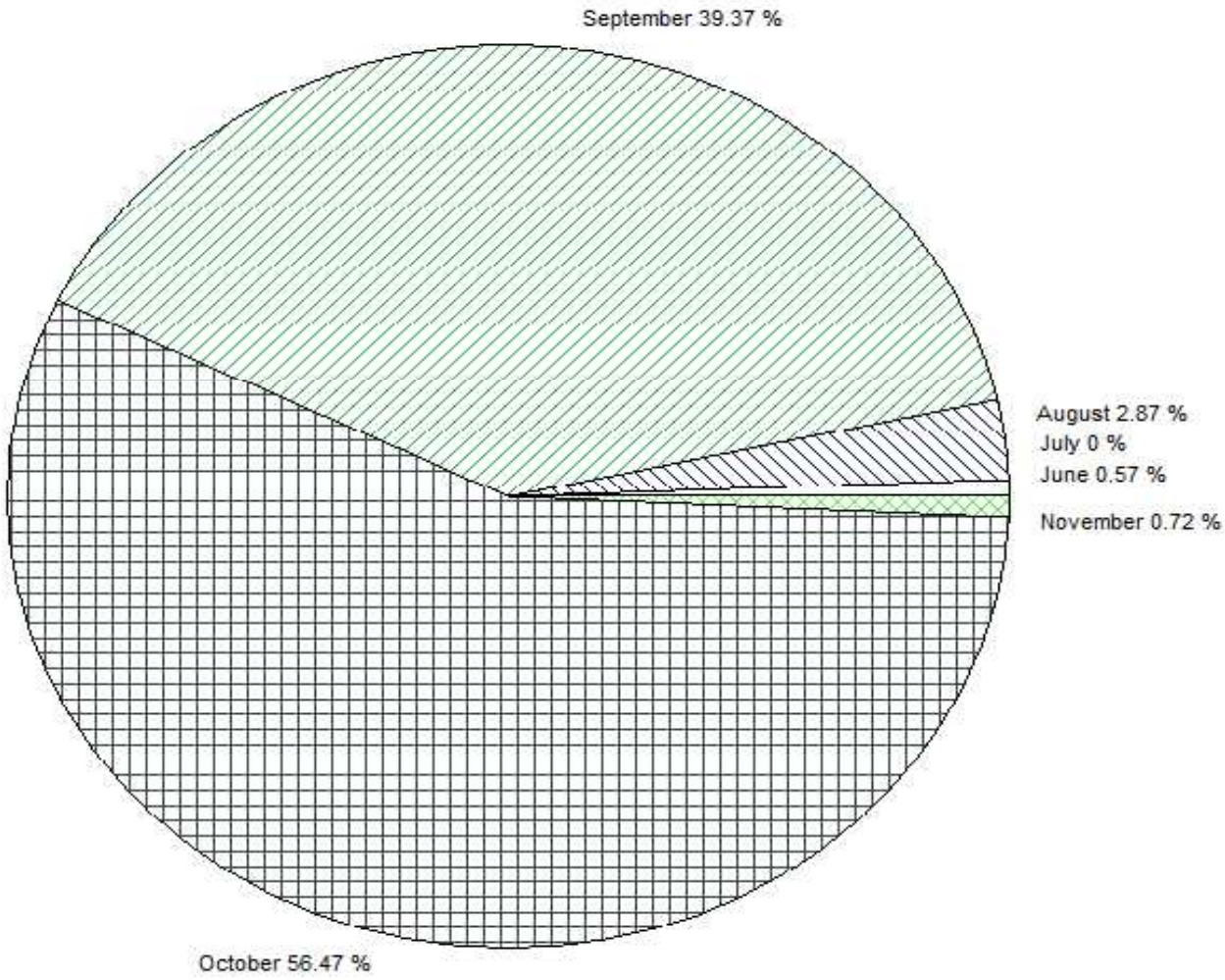
Monthly Runoff for the Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1)

Division : Upper Krishna Divn, Pune

Local River : Malaprabha

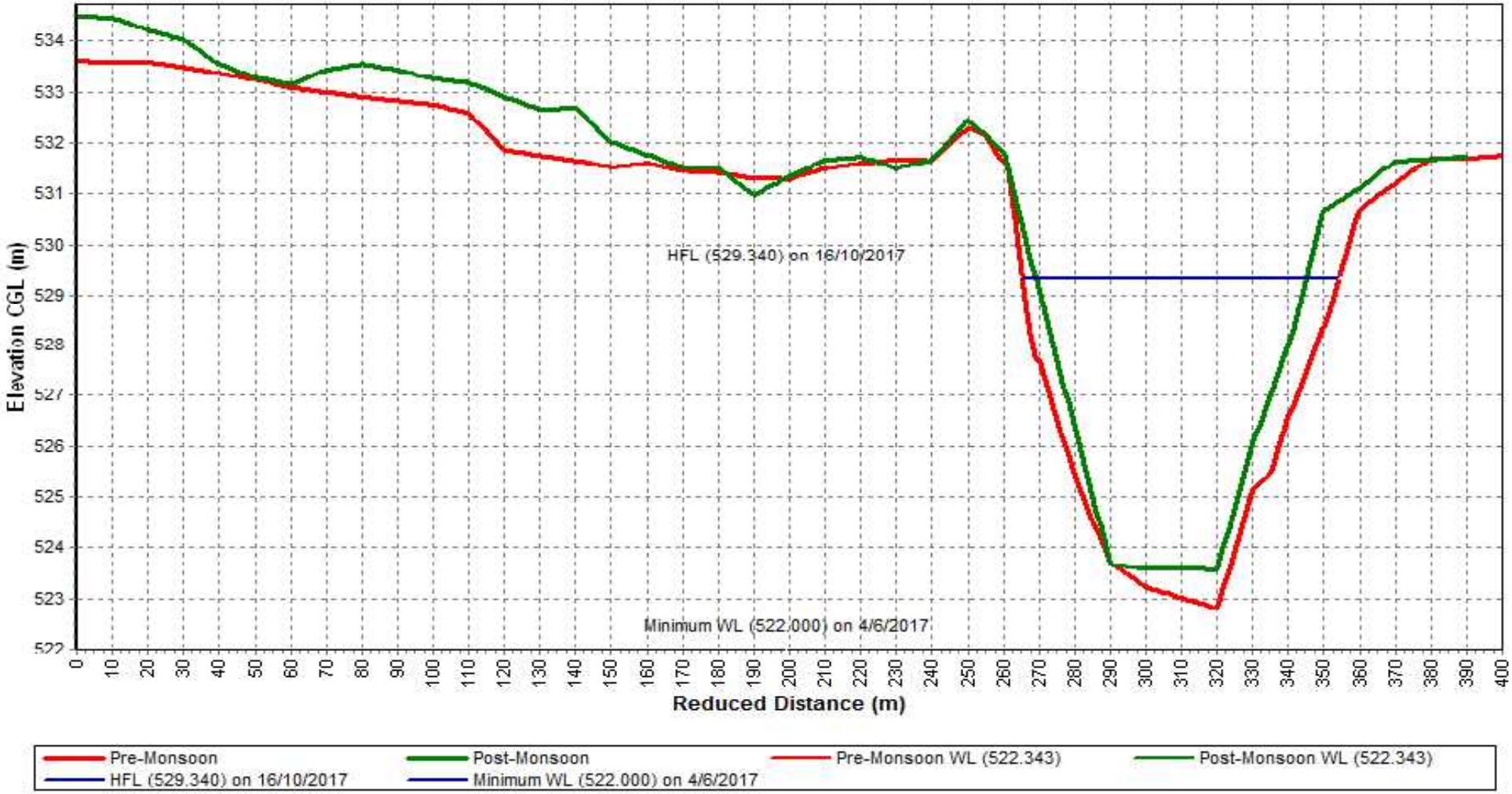
Sub-Division : Middle Krishna SD 1, Bagalkot



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

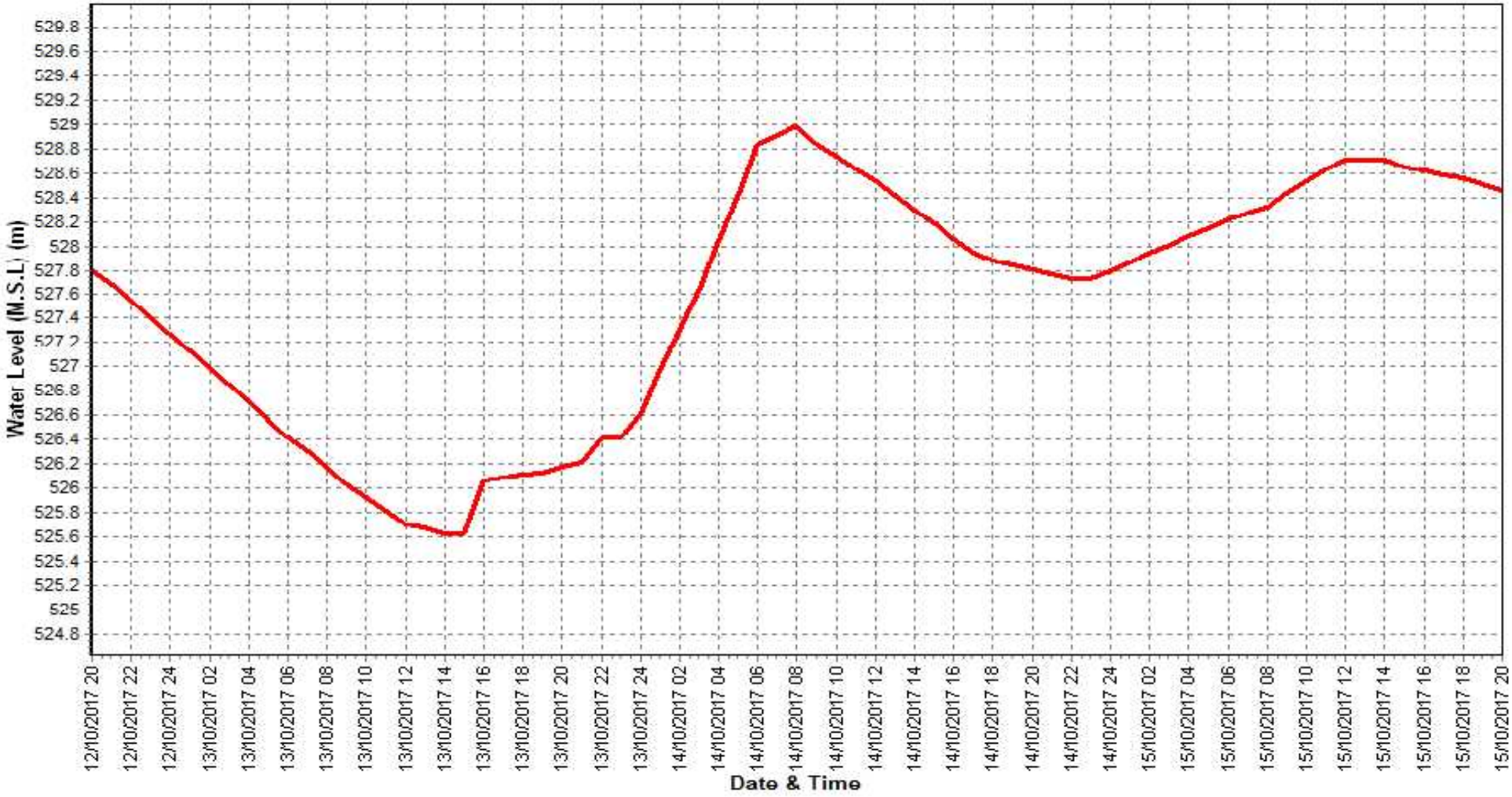


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : Upper Krishna Divn, Pune**

Local River : Malaprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

HISTORY SHEET

			Water Year	:	**2017-2018**
Site	:	**Mudhol**	**Code**	:	**MUDHOL**
State	:	Karnataka	District		Bagalkot
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Ghataprabha	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Ghataprabha
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Middle Krishna SD 1, Bagalkot
Drainage Area	:	6734 Sq. Km.	Bank	:	Right
Latitude	:	16°19'00"	Longitude	:	75°12'00"
Zero of Gauge (m)	:	530 (m.s.l) 530 (m.s.l)	13/07/1998 15/09/2015	-	31/05/2007
		Opening Date	Closing Date		
			HFL During 2017-18	:	535.390m
Gauge	:	13/07/2000	Corres. Discharge	:	271.8(Estimated)
			Date & Time of	:	23/07/2017
Discharge	:	25/07/2000	occurance	:	09.00 hrs.
Sediment	:	08/09/2003	31/05/2006		
Water Quality	:	01/11/2000	31/05/2006		

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	414.1	526.650	07/10/2001	0.000	522.980	03/03/2002
2002-2003	418.8	526.750	15/08/2002	0.000	523.810	05/02/2003
2003-2004	213.9	525.053	24/06/2003	0.000	522.045	23/01/2004
2004-2005	643.4	528.410	08/08/2004	0.000	524.790	25/01/2005
2005-2006	2100	532.340	06/08/2005	0.000	524.030	24/02/2006
2006-2007	1418	531.395	14/08/2006	0.000	525.100	20/02/2007
2015-2016	533.5	533.470	23/09/2015	0.000		02/04/2016
2016-2017	275.9	535.830	01/06/2016	0.000		25/01/2017

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

Annual Runoff of Ghataprabha at Mudhol

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**2000-2001**	751	69	820
2	**2001-2002**	705	44	749
3	**2002-2003**	532	44	576
4	**2003-2004**	334	28	363
5	**2004-2005**	1048	0	1048
6	**2005-2006**	4082	52	4134
7	**2006-2007**	3299	38	3336
8	**2007-2008**	Gauge and Discharge observation suspended on 31/05/2007		
9	**2008-2009**	Gauge observation restarted on 28-11-2014.		
10	**2009-2010**	Dischrage restarted on 16-09-2015		
11	**2010-2011**	0	0	0
12	**2011-2012**	0	0	0
13	**2012-2013**	0	0	0
14	**2013-2014**	0	0	0
15	**2014-2015**	0	0	0
16	**2015-2016**	49	0	49
17	**2016-2017**	342	0	342
18	**2017-2018**	387		387
	Average	641	16	656

Stage-Discharge Data for the period 2017 - 2018

Station Name : Mudhol (MUDHOL) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

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		0.000	532.300	62.82	533.170	44.41	533.240	55.89 *	531.840	0.000
2		0.000	532.435	0.000	532.180	70.58 #	532.790	30.85 #	533.110	52.04	531.910	0.000
3		0.000	532.120	0.000	532.110	67.13 #	532.400	15.58	532.975	37.54	532.000	0.000
4		0.000	531.505	39.59 #	531.970	0.000	532.160	0.000	533.405	65.04	531.850	0.000
5		0.000	531.660	0.000	531.930	0.000	531.860	0.000	533.015	40.49	531.610	0.000
6		0.000	531.520	0.000	531.660	0.000	531.980	0.000	532.950	32.87	531.500	0.000
7		0.000	530.950	0.000	532.070	0.000	532.110	0.000	533.120	52.93	531.400	0.000
8		0.000	530.690	0.000	532.060	0.000	532.725	27.74 #	533.810	95.83 #	531.000	0.000
9		0.000	531.000	0.000	531.960	0.000	532.605	25.12	533.240	54.68	531.000	0.000
10		0.000	530.670	0.000	531.850	0.000	532.730	31.41	533.125	44.59	530.940	0.000
11		0.000	530.430	0.000	531.480	0.000	532.755	36.00	533.050	36.55	530.820	0.000
12		0.000	530.335	0.000	532.120	0.000	532.800	39.48	534.150	127.1	530.500	0.000
13		0.000		0.000	532.070	0.000	532.730	29.22	533.495	69.90	530.200	0.000
14		0.000		0.000	531.660	0.000	532.990	46.27	533.385	62.24		0.000
15		0.000		0.000	531.750	0.000	533.410	64.44	534.250	131.3		0.000
16		0.000		0.000	531.630	0.000	533.160	43.10	534.285	135.5 #		0.000
17		0.000		0.000	531.540	0.000	532.980	40.68 *	534.000	111.0 #		0.000
18		0.000	532.440	0.000	532.160	0.000	532.680	26.96	533.440	67.69		0.000
19		0.000	532.550	89.19	532.230	0.000	532.740	23.53	533.190	52.82 *		0.000
20		0.000	533.300	155.9	532.130	0.000	532.645	21.08	532.980	48.94		0.000
21		0.000	534.310	195.9 #	532.050	0.000	534.265	146.0	532.915	38.10		0.000
22		0.000	535.040	234.0	532.070	0.000	534.505	143.3	532.815	32.71		0.000
23		0.000	535.365	275.5	532.180	0.000	533.450	69.59 #	532.710	30.67		0.000
24		0.000	533.725	183.0	532.180	0.000	532.895	36.15 #	532.670	20.16		0.000
25		0.000	532.705	108.6	532.070	0.000	532.640	23.89 #	532.565	22.39		0.000
26		0.000	532.305	64.34	531.940	0.000	533.035	48.70	532.525	18.28		0.000
27		0.000	531.800	49.77	531.970	0.000	532.940	47.54	532.500	13.95		0.000
28		0.000	531.305	39.72	532.080	0.000	532.890	39.40	532.450	16.15 #		0.000
29		0.000	530.990	0.000	532.300	0.000	533.130	47.64	532.360	0.000		0.000
30		0.000	530.710	0.000	532.290	0.000	533.210	54.04 *	532.180	0.000		0.000
31			532.550	76.16	532.410	0.000			531.910	0.000		
Ten-Daily Mean												
I Ten-Daily		0.000	531.394	3.959	532.009	20.05	532.453	17.51	533.199	53.19	531.505	0.000
II Ten-Daily		0.000	531.811	24.51	531.877	0.000	532.889	37.08	533.622	84.31	530.507	0.000
III Ten-Daily		0.000	532.800	111.5	532.140	0.000	533.296	65.62	532.509	17.49		0.000
Monthly												
Min.		0.000	530.335	0.000	531.480	0.000	531.860	0.000	531.910	0.000	530.200	0.000
Max.		0.000	535.365	275.5	532.410	70.58	534.505	146.0	534.285	135.5	532.000	0.000
Mean		0	532.096	48.77	532.013	6.469	532.879	40.07	533.091	50.56	531.275	0

Annual Runoff in MCM = 397 Annual Runoff in mm = 58

Peak Observed Discharge = 275.5 cumecs on 23/07/2017 Corres. Water Level :535.365 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017

Discharge observations not conducted during Non Monsoon Period.

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

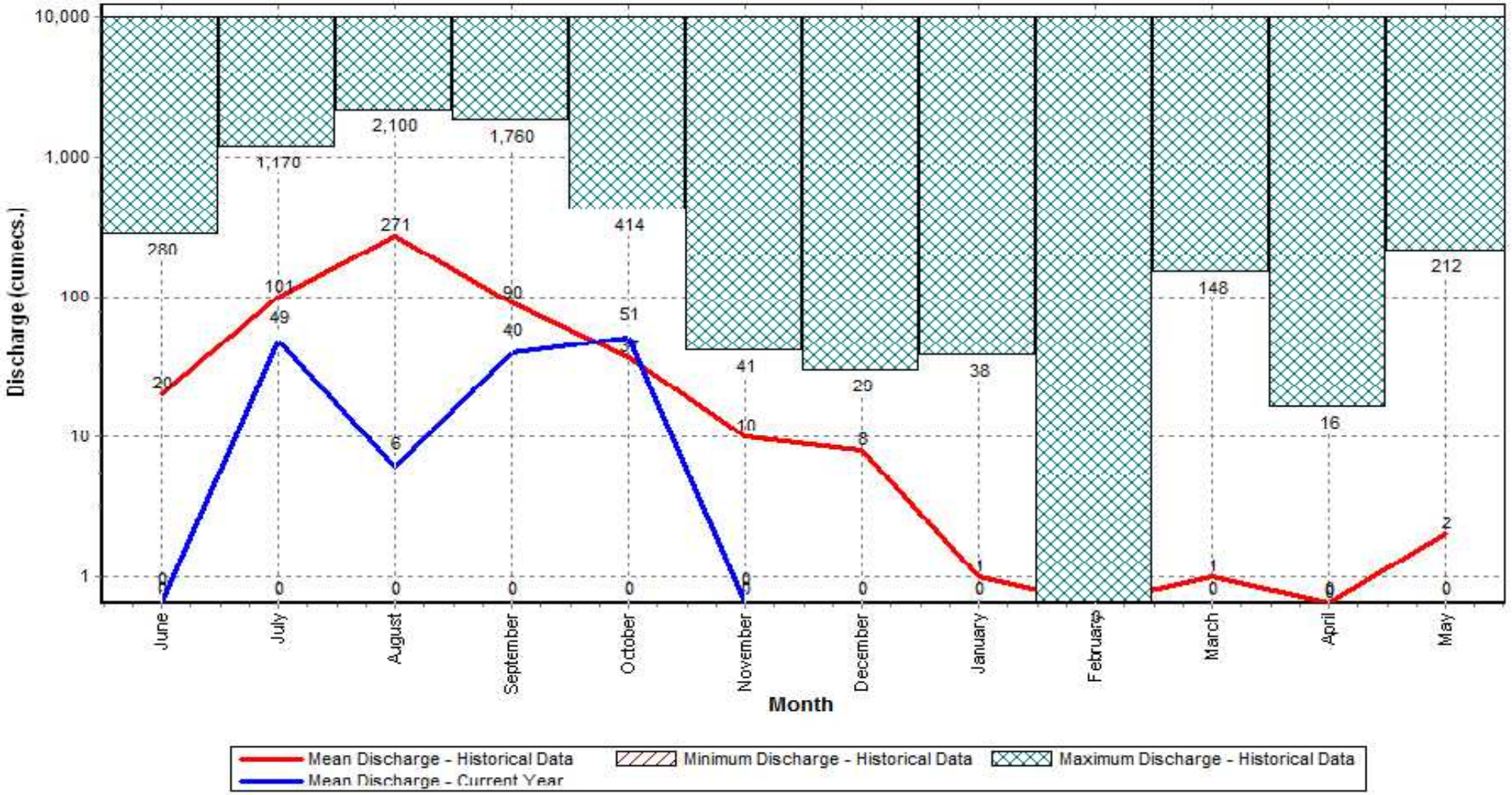
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Mudhol (MUDHOL) | **Data considered : 2001-2018** | **Division : Upper Krishna Divn, Pune**

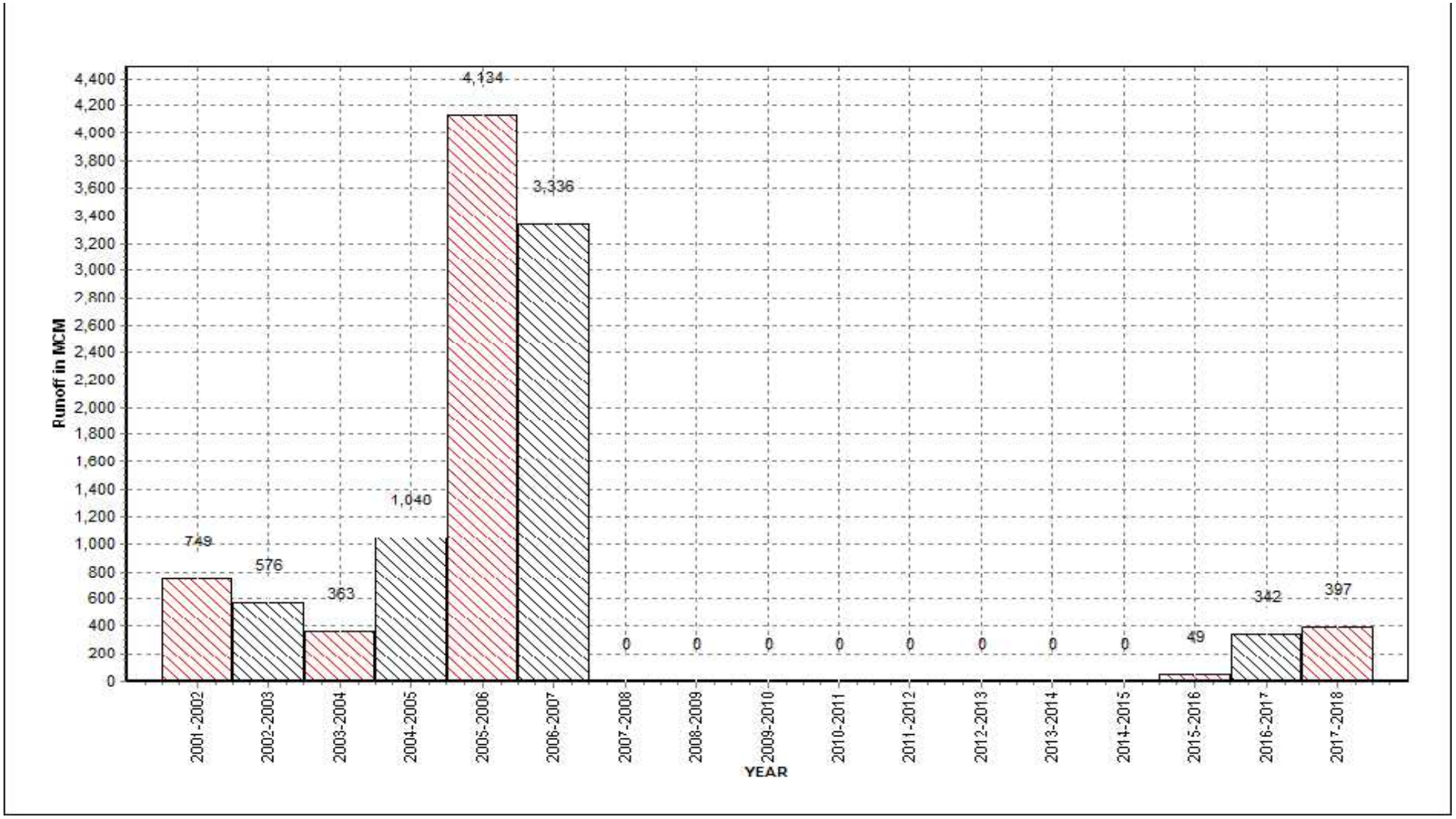
Local River : Ghataprabha | **Sub-Division : Middle Krishna SD 1, Bagalkot**



Annual Runoff Values for the period: 2001 - 2018

Station Name : Mudhol (MUDHOL) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



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

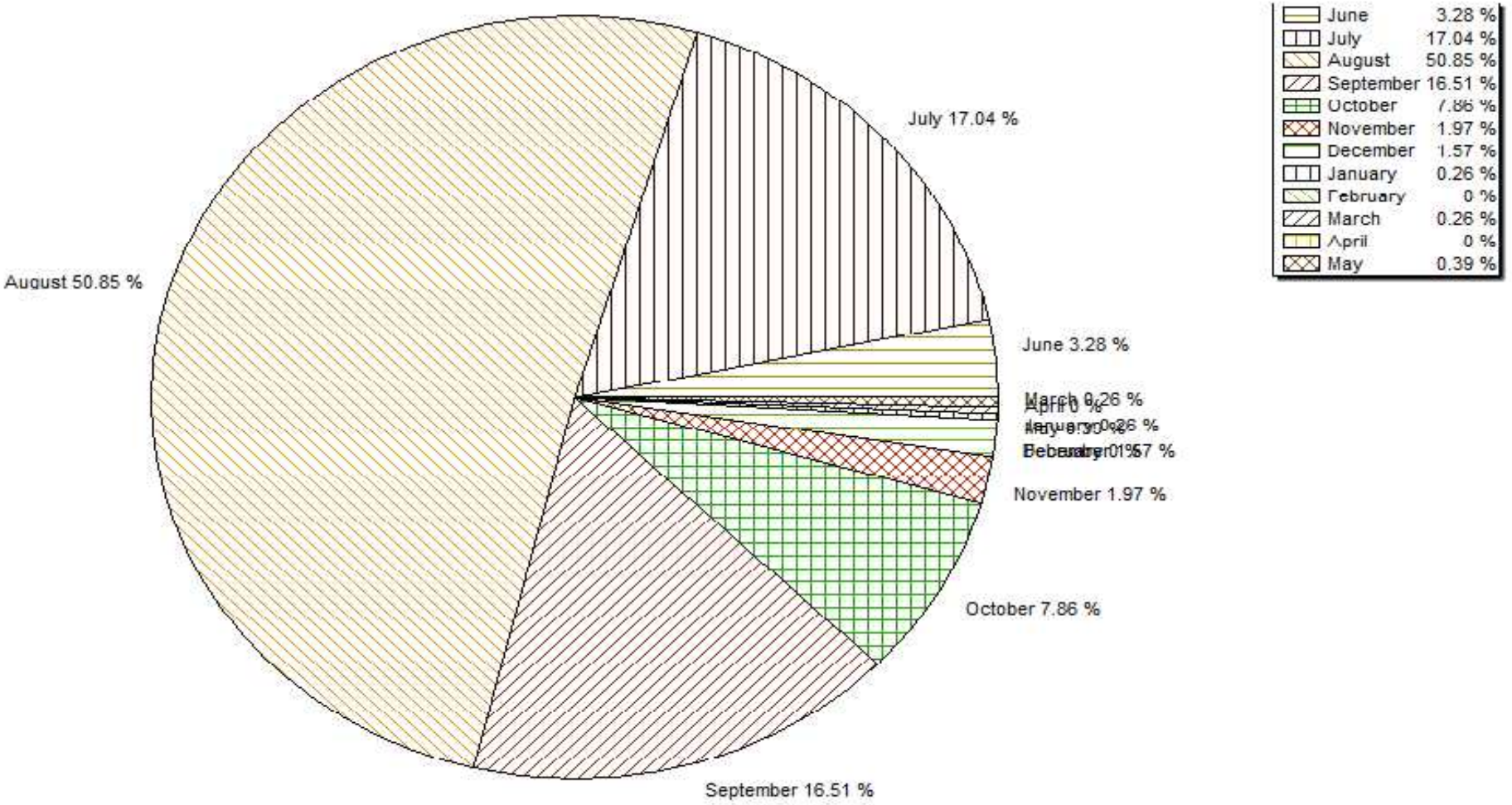
Monthly Average Runoff based on period : 2001-2017

Station Name : Mudhol (MUDHOL)

Local River : Ghataprabha

Division : Upper Krishna Divn, Pune

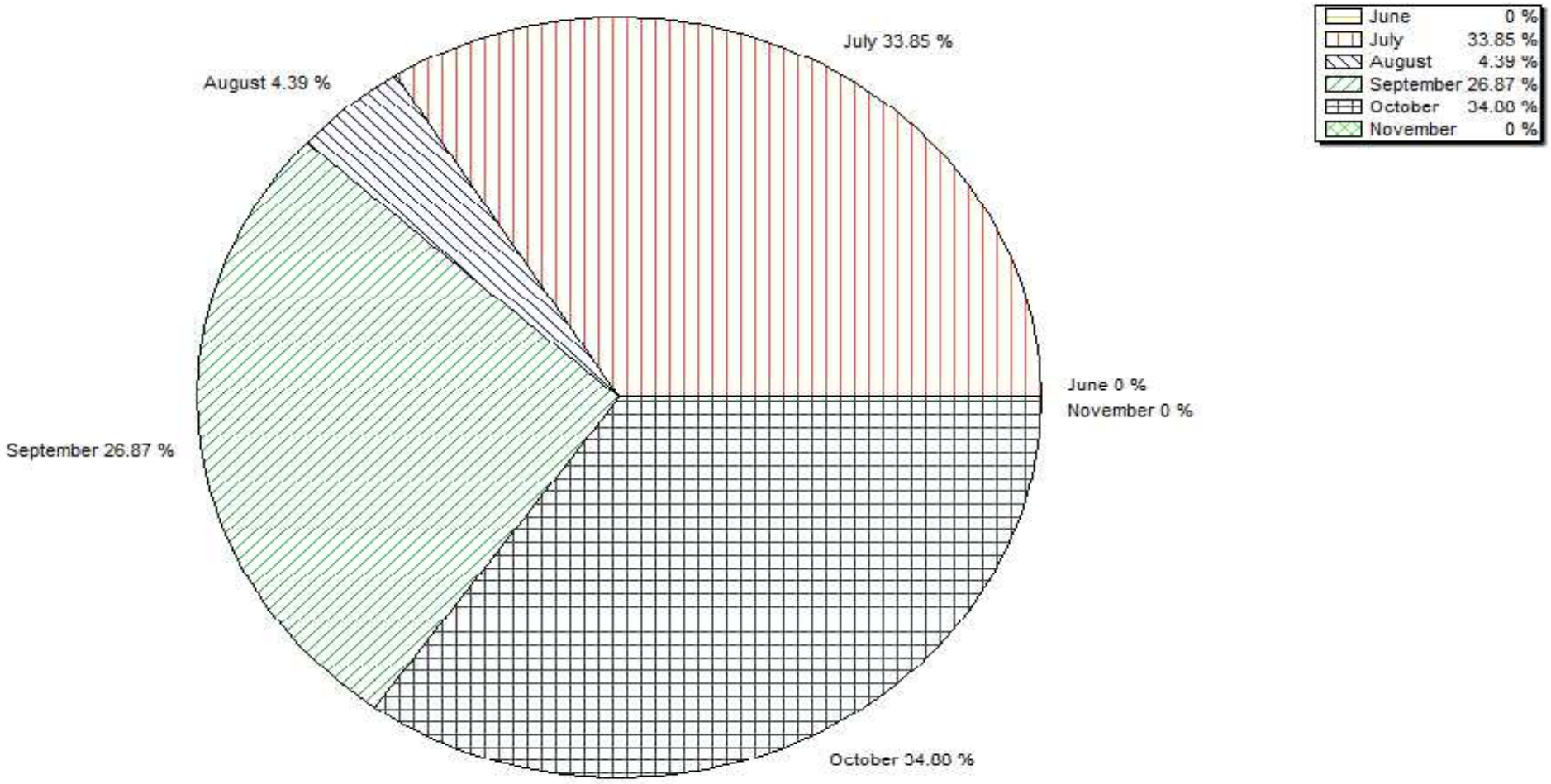
Sub-Division : Middle Krishna SD 1, Bagalkot



Monthly Runoff for the Year : 2017-2018

Station Name : Mudhol (MUDHOL)
Local River : Ghataprabha

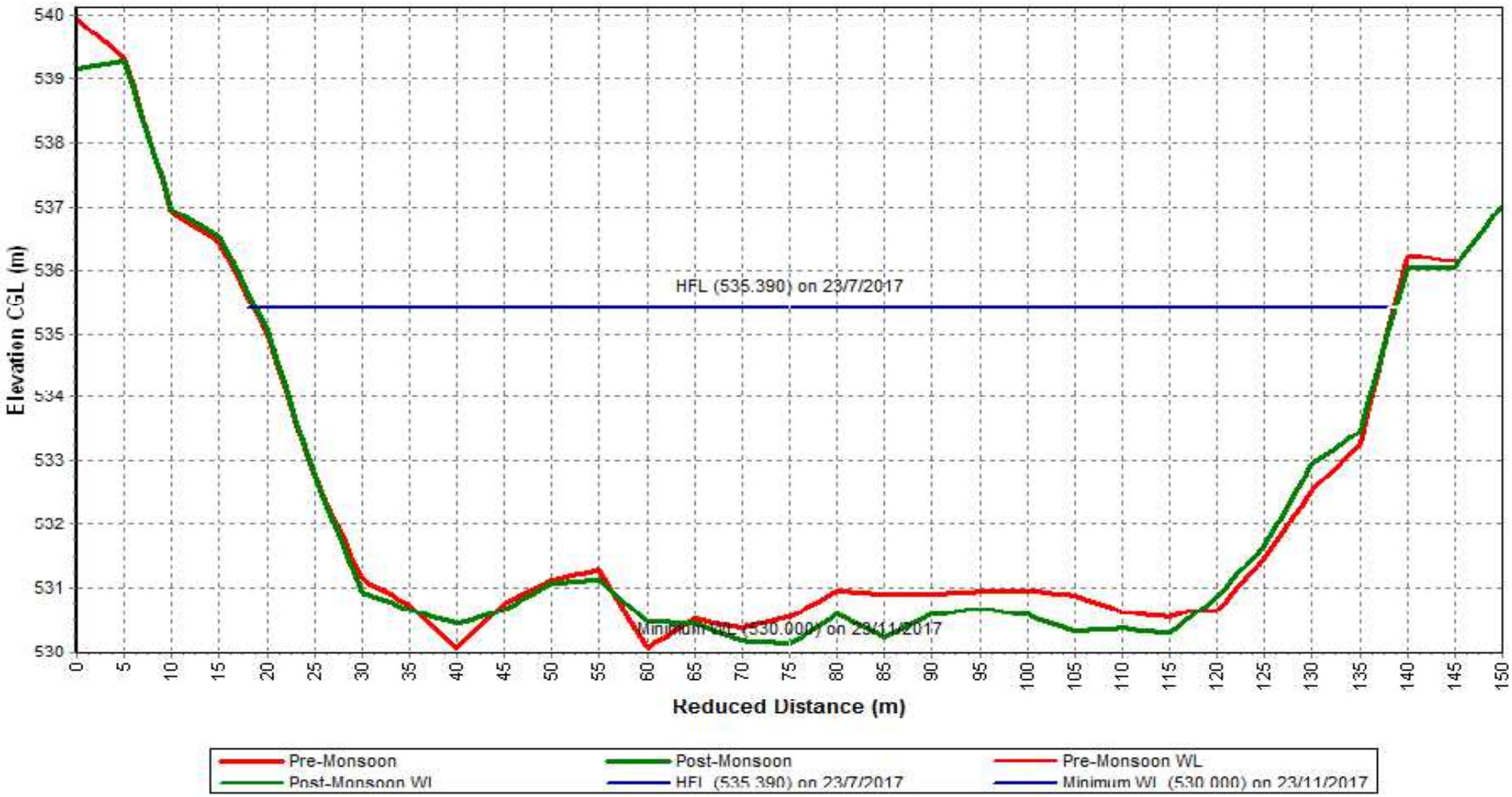
Division : Upper Krishna Divn, Pune
Sub-Division : Middle Krishna SD 1, Bagalkot



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Mudhol (MUDHOL) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



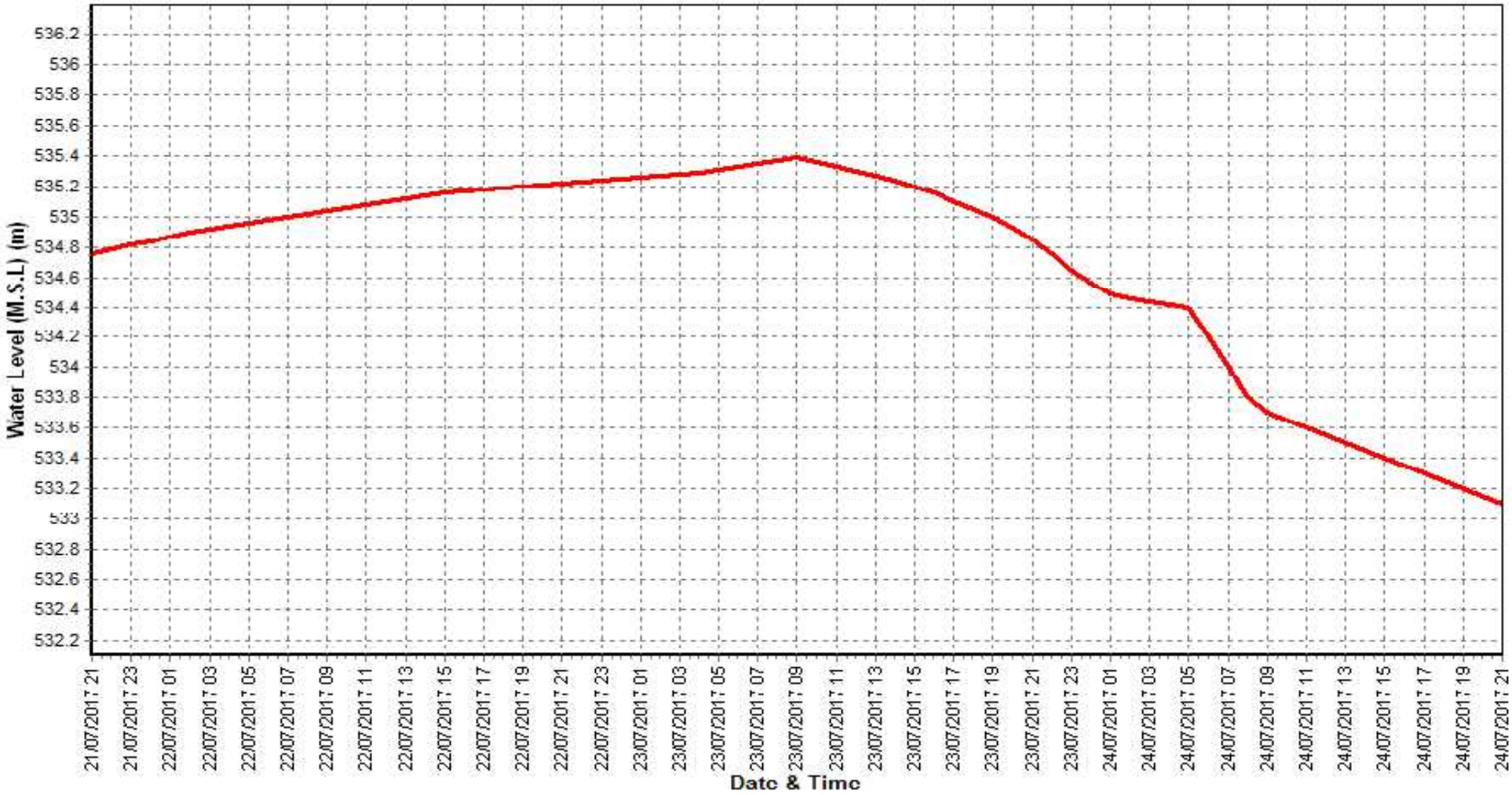
Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Mudhol (MUDHOL)

Division : Upper Krishna Divn, Pune

Local River : Ghataprabha

Sub-Division : Middle Krishna SD 1, Bagalkot



Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Mudhol (MUDHOL) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Mudhol (MUDHOL) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Gokak Falls (Seasonal)**	**Code**	**:**	**AKT00P9**
State	:	Karnataka	District		Belgaum
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Ghataprabha	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Ghataprabha
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Middle Krishna SD 1, Bagalkot
Drainage Area	:	2770 Sq. Km.	Bank	:	Right
Latitude	:	16°11'24"	Longitude	:	74°47'29"
Zero of Gauge (m)	:	536.004 (m.s.l) 536 (m.s.l)	20/03/1971 01/09/2003	-	31/08/2003
		Opening Date	Closing Date		
Gauge	:	21/03/1971	HFL During 2017-18	:	542.070m
			Corres. Discharge	:	439.5(Estimated)
Discharge	:	14/07/1971	Date & Time of	:	22/07/2017
			occurance	:	13.00 hrs.
Sediment	:	27/12/2014			
Water Quality	:	01/09/2014			

HFL Recorded so far in m : 546.880 dt 23-09-2005
Corresponding Discharge (cumecs) : 2266*

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1972-1973	2271	544.389	08/07/1972	0.000	538.559	14/02/1973
1973-1974	1922	543.884	09/07/1973	0.000	538.570	26/01/1974
1974-1975	2150	544.254	07/07/1974	0.000	538.469	30/03/1975
1975-1976	3106	545.474	11/07/1975	0.000	538.604	24/04/1976
1976-1977	1702	543.879	02/08/1976	0.000	538.414	22/04/1977
1977-1978	1195	543.244	27/07/1977	0.000	538.604	13/06/1977
1978-1979	1915	544.194	18/08/1978	0.200	538.554	13/03/1979
1979-1980	3147	545.364	10/08/1979	0.300	538.794	05/06/1979
1980-1981	1725	544.249	07/08/1980	1.100	538.784	25/05/1981
1981-1982	1109	542.933	04/08/1981	3.000	538.734	12/06/1981
1982-1983	1669	543.969	15/08/1982	5.800	539.024	13/05/1983
1983-1984	2766	546.099	29/06/1983	5.400	539.024	17/04/1984
1984-1985	708.9	542.394	03/07/1984	2.300	538.894	02/05/1985
1985-1986	716.2	542.234	03/08/1985	1.300	538.779	17/06/1985
1986-1987	439.8	541.574	12/08/1986	5.600	539.004	12/10/1986
1987-1988	269.8	540.904	09/07/1987	1.244	538.724	16/03/1988
1988-1989	2064	544.809	06/08/1988	0.000	539.079	22/02/1989
1989-1990	1455	543.979	26/07/1989	0.000	539.084	24/03/1990

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	1073	543.279	19/08/1990	0.000	539.054	13/03/1991
1991-1992	1351	543.833	16/08/1991	0.000	539.094	05/02/1992
1992-1993	871.4	542.954	23/08/1992	0.000	539.034	24/01/1993
1993-1994	1444	544.160	14/08/1993	0.000	539.094	31/01/1994
1994-1995	3440	546.514	16/07/1994	0.000	539.044	11/02/1995
1995-1996	395.2	541.304	21/07/1995	0.000	539.104	10/01/1996
1996-1997	728.4	542.304	21/10/1996	0.000	539.084	10/03/1997
1997-1998	3375	546.154	08/08/1997	0.000	539.044	27/03/1998
1998-1999	404.0	541.549	03/07/1998	0.000	539.154	09/03/1999
1999-2000	1323	544.864	23/07/1999	0.000	539.144	12/02/2000
2000-2001	483.4	541.942	15/07/2000	0.000	539.004	12/03/2001
2001-2002	332.7	541.221	11/07/2001	0.000	539.074	02/02/2002
2002-2003	475.3	541.474	13/08/2002	0.000	538.924	30/01/2003
2003-2004	210.4	540.504	23/06/2003	0.000	538.610	26/01/2004
2004-2005	558.7	542.602	05/08/2004	0.000	538.950	25/01/2005
2005-2006	3245	546.400	23/09/2005	0.000	538.910	25/01/2006
2006-2007	1703	545.250	13/08/2006	6.340	538.610	20/06/2006
2007-2008	1991	545.820	08/08/2007	0.000	538.590	18/06/2007
2008-2009	1013	544.030	13/08/2008	0.000	538.820	12/06/2008
2009-2010	677.4	542.930	04/10/2009	0.000	539.045	30/06/2009
2010-2011	498.5	542.605	30/07/2010	0.000	539.410	15/06/2010
2011-2012	1123	544.650	04/09/2011	0.000	539.835	08/06/2011
2012-2013	328.6	541.620	05/08/2012	0.000	539.820	28/06/2012
2013-2014	621.3	542.660	04/08/2013	0.000	539.800	07/05/2014
2014-2015	451.6	542.130	01/08/2014	0.000	539.880	01/06/2014
2015-2016	342.6	541.180	25/06/2015	0.000	539.830	22/06/2015
2016-2017	515.0	542.370	14/07/2016	0.000	539.680	11/06/2016

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

Annual Runoff of Ghataprabha at Gokaka falls(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1971-1972**	1502	1	1503
2	**1972-1973**	1905	1	1906
3	**1973-1974**	2799	0	2799
4	**1974-1975**	2818	11	2829
5	**1975-1976**	3427	31	3458
6	**1976-1977**	2150	24	2174
7	**1977-1978**	2079	102	2181
8	**1978-1979**	2639	57	2696
9	**1979-1980**	2170	107	2277
10	**1980-1981**	3228	84	3312
11	**1981-1982**	2323	119	2441
12	**1982-1983**	1988	129	2117
13	**1983-1984**	3410	143	3553
14	**1984-1985**	1256	141	1398
15	**1985-1986**	873	145	1017
16	**1986-1987**	747	147	894
17	**1987-1988**	365	133	498
18	**1988-1989**	2142	129	2271
19	**1989-1990**	1178	52	1230
20	**1990-1991**	1410	112	1522
21	**1991-1992**	2103	16	2119
22	**1992-1993**	1290	0	1290
23	**1993-1994**	1703	11	1714
24	**1994-1995**	4280	20	4300
25	**1995-1996**	581	19	600
26	**1996-1997**	780	54	834
27	**1997-1998**	3042	79	3121
28	**1998-1999**	857	70	927
29	**1999-2000**	1948	85	2033
30	**2000-2001**	847	63	910
31	**2001-2002**	517	3	520
32	**2002-2003**	569	0	569
33	**2003-2004**	354	0	354
34	**2004-2005**	770	0	770
35	**2005-2006**	3999	0	3999
36	**2006-2007**	3087	Seasonal	3087
37	**2007-2008**	2239		2239
38	**2008-2009**	1428		1428
39	**2009-2010**	1233		1233
40	**2010-2011**	1389		1389
41	**2011-2012**	2376		2376
42	**2012-2013**	851		851
43	**2013-2014**	1746		1746
44	**2014-2015**	894		894
45	**2015-2016**	726		726
46	**2016-2017**	840		840
47	**2017-2018**	463		463

Stage-Discharge Data for the period 2017 - 2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

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	539.050	0.000	540.280	110.0 #	539.438	19.53	539.860	58.73 #	539.530	27.54 *	539.015	6.448
2	539.060	0.000	540.200	99.35 *	539.260	9.038 *	539.540	28.25 *	539.410	19.87 *	539.000	4.690 *
3	539.030	0.000	539.860	58.73 #	539.318	15.22	539.395	17.32 *	539.398	19.17 #	539.114	7.052
4	539.010	0.000	539.880	60.90 *	539.298	10.64	539.370	12.74	539.400	19.31 *	539.030	5.339 *
5	538.920	0.000	539.910	64.20 #	539.245	10.00	539.310	11.87 *	539.350	16.66 #	538.975	4.193 *
6	538.870	0.000	539.590	32.46 #	539.530	27.43 *	539.293	11.18	539.363	19.32	538.934	2.244
7	538.830	0.000	539.510	25.83 #	539.417	14.47	539.350	11.94	539.373	17.82 #	538.900	2.923 #
8	538.810	0.000	539.510	25.83 *	539.320	12.47 *	539.363	12.83	539.370	17.69 *	538.865	0.000
9	538.765	0.000	539.330	13.08 *	539.290	13.15	539.400	17.66 *	539.389	18.70 #	538.840	0.000
10	538.720	0.000	538.813	8.855	539.310	15.22	539.350	14.34 *	539.407	19.67 #	538.820	0.000
11	538.680	0.000	539.250	8.338	539.295	10.99 #	539.565	30.33 #	539.370	18.17	538.840	0.000
12	538.640	0.000	539.250	8.313	539.315	12.16	539.500	25.04 #	539.364	17.16	538.830	0.000
13	538.600	0.000	539.364	11.22	539.310	11.87 *	539.470	27.09	539.370	16.91	538.820	0.000
14	538.615	0.000	539.400	15.98	539.153	5.057	539.473	28.69	539.850	57.78 *	538.810	0.000
15	538.575	0.000	539.280	9.379	539.360	14.98 *	539.650	37.80 #	539.700	41.67 *	538.800	0.000
16	538.580	0.000	539.265	9.308 *	539.454	18.25	539.469	21.07	540.085	91.02	538.800	0.000
17	538.545	0.000	540.460	131.4	539.457	18.75	539.470	22.72 *	539.650	37.08 #	538.800	0.000
18	538.590	0.000	540.235	113.3	539.403	18.58	539.370	15.64 *	539.580	31.28 *	538.790	0.000
19	538.660	0.000	540.710	173.9 *	539.450	20.49	539.347	16.75	539.510	26.14 *	538.770	0.000
20	539.260	0.000	541.375	292.6 #	539.345	14.02 *	539.383	19.53	539.454	20.90	538.785	0.000
21	539.900	0.000	541.890	399.4	539.350	13.66	541.100	240.8 #	539.400	16.58	538.760	0.000
22	539.880	0.000	541.790	381.0	539.255	8.770 #	540.340	114.7	539.365	17.43 *	538.835	0.000
23	539.630	0.000	541.960	414.8 *	539.359	13.32	539.575	31.17 #	539.360	17.27	538.810	0.000
24	539.350	0.000	540.445	130.2	539.339	12.97	539.400	17.66 *	539.348	16.14	538.783	1.639
25	539.465	0.000	540.220	115.9	539.330	13.08 *	539.545	28.66 #	539.330	15.68 #	539.080	6.557 #
26	539.655	0.000	539.910	64.20 #	539.375	15.97 *	539.440	21.63 #	539.180	10.42	539.100	7.094 *
27	539.835	56.06 #	539.710	43.43 *	539.430	19.77 *	539.362	18.15	539.280	13.40 #	539.110	9.165
28	539.810	53.44 #	539.332	14.28	539.430	17.53	539.357	19.06	539.100	7.094 #	539.105	7.233 #
29	539.530	0.000	539.289	10.80	539.373	15.22	539.368	20.24	539.080	6.557 *	538.930	0.000
30	539.540	0.000	539.360	14.98 *	539.435	19.34	540.130	98.73 *	539.060	6.049 #	538.860	0.000
31			539.645	37.34 #	540.115	100.1			539.030	5.339 #		
Ten-Daily Mean												
I Ten-Daily	538.907	0.000	539.688	49.92	539.342	14.72	539.423	19.68	539.399	19.58	538.949	3.289
II Ten-Daily	538.674	0.000	539.859	77.38	539.354	14.52	539.470	24.46	539.593	35.81	538.805	0.000
III Ten-Daily	539.659	10.95	540.323	147.8	539.436	22.71	539.762	61.08	539.230	12.00	538.937	3.169
Monthly												
Min.	538.545	0.000	538.813	8.313	539.153	5.057	539.292	11.18	539.030	5.339	538.760	0.000
Max.	539.900	56.06	541.960	414.8	540.115	100.1	541.100	240.8	540.085	91.02	539.114	9.165
Mean	539.080	3.65	539.968	93.53	539.379	17.49	539.551	35.07	539.402	22.12	538.897	2.153

Annual Runoff in MCM = 484 Annual Runoff in mm = 167

Peak Observed Discharge = 399.4 cumecs on 21/07/2017 Corres. Water Level :541.89 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :539.05 m

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

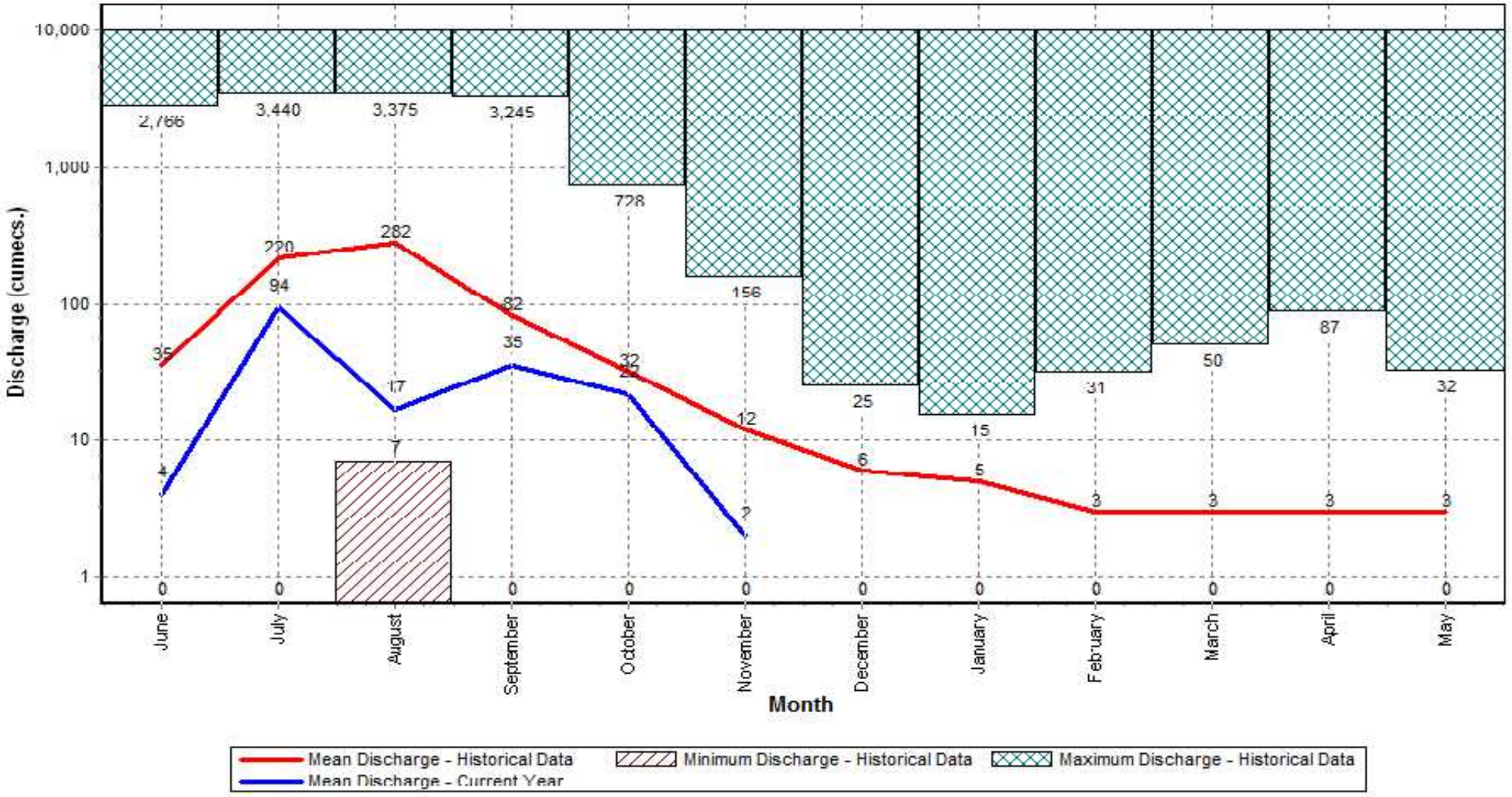
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Data considered : 1972-2018** **Division : Upper Krishna Divn, Pune**

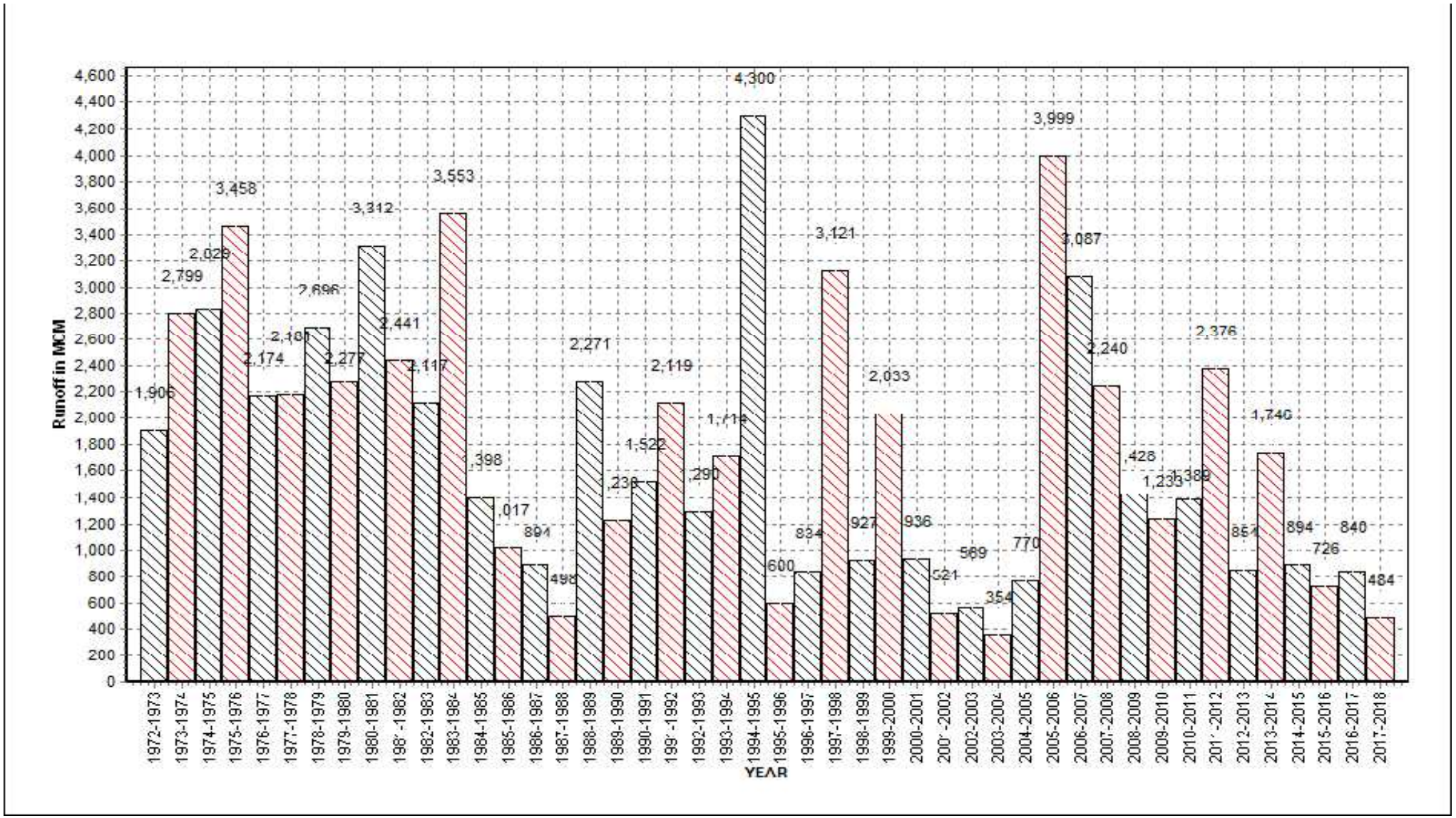
Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Annual Runoff Values for the period: 1972 - 2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

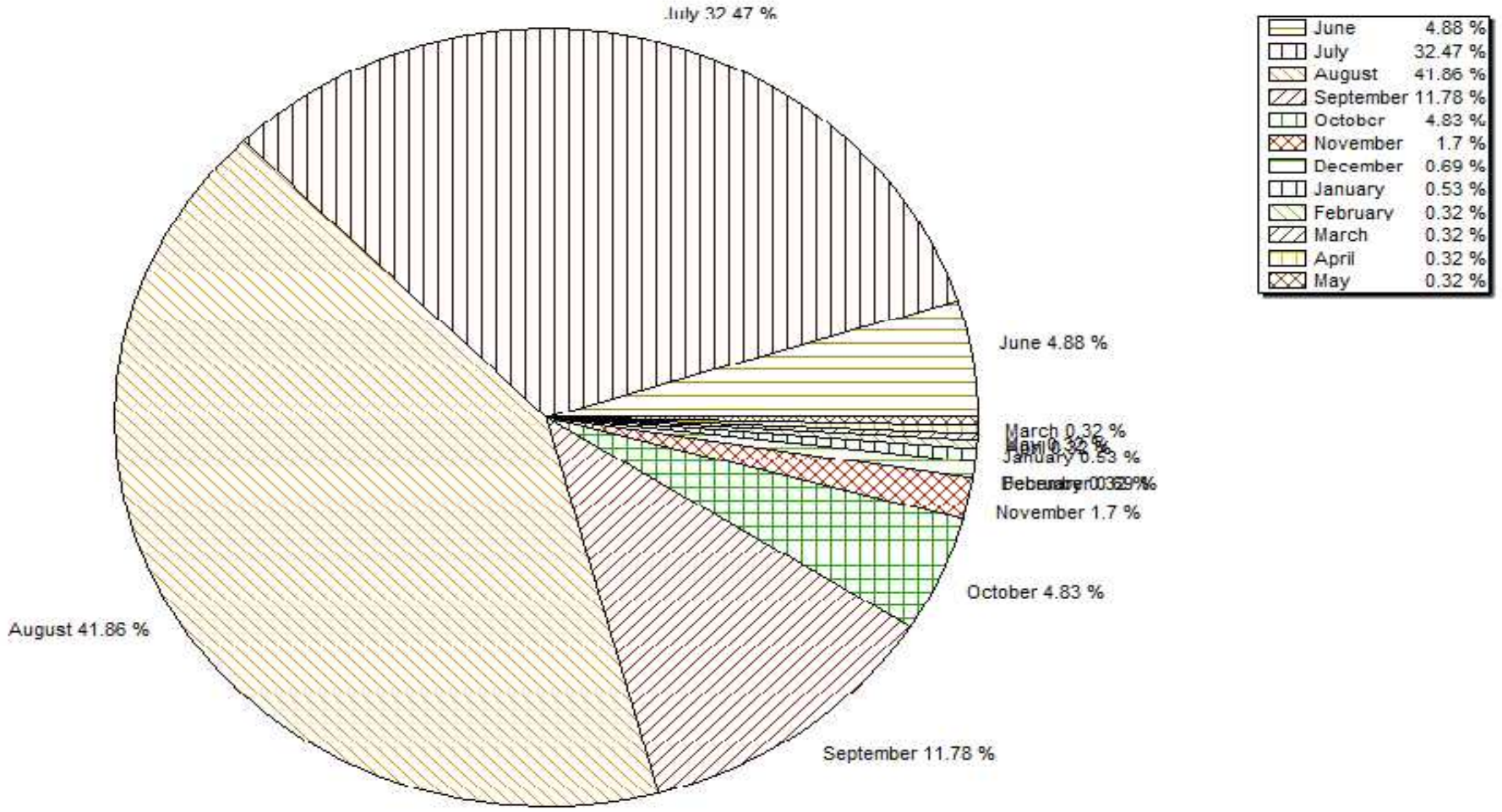


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1972-2017

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

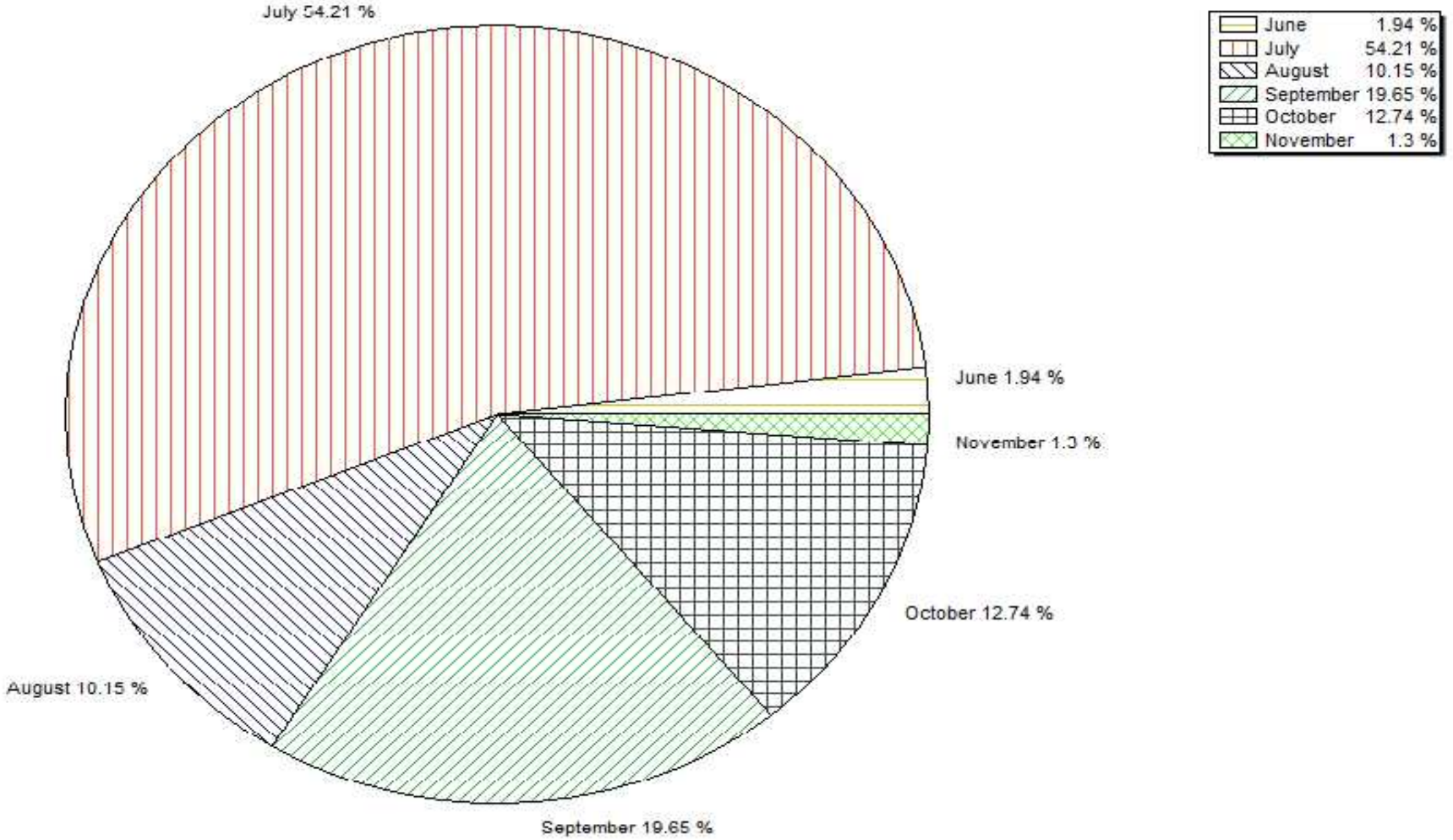
Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Monthly Runoff for the Year : 2017-2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

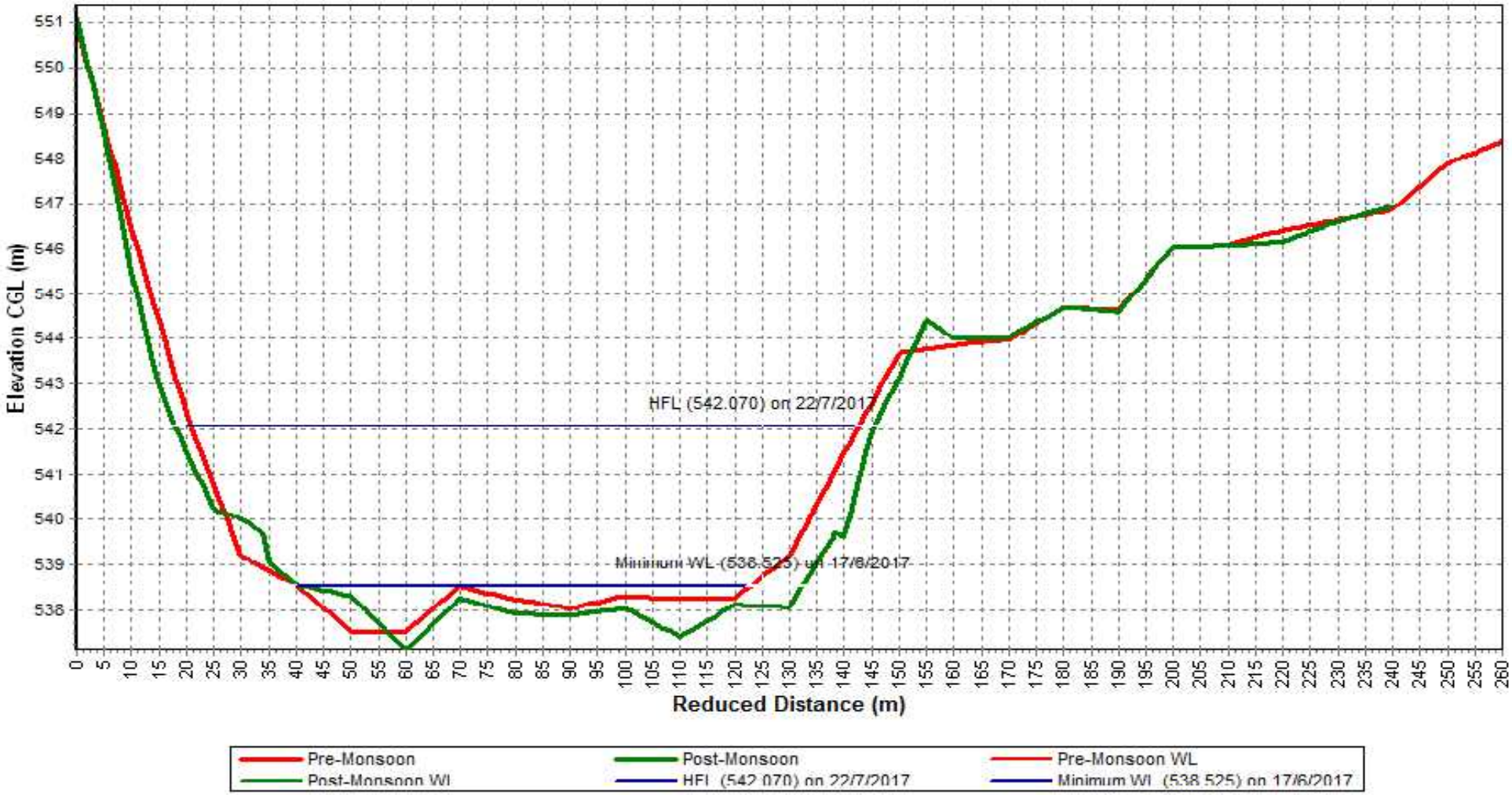
Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**

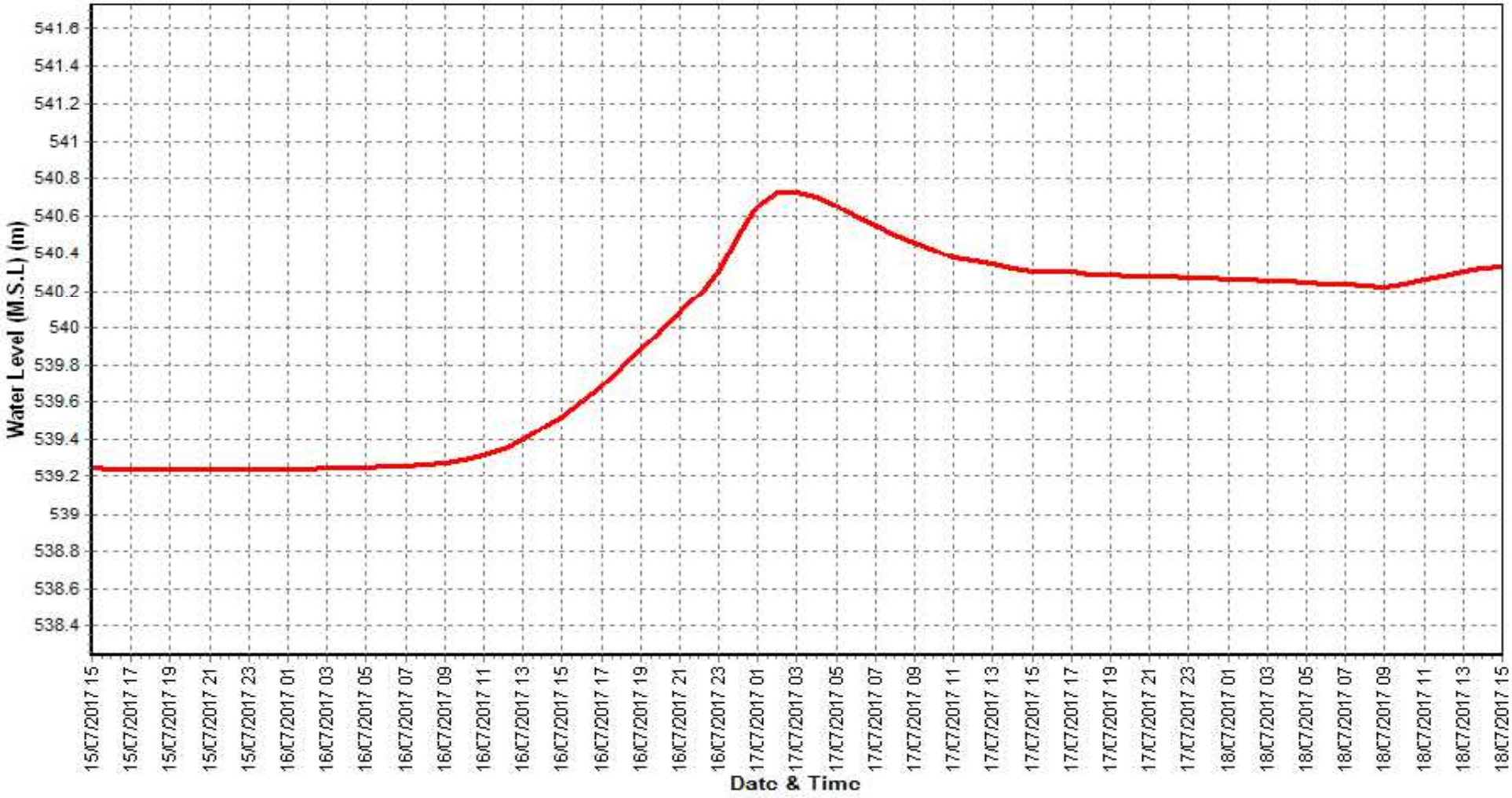


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : Upper Krishna Divn, Pune**

Local River : Ghataprabha **Sub-Division : Middle Krishna SD 1, Bagalkot**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Sadalga (Seasonal)**	**Code**	:	**AKV00D3**
State	:	Karnataka	District		Belgaum
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Dudhganga	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Dudhganga
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 2, Miraj
Drainage Area	:	2322 Sq. Km.	Bank	:	Right
Latitude	:	16°33'44"	Longitude	:	74°31'42"
Zero of Gauge (m)	:	522.976 (m.s.l) 526.16 (m.s.l) 525.16 (m.s.l)	01/01/1964 05/06/1964 26/04/1966	-	04/06/1964 25/04/1966
		Opening Date	Closing Date		
Gauge	:	05/06/1964	HFL During 2017-18	:	535.260m
			Corres. Discharge	:	720.4(Estimated)
Discharge	:	24/06/1969	Date & Time of	:	22/07/2017
			occurance	:	16.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 538.950 dt 29-06-1983
Corresponding Discharge (cumecs) : 2457 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1970-1971	1320	536.850	23/08/1970	0.000	527.230	25/01/1971
1971-1972	1190	535.888	26/06/1971	0.000	526.030	26/01/1972
1972-1973	1230	536.245	09/07/1972	0.000		23/01/1973
1973-1974	1397	536.760	10/07/1973	0.000	527.550	25/01/1974
1974-1975	1304	536.483	07/07/1974	0.000	526.700	25/01/1975
1975-1976	1759	537.550	11/07/1975	0.000	529.515	26/01/1976
1976-1977	1103	536.804	02/08/1976	0.000	527.985	24/01/1977
1977-1978	1129	536.597	09/07/1977	0.000	529.595	25/01/1978
1978-1979	1244	536.317	18/08/1978	0.000	528.125	25/01/1979
1979-1980	1429	537.285	12/08/1979	0.000	529.000	26/01/1980
1980-1981	1103	536.612	09/07/1980	0.000		25/01/1981
1981-1982	1457	536.833	09/07/1981	0.000	527.750	25/01/1982
1982-1983	1368	536.510	31/07/1982	0.000	526.660	25/01/1983
1983-1984	2457	538.950	29/06/1983	0.000		26/01/1984
1984-1985	1514	536.026	19/07/1984	0.000		25/01/1985
1985-1986	1421	536.472	03/08/1985	0.000		25/01/1986
1986-1987	1048	536.425	11/08/1986	0.000		25/01/1987
1987-1988	872.6	535.430	09/07/1987	0.000		26/01/1988

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**
1988-1989	1810	537.300	20/07/1988	0.000		25/01/1989
1989-1990	2100	538.055	26/07/1989	0.000	527.635	25/01/1990
1990-1991	1452	537.058	19/08/1990	0.000	529.425	09/03/1991
1991-1992	1379	537.707	30/07/1991	0.000	529.925	26/01/1992
1992-1993	773.1	535.365	20/08/1992	0.000	531.210	25/01/1993
1993-1994	1058	536.630	13/07/1993	0.000	531.500	25/01/1994
1994-1995	1900	538.150	18/07/1994	0.000	531.450	25/01/1995
1995-1996	710.9	534.900	04/09/1995	0.000	528.760	26/01/1996
1996-1997	1180	536.480	03/10/1996	0.000	530.470	25/01/1997
1997-1998	1350	537.640	09/08/1997	0.000	530.380	25/01/1998
1998-1999	673.9	534.980	10/07/1998	0.000	529.920	25/01/1999
1999-2000	1135	536.960	23/07/1999	0.000	529.010	26/01/2000
2000-2001	853.5	535.565	15/07/2000	0.000	530.980	25/01/2001
2001-2002	594.6	534.400	11/07/2001	0.000	528.450	25/01/2002
2002-2003	827.9	535.750	13/08/2002	0.000	529.940	25/01/2003
2003-2004	537.7	534.560	23/06/2003	0.000	530.490	26/01/2004
2004-2005	1287	536.450	07/08/2004	0.000	530.415	25/01/2005
2005-2006	2200	538.890	06/08/2005	0.000	530.285	25/01/2006
2006-2007	1978	538.410	13/08/2006	0.000	528.375	01/11/2006
2007-2008	891.2	536.685	02/07/2007	0.000	530.190	13/11/2007
2008-2009	1013	537.840	14/08/2008	0.000	528.260	07/11/2008
2009-2010	762.6	535.810	18/07/2009	0.000	529.795	25/11/2009
2010-2011	850.9	536.455	30/07/2010	0.000	528.750	26/11/2010
2011-2012	832.5	536.110	06/09/2011	0.000	527.680	04/11/2011
2012-2013	559.5	534.028	06/09/2012	0.000	528.250	12/11/2012
2013-2014	847.3	536.270	29/07/2013	0.000	528.385	02/11/2013
2014-2015	710.5	535.040	26/07/2014	0.000	527.580	12/11/2014
2015-2016	555.4	534.040	26/06/2015	0.000	528.600	25/11/2015
2016-2017	1761	536.920	14/07/2016	0.000	527.170	21/04/2017

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

Annual Runoff of Dudhganga at Sadalgi(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1969-1970**	2697	0	2697
2	**1970-1971**	2854	0	2854
3	**1971-1972**	2293	0	2293
4	**1972-1973**	1549	8	1556
5	**1973-1974**	2913	0	2913
6	**1974-1975**	2586	0	2586
7	**1975-1976**	3648	0	3648
8	**1976-1977**	2493	0	2493
9	**1977-1978**	2557	0	2557
10	**1978-1979**	3354	0	3354
11	**1979-1980**	2887	0	2887
12	**1980-1981**	3475	0	3475
13	**1981-1982**	3220	0	3220
14	**1982-1983**	2719	0	2719
15	**1983-1984**	3900	0	3900
16	**1984-1985**	2710	0	2710
17	**1985-1986**	2592	0	2592
18	**1986-1987**	1987	0	1987
19	**1987-1988**	1416	0	1416
20	**1988-1989**	3156	0	3156
21	**1989-1990**	2250	0	2250
22	**1990-1991**	3089	0	3089
23	**1991-1992**	3258	0	3258
24	**1992-1993**	2147	0	2147
25	**1993-1994**	2948	0	2948
26	**1994-1995**	3954	0	3954
27	**1995-1996**	1648	0	1648
28	**1996-1997**	2259	0	2259
29	**1997-1998**	3438	0	3438
30	**1998-1999**	1868	0	1868
31	**1999-2000**	2449	0	2449
32	**2000-2001**	1380	0	1380
33	**2001-2002**	964	2	966
34	**2002-2003**	1573	0	1573
35	**2003-2004**	907	0	907
36	**2004-2005**	1860	0	1860
37	**2005-2006**	4918	0	4918
38	**2006-2007**	4924	Seasonal	4924
39	**2007-2008**	2673		2673
40	**2008-2009**	2216		2216
41	**2009-2010**	1736		1736
42	**2010-2011**	2167		2167
43	**2011-2012**	2864		2864
44	**2012-2013**	1727		1727
45	**2013-2014**	2504		2504
46	**2014-2015**	1956		1956
47	**2015-2016**	783		783
48	**2016-2017**	2353		2353
49	**2017-2018**	1900		1900
Average		2525	0	2525

Stage-Discharge Data for the period 2017 - 2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**

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	528.935	0.000	531.215	266.9	529.645	150.2	531.315	261.0	530.320	179.2 *	528.350	14.51
2	528.610	0.000	531.340	276.4 *	529.500	108.3	530.170	165.8 *	530.310	178.3 *	528.270	11.87
3	527.960	0.000	530.490	194.6	529.390	99.50	529.710	122.0 *	530.380	195.3	528.005	0.000
4	528.420	0.000	530.585	206.6	529.380	93.12	529.575	112.3	530.770	225.9	527.890	0.000
5	527.835	0.000	530.350	189.9	529.645	142.0	529.365	89.23	529.950	155.6	527.710	0.000
6	527.600	0.000	530.105	177.0	529.560	105.6 *	529.250	73.34	529.703	125.5	527.470	0.000
7	527.310	0.000	529.745	132.2 #	529.410	94.83	529.170	66.04	529.623	113.8	527.265	0.000
8	527.400	0.000	529.495	109.9	529.345	93.76	529.600	113.3	529.490	98.21 *	527.170	0.000
9	527.150	0.000	529.350	98.81 *	529.290	88.45	529.365	88.28	529.980	156.2	527.070	0.000
10	526.885	0.000	529.235	86.72	529.240	72.89	529.270	76.59 *	529.640	115.2	526.960	0.000
11	526.680	0.000	529.150	66.59	529.180	66.79	529.265	71.50	529.570	111.0	526.920	0.000
12	527.360	0.000	529.140	81.60 #	529.120	61.07	529.310	86.19	529.590	113.1	526.840	0.000
13	527.450	0.000	529.135	81.20 #	529.130	64.02 *	529.325	87.98	529.575	107.2	526.960	0.000
14	527.890	0.000	529.150	82.41 #	529.070	55.80	530.845	249.1	532.248	361.7	527.710	0.000
15	527.780	0.000	530.310	181.8 #	529.000	53.22 *	531.035	253.1	530.750	218.9 *	527.780	0.000
16	527.860	0.000	530.920	237.2 *	529.045	51.30	529.710	131.4	532.440	380.2	527.510	0.000
17	528.290	0.000	531.055	235.2	529.005	44.36	529.800	132.4 *	530.550	189.8	527.400	0.000
18	528.495	0.000	530.120	175.6	528.915	43.81	529.530	104.6	530.070	173.0	527.440	0.000
19	528.360	0.000	532.145	351.9	528.720	33.46	530.140	187.7	529.510	100.3 *	527.590	0.000
20	528.295	0.000	533.835	549.4	528.550	22.59 *	532.695	408.2	529.370	83.39	527.580	0.000
21	528.270	19.47	534.910	681.6	529.005	46.99	533.990	566.2 #	529.265	70.38	527.960	0.000
22	528.615	40.70 #	535.235	716.4	529.078	55.69	534.415	619.7	529.200	70.19 *	528.310	0.000
23	528.620	41.07 #	535.180	710.5 *	529.105	52.70	533.235	484.4	529.140	53.59	528.510	0.000
24	528.548	30.13	534.550	639.8	529.070	52.69	531.540	296.3 *	529.100	52.02	528.420	0.000
25	528.830	57.02 *	533.350	458.5	529.100	61.46 *	530.725	206.1	529.030	35.12	528.410	0.000
26	529.230	88.93 *	532.020	347.5	529.440	100.6	530.960	241.0	529.000	35.08	528.280	0.000
27	529.595	117.3	530.690	202.1	529.550	104.5 *	530.275	184.5	528.960	33.09	528.140	0.000
28	529.933	156.5	530.000	169.0	529.510	108.2	529.785	134.1	528.920	31.88	528.140	0.000
29	529.980	152.6 #	530.200	181.4	529.890	154.5	531.220	260.5	528.850	41.81 *	527.970	0.000
30	530.740	226.9	530.400	186.5 *	531.060	254.1	531.090	251.6 *	528.770	26.04	527.810	0.000
31			529.880	151.5	531.855	300.1			528.555	20.71		
Ten-Daily Mean												
I Ten-Daily	527.810	0.000	530.191	173.9	529.441	104.9	529.679	116.8	530.016	154.3	527.616	2.638
II Ten-Daily	527.846	0.000	530.496	204.3	528.973	49.64	530.165	171.2	530.367	183.9	527.373	0.000
III Ten-Daily	529.236	93.05	532.401	404.1	529.697	117.4	531.723	324.4	528.981	42.72	528.195	0.000
Monthly												
Min.	526.680	0.000	529.135	66.59	528.550	22.59	529.170	66.04	528.555	20.71	526.840	0.000
Max.	530.740	226.9	535.235	716.4	531.855	300.1	534.415	619.7	532.440	380.2	528.510	14.51
Mean	528.297	31.02	531.074	265.4	529.381	91.5	530.523	204.2	529.762	124.3	527.728	0.879

Annual Runoff in MCM = 1942 Annual Runoff in mm = 818

Peak Observed Discharge = 716.4 cumecs on 22/07/2017 Corres. Water Level :535.235 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :528.935 m

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

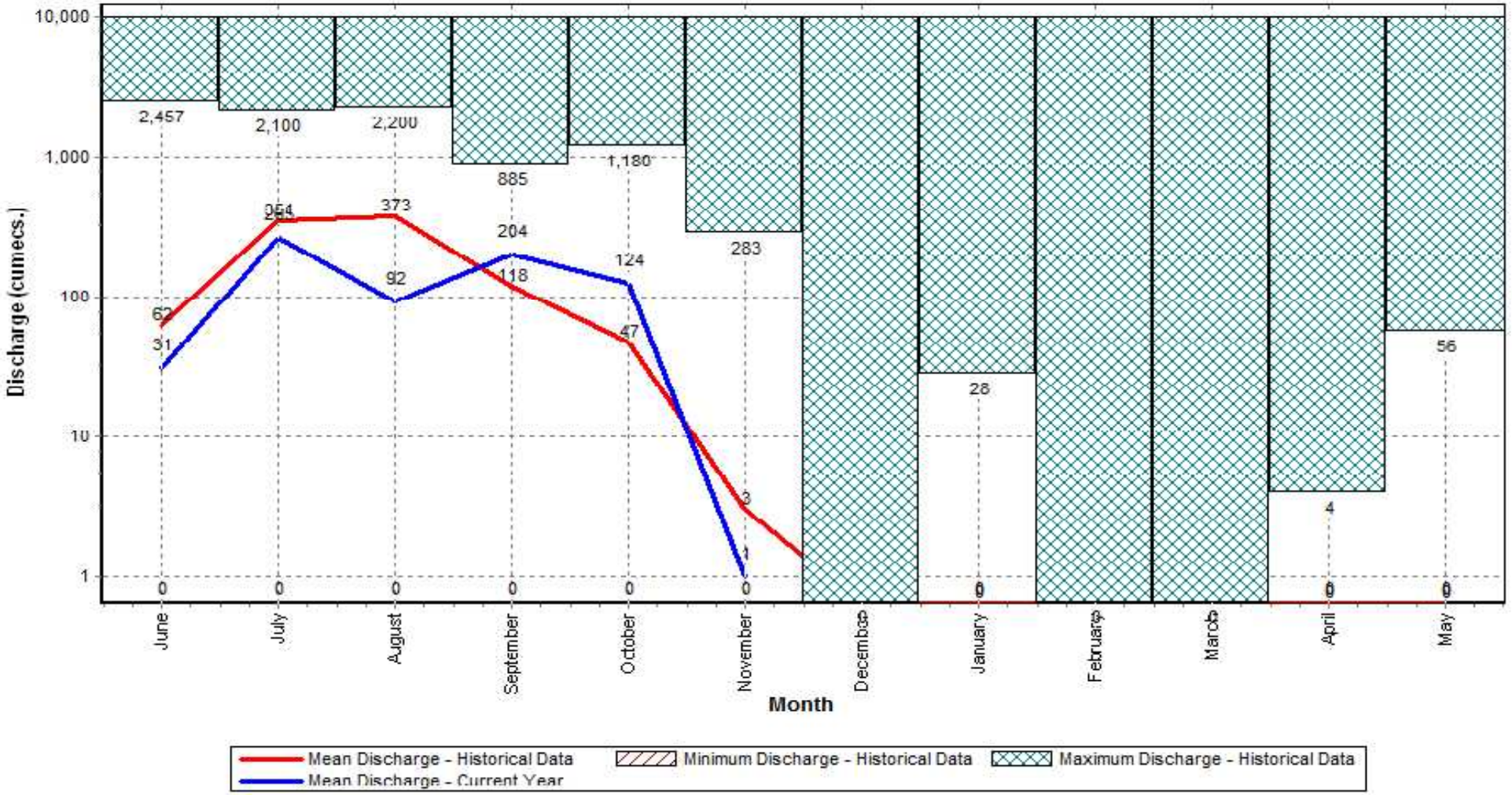
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Data considered : 1970-2018** **Division : Upper Krishna Divn, Pune**

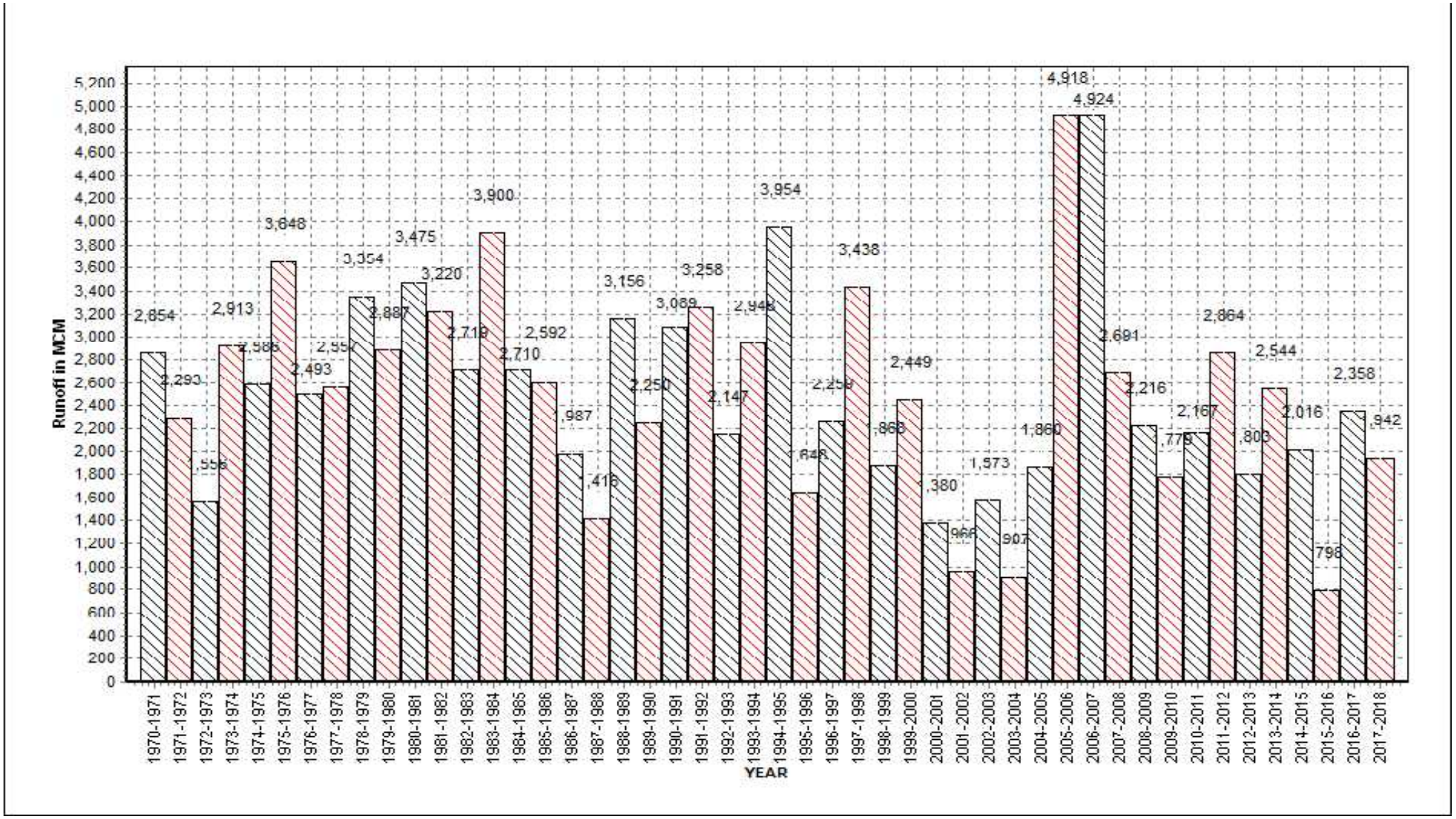
Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**



Annual Runoff Values for the period: 1970 - 2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**

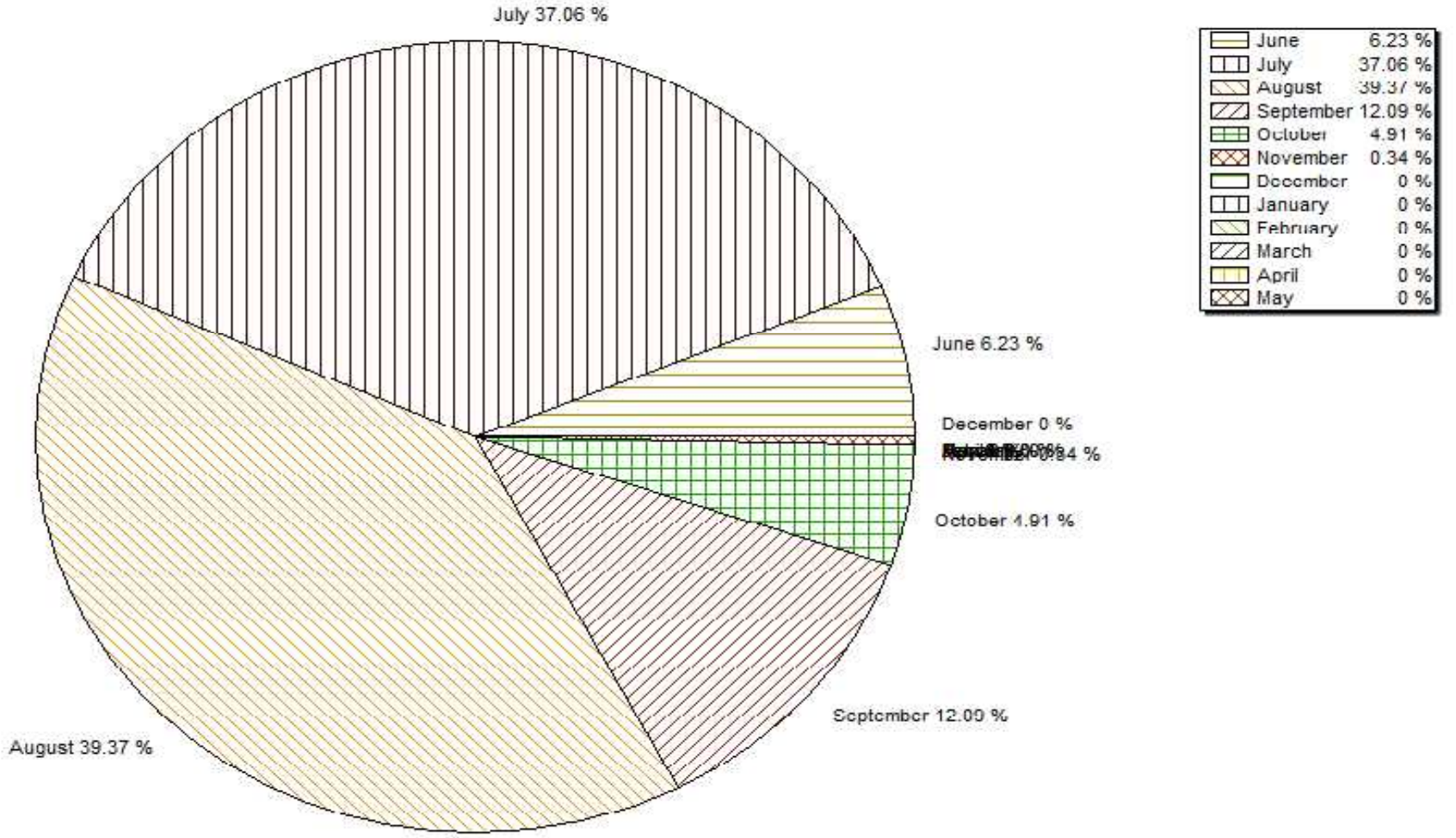


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1970-2017

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

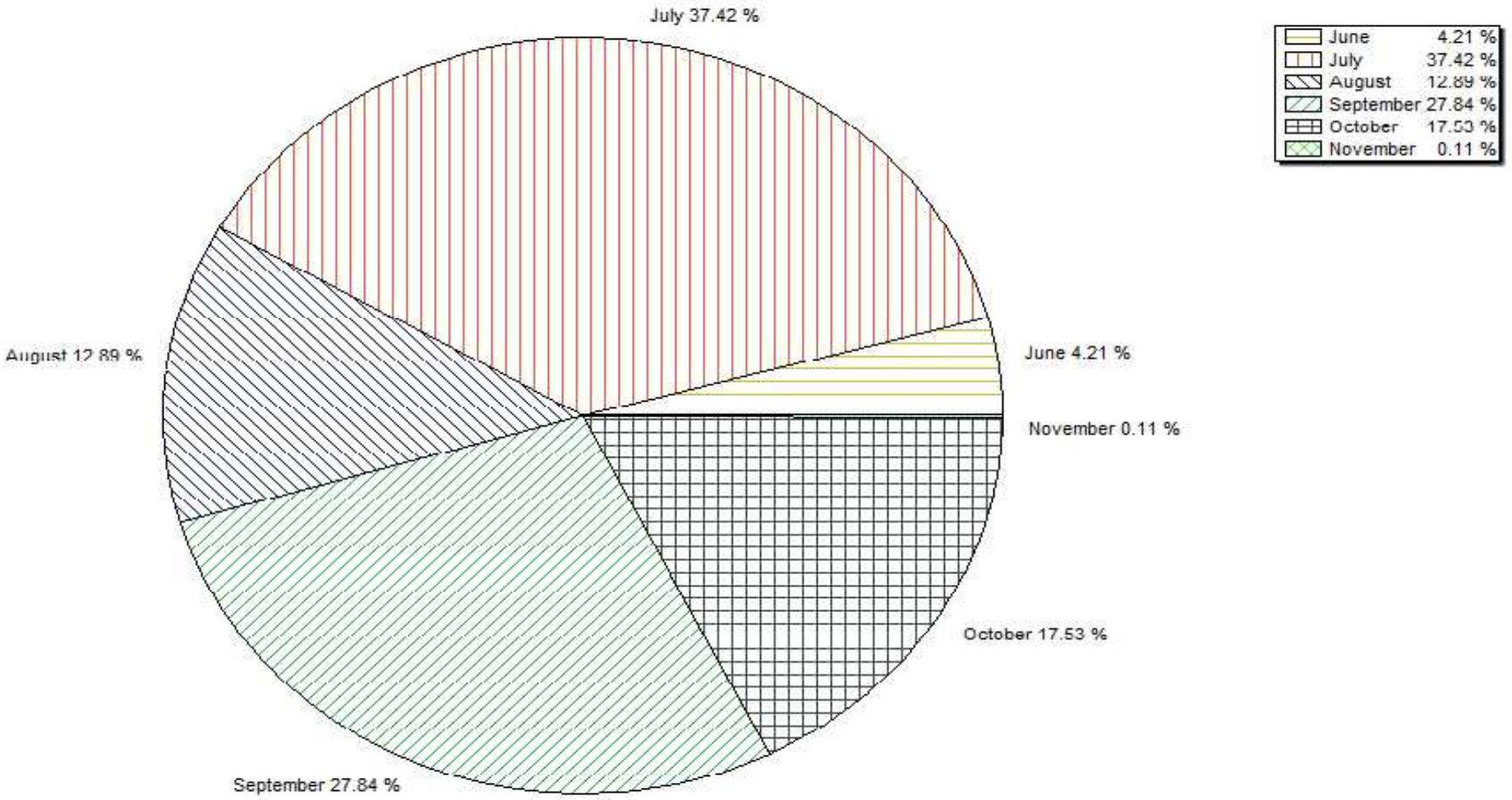
Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**



Monthly Runoff for the Year : 2017-2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

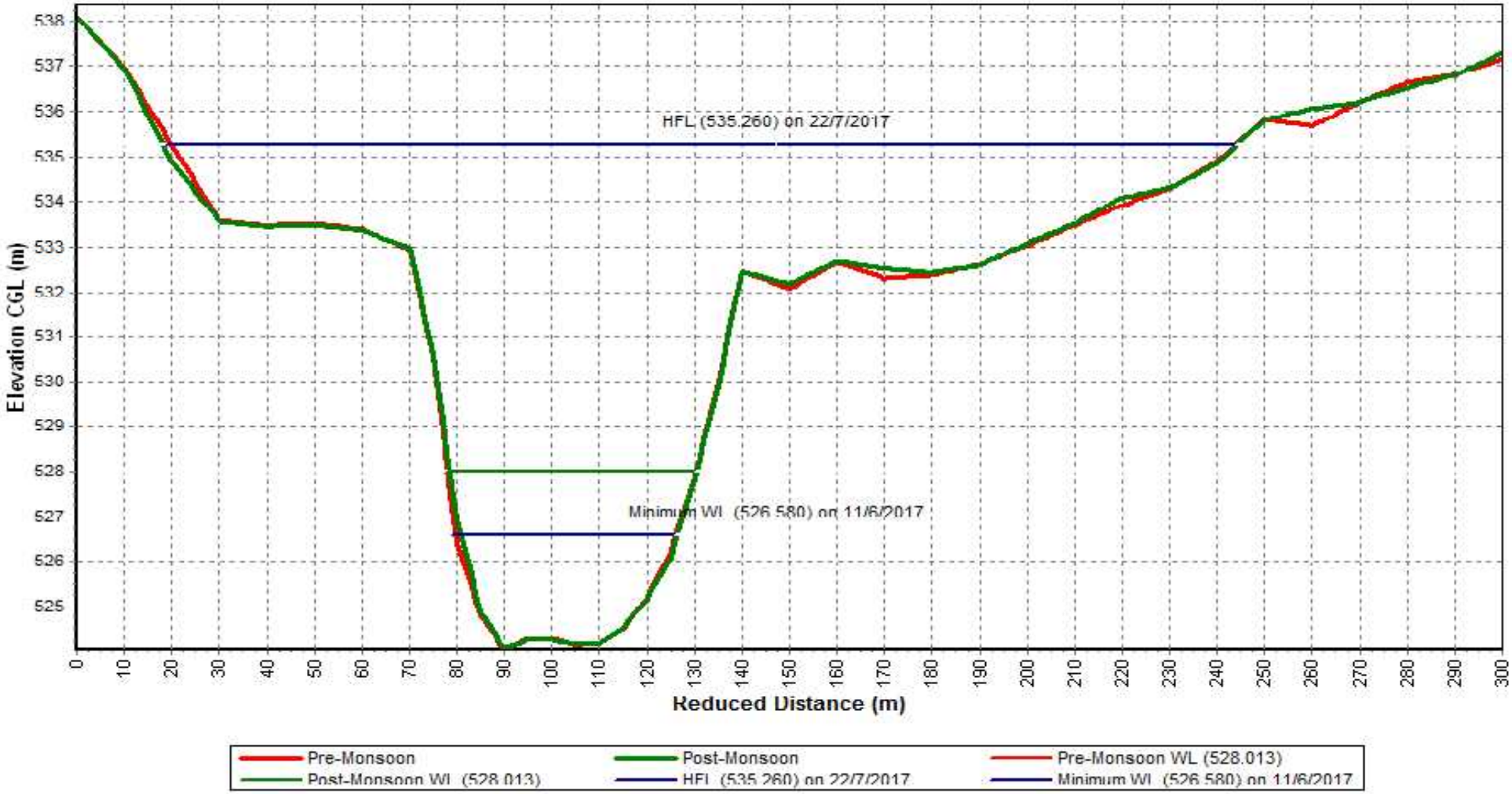
Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

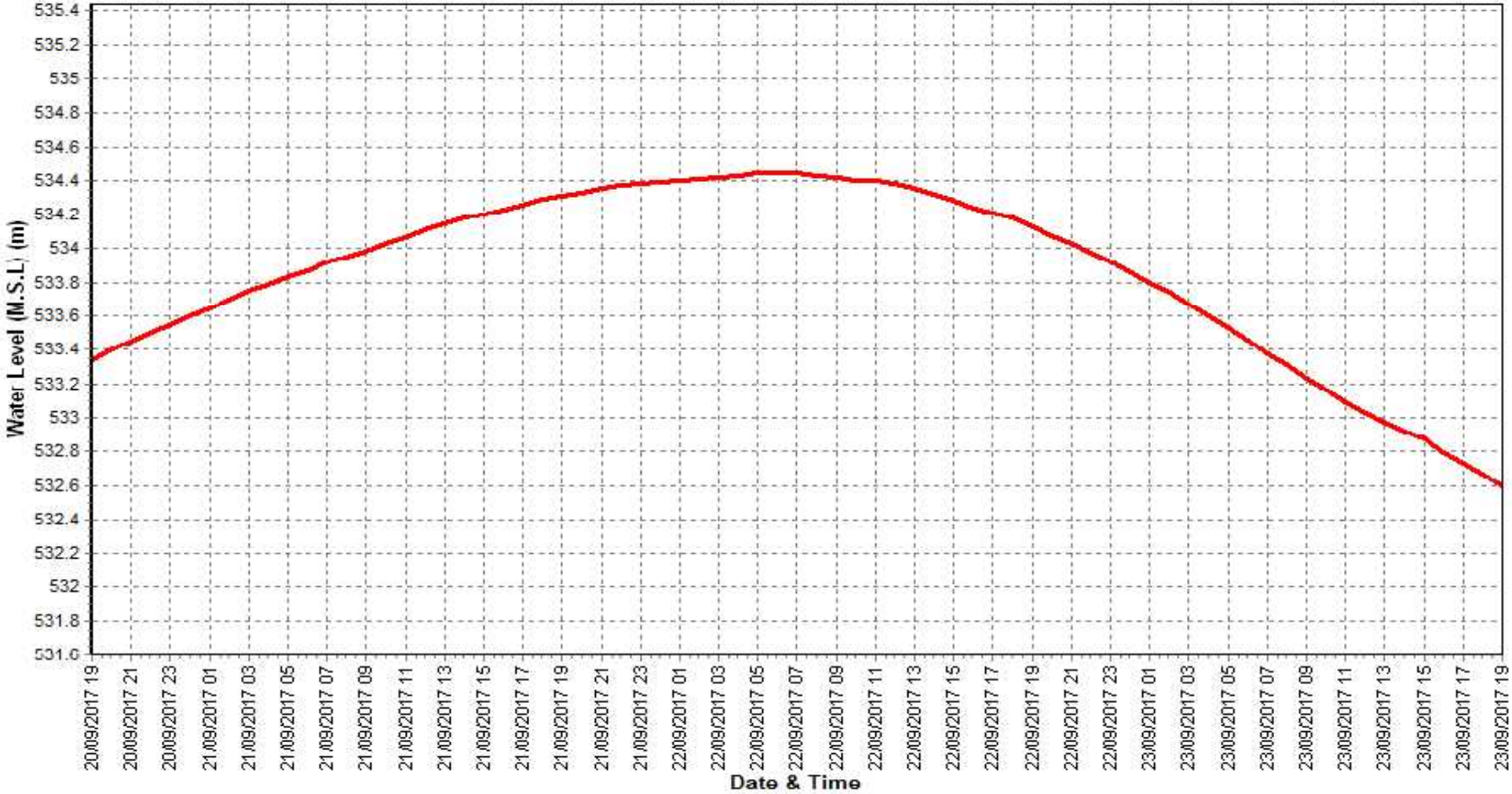
Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**



Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Sadalga (Seasonal) (AKV00D3) **Division : Upper Krishna Divn, Pune**

Local River : Dudhganga **Sub-Division : Upper Krishna SD 2, Miraj**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Terwad (Seasonal)**	**Code**	**:**	**AKW00A7**
State	:	Maharashtra	District		Kolhapur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Panchganga	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Panchganga
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 2, Miraj
Drainage Area	:	2425 Sq. Km.	Bank	:	Right
Latitude	:	16°40'31"	Longitude	:	74°34'30"
Zero of Gauge (m)	:	520 (m.s.l)	01/01/1979		
		Opening Date	Closing Date		
Gauge	:	01/03/1979	HFL During 2017-18	:	534.850m
			Corres. Discharge	:	1478(Estimated)
Discharge	:	22/08/1979	Date & Time of occurance	:	23/07/2017 08.00 hrs.
Sediment	:				
Water Quality	:				

HFL Recorded so far in m : 540.390 dt 06-08-2005
Corresponding Discharge (cumecs) : 3340 *

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	1918	536.925	07/08/1980	0.000	524.800	25/01/1981
1981-1982	1790	536.500	11/07/1981	0.000	524.800	25/01/1982
1982-1983	1431	535.135	01/08/1982	0.000	523.875	12/01/1983
1983-1984	1545	536.875	18/08/1983	0.000	524.525	25/01/1984
1984-1985	1795	535.995	21/07/1984	0.000	524.725	15/11/1984
1985-1986	1570	535.910	04/08/1985	0.000	524.310	25/01/1986
1986-1987	2050	536.450	13/08/1986	0.000	523.410	25/01/1987
1987-1988	1392	534.725	10/07/1987	0.000	522.510	26/01/1988
1988-1989	2080	537.370	22/07/1988	0.000	523.725	04/02/1989
1989-1990	2205	538.545	27/07/1989	0.000	522.145	25/01/1990
1990-1991	2250	537.760	20/08/1990	0.000	525.680	25/01/1991
1991-1992	2553	538.230	31/07/1991	0.000	525.810	26/01/1992
1992-1993	1306	535.136	16/08/1992	0.000	523.810	25/01/1993
1993-1994	1447	535.748	14/07/1993	0.000	525.120	25/01/1994
1994-1995	2680	538.600	17/07/1994	0.000	526.020	25/01/1995
1995-1996	1170	534.740	22/07/1995	0.000	523.310	26/01/1996
1996-1997	1900	536.180	30/07/1996	0.000	523.440	25/01/1997
1997-1998	3590	538.395	10/08/1997	0.000	524.880	25/01/1998
1998-1999	1051	534.330	11/07/1998	0.000	524.340	25/01/1999

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	1540	536.700	24/07/1999	0.000	524.290	26/01/2000
2000-2001	890.0	534.780	16/07/2000	0.000	524.100	25/01/2001
2001-2002	1150	534.360	11/07/2001	0.000	524.600	25/01/2002
2002-2003	1443	534.850	14/08/2002	0.000	524.400	25/01/2003
2003-2004	725.3	532.640	23/06/2003	0.000	524.600	26/01/2004
2004-2005	1832	536.500	08/08/2004	0.000	524.600	25/01/2005
2005-2006	3340	540.390	06/08/2005	0.000	524.080	25/01/2006
2006-2007	2797	539.215	13/08/2006	0.000	525.220	30/10/2006
2007-2008	1821	537.470	03/07/2007	0.000	525.050	12/11/2007
2008-2009	1952	537.390	15/08/2008	0.000	524.550	31/10/2008
2009-2010	1345	535.100	19/07/2009	0.000	526.420	22/11/2009
2010-2011	1464	535.860	30/07/2010	0.000	525.440	01/06/2010
2011-2012	1721	537.060	06/09/2011	0.000	524.420	20/11/2011
2012-2013	1011	533.420	02/08/2012	0.000	524.350	20/11/2012
2013-2014	1854	536.920	29/07/2013	0.000	525.060	03/11/2013
2014-2015	1534	535.020	25/07/2014	0.000	524.500	13/11/2014
2015-2016	1286	533.560	26/06/2015	0.000	525.880	10/06/2015
2016-2017	2267	536.950	15/07/2016	0.000		06/06/2016

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

Annual Runoff of Panchganga at Terwad(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1979-1980**	529	0	529
2	**1980-1981**	5290	0	5290
3	**1981-1982**	4517	0	4517
4	**1982-1983**	3762	13	3774
5	**1983-1984**	4812	4	4817
6	**1984-1985**	4100	7	4108
7	**1985-1986**	3679	0	3679
8	**1986-1987**	3412	0	3412
9	**1987-1988**	2818	0	2818
10	**1988-1989**	5135	0	5135
11	**1989-1990**	3971	0	3971
12	**1990-1991**	5413	0	5413
13	**1991-1992**	5771	0	5771
14	**1992-1993**	3207	0	3207
15	**1993-1994**	4146	0	4146
16	**1994-1995**	7200	0	7200
17	**1995-1996**	2263	0	2263
18	**1996-1997**	3144	0	3144
19	**1997-1998**	5883	0	5883
20	**1998-1999**	2916	0	2916
21	**1999-2000**	3588	0	3588
22	**2000-2001**	2666	0	2666
23	**2001-2002**	3179	0	3179
24	**2002-2003**	3155	0	3155
25	**2003-2004**	2535	0	2535
26	**2004-2005**	4302	0	4302
27	**2005-2006**	8176	0	8176
28	**2006-2007**	8038	Seasonal	8038
29	**2007-2008**	5496		5496
30	**2008-2009**	4067		4067
31	**2009-2010**	3163		3163
32	**2010-2011**	3435		3435
33	**2011-2012**	4797		4797
34	**2012-2013**	3931		3931
35	**2013-2014**	5079		5079
36	**2014-2015**	4264		4264
37	**2015-2016**	1748		1748
38	**2016-2017**	4984		4984
39	**2017-2018**	4113		4113

Stage-Discharge Data for the period 2017 - 2018

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**

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	524.150	0.000	531.810	756.5	530.000	409.9	532.260	799.4	528.750	281.1 *	525.410	23.04
2	524.240	0.000	532.290	781.3 *	529.380	334.8	531.180	573.1 *	528.360	243.4 *	525.210	17.42
3	525.300	0.000	531.830	710.3	528.750	277.2	530.550	475.4 *	528.190	245.6	524.940	12.35
4	525.280	0.000	531.150	608.5	528.490	241.7	528.610	260.4	528.620	260.4	524.600	3.733 *
5	525.090	0.000	530.920	524.8	528.750	270.1	527.790	187.6	527.710	190.9	524.640	4.601 *
6	525.100	0.000	530.610	493.4	529.030	309.4 *	527.190	142.7	527.100	130.7	524.610	0.000
7	525.030	0.000	529.980	432.0	528.915	310.4	526.865	122.2	527.740	180.1	525.540	0.000
8	524.860	0.000	529.240	338.9	528.760	290.1	526.900	129.8	527.610	176.5 *	525.390	0.000
9	524.850	0.000	528.570	263.4 *	528.390	241.2	527.180	141.8	528.110	199.5	525.220	0.000
10	524.640	0.000	527.870	196.7	528.000	253.5	527.080	134.1 *	527.300	142.5	524.920	0.000
11	524.470	0.000	527.370	161.7	527.875	201.9	526.750	116.2	527.330	157.3	524.800	0.000
12	524.540	0.000	527.300	164.0	527.570	169.5	526.885	127.7	527.520	172.5	524.660	0.000
13	525.230	0.000	527.410	161.3	527.510	168.1 *	526.870	127.5	527.190	139.5	524.540	0.000
14	525.940	0.000	527.600	184.7	527.210	142.0	528.720	282.6	528.445	245.8	525.550	0.000
15	525.930	0.000	529.700	411.4	526.810	114.1 *	529.350	335.4	528.620	268.3 *	526.070	0.000
16	526.010	0.000	530.810	514.0 *	526.900	116.8	529.430	356.4	529.290	262.0	526.060	0.000
17	525.780	0.000	531.460	635.6	526.720	106.9	528.970	303.3 *	528.600	232.2	526.020	0.000
18	525.800	0.000	531.130	576.6	526.820	115.1	528.030	199.5	527.390	145.4	525.950	0.000
19	525.490	0.000	532.390	745.6	526.910	121.5	528.510	278.3	526.850	117.0 *	525.800	0.000
20	525.290	0.000	533.455	1260	526.830	115.5 *	532.070	771.5	526.450	86.36	525.590	0.000
21	525.050	0.000	534.120	1413	526.710	106.8	533.250	1169	526.260	80.09	525.400	0.000
22	525.140	0.000	534.615	1542	526.780	108.2	533.490	1241	526.150	70.47 *	525.210	0.000
23	525.200	0.000	534.850	1478 *	527.000	121.0	532.390	732.3	526.060	62.67	525.000	0.000
24	525.210	0.000	534.790	1458 #	526.880	124.5	530.270	436.3 *	526.010	62.67	525.110	0.000
25	525.140	0.000	534.520	1508	527.340	154.3 *	530.000	411.7	525.885	56.33	525.510	0.000
26	527.950	205.8 *	533.940	1331	528.345	253.1	529.490	403.9	525.660	46.94	525.560	0.000
27	529.200	323.4	532.600	782.7	529.600	370.0 *	528.670	268.8	525.635	47.68	525.760	0.000
28	529.830	390.2	531.385	631.3	529.920	396.7	528.350	247.2	525.620	43.82	525.990	0.000
29	530.220	447.0	531.050	541.5	530.260	448.1	529.290	330.4	525.430	32.22 *	525.990	0.000
30	530.960	547.5	531.440	617.5 *	531.670	656.3	529.730	384.3 *	525.520	37.07	525.800	0.000
31			530.920	534.1	532.610	875.8			525.370	36.45		
Ten-Daily Mean												
I Ten-Daily	524.854	0.000	530.427	510.6	528.847	293.8	528.561	296.6	527.949	205.1	525.048	6.114
II Ten-Daily	525.448	0.000	529.862	481.5	527.116	137.2	528.558	289.8	527.769	182.6	525.504	0.000
III Ten-Daily	527.390	191.4	533.112	1076	528.829	328.6	530.493	562.5	525.782	52.40	525.533	0.000
Monthly												
Min.	524.150	0.000	527.300	161.3	526.710	106.8	526.750	116.2	525.370	32.22	524.540	0.000
Max.	530.960	547.5	534.850	1542	532.610	875.8	533.490	1241	529.290	281.1	526.070	23.04
Mean	525.897	63.79	531.198	701.9	528.282	255.6	529.204	383	527.122	143.7	525.362	2.038

Annual Runoff in MCM = 4201 Annual Runoff in mm = 1696

Peak Observed Discharge = 1542 cumecs on 22/07/2017 Corres. Water Level :534.615 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :524.15 m

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

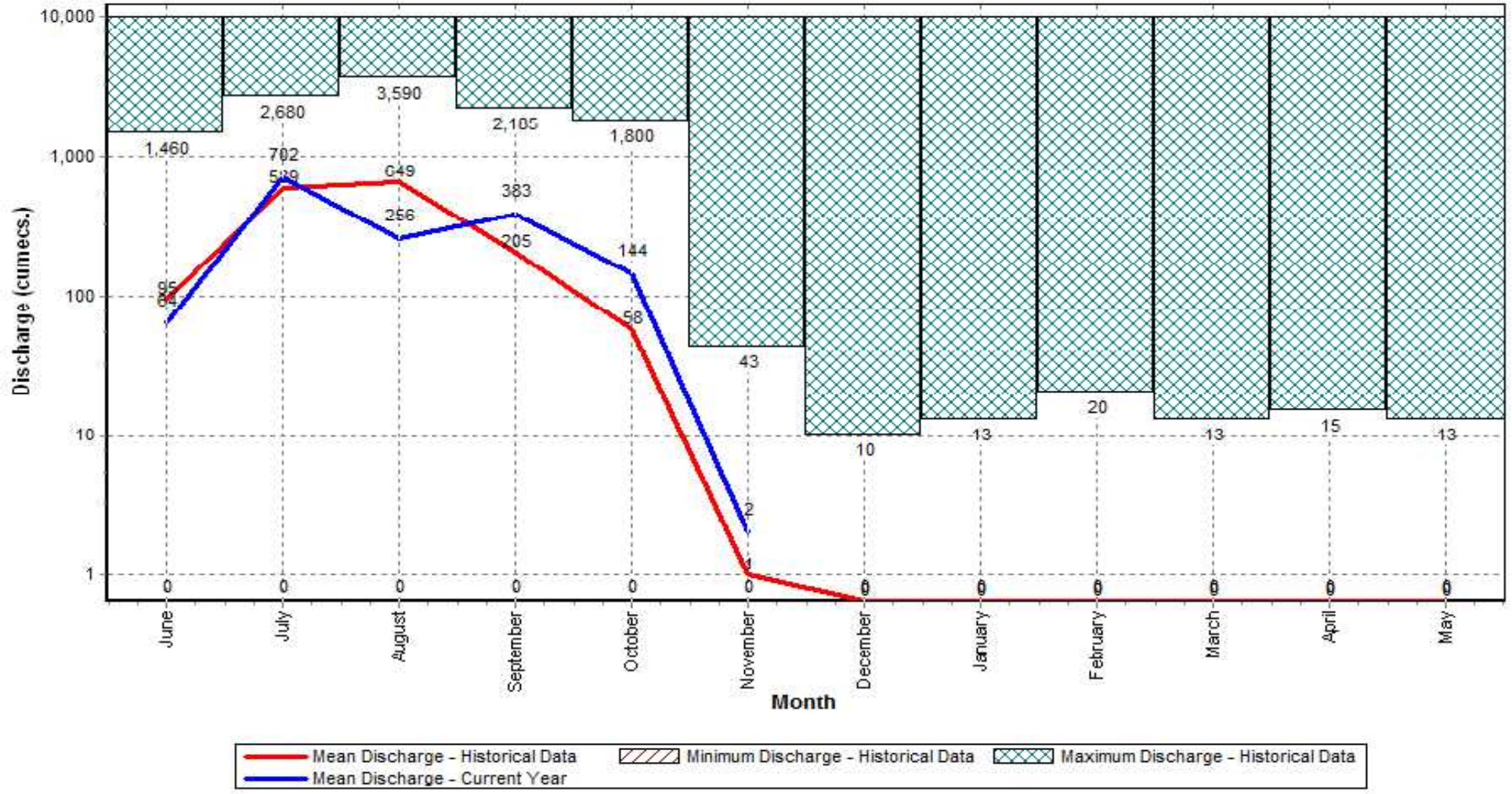
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Terwad (Seasonal) (AKW00A7) **Data considered : 1980-2018** **Division : Upper Krishna Divn, Pune**

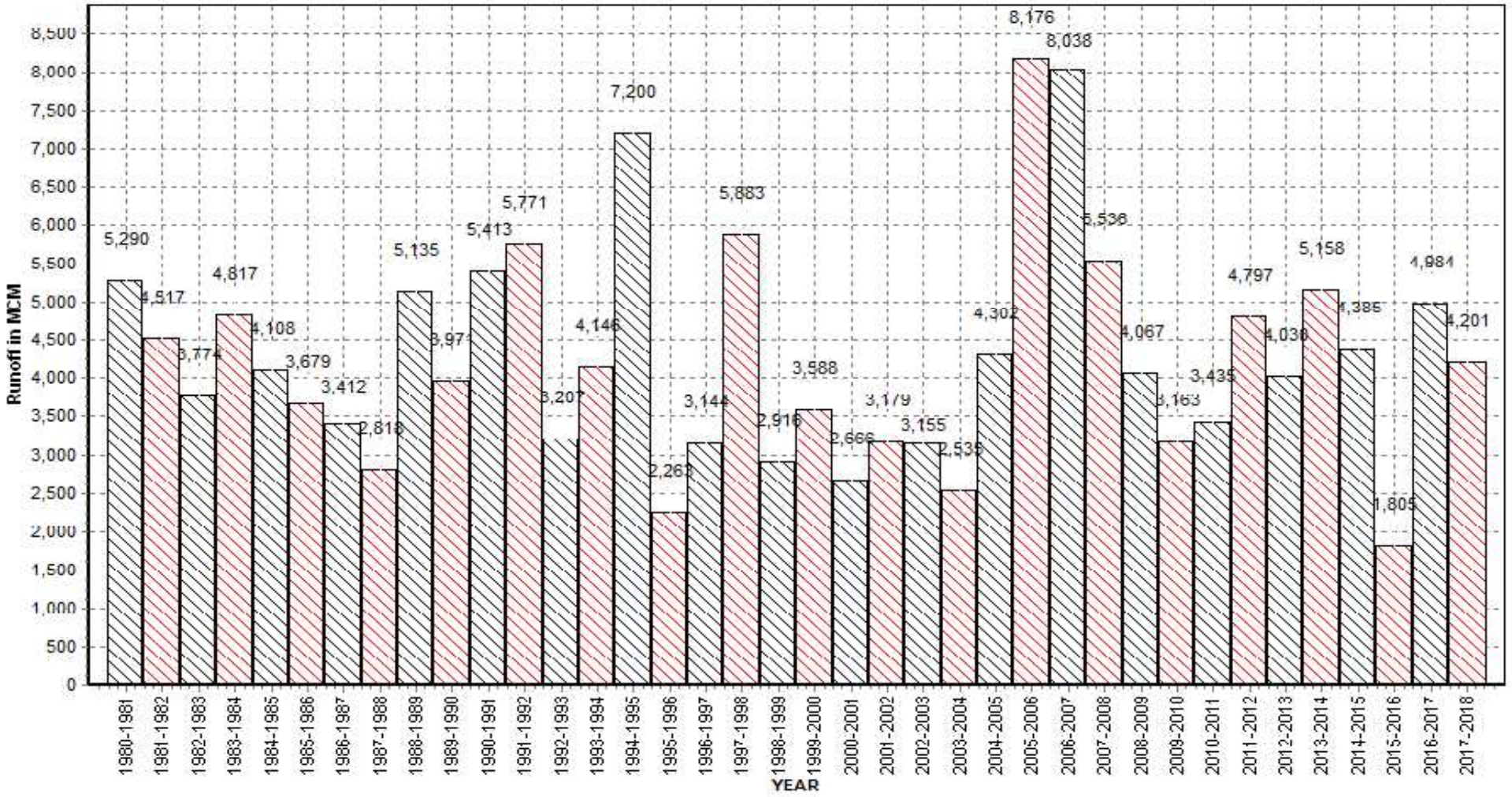
Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**



Annual Runoff Values for the period: 1980 - 2018

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**

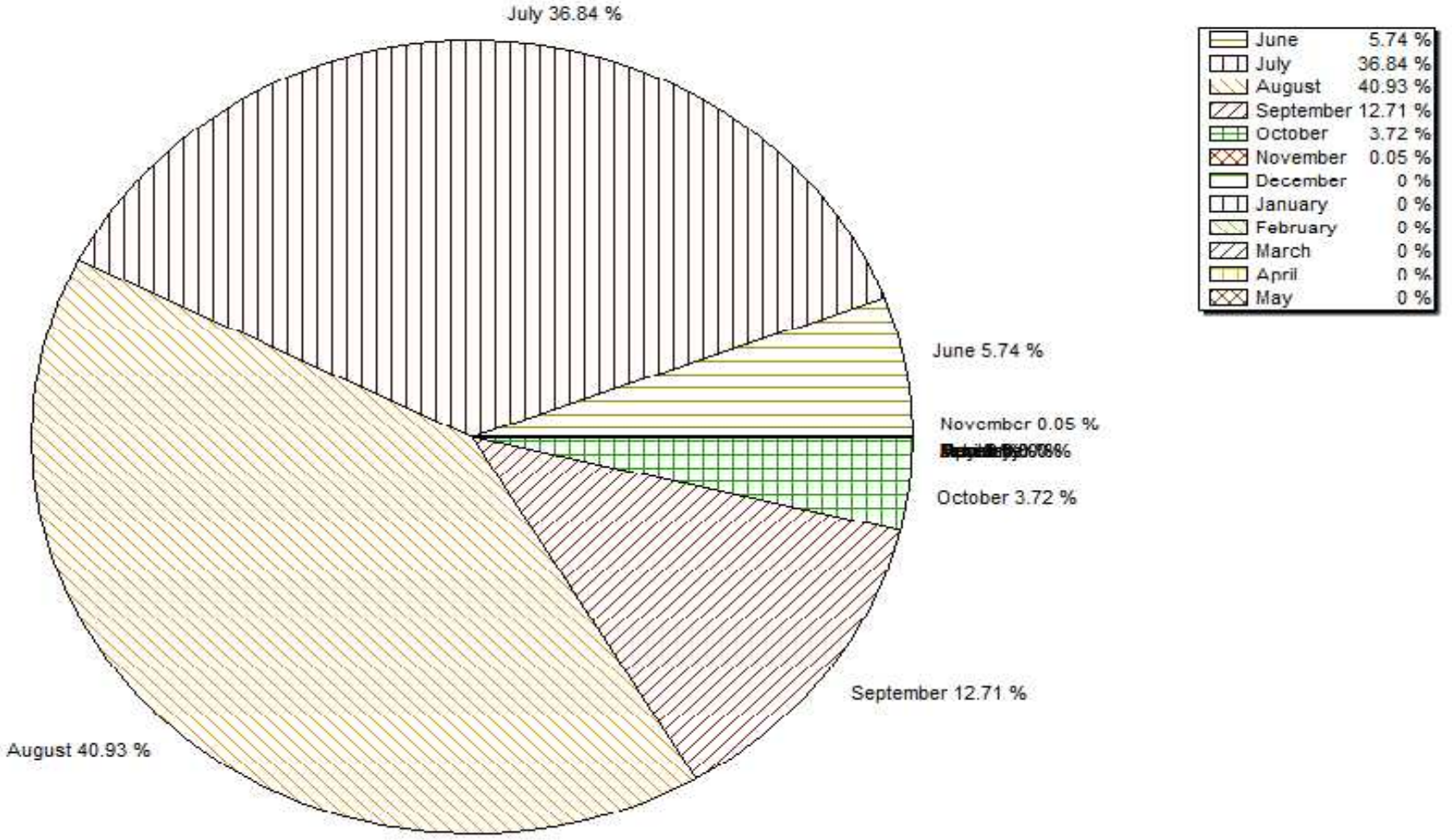


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1980-2017

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

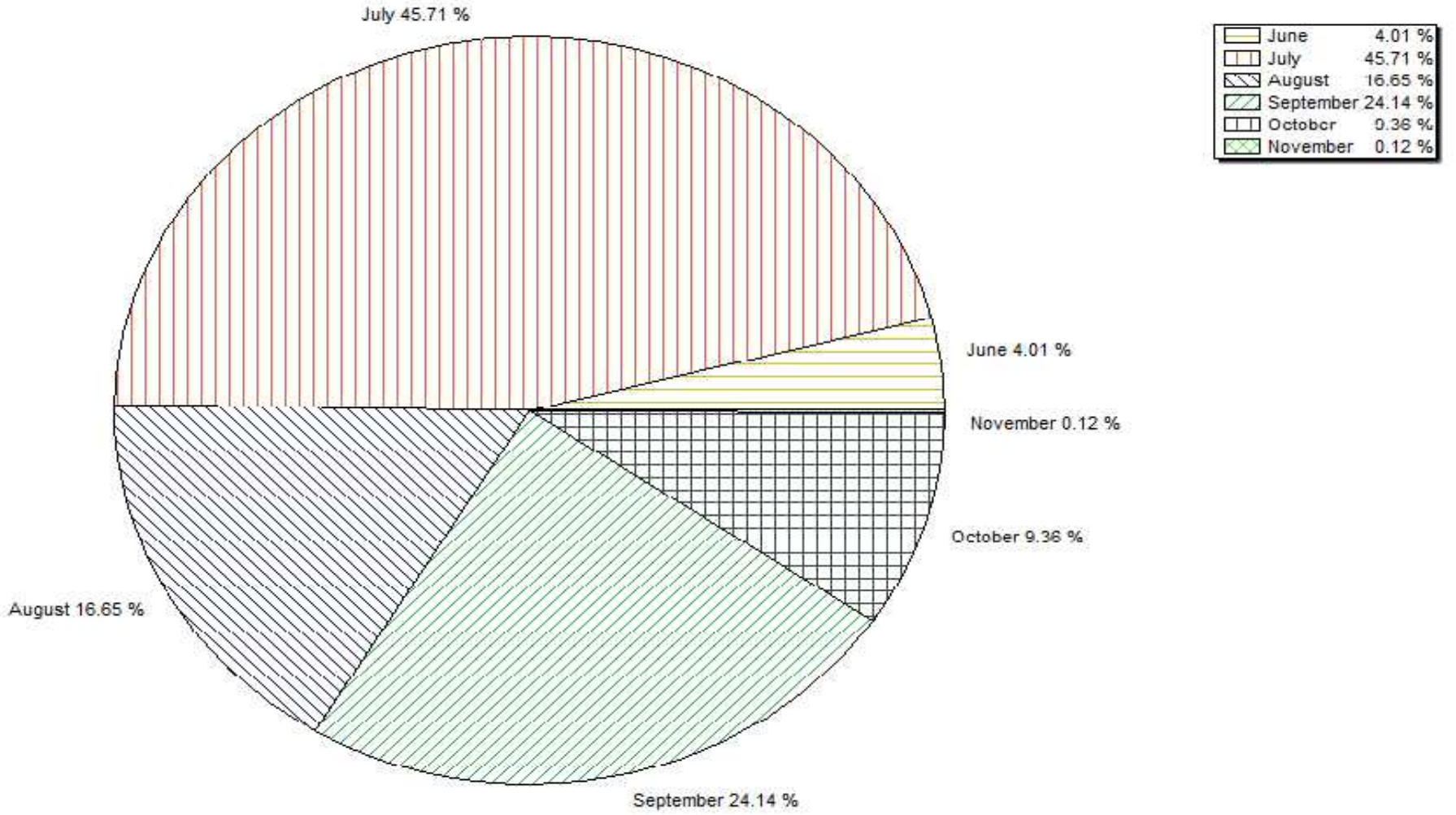
Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**



Monthly Runoff for the Year : 2017-2018

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

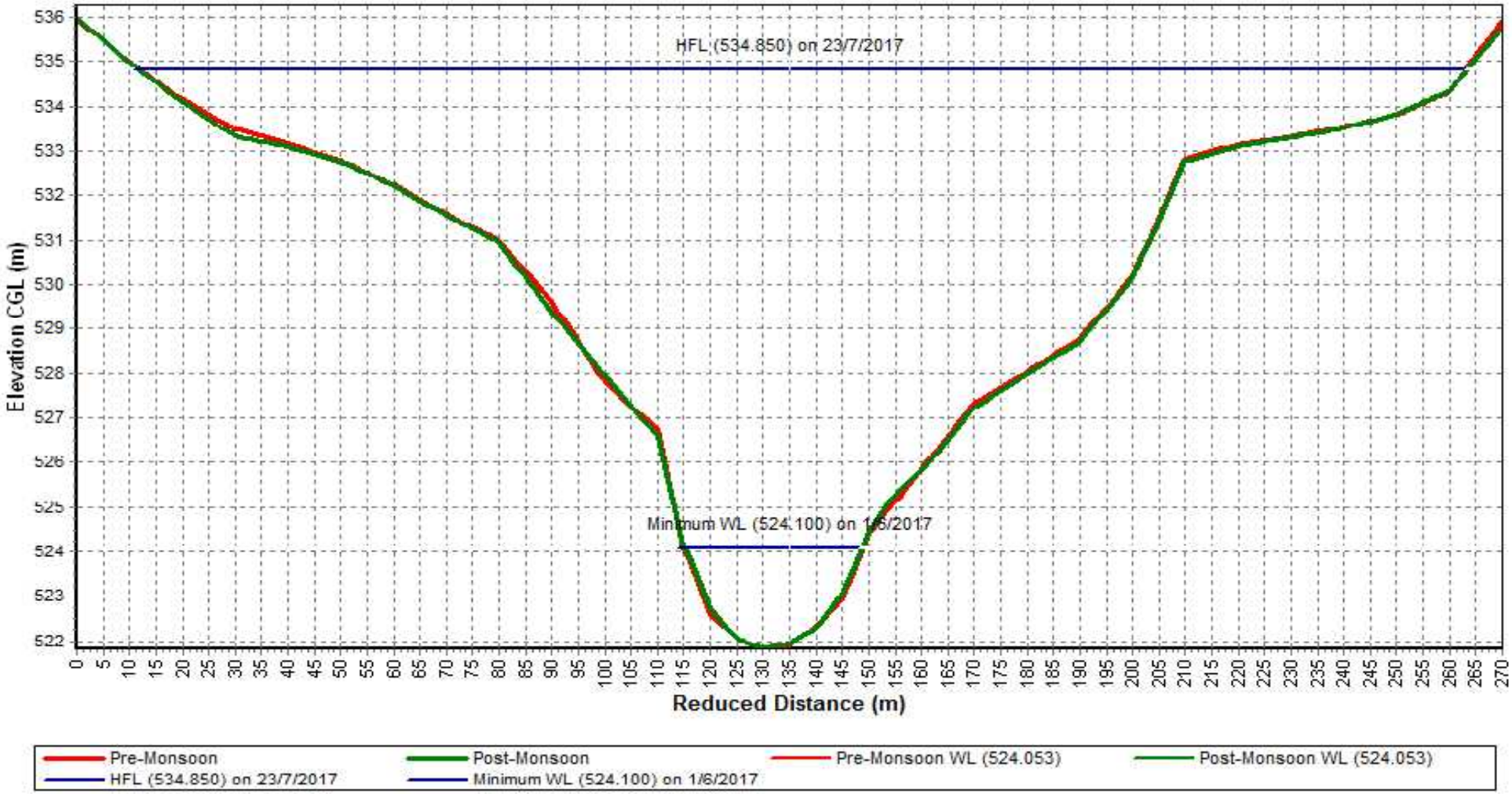
Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

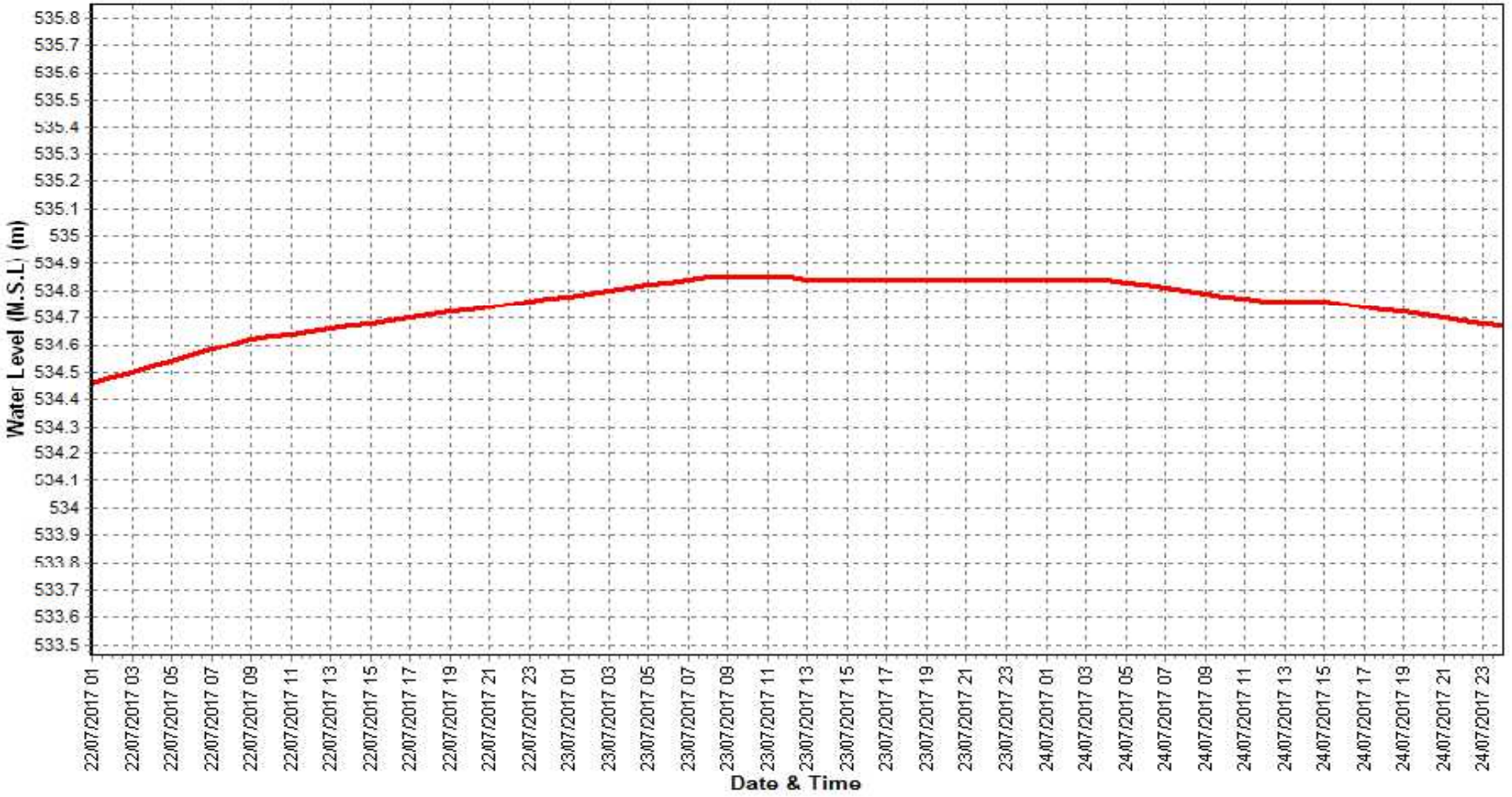
Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **Sub-Division : Upper Krishna SD 2, Miraj**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Kurundwad**		**Code**	**: AK000V1**	
State	: Maharashtra		District		Kolhapur
Basin	: Krishna		Independent River	:	Krishna
Tributary	: -		Sub Tributary	:	-
Sub-Sub Tributary	: -		Local River	:	Krishna
Division	: Upper Krishna Divn, Pune		Sub-Division	:	Upper Krishna SD 2, Miraj
Drainage Area	: 15190 Sq. Km.		Bank	:	Right
Latitude	: 16°41'01"		Longitude	:	74°36'11"
Zero of Gauge (m)	: 519.455 (m.s.l)		20/05/1972		
	Opening Date		Closing Date		
Gauge	: 21/05/1972		HFL During 2017-18	:	532.255m
			Corres. Discharge	:	3300(Estimated)
Discharge	: 26/06/1972		Date & Time of	:	22/07/2017
			occurance	:	20.00 hrs.
Sediment	: 06/08/2003				
Water Quality	: 01/07/2003				

HFL Recorded so far in m : 539.760 dt 05-08-2005
Corresponding Discharge (cumecs) : 9798 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1972-1973	4239	535.390	09/07/1972	0.000	520.505	12/01/1973
1973-1974	5659	537.115	10/07/1973	0.000	521.745	06/02/1974
1974-1975	3436	534.220	07/07/1974	0.000	521.280	09/02/1975
1975-1976	5781	536.935	12/07/1975	0.000	521.505	11/02/1976
1976-1977	6854	537.090	04/08/1976	0.000	520.875	18/02/1977
1977-1978	4953	535.172	09/07/1977	0.000	520.515	15/03/1978
1978-1979	3584	534.200	19/08/1978	0.000	520.675	01/02/1979
1979-1980	6070	536.740	10/08/1979	0.000	522.240	16/02/1980
1980-1981	5175	535.951	08/07/1980	0.000	523.645	25/01/1981
1981-1982	5166	535.572	10/07/1981	0.000	522.775	25/01/1982
1982-1983	3438	533.616	15/08/1982	0.000	521.360	16/01/1983
1983-1984	5111	536.198	18/08/1983	0.000	522.135	26/01/1984
1984-1985	4427	535.270	21/07/1984	0.000	522.580	23/01/1985
1985-1986	4414	535.115	04/08/1985	0.000	524.445	25/01/1986
1986-1987	4587	535.495	14/08/1986	0.000	524.545	25/01/1987
1987-1988	3290	533.593	10/07/1987	0.000	522.525	26/01/1988
1988-1989	4870	536.415	05/08/1988	0.000	524.705	25/01/1989
1989-1990	6000	537.500	27/07/1989	0.000	523.585	25/01/1990

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	5760	537.265	20/08/1990	0.000	525.785	25/01/1991
1991-1992	6322	537.363	31/07/1991	0.000	525.965	26/01/1992
1992-1993	3919	534.455	16/08/1992	0.000	525.215	25/01/1993
1993-1994	4051	534.775	05/08/1993	0.000	525.655	25/01/1994
1994-1995	5730	538.065	18/07/1994	0.000	525.185	25/01/1995
1995-1996	2796	533.025	21/07/1995	0.000	524.705	26/01/1996
1996-1997	5000	535.590	06/10/1996	0.000	523.715	25/01/1997
1997-1998	6800	537.255	28/08/1997	0.000	524.935	25/01/1998
1998-1999	3000	533.165	10/07/1998	0.000	524.545	25/01/1999
1999-2000	3725	535.685	24/07/1999	0.000	522.955	26/01/2000
2000-2001	2853	532.990	15/07/2000	0.000	524.005	25/01/2001
2001-2002	2594	532.315	11/07/2001	0.000	523.360	25/01/2002
2002-2003	3014	533.128	14/08/2002	0.000	522.970	25/01/2003
2003-2004	2275	530.805	29/07/2003	0.000	524.905	26/01/2004
2004-2005	4650	535.665	15/08/2004	0.000	523.685	25/01/2005
2005-2006	10092	539.750	06/08/2005	0.000	523.005	25/01/2006
2006-2007	8819	538.720	13/08/2006	0.000	524.515	25/01/2007
2007-2008	5673	536.765	03/07/2007	0.000	523.085	25/01/2008
2008-2009	5743	536.395	16/08/2008	0.000	523.785	25/01/2009
2009-2010	3782	533.165	19/07/2009	0.000	524.615	25/01/2010
2010-2011	3847	534.395	30/07/2010	0.000	524.525	25/01/2011
2011-2012	4534	536.425	06/09/2011	0.000	522.475	23/02/2012
2012-2013	2681	531.110	07/09/2012	0.000	523.320	20/04/2013
2013-2014	5466	535.965	29/07/2013	0.000	524.305	24/11/2013
2014-2015	4197	533.870	02/08/2014	0.000	524.705	11/01/2015
2015-2016	2522	530.790	26/06/2015	0.000	523.225	18/07/2015
2016-2017	5411	535.105	13/07/2016	0.000	523.175	09/04/2017

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

Annual Runoff of Krishna at Kurundwad

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1971-1972**		0	0
2	**1972-1973**	5615	19	5634
3	**1973-1974**	12587	117	12704
4	**1974-1975**	9587	30	9616
5	**1975-1976**	15788	70	15858
6	**1976-1977**	15622	49	15671
7	**1977-1978**	13005	244	13248
8	**1978-1979**	14256	9	14264
9	**1979-1980**	12693	72	12765
10	**1980-1981**	14371	0	14371
11	**1981-1982**	12709	0	12709
12	**1982-1983**	9301	23	9324
13	**1983-1984**	11962	0	11962
14	**1984-1985**	8994	1	8996
15	**1985-1986**	8372	0	8372
16	**1986-1987**	7682	0	7682
17	**1987-1988**	5253	0	5253
18	**1988-1989**	11698	0	11698
19	**1989-1990**	7825	0	7825
20	**1990-1991**	14474	0	14474
21	**1991-1992**	15352	0	15352
22	**1992-1993**	8965	0	8965
23	**1993-1994**	12531	0	12531
24	**1994-1995**	18785	0	18785
25	**1995-1996**	5919	0	5919
26	**1996-1997**	8605	0	8605
27	**1997-1998**	15382	0	15382
28	**1998-1999**	8273	0	8273
29	**1999-2000**	10622	0	10622
30	**2000-2001**	5348	0	5348
31	**2001-2002**	6034	0	6034
32	**2002-2003**	5886	0	5886
33	**2003-2004**	4706	0	4706
34	**2004-2005**	10797	0	10797
35	**2005-2006**	23671	0	23671
36	**2006-2007**	24683	0	24683
37	**2007-2008**	16759	0	16759
38	**2008-2009**	11813	0	11813
39	**2009-2010**	8346	0	8346
40	**2010-2011**	9826	0	9826
41	**2011-2012**	11582	0	11582
42	**2012-2013**	8574	0	8574
43	**2013-2014**	12350	0	12350
44	**2014-2015**	10147	0	10147
45	**2015-2016**	3440	0	3440
46	**2016-2017**	10937	0	10937
47	**2017-2018**	8640	0	8640
Average		11082	13	10860

Stage-Discharge Data for the period 2017 - 2018

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

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	523.235	0.000	526.155	1072	526.640	1144	528.395	1576 #	526.545	873.8 *	524.715	0.000
2	523.295	0.000	526.805	1213 *	526.090	977.2	526.675	963.2 *	526.105	736.2 *	524.585	0.000
3	523.345	0.000	526.515	1123	525.260	747.3	525.725	617.8 *	525.515	565.0	524.600	0.000
4	523.195	0.000	525.945	949.9	524.735	624.6	525.290	495.4	525.625	591.7	524.655	0.000
5	523.065	0.000	525.805	888.8	524.710	616.1	524.820	280.7 #	525.260	428.3 #	524.645	0.000
6	522.985	0.000	525.610	865.8	524.825	664.0 *	524.695	243.3	525.195	403.1	524.635	0.000
7	522.945	0.000	525.355	766.6	524.670	613.2	524.875	271.0	525.485	533.1	524.615	0.000
8	522.755	0.000	524.610	568.6	524.575	569.1	524.905	246.2	525.765	621.1 *	524.595	0.000
9	522.455	0.000	524.045	483.6 *	524.925	320.4 #	525.090	381.0	526.205	768.4 #	524.575	0.000
10	522.155	0.000	523.425	383.8	525.020	325.3	525.045	365.6 *	525.735	607.3	524.545	0.000
11	521.795	0.000	523.000	270.9	524.825	322.6	525.010	353.2	525.395	458.6	524.505	0.000
12	521.365	0.000	522.860	236.1	524.780	265.5 #	525.135	399.3 #	525.290	432.7	524.435	0.000
13	521.695	0.000	522.825	237.7	524.855	294.0 *	525.115	335.9	525.300	456.6	524.375	0.000
14	521.825	0.000	522.850	312.0	524.800	627.6	525.755	568.1	525.930	644.4	524.325	0.000
15	521.765	0.000	523.590	388.7 #	524.675	225.4 *	526.060	685.1	526.585	885.8 *	524.325	0.000
16	521.905	0.000	525.965	965.0 *	524.605	212.9	525.655	640.6	527.590	1132	524.295	0.000
17	522.105	0.000	526.455	1099	524.600	160.6	525.755	628.8 *	526.695	944.9	524.275	0.000
18	522.165	0.000	526.435	1079	524.550	150.6	525.485	520.0	525.285	438.7 #	524.215	0.000
19	522.105	0.000	527.655	1677	524.515	592.0	525.300	491.5	524.715	152.7 *	524.205	0.000
20	521.785	0.000	529.965	2466	524.525	167.6 *	527.355	1283	525.050	355.6	524.185	0.000
21	521.755	0.000	531.510	3176	524.450	166.1	530.150	2351	524.985	304.2	524.175	0.000
22	521.685	0.000	532.160	3226	524.490	180.2	530.850	2335	524.825	220.4 *	524.165	0.000
23	521.635	0.000	532.205	3277 *	524.895	309.1 #	529.620	1930	524.890	238.2	524.165	0.000
24	521.555	0.000	531.775	2884	524.750	683.7	527.455	1243 *	524.805	199.2	524.155	0.000
25	521.615	0.000	531.445	3036	524.905	312.9 *	526.210	794.9 #	524.680	128.2 #	524.165	0.000
26	522.685	0.000	531.005	2728	525.045	593.4	525.945	698.4 #	524.795	203.0 #	524.165	0.000
27	523.555	381.8 #	528.955	1835	525.535	593.4	525.165	410.5 #	524.625	84.29 #	524.175	0.000
28	524.280	535.6 #	527.120	1256	525.735	684.5	525.155	406.8 #	524.775	154.9	524.155	0.000
29	524.805	678.6	527.085	1442	525.785	1079	526.595	945.8	524.725	159.4 *	524.155	0.000
30	525.155	741.8	527.755	1519 *	527.035	1652	527.055	1022 *	524.640	115.4	524.145	0.000
31			527.060	1293	528.455	1652			524.640	97.15 #		
Ten-Daily Mean												
I Ten-Daily	522.943	0.000	525.427	831.5	525.145	660.1	525.552	544.1	525.744	612.8	524.617	0.000
II Ten-Daily	521.851	0.000	525.160	873.2	524.673	301.9	525.662	590.6	525.784	590.3	524.314	0.000
III Ten-Daily	522.872	233.8	529.825	2334	525.553	718.8	527.420	1214	524.762	173.1	524.162	0.000
Monthly												
Min.	521.365	0.000	522.825	236.1	524.450	150.6	524.695	243.3	524.625	84.29	524.145	0.000
Max.	525.155	741.8	532.205	3277	528.455	1652	530.850	2351	527.590	1132	524.715	0.000
Mean	522.556	77.93	526.901	1378	525.137	565.4	526.211	782.8	525.408	449.5	524.364	0

Annual Runoff in MCM = 8709 Annual Runoff in mm = 569

Peak Observed Discharge = 3226 cumecs on 22/07/2017 Corres. Water Level :532.16 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :523.235 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 2017 - 2018

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	524.135	0.000	523.745	0.000	523.115	0.000	521.775	0.000	523.555	0.000	523.145	0.000
2	524.125	0.000	523.715	0.000	523.055	0.000	521.725	0.000	523.625	0.000	523.005	0.000
3	524.125	0.000	523.695	0.000	523.025	0.000	521.655	0.000	523.625	0.000	522.925	0.000
4	524.115	0.000	523.655	0.000	522.985	0.000	521.645	0.000	523.755	0.000	522.835	0.000
5	524.135	0.000	523.665	0.000	522.885	0.000	521.655	0.000	523.905	0.000	522.785	0.000
6	524.115	0.000	523.655	0.000	522.835	0.000	521.555	0.000	524.065	0.000	522.725	0.000
7	524.115	0.000	523.645	0.000	522.775	0.000	521.515	0.000	524.075	0.000	522.645	0.000
8	524.105	0.000	523.635	0.000	522.745	0.000	522.155	0.000	524.155	0.000	522.645	0.000
9	524.125	0.000	523.625	0.000	522.715	0.000	522.395	0.000	524.035	0.000	522.565	0.000
10	524.105	0.000	523.625	0.000	522.655	0.000	522.645	0.000	523.985	0.000	522.655	0.000
11	524.095	0.000	523.625	0.000	522.655	0.000	522.695	0.000	524.125	0.000	522.895	0.000
12	524.085	0.000	523.605	0.000	522.685	0.000	522.785	0.000	524.065	0.000	523.465	0.000
13	524.085	0.000	523.585	0.000	522.605	0.000	522.905	0.000	523.955	0.000	524.075	0.000
14	524.075	0.000	523.595	0.000	522.535	0.000	523.125	0.000	523.875	0.000	524.255	0.000
15	524.085	0.000	523.545	0.000	522.475	0.000	523.235	0.000	523.835	0.000	524.225	0.000
16	524.065	0.000	523.535	0.000	522.445	0.000	523.375	0.000	523.725	0.000	524.225	0.000
17	524.065	0.000	523.485	0.000	522.425	0.000	523.485	0.000	523.605	0.000	524.375	0.000
18	524.035	0.000	523.615	0.000	522.395	0.000	523.525	0.000	523.515	0.000	524.305	0.000
19	524.035	0.000	523.515	0.000	522.355	0.000	523.645	0.000	523.405	0.000	524.195	0.000
20	524.045	0.000	523.485	0.000	522.295	0.000	523.875	0.000	523.355	0.000	524.165	0.000
21	524.045	0.000	523.465	0.000	522.235	0.000	524.015	0.000	523.365	0.000	524.075	0.000
22	524.035	0.000	523.435	0.000	522.145	0.000	524.195	0.000	523.515	0.000	524.075	0.000
23	524.035	0.000	523.445	0.000	522.085	0.000	524.025	0.000	523.655	0.000	523.915	0.000
24	524.035	0.000	523.435	0.000	522.005	0.000	523.895	0.000	523.675	0.000	523.785	0.000
25	524.005	0.000	523.415	0.000	522.005	0.000	523.755	0.000	523.705	0.000	523.695	0.000
26	523.965	0.000	523.385	0.000	522.015	0.000	523.655	0.000	523.715	0.000	523.595	0.000
27	523.915	0.000	523.355	0.000	521.935	0.000	523.645	0.000	523.685	0.000	523.435	0.000
28	523.885	0.000	523.335	0.000	521.845	0.000	523.635	0.000	523.595	0.000	523.255	0.000
29	523.865	0.000	523.275	0.000			523.565	0.000	523.505	0.000	523.115	0.000
30	523.805	0.000	523.225	0.000			523.555	0.000	523.355	0.000	522.975	0.000
31	523.775	0.000	523.175	0.000			523.525	0.000			522.925	0.000
Ten-Daily Mean												
I Ten-Daily	524.120	0.000	523.666	0.000	522.879	0.000	521.872	0.000	523.878	0.000	522.793	0.000
II Ten-Daily	524.067	0.000	523.559	0.000	522.487	0.000	523.265	0.000	523.746	0.000	524.018	0.000
III Ten-Daily	523.942	0.000	523.359	0.000	522.034	0.000	523.770	0.000	523.577	0.000	523.531	0.000
Monthly												
Min.	523.775	0.000	523.175	0.000	521.845	0.000	521.515	0.000	523.355	0.000	522.565	0.000
Max.	524.135	0.000	523.745	0.000	523.115	0.000	524.195	0.000	524.155	0.000	524.375	0.000
Mean	524.040	0	523.522	0	522.497	0	522.995	0	523.734	0	523.450	0

Peak Computed Discharge = 3277 cumecs on 23/07/2017 **Corres. Water Level :532.205 m**

Lowest Computed Discharge = 152.7 cumecs on 19/10/2017 **Corres. Water Level :524.715 m**

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

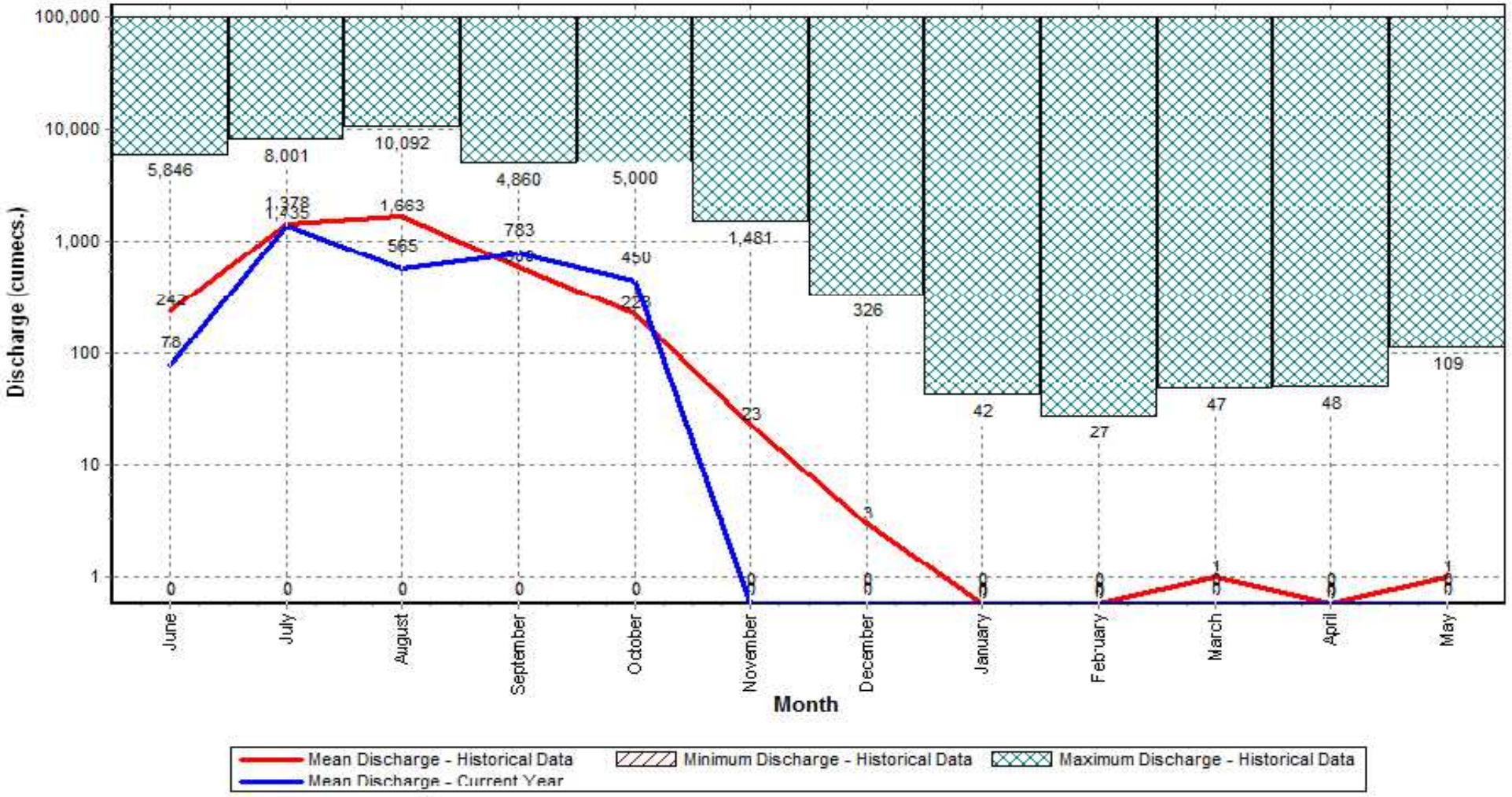
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Kurundwad (AK000V1) | **Data considered : 1972-2018** | **Division : Upper Krishna Divn, Pune**

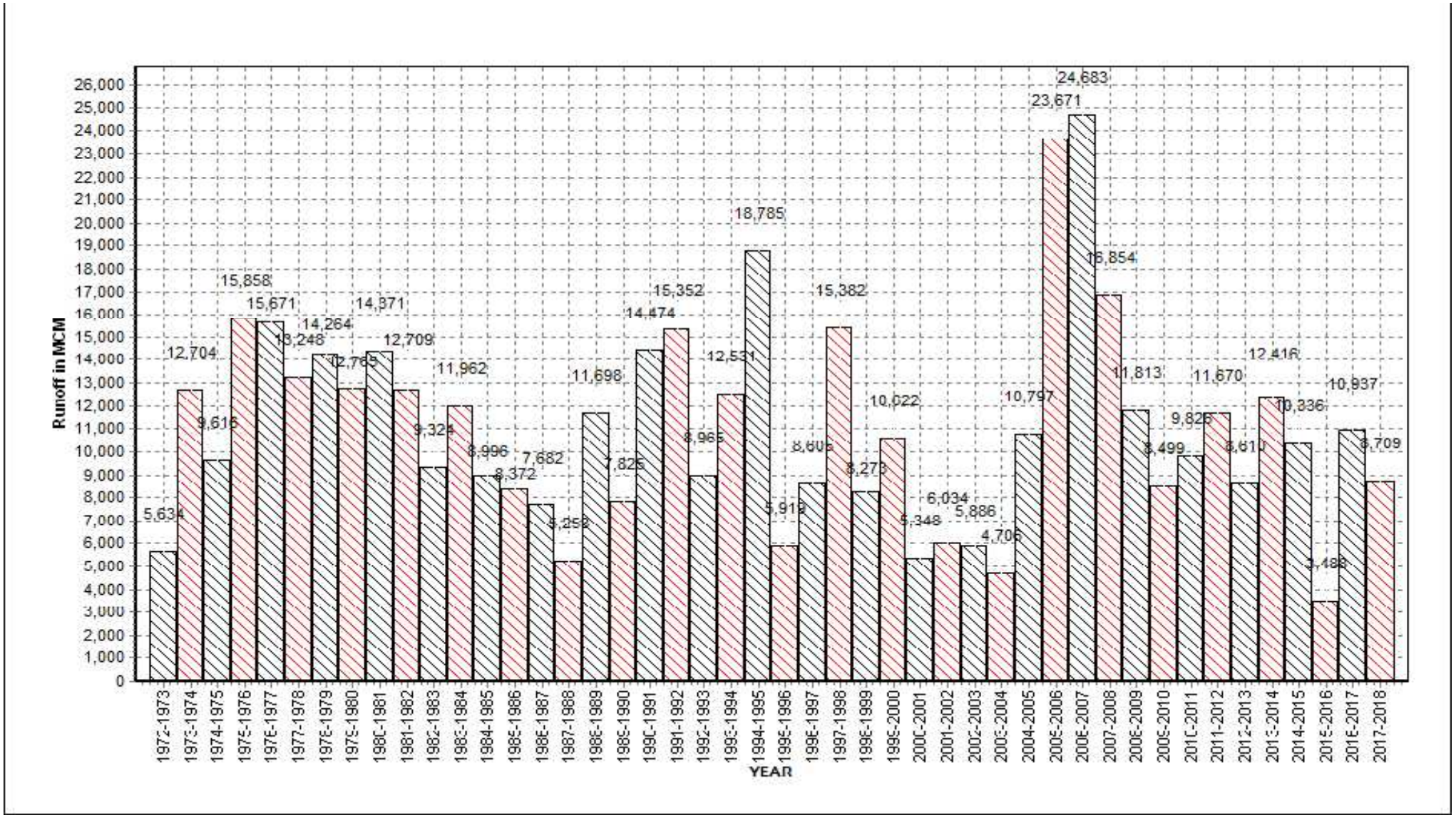
Local River : Krishna | **Sub-Division : Upper Krishna SD 2, Miraj**



Annual Runoff Values for the period: 1972 - 2018

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

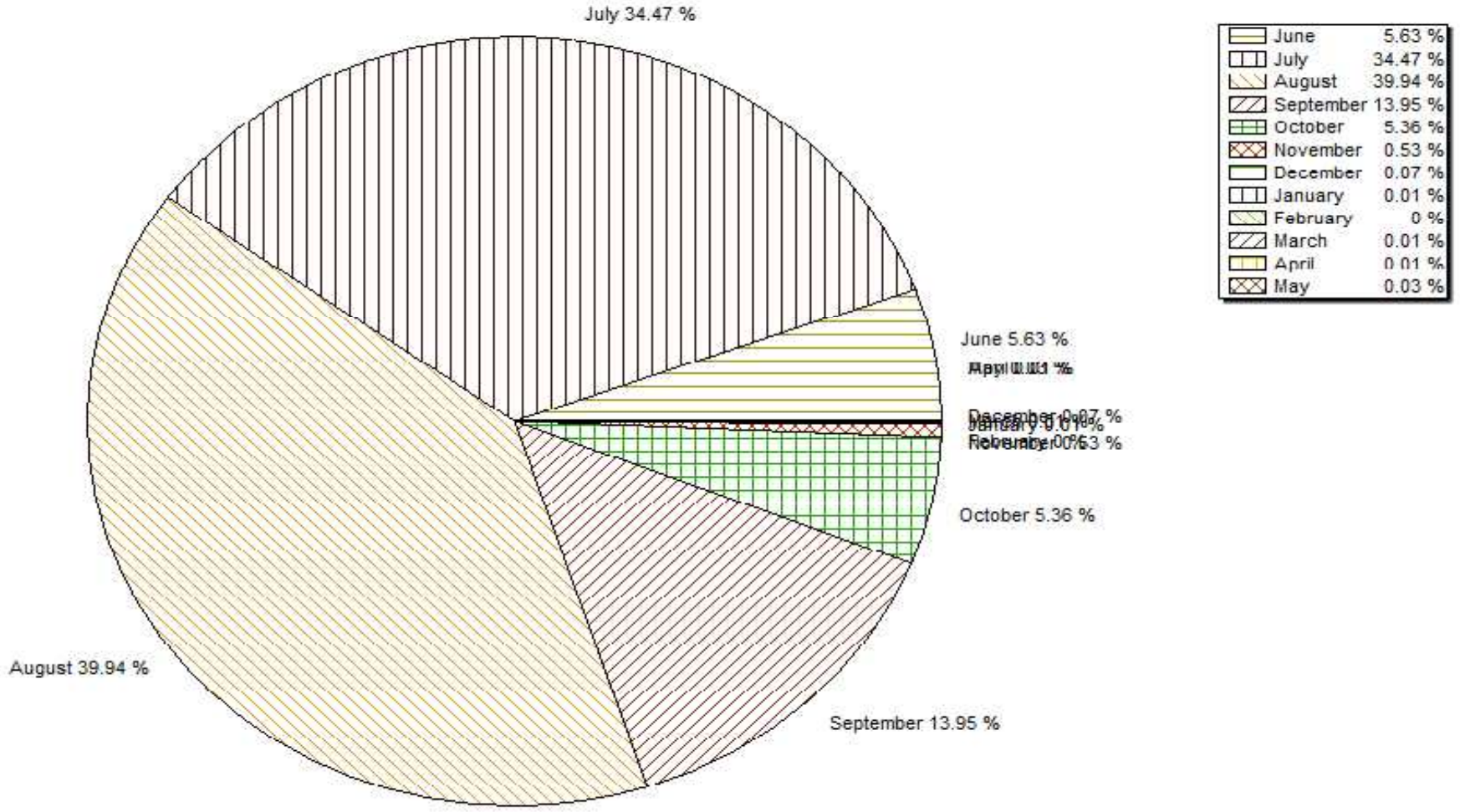


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1972-2017

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



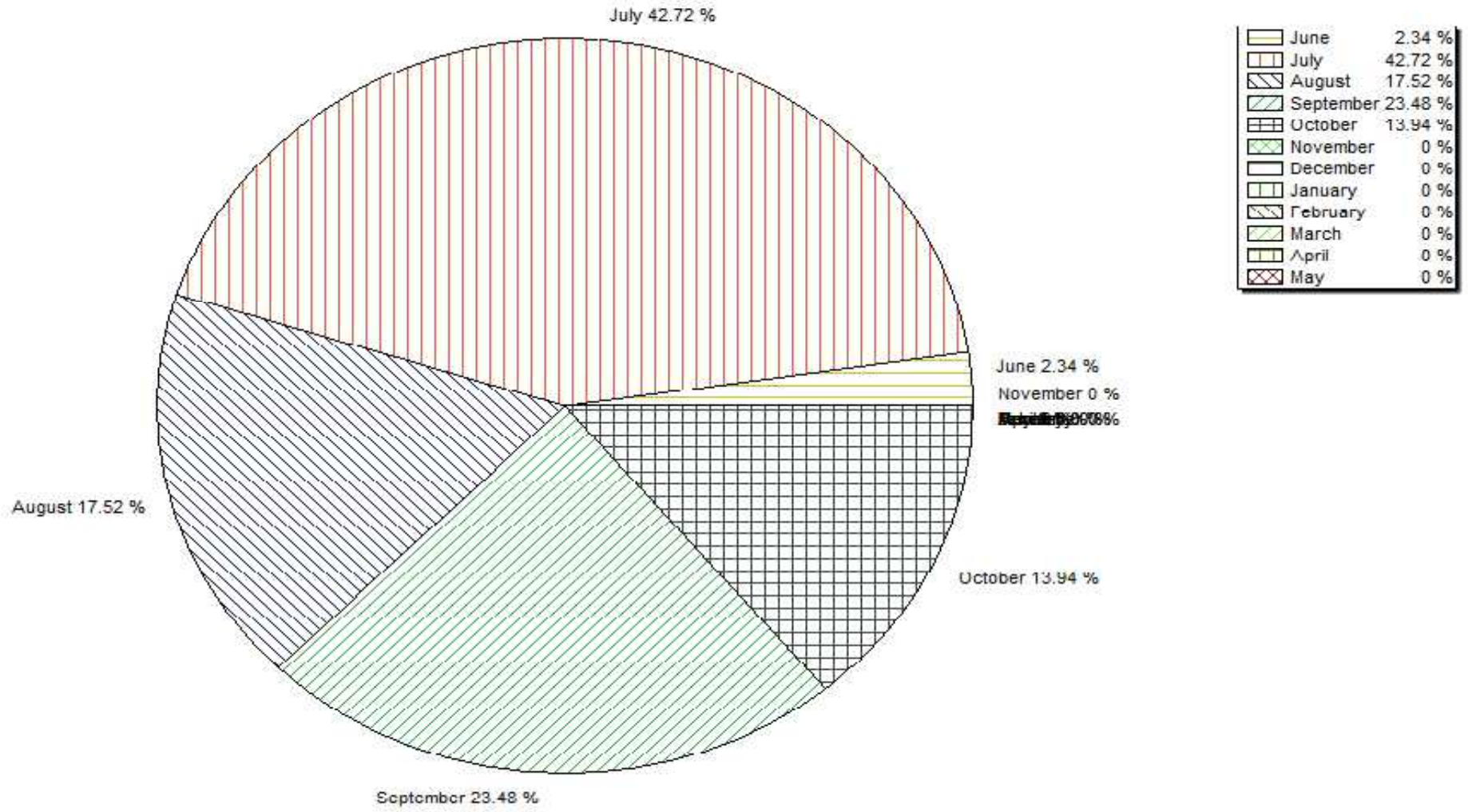
Monthly Runoff for the Year : 2017-2018

Station Name : Kurundwad (AK000V1)

Local River : Krishna

Division : Upper Krishna Divn, Pune

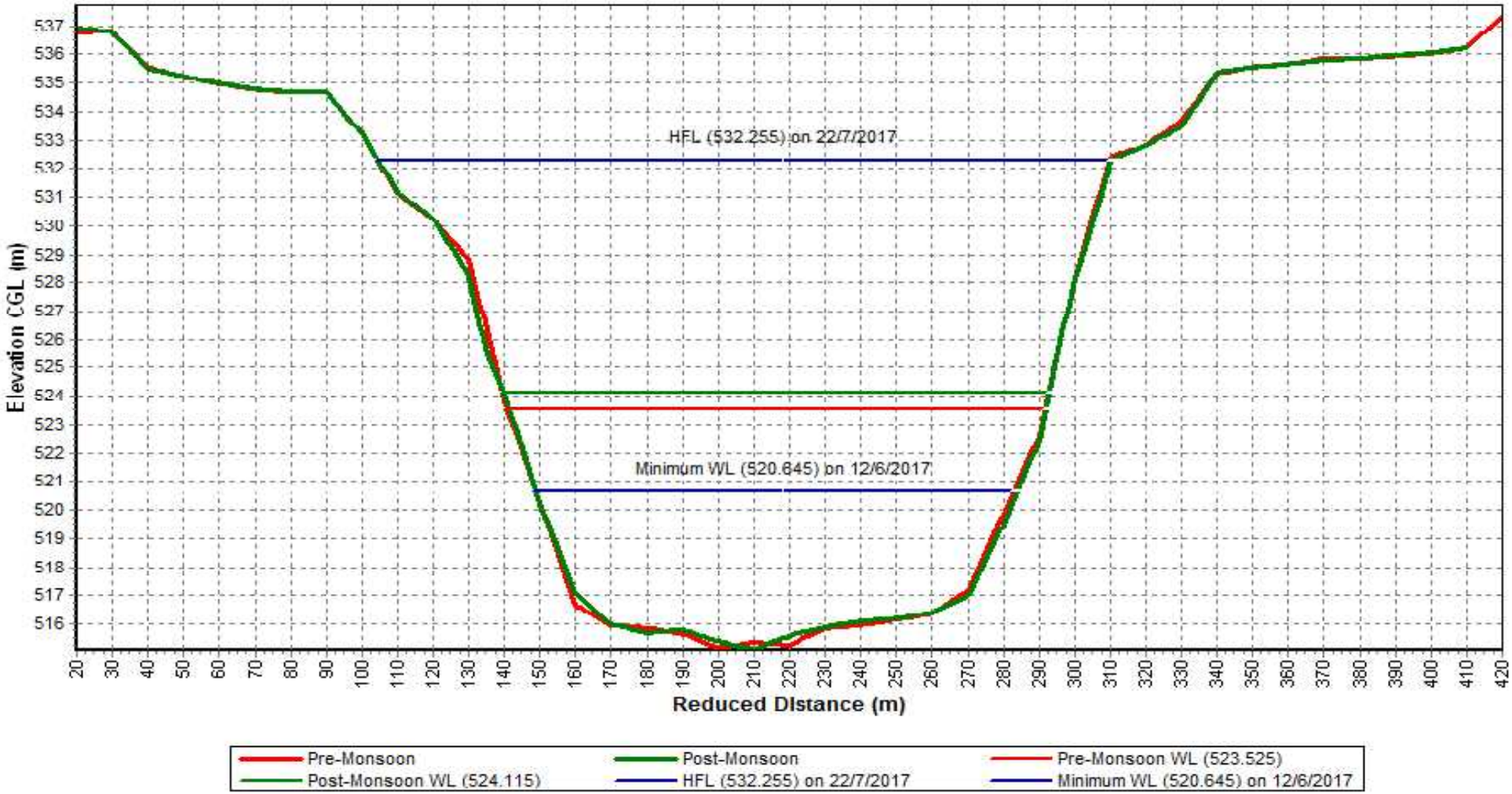
Sub-Division : Upper Krishna SD 2, Miraj



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

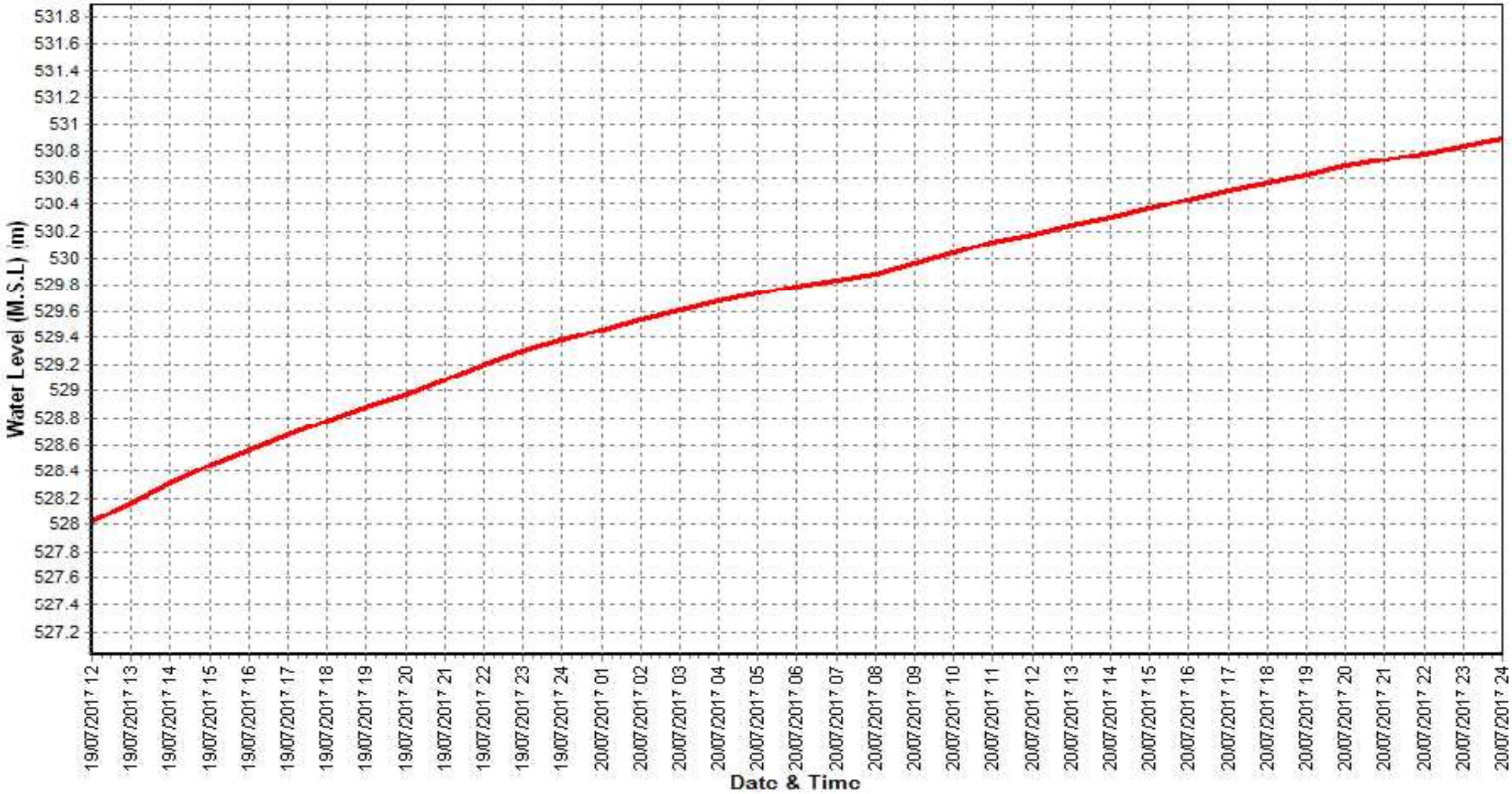
Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Arjunwad (Seasonal)**	**Code**	**:**	**AK000V4**
State	:	Maharashtra	District		Kolhapur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Krishna
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 2, Miraj
Drainage Area	:	12660 Sq. Km.	Bank	:	Right
Latitude	:	16°46'51"	Longitude	:	74°37'59"
Zero of Gauge (m)	:	523 (m.s.l) 523.225 (m.s.l)	01/02/1969 01/01/1974	-	31/12/1973
		Opening Date	Closing Date		
Gauge	:	12/01/1969	HFL During 2017-18	:	533.615m
			Corres. Discharge	:	1855(Estimated)
Discharge	:	12/01/1969	Date & Time of	:	21/07/2017
			occurance	:	18.00 hrs.
Sediment	:	26/12/2014			
Water Quality	:	01/09/2014			

HFL Recorded so far in m : 543.685 dt 05-08-2005
Corresponding Discharge (cumecs) : 5272 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1969-1970	3850	540.395	02/08/1969	0.000	525.245	04/03/1970
1970-1971	5079	538.000	22/08/1970	0.000	525.070	02/02/1971
1971-1972	2936	536.843	01/09/1971	0.000	525.610	14/01/1972
1972-1973	3989	537.760	09/07/1972	0.000	525.620	25/01/1973
1973-1974	4950	539.870	10/07/1973	0.000	527.205	25/01/1974
1974-1975	2469	536.403	07/07/1974	0.000	526.675	25/01/1975
1975-1976	5270	540.460	12/07/1975	0.000	527.575	26/01/1976
1976-1977	4890	541.070	08/06/1976	0.000	527.325	25/01/1977
1977-1978	3460	537.817	08/07/1977	0.000	527.595	12/11/1977
1978-1979	2579	536.321	03/09/1978	0.000	527.135	25/01/1979
1979-1980	4904	539.767	09/08/1979	0.000	525.175	09/02/1980
1980-1981	3800	539.895	05/07/1980	0.000	527.265	25/01/1981
1981-1982	3362	538.195	10/07/1981	0.000	527.945	25/01/1982
1982-1983	2241	536.213	16/08/1982	0.000	526.835	25/01/1983
1983-1984	3345	538.615	18/08/1983	0.000	527.125	26/01/1984
1984-1985	3284	538.045	20/07/1984	0.000	526.465	25/01/1985
1985-1986	3085	537.449	04/08/1985	0.000	527.545	25/01/1986
1986-1987	2868	537.640	14/08/1986	0.000	526.910	25/01/1987

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**
1987-1988	2351	536.205	09/07/1987	0.000	525.205	26/01/1988
1988-1989	4997	539.895	04/08/1988	0.000	528.025	25/01/1989
1989-1990	4954	539.735	26/07/1989	0.000	527.945	25/01/1990
1990-1991	6500	540.795	20/08/1990	0.000	527.975	25/01/1991
1991-1992	5938	540.416	30/07/1991	0.000	527.755	26/01/1992
1992-1993	2928	537.316	15/08/1992	0.000	527.325	25/01/1993
1993-1994	2843	537.060	05/08/1993	0.000	527.585	18/01/1994
1994-1995	6300	541.175	17/07/1994	0.000	527.265	25/01/1995
1995-1996	2550	535.670	21/07/1995	0.000	526.225	26/01/1996
1996-1997	3560	539.125	05/10/1996	0.000	524.635	25/01/1997
1997-1998	4780	540.995	27/08/1997	0.000	527.525	25/01/1998
1998-1999	2411	535.618	10/07/1998	0.000	526.375	25/01/1999
1999-2000	3193	537.773	28/07/1999	0.000	526.535	26/01/2000
2000-2001	1747	534.482	14/07/2000	0.000	526.785	25/01/2001
2001-2002	1764	533.590	10/07/2001	0.000	527.085	25/01/2002
2002-2003	1514	533.705	15/08/2002	0.000	526.515	25/01/2003
2003-2004	1333	532.785	29/07/2003	0.000	527.275	25/01/2004
2004-2005	4211	539.455	14/08/2004	0.000	526.925	25/01/2005
2005-2006	9381	543.680	05/08/2005	0.000	526.520	25/01/2006
2006-2007	7505	542.125	12/08/2006	0.000	527.490	17/11/2006
2007-2008	3943	539.885	03/07/2007	0.000	526.125	12/11/2007
2008-2009	3357	538.345	15/08/2008	0.000	526.075	08/11/2008
2009-2010	2048	533.925	25/07/2009	0.000	529.320	22/11/2009
2010-2011	2587	536.275	29/07/2010	0.000	529.465	10/11/2010
2011-2012	4097	539.935	06/09/2011	0.000	527.815	09/11/2011
2012-2013	1614	533.130	07/09/2012	0.000	527.190	27/11/2012
2013-2014	3741	538.655	28/07/2013	0.000	527.055	03/11/2013
2014-2015	2606	536.255	02/08/2014	0.000	526.065	12/06/2014
2015-2016	1460	532.365	26/06/2015	0.000	527.295	18/06/2015
2016-2017	4322	537.785	09/08/2016	0.000	527.025	11/11/2016

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

Annual Runnoff of Krishna at Arjunwad(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1968-1969**		2	2
2	**1969-1970**	8907	73	8980
3	**1970-1971**	10066	70	10136
4	**1971-1972**	7485	25	7511
5	**1972-1973**	3914	0	3914
6	**1973-1974**	8534	0	8534
7	**1974-1975**	6505	0	6505
8	**1975-1976**	10790	0	10790
9	**1976-1977**	10597	0	10597
10	**1977-1978**	7323	0	7323
11	**1978-1979**	8838	0	8838
12	**1979-1980**	8718	47	8765
13	**1980-1981**	8904	0	8904
14	**1981-1982**	7654	0	7654
15	**1982-1983**	5266	0	5266
16	**1983-1984**	7659	0	7659
17	**1984-1985**	5964	0	5964
18	**1985-1986**	4619	0	4619
19	**1986-1987**	4884	0	4884
20	**1987-1988**	2703	0	2703
21	**1988-1989**	7889	0	7889
22	**1989-1990**	5140	0	5140
23	**1990-1991**	10048	0	10048
24	**1991-1992**	11529	0	11529
25	**1992-1993**	5620	0	5620
26	**1993-1994**	8295	182	8477
27	**1994-1995**	15463	0	15463
28	**1995-1996**	4350	0	4350
29	**1996-1997**	6273	0	6273
30	**1997-1998**	10449	0	10449
31	**1998-1999**	5152	0	5152
32	**1999-2000**	8115	0	8115
33	**2000-2001**	2874	0	2874
34	**2001-2002**	3398	0	3398
35	**2002-2003**	2946	0	2946
36	**2003-2004**	2697	0	2697
37	**2004-2005**	7776	0	7776
38	**2005-2006**	18332	0	18332
39	**2006-2007**	17640		17640
40	**2007-2008**	9962		9962
41	**2008-2009**	5794		5794
42	**2009-2010**	4811		4811
43	**2010-2011**	5410		5410
44	**2011-2012**	7328	Seasonal	7328
45	**2012-2013**	4099		4099
46	**2013-2014**	7809		7809
47	**2014-2015**	5974		5974
48	**2015-2016**	1438		1438
49	**2016-2017**	7208		7208
50	**2017-2018**	3929		3929
Average		7287	10	7150

Stage-Discharge Data for the period 2017 - 2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

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	526.985	0.000	528.570	367.1	529.885	655.4	530.540	706.0	530.195	497.6 *	528.575	0.000
2	527.025	0.000	528.715	391.5 *	529.490	558.4	529.415	306.5 *	529.595	345.5 *	528.305	0.000
3	526.825	0.000	528.520	265.2	528.785	357.9	529.145	253.2 *	529.275	285.8	527.915	0.000
4	526.645	0.000	528.305	128.8	528.335	348.3	528.560	158.4 #	529.235	296.9	527.555	0.000
5	526.365	0.000	528.310	300.7	528.305	334.9	528.265	120.7 #	529.065	238.6 #	527.535	0.000
6	526.315	0.000	528.285	324.3	528.235	287.4 *	528.220	115.5 #	528.930	213.9	527.555	0.000
7	526.215	0.000	528.245	290.4	528.025	247.5	528.365	132.8 #	529.125	233.9	527.465	0.000
8	525.905	0.000	527.675	171.0	527.905	254.8	528.345	125.3	529.755	382.8 *	527.325	0.000
9	525.695	0.000	527.445	160.2 *	527.745	192.2	528.890	205.5	529.865	361.2	527.135	0.000
10	525.495	0.000	527.080	131.8	527.535	167.4	528.875	206.0 *	529.665	361.5 #	526.935	0.000
11	525.235	0.000	526.845	92.05	527.315	131.4	528.975	204.2	529.265	286.7	526.665	0.000
12	525.185	0.000	526.725	85.76	527.275	132.4	528.775	194.3	529.005	213.3	526.405	0.000
13	525.115	0.000	526.655	81.37	527.215	128.5 *	528.935	205.9	529.255	259.3	526.235	0.000
14	525.235	0.000	526.585	63.06	527.070	114.9	529.355	351.5	529.175	294.0	526.225	0.000
15	525.955	0.000	527.820	196.1	526.995	101.3 *	529.250	279.3	529.915	422.4 *	526.535	0.000
16	525.845	0.000	528.825	402.1 *	526.905	93.93	529.045	247.8	530.690	620.2	526.935	0.000
17	526.345	0.000	528.935	362.0	526.855	83.77	529.295	282.0 *	530.165	489.2 #	527.275	0.000
18	526.755	0.000	529.155	265.2	526.565	61.77	529.215	256.2	529.670	362.7 #	527.575	0.000
19	526.355	0.000	530.340	769.9	526.335	33.98	528.995	226.4	529.255	274.1 *	527.725	0.000
20	526.035	0.000	531.965	1257 #	526.185	2.556 *	530.325	535.2 #	529.065	218.4	527.735	0.000
21	526.105	0.000	533.310	1737 #	526.675	15.55	532.225	1344	528.855	190.8	527.655	0.000
22	525.915	0.000	533.535	1824	527.105	28.93	532.710	1508	528.645	170.5 *	527.565	0.000
23	525.975	0.000	533.255	1716 *	527.465	40.66	531.480	947.3 #	528.565	138.2	527.415	0.000
24	525.515	0.000	532.665	1488	527.685	63.95 #	530.295	526.4 *	528.365	124.5	527.245	0.000
25	525.285	0.000	532.605	1475	527.765	70.48 *	529.935	427.5 #	528.425	119.2	527.025	0.000
26	525.325	0.000	532.405	1463	527.865	79.20 #	529.845	480.6	528.245	102.2	526.825	0.000
27	526.865	0.000	530.515	677.0	528.245	118.3 *	529.415	353.2	528.120	88.13	526.675	0.000
28	527.115	0.000	529.455	543.8	528.375	134.0 #	529.445	303.4	528.090	101.2 #	526.955	0.000
29	527.575	0.000	530.295	716.1	528.265	120.7 #	530.225	544.2	528.775	190.1 *	527.685	0.000
30	527.675	0.000	530.365	772.6 *	529.925	424.9 #	530.135	480.8 *	528.725	182.4 #	528.105	0.000
31			529.835	664.1	530.605	622.0 #			528.735	183.9 #		
Ten-Daily Mean												
I Ten-Daily	526.347	0.000	528.115	253.1	528.424	340.4	528.862	233.0	529.471	321.8	527.630	0.000
II Ten-Daily	525.806	0.000	528.385	357.5	526.872	88.45	529.216	278.3	529.546	344.0	526.931	0.000
III Ten-Daily	526.335	0.000	531.658	1189	528.180	156.2	530.571	691.6	528.504	144.6	527.315	0.000
Monthly												
Min.	525.115	0.000	526.585	63.06	526.185	2.556	528.220	115.5	528.090	88.13	526.225	0.000
Max.	527.675	0.000	533.535	1824	530.605	655.4	532.710	1508	530.690	620.2	528.575	0.000
Mean	526.163	0	529.459	618.9	527.837	193.8	529.550	400.9	529.152	266.1	527.292	0

Annual Runoff in MCM = 3971 Annual Runoff in mm = 310

Peak Observed Discharge = 1824 cumecs on 22/07/2017 Corres. Water Level :533.535 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :526.985 m

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

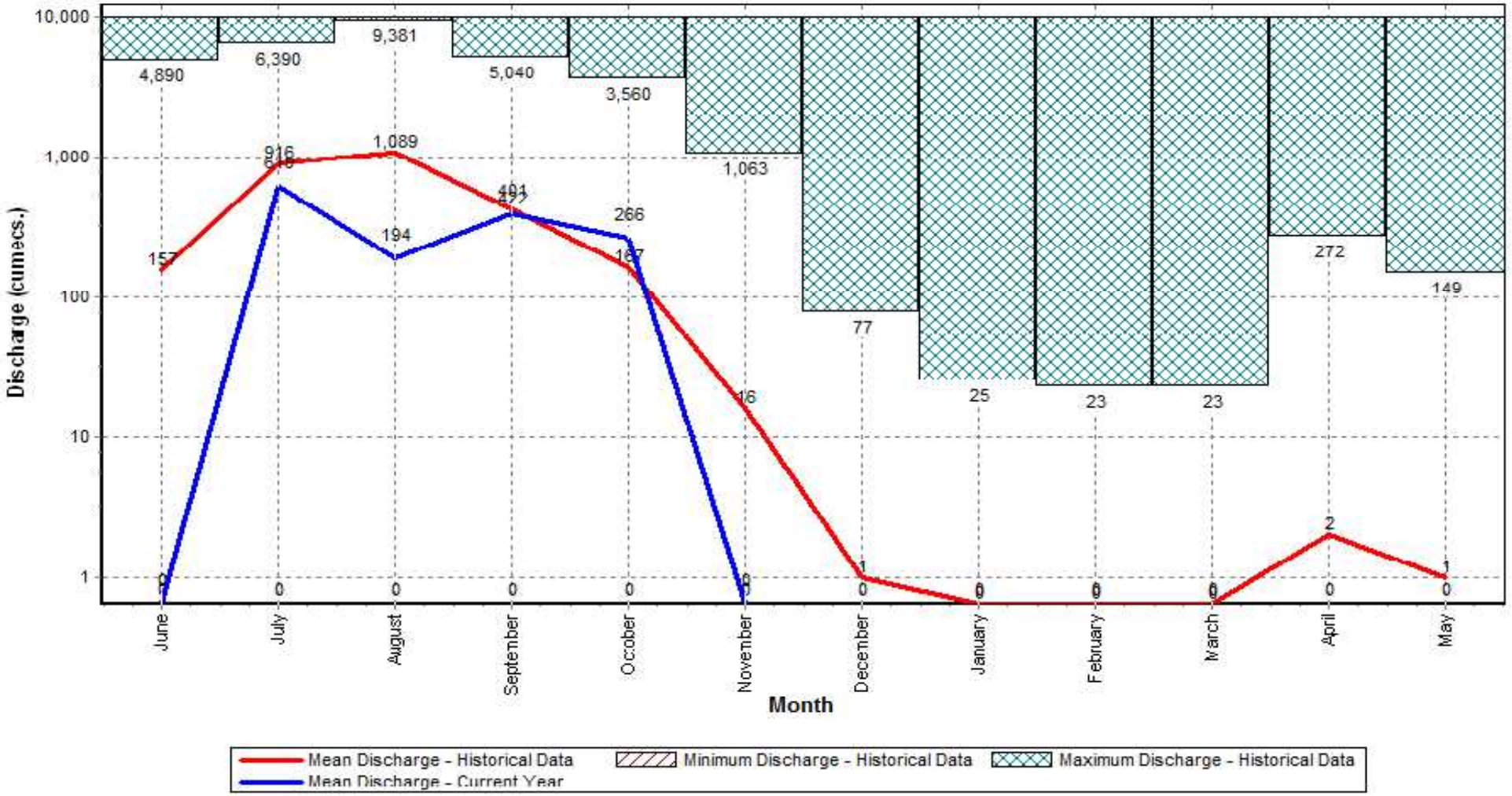
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Data considered : 1969-2018** **Division : Upper Krishna Divn, Pune**

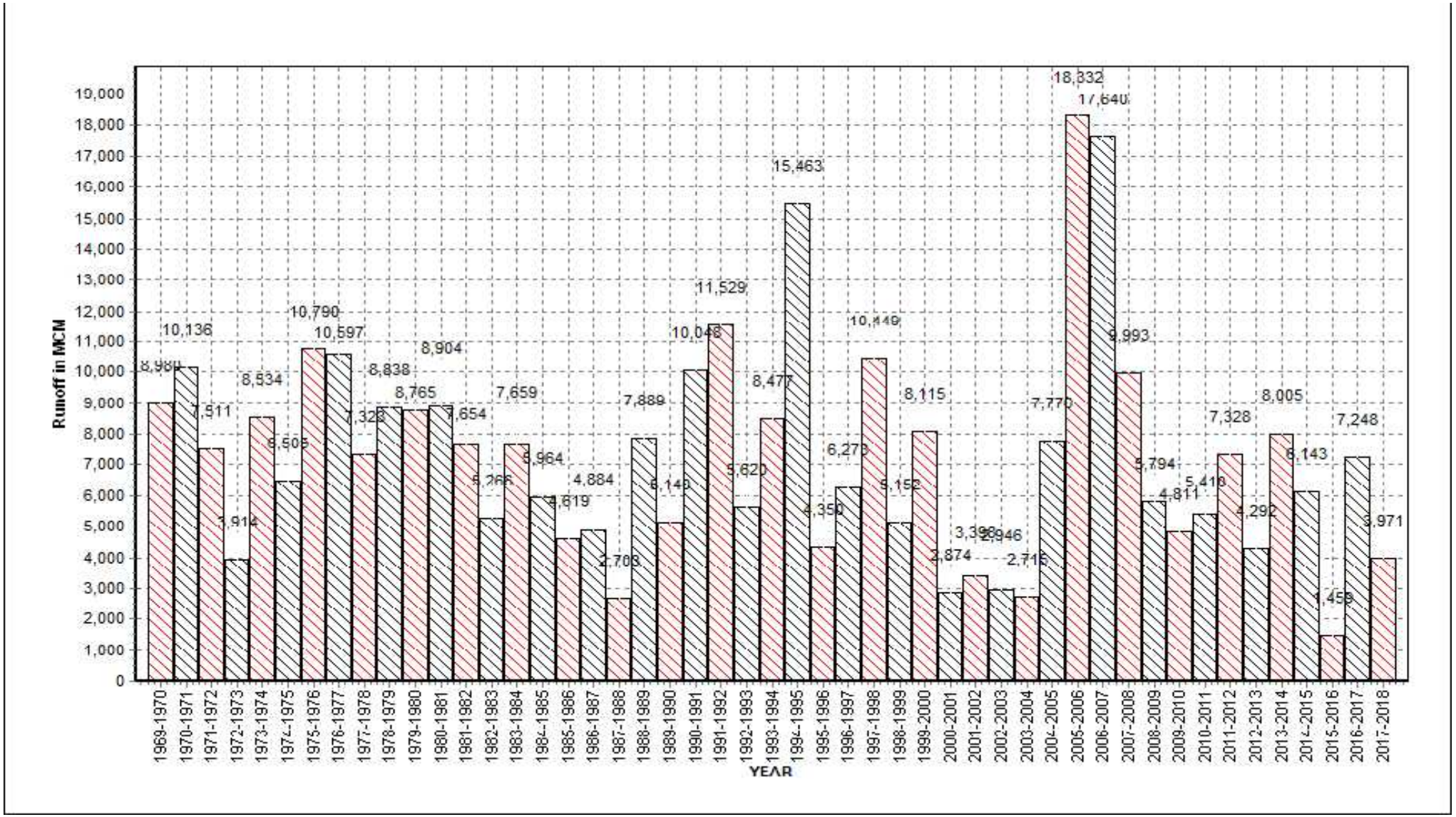
Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Annual Runoff Values for the period: 1969 - 2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

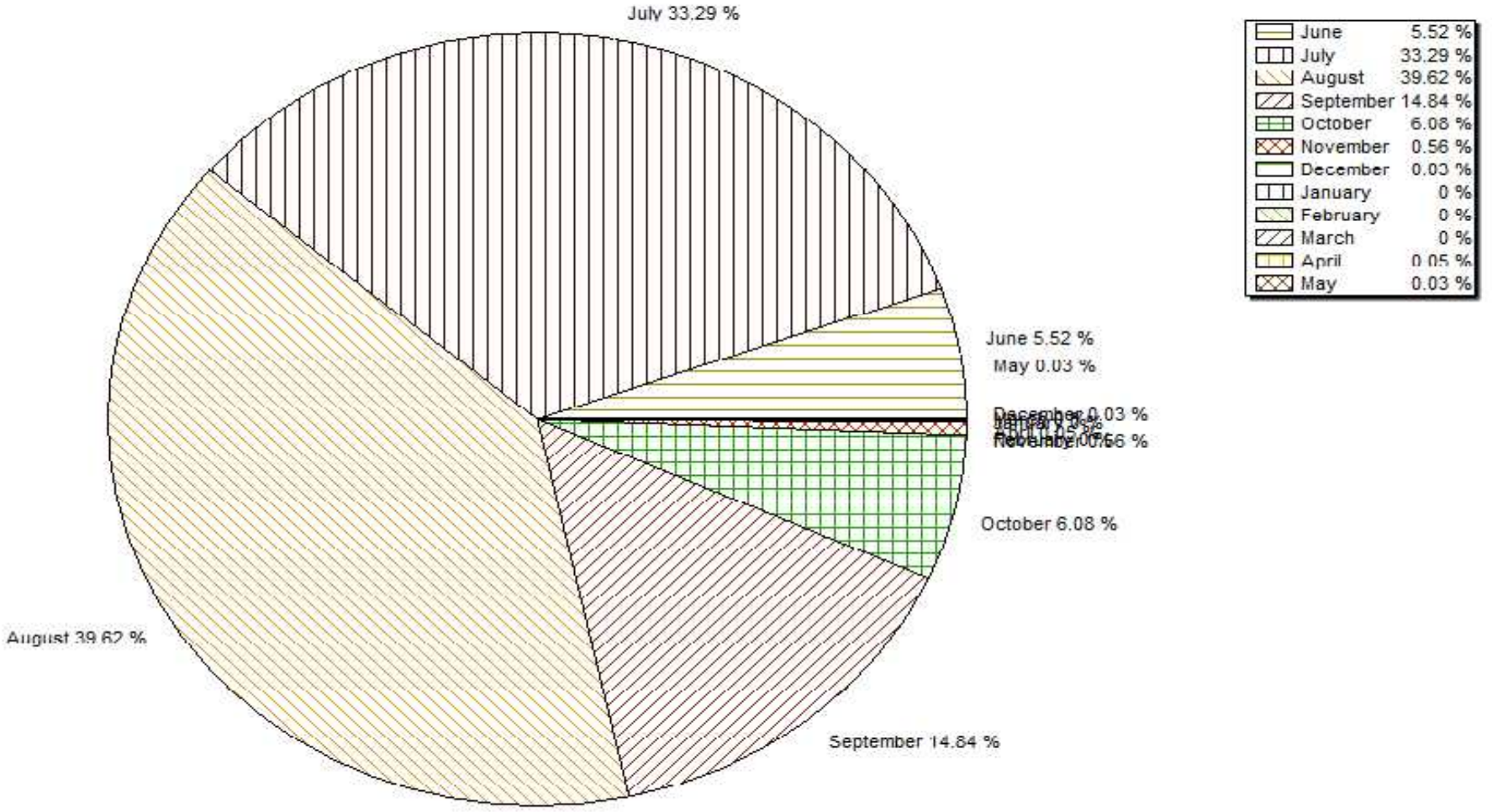


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1969-2017

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

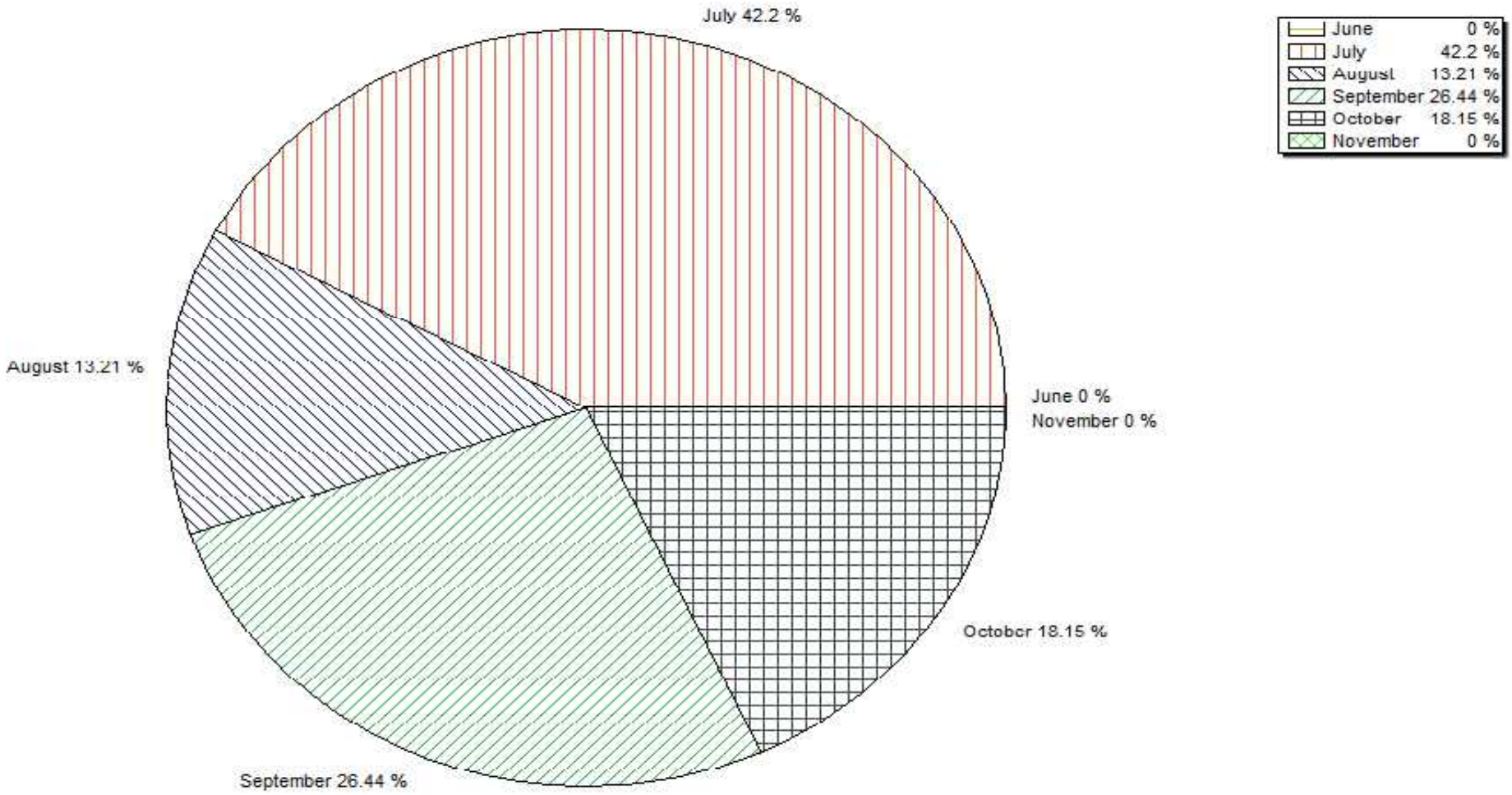
Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Monthly Runoff for the Year : 2017-2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

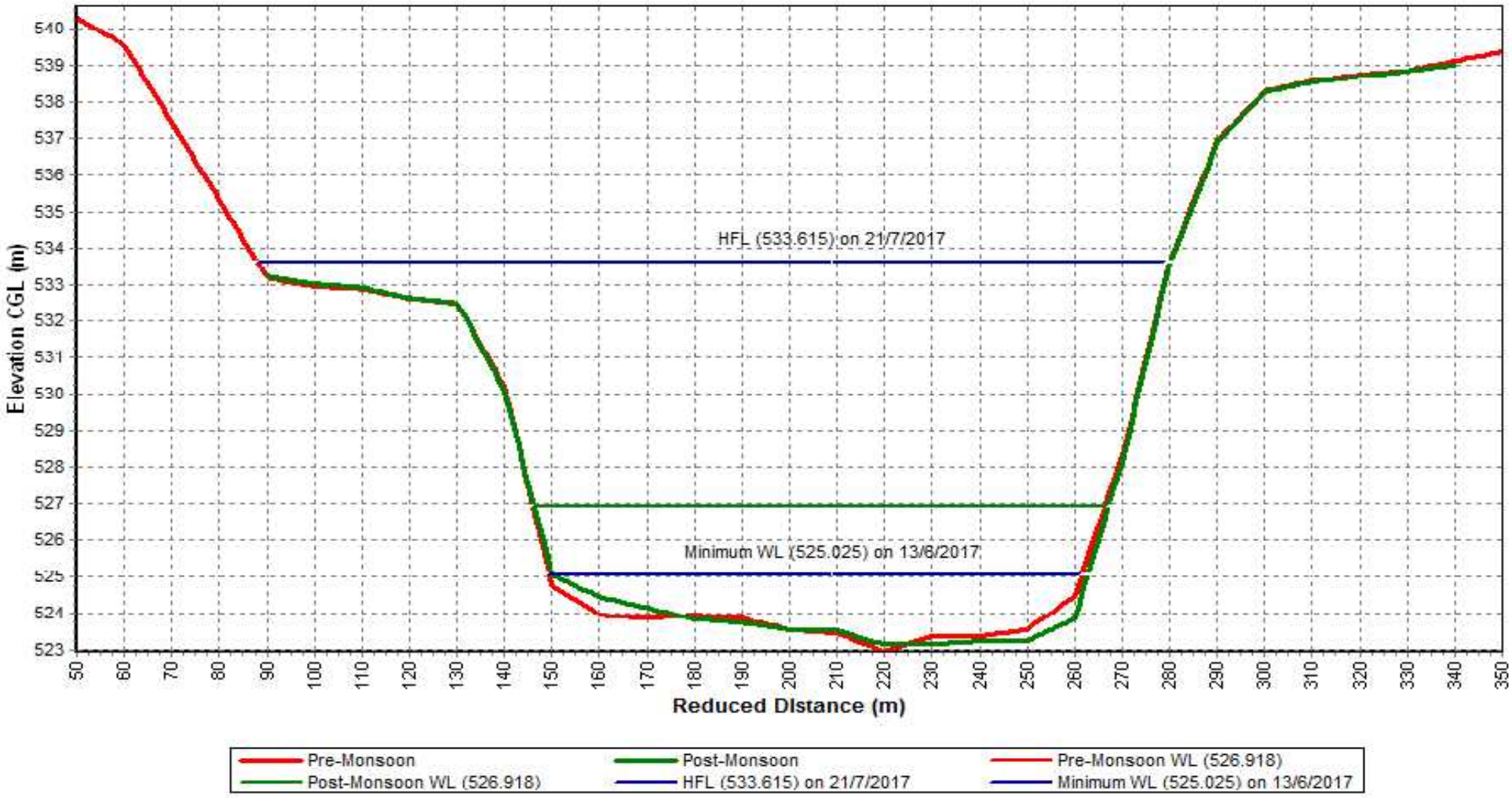
Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**

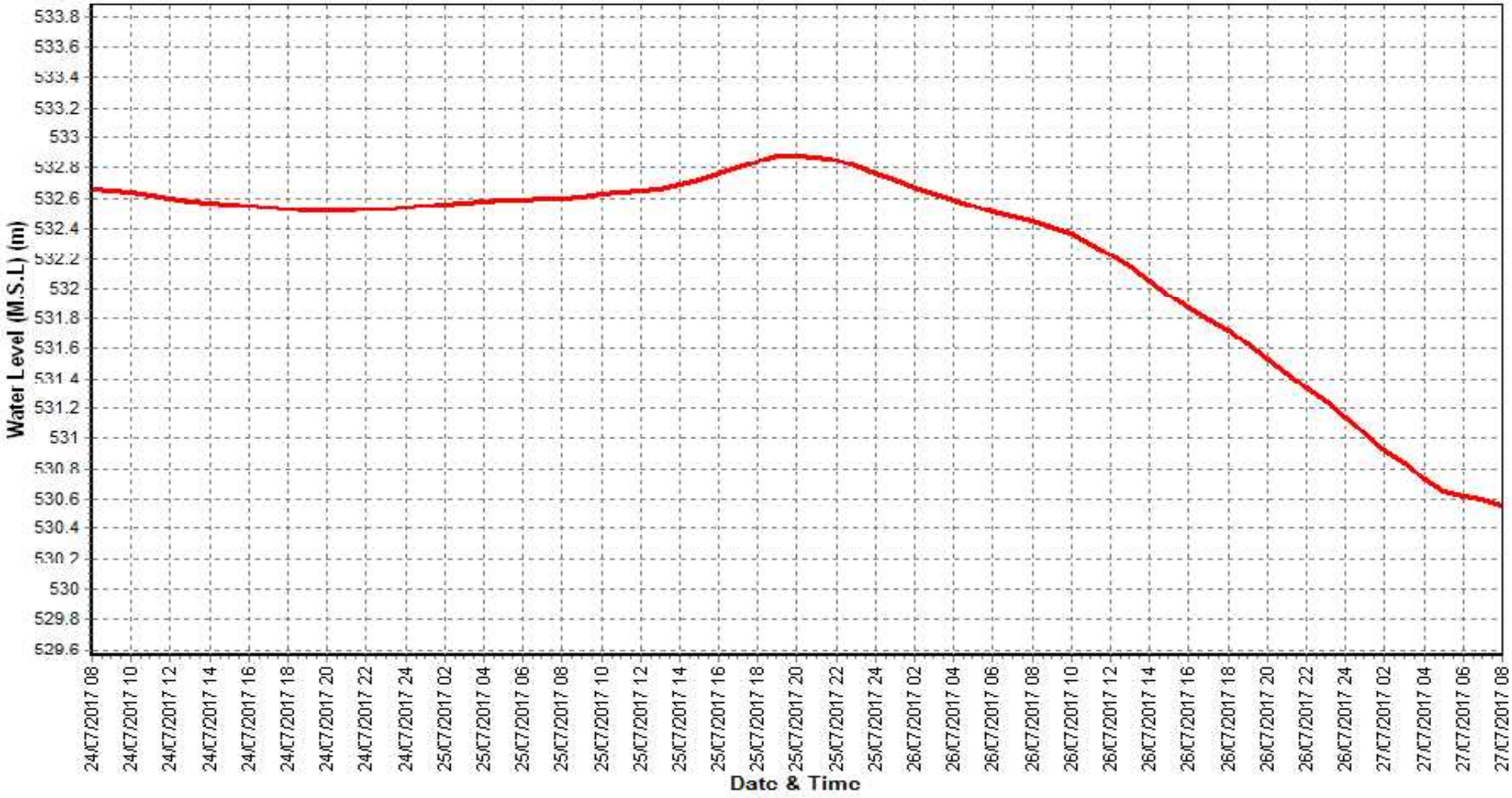


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 2, Miraj**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	:	**Samdoli (Seasonal)**	**Code**	:	**AKX00A7**
State	:	Maharashtra	District		Sangli
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Varna	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Varna
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 2, Miraj
Drainage Area	:	1948 Sq. Km.	Bank	:	Left
Latitude	:	16°51'18"	Longitude	:	74°29'50"
Zero of Gauge (m)	:	529.594 (m.s.l) 528.594 (m.s.l)	01/09/1963 21/04/1966	-	20/04/1966
		Opening Date	Closing Date		
Gauge	:	23/08/1963	HFL During 2017-18	:	537.944m
			Corres. Discharge	:	962.7(Estimated)
Discharge	:	01/12/1964	Date & Time of	:	22/07/2017
			occurance	:	06.00 hrs.
Sediment	:	26/12/2014			
Water Quality	:	01/09/2014			

HFL Recorded so far in m : 546.324 dt 05-08-2005
Corresponding Discharge (cumecs) : 3064 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	17.90	530.649	11/05/1966	0.000	529.529	11/03/1966
1966-1967	36.20	531.134	05/12/1966	0.000	529.509	05/04/1967
1967-1968	2000	544.224	29/07/1967	0.000	529.499	13/02/1968
1968-1969	1068	539.704	03/08/1968	0.000	529.334	31/01/1969
1969-1970	1650	543.294	02/08/1969	0.000	529.524	25/01/1970
1970-1971	1555	541.294	22/08/1970	0.000	529.524	25/01/1971
1971-1972	1220	540.334	26/06/1971	0.000		26/01/1972
1972-1973	1219	540.974	09/07/1972	0.000		25/01/1973
1973-1974	2250	543.279	09/07/1973	0.000	531.754	25/01/1974
1974-1975	1528	540.264	07/07/1974	0.000	530.124	25/01/1975
1975-1976	2050	543.414	12/07/1975	0.000	529.734	02/02/1976
1976-1977	2007	543.322	03/08/1976	0.000	529.794	25/01/1977
1977-1978	1548	541.003	09/07/1977	0.000	533.529	25/01/1978
1978-1979	1418	539.592	14/08/1978	0.000	531.894	25/01/1979
1979-1980	1436	542.219	08/08/1979	0.000	533.429	26/01/1980
1980-1981	1747	542.485	04/07/1980	0.000	529.704	25/01/1981
1981-1982	1741	541.014	09/07/1981	0.000	532.254	25/01/1982
1982-1983	1472	540.077	31/07/1982	0.000	531.114	25/01/1983

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**
1983-1984	1682	540.527	30/06/1983	0.000	530.414	26/01/1984
1984-1985	1715	541.232	20/07/1984	0.000		25/01/1985
1985-1986	1530	540.689	03/08/1985	0.000	531.704	25/01/1986
1986-1987	1347	540.091	10/08/1986	0.000	532.274	25/01/1987
1987-1988	1080	539.199	09/07/1987	0.000		26/01/1988
1988-1989	2025	542.854	04/08/1988	0.000	530.264	25/01/1989
1989-1990	2412	543.424	27/07/1989	0.000	533.724	25/01/1990
1990-1991	1675	543.514	20/08/1990	0.000	534.444	25/01/1991
1991-1992	2081	543.418	30/07/1991	0.000	532.004	26/01/1992
1992-1993	1178	540.031	16/08/1992	0.000	533.494	25/01/1993
1993-1994	1463	540.953	05/08/1993	0.000	533.174	25/01/1994
1994-1995	2235	543.654	17/07/1994	0.000	534.194	25/01/1995
1995-1996	869.0	538.019	04/09/1995	0.000	532.719	26/01/1996
1996-1997	1610	541.614	05/10/1996	0.000	531.064	25/01/1997
1997-1998	1710	543.564	27/08/1997	0.000	533.534	25/01/1998
1998-1999	897.5	538.712	10/07/1998	0.000	532.544	25/01/1999
1999-2000	1199	540.169	24/07/1999	0.000	532.714	26/01/2000
2000-2001	1001	538.294	14/07/2000	0.000	531.824	25/01/2001
2001-2002	637.2	537.339	10/07/2001	0.000	532.954	25/01/2002
2002-2003	694.6	536.819	14/08/2002	0.000	532.484	25/01/2003
2003-2004	772.1	536.829	23/06/2003	0.000		26/01/2004
2004-2005	1341	541.831	14/08/2004	0.000	532.584	25/01/2005
2005-2006	3064	546.324	05/08/2005	0.000	533.144	25/01/2006
2006-2007	2010	544.274	12/08/2006	0.000	532.454	14/11/2006
2007-2008	1569	542.394	03/07/2007	0.000	532.554	10/11/2007
2008-2009	1403	541.634	14/08/2008	0.000	532.214	10/11/2008
2009-2010	1141	538.844	17/07/2009	0.000	532.354	26/11/2009
2010-2011	1145	538.844	27/07/2010	0.000	532.794	13/11/2010
2011-2012	1592	542.414	06/09/2011	0.000	532.434	27/10/2011
2012-2013	688.9	537.190	06/09/2012	0.000	531.850	17/11/2012
2013-2014	1483	541.744	27/07/2013	0.000	530.594	07/06/2013
2014-2015	1115	540.094	25/07/2014	0.000	532.864	18/11/2014
2015-2016	669.2	536.684	26/06/2015	0.000	532.564	09/06/2015
2016-2017	1660	541.944	13/07/2016	0.000	532.174	02/04/2017

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

AnnualRunoff of Varna at Samdoli(Seasonal)

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1964-1965**		5	5
2	**1965-1966**	0	16	16
3	**1966-1967**	32	40	72
4	**1967-1968**	4119	5	4124
5	**1968-1969**	2030	0	2030
6	**1969-1970**	3342	0	3342
7	**1970-1971**	4006	0	4006
8	**1971-1972**	3178	0	3178
9	**1972-1973**	1645	0	1645
10	**1973-1974**	3493	0	3493
11	**1974-1975**	3154	0	3154
12	**1975-1976**	4326	1	4328
13	**1976-1977**	4310	0	4310
14	**1977-1978**	3333	0	3333
15	**1978-1979**	4285	0	4285
16	**1979-1980**	2951	0	2951
17	**1980-1981**	3711	0	3711
18	**1981-1982**	3364	0	3364
19	**1982-1983**	3045	0	3045
20	**1983-1984**	3781	0	3781
21	**1984-1985**	2884	0	2884
22	**1985-1986**	2692	0	2692
23	**1986-1987**	2130	0	2130
24	**1987-1988**	1693	0	1693
25	**1988-1989**	3198	0	3198
26	**1989-1990**	2685	0	2685
27	**1990-1991**	3586	0	3586
28	**1991-1992**	4612	0	4612
29	**1992-1993**	2490	0	2490
30	**1993-1994**	3345	0	3345
31	**1994-1995**	4735	0	4735
32	**1995-1996**	1502	0	1502
33	**1996-1997**	2410	0	2410
34	**1997-1998**	3497	0	3497
35	**1998-1999**	1791	0	1791
36	**1999-2000**	2844	0	2844
37	**2000-2001**	1399	0	1399
38	**2001-2002**	1520	0	1520
39	**2002-2003**	1361	0	1361
40	**2003-2004**	1436	0	1436
41	**2004-2005**	2708	0	2708
42	**2005-2006**	5839	0	5839
43	**2006-2007**	5650	Seasonal	5650
44	**2007-2008**	3839		3839
45	**2008-2009**	2343		2343
46	**2009-2010**	1949		1949
47	**2010-2011**	2114		2114
48	**2011-2012**	3190		3190
49	**2012-2013**	2105		2105
50	**2013-2014**	3129		3129
51	**2014-2015**	2713		2713
52	**2015-2016**	948		948
53	**2016-2017**	2744		2744
54	**2017-2018**	1975		1975
Average		2852	2	2800

Stage-Discharge Data for the period 2017 - 2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**

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	532.194	29.12	533.759	290.8	533.054	174.1	535.024	414.0	533.004	170.5 *	531.634	0.000
2	532.154	29.41	533.664	256.6 *	533.094	196.4	533.244	201.0 *	532.644	126.8 *	531.574	0.000
3	532.024	24.02	533.469	252.4	532.999	171.2	532.874	154.4 *	532.924	162.1	531.354	0.000
4	531.824	31.62 *	533.204	194.2	532.984	168.0	532.654	130.0	532.634	131.7	531.404	0.000
5	531.549	21.33	533.134	182.5	533.119	183.2	532.549	115.1	532.284	90.10	531.444	0.000
6	531.584	21.84	533.104	179.9	533.044	175.5 *	532.384	92.66	532.089	80.45	531.324	0.000
7	531.509	20.10	532.774	127.7	532.939	167.8	532.209	88.36	532.444	103.3	531.354	0.000
8	531.284	9.014	532.479	99.89	532.839	149.6	532.394	92.61	532.864	153.2 *	531.274	0.000
9	530.989	2.676	532.304	88.03 *	532.639	129.7	532.419	96.36	532.554	114.3	531.244	0.000
10	530.789	0.000	532.034	63.22	532.549	114.2	532.294	86.93 *	532.239	88.00	531.124	0.000
11	530.524	0.000	531.944	46.41	532.477	100.3	532.644	135.6	532.159	79.12	531.004	0.000
12	530.324	0.000	531.939	45.61	532.385	91.77	532.414	98.90	532.214	86.11	530.944	0.000
13	530.304	0.000	532.004	56.85	532.334	91.33 *	532.289	81.62	532.254	79.56	530.864	0.000
14	530.544	0.000	532.009	57.16	532.204	89.82	532.794	157.0	533.234	194.1	530.934	0.000
15	530.994	0.000	533.869	314.8	532.144	70.84 *	532.434	103.2	533.044	175.5 *	531.174	0.000
16	531.434	17.05	533.594	247.2 *	532.034	76.75	532.449	102.0	533.844	289.4	531.654	0.000
17	531.574	19.73	533.824	309.7	532.044	77.25	532.674	130.3 *	532.844	150.5	531.794	0.000
18	531.514	19.22 *	533.814	301.9	531.724	29.87 #	532.574	114.1	532.584	104.5	531.794	0.000
19	531.424	17.54	535.019	447.7	531.639	22.53 #	532.794	158.3	532.394	98.01 *	531.744	0.000
20	531.134	6.687	536.504	683.7	531.804	37.11 *	535.184	444.7	532.094	79.45	531.194	0.000
21	531.104	6.100	537.704	930.6	531.714	28.98 #	537.144	793.5 #	531.999	52.56	531.314	0.000
22	531.027	3.805	537.934	962.7	531.794	36.19 #	537.144	793.5 #	531.954	51.46 *	531.194	0.000
23	530.972	2.558	537.394	836.1 *	531.669	23.52	534.224	311.3	532.164	79.13	531.034	0.000
24	530.694	0.000	535.704	525.8	531.644	25.82	533.054	176.8 *	531.894	50.00	530.494	0.000
25	530.654	0.000	535.844	527.5	531.744	31.65 *	533.104	193.6	531.829	31.90	530.094	0.000
26	531.794	30.35 *	535.584	459.2	531.954	44.25	532.794	159.9	531.784	30.24	530.644	0.000
27	532.579	114.6	533.709	265.2	532.294	86.93 *	532.944	156.7	531.789	30.55	531.624	0.000
28	532.734	134.6	533.104	192.2	532.444	101.9	532.894	159.5	531.779	30.24	532.144	0.000
29	532.514	120.0	534.224	338.8	532.664	137.3	533.504	231.0	531.874	43.70 *	532.234	0.000
30	533.229	195.4	534.334	350.3 *	534.054	347.3	533.544	240.5 *	531.689	24.27	532.094	0.000
31			533.274	206.9	535.769	532.8			531.634	23.36		
Ten-Daily Mean												
I Ten-Daily	531.590	18.91	532.993	173.5	532.926	163.0	532.805	147.1	532.568	122.0	531.373	0.000
II Ten-Daily	530.977	8.023	533.452	251.1	532.079	68.76	532.825	152.6	532.667	133.6	531.310	0.000
III Ten-Daily	531.730	60.74	535.346	508.7	532.522	127.0	534.035	242.3	531.854	40.67	531.287	0.000
Monthly												
Min.	530.304	0.000	531.939	45.61	531.639	22.53	532.209	0.000	531.634	23.36	530.094	0.000
Max.	533.229	195.4	537.934	962.7	535.769	532.8	537.144	793.5	533.844	289.4	532.234	0.000
Mean	531.432	29.22	533.976	317.5	532.509	119.8	533.221	180.7	532.346	96.91	531.323	0

Annual Runoff in MCM = 2009 Annual Runoff in mm = 1014

Peak Observed Discharge = 962.7 cumecs on 22/07/2017 Corres. Water Level :537.934 m

Lowest Observed Discharge = 0.000 cumecs on 10/06/2017 Corres. Water Level :530.789 m

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

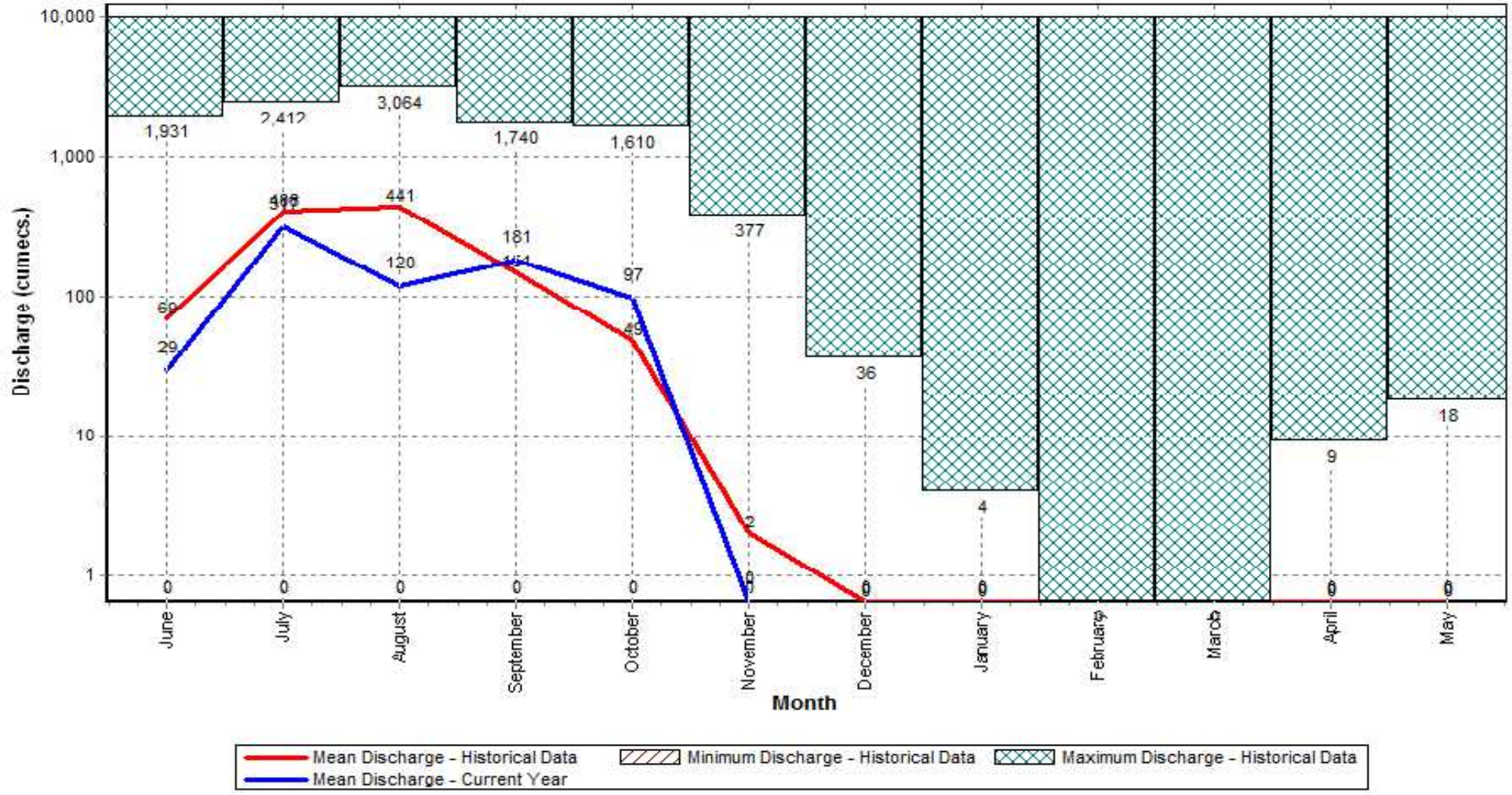
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Data considered : 1965-2018** **Division : Upper Krishna Divn, Pune**

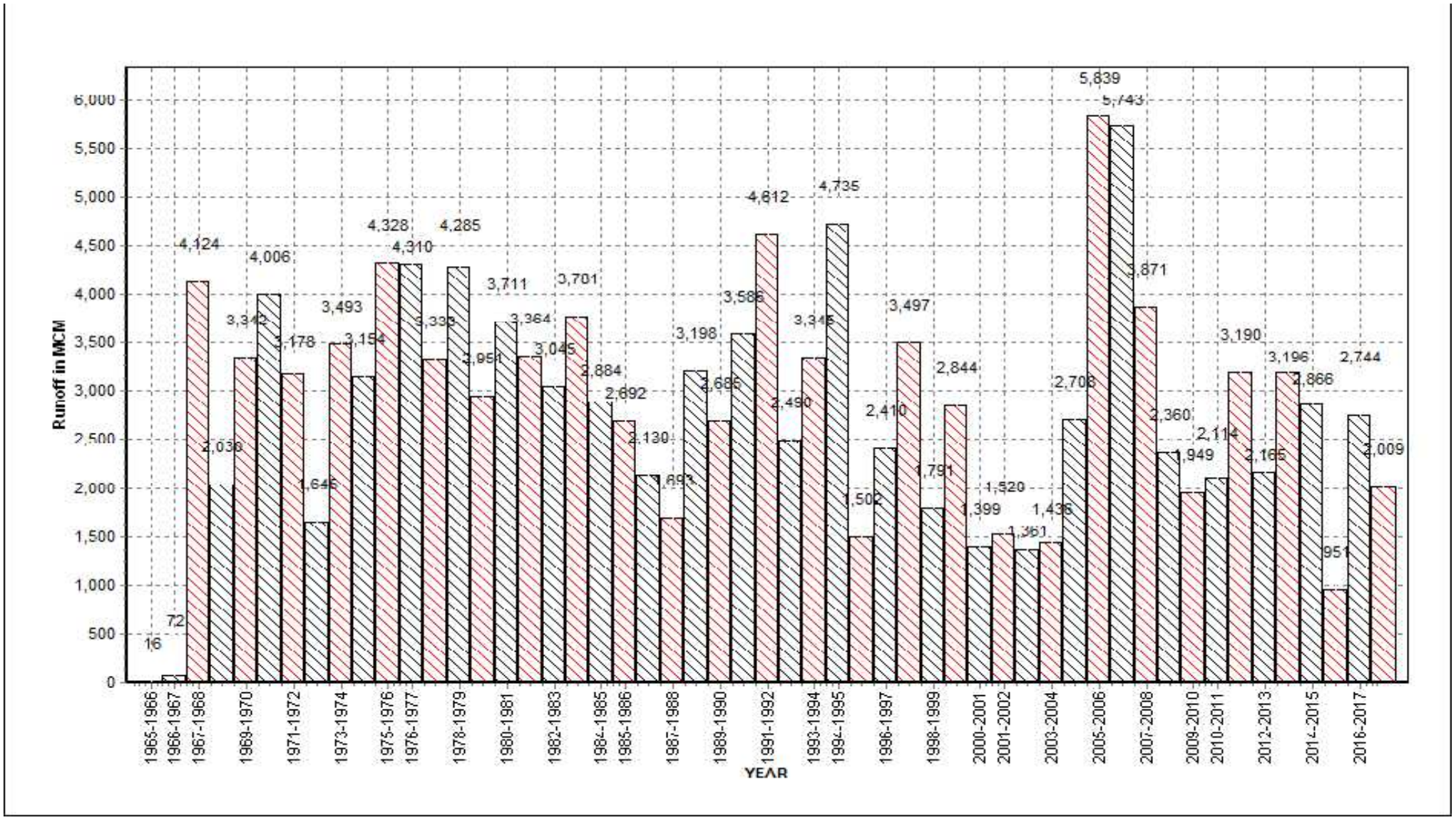
Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**

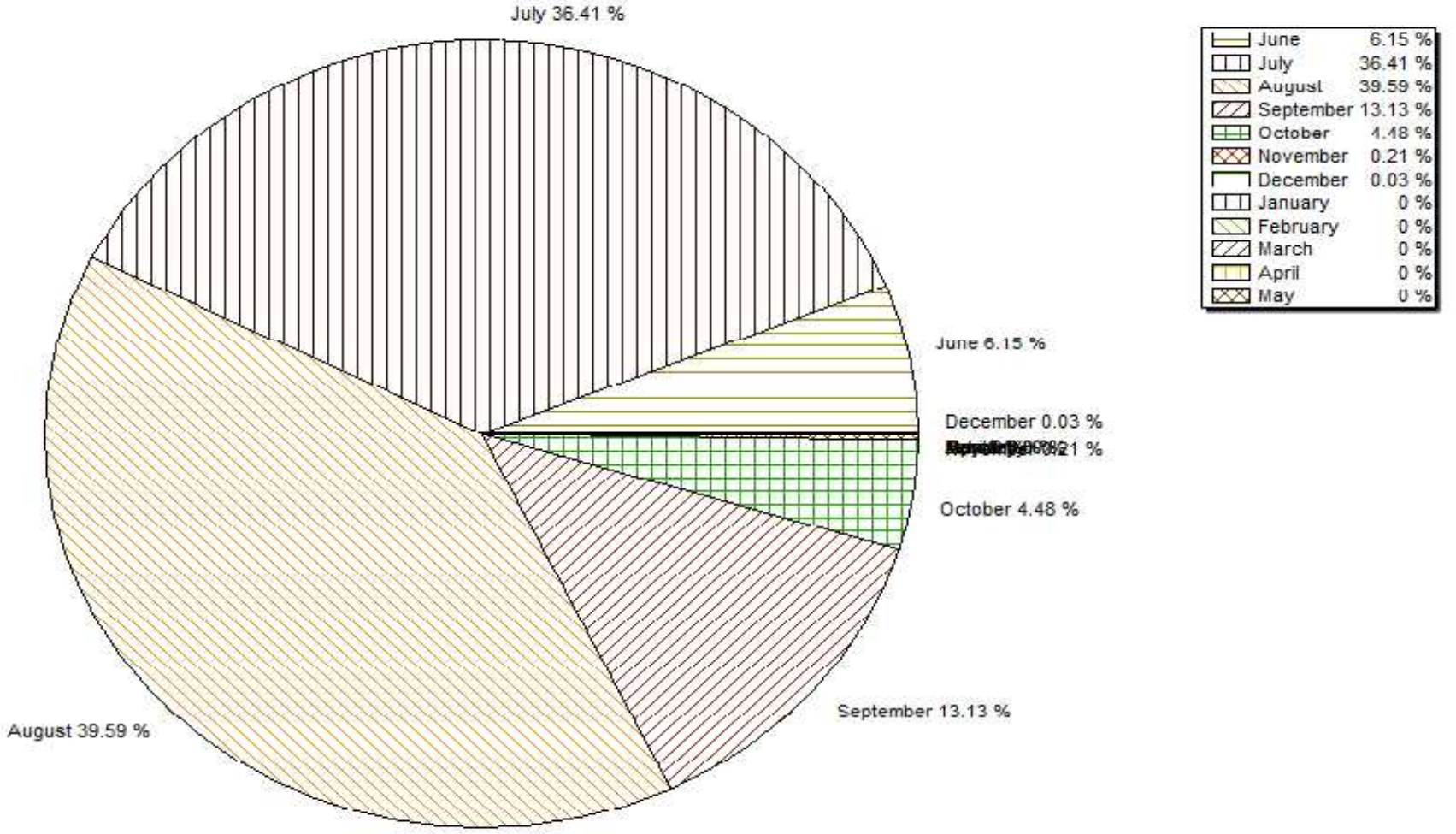


Note: Missing values have not been considered while arriving at Annual Runoff

Monthly Average Runoff based on period : 1965-2017

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

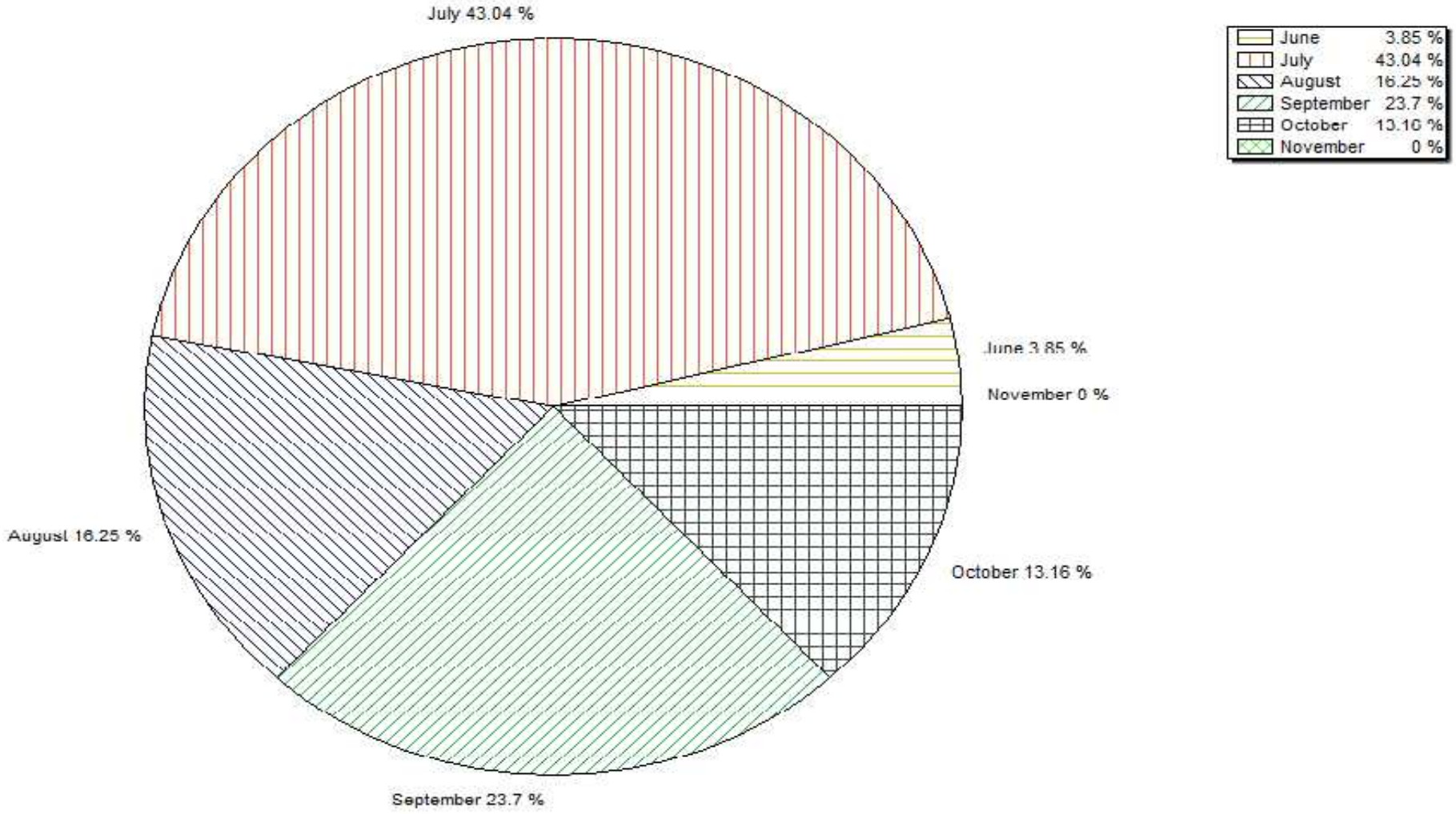
Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**



Monthly Runoff for the Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

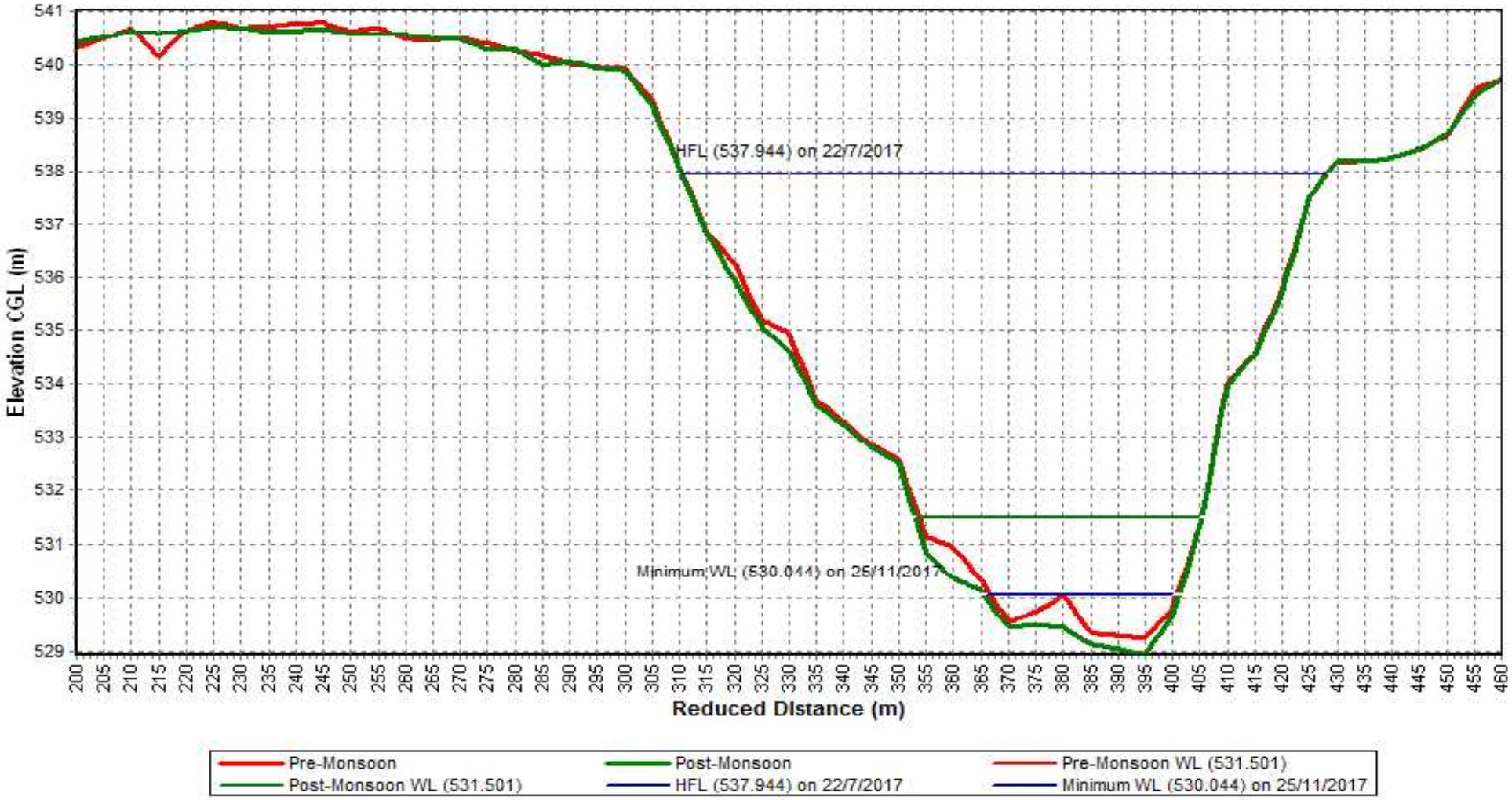
Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**



Water Level vs. Time - Graph of Highest Flood Peak during the Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**

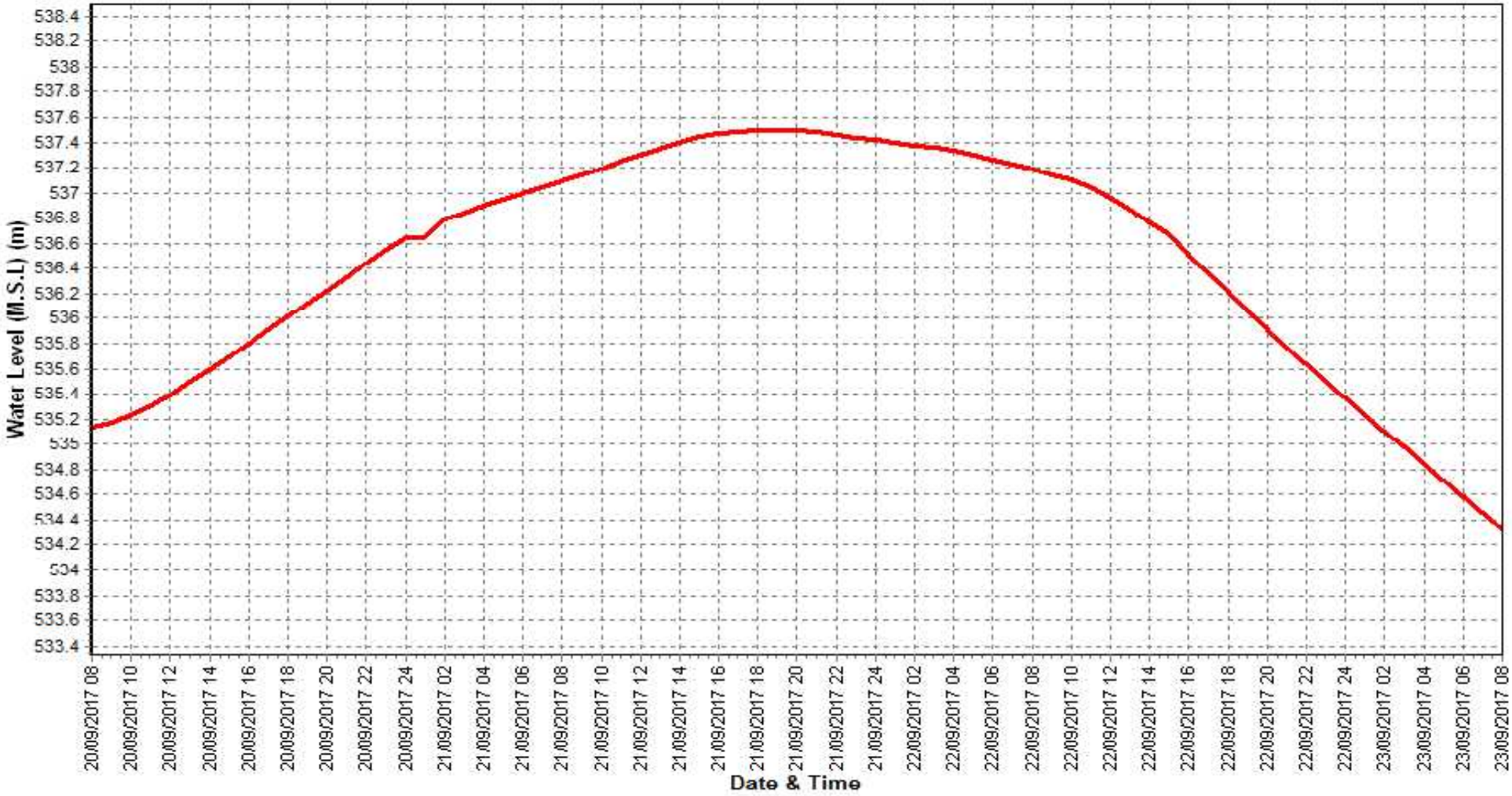


Time Span: 72 Hrs

Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**

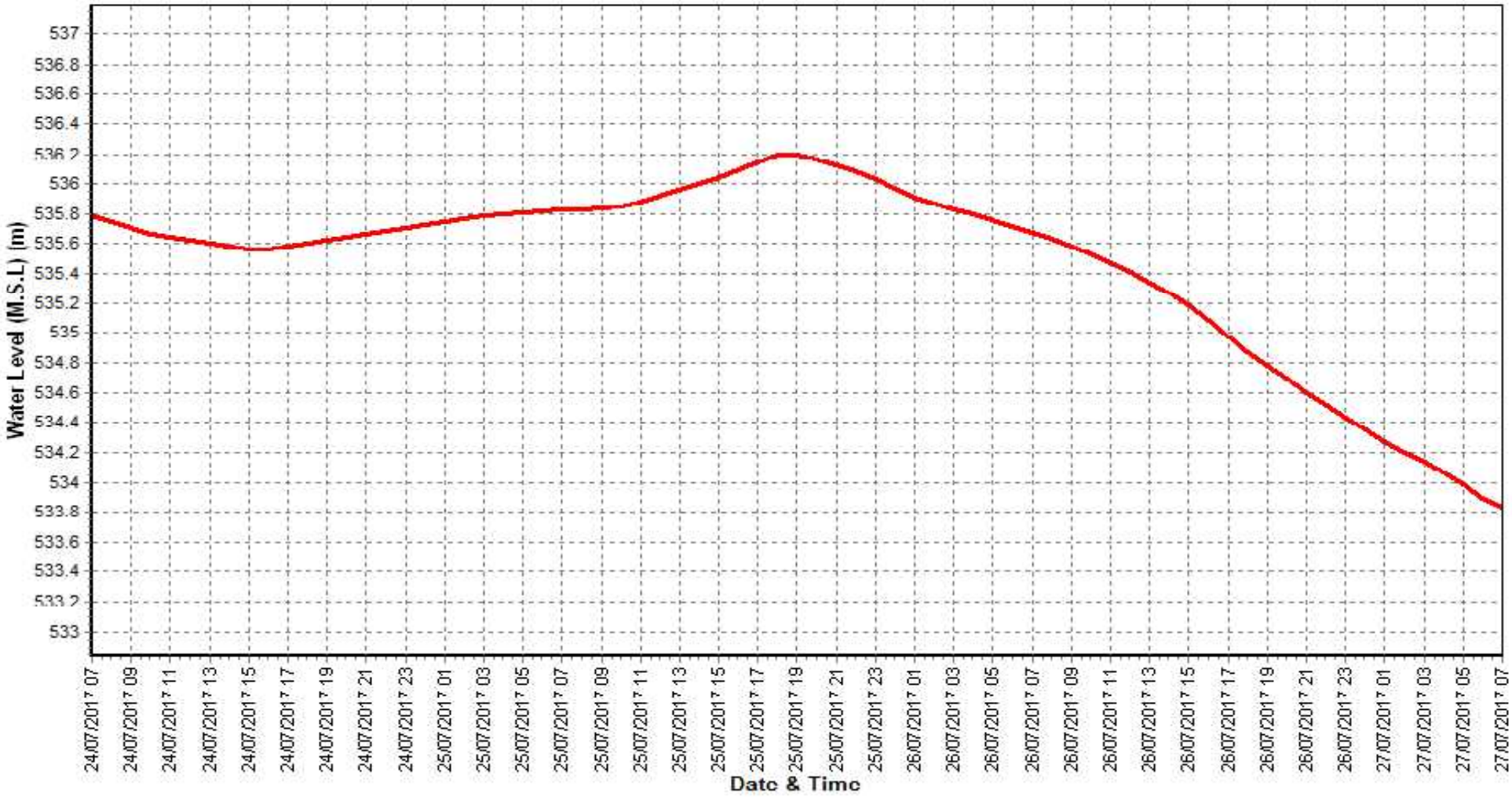


Time Span: 72 Hrs

Water Level vs. Time - Graph of 3rd Highest Flood Peak during the Year : 2017-2018

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD 2, Miraj**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**:**	**Karad**	**Code**	**:**	**AK000X6**
State	:	Maharashtra	District		Satara
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Krishna
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Krishna SD 1, Kolhapur
Drainage Area	:	5462 Sq. Km.	Bank	:	Right
Latitude	:	17°17'40"	Longitude	:	74°11'25"
Zero of Gauge (m)	:	549.962 (m.s.l) 549.915 (m.s.l)	01/06/1965 01/06/2004	-	31/05/2004
		Opening Date	Closing Date		
Gauge	:	25/12/1964	HFL During 2017-18	:	557.545m
			Corres. Discharge	:	1338(Estimated)
Discharge	:	21/06/1965	Date & Time of occurance	:	07/10/2017 12.00 hrs.
Sediment	:	22/06/1965			
Water Quality	:	01/09/1972			

HFL Recorded so far in m : 567.162 dt 07-06-1976
Corresponding Discharge (cumecs) : 8938 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1965-1966	4760	561.837	21/07/1965	0.000	550.162	08/06/1965
1966-1967	2673	559.067	29/07/1966	0.010	550.232	06/05/1967
1967-1968	4482	562.997	28/07/1967	0.020	550.152	09/06/1967
1968-1969	1527	556.640	08/08/1968	0.010	550.092	30/05/1969
1969-1970	4267	561.672	01/08/1969	0.200	550.242	09/05/1970
1970-1971	2428	558.245	21/08/1970	0.100	550.352	20/04/1971
1971-1972	2156	558.002	31/08/1971	0.000	550.162	23/05/1972
1972-1973	2190	557.982	08/07/1972	0.000	549.987	12/03/1973
1973-1974	3051	560.362	08/07/1973	0.000	549.882	02/06/1973
1974-1975	3101	559.360	05/07/1974	0.000	550.157	24/03/1975
1975-1976	3231	560.117	10/07/1975	0.000	550.012	21/05/1976
1976-1977	4562	561.735	02/08/1976	0.000	550.127	15/04/1977
1977-1978	3422	559.898	07/07/1977	0.000	550.102	16/03/1978
1978-1979	2187	558.292	27/08/1978	0.200	550.052	30/01/1979
1979-1980	2435	559.402	07/08/1979	0.000	550.142	14/05/1980
1980-1981	2848	560.077	06/08/1980	0.000	550.187	08/05/1981
1981-1982	1942	558.142	10/07/1981	0.000	550.192	01/06/1981
1982-1983	1261	556.727	14/08/1982	0.000	550.182	23/03/1983

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**
1983-1984	1931	558.778	17/08/1983	0.000	550.127	19/12/1983
1984-1985	1797	558.250	19/07/1984	0.000	550.152	04/03/1985
1985-1986	1363	557.239	02/08/1985	0.000	550.202	27/03/1986
1986-1987	1801	558.287	30/06/1986	0.000	550.272	27/12/1986
1987-1988	1323	556.722	08/07/1987	0.000	550.132	23/02/1988
1988-1989	3205	562.912	03/08/1988	0.000	550.152	12/01/1989
1989-1990	2904	559.587	25/07/1989	0.000	550.072	19/01/1990
1990-1991	4361	562.212	18/08/1990	0.000	550.012	22/04/1991
1991-1992	3350	560.942	28/07/1991	0.000	550.192	14/11/1991
1992-1993	2127	559.757	14/08/1992	0.000	550.042	25/12/1992
1993-1994	1812	558.702	19/06/1993	0.692	550.032	01/06/1993
1994-1995	3915	562.127	15/07/1994	0.000	550.002	27/01/1995
1995-1996	1356	556.577	20/07/1995	0.000	550.037	09/07/1995
1996-1997	2944	559.997	04/10/1996	0.000	549.892	02/06/1996
1997-1998	5954	563.922	24/08/1997	0.000		12/03/1998
1998-1999	1541	557.627	09/07/1998	0.000	549.932	06/01/1999
1999-2000	2111	558.697	28/07/1999	0.000	549.842	18/04/2000
2000-2001	774.1	555.172	13/07/2000	0.000	549.912	12/12/2000
2001-2002	911.2	555.117	10/07/2001	0.000	549.912	08/02/2002
2002-2003	1121	555.432	13/08/2002	0.000	549.922	18/01/2003
2003-2004	936.5	554.912	28/07/2003	0.000	549.912	21/01/2004
2004-2005	4163	561.745	13/08/2004	0.000	549.795	19/04/2005
2005-2006	6312	564.815	03/08/2005	0.000	549.825	02/04/2006
2006-2007	6708	566.075	30/07/2006	0.000	549.865	01/03/2007
2007-2008	3868	561.425	02/07/2007	0.000	549.825	02/01/2008
2008-2009	2884	560.115	11/08/2008	4.620	549.815	01/03/2009
2009-2010	1258	555.755	15/07/2009	0.000	552.855	28/02/2010
2010-2011	1189	555.790	27/07/2010	0.000	553.515	29/01/2011
2011-2012	5074	563.375	04/09/2011	0.000	553.995	03/02/2012
2012-2013	993.4	555.520	26/07/2012	0.000	555.460	08/04/2013
2013-2014	2507	558.930	26/07/2013	0.000	554.315	25/04/2014
2014-2015	1700	556.805	24/07/2014	0.000	554.115	27/06/2014
2015-2016	1045	555.885	24/06/2015	0.000	553.745	13/11/2015
2016-2017	1262	556.770	06/08/2016	0.000	556.535	09/03/2017

Annual Runoff of Krishna at Karad

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**	6541	185	6726
2	**1966-1967**	3949	88	4037
3	**1967-1968**	5820	1020	6840
4	**1968-1969**	2917	82	2999
5	**1969-1970**	6861	148	7009
6	**1970-1971**	5173	153	5326
7	**1971-1972**	4152	204	4356
8	**1972-1973**	2287	192	2479
9	**1973-1974**	4786	279	5064
10	**1974-1975**	3155	182	3337
11	**1975-1976**	5088	225	5313
12	**1976-1977**	6765	257	7021
13	**1977-1978**	4372	306	4678
14	**1978-1979**	4914	285	5199
15	**1979-1980**	4528	272	4800
16	**1980-1981**	5161	331	5492
17	**1981-1982**	3499	376	3875
18	**1982-1983**	2401	396	2796
19	**1983-1984**	3188	415	3603
20	**1984-1985**	3112	504	3616
21	**1985-1986**	2264	613	2878
22	**1986-1987**	2843	625	3468
23	**1987-1988**	1678	516	2194
24	**1988-1989**	3566	566	4132
25	**1989-1990**	2344	580	2925
26	**1990-1991**	5707	873	6580
27	**1991-1992**	6220	732	6952
28	**1992-1993**	2703	534	3238
29	**1993-1994**	3925	1037	4962
30	**1994-1995**	9337	649	9986
31	**1995-1996**	2035	509	2544
32	**1996-1997**	3222	568	3790
33	**1997-1998**	6506	672	7178
34	**1998-1999**	3065	558	3622
35	**1999-2000**	4661	630	5291
36	**2000-2001**	1780	606	2386
37	**2001-2002**	1720	523	2243
38	**2002-2003**	2091	499	2590
39	**2003-2004**	1779	544	2323
40	**2004-2005**	4646	434	5080
41	**2005-2006**	10046	435	10481
42	**2006-2007**	10337	488	10824
43	**2007-2008**	6273	450	6723
44	**2008-2009**	3367	520	3887
45	**2009-2010**	3221	168	3389
46	**2010-2011**	2754	3	2757
47	**2011-2012**	3742	0	3742
48	**2012-2013**	1501	0	1501
49	**2013-2014**	3716	0	3716
50	**2014-2015**	2309	0	2309
51	**2015-2016**	970	35	1006
52	**2016-2017**	2305	0	2305
53	**2017-2018**	1358	0	1358
Average		4012	382	4395

Stage-Discharge Data for the period 2017 - 2018

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**

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	554.445	0.000	552.560	231.2 #	552.535	212.1	556.115	0.000	556.005	0.000	551.755	0.000
2	554.365	0.000	552.195	184.8 *	552.235	218.6	555.625	0.000	556.265	0.000	551.275	0.000
3	554.665	0.000	552.425	213.5 #	551.745	149.4	555.135	0.000	557.225	0.000	551.315	0.000
4	554.825	0.000	552.545	229.2 #	551.735	146.1	554.755	0.000	557.295	0.000	551.765	0.000
5	554.795	0.000	552.665	267.5	551.675	129.4	554.815	0.000	557.375	0.000	552.005	0.000
6	554.365	0.000	552.755	244.8	551.575	117.3 *	554.815	0.000	556.645	0.000	552.615	0.000
7	553.725	0.000	552.465	230.0	551.485	117.5	556.545	0.000	557.365	0.000	553.115	0.000
8	553.365	0.000	552.505	218.5	551.425	104.4	556.635	0.000	557.345	0.000	552.185	0.000
9	553.135	0.000	552.215	187.2 *	551.325	101.7	556.955	0.000	557.195	0.000	553.155	0.000
10	552.555	0.000	552.265	193.3 #	551.245	98.18	556.405	0.000	556.415	0.000	553.205	0.000
11	553.315	0.000	551.005	53.41	551.385	90.86	556.725	0.000	557.145	0.000	552.845	0.000
12	553.175	0.000	551.030	61.17	551.305	85.11	556.595	0.000	556.855	0.000	553.055	0.000
13	552.515	0.000	550.975	60.35	551.325	94.18 *	556.805	0.000	556.455	0.000	552.695	0.000
14	553.155	0.000	551.325	102.9	551.185	80.58	556.195	0.000	556.825	0.000	552.575	0.000
15	553.485	0.000	552.135	177.6 #	551.035	70.41 *	556.735	0.000	556.725	0.000	552.455	0.000
16	553.205	0.000	551.865	147.1 *	551.135	77.16	556.665	0.000	556.435	0.000	553.565	0.000
17	552.855	0.000	552.155	180.0 #	551.115	75.27	556.645	0.000	556.355	0.000	554.555	0.000
18	552.885	0.000	552.310	0.000	551.055	72.41	556.525	0.000	556.485	0.000	554.465	0.000
19	553.015	0.000	553.275	340.3	553.115	0.000	557.145	0.000	556.365	0.000	554.265	0.000
20	552.955	0.000	554.095	436.3	555.035	0.000	556.415	1012 #	556.175	0.000	554.175	0.000
21	552.865	0.000	554.005	422.3	555.695	0.000	555.585	804.2	556.585	0.000	553.335	0.000
22	551.535	0.000	553.155	325.1	556.405	0.000	556.025	996.1	556.605	0.000	552.915	0.000
23	551.885	0.000	552.875	275.2 *	556.515	0.000	556.410	1011 #	556.505	0.000	554.545	0.000
24	552.465	0.000	553.125	307.8	555.975	0.000	556.565	1053 *	556.315	0.000	553.765	0.000
25	552.575	0.000	553.875	394.5	556.435	0.000	556.475	970.0	556.445	0.000	553.155	0.000
26	553.395	0.000	552.805	246.7	557.085	0.000	555.965	0.000	556.515	0.000	552.505	0.000
27	553.865	404.8	552.425	208.2	556.145	0.000	557.075	0.000	556.235	0.000	552.905	0.000
28	551.545	118.5	552.535	219.4	556.165	0.000	556.685	0.000	555.245	0.000	554.265	0.000
29	551.405	103.6	552.945	314.1	557.215	0.000	556.335	0.000	554.825	0.000	554.595	0.000
30	552.090	214.0	552.725	253.8 *	556.345	0.000	557.465	0.000	553.035	0.000	554.175	0.000
31			552.795	263.7 *	556.125	0.000				0.000		
Ten-Daily Mean												
I Ten-Daily	554.024	0.000	552.460	220.0	551.698	139.5	555.780	0.000	556.913	0.000	552.239	0.000
II Ten-Daily	553.056	0.000	552.017	155.9	551.769	64.60	556.645	101.2	556.582	0.000	553.465	0.000
III Ten-Daily	552.362	84.09	553.024	293.7	556.373	0.000	556.458	483.4	555.831	0.000	553.616	0.000
Monthly												
Min.	551.405	0.000	550.975	0.000	551.035	0.000	554.755	0.000	553.035	0.000	551.275	0.000
Max.	554.825	404.8	554.095	436.3	557.215	218.6	557.465	1053	557.375	0.000	554.595	0.000
Mean	553.148	28.03	552.517	225.5	553.380	65.83	556.294	194.9	556.442	0	553.107	0

Annual Runoff in MCM = 1372 Annual Runoff in mm = 249

Peak Observed Discharge = 1012 cumecs on 20/09/2017 Corres. Water Level :556.415 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :554.445 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 2017 - 2018

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	553.755	0.000	551.295	0.000	556.935	0.000	556.545	0.000	553.005	0.000	556.795	0.000
2	553.195	0.000	553.635	0.000	556.795	0.000	556.385	0.000	553.255	0.000	556.865	0.000
3	553.285	0.000	554.665	0.000	556.355	0.000	556.265	0.000	553.655	0.000	556.805	0.000
4	553.385	0.000	553.715	0.000	556.355	0.000	556.445	0.000	553.145	0.000	556.865	0.000
5	553.695	0.000	552.705	0.000	556.385	0.000	556.285	0.000	553.335	0.000	556.885	0.000
6	553.925	0.000	552.975	0.000	556.485	0.000	556.655	0.000	553.585	0.000	556.865	0.000
7	554.095	0.000	553.105	0.000	556.565	0.000	556.935	0.000	552.885	0.000	556.765	0.000
8	552.175	0.000	552.955	0.000	556.645	0.000	556.995	0.000	553.665	0.000	556.615	0.000
9	552.345	0.000	553.085	0.000	556.565	0.000	556.605	0.000	553.335	0.000	556.565	0.000
10	551.955	0.000	553.235	0.000	556.675	0.000	556.545	0.000	554.585	0.000	556.515	0.000
11	552.125	0.000	554.155	0.000	556.825	0.000	556.595	0.000	555.785	0.000	556.565	0.000
12	552.305	0.000	555.405	0.000	555.875	0.000	556.555	0.000	556.615	0.000	556.555	0.000
13	552.265	0.000	555.835	0.000	555.755	0.000	556.505	0.000	557.175	0.000	556.455	0.000
14	552.875	0.000	555.855	0.000	555.565	0.000	556.455	0.000	557.225	0.000	556.325	0.000
15	553.115	0.000	555.795	0.000	555.255	0.000	556.555	0.000	556.945	0.000	556.725	0.000
16	553.325	0.000	555.815	0.000	555.505	0.000	556.815	0.000	556.855	0.000	556.835	0.000
17	553.155	0.000	555.775	0.000	555.975	0.000	556.425	0.000	557.045	0.000	556.495	0.000
18	552.395	0.000	555.795	0.000	556.385	0.000	556.085	0.000	556.775	0.000	556.595	0.000
19	552.865	0.000	555.865	0.000	556.585	0.000	555.835	0.000	556.755	0.000	556.375	0.000
20	553.305	0.000	555.605	0.000	556.785	0.000	555.765	0.000	556.805	0.000	556.345	0.000
21	553.045	0.000	554.875	0.000	556.795	0.000	555.595	0.000	557.005	0.000	556.245	0.000
22	552.375	0.000	555.275	0.000	556.835	0.000	555.375	0.000	557.015	0.000	556.455	0.000
23	551.995	0.000	556.095	0.000	557.045	0.000	555.105	0.000	556.655	0.000	556.575	0.000
24	551.815	0.000	556.655	0.000	556.705	0.000	555.015	0.000	556.855	0.000	556.315	0.000
25	551.595	0.000	557.065	0.000	556.635	0.000	554.865	0.000	556.715	0.000	556.405	0.000
26	551.745	0.000	556.605	0.000	556.585	0.000	553.565	0.000	556.695	0.000	556.335	0.000
27	551.955	0.000	556.525	0.000	556.455	0.000	553.725	0.000	556.975	0.000	556.385	0.000
28	552.045	0.000	556.625	0.000	556.565	0.000	553.735	0.000	556.775	0.000	556.605	0.000
29	551.785	0.000	556.705	0.000			553.315	0.000	556.665	0.000	556.815	0.000
30	551.285	0.000	556.815	0.000			553.695	0.000	556.765	0.000	556.835	0.000
31	551.115	0.000	556.795	0.000			553.295	0.000			556.505	0.000
Ten-Daily Mean												
I Ten-Daily	553.181	0.000	553.137	0.000	556.576	0.000	556.566	0.000	553.445	0.000	556.754	0.000
II Ten-Daily	552.773	0.000	555.590	0.000	556.051	0.000	556.359	0.000	556.798	0.000	556.527	0.000
III Ten-Daily	551.887	0.000	556.367	0.000	556.702	0.000	554.299	0.000	556.812	0.000	556.498	0.000
Monthly												
Min.	551.115	0.000	551.295	0.000	555.255	0.000	553.295	0.000	552.885	0.000	556.245	0.000
Max.	554.095	0.000	557.065	0.000	557.045	0.000	556.995	0.000	557.225	0.000	556.885	0.000
Mean	552.590	0	555.074	0	556.425	0	555.695	0	555.685	0	556.590	0

Peak Computed Discharge = 1053 cumecs on 24/09/2017 Corres. Water Level :556.565 m

Lowest Computed Discharge = 70.41 cumecs on 15/08/2017 Corres. Water Level :551.035 m

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

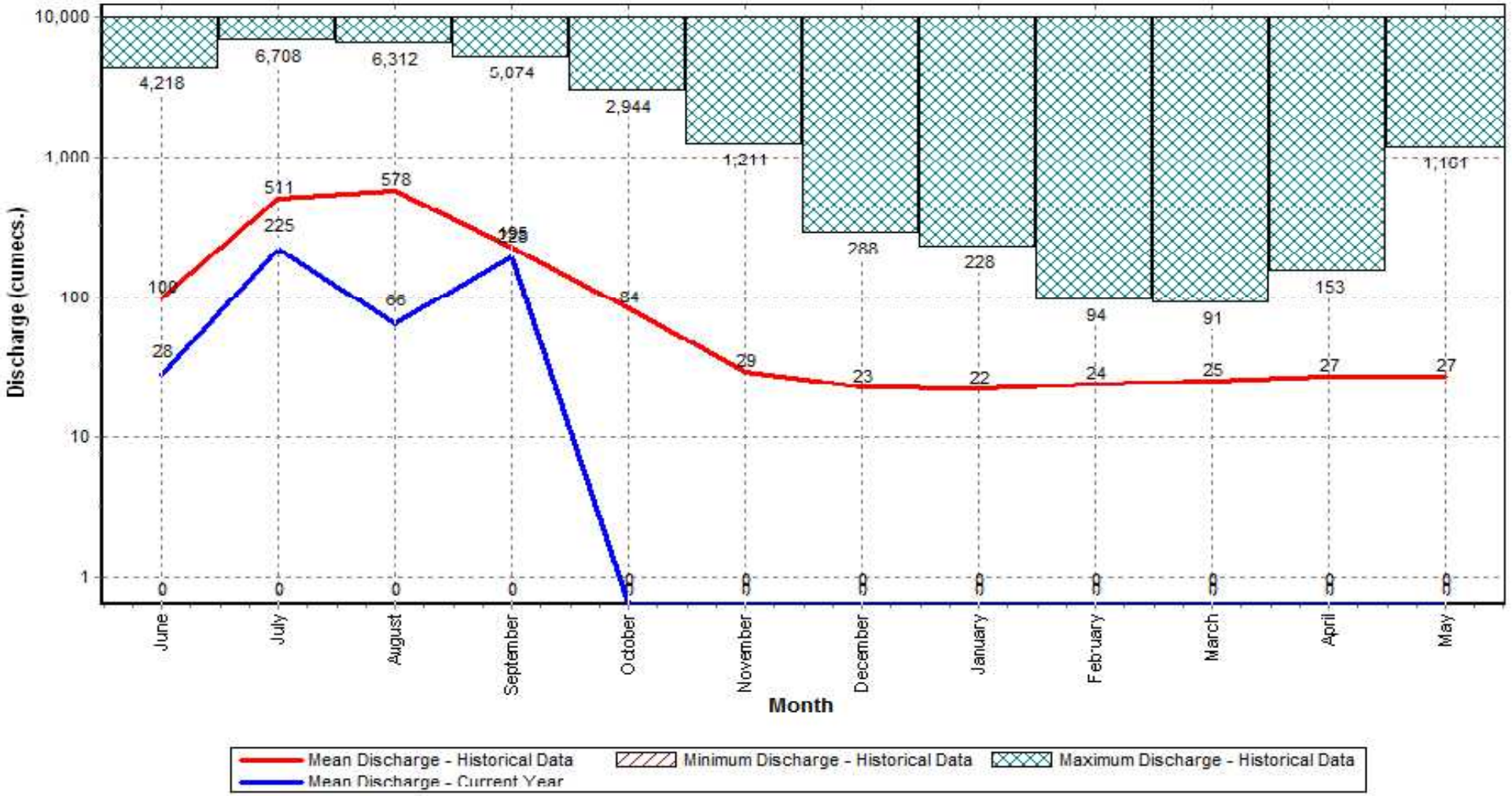
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Karad (AK000X6) **Data considered : 1965-2018** **Division : Upper Krishna Divn, Pune**

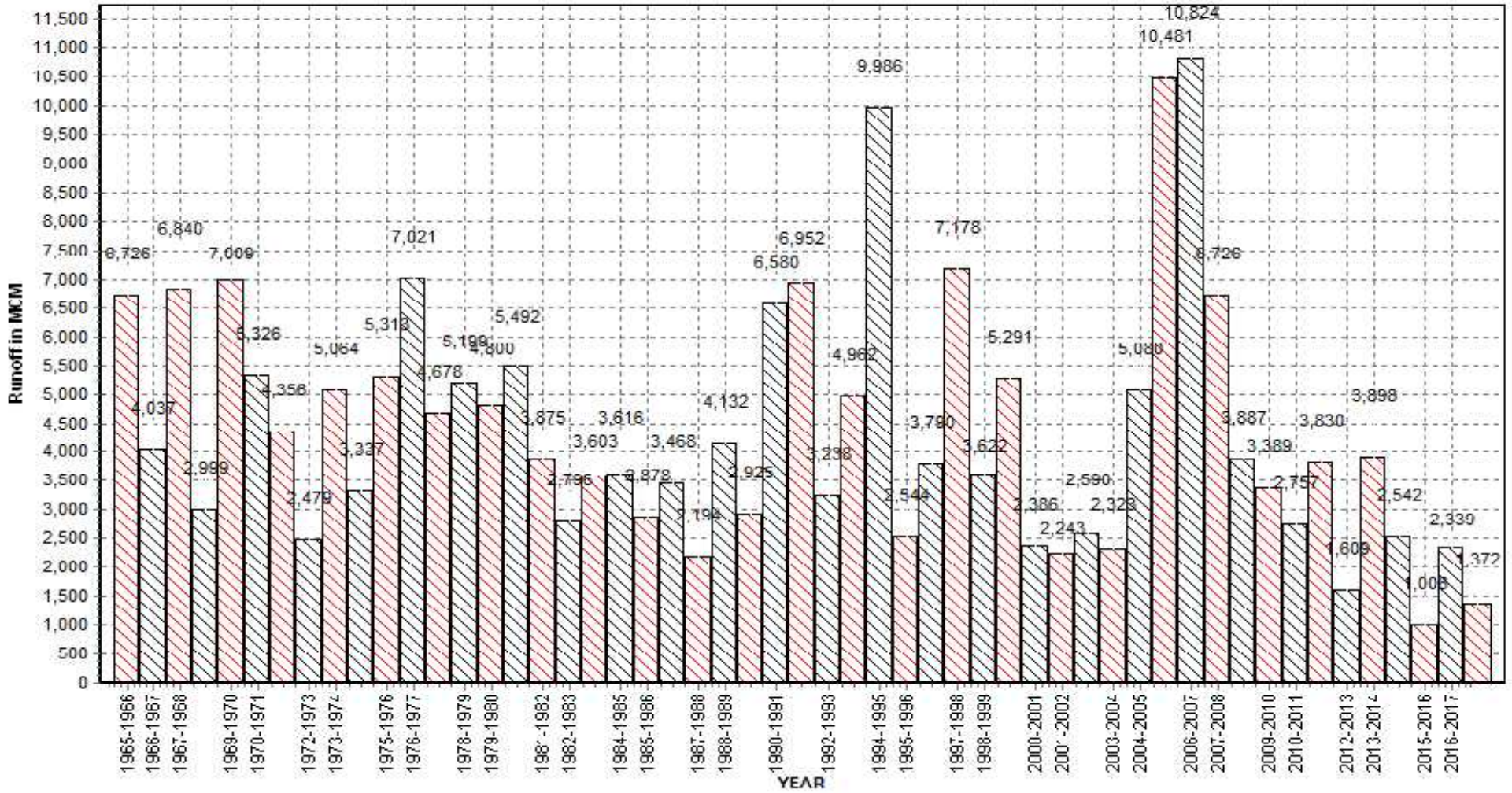
Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Annual Runoff Values for the period: 1965 - 2018

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**



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

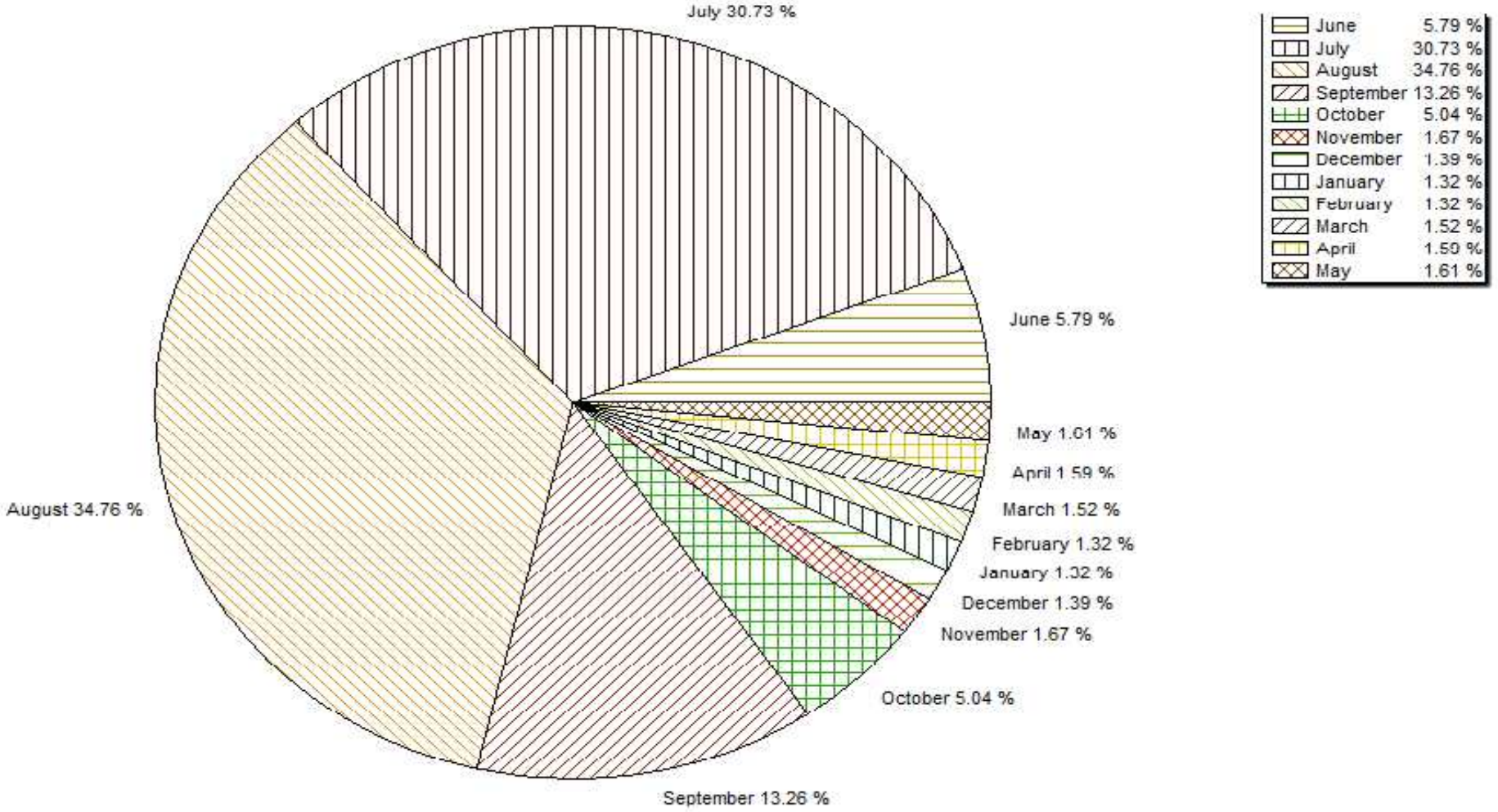
Monthly Average Runoff based on period : 1965-2017

Station Name : Karad (AK000X6)

Local River : Krishna

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 1, Kolhapur



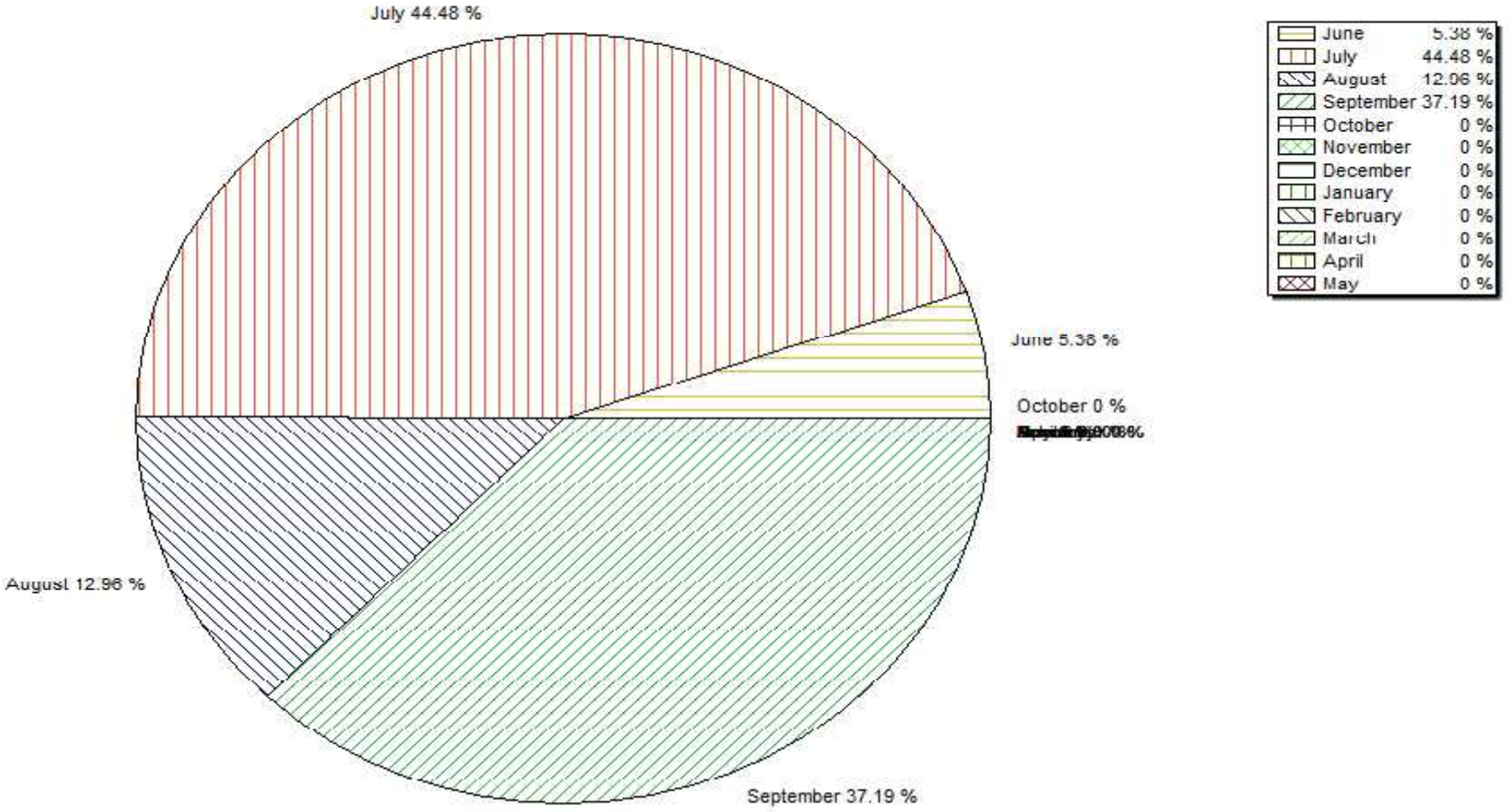
Monthly Runoff for the Year : 2017-2018

Station Name : Karad (AK000X6)

Division : Upper Krishna Divn, Pune

Local River : Krishna

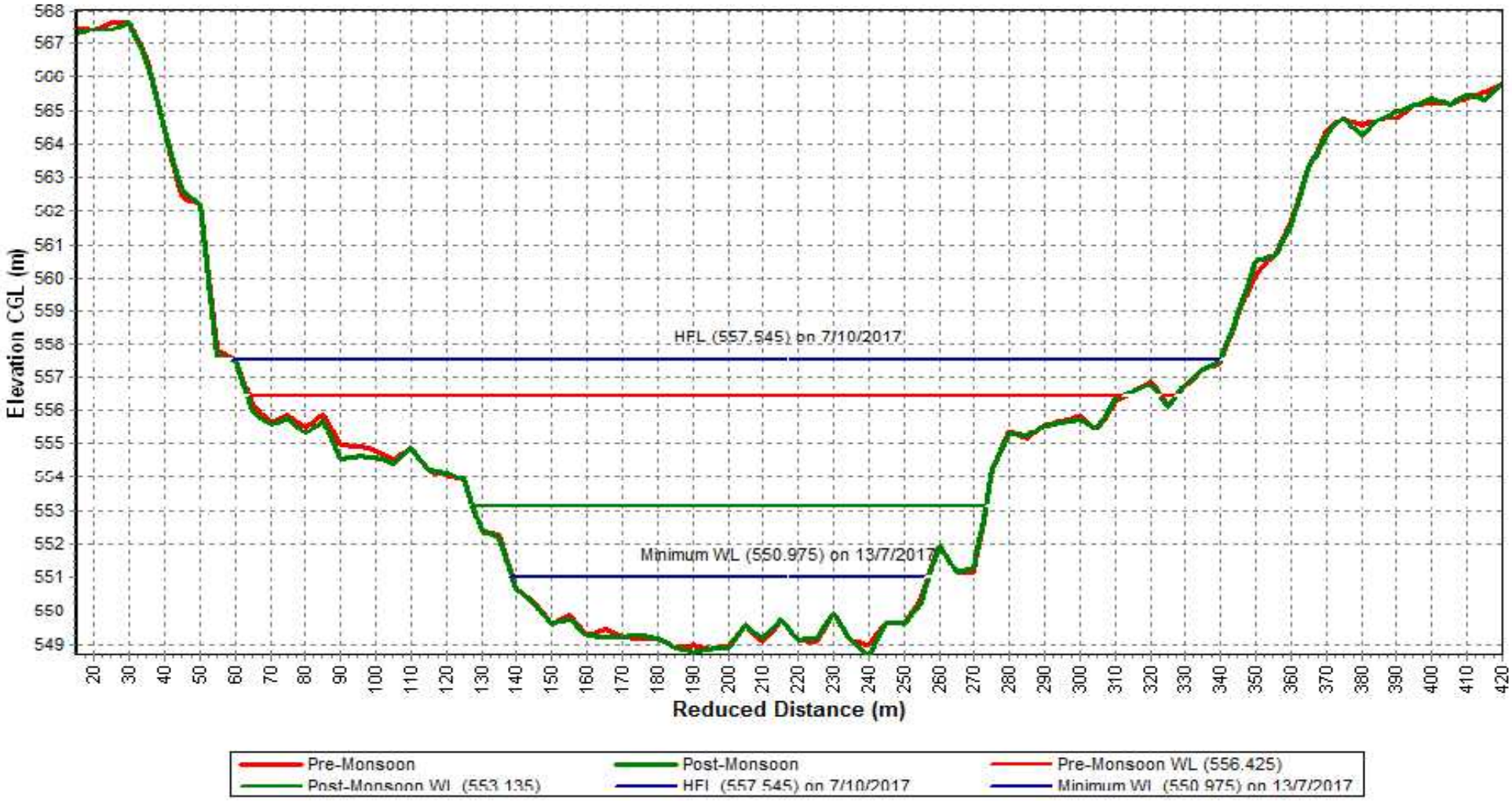
Sub-Division : Upper Krishna SD 1, Kolhapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

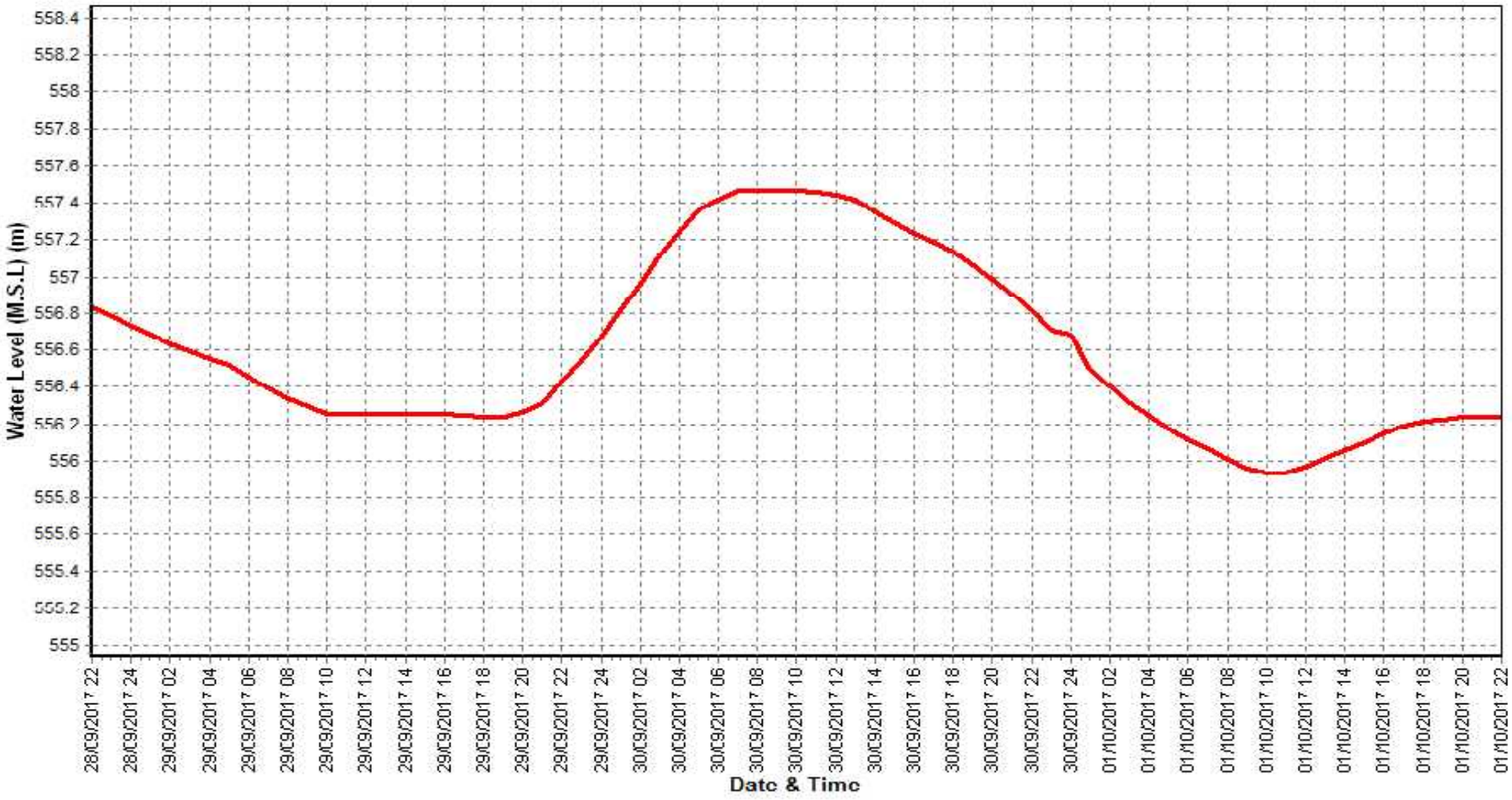
Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Time Span: 72 Hrs

HISTORY SHEET

Water Year : 2017-2018

Site	**: Warunji**		**Code**	**: AKZ00A7**	
State	: Maharashtra		District	Satara	
Basin	: Krishna		Independent River	: Krishna	
Tributary	: Koyna		Sub Tributary	: -	
Sub-Sub Tributary	: -		Local River	: Koyna	
Division	: Upper Krishna Divn, Pune		Sub-Division	: Upper Krishna SD 1, Kolhapur	
Drainage Area	: 1890 Sq. Km.		Bank	: Left	
Latitude	: 17°16'20"		Longitude	: 74°09'54"	
Zero of Gauge (m)	: 549.962 (m.s.l) 550.937 (m.s.l) 549.437 (m.s.l)		01/08/1963 01/04/1964 01/01/1972	- 31/03/1964 - 31/12/1971	
	Opening Date		Closing Date		
Gauge	: 20/08/1963		HFL During 2017-18	: 557.467m	
			Corres. Discharge	: 1257(Estimated)	
Discharge	: 01/01/1966		Date & Time of occurance	: 07/10/2017 : 11.00 hrs.	
Sediment	: 01/06/1974				
Water Quality	: 01/06/1974				

HFL Recorded so far in m : 568.047 dt 06-06-1976
Corresponding Discharge (cumecs) : 4901 *

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

	Maximum			Minimum		
Year	**Q (cumecs)**	**WL (m)**	**Date**	**Q (cumecs)**	**WL (m)**	**Date**
1967-1968	3830	563.617	28/07/1967	0.000	551.082	08/06/1967
1968-1969	757.4	557.117	07/08/1968	0.000	550.972	29/03/1969
1969-1970	1605	561.977	01/08/1969	0.100	550.862	23/05/1970
1970-1971	1492	558.977	21/08/1970	0.100	550.762	22/04/1971
1971-1972	1386	558.792	31/08/1971	0.000	550.747	21/04/1972
1972-1973	1523	558.687	08/07/1972	0.000	550.637	27/02/1973
1973-1974	1900	560.902	08/07/1973	0.000	550.752	05/04/1974
1974-1975	1583	559.897	05/07/1974	0.000	550.767	22/03/1975
1975-1976	1681	560.927	10/07/1975	0.000	550.712	18/05/1976
1976-1977	2780	563.480	07/06/1976	0.000	550.737	23/02/1977
1977-1978	1610	559.749	04/09/1977	0.000	550.797	10/05/1978
1978-1979	1576	559.436	02/09/1978	0.000	550.907	05/03/1979
1979-1980	1317	560.087	07/08/1979	0.000	550.870	13/03/1980
1980-1981	1868	561.004	06/08/1980	0.000	550.960	31/01/1981
1981-1982	1262	558.537	10/07/1981	0.000	550.867	23/06/1981
1982-1983	1156	558.512	29/07/1982	0.000	550.877	05/03/1983
1983-1984	1493	559.782	17/08/1983	0.000	551.097	01/01/1984
1984-1985	1334	559.057	18/07/1984	0.000	550.947	30/12/1984

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**
1985-1986	1054	558.322	02/08/1985	0.000	550.957	12/02/1986
1986-1987	1284	558.882	30/06/1986	0.000	551.057	26/01/1987
1987-1988	1073	557.987	08/07/1987	0.000	550.677	24/01/1988
1988-1989	2590	563.237	03/08/1988	0.000	550.907	28/01/1989
1989-1990	1600	560.307	25/07/1989	0.000	550.977	14/01/1990
1990-1991	2530	563.227	18/08/1990	0.000	551.097	06/04/1991
1991-1992	1800	561.419	28/07/1991	0.000	551.124	07/12/1991
1992-1993	1238	559.912	14/08/1992	0.000	550.807	28/03/1993
1993-1994	1023	558.942	19/06/1993	0.000	551.125	12/06/1993
1994-1995	2675	563.077	03/09/1994	0.000	551.197	09/05/1995
1995-1996	772.1	557.627	20/07/1995	0.000	551.007	11/07/1995
1996-1997	1566	561.507	04/10/1996	0.000	550.947	09/05/1997
1997-1998	3529	564.697	24/08/1997	0.000	550.897	09/01/1998
1998-1999	828.0	558.457	09/07/1998	0.000	550.807	01/04/1999
1999-2000	1397	559.922	28/07/1999	0.000	551.067	28/02/2000
2000-2001	676.7	556.317	13/07/2000	0.421	550.927	12/12/2000
2001-2002	623.3	556.107	10/07/2001	0.000	550.917	10/01/2002
2002-2003	830.3	556.917	07/09/2002	0.000	550.807	28/04/2003
2003-2004	626.7	556.022	28/07/2003	0.000	550.777	10/03/2004
2004-2005	2716	563.077	13/08/2004	0.000	550.822	20/03/2005
2005-2006	4641	565.732	02/08/2005	0.000	550.977	15/05/2006
2006-2007	4973	566.937	30/07/2006	1.480	550.857	06/01/2007
2007-2008	2243	562.137	02/07/2007	0.000	550.947	22/06/2007
2008-2009	1887	561.067	11/08/2008	0.000	551.077	26/03/2009
2009-2010	712.5	557.157	15/07/2009	0.000	551.727	16/02/2010
2010-2011	769.8	556.897	27/07/2010	0.000	553.657	08/02/2011
2011-2012	3125	564.337	04/09/2011	0.000	553.077	25/11/2011
2012-2013	723.6	556.440	06/09/2012	0.000	555.950	24/05/2013
2013-2014	1925	560.417	25/07/2013	0.000	552.637	14/05/2014
2014-2015	1047	558.037	24/07/2014	0.000	554.857	19/10/2014
2015-2016	235.7	553.682	25/07/2015	0.000	555.717	21/12/2015
2016-2017	1533	557.807	06/08/2016	0.000	554.847	28/11/2016

Annual Runoff of Koyna at Warunji

SLNo.	Year	Monsoon	Non Monsoon	Annual
1	**1965-1966**		114	114
2	**1966-1967**		60	60
3	**1967-1968**	4020	854	4874
4	**1968-1969**	1409	74	1483
5	**1969-1970**	3251	107	3358
6	**1970-1971**	3313	132	3445
7	**1971-1972**	2623	182	2805
8	**1972-1973**	1266	187	1452
9	**1973-1974**	2440	244	2684
10	**1974-1975**	1694	213	1907
11	**1975-1976**	2633	239	2872
12	**1976-1977**	3864	206	4070
13	**1977-1978**	2391	192	2583
14	**1978-1979**	2873	144	3017
15	**1979-1980**	2215	23	2239
16	**1980-1981**	2967	190	3157
17	**1981-1982**	1974	184	2158
18	**1982-1983**	1501	251	1752
19	**1983-1984**	2119	295	2414
20	**1984-1985**	1918	392	2310
21	**1985-1986**	1488	598	2086
22	**1986-1987**	1757	566	2323
23	**1987-1988**	1105	424	1529
24	**1988-1989**	2490	504	2994
25	**1989-1990**	1523	536	2060
26	**1990-1991**	3746	815	4561
27	**1991-1992**	3811	747	4558
28	**1992-1993**	1864	522	2386
29	**1993-1994**	2650	765	3415
30	**1994-1995**	5248	546	5794
31	**1995-1996**	1288	451	1739
32	**1996-1997**	1775	524	2299
33	**1997-1998**	4200	535	4736
34	**1998-1999**	1862	528	2390
35	**1999-2000**	2981	519	3500
36	**2000-2001**	1219	475	1694
37	**2001-2002**	1160	502	1661
38	**2002-2003**	1515	506	2021
39	**2003-2004**	1330	505	1835
40	**2004-2005**	2838	441	3278
41	**2005-2006**	6110	383	6493
42	**2006-2007**	6086	346	6432
43	**2007-2008**	3947	332	4279
44	**2008-2009**	2359	314	2673
45	**2009-2010**	1998	39	2037
46	**2010-2011**	1958	37	1995
47	**2011-2012**	3042	0	3042
48	**2012-2013**	890	0	890
49	**2013-2014**	2639	0	2639
50	**2014-2015**	1651	0	1651
51	**2015-2016**	337	12	349
52	**2016-2017**	2322	0	2322
53	**2017-2018**	1697	0	1697
Average		2458	316	2681

Stage-Discharge Data for the period 2017 - 2018

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**

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	554.287	0.000	553.187	183.9	553.962	334.1 #	556.167	0.000	556.097	0.000	551.727	0.000
2	554.217	0.000	553.007	162.1 *	553.417	248.1	555.627	0.000	556.297	0.000	551.127	0.000
3	554.467	0.000	553.142	175.1	552.982	168.5	555.197	0.000	557.237	0.000	551.027	0.000
4	554.667	0.000	553.232	196.2	552.992	170.5	554.637	0.000	557.257	0.000	551.667	0.000
5	554.257	0.000	553.322	215.7	552.952	148.0	554.717	0.000	557.317	0.000	551.867	0.000
6	554.557	0.000	553.407	240.8	552.867	122.4 *	554.817	0.000	556.687	0.000	552.757	0.000
7	553.387	0.000	553.032	167.2	552.757	110.3	556.627	0.000	557.427	0.000	553.007	0.000
8	553.087	0.000	552.997	152.1	552.647	83.37	556.677	0.000	557.327	0.000	552.287	0.000
9	552.847	0.000	552.747	125.8 *	552.587	72.74	556.927	0.000	557.147	0.000	553.187	0.000
10	552.637	0.000	552.457	94.98	552.597	73.97	556.427	0.000	556.437	0.000	553.067	0.000
11	553.097	0.000	552.182	64.29	552.657	80.88	556.767	0.000	557.117	0.000	552.987	0.000
12	552.957	0.000	552.217	66.29	552.617	69.21	556.607	0.000	556.877	0.000	552.867	0.000
13	552.337	0.000	552.137	56.84	552.557	73.54 *	556.807	0.000	556.487	0.000	552.727	0.000
14	552.867	0.000	552.647	94.20	552.437	51.89	556.217	0.000	556.837	0.000	552.637	0.000
15	553.237	0.000	553.652	289.0	552.377	48.37 *	556.807	0.000	556.737	0.000	552.597	0.000
16	552.927	0.000	553.437	228.6 *	552.467	63.36	556.727	0.000	556.487	0.000	553.537	0.000
17	552.537	0.000	553.742	318.2	552.327	41.72	556.647	0.000	556.377	0.000	554.387	0.000
18	552.657	0.000	553.817	325.7	552.297	39.47	556.567	0.000	556.517	0.000	554.317	0.000
19	552.767	0.000	555.032	524.5	553.217	0.000	557.107	0.000	556.407	0.000	554.167	0.000
20	552.757	0.000	555.572	662.3	555.187	0.000	556.672	1023 #	556.197	0.000	553.997	0.000
21	552.607	0.000	555.387	672.9 #	555.747	0.000	555.912	745.4	556.587	0.000	553.067	0.000
22	551.437	0.000	554.767	518.3	556.437	0.000	556.447	976.5	556.637	0.000	552.537	0.000
23	551.527	0.000	554.227	392.5 *	556.517	0.000	556.622	1041	556.527	0.000	554.487	0.000
24	552.317	0.000	554.527	461.3 #	556.067	0.000	556.577	995.7 *	556.367	0.000	553.587	0.000
25	552.777	0.000	555.122	545.5	556.477	0.000	556.542	985.8 #	556.467	0.000	553.097	0.000
26	553.317	0.000	554.037	376.3	556.977	0.000	556.017	0.000	556.537	0.000	552.967	0.000
27	553.457	206.7	553.602	258.9	556.207	0.000	556.987	0.000	556.537	0.000	552.887	0.000
28	552.697	112.4	553.932	327.7 #	556.207	0.000	556.727	0.000	555.247	0.000	554.067	0.000
29	552.617	85.26	554.492	453.1 #	557.257	1196	556.437	0.000	554.547	0.000	554.347	0.000
30	553.287	199.8	554.077	359.2 *	556.457	0.000	557.417	0.000	552.977	0.000	553.987	0.000
31			554.527	461.3	556.227	897.5 *			551.677	0.000		
Ten-Daily Mean												
I Ten-Daily	553.841	0.000	553.053	171.4	552.976	153.2	555.782	0.000	556.923	0.000	552.172	0.000
II Ten-Daily	552.814	0.000	553.444	263.0	552.814	46.85	556.693	102.3	556.604	0.000	553.422	0.000
III Ten-Daily	552.604	60.43	554.417	436.6	556.416	190.3	556.568	474.5	555.843	0.000	553.503	0.000
Monthly												
Min.	551.437	0.000	552.137	56.84	552.297	0.000	554.637	0.000	552.977	0.000	551.027	0.000
Max.	554.667	206.7	555.572	672.9	557.257	1196	557.417	1041	557.427	0.000	554.487	0.000
Mean	553.086	20.14	553.638	290.3	554.144	132.1	556.348	192.2	556.457	0	553.032	0

Annual Runoff in MCM = 1662 Annual Runoff in mm = 877

Peak Observed Discharge = 1196 cumecs on 29/08/2017 Corres. Water Level :557.257 m

Lowest Observed Discharge = 0.000 cumecs on 01/06/2017 Corres. Water Level :554.287 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 2017 - 2018

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**

Day	Dec		Jan		Feb		Mar		Apr		May	
	W.L	Q	WL	Q	WL	Q	WL	Q	WL	Q	WL	Q
1	553.637	0.000	552.277	0.000	556.907	0.000	556.577	0.000	553.097	0.000	556.817	0.000
2	553.137	0.000	553.637	0.000	556.757	0.000	556.487	0.000	553.377	0.000	556.877	0.000
3	553.047	0.000	554.487	0.000	556.487	0.000	556.357	0.000	553.677	0.000	556.827	0.000
4	553.387	0.000	553.887	0.000	556.367	0.000	556.357	0.000	553.837	0.000	556.817	0.000
5	553.537	0.000	552.837	0.000	556.407	0.000	556.387	0.000	553.387	0.000	556.847	0.000
6	553.767	0.000	552.947	0.000	556.497	0.000	556.717	0.000	553.567	0.000	556.877	0.000
7	553.897	0.000	553.347	0.000	556.587	0.000	556.897	0.000	552.987	0.000	556.787	0.000
8	552.377	0.000	553.077	0.000	556.657	0.000	556.957	0.000	553.397	0.000	556.637	0.000
9	552.177	0.000	553.197	0.000	556.637	0.000	556.617	0.000	553.487	0.000	556.587	0.000
10	552.047	0.000	553.327	0.000	556.657	0.000	556.587	0.000	554.587	0.000	556.487	0.000
11	551.907	0.000	553.937	0.000	556.637	0.000	556.557	0.000	555.737	0.000	556.587	0.000
12	552.687	0.000	554.347	0.000	555.917	0.000	556.617	0.000	556.657	0.000	556.577	0.000
13	552.577	0.000	555.787	0.000	555.667	0.000	556.527	0.000	556.967	0.000	556.487	0.000
14	552.967	0.000	555.937	0.000	555.487	0.000	556.477	0.000	557.187	0.000	556.337	0.000
15	553.237	0.000	555.777	0.000	555.257	0.000	556.587	0.000	556.907	0.000	556.757	0.000
16	553.387	0.000	555.907	0.000	555.437	0.000	556.817	0.000	556.837	0.000	556.817	0.000
17	553.277	0.000	555.837	0.000	556.037	0.000	556.437	0.000	557.007	0.000	556.477	0.000
18	552.577	0.000	555.817	0.000	556.267	0.000	556.167	0.000	556.787	0.000	556.617	0.000
19	552.967	0.000	555.767	0.000	556.647	0.000	555.837	0.000	556.817	0.000	556.427	0.000
20	553.337	0.000	555.537	0.000	556.817	0.000	555.717	0.000	556.817	0.000	556.277	0.000
21	553.217	0.000	555.437	0.000	556.847	0.000	555.497	0.000	556.957	0.000	556.247	0.000
22	552.577	0.000	555.367	0.000	556.867	0.000	555.217	0.000	556.937	0.000	556.477	0.000
23	552.267	0.000	556.137	0.000	556.947	0.000	555.057	0.000	556.697	0.000	556.537	0.000
24	551.837	0.000	556.637	0.000	556.697	0.000	554.837	0.000	556.857	0.000	556.327	0.000
25	551.237	0.000	557.027	0.000	556.637	0.000	554.637	0.000	556.747	0.000	556.397	0.000
26	551.337	0.000	556.647	0.000	556.617	0.000	553.487	0.000	556.727	0.000	556.337	0.000
27	552.067	0.000	556.537	0.000	556.477	0.000	553.687	0.000	556.937	0.000	556.287	0.000
28	552.247	0.000	556.587	0.000	556.537	0.000	554.137	0.000	556.787	0.000	556.637	0.000
29	551.537	0.000	556.727	0.000			553.287	0.000	556.637	0.000	556.827	0.000
30	551.067	0.000	556.757	0.000			553.637	0.000	556.747	0.000	556.857	0.000
31	550.977	0.000	556.837	0.000			553.307	0.000			556.737	0.000
Ten-Daily Mean												
I Ten-Daily	553.101	0.000	553.302	0.000	556.596	0.000	556.594	0.000	553.540	0.000	556.756	0.000
II Ten-Daily	552.892	0.000	555.465	0.000	556.017	0.000	556.374	0.000	556.772	0.000	556.536	0.000
III Ten-Daily	551.852	0.000	556.427	0.000	556.703	0.000	554.253	0.000	556.803	0.000	556.515	0.000
Monthly												
Min.	550.977	0.000	552.277	0.000	555.257	0.000	553.287	0.000	552.987	0.000	556.247	0.000
Max.	553.897	0.000	557.027	0.000	556.947	0.000	556.957	0.000	557.187	0.000	556.877	0.000
Mean	552.590	0	555.109	0	556.420	0	555.693	0	555.705	0	556.600	0

Peak Computed Discharge = 995.7 cumecs on 24/09/2017 **Corres. Water Level :556.577 m**

Lowest Computed Discharge = 48.37 cumecs on 15/08/2017 **Corres. Water Level :552.377 m**

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

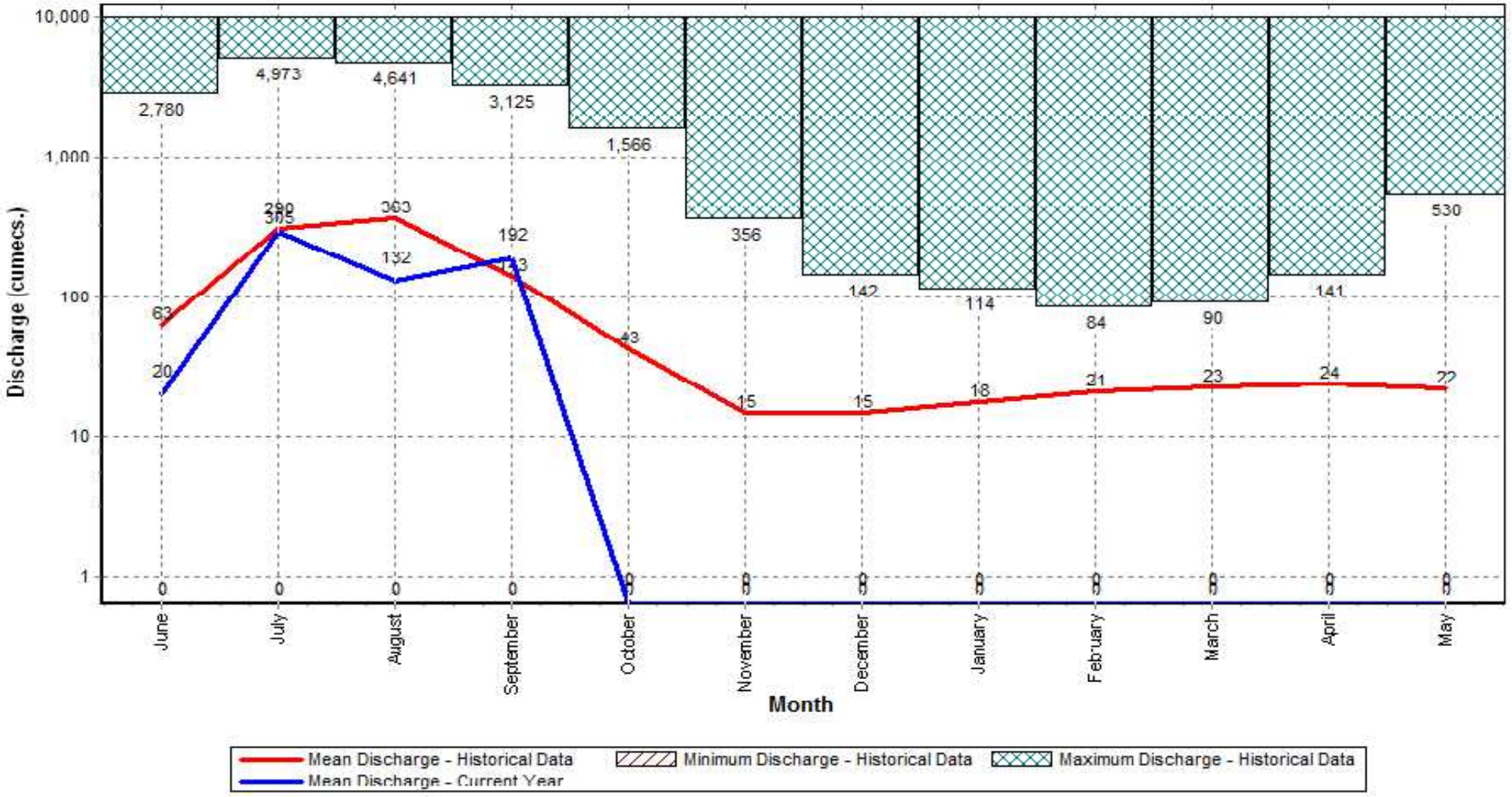
#:Discarded Discharge (values changed as per rating curve)

Note:Missing values ignored while arriving at Annual Runoff

HISTOGRAM - HYDROGRAPH for Water Year : 2017-2018

Station Name : Warunji (AKZ00A7) **Data considered : 1967-2018** **Division : Upper Krishna Divn, Pune**

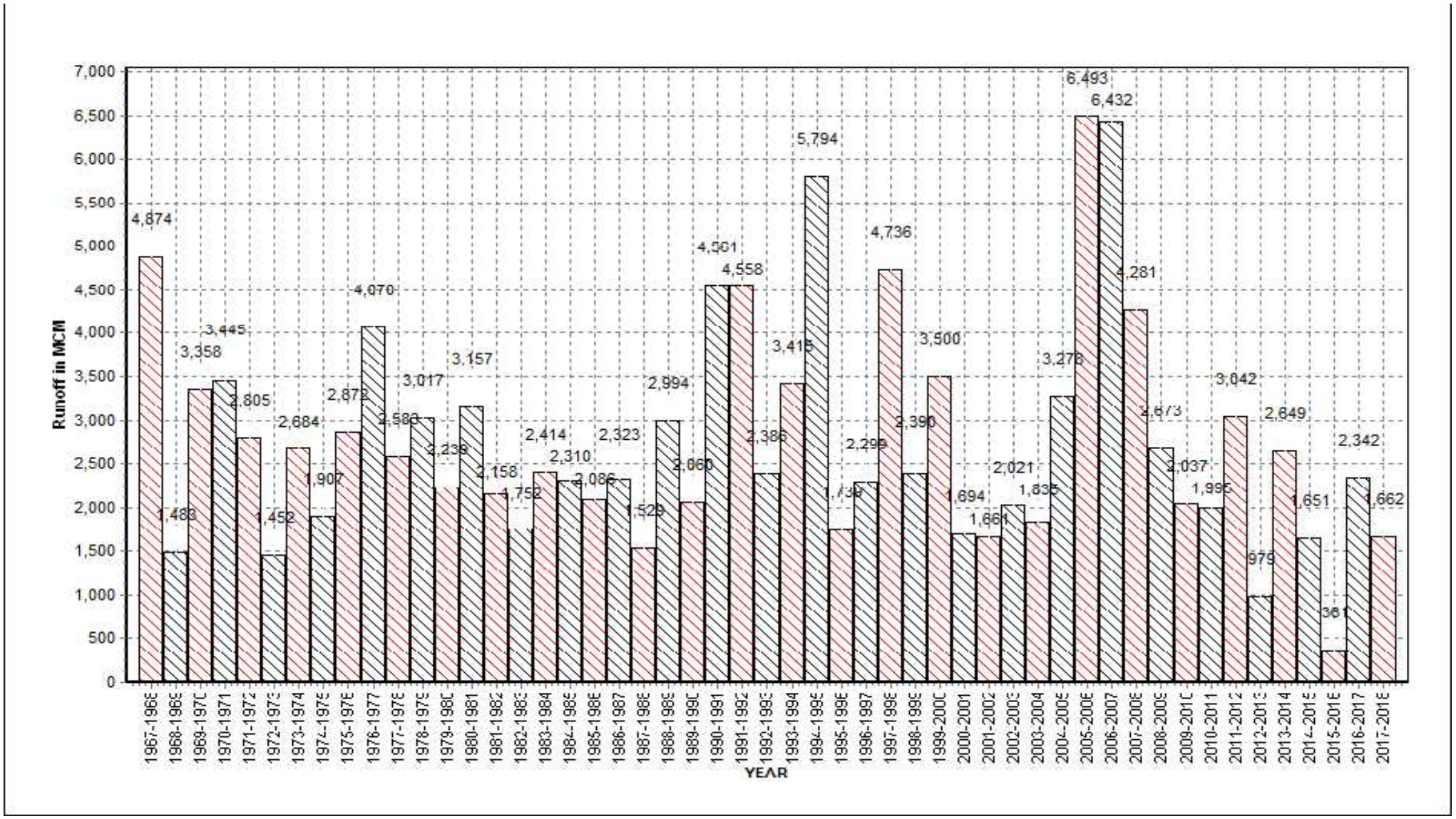
Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Annual Runoff Values for the period: 1967 - 2018

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**



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

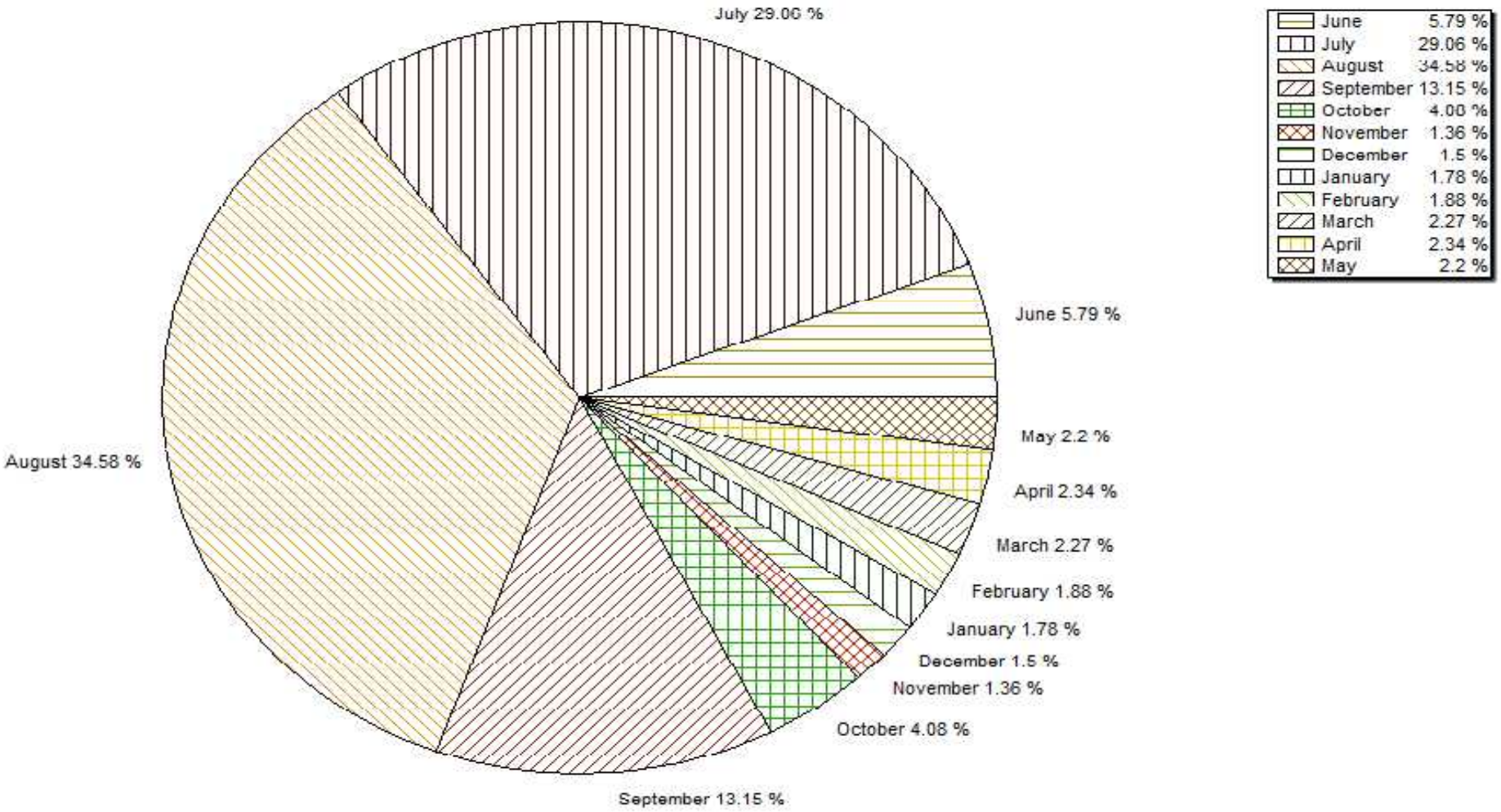
Monthly Average Runoff based on period : 1967-2017

Station Name : Warunji (AKZ00A7)

Local River : Koyna

Division : Upper Krishna Divn, Pune

Sub-Division : Upper Krishna SD 1, Kolhapur



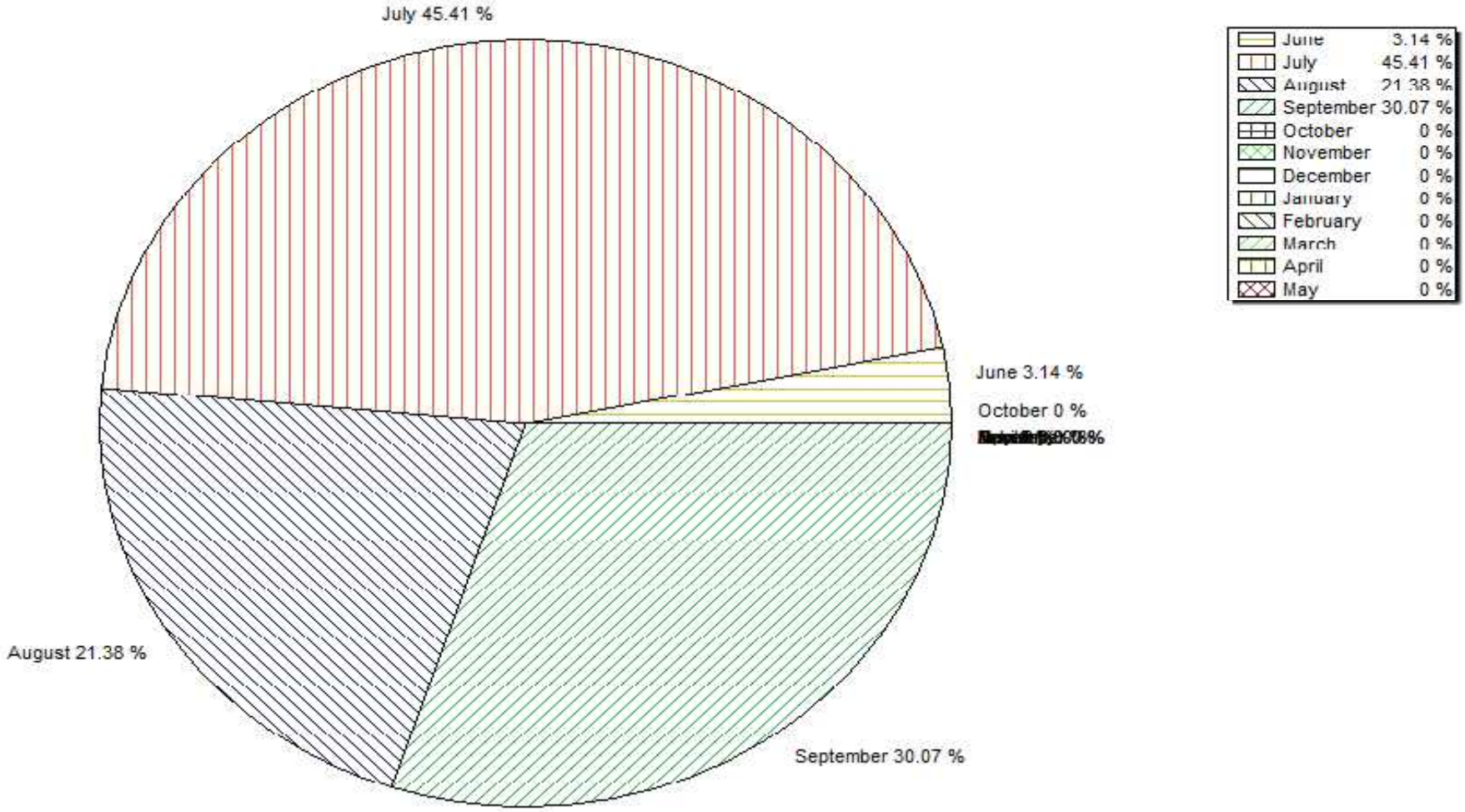
Monthly Runoff for the Year : 2017-2018

Station Name : Warunji (AKZ00A7)

Division : Upper Krishna Divn, Pune

Local River : Koyna

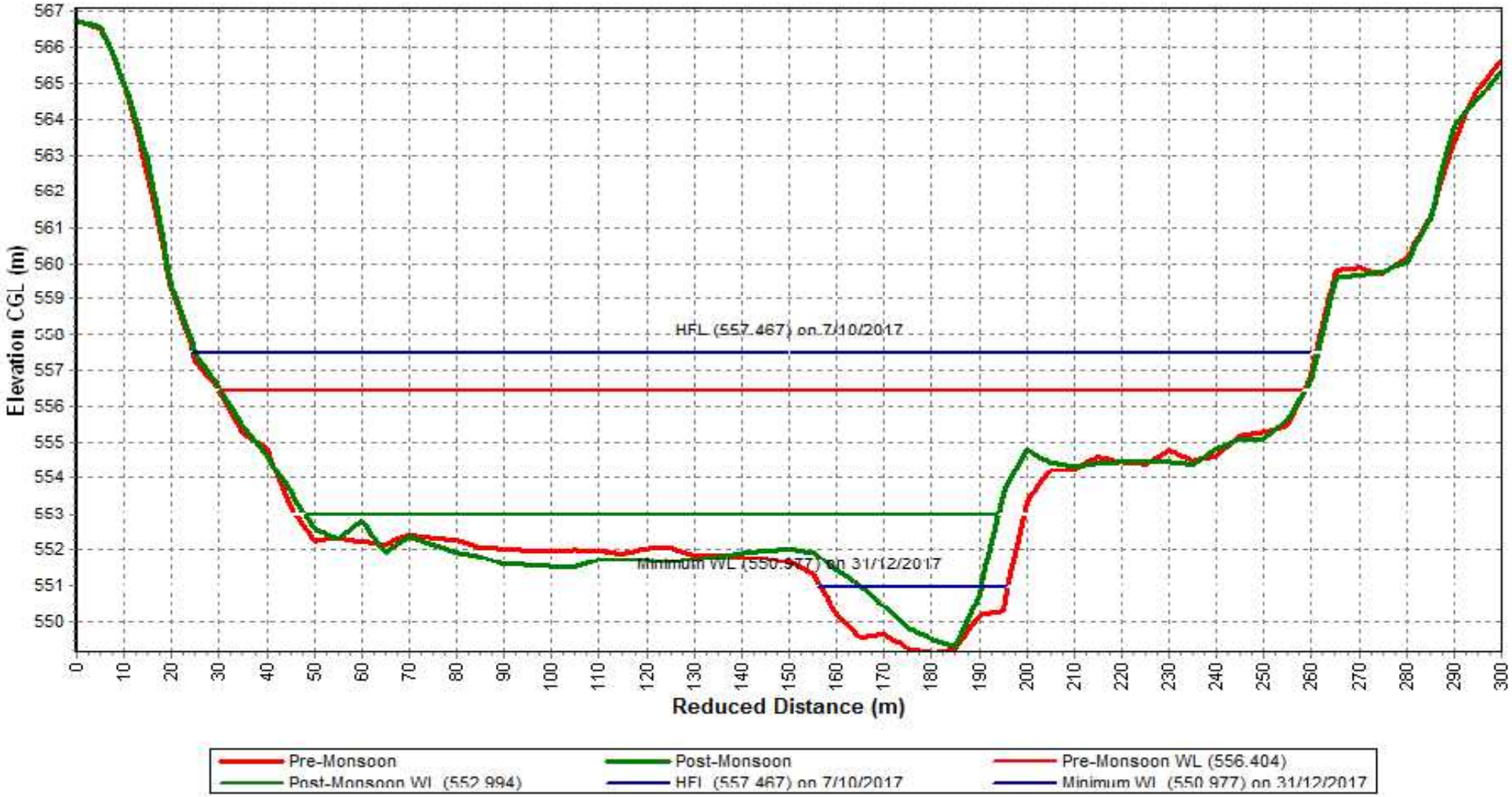
Sub-Division : Upper Krishna SD 1, Kolhapur



Pre-Monsoon & Post-Monsoon X-Section for Water Year : 2017-2018

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

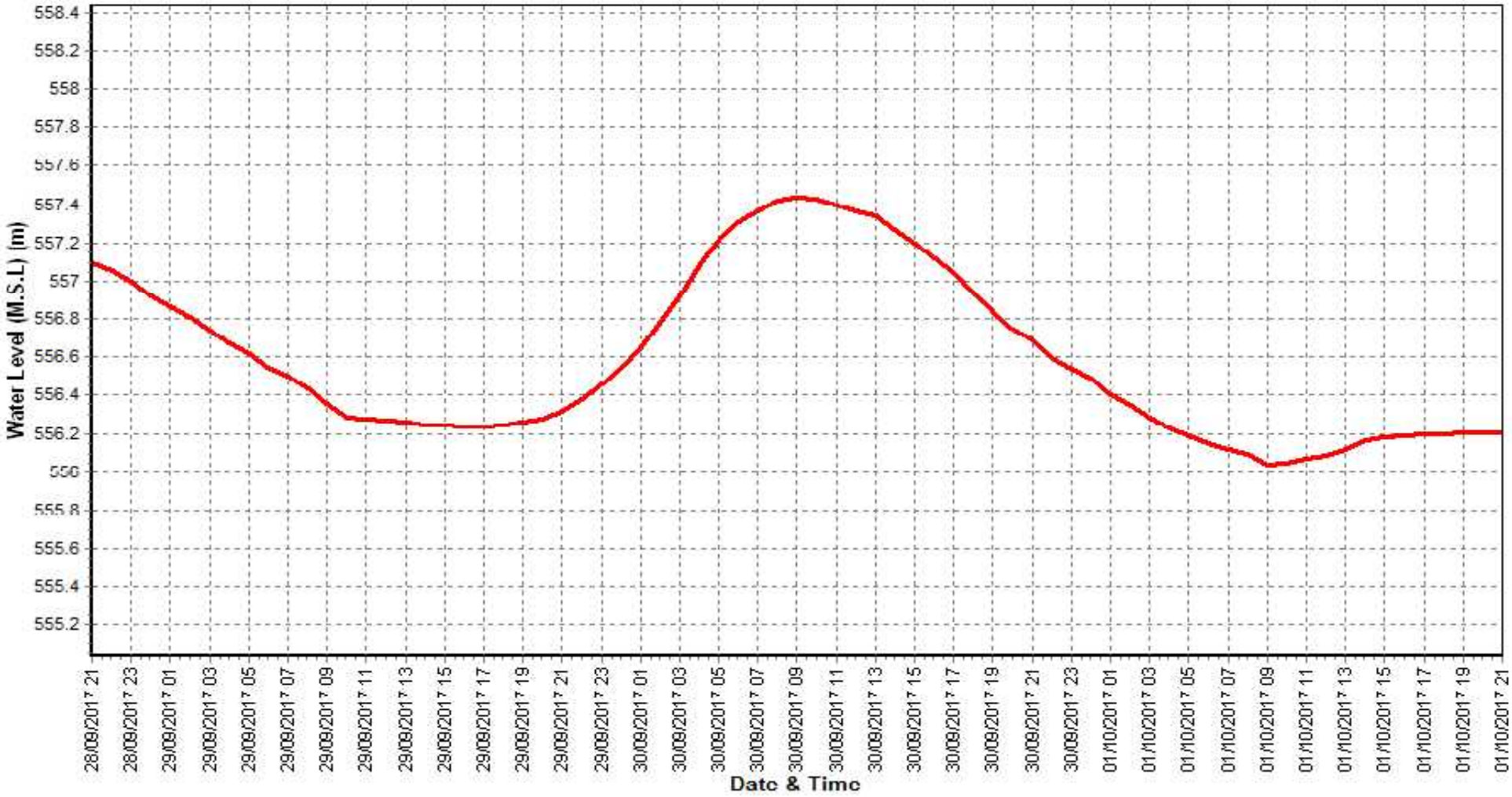
Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Water Level vs. Time - Graph of 2nd Highest Flood Peak during the Year : 2017-2018

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **Sub-Division : Upper Krishna SD 1, Kolhapur**



Time Span: 72 Hrs