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जल की गुणवत्ता डेटा/WATER QUALITY YEAR BOOK

(जून-2022 - मई-2023)/(JUNE-2022 – MAY-2023)

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प्रस्तावना

भारत में सभी महत्वपूर्ण नदी घाटियों में नदी जल गुणवत्ता की निगरानी जल विज्ञानीय अवलोकन कार्यक्रम के एक भाग के रूप में की जाती है जो केंद्रीय जल आयोग के मुख्य कार्यों में से एक है। नदी जल के नमूने आयोग द्वारा रखे गए नियमित जल विज्ञान केन्द्रों से एकत्र किये जाते हैं और मंडलीय मुख्यालय में अवस्थित प्रयोगशालाओं में विश्लेषण किया जाता है। जल गुणवत्ता आँकड़ा हर साल जल गुणवत्ता वार्षिक पुस्तक के रूप में प्रकाशित किया जाता है।

कृष्णा नदी घाटी में, जल गुणवत्ता की निगरानी 44 जल विज्ञानीय अवलोकन केन्द्रों (ऊपरी कृष्णा मण्डल-13, निचली कृष्णा मण्डल-18, कावेरी मण्डल-13) में किया जाता है। निचली कृष्णा मण्डल के अन्तर्गत जल विज्ञानीय केन्द्रों से एकत्र किये गये जल नमूनों का परीक्षण हैदराबाद में जल गुणवत्ता प्रयोगशाला स्तर-III में किया जाता है। ऊपरी कृष्णा मण्डल के अन्तर्गत जल विज्ञानीय केन्द्रों से एकत्र किये गये जल नमूनों का विश्लेषण पूणे में जल गुणवत्ता प्रयोगशाला स्तर-II में किया जाता है और कावेरी मण्डल का बेंगलुरु में जल गुणवत्ता प्रयोगशाला स्तर-II में परीक्षण किया जाता है। ये सभी प्रयोगशालायें वर्ष 2021-22 की अवधि में एन.ए.बी.एल. से मान्यता प्राप्त हैं।

संबंधित प्रयोगशालाओं में सीधे प्राप्त जल नमूनों का विश्लेषण कर भौतिक, रासायनिक, जैविक और विषाक्त तत्व आदि मापदंडो को ज्ञात किया जाता हैं। उपरोक्त मापदंडों के अलावा, तीन रासायनिक सूचकांक, गणितीय रूप से अवलोकित आंकड़ों के आधार पर निकाले जाते हैं। फिर जल को यूएस सालिनिटी डायग्राम की मदद से वर्गीकृत किया जाता है।

जल गुणवत्ता वार्षिक पुस्तक 2021-22 कृष्णा नदी क्षेत्र में सभी जल संसाधन योजनाकारों, प्रबंधकों और जल उपयोगकर्ताओं के लिए उपयोगी है। इसकी उपयोगिता में और सुधार होगा, विशेष रूप से पेयजल आपूर्ति, सिंचाई, औद्योगिक और सीवेज निपटान की योजनाओं के लिए।

श्री. श्रीनिवासु

हैदराबाद
मार्च 2023

(श्रीनिवासू बैरी)
अधीक्षण अभियंता

PREFACE

Monitoring of river water quality in all the important river basins of India is carried out as a part of hydrological observation programme which is one of the main functions of the Central Water Commission. River Water Samples are collected from the regular hydrological stations maintained by the Commission and analysed in the laboratories set up at Divisional headquarters. The water quality data is published every year in the form of Water Quality Year Book.

In Krishna basin, the Water Quality is monitored at 44 hydrological observation stations (Upper Krishna Division-13, Lower Krishna Division-18, Cauvery Division-13). The water samples collected from the hydrological stations under Lower Krishna Division are being analyzed at Water Quality Level-III Laboratory at Hyderabad. The water samples collected from the hydrological stations under Upper Krishna Division are being analyzed at Water Quality Level-II Laboratory at Pune and of Cauvery Division are being analyzed at Water Quality Laboratory Level II at Bengaluru. All these laboratories are NABL accredited during the year 2022-23.

The water samples received directly in the respective laboratories are analyzed for parameters which include physical, chemical, biological & toxic elements. In addition to above parameters three chemical indices are derived mathematically based on the observed data. Then the waters are classified with the help of US Salinity Diagram.

The Water Quality Year Book 2022-23 is useful to all the water resources planners, managers and water users in Krishna basin. Its usefulness will further improve, particularly for planning drinking water supply, irrigation, and industrial and sewage disposal schemes.

Hyderabad
February 2024

(Srinivasu Bairy)
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कृष्णा नदी क्षेत्र
जल की गुणवत्ता डेटा (खंड - III)
(जून 2022 - मई 2023)

1.0 पानी की गुणवत्ता की निगरानी

केंद्रीय जल आयोग द्वारा 1972 से कृष्णा बेसिन में नदी जल की गुणवत्ता की निगरानी की जा रही है। इस खंड III में, पानी की गुणवत्ता के बारे में आंकड़े हैं, जो कि जल वर्ष 2022-23 के दौरान कृष्णा बेसिन में 44 जल विज्ञानीय अवलोकन स्टेशनों से लिए गए है। इन 44 जल गुणवत्ता स्टेशनों में से 13 स्टेशनों की निगरानी ऊपरी कृष्णा मण्डल, पुणे द्वारा की जाती है, 18 स्टेशनों की निगरानी निचली कृष्णा मण्डल, हैदराबाद द्वारा की जाती है और शेष 13 स्टेशनों की निगरानी कावेरी मण्डल, बेंगलुरु द्वारा की जाती है। इन स्टेशनों के स्थानों को दिखाने वाला कृष्णा नदी क्षेत्र का मानचित्र संलग्न है।

हैदराबाद में स्थित एक स्तर-III प्रयोगशाला और पुणे और बैंगलोर में स्थित दो स्तर-II प्रयोगशालाएं पानी की गुणवत्ता के मापदंडों के विश्लेषण में लगी हुई हैं। ये सभी प्रयोगशालाएं वर्ष 2022-23 के दौरान एन.ए.बी.एल. से मान्यता प्राप्त हैं।

1.1 जल गुणवत्ता स्टेशनों का वर्गीकरण

जल गुणवत्ता स्टेशन में मानव गतिविधि के आधार पर, उन्हें बेस लाइन स्टेशनों, फ्लक्स स्टेशनों और ट्रेंड स्टेशनों के रूप में वर्गीकृत किया जाता है।

(i) बेस लाइन स्टेशन: ये वह जल गुणवत्ता स्टेशन हैं, जहां पानी की गुणवत्ता पर मानव गतिविधियों का कोई प्रभाव नहीं है। इन स्टेशनों पर बारहमासी नदियों के लिए वर्ष में छह बार और मौसमी नदियों के लिए तीन से चार बार पानी की गुणवत्ता की निगरानी की जाती है।

(ii) फ्लक्स स्टेशन: इन स्टेशनों को प्रभाव स्टेशनों के रूप में भी जाना जाता है। ये स्टेशन किसी भी समय मानव हस्तक्षेप या भूवैज्ञानिक विशेषता के कारण प्रदूषण की सीमा को मापने के लिए मुख्य नदी की धारा पर विशेष प्रदूषक के द्रव्यमान को मापने के लिए हैं और अपनाए गए प्रदूषण नियंत्रण उपायों के प्रभाव को मापने के लिए आवश्यक हैं। इन स्टेशनों पर पानी के उपयोग की प्रदूषण क्षमता या महत्व के आधार पर एक वर्ष में बारह से चौबीस बार निगरानी की जाती है।

(iii) ट्रेंड स्टेशन: इन स्टेशनों को पानी की गुणवत्ता की निगरानी के लिए डिज़ाइन किया गया है, यह दिखाने के लिए कि मानव गतिविधियों के प्रभाव के कारण जलधारा पर एक विशेष बिंदु, समय के साथ कैसे बदलता है। इन स्टेशनों पर साल में बारह बार निगरानी की जाती है|

2.0 अवलोकन / नमूना तकनीके:

प्रत्येक स्टेशन पर जल धारा से डिस्चार्ज मापन खंड पर पानी की सतह के 30 सेमी नीचे, निर्धारित तिथियों पर एक सामान्य नमूना एकत्र किया जाता है।

दो पानी के नमूने एक 1 लीटर क्षमता की पॉलिथीन की बोतल में और एक 250 मिलीलीटर विसंक्रामित कांच की बोतल मे हर महीने नमूना संग्रह की तारीख पर एकत्र किए जाते हैं। पॉलिथीन की बोतलों में एकत्रित पानी के नमूनों का उपयोग भौतिक रासायनिक मापदंडों के विश्लेषण के लिए किया जाता है और विसंक्रामित कांच की बोतल में एकत्रित पानी के नमूने का उपयोग बैक्टीरिया के मानकों के विश्लेषण के लिए किया जाता है। वर्ष में एक बार अप्रैल के महीने में पानी के नमूने को एक नई पॉलिथीन की बोतलों में निशानी वाले और जहरीले तत्वों के विश्लेषण के लिए एकत्र किया जाता है और कीटनाशकों के विश्लेषण के लिए भूरे पीले रंग की

कांच की बोतल में भी पानी के नमूने एकत्र किए जाते हैं।

नमूने को संबंधित प्रयोगशालाओं में बर्फ के साथ ठंडे पैक में ले जाया जाता है, ताकि न्यूनतम 24 घंटे के संग्रह के बाद वे प्रयोगशालाओं में पहुंच सकें। प्रयोगशाला में नमूनों की प्राप्ति के तुरंत बाद pH, विद्युत प्रवाहकत्व, भंग ऑक्सीजन, क्षारीयता, कठोरता और अमोनिया जैसे मापदंडों का विश्लेषण किया जाता है। बाद में उन्हें निर्धारित समय सीमा के भीतर अन्य मापदंडों के विश्लेषण के लिए 4°C पर संरक्षित किया जाता है।

2.1 जल गुणवत्ता स्टेशनों का प्रकार:

स. क्र.	साइट का नाम	मण्डल का नाम	प्रकार	स. क्र.	साइट का नाम	मण्डल का नाम	प्रकार
1	वारुंजी	ऊ.कृ.म.	बेसलाइन	23	होलेहोन्नूरु	का.म.	ट्रेंड
2	कराड़	ऊ.कृ.म.	ट्रेंड	24	शिमोगा	का.म.	बेसलाइन
3	समडोली	ऊ.कृ.म.	ट्रेंड	25	हरिहरपुरा	का.म.	ट्रेंड
4	अर्जुनवाड़	ऊ.कृ.म.	ट्रेंड	26	होन्नाली	का.म.	बेसलाइन
5	कुरुंद्वाड़	ऊ.कृ.म.	ट्रेंड	27	कुप्पेलूर	का.म.	ट्रेंड
6	तेरवाड़	ऊ.कृ.म.	ट्रेंड	28	ब्यालड़ाहल्ली	का.म.	ट्रेंड
7	गोकक फ़ॉल्स	का.म.	ट्रेंड	29	हरलाहल्ली	का.म.	ट्रेंड
8	चोलचगुड्डा	का.म.	ट्रेंड	30	मारोल	का.म.	ट्रेंड
9	देवसुगर	नि.कृ.म.	ट्रेंड	31	हूविनहोले	का.म.	ट्रेंड
10	हुविनहेदगी	नि.कृ.म.	ट्रेंड	32	केल्लोडु	का.म.	ट्रेंड
11	सुद्दाकल्लु	नि.कृ.म.	ट्रेंड	33	टी. रामपुरम	नि.कृ.म.	ट्रेंड
12	धोंड	ऊ.कृ.म.	ट्रेंड	34	मंत्रालयम	नि.कृ.म.	ट्रेंड
13	पारगाव	ऊ.कृ.म.	ट्रेंड	35	बावापुरम	नि.कृ.म.	ट्रेंड
14	मीरावाड़ी	ऊ.कृ.म.	ट्रेंड	36	हालिया	नि.कृ.म.	ट्रेंड
15	फुलगाँव	ऊ.कृ.म.	बेसलाइन	37	दामेरचेरला	नि.कृ.म.	ट्रेंड
16	सराटी	ऊ.कृ.म.	बेसलाइन	38	वलीगोंडा	नि.कृ.म.	बेसलाइन
17	टाकली	ऊ.कृ.म.	ट्रेंड	39	वादेनापल्ली	नि.कृ.म.	ट्रेंड
18	वडकबाल	ऊ.कृ.म.	ट्रेंड	40	पलेरू बांध	नि.कृ.म.	ट्रेंड
19	देवगांव पुल	नि.कृ.म.	ट्रेंड	41	मुनुगोडु	नि.कृ.म.	बेसलाइन
20	मलखेड़	नि.कृ.म.	बेसलाइन	42	मधिरा	नि.कृ.म.	ट्रेंड
21	यादगीर	नि.कृ.म.	ट्रेंड	43	कीसरा	नि.कृ.म.	बेसलाइन
22	लक्कवल्ली	का.म.	ट्रेंड	44	विजयवाड़ा	नि.कृ.म.	फ्लक्स

2.2 विश्लेषण तकनीक और तरीके:

विभिन्न जल गुणवत्ता निगरानी स्टेशनों से प्राप्त पानी के नमूनों का विश्लेषण विभिन्न मापदंडों के लिए "पानी और अपशिष्ट जल की जांच के मानक तरीकों" - APHA, AWWA और WPCF, 22 वां संस्करण के अनुसार किया जाता हैं|

2.3 आयतनिक विश्लेषण विधि:

इस विधि का उपयोग कुल कठोरता, कैल्शियम, कार्बोनेट, बाइकार्बोनेट, क्लोराइड, घुलनशील ऑक्सीजन, जैव रासायनिक ऑक्सीजन की मांग और रासायनिक ऑक्सीजन की मांग को निर्धारित करने के लिए किया जाता है। इस प्रक्रिया में, सटीक रूप से ज्ञात संकेंद्रण की मात्रा का

पता लगाने के लिए विश्लेषण किया जाता है, जो नमूना की ज्ञात मात्रा के साथ प्रतिक्रिया करता है जिससे पैरामीटर की संकेंद्रता का मूल्यांकन किया जाता है।

2.4 उपकरण विधि:

उपकरण विधि मे, विश्लेषण किए गए प्रासंगिक मापदंडों और उपयोग किए गए उपकरणों का विवरण यहां दिया गया है:

स. क्र.	विधि	विश्लेषित किए गए मापदंड	उपकरण का नाम
1	पोटेंशियोमेट्रिक विधि	pH	डिजिटल pH मीटर
2	कंडोमेट्रिक विधि	विद्युत चालकता	डिजिटल चालकता मीटर
3	नेफेलोमेट्रिक विधि	सल्फेट और टर्बिडिटी	नेफेलो-टर्बिडिटी मीटर
4	लौ उत्सर्जन फोटोमेट्री विधि	सोडियम & पोटेशियम	लौ फोटोमीटर
5	वर्णमिति विधि	अमोनियाकल नाइट्रोजन, नाइट्राइट-नाइट्रोजन, फॉस्फेट-फॉस्फोरस, सिलिकॉन, बोरान	यूवी-विज़ स्पेक्ट्रोफोटोमीटर
6	ग्रेविमेट्रिक विधि	पूर्णत घुले हुए ठोंस पदार्थ	180^{o}C पर पूर्ण सूखापन के लिए गर्म वायु ओवन
7	क्रोमैटोग्राफिक विधि	एल्ड्रिन, बीएचसी, डीडीटी, डाइड्रिन और एंडोसुलफान	गैस क्रोमोग्राफ
8	परमाणु अवशोषण विधि	आर्सेनिक, कैडमियम, क्रोमियम, मरकरी, आयरन, निकल, लेड, जिंक और कॉपर	परमाणु अवशोषण स्पेक्ट्रोमीटर
9	ऑक्सीडेटिव दहन इन्फ्रारेड विश्लेषण विधि	कुल ओर्गनीक कार्बन	कुल ओर्गनीक कार्बन विश्लेषक
10	आयन चयनात्मक इलेक्ट्रोड विधि / स्पेक्ट्रोफोटोमेट्रिक विधि	नाइट्रेट-नाइट्रोजन और फ्लोराइड	आयन मीटर / स्पेक्ट्रोफोटोमीटर

2.5 के.ज.आ. प्रयोगशालाओं में विश्लेषण किए गए जल गुणवत्ता पैरामीटर्स की सूची

भौतिक - रासायनिक पैरामीटर: 1. PH 2. विद्युत चालकता 3. सोडियम 4. पोटेशियम 5. कैल्शियम 6. मैग्नीशियम 7. लोहा 8. अमोनिया 9. कार्बोनेट 10. द्वि-कार्बोनेट 11. क्लोराइड 12. फ्लोराइड 13. सल्फेट 14. नाइट्रेट 15. नाइट्राइट 16. ऑर्थो-फॉस्फेट, 17. सिलिकेट, 18. टोटल हार्डनेस 19. टर्बिडिटी 20. बोरोन और 21. टोटल डिसॉल्व्ड सॉलिड्स।

जैविक / जीवाणुतत्व-संबंधी पैरामीटर: 1. घुलित ऑक्सीजन 2. जैव-रासायनिक ऑक्सीजन की माँग 3. रासायनिक ऑक्सीजन की माँग 4. टोटल ऑर्गेनिक कार्बन 5 टोटल कोलीफॉर्म 6 फेकल कोलीफॉर्म

कीटनाशक: 1. एल्ड्रिन 2. बीएचसी 3. डीडीटी 4. डीड्रिन 5.एंडोसल्फान

ट्रेस और विषाक्त तत्व: 1. आर्सेनिक 2. पारा 3. निकल 4. जस्ता 5. क्रोमियम 6. लीड 7. कैडमियम 8. तांबा

2.6 परिकलित पैरामीटर:

छह मापदंडों की गणना अन्य मापदंडों के परिणामों के आधार पर की जाती है। जिसके लिए सूत्र नीचे दिए गए हैं।

(i) कार्बोनेट और बाइकार्बोनेट: पानी के नमूने में फेनोल्फथेलिन क्षारीयता (P) और कुल क्षारीयता (T) के मापित मूल्यों का उपयोग करके, कार्बोनेट क्षारीयता और बाइकार्बोनेट क्षारीयता की गणना गणना निम्नलिखित सूत्रों का उपयोग करके करते है।

अवस्था	OH^- क्षारीय $CaCO_3$ mg / L के रूप में	CO_3^- $CaCO_3$ क्षारीयता mg / L के रूप में	HCO_3^- $CaCO_3$ क्षारीयता mg / L के रूप में
P=0	0	0	T
P<½T	0	2P	T-2P
P=½T	0	2P	0
P>½T	2P-T	2(T-P)	0
P=½T	T	0	0

CO_3-- mg / L = CO_3^{--} $CaCO_3$ mg / L x 0.60 के रूप में क्षारीयता

HCO_3- mg / L = HCO_3^- $CaCO_3$ mg / L x 1.22 के रूप में क्षारीयता

(ii) कैल्शियम: Ca^{++} mg/L = 0.4 x Ca-Hardness as $CaCO_3^{--}$ mg/L

(iii) मैग्निशियम: Mg^{++} mg/L = 0.243 x [Total Hardness as $CaCO_3$ -- mg/L - Ca^-Hardness as $CaCO_3^{--}$ mg/L]

(iv) सोडियम प्रतिशत (% Na): SP = $\frac{Na^+ X\ 100}{\sqrt{Ca^{++} + Mg^{++} + Na^+ + K^+}}$

(Ionic सांद्रता meq / L में हैं)

(v) सोडियम अवशोषण अनुपात (SAR): SAR = $\frac{Na^+}{\sqrt{(Ca^{++} + Mg^{++})/2}}$

(Ionic सांद्रता meq / L में हैं)

(vi) अवशिष्ट सोडियम कार्बोनेट (RSC): RSC = $(CO_3^{--} + HCO_3^-) - (Ca^{++} + Mg^{++})$

(Ionic सांद्रता meq / L में हैं)

2.7 प्रस्तुति का तरीका:

इस खंड में प्रस्तुत स्टेशन वार जल गुणवत्ता डेटा में इतिहास पत्रक, वर्तमान वर्ष के लिए जल गुणवत्ता डेटा पत्रक और पानी की गुणवत्ता सारांश और 1993 से पानी की गुणवत्ता मौसमी औसत सारांश शामिल हैं। इस खंड- III में प्रस्तुत डेटा SWDES के माध्यम से उत्पन्न होते हैं। पानी की गुणवत्ता वाली साइटों का क्रम समुद्र से ऊपर की ओर बहने वाली नदी या किसी अन्य नदी / अंतरराष्ट्रीय सीमा के साथ संगम से तय किया जाता है, तथा स्रोत की ओर, मध्यवर्ती उपनदी पर स्तिथ साइटों को प्राथमिकता दी जाती है। विभिन्न नामित उपयोगों के लिए पानी की गुणवत्ता के मापदंडों की सहिष्णुता सीमाएं भारतीय मानक ब्यूरो IS : 2296-1982 के अनुसार होती हैं

2.8 जल गुणवत्ता परिदृश्य :

44 जल गुणवत्ता वाले स्टेशनों में से 21 स्टेशनों के जल गुणवत्ता परिदृश्य को कृष्णा, तुंगभद्रा और भीमा नदियों पर गिरने वाली पुस्तक में शामिल किया गया है । शेष 23 स्टेशन कृष्णा की विभिन्न सहायक नदियों पर एकल बिंदु स्रोत हैं, जिनके लिए कोई पानी की गुणवत्ता परिदृश्य उपलब्ध नहीं है ।

KRISHNA BASIN
WATER QUALITY DATA (Vol. III)
(JUNE 2022 - MAY 2023)

1.0 WATER QUALITY MONITORING

River water quality monitoring is being carried out by the Central Water Commission in the Krishna basin since 1972. This volume III, contains data on water quality, monitored at 44 hydrological observation stations, in Krishna Basin during the water year 2022-23. Out of these 44 Water Quality stations, 13 stations are monitored by the Upper Krishna Division, Pune, 18 stations are monitored by Lower Krishna Division, Hyderabad and remaining 13 stations are monitored by the Cauvery Division, Bengaluru. Krishna Basin map showing the locations of these stations is appended.

One Level III laboratory located in Hyderabad and two Level II laboratories located in Pune and Bangalore are engaged in the analysis of water quality parameters. All these laboratories are NABL accredited during the year 2022-23.

1.1 Classification of Water Quality Stations

Based on the human activity at water quality station, they are classified as base line stations, flux stations and trend stations. Collection of samples depends upon the classification of particular station.

(i) Base line Stations: These are the water quality stations, where there is no influence of human activities on water quality. At these stations, water quality is monitored six times a year for perennial rivers and three to four times a year for seasonal rivers.

(ii) Flux Stations: These stations are also known as impact stations. These stations are meant for measuring the mass of particular pollutant on main river stream for measuring the extent of pollution due to human interference or geological feature at any point of time and are necessary for measuring impact of pollution control measures adopted. These stations shall be monitored twelve to twenty-four times in a year, depending up on the pollution potential or importance of water use.

(iii) Trend Stations: These stations are designed for water quality monitoring to show how a particular point on a watercourse varies over time, normally, due to influence of human activities. These stations are monitored twelve times in a year.

2.0 OBSERVATION/SAMPLING TECHNIQUES

A single grab sample at each station is collected on the scheduled dates at 30 cm below the water surface at the discharge measuring section from the stream.

The water samples are collected in two polythene bottles of one liter capacity and in one 250ml sterilized glass bottle every month on the sample collection date. The water samples collected in polythene bottles are used for the analysis of Physico chemical parameters and the water sample collected in the sterilized glass bottle is used for the

analysis of Bacteriological parameters. Once in year in the month of April water sample are collected for the analysis of Trace and Toxic elements in a new polythene bottles and also water samples are collected in amber colored glass bottles for the analysis of Pesticides

The samples are transported in cool packs with ice to the respective laboratories with a minimum loss of time to ensure that they reach the laboratories within 24 hours after collection. The parameters like pH, electrical conductance, dissolved oxygen, alkalinity, hardness and ammonia are analyzed immediately soon after the receipt of samples in laboratory. Afterwards they are preserved at $4^{o}C$ for analysis of other parameters within the prescribed time limits.

2.1 Type of Water Quality Stations:

Sl. No	Name of Site	Name of Division	Type	Sl. No	Name of Site	Name of Division	Type
1	Warunji	UKD	Trend	23	Holehonnur	CD	Trend
2	Karad	UKD	Baseline	24	Shimoga	CD	Baseline
3	Samdoli	UKD	Trend	25	Hariharapura	CD	Trend
4	Arjunwad	UKD	Trend	26	Honnali	CD	Baseline
5	Kurundwad	UKD	Trend	27	Kuppelur	CD	Trend
6	Terwad	UKD	Trend	28	Byaladahalli	CD	Trend
7	Gokakfalls	CD	Trend	29	Harlahalli	CD	Trend
8	Cholachagudda	CD	Trend	30	Marol	CD	Trend
9	Deosugar	LKD	Trend	31	Hoovinahole	CD	Trend
10	Huvinhedgi	LKD	Trend	32	Kellodu	CD	Trend
11	Suddakallu	LKD	Trend	33	T. Rampuram	LKD	Trend
12	Dhond	UKD	Trend	34	Mantralayam	LKD	Trend
13	Paragaon	UKD	Trend	35	Bawapuram	LKD	Trend
14	Mirawadi	UKD	Trend	36	Halia	LKD	Trend
15	Phulgaon	UKD	Baseline	37	Dameracherla	LKD	Trend
16	Sarati	UKD	Baseline	38	Valigonda	LKD	Baseline
17	Takli	UKD	Trend	39	Wadenapally	LKD	Trend
18	Wadakbal	UKD	Trend	40	Paleru Bridge	LKD	Trend
19	Deogaon Bridge	LKD	Trend	41	Munugodu	LKD	Baseline
20	Malkhed	LKD	Baseline	42	Madhira	LKD	Trend
21	Yadgir	LKD	Trend	43	Keesara	LKD	Baseline
22	Lakkavalli	CD	Trend	44	Vijayawada	LKD	Flux

2.2 Analysis Techniques and Methods

The water samples, received from different water quality monitoring stations are analyzed for different parameters following the "Standard methods for the examination of water and waste water" – APHA, AWWA & WPCF, 22nd edition.

2.3 Volumetric analysis Method

This method is used to determine the quantities of total hardness, calcium, carbonate, bicarbonate, chloride, dissolved oxygen, biochemical oxygen demand and chemical oxygen demand. In this procedure, analysis is carried out to find the volume of a solution of accurately known concentration, which reacts quantitatively with the known volume of sample from which the concentration of the parameter is evaluated.

2.4. Instrumental methods:

The instrumental methods, the relevant parameters analyzed and instruments used are given here under.

S.No.	Method	Parameter analyzed	Instrument used
1	Potentiometric method	pH	Digital pH meter
2	Conductometric method	Electrical Conductance	Digital Conductivity meter
3	Nephelometric method	Sulfate & Turbidity	Nephelo-Turbidity Meter
4	Flame Emission Photometric method	Sodium & Potassium	Flame Photometer
5	Colorimetric method	Ammonical Nitrogen, Nitrite-Nitrogen, Phosphate-Phosphorous, Silicon, Boron	UV-VIS Spectrophotometer
6	Gravimetric method	Total dissolved solids	Hot Air oven for total dryness at 180ºC
7	Chromatographic method	Aldrin, BHC, DDT, Dieldrin and Endosulphan	Gas Chromatograph
8	Atomic Absorption method	Arsenic, Cadmium, Chromium, Mercury,Iron Nickel, Lead, Zinc and copper	Atomic Absorption Spectrometer
9	Oxidative Combustion Infrared Analysis method	Total Organic Carbon	Total Organic Carbon Analyzer
10	Ion selective electrode method/Spectro photometric method	Nitrate-Nitrogen & Fluoride	Ion meter/Spectrophoto Meter

2.5 List of Water Quality Parameters analyzed in the CWC Laboratories

Physico – Chemical Parameters: 1. pH 2. Electrical Conductance 3. Sodium 4. Potassium 5. Calcium 6. Magnesium 7. Iron 8. Ammonia 9. Carbonate 10. Bi-carbonate 11. Chloride 12. Fluoride 13. Sulphate 14. Nitrate 15. Nitrite 16. Ortho-

Phosphate, 17. Silicate, 18.Total Hardness and 19.Turbity. 20.Boron, 21.Total Dissolved Solids.

Biological / Bacteriological Parameters: 1. Dissolved Oxygen 2. Bio-chemical Oxygen Demand 3. Chemical Oxygen Demand. 4.Total Organic Carbon .5.Total Coliforms 6.Feacal Coliforms

Pesticides : 1.Aldrin 2.BHC 3.DDT 4.Dieldrin 5.Endo sulfan.

Trace & Toxic Elements : 1..Arsenic 2.Mercury 3.Nickel 4.Zinc 5. Chromium 6.Lead 7.Cadmium 8.Copper.

2.6 Calculated parameters

Six parameters are calculated on the measured results of other parameters. The formulae are given below.

(i) Carbonate and bicarbonate: By using the measured values of Phenolphthalein Alkalinity (P) and Total Alkalinity (T), Carbonate alkalinity and bicarbonate alkalinity are calculated in water sample using following formulae.

Condition	OH^- alkalinity as $CaCO_3$ mg/L	CO_3^{--} alkalinity as $CaCO_3$ mg/L	HCO^{3--} alkalinity as $CaCO_3$ mg/L
P=0	0	0	T
P<½T	0	2P	T-2P
P=½T	0	2P	0
P>½T	2P-T	2(T-P)	0
P=½T	T	0	0

CO_3^{--} mg/L = CO_3^{--} alkalinity as $CaCO_3$ mg/L x 0.60

HCO_3^- mg/L = HCO_3^- alkalinity as $CaCO_3$ mg/L x 1.22

(ii) Calcium: Ca^{++} mg/L = 0.4 x Ca-Hardness as $CaCO_3^{--}$ mg/L

(iii) Magnesium: Mg^{++} mg/L = 0.243 x [Total Hardness as $CaCO_3^{--}$ mg/L - Ca-Hardness as $CaCO_3^{--}$mg/L]

(iv) Sodium Percentage (%Na) : SP **=** $\frac{Na^+ X\,100}{\sqrt{Ca^{++} + Mg^{++} + Na^+ + K^+}}$

(Ionic concentrations are in meq /L)

(v) Sodium Adsorption Ratio (SAR) : SAR = $\frac{Na^+}{\sqrt{(Ca^{++}+Mg^{++})/2}}$

(Ionic concentrations are in meq /L)

(vi) Residual Sodium Carbonate (RSC) : RSC = $(CO_3^{--} + HCO_3^-) - (Ca^{++} + Mg^{++})$

(Ionic concentrations are in meq /L)

2.7 Method of Presentation

Station wise water quality data as presented in this volume comprises history sheet, water quality data sheet and water quality summary for the current year and water quality seasonal average summary from 1993.The data presented in this volume- III are generated through SWDES. The serial order of water quality sites is arranged along the river moving upstream from the sea or confluence with another river / international boundary, towards its source, giving priority to sites on intermediate tributary.

Tolerance limits of water quality parameters for different designated uses are according to Bureau of Indian Standard code BIS : 2296-1982.

2.8 Water Quality Scenario

Out of 44 water quality stations, the water quality scenario of 21 stations is included in the book which are falling on rivers Krishna, Tungabhadra and Bhima. The remaining 23 stations are single point sources on different tributaries of Krishna for which no water quality scenario is available.

Table 1 - Tolerance limit relating to selected pollution parameters for inland surface waters required for different uses as prescribed by the Bureau of Indian Standards (BIS: 2296-1982)

Sl. No	Constituents	Unit	Designated use class of inland surface water				
			A	B	C	D	E
1	pH		6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.0-8.5
2	EC at 25°C	µS/cm,Max	-	-	-	1000	2250
3	DO	mg/L, Min	6	5	4	4	-
4	BOD	mg/L, Max	2	3	3	-	-
5	Total coliform organisms	MPN/100 ml, Max	50*	500*	5000*	-	-
6	Colour,	Hazen units, Max	10	300	300	-	-
7	Odour		Un-objectionable	-	-	-	-
8	Taste		Tasteless	-	-	-	-
9	Total dissolved solids	mg/L, Max	500	-	1500	-	2100
10	Total Hardness	as $CaCO_3$, mg/L, Max	300	-	-	-	-
11	Calcium hardness	as $CaCO_3$, mg/L, Max	200	-	-		-
12	Magnesium	as $CaCO_3$, mg/L, Max	100	-	-	-	-
13	Iron	as Fe, mg/L, Max	0.3	-	50	-	-
14	Chloride	as Cl, mg/L, Max	250	-	600	-	600
15	Fluoride	as F, mg/L, Max	1.5	1.5	1.5	-	-
16	Sulphate	as SO_4,mg/L, Max	400	-	400	-	1000
17	Nitrate	as NO_3, mg/L, Max	20	-	50	-	-
18	Free Ammonia	as N, mg/L, Max	-	-	-	1.2	-
19	Arsenic	as As, mg/L, Max	0.05	0.2	0.2	-	-
20	Boron	as B, mg/L, Max	-	-	-	-	2
21	Cadmium	as Cd, mg/L, Max	0.01	-	0.01	-	-
22	Chromium	as Cr^{6+}, mg/L, Max	0.05	0.05	0.05	-	-
23	Copper	as Cu, mg/L, Max	1.5	-	1.50	-	-
24	Cyanide	as CN, mg/L, Max	0.05	0.05	0.05	-	-
25	Lead	as Pb, mg/L, Max	0.1	-	0.10	-	-
26	Manganese	as Mn, mg/L, Max	0.5	-	-	-	-
27	Mercury	as Hg mg/L, Max	0.001	-	-	-	-
28	Zinc	as Zn, mg/L, Max	15	-	15	-	-
29	Pesticides		Absent	-	Absent	-	-
30	Free carbon dioxide	as CO_2, mg/L, Max	-	-	-	6	-
31	Phenolic compound	as C_6H_5OH, mg/L,Max	0.002	0.005	0.005	-	-
32	Sodium percent,	Max	-	-	-	-	60
33	SAR	Max	-	-	-	-	26

A Drinking water source without conventional treatment but after disinfections
B Outdoor bathing-organised
C Drinking water source with conventional treatment followed by disinfections
D Propagation of wildlife, fisheries
E Irrigation, industrial cooling and controlled waste disposal

*** If the coliform count is more than the prescribed tolerance limit, the criteria for coliform shall be satisfied if not more than 20% of samples show more than the tolerance limit specified and not more than 5% of samples show more than 4 times the tolerance limit. Further, the faecal coliform should not be more than 40% of the total coliform.**

HISTORY SHEET

			Water Year	:	**2022-2023**
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 , Miraj
Drainage Area	:	1890 Sq. Km.	Bank	:	Left
Latitude	:	17°16'37"	Longitude	:	74°10'15"
		Opening Date	Closing Date		
Gauge	:	20-08-1963			
Discharge	:	28-12-1966			
Sediment	:	01-06-1974			
Water Quality	:	01-06-1974			

Note: Water Quality Observations Suspended from 2006 to 2012 due to Downgradation w.e.f 01-06-2006. WQ Upgradation w.e.f 2013

Water Quality Datasheet for the period : 2022-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	14-07-2022	26-07-2022	02-08-2022	10-08-2022	23-08-2022	14-09-2022	22-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	591.6	159.0	40.56	841.5	350.5	545.5	219.0
2	Colour_Cod (-)	Clear	Light Brown	Light Brown	Light Brown	Brown	Brown	Light Brown
3	EC_FLD (µmho/cm)	274	276	270	97	113	228	125
4	EC_GEN (µmho/cm)	96	105	201	89	100	82	126
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.5	7.4	7.3	7.3	7.3	7.3
7	pH_GEN (pH units)	7.2	7.2	7.5	7.2	7.2	7.2	7.6
8	TDS (mg/L)	84	60	162	78	76	55	87
9	Temp (deg C)	19.5	21.5	21.0	21.0	21.5	22.0	22.5
10	Turb (NTU)	7.9	66.7	12.9	12.9	16.4	21.7	24.9
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	34	47	48	32	33	30	29
3	B (mg/L)	0.06	0.01	0.05	0.02	0.02	0.09	0.05
4	Ca (mg/L)	10	20	10	10	10	9	11
5	Cl (mg/L)	12.2	15.9	22.2	17.3	19.6	17.9	17.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.05	0.08	0.06	0.04	0.04	0.03
8	Fe (mg/L)	1.5	0.6	0.2	0.6	0.2	0.7	0.2
9	HCO3 (mg/L)	41	58	58	39	41	36	35
10	K (mg/L)	1.5	1.2	2.3	1.3	1.1	1.6	1.1
11	Mg (mg/L)	3.3	8.6	12.4	3.7	4.0	2.8	4.8
12	Na (mg/L)	9.1	10.6	17.1	9.1	10.7	10.6	10.6
13	NH3-N (mg N/L)	0.26	0.10	0.05	0.08	0.06	0.12	0.06
14	NO2+NO3 (mg N/L)	1.29	0.68	1.13	0.75	0.62	0.60	0.59
15	NO2-N (mgN/L)	0.01	0.01	0.02	0.01	0.01	0.01	0.01
16	NO3-N (mgN/L)	1.28	0.68	1.10	0.74	0.61	0.59	0.58
17	P-Tot (mgP/L)	0.038	0.021	0.012	0.019	0.679	0.019	0.009
18	SiO2 (mg/L)	16.0	15.9	21.5	15.8	15.1	14.1	18.7
19	SO4 (mg/L)	11.5	33.8	46.4	15.2	15.4	10.8	15.8
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.4	1.1	2.6	0.7	1.0	0.7	1.2
2	COD (mg/L)	9.0	8.0	19.0	4.0	6.0	4.0	7.0
3	DO (mg/L)	7.1	9.1	7.2	7.1	8.4	7.2	6.1
4	DO_SAT% (%)	77	102	81	80	94	82	70
5	FCol-MPN (MPN/100mL)	28000	17000	90000	6000	7000	28000	9000
6	Tcol-MPN (MPN/100mL)	160000	160000	160000	50000	90000	160000	17000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.6	2.1	3.5	1.1	0.0	0.0
2	Cr (µg/L)	2.3	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	7.5	0.0	0.0	0.5	0.0	13.0	5.3
4	Hg (µg/L)			0.0				
5	Ni (µg/L)	13.2	2.6	1.2	2.6	0.9	0.9	0.0
6	Pb (µg/L)	1.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Zn (µg/L)	14.9	10.9	1.3	6.8	3.9	10.3	0.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	25	51	25	25	24	21	28
2	HAR_Total (mgCaCO3/L)	38	87	77	40	41	33	48
3	Na% (%)	33	21	32	32	36	40	32
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.5	0.9	0.6	0.7	0.8	0.7
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	04-10-2022	12-10-2022	20-10-2022	02-11-2022	11-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	27.88	97.37	123.5	14.34	66.07	31.36
2	Colour_Cod (-)	Light Brown	Clear	Light Brown	Clear	Light Brown	Clear
3	EC_FLD (µmho/cm)	227	229	225	321	308	166
4	EC_GEN (µmho/cm)	251	221	204	310	308	146
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.2	7.8	7.2	7.6	8.0	7.3
7	pH_GEN (pH units)	7.5	7.9	7.4	7.3	8.1	7.5
8	TDS (mg/L)	180	163	134	201	300	101
9	Temp (deg C)	22.5	22.5	22.0	22.0	23.0	20.0
10	Turb (NTU)	14.3	11.0	16.8	15.4	26.3	14.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	105	88	87	116	159	58
3	B (mg/L)	0.05	0.03	0.04	0.06	0.21	0.14
4	Ca (mg/L)	25	31	23	32	41	16
5	Cl (mg/L)	38.3	23.6	24.3	50.9	22.5	18.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.08	0.09	0.07	0.07	0.09	0.09
8	Fe (mg/L)	0.1	0.2	0.9	0.1	0.1	0.1
9	HCO3 (mg/L)	129	107	106	141	194	71
10	K (mg/L)	2.3	2.3	1.9	2.4	2.7	1.2
11	Mg (mg/L)	11.2	6.5	6.7	15.2	13.1	5.5
12	Na (mg/L)	18.2	18.2	17.9	28.1	17.3	14.1
13	NH3-N (mg N/L)	0.06	0.04	0.02	0.02	0.02	0.03
14	NO2+NO3 (mg N/L)	1.78	1.24	1.00	1.50	1.69	0.80
15	NO2-N (mgN/L)	0.02	0.02	0.02	0.02	0.01	0.02
16	NO3-N (mgN/L)	1.76	1.22	0.98	1.49	1.68	0.78
17	P-Tot (mgP/L)	0.014	0.014	0.047	0.015	0.025	0.019
18	SiO2 (mg/L)	23.5	25.5	21.9	33.7	31.0	16.5
19	SO4 (mg/L)	38.2	21.2	24.4	48.6	36.9	20.3
	BIOLOGICAL/BACTERIOLOG						
1	BOD3-27 (mg/L)	0.7	0.9	0.7	1.4	1.6	0.8
2	COD (mg/L)	5.0	6.0	5.0	9.0	8.0	5.0
3	DO (mg/L)	7.4	7.1	7.6	7.8	7.8	7.6
4	DO_SAT% (%)	85	81	87	89	91	84
5	FCol-MPN (MPN/100mL)	3400	8000	5000	22000	800	1700
6	Tcol-MPN (MPN/100mL)	13000	11000	17000	35000	3000	11000
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.4	2.2	3.6	1.9
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	7.0	5.3	6.7	4.3	6.0	4.0
4	Hg (µg/L)						
5	Ni (µg/L)	0.0	0.0	0.0	0.9	3.3	27.7
6	Pb (µg/L)	0.0	0.0	0.0	9.0	12.0	6.0
7	Zn (µg/L)	0.0	0.0	0.0	4.4	9.7	8.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	63	76	58	81	104	40
2	HAR_Total (mgCaCO3/L)	110	103	85	144	158	63
3	Na% (%)	26	27	31	29	19	32
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.8	0.8	0.8	1.0	0.6	0.8
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **Sub-Division : Upper Krishna SD , Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1178	0.000	85.43
2	EC_FLD (µmho/cm)	13	321	97	220
3	EC_GEN (µmho/cm)	13	310	82	172
4	pH_FLD (pH units)	13	8.0	7.2	7.4
5	pH_GEN (pH units)	13	8.1	7.2	7.4
6	TDS (mg/L)	13	300	55	129
7	Temp (deg C)	13	23.0	19.5	21.6
8	Turb (NTU)	13	66.7	7.9	20.1
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	13	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	13	159	29	67
3	B (mg/L)	13	0.21	0.01	0.06
4	Ca (mg/L)	13	41	9	19
5	Cl (mg/L)	13	50.9	12.2	23.1
6	CO3 (mg/L)	13	0.0	0.0	0
7	F (mg/L)	13	0.09	0.03	0.06
8	Fe (mg/L)	13	1.5	0.1	0.4
9	HCO3 (mg/L)	13	194	35	81
10	K (mg/L)	13	2.7	1.1	1.8
11	Mg (mg/L)	13	15.2	2.8	7.5
12	Na (mg/L)	13	28.1	9.1	14.7
13	NH3-N (mg N/L)	13	0.26	0.02	0.07
14	NO2+NO3 (mg N/L)	13	1.78	0.59	1.05
15	NO2-N (mgN/L)	13	0.02	0.01	0.01
16	NO3-N (mgN/L)	13	1.76	0.58	1.04
17	P-Tot (mgP/L)	13	0.679	0.009	0.072
18	SiO2 (mg/L)	13	33.7	14.1	20.7
19	SO4 (mg/L)	13	48.6	10.8	26
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	13	2.6	0.7	1.1
2	COD (mg/L)	13	19.0	4.0	7.3
3	DO (mg/L)	13	9.1	6.1	7.5
4	DO_SAT% (%)	13	102	70	85
5	FCol-MPN (MPN/100mL)	13	90000	800	17377
6	Tcol-MPN (MPN/100mL)	13	160000	3000	68231
	TRACE & TOXIC				
1	Cd (µg/L)	13	3.6	0.0	1.3
2	Cr (µg/L)	13	2.3	0.0	0.2
3	Cu (µg/L)	13	13.0	0.0	4.6
4	Hg (µg/L)	1	0.0	0.0	0
5	Ni (µg/L)	13	27.7	0.0	4.1
6	Pb (µg/L)	13	12.0	0.0	2.2
7	Zn (µg/L)	13	14.9	0.0	5.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	13	104	21	48
2	HAR_Total (mgCaCO3/L)	13	158	33	79
3	Na% (%)	13	40	19	30
4	RSC (-)	13	0.0	0.0	0
5	SAR (-)	13	1.0	0.5	0.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **River Water** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Flood				
		Jun - Oct				
		2013	2014	2015	2016	2017
	PHYSICAL					
1	Q (cumec)	661.6	386.6	113.2	229.3	222.2
2	EC_FLD (µmho/cm)	985	353	785	445	381
3	EC_GEN (µmho/cm)	101	111	101	79	78
4	pH_FLD (pH units)	8.7	8.7	8.4	7.8	7.9
5	pH_GEN (pH units)	6.9	7.5	7.7	7.2	7.5
6	TDS (mg/L)					
7	Temp (deg C)	24.1	21.5	20.0	19.8	25.5
8	Turb (NTU)					
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)	30	59	50	36	30
2	B (mg/L)	0.11	0.07	0.14	0.02	0.03
3	Ca (mg/L)	10	30	19	12	13
4	Cl (mg/L)	5.2	31.5	9.9	8.0	12.9
5	F (mg/L)	0.29	0.25	0.50	0.28	0.44
6	Fe (mg/L)	0.5	1.0	1.4	1.1	0.9
7	HCO3 (mg/L)	37	71	61	44	37
8	K (mg/L)	0.4	0.2	0.2	0.4	0.2
9	Mg (mg/L)	4.9	6.3	5.8	2.4	3.4
10	Na (mg/L)	3.3	23.6	6.4	5.2	7.7
11	NH3-N (mg N/L)					
12	NO2+NO3 (mg N/L)	0.41	1.18	0.79	1.17	0.66
13	NO2-N (mgN/L)	0.01	0.00	0.00	0.00	0.00
14	NO3-N (mgN/L)	0.41	1.18	0.79	1.17	0.65
15	P-Tot (mgP/L)	0.023	0.011	0.019	0.025	0.033
16	SiO2 (mg/L)	32.0	22.7	17.0	6.7	5.9
17	SO4 (mg/L)	17.0	22.6	15.6	8.2	10.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.8	3.1	1.0	2.4	1.2
2	COD (mg/L)	6.0	19.0	6.0	15.0	9.0
3	DO (mg/L)	5.7	6.8	5.9	6.4	6.5
4	DO_SAT% (%)	68	77	65	69	80
5	FCol-MPN (MPN/100mL)	123900	18500	7900	802500	3000
6	Tcol-MPN (MPN/100mL)	275500	26000	11000	802500	16000
	TRACE & TOXIC					
1	Cd (µg/L)	0.2				
2	Cr (µg/L)	2.8				
3	Cu (µg/L)	2.8				
4	Hg (µg/L)	0.0				
5	Ni (µg/L)	7.2				
6	Pb (µg/L)	-0.5				
7	Zn (µg/L)	-0.1				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	24	74	48	30	32
2	HAR_Total (mgCaCO3/L)	44	100	72	40	46
3	Na% (%)	14	34	16	22	26
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.2	1.0	0.3	0.4	0.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **River Water** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Flood				
		Jun - Oct				
		2018	2019	2020	2021	2022
	PHYSICAL					
1	Q (cumec)	153.4	1988	214.7	838.0	299.6
2	EC_FLD (µmho/cm)	232	260	218	97	206
3	EC_GEN (µmho/cm)	93	98	110	93	148
4	pH_FLD (pH units)	6.9	7.0	7.1	7.5	7.4
5	pH_GEN (pH units)	7.7	7.5	7.7	7.5	7.4
6	TDS (mg/L)			61	52	108
7	Temp (deg C)	18.8	21.8	25.0	20.7	21.6
8	Turb (NTU)				131.8	20.5
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)	33	42	41	40	53
2	B (mg/L)	0.06	0.04	0.04	0.04	0.04
3	Ca (mg/L)	11	11	9	12	16
4	Cl (mg/L)	5.9	9.1	15.7	22.9	20.9
5	F (mg/L)	0.35	0.05	0.05	0.05	0.06
6	Fe (mg/L)	0.3	0.4	0.1	2.0	0.5
7	HCO3 (mg/L)	40	52	51	49	65
8	K (mg/L)	0.3	0.4	1.6	2.0	1.7
9	Mg (mg/L)	2.2	6.4	5.1	3.0	6.4
10	Na (mg/L)	3.3	5.7	10.8	15.5	13.2
11	NH3-N (mg N/L)				0.06	0.08
12	NO2+NO3 (mg N/L)	0.66	1.00	0.55	1.91	0.97
13	NO2-N (mgN/L)	0.00	0.01	0.01	0.16	0.01
14	NO3-N (mgN/L)	0.66	0.99	0.54	1.75	0.95
15	P-Tot (mgP/L)	0.009	0.089	0.008	0.019	0.087
16	SiO2 (mg/L)	1.6	4.5	15.8	16.0	18.8
17	SO4 (mg/L)	3.1	3.2	2.8	10.1	23.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.9	0.9	0.8	1.5	1.1
2	COD (mg/L)	6.3	6.0	7.0	10.5	7.3
3	DO (mg/L)	9.1	8.7	8.2	7.1	7.4
4	DO_SAT% (%)	98	99	99	79	84
5	FCol-MPN (MPN/100mL)	2633	11067	3350	6333	20140
6	Tcol-MPN (MPN/100mL)	4733	27000	8000	15167	83800
	TRACE & TOXIC					
1	Cd (µg/L)				0.1	1.0
2	Cr (µg/L)				0.0	0.2
3	Cu (µg/L)				1.5	4.5
4	Hg (µg/L)				0.0	0.0
5	Ni (µg/L)				0.0	2.1
6	Pb (µg/L)				5.5	0.1
7	Zn (µg/L)				5.5	4.8
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	28	26	23	29	40
2	HAR_Total (mgCaCO3/L)	37	53	44	42	66
3	Na% (%)	17	19	34	45	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.2	0.3	0.7	1.1	0.7
	PESTICIDES					

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Warunji (AKZ00A7) **Division : Upper Krishna Divn, Pune**

Local River : Koyna **River Water** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Winter				Summer	
		Nov - Feb				Mar - May	
		2019-2020	2020-2021	2022-2023	Samples not collected during Winter Season from 2014-2015 to 2018-2019 and 2021-2022 due Drybed / Noflow Condition.	2020	Samples not collected during Summer Season from 2015 to 2019 and 2021-2023 due Drybed / Noflow Condition.
	PHYSICAL						
1	Q (cumec)	183.6	0.000	37.25		0.000	
2	EC_FLD (µmho/cm)	236		265		233	
3	EC_GEN (µmho/cm)	264	170	255		71	
4	pH_FLD (pH units)	6.9	7.2	7.6		6.9	
5	pH_GEN (pH units)	8.0	7.7	7.6		7.2	
6	TDS (mg/L)		95	201			
7	Temp (deg C)	21.0	20.0	21.7		20.9	
8	Turb (NTU)			18.8			
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	116	73	111		27	
2	B (mg/L)	0.13	0.06	0.14		0.04	
3	Ca (mg/L)	26	20	30		6	
4	Cl (mg/L)	12.3	23.1	30.6		11.3	
5	F (mg/L)	0.12	0.04	0.08		0.01	
6	Fe (mg/L)	0.1	0.3	0.1		0.1	
7	HCO3 (mg/L)	142	89	135		34	
8	K (mg/L)	0.5	1.5	2.1		1.2	
9	Mg (mg/L)	17.1	7.0	11.2		3.9	
10	Na (mg/L)	8.7	15.4	19.8		8.4	
11	NH3-N (mg N/L)			0.02			
12	NO2+NO3 (mg N/L)	1.42	0.91	1.33		0.28	
13	NO2-N (mgN/L)	0.03	0.01	0.02		0.02	
14	NO3-N (mgN/L)	1.39	0.90	1.32		0.26	
15	P-Tot (mgP/L)	0.021	0.009	0.020		0.031	
16	SiO2 (mg/L)	10.9	10.9	27.1		11.0	
17	SO4 (mg/L)	5.7	5.9	35.3		1.9	
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.7	1.8	1.2			
2	COD (mg/L)	5.0	15.2	7.3			
3	DO (mg/L)	9.1	8.9	7.7		9.2	
4	DO_SAT% (%)	102	98	88		102	
5	FCol-MPN (MPN/100mL)	5000	500	8167			
6	Tcol-MPN (MPN/100mL)	30000	53733	16333			
	TRACE & TOXIC						
1	Cd (µg/L)			2.6			
2	Cr (µg/L)			0.0			
3	Cu (µg/L)			4.8			
4	Hg (µg/L)						
5	Ni (µg/L)			10.6			
6	Pb (µg/L)			9.0			
7	Zn (µg/L)			7.4			
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	65	49	75		15	
2	HAR_Total (mgCaCO3/L)	136	78	122		31	
3	Na% (%)	12	32	27		36	
4	RSC (-)	0.0	0.0	0.0		0.0	
5	SAR (-)	0.3	0.8	0.8		0.7	
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
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, Miraj
Drainage Area	:	5462 Sq. Km.	Bank	:	Right
Latitude	:	17°17'30"	Longitude	:	74°11'42"
		Opening Date	Closing Date		
Gauge	:	25-12-1964			
Discharge	:	21-06-1965			
Sediment	:	22-06-1965			
Water Quality	:	01-09-1972			

Water Quality Datasheet for the period : 2022-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	14-07-2022	26-07-2022	02-08-2022	10-08-2022	23-08-2022	14-09-2022	22-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	459.5	199.0	100.9	737.2	320.2	475.6	230.1
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Brown	Light Brown	Brown	Light Brown
3	EC_FLD (µmho/cm)	204	193	205	122	111	205	178
4	EC_GEN (µmho/cm)	113	125	277	107	106	96	156
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.5	7.3	7.5	7.4	7.2	7.3
7	pH_GEN (pH units)	7.3	7.3	7.6	7.2	7.2	7.1	7.6
8	TDS (mg/L)	87	76	229	69	72	63	96
9	Temp (deg C)	24.3	23.5	24.0	24.0	24.0	24.0	24.0
10	Turb (NTU)	48.0	33.4	28.7	32.6	18.9	98.0	21.3
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	41	50	79	47	29	38	58
3	B (mg/L)	0.07	0.00	0.03	0.05	0.02	0.14	0.04
4	Ca (mg/L)	12	14	27	13	11	12	18
5	Cl (mg/L)	15.4	16.0	34.7	19.4	18.2	15.3	17.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.05	0.07	0.05	0.05	0.03	0.03
8	Fe (mg/L)	1.6	0.4	0.1	1.1	0.4	1.4	0.1
9	HCO3 (mg/L)	50	61	97	57	36	47	71
10	K (mg/L)	1.7	1.5	3.2	3.7	1.3	1.6	1.3
11	Mg (mg/L)	4.8	2.7	11.8	3.9	3.7	2.6	2.9
12	Na (mg/L)	10.3	12.0	22.6	12.2	11.5	11.6	13.0
13	NH3-N (mg N/L)	0.32	0.07	0.05	0.09	0.04	0.04	0.03
14	NO2+NO3 (mg N/L)	1.37	0.70	1.53	0.94	0.61	0.61	0.81
15	NO2-N (mgN/L)	0.02	0.01	0.02	0.02	0.01	0.01	0.01
16	NO3-N (mgN/L)	1.35	0.69	1.51	0.92	0.60	0.60	0.80
17	P-Tot (mgP/L)	0.043	0.016	0.026	0.132	0.045	0.021	0.012
18	SiO2 (mg/L)	17.8	16.9	25.4	17.3	15.4	15.7	20.9
19	SO4 (mg/L)	16.7	11.6	44.1	16.5	12.9	11.9	10.1
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.1	0.6	1.3	0.6	0.7	0.8	0.6
2	COD (mg/L)	7.0	5.0	10.0	2.0	5.0	6.0	4.0
3	DO (mg/L)	8.0	7.0	7.8	8.0	8.0	6.9	7.1
4	DO_SAT% (%)	95	82	93	95	95	82	84
5	FCol-MPN (MPN/100mL)	3400	8000	22000	50000	90000	17000	9000
6	Tcol-MPN (MPN/100mL)	90000	160000	90000	160000	160000	90000	14000
	TRACE & TOXIC							
1	Cd (µg/L)	3.0	0.3	0.4	0.2	0.7	0.0	0.0
2	Cr (µg/L)	2.3	0.0	0.0	0.0	3.5	0.0	0.0
3	Cu (µg/L)	5.9	0.0	0.0	0.2	0.2	5.8	4.5
4	Hg (µg/L)			0.0				
5	Ni (µg/L)	10.5	2.4	3.2	2.5	1.3	0.0	0.0
6	Pb (µg/L)	3.0	0.0	1.0	0.0	0.0	0.0	0.0
7	Zn (µg/L)	13.6	11.6	7.0	6.0	4.7	3.8	9.7
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	29	35	66	31	27	31	46
2	HAR_Total (mgCaCO3/L)	49	46	116	48	42	42	58
3	Na% (%)	30	35	29	34	36	37	32
4	RSC (-)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.8	0.9	0.8	0.8	0.8	0.7
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	04-10-2022	12-10-2022	20-10-2022	02-11-2022	11-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	82.79	171.0	249.1	73.99	66.95	59.24
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	362	301	202	462	502	202
4	EC_GEN (µmho/cm)	385	343	367	492	582	266
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.5	7.9	7.2	7.6	8.0	7.2
7	pH_GEN (pH units)	7.7	8.0	7.8	7.9	8.1	7.7
8	TDS (mg/L)	245	202	305	298	426	208
9	Temp (deg C)	23.0	23.0	24.0	23.0	20.5	21.0
10	Turb (NTU)	13.5	14.7	24.7	14.3	14.6	11.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	105	172	86	177	190	84
3	B (mg/L)	0.08	0.00	0.03	0.02	0.22	0.16
4	Ca (mg/L)	38	39	44	45	55	25
5	Cl (mg/L)	56.7	46.0	45.0	51.6	64.9	23.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.09	0.09	0.09	0.13	0.07
8	Fe (mg/L)	0.1	0.3	0.7	0.1	0.2	0.1
9	HCO3 (mg/L)	128	210	105	216	231	103
10	K (mg/L)	3.3	3.3	3.7	5.0	4.0	2.4
11	Mg (mg/L)	15.9	20.0	13.0	26.1	24.0	11.1
12	Na (mg/L)	34.5	34.5	34.6	39.2	48.0	17.5
13	NH3-N (mg N/L)	0.15	0.03	0.03	0.02	0.02	0.01
14	NO2+NO3 (mg N/L)	2.33	2.14	2.18	2.91	3.63	1.37
15	NO2-N (mgN/L)	0.08	0.04	0.04	0.04	0.05	0.04
16	NO3-N (mgN/L)	2.24	2.11	2.14	2.87	3.58	1.33
17	P-Tot (mgP/L)	0.070	0.021	0.083	0.032	0.026	0.019
18	SiO2 (mg/L)	22.9	31.9	27.3	25.8	39.3	22.1
19	SO4 (mg/L)	36.4	56.3	44.8	74.8	76.5	43.1
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	0.6	0.7	0.7	0.6	1.6	0.6
2	COD (mg/L)	4.0	4.0	5.0	5.0	9.0	4.0
3	DO (mg/L)	7.0	7.2	8.0	7.9	7.8	7.7
4	DO_SAT% (%)	82	84	95	92	86	86
5	FCol-MPN (MPN/100mL)	2600	2600	5000	1400	5000	2200
6	Tcol-MPN (MPN/100mL)	11000	7000	28000	3300	24000	3000
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.0	2.4	2.7	1.7
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	6.2	4.4	5.9	4.6	5.3	4.6
4	Hg (µg/L)						
5	Ni (µg/L)	0.2	0.1	0.0	3.4	23.5	2.1
6	Pb (µg/L)	7.0	0.0	5.0	11.0	8.0	8.0
7	Zn (µg/L)	0.3	0.0	0.0	4.2	6.3	6.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	96	97	109	114	138	61
2	HAR_Total (mgCaCO3/L)	162	181	163	222	238	108
3	Na% (%)	31	29	31	27	30	26
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	1.1	1.2	1.1	1.4	0.7
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD, Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1078	0.000	94.94
2	EC_FLD (µmho/cm)	13	502	111	250
3	EC_GEN (µmho/cm)	13	582	96	263
4	pH_FLD (pH units)	13	8.0	7.2	7.5
5	pH_GEN (pH units)	13	8.1	7.1	7.6
6	TDS (mg/L)	13	426	63	183
7	Temp (deg C)	13	24.3	20.5	23.3
8	Turb (NTU)	13	98.0	11.2	28.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	13	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	13	190	29	89
3	B (mg/L)	13	0.22	0.00	0.07
4	Ca (mg/L)	13	55	11	27
5	Cl (mg/L)	13	64.9	15.3	32.6
6	CO3 (mg/L)	13	0.0	0.0	0
7	F (mg/L)	13	0.13	0.03	0.07
8	Fe (mg/L)	13	1.6	0.1	0.5
9	HCO3 (mg/L)	13	231	36	109
10	K (mg/L)	13	5.0	1.3	2.8
11	Mg (mg/L)	13	26.1	2.6	11
12	Na (mg/L)	13	48.0	10.3	23.2
13	NH3-N (mg N/L)	13	0.32	0.01	0.07
14	NO2+NO3 (mg N/L)	13	3.63	0.61	1.62
15	NO2-N (mgN/L)	13	0.08	0.01	0.03
16	NO3-N (mgN/L)	13	3.58	0.60	1.6
17	P-Tot (mgP/L)	13	0.132	0.012	0.042
18	SiO2 (mg/L)	13	39.3	15.4	23
19	SO4 (mg/L)	13	76.5	10.1	35.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	13	1.6	0.6	0.8
2	COD (mg/L)	13	10.0	2.0	5.4
3	DO (mg/L)	13	8.0	6.9	7.6
4	DO_SAT% (%)	13	95	82	89
5	FCol-MPN (MPN/100mL)	13	90000	1400	16785
6	Tcol-MPN (MPN/100mL)	13	160000	3000	64638
	TRACE & TOXIC				
1	Cd (µg/L)	13	3.0	0.0	1
2	Cr (µg/L)	13	3.5	0.0	0.4
3	Cu (µg/L)	13	6.2	0.0	3.7
4	Hg (µg/L)	1	0.0	0.0	0
5	Ni (µg/L)	13	23.5	0.0	3.8
6	Pb (µg/L)	13	11.0	0.0	3.3
7	Zn (µg/L)	13	13.6	0.0	5.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	13	138	27	68
2	HAR_Total (mgCaCO3/L)	13	238	42	113
3	Na% (%)	13	37	26	31
4	RSC (-)	13	0.1	0.0	0
5	SAR (-)	13	1.4	0.6	0.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood				
		Jun - Oct				
		2008	2009	2010	2011	2012
	PHYSICAL					
1	Q (cumec)	179.0	142.5	280.5	247.3	382.1
2	EC_FLD (µmho/cm)	278	266	314	294	292
3	EC_GEN (µmho/cm)	189	204	265	175	104
4	pH_FLD (pH units)	7.7	7.6	7.8	7.7	7.6
5	pH_GEN (pH units)	7.6	7.6	8.1	7.6	7.4
6	TDS (mg/L)					
7	Temp (deg C)	21.8	23.0	23.8	22.7	24.0
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	54	69	75	49	34
3	B (mg/L)	0.05	0.10	0.12	0.05	0.07
4	Ca (mg/L)	15	21	26	18	10
5	Cl (mg/L)	11.0	9.2	14.0	9.7	5.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.30	0.18	0.32	0.31
8	Fe (mg/L)	0.2	0.1	0.8	0.5	0.1
9	HCO3 (mg/L)	66	84	92	59	41
10	K (mg/L)	1.6	0.8	1.1	1.0	0.6
11	Mg (mg/L)	4.0	5.6	6.1	4.1	1.5
12	Na (mg/L)	7.7	6.7	8.6	6.9	4.0
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	0.30	0.38	0.18	0.72	0.49
15	NO2-N (mgN/L)	0.01	0.00	0.01	0.00	0.00
16	NO3-N (mgN/L)	0.30	0.38	0.17	0.71	0.48
17	P-Tot (mgP/L)	0.099	0.044	0.016	0.009	0.015
18	SiO2 (mg/L)	6.2	6.8	14.1	11.1	8.0
19	SO4 (mg/L)	4.8	18.3	18.1	11.3	3.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.9	1.9	1.1	0.8	1.5
2	COD (mg/L)	7.9	8.4	7.9	4.2	6.0
3	DO (mg/L)	6.2	6.2	6.2	6.2	6.2
4	DO_SAT% (%)	70	72	73	72	73
5	FCol-MPN (MPN/100mL)		58723	46600	246250	580000
6	Tcol-MPN (MPN/100mL)		58777	78800	386000	975000
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	38	52	66	45	26
2	HAR_Total (mgCaCO3/L)	55	75	91	62	32
3	Na% (%)	27	17	18	19	21
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.3	0.4	0.4	0.3
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood				
		Jun - Oct				
		2013	2014	2015	2016	2017
	PHYSICAL					
1	Q (cumec)	1141	560.9	269.4	217.7	223.9
2	EC_FLD (µmho/cm)	289	289	370	353	355
3	EC_GEN (µmho/cm)	96	175	112	90	84
4	pH_FLD (pH units)	7.6	7.8	7.7	7.7	7.7
5	pH_GEN (pH units)	7.2	7.6	7.7	7.5	7.6
6	TDS (mg/L)					
7	Temp (deg C)	24.3	23.8	23.5	22.0	24.8
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	41	77	62	36	36
3	B (mg/L)	0.09	0.06	0.06	0.04	0.04
4	Ca (mg/L)	11	30	29	10	13
5	Cl (mg/L)	8.2	32.0	8.2	9.5	10.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.31	0.28	0.43	0.31	0.45
8	Fe (mg/L)	0.3	0.9	2.4	2.1	0.9
9	HCO3 (mg/L)	50	94	76	44	44
10	K (mg/L)	0.7	0.9	0.4	1.0	0.3
11	Mg (mg/L)	8.7	3.4	5.8	5.3	1.9
12	Na (mg/L)	4.7	23.9	4.7	5.4	5.8
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	0.56	0.94	1.28	1.62	0.64
15	NO2-N (mgN/L)	0.00	0.02	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.55	0.93	1.28	1.62	0.63
17	P-Tot (mgP/L)	0.058	0.022	0.001	0.011	0.034
18	SiO2 (mg/L)	19.8	25.1	6.7	14.9	3.7
19	SO4 (mg/L)	11.9	11.8	17.5	15.0	7.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	2.3	0.8	0.7	1.6
2	COD (mg/L)	16.5	12.5	6.0	5.0	10.5
3	DO (mg/L)	6.3	6.2	6.2	6.2	6.1
4	DO_SAT% (%)	75	73	72	71	73
5	FCol-MPN (MPN/100mL)	471500	920000	1700	468000	9000
6	Tcol-MPN (MPN/100mL)	824500	1600000	2200	808000	16000
	TRACE & TOXIC					
1	As (µg/L)	2.3				
2	Cd (µg/L)	0.3				
3	Cr (µg/L)	27.3				
4	Cu (µg/L)	22.1				
5	Hg (µg/L)	0.1				
6	Ni (µg/L)	9.9				
7	Pb (µg/L)	-0.5				
8	Zn (µg/L)	-0.1				
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	28	74	72	26	32
2	HAR_Total (mgCaCO3/L)	64	88	96	48	40
3	Na% (%)	14	37	10	20	23
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	1.1	0.2	0.3	0.4
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood				
		Jun - Oct				
		2018	2019	2020	2021	2022
	PHYSICAL					
1	Q (cumec)	215.2	2228	416.2	897.1	302.5
2	EC_FLD (µmho/cm)	272	342	306	256	208
3	EC_GEN (µmho/cm)	110	135	240	133	207
4	pH_FLD (pH units)	7.8	7.1	8.0	7.3	7.4
5	pH_GEN (pH units)	7.6	7.7	8.1	7.7	7.5
6	TDS (mg/L)			134	74	144
7	Temp (deg C)	23.5	24.3	25.5	24.0	23.8
8	Turb (NTU)				100.8	33.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	44	49	94	60	71
3	B (mg/L)	0.07	0.07	0.06	0.05	0.05
4	Ca (mg/L)	13	9	21	13	23
5	Cl (mg/L)	7.1	9.0	20.6	28.0	28.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.35	0.07	0.09	0.05	0.06
8	Fe (mg/L)	0.3	0.4	0.1	1.6	0.6
9	HCO3 (mg/L)	54	60	115	73	86
10	K (mg/L)	0.5	0.7	2.2	2.6	2.5
11	Mg (mg/L)	2.4	8.1	10.5	7.0	8.1
12	Na (mg/L)	4.9	5.2	15.7	18.6	19.7
13	NH3-N (mg N/L)				0.07	0.08
14	NO2+NO3 (mg N/L)	0.94	1.42	1.31	1.54	1.32
15	NO2-N (mgN/L)	0.02	0.01	0.01	0.04	0.03
16	NO3-N (mgN/L)	0.92	1.41	1.30	1.50	1.30
17	P-Tot (mgP/L)	0.012	0.166	0.025	0.032	0.047
18	SiO2 (mg/L)	0.9	3.5	21.3	19.4	21.1
19	SO4 (mg/L)	3.5	7.1	5.4	11.9	26.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.6	0.9	0.8	1.3	0.8
2	COD (mg/L)	5.0	6.9	7.0	8.2	5.2
3	DO (mg/L)	8.9	7.3	8.0	7.3	7.5
4	DO_SAT% (%)	104	88	97	86	89
5	FCol-MPN (MPN/100mL)	2457	18200	750	1167	20960
6	Tcol-MPN (MPN/100mL)	13667	37333	1350	2700	81000
	TRACE & TOXIC					
1	As (µg/L)				0.0	
2	Cd (µg/L)				0.3	0.7
3	Cr (µg/L)				0.0	0.6
4	Cu (µg/L)				1.0	3.3
5	Hg (µg/L)				0.1	0.0
6	Ni (µg/L)				0.0	2.0
7	Pb (µg/L)				8.0	1.6
8	Zn (µg/L)				4.5	5.7
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	31	23	52	33	57
2	HAR_Total (mgCaCO3/L)	41	57	95	62	91
3	Na% (%)	20	16	26	39	33
4	RSC (-)	0.1	0.0	0.1	0.0	0.0
5	SAR (-)	0.3	0.3	0.7	1.1	0.9
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Winter				
		Nov - Feb				
		2008-2009	2009-2010	2010-2011	2011-2012	2019-2020
	PHYSICAL					
1	Q (cumec)	50.82	102.8	47.06	34.63	204.6
2	EC_FLD (µmho/cm)	267	345	305	307	872
3	EC_GEN (µmho/cm)	202	340	766	426	504
4	pH_FLD (pH units)	7.6	7.7	7.6	7.5	8.1
5	pH_GEN (pH units)	8.0	8.0	8.4	7.7	8.2
6	TDS (mg/L)					
7	Temp (deg C)	22.6	24.3	23.8	24.0	25.0
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	1.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	84	146	144	114	212
3	B (mg/L)	0.16	0.20	0.12	0.04	0.22
4	Ca (mg/L)	20	38	56	42	51
5	Cl (mg/L)	14.7	19.3	17.6	17.9	22.7
6	CO3 (mg/L)	0.0	0.0	1.2	0.0	0.0
7	F (mg/L)	0.26	1.06	0.56	0.32	0.20
8	Fe (mg/L)	0.3	0.0	0.2	0.2	1.3
9	HCO3 (mg/L)	103	178	173	139	259
10	K (mg/L)	0.9	1.1	1.2	1.3	0.7
11	Mg (mg/L)	7.4	19.7	9.2	13.6	25.1
12	Na (mg/L)	9.9	14.6	11.2	11.9	13.8
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	0.45	1.85	0.48	1.11	3.99
15	NO2-N (mgN/L)	0.01	0.01	0.01	0.00	0.05
16	NO3-N (mgN/L)	0.44	1.85	0.47	1.11	3.94
17	P-Tot (mgP/L)	0.003	0.058	0.039	0.030	0.171
18	SiO2 (mg/L)	5.1	12.1	13.5	28.2	14.2
19	SO4 (mg/L)	7.6	10.7	20.5	12.4	14.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.7	1.7	1.0	2.1	0.6
2	COD (mg/L)	3.1	4.0	7.3	7.6	4.0
3	DO (mg/L)	5.6	6.1	6.1	6.2	5.5
4	DO_SAT% (%)	64	73	72	74	67
5	FCol-MPN (MPN/100mL)		50600	39000	350000	7000
6	Tcol-MPN (MPN/100mL)		88000	63500	540000	17000
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	51	96	140	104	126
2	HAR_Total (mgCaCO3/L)	82	178	179	161	231
3	Na% (%)	25	15	12	14	12
4	RSC (-)	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.5	0.4	0.4	0.4
	PESTICIDES					
1	Aldrin (µg/L)					
2	BHC (µg/L)					
3	DDT (µg/L)					
4	Dieldrin (µg/L)					
5	Endos (µg/L)					

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Karad (AK000X6) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Winter			Summer		
		Nov - Feb			Mar - May		
		2020-2021	2022-2023		2009	2020	
	PHYSICAL						
1	Q (cumec)	21.74	66.73		58.79	0.000	
2	EC_FLD (µmho/cm)	467	389		296	183	
3	EC_GEN (µmho/cm)	400	447		90	111	
4	pH_FLD (pH units)	6.8	7.6		7.8	7.9	
5	pH_GEN (pH units)	8.1	7.9		7.5	7.3	
6	TDS (mg/L)	224	311				
7	Temp (deg C)	21.4	21.5		23.3	21.6	
8	Turb (NTU)		13.4				
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	166	150		26	43	
3	B (mg/L)	0.11	0.13		0.02	0.07	
4	Ca (mg/L)	38	42		6	9	
5	Cl (mg/L)	43.3	46.5		11.1	12.7	
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	
7	F (mg/L)	0.12	0.10		0.77	0.07	
8	Fe (mg/L)	0.2	0.1		0.2	0.2	
9	HCO3 (mg/L)	203	183		32	53	
10	K (mg/L)	3.8	3.8		0.5	2.2	
11	Mg (mg/L)	19.3	20.4		2.8	5.1	
12	Na (mg/L)	32.6	34.9		8.5	9.2	
13	NH3-N (mg N/L)		0.02				
14	NO2+NO3 (mg N/L)	2.54	2.64		0.19	0.37	
15	NO2-N (mgN/L)	0.10	0.04		0.11	0.02	
16	NO3-N (mgN/L)	2.45	2.59		0.07	0.35	
17	P-Tot (mgP/L)	0.014	0.026		0.010	0.059	
18	SiO2 (mg/L)	23.9	29.1		8.1	11.2	
19	SO4 (mg/L)	11.2	64.8		7.5	3.7	
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.2	0.9		0.7		
2	COD (mg/L)	9.3	6.0		3.1		
3	DO (mg/L)	7.4	7.8		6.1	8.5	
4	DO_SAT% (%)	83	88		72	96	
5	FCol-MPN (MPN/100mL)	1825	2867				
6	Tcol-MPN (MPN/100mL)	30675	10100				
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)		2.3		1.5		
3	Cr (µg/L)		0.0		2.0		
4	Cu (µg/L)		4.8				
5	Hg (µg/L)						
6	Ni (µg/L)		9.7		1.0		
7	Pb (µg/L)		9.0		11.0		
8	Zn (µg/L)		5.7		8.7		
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	94	104		16	22	
2	HAR_Total (mgCaCO3/L)	175	189		28	44	
3	Na% (%)	28	28		39	30	
4	RSC (-)	0.0	0.0		0.0	0.1	
5	SAR (-)	1.1	1.1		0.7	0.6	
	PESTICIDES						
1	Aldrin (µg/L)				0.0		
2	BHC (µg/L)				0.1		
3	DDT (µg/L)				0.1		
4	Dieldrin (µg/L)				0.0		
5	Endos (µg/L)				0.1		

Samples not collected during Winter Season from 2012-2013 to 2018-2019 and 2021-22 due to Drybed / No flow condition.

Samples not collected during Summer Season from 2010 to 2019 and 2021 to 2023 due to Drybed / No flow condition.

HISTORY SHEET

			Water Year	:	**2022-2023**
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 , Miraj
Drainage Area	:	1948 Sq. Km.	Bank	:	Left
Latitude	:	16°51'00"	Longitude	:	74°30'00"
		Opening Date	Closing Date		
Gauge	:	23-08-1963			
Discharge	:	01-12-1964			
Sediment	:	26-12-2014			
Water Quality	:	01-09-2014			

Water Quality Datasheet for the period : 2022-2023

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **River Water Analysis** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	13-07-2022	25-07-2022	01-08-2022	09-08-2022	22-08-2022	05-09-2022	13-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	764.5	186.6	131.5	873.0	361.8	52.14	180.9
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
3	EC_FLD (µmho/cm)	130	135	210	199	171	345	150
4	EC_GEN (µmho/cm)	175	187	291	221	187	352	329
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.9	7.7	7.6	7.7	7.7	7.6	7.5
7	pH_GEN (pH units)	7.1	7.4	7.4	7.3	7.3	7.3	7.4
8	TDS (mg/L)	98	136	177	164	109	269	295
9	Temp (deg C)	22.0	23.0	22.5	22.5	22.5	21.5	21.0
10	Turb (NTU)	72.0	68.1	29.6	42.1	17.3	43.8	71.2
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	54	67	87	71	69	102	100
3	B (mg/L)	0.07	0.03	0.10	0.05	0.03	0.06	0.06
4	Ca (mg/L)	19	20	24	18	18	33	45
5	Cl (mg/L)	24.4	20.4	33.0	31.6	25.6	63.0	62.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.09	0.06	0.06	0.09	0.04	0.11	0.05
8	Fe (mg/L)	1.8	0.6	0.7	0.7	0.0	0.0	1.2
9	HCO3 (mg/L)	66	82	106	86	84	124	121
10	K (mg/L)	3.5	2.5	4.7	3.7	1.8	3.4	6.1
11	Mg (mg/L)	3.8	4.2	9.4	7.8	6.6	8.1	5.8
12	Na (mg/L)	18.9	15.6	24.5	24.3	19.0	48.0	47.2
13	NH3-N (mg N/L)	0.19	0.08	0.10	0.15	0.02	0.06	0.08
14	NO2+NO3 (mg N/L)	2.14	1.12	1.76	1.64	1.04	1.67	1.59
15	NO2-N (mgN/L)	0.02	0.01	0.02	0.02	0.03	0.04	0.04
16	NO3-N (mgN/L)	2.12	1.11	1.74	1.61	1.01	1.64	1.56
17	P-Tot (mgP/L)	0.074	0.017	0.062	0.070	0.064	0.030	0.054
18	SiO2 (mg/L)	19.7	16.8	17.3	19.8	18.9	22.1	19.8
19	SO4 (mg/L)	15.2	16.5	37.5	28.4	19.9	32.7	24.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.7	0.6	2.0	0.7	0.7	0.9	1.2
2	COD (mg/L)	3.0	3.0	9.0	3.0	3.0	5.0	9.0
3	DO (mg/L)	7.1	7.2	7.3	7.1	7.2	7.2	7.3
4	DO_SAT% (%)	81	84	84	81	82	81	82
5	FCol-MPN (MPN/100mL)	8000	400	3400	13000	3300	14000	28000
6	Tcol-MPN (MPN/100mL)	11000	2600	14000	30000	17000	22000	50000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.7	1.5	0.4	0.2	0.0
2	Cr (µg/L)	1.8	0.0	0.2	1.6	1.8	0.0	0.0
3	Cu (µg/L)	8.5	0.0	4.7	6.8	0.0	5.9	9.8
4	Hg (µg/L)				0.1			
5	Ni (µg/L)	6.6	2.3	19.9	6.3	0.9	0.6	0.0
6	Pb (µg/L)	5.0	0.0	3.0	1.0	0.0	7.0	4.0
7	Zn (µg/L)	13.2	4.2	11.4	10.3	3.0	3.9	5.3
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	49	50	61	46	44	83	113
2	HAR_Total (mgCaCO3/L)	64	67	100	79	71	117	137
3	Na% (%)	37	33	34	39	36	46	42
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.0	0.8	1.1	1.2	1.0	1.9	1.8
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **River Water Analysis** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	21-09-2022	03-10-2022	11-10-2022	19-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	185.5	36.41	46.06	262.2	32.50	9.744	54.41
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Light Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)	180	291	401	185	496	410	316
4	EC_GEN (µmho/cm)	223	336	466	361	462	493	354
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.3	7.4	7.3	7.3	7.4	7.7	7.4
7	pH_GEN (pH units)	7.4	7.5	7.5	7.4	7.7	7.8	7.6
8	TDS (mg/L)	164	287	362	261	322	398	268
9	Temp (deg C)	23.5	22.5	21.5	23.5	23.5	23.3	22.5
10	Turb (NTU)	45.8	42.8	39.8	33.1	36.2	32.4	32.1
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	85	102	117	124	152	160	97
3	B (mg/L)	0.10	0.11	0.05	0.06	0.05	0.20	0.17
4	Ca (mg/L)	22	29	39	38	44	45	31
5	Cl (mg/L)	45.0	76.7	85.7	65.9	69.8	60.8	38.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.09	0.15	0.09	0.11	0.10	0.07
8	Fe (mg/L)	0.2	0.1	1.9	0.7	0.1	0.1	0.0
9	HCO3 (mg/L)	104	124	143	152	186	195	119
10	K (mg/L)	2.7	3.2	5.5	5.5	4.5	5.5	3.2
11	Mg (mg/L)	10.4	9.7	9.8	11.1	15.0	10.8	8.0
12	Na (mg/L)	32.2	55.3	66.3	45.6	51.5	46.3	28.0
13	NH3-N (mg N/L)	0.30	0.05	0.07	0.02	0.03	0.04	0.07
14	NO2+NO3 (mg N/L)	1.07	1.53	2.45	1.99	2.17	2.36	1.30
15	NO2-N (mgN/L)	0.02	0.04	0.04	0.04	0.02	0.03	0.02
16	NO3-N (mgN/L)	1.05	1.49	2.41	1.95	2.15	2.33	1.28
17	P-Tot (mgP/L)	0.014	0.035	0.105	0.130	0.041	0.051	0.028
18	SiO2 (mg/L)	21.2	27.6	17.7	22.5	27.5	22.8	17.0
19	SO4 (mg/L)	44.9	39.0	37.3	43.0	47.2	38.7	28.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.7	0.8	1.4	1.9	1.2	1.7	0.9
2	COD (mg/L)	5.0	3.0	8.0	15.0	8.0	11.0	7.0
3	DO (mg/L)	7.2	7.2	7.1	7.2	7.3	7.2	7.1
4	DO_SAT% (%)	84	82	80	84	85	84	81
5	FCol-MPN (MPN/100mL)	1700	2100	3400	22000	1700	1700	3000
6	Tcol-MPN (MPN/100mL)	11000	30000	50000	50000	3000	5000	5000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.0	1.8	2.5	3.0	2.2
2	Cr (µg/L)	0.0	0.0	0.7	1.0	0.0	0.0	0.0
3	Cu (µg/L)	6.3	5.3	3.7	4.5	4.9	5.9	4.8
4	Hg (µg/L)							
5	Ni (µg/L)	0.0	0.0	5.5	6.2	3.0	3.2	5.0
6	Pb (µg/L)	0.0	3.0	0.0	3.0	4.0	11.0	13.0
7	Zn (µg/L)	17.6	1.1	7.7	12.1	0.0	9.8	8.5
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	56	74	96	96	109	111	78
2	HAR_Total (mgCaCO3/L)	99	114	137	142	172	157	112
3	Na% (%)	41	51	50	40	39	38	35
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	1.4	2.3	2.5	1.7	1.7	1.6	1.2
	PESTICIDES							

Water Quality Summary for the period : 2022-2023

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **Sub-Division : Upper Krishna SD, Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	183	1282	0.000	201.4
2	EC_FLD (µmho/cm)	14	496	130	258
3	EC_GEN (µmho/cm)	14	493	175	317
4	pH_FLD (pH units)	14	7.9	7.3	7.5
5	pH_GEN (pH units)	14	7.8	7.1	7.4
6	TDS (mg/L)	14	398	98	236
7	Temp (deg C)	14	23.5	21.0	22.5
8	Turb (NTU)	14	72.0	17.3	43.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	14	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	14	160	54	99
3	B (mg/L)	14	0.20	0.03	0.08
4	Ca (mg/L)	14	45	18	30
5	Cl (mg/L)	14	85.7	20.4	50.2
6	CO3 (mg/L)	14	0.0	0.0	0
7	F (mg/L)	14	0.15	0.04	0.08
8	Fe (mg/L)	14	1.9	0.0	0.6
9	HCO3 (mg/L)	14	195	66	121
10	K (mg/L)	14	6.1	1.8	4
11	Mg (mg/L)	14	15.0	3.8	8.6
12	Na (mg/L)	14	66.3	15.6	37.3
13	NH3-N (mg N/L)	14	0.30	0.02	0.09
14	NO2+NO3 (mg N/L)	14	2.45	1.04	1.7
15	NO2-N (mgN/L)	14	0.04	0.01	0.03
16	NO3-N (mgN/L)	14	2.41	1.01	1.68
17	P-Tot (mgP/L)	14	0.130	0.014	0.055
18	SiO2 (mg/L)	14	27.6	16.8	20.8
19	SO4 (mg/L)	14	47.2	15.2	32.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	14	2.0	0.6	1.1
2	COD (mg/L)	14	15.0	3.0	6.6
3	DO (mg/L)	14	7.3	7.1	7.2
4	DO_SAT% (%)	14	85	80	83
5	FCol-MPN (MPN/100mL)	14	28000	400	7550
6	Tcol-MPN (MPN/100mL)	14	50000	2600	21471
	TRACE & TOXIC				
1	Cd (µg/L)	14	3.0	0.0	0.9
2	Cr (µg/L)	14	1.8	0.0	0.5
3	Cu (µg/L)	14	9.8	0.0	5.1
4	Hg (µg/L)	1	0.1	0.1	0.1
5	Ni (µg/L)	14	19.9	0.0	4.2
6	Pb (µg/L)	14	13.0	0.0	3.9
7	Zn (µg/L)	14	17.6	0.0	7.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	14	113	44	76
2	HAR_Total (mgCaCO3/L)	14	172	64	112
3	Na% (%)	14	51	33	40
4	RSC (-)	14	0.1	0.0	0
5	SAR (-)	14	2.5	0.8	1.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood								
		Jun - Oct								
		2014	2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL									
1	Q (cumec)	296.8	68.43	65.65	152.3	153.6	271.2	122.1	257.0	280.1
2	EC_FLD (µmho/cm)		324	319	284	295	247	189	255	218
3	EC_GEN (µmho/cm)	342	190	238	197	262	250	330	237	284
4	pH_FLD (pH units)		7.1	7.4	8.0	7.8	7.6	7.6	8.1	7.5
5	pH_GEN (pH units)	7.8	7.6	7.8	7.5	7.9	7.8	8.0	7.7	7.4
6	TDS (mg/L)							185	132	211
7	Temp (deg C)	21.3	25.6	25.0	27.2	22.9	23.4	25.9	23.6	22.4
8	Turb (NTU)								34.9	46.0
	CHEMICAL									
1	ALK-TOT (mgCaCO3/L)	142	57	69	51	81	66	92	73	89
2	B (mg/L)	0.04	0.06	0.06	0.08	0.04	0.08	0.13	0.06	0.07
3	Ca (mg/L)	48	20	23	18	24	18	23	20	28
4	Cl (mg/L)	44.7	29.3	25.9	19.6	22.4	20.0	42.8	37.3	48.5
5	F (mg/L)	0.29	0.41	0.33	0.45	0.32	0.08	0.10	0.13	0.08
6	Fe (mg/L)	2.0	2.3	1.9	1.9	0.5	0.4	0.1	0.4	0.7
7	HCO3 (mg/L)	173	70	84	62	98	80	112	89	108
8	K (mg/L)	0.5	0.7	0.7	0.7	1.4	1.0	2.5	3.3	3.9
9	Mg (mg/L)	10.7	6.8	6.8	6.4	8.6	10.3	13.3	9.0	7.9
10	Na (mg/L)	32.1	16.1	14.7	13.1	15.1	12.5	31.6	27.2	36.1
11	NH3-N (mg N/L)								0.08	0.10
12	NO2+NO3 (mg N/L)	1.88	1.43	1.94	1.44	1.84	2.27	1.87	1.38	1.64
13	NO2-N (mgN/L)	0.00	0.00	0.01	0.01	0.01	0.02	0.02	0.04	0.03
14	NO3-N (mgN/L)	1.88	1.43	1.93	1.43	1.84	2.25	1.85	1.34	1.61
15	P-Tot (mgP/L)	0.018	0.014	0.023	0.029	0.021	0.048	0.032	0.031	0.060
16	SiO2 (mg/L)	12.8	10.1	8.4	9.2	3.0	4.4	18.6	17.3	20.3
17	SO4 (mg/L)	40.8	21.2	24.8	20.7	21.9	22.7	27.9	21.4	30.8
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	2.6	0.8	1.5	1.1	1.2	0.6	1.0	0.9	1.1
2	COD (mg/L)	22.5	5.3	10.5	8.3	7.8	5.2	8.5	4.9	6.0
3	DO (mg/L)		5.3	7.0	6.6	5.1	6.3	6.3	6.9	7.2
4	DO_SAT% (%)		65	85	82	59	74	77	81	82
5	FCol-MPN (MPN/100mL)	28000	6150	2203	180	1450	6875	2525	3250	9027
6	Tcol-MPN (MPN/100mL)	41000	8225	3650	6226	6403	14775	10075	12000	26145
	TRACE & TOXIC									
1	Cd (µg/L)								0.3	0.4
2	Cr (µg/L)								0.2	0.6
3	Cu (µg/L)								1.6	5.0
4	Hg (µg/L)								0.0	0.1
5	Ni (µg/L)								0.0	4.4
6	Pb (µg/L)								9.8	2.4
7	Zn (µg/L)								4.5	8.2
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	120	49	58	45	60	44	57	49	70
2	HAR_Total (mgCaCO3/L)	165	77	86	72	96	87	112	87	103
3	Na% (%)	30	29	28	28	21	25	36	40	41
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.1	0.8	0.7	0.7	0.6	0.6	1.3	1.3	1.5
	PESTICIDES									

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Samdoli (Seasonal) (AKX00A7) **Division : Upper Krishna Divn, Pune**

Local River : Varna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Winter				Summer		
		Nov - Feb				Mar - May		
		2019-2020	2020-2021	2022-2023	Samples not collected during Winter Season for the period from 2014-2015 to 2018-2019 and 2021-2022 due to dry bed / no flow condition	2017	2020	Samples not collected during Summer Season for the period from 2015 to 2016, 2018, 2019 and 2021-2023 due to dry bed / no flow condition.
	PHYSICAL							
1	Q (cumec)	56.56	30.55	32.22		0.000	0.000	
2	EC_FLD (µmho/cm)	443	330	407		615	96	
3	EC_GEN (µmho/cm)	510	309	436		137	130	
4	pH_FLD (pH units)	7.9	7.5	7.5		8.3	6.9	
5	pH_GEN (pH units)	8.0	7.8	7.7		7.6	7.0	
6	TDS (mg/L)		173	329				
7	Temp (deg C)	19.5	23.3	23.1		28.0	24.4	
8	Turb (NTU)			33.6				
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	154	81	136		42	35	
2	B (mg/L)	0.14	0.10	0.14		0.21	0.05	
3	Ca (mg/L)	41	24	40		18	8	
4	Cl (mg/L)	38.8	42.8	56.2		23.2	15.4	
5	F (mg/L)	0.12	0.06	0.09		0.39	0.05	
6	Fe (mg/L)	0.4	0.1	0.1		0.9	0.1	
7	HCO3 (mg/L)	188	99	166		51	42	
8	K (mg/L)	0.9	3.2	4.4		0.7	2.3	
9	Mg (mg/L)	19.3	12.8	11.3		5.8	4.8	
10	Na (mg/L)	29.2	31.6	41.9		9.9	11.6	
11	NH3-N (mg N/L)			0.05				
12	NO2+NO3 (mg N/L)	2.55	1.60	1.94		3.51	0.47	
13	NO2-N (mgN/L)	0.04	0.02	0.02		0.01	0.04	
14	NO3-N (mgN/L)	2.51	1.58	1.92		3.50	0.43	
15	P-Tot (mgP/L)	0.155	0.024	0.040		0.200	0.074	
16	SiO2 (mg/L)	10.8	13.8	22.5		49.2	8.6	
17	SO4 (mg/L)	38.8	30.0	38.0		14.2	11.6	
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.7	0.9	1.3		0.6		
2	COD (mg/L)	5.0	6.4	8.7		5.3		
3	DO (mg/L)	6.4	6.8	7.2		5.6	7.0	
4	DO_SAT% (%)	69	80	83		72	83	
5	FCol-MPN (MPN/100mL)	2700	550	2133		20		
6	Tcol-MPN (MPN/100mL)	24000	16500	4333		340		
	TRACE & TOXIC							
1	Cd (µg/L)			2.6				
2	Cr (µg/L)			0.0				
3	Cu (µg/L)			5.2				
4	Hg (µg/L)							
5	Ni (µg/L)			3.7				
6	Pb (µg/L)			9.3				
7	Zn (µg/L)			6.1				
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	102	59	100		44	20	
2	HAR_Total (mgCaCO3/L)	182	113	147		68	40	
3	Na% (%)	26	37	37		24	37	
4	RSC (-)	0.0	0.0	0.0		0.0	0.0	
5	SAR (-)	0.9	1.3	1.5		0.5	0.8	
	PESTICIDES							

HISTORY SHEET

			Water Year	:	**2022-2023**
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, Miraj
Drainage Area	:	12660 Sq. Km.	Bank	:	Right
Latitude	:	16°46'33"	Longitude	:	74°38'18"
		Opening Date	Closing Date		
Gauge	:	12-01-1969			
Discharge	:	12-01-1969			
Sediment	:	26-12-2014			
Water Quality	:	01-09-2014			

Water Quality Datasheet for the period : 2022-2023

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	13-07-2022	25-07-2022	01-08-2022	09-08-2022	22-08-2022	05-09-2022	13-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	1054	465.4	402.6	798.4	854.7	202.9	556.0
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Brown	Brown	Brown
3	EC_FLD (µmho/cm)	870	639	586	425	176	410	450
4	EC_GEN (µmho/cm)	205	257	476	364	169	487	543
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	7.8	7.8	7.7	7.6	7.7	8.0
7	pH_GEN (pH units)	7.1	7.5	7.6	7.5	7.4	7.6	7.6
8	TDS (mg/L)	129	209	322	245	105	356	454
9	Temp (deg C)	24.3	24.1	25.5	25.0	24.5	25.0	25.0
10	Turb (NTU)	48.0	52.2	31.2	33.7	18.5	36.5	48.3
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	62	92	102	113	53	140	88
3	B (mg/L)	0.09	0.04	0.15	0.08	0.02	0.07	0.28
4	Ca (mg/L)	23	25	33	29	16	38	46
5	Cl (mg/L)	31.5	22.1	105.4	63.4	23.3	74.2	143.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.10	0.07	0.08	0.09	0.04	0.09	0.09
8	Fe (mg/L)	1.2	0.3	0.6	2.1	0.1	0.0	0.2
9	HCO3 (mg/L)	76	112	124	138	64	171	108
10	K (mg/L)	5.9	2.6	4.6	4.6	1.7	4.6	14.0
11	Mg (mg/L)	3.7	6.6	11.4	12.3	6.2	14.0	16.9
12	Na (mg/L)	23.6	17.1	78.0	48.1	18.0	56.3	104.0
13	NH3-N (mg N/L)	0.23	0.08	0.04	0.20	0.02	0.20	0.04
14	NO2+NO3 (mg N/L)	2.21	1.24	1.81	2.16	0.77	1.70	2.36
15	NO2-N (mgN/L)	0.03	0.01	0.02	0.04	0.01	0.04	0.04
16	NO3-N (mgN/L)	2.19	1.23	1.79	2.12	0.77	1.65	2.32
17	P-Tot (mgP/L)	0.055	0.033	0.038	0.072	0.078	0.016	0.077
18	SiO2 (mg/L)	19.0	18.0	18.5	22.5	16.9	25.8	27.7
19	SO4 (mg/L)	14.1	25.7	48.7	49.6	21.0	51.4	62.3
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	2.6	1.3	1.2	0.9	0.6	1.9	0.6
2	COD (mg/L)	22.0	7.0	7.0	5.0	3.0	11.0	5.0
3	DO (mg/L)	7.5	8.6	8.0	7.6	7.8	7.1	6.9
4	DO_SAT% (%)	89	102	97	92	93	86	84
5	FCol-MPN (MPN/100mL)	50000	3400	2100	17000	3400	3400	3400
6	Tcol-MPN (MPN/100mL)	160000	160000	11000	30000	160000	50000	17000
	TRACE & TOXIC							
1	Cd (µg/L)	5.5	0.0	2.1	0.5	0.0	0.3	0.3
2	Cr (µg/L)	1.5	1.2	2.0	0.7	0.0	0.0	0.0
3	Cu (µg/L)	5.8	3.3	5.9	6.0	4.2	6.4	9.5
4	Hg (µg/L)		0.0	0.2	0.0			
5	Ni (µg/L)	6.5	12.4	6.7	5.4	3.4	0.4	2.6
6	Pb (µg/L)	4.0	4.0	1.0	2.0	0.0	5.0	5.0
7	Zn (µg/L)	11.5	9.0	16.8	8.8	6.5	4.3	5.2
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	56	62	83	71	39	95	115
2	HAR_Total (mgCaCO3/L)	72	89	130	123	65	153	186
3	Na% (%)	39	29	56	45	37	44	53
4	RSC (-)	0.0	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	0.8	3.0	1.9	1.0	2.0	3.3
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	21-09-2022	03-10-2022	11-10-2022	19-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	449.4	219.6	228.9	702.6	216.4	70.57	221.0
2	Colour_Cod (-)	Brown	Light Brown	Light Brown	Light Brown	Light Brown	Clear	Light Brown
3	EC_FLD (µmho/cm)	273	491	410	375	689	816	567
4	EC_GEN (µmho/cm)	283	550	486	445	660	851	671
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	8.1	7.9	8.2	7.9	8.1	7.3
7	pH_GEN (pH units)	7.5	7.7	7.9	7.6	7.8	8.1	7.9
8	TDS (mg/L)	177	407	378	349	469	344	475
9	Temp (deg C)	25.0	25.0	25.0	25.0	23.5	24.5	23.0
10	Turb (NTU)	44.5	18.1	27.4	12.5	24.3	11.7	22.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	77	184	184	158	220	268	205
3	B (mg/L)	0.07	0.15	0.01	0.04	0.04	0.33	0.30
4	Ca (mg/L)	23	44	42	47	51	71	51
5	Cl (mg/L)	47.4	130.7	124.4	78.2	94.0	95.8	87.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.12	0.13	0.11	0.10	0.17	0.10
8	Fe (mg/L)	0.1	0.1	0.2	0.6	0.1	0.1	0.2
9	HCO3 (mg/L)	94	224	225	193	268	327	250
10	K (mg/L)	2.3	5.0	4.0	5.0	6.5	6.5	4.5
11	Mg (mg/L)	9.9	20.2	20.9	15.8	32.0	24.5	23.0
12	Na (mg/L)	34.8	92.5	90.0	58.9	72.1	72.1	66.3
13	NH3-N (mg N/L)	0.25	0.10	0.12	0.02	0.03	0.21	0.18
14	NO2+NO3 (mg N/L)	1.17	2.22	2.27	2.32	3.01	3.63	2.80
15	NO2-N (mgN/L)	0.04	0.06	0.03	0.03	0.02	0.05	0.04
16	NO3-N (mgN/L)	1.13	2.17	2.24	2.30	2.99	3.58	2.76
17	P-Tot (mgP/L)	0.011	0.047	0.049	0.090	0.050	0.053	0.047
18	SiO2 (mg/L)	22.3	21.4	30.0	26.9	37.3	32.8	29.6
19	SO4 (mg/L)	37.5	76.7	78.4	60.9	89.7	82.4	86.4
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.0	0.6	0.7	0.8	0.8	1.9	1.2
2	COD (mg/L)	7.0	4.0	5.0	6.0	6.0	14.0	9.0
3	DO (mg/L)	6.5	5.8	6.1	6.2	6.4	6.2	6.4
4	DO_SAT% (%)	79	70	74	75	75	74	75
5	FCol-MPN (MPN/100mL)	17000	3400	1400	7000	1400	2300	2700
6	Tcol-MPN (MPN/100mL)	90000	13000	3300	17000	3300	30000	17000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.0	2.4	2.6	3.6	2.5
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	7.6	3.5	5.5	3.4	6.7	7.7	5.3
4	Hg (µg/L)							
5	Ni (µg/L)	0.6	1.3	0.6	2.2	72.9	10.0	4.5
6	Pb (µg/L)	5.0	0.0	0.0	0.0	7.0	9.0	3.0
7	Zn (µg/L)	3.3	9.8	0.0	0.6	0.0	13.0	8.4
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	57	111	105	119	129	178	128
2	HAR_Total (mgCaCO3/L)	99	195	192	185	262	280	224
3	Na% (%)	43	50	50	40	37	35	39
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.5	2.9	2.8	1.9	1.9	1.9	1.9
	PESTICIDES							

Water Quality Summary for the period : 2022-2023

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD , Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	183	1766	0.000	392.6
2	EC_FLD (µmho/cm)	14	870	176	513
3	EC_GEN (µmho/cm)	14	851	169	461
4	pH_FLD (pH units)	14	8.2	7.3	7.8
5	pH_GEN (pH units)	14	8.1	7.1	7.6
6	TDS (mg/L)	14	475	105	316
7	Temp (deg C)	14	25.5	23.0	24.6
8	Turb (NTU)	14	52.2	11.7	30.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	14	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	14	268	53	139
3	B (mg/L)	14	0.33	0.01	0.12
4	Ca (mg/L)	14	71	16	39
5	Cl (mg/L)	14	143.2	22.1	80.1
6	CO3 (mg/L)	14	0.0	0.0	0
7	F (mg/L)	14	0.17	0.04	0.09
8	Fe (mg/L)	14	2.1	0.0	0.4
9	HCO3 (mg/L)	14	327	64	169
10	K (mg/L)	14	14.0	1.7	5.1
11	Mg (mg/L)	14	32.0	3.7	15.5
12	Na (mg/L)	14	104.0	17.1	59.4
13	NH3-N (mg N/L)	14	0.25	0.02	0.12
14	NO2+NO3 (mg N/L)	14	3.63	0.77	2.12
15	NO2-N (mgN/L)	14	0.06	0.01	0.03
16	NO3-N (mgN/L)	14	3.58	0.77	2.09
17	P-Tot (mgP/L)	14	0.090	0.011	0.051
18	SiO2 (mg/L)	14	37.3	16.9	24.9
19	SO4 (mg/L)	14	89.7	14.1	56.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	14	2.6	0.6	1.2
2	COD (mg/L)	14	22.0	3.0	7.9
3	DO (mg/L)	14	8.6	5.8	6.9
4	DO_SAT% (%)	14	102	70	83
5	FCol-MPN (MPN/100mL)	14	50000	1400	8421
6	Tcol-MPN (MPN/100mL)	14	160000	3300	54400
	TRACE & TOXIC				
1	Cd (µg/L)	14	5.5	0.0	1.4
2	Cr (µg/L)	14	2.0	0.0	0.4
3	Cu (µg/L)	14	9.5	3.3	5.8
4	Hg (µg/L)	3	0.2	0.0	0.1
5	Ni (µg/L)	14	72.9	0.4	9.3
6	Pb (µg/L)	14	9.0	0.0	3.2
7	Zn (µg/L)	14	16.8	0.0	6.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	14	178	39	96
2	HAR_Total (mgCaCO3/L)	14	280	65	161
3	Na% (%)	14	56	29	43
4	RSC (-)	14	0.1	0.0	0
5	SAR (-)	14	3.3	0.8	2
	PESTICIDES				

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood							
		Jun - Oct							
		2014	2015	2016	2017	2018	2019	2020	2021
	PHYSICAL								
1	Q (cumec)	505.4	159.4	148.4	341.2	449.0	624.2	230.3	444.2
2	EC_FLD (µmho/cm)		359	512	479	465	789	854	649
3	EC_GEN (µmho/cm)	530	329	538	254	341	370	462	353
4	pH_FLD (pH units)		7.4	6.0	5.8	7.6	7.8	7.7	7.7
5	pH_GEN (pH units)	8.1	7.8	8.0	7.6	8.0	7.9	8.1	7.9
6	TDS (mg/L)							259	198
7	Temp (deg C)	25.3	25.0	24.9	25.5	25.3	24.8	25.3	24.2
8	Turb (NTU)								20.3
	CHEMICAL								
1	ALK-TOT (mgCaCO3/L)	153	82	127	63	92	111	134	105
2	B (mg/L)	0.05	0.08	0.06	0.26	0.10	0.11	0.15	0.11
3	Ca (mg/L)	63	29	37	23	27	34	33	28
4	Cl (mg/L)	45.5	38.8	34.5	21.5	27.4	28.3	71.4	59.0
5	F (mg/L)	0.31	0.45	0.33	0.57	0.31	0.09	0.13	0.15
6	Fe (mg/L)	3.2	2.5	2.3	1.8	0.6	0.4	0.0	0.4
7	HCO3 (mg/L)	186	100	155	77	112	136	164	129
8	K (mg/L)	0.7	0.9	1.1	0.8	1.0	1.1	3.9	4.7
9	Mg (mg/L)	12.6	7.5	12.4	7.3	8.3	12.7	17.9	11.2
10	Na (mg/L)	32.1	24.6	24.7	15.0	20.4	19.1	55.2	42.5
11	NH3-N (mg N/L)								0.04
12	NO2+NO3 (mg N/L)	2.32	1.66	2.22	1.45	1.68	2.41	2.55	1.70
13	NO2-N (mgN/L)	0.00	0.00	0.00	0.01	0.01	0.03	0.02	0.04
14	NO3-N (mgN/L)	2.32	1.66	2.21	1.44	1.67	2.39	2.53	1.66
15	P-Tot (mgP/L)	0.014	0.016	0.017	0.024	0.030	0.062	0.037	0.042
16	SiO2 (mg/L)	19.2	10.8	6.9	7.2	3.2	4.3	23.4	21.8
17	SO4 (mg/L)	38.8	29.3	38.7	25.8	30.0	19.2	32.5	33.0
	BIOLOGICAL/BACTERIOLOGICAL								
1	BOD3-27 (mg/L)	1.5	1.3	1.2	1.0	0.9	0.9	1.5	1.1
2	COD (mg/L)	11.0	11.3	9.5	7.5	7.0	7.0	12.5	7.6
3	DO (mg/L)		6.3	5.7	6.6	6.5	7.1	7.5	6.5
4	DO_SAT% (%)		76	68	80	79	85	91	77
5	FCol-MPN (MPN/100mL)	8150	6875	11820	1023	3603	26125	5025	1754
6	Tcol-MPN (MPN/100mL)	10800	12750	15325	5550	11500	67000	51150	9769
	TRACE & TOXIC								
1	Cd (µg/L)								0.2
2	Cr (µg/L)								0.3
3	Cu (µg/L)								2.3
4	Hg (µg/L)								0.0
5	Ni (µg/L)								1.1
6	Pb (µg/L)								11.6
7	Zn (µg/L)								6.5
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	158	73	93	58	68	84	82	70
2	HAR_Total (mgCaCO3/L)	211	105	145	88	102	137	156	117
3	Na% (%)	25	32	26	27	27	23	40	42
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.0	1.0	0.9	0.7	0.8	0.7	1.8	1.7
	PESTICIDES								

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Arjunwad (Seasonal) (AK000V4) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD, Miraj**

S.No	Parameters	Flood	Winter				Summer	
		Jun - Oct	Nov - Feb				Mar - May	
		2022		2019-2020	2020-2021	2022-2023		2020
	PHYSICAL							
1	Q (cumec)	539.5		433.1	221.4	169.3		
2	EC_FLD (µmho/cm)	464		810	1114	691		291
3	EC_GEN (µmho/cm)	388		690	557	727		279
4	pH_FLD (pH units)	7.9		7.4	7.9	7.8		7.9
5	pH_GEN (pH units)	7.6		8.1	7.9	7.9		7.2
6	TDS (mg/L)	285			312	429		
7	Temp (deg C)	24.8		23.0	21.0	23.7		24.5
8	Turb (NTU)	33.7				19.5		
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	114		220	166	231		72
2	B (mg/L)	0.09		0.18	0.16	0.22		0.12
3	Ca (mg/L)	33		57	40	58		16
4	Cl (mg/L)	76.7		51.7	92.0	92.4		25.1
5	F (mg/L)	0.09		0.20	0.11	0.12		0.08
6	Fe (mg/L)	0.5		0.7	0.1	0.1		0.1
7	HCO3 (mg/L)	139		269	202	281		87
8	K (mg/L)	4.9		1.1	5.6	5.8		4.3
9	Mg (mg/L)	12.5		29.7	22.0	26.5		9.4
10	Na (mg/L)	56.5		39.6	68.9	70.2		18.1
11	NH3-N (mg N/L)	0.12				0.14		
12	NO2+NO3 (mg N/L)	1.84		3.95	2.47	3.15		0.78
13	NO2-N (mgN/L)	0.03		0.06	0.03	0.04		0.03
14	NO3-N (mgN/L)	1.81		3.89	2.44	3.11		0.74
15	P-Tot (mgP/L)	0.051		0.080	0.058	0.050		0.079
16	SiO2 (mg/L)	22.6		14.0	19.4	33.3		11.2
17	SO4 (mg/L)	47.8		51.6	44.1	86.2		27.6
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.1		0.8	2.5	1.3		
2	COD (mg/L)	7.5		6.0	20.0	9.7		
3	DO (mg/L)	7.1		6.7	7.3	6.3		8.6
4	DO_SAT% (%)	85		78	82	74		102
5	FCol-MPN (MPN/100mL)	10136		400	900	2133		
6	Tcol-MPN (MPN/100mL)	64664		30000	47675	16767		
	TRACE & TOXIC							
1	Cd (µg/L)	1.0				2.9		
2	Cr (µg/L)	0.5				0.0		
3	Cu (µg/L)	5.6				6.6		
4	Hg (µg/L)	0.1						
5	Ni (µg/L)	3.8				29.1		
6	Pb (µg/L)	2.4				6.3		
7	Zn (µg/L)	6.9				7.1		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	83		142	101	145		40
2	HAR_Total (mgCaCO3/L)	135		266	193	255		79
3	Na% (%)	44		25	42	37		32
4	RSC (-)	0.0		0.0	0.0	0.0		0.0
5	SAR (-)	2.0		1.1	2.1	1.9		0.9
	PESTICIDES							

Samples not collected during Winter Season for the period from 2014-2015 to 2018-2019 and 2021-2022 due to dry bed / no flow condition

Samples not collected during Summer Season for the period from 2015 to 2019 and 2021 to 2022 due to dry bed / no flow condition

HISTORY SHEET

			Water Year	:	**2022-2023**
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, Miraj
Drainage Area	:	15190 Sq. Km.	Bank	:	Right
Latitude	:	16°40'57"	Longitude	:	74°36'14"
		Opening Date	Closing Date		
Gauge	:	21-05-1972			
Discharge	:	26-05-1972			
Sediment	:	06-08-2003			
Water Quality	:	01-07-2003			

Water Quality Datasheet for the period : 2022-2023

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	04-07-2022	13-07-2022	25-07-2022	01-08-2022	09-08-2022	22-08-2022	05-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	320.1	2779	645.0	521.0	2238	1980	324.1
2	Colour_Cod (-)	Light Brown	Brown	Brown	Brown	Brown	Brown	Light Brown
3	EC_FLD (µmho/cm)	478	136	165	335	187	168	484
4	EC_GEN (µmho/cm)	144	126	163	325	159	158	485
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	6.6	6.4	7.1	6.8	7.4	7.1
7	pH_GEN (pH units)	6.8	7.0	7.3	7.4	7.0	7.3	7.5
8	TDS (mg/L)	118	88	116	278	106	96	364
9	Temp (deg C)	25.5	24.5	24.5	23.5	25.0	25.3	24.8
10	Turb (NTU)	17.9	88.0	76.1	32.4	48.4	26.4	19.4
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	37	39	49	76	53	50	139
3	B (mg/L)	0.07	0.07	0.02	0.11	0.05	0.03	0.10
4	Ca (mg/L)	19	15	22	23	13	16	39
5	Cl (mg/L)	19.4	18.5	20.8	84.4	25.4	23.9	83.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.07	0.07	0.08	0.06	0.04	0.10
8	Fe (mg/L)	0.6	1.2	0.2	0.2	1.1	0.2	0.0
9	HCO3 (mg/L)	45	47	59	93	64	61	170
10	K (mg/L)	3.1	3.7	2.7	5.0	3.4	2.1	4.5
11	Mg (mg/L)	2.4	2.8	4.5	9.2	5.9	5.1	13.9
12	Na (mg/L)	14.5	12.7	16.2	64.6	17.6	18.1	64.4
13	NH3-N (mg N/L)	0.15	0.19	0.18	0.11	0.21	0.06	0.04
14	NO2+NO3 (mg N/L)	1.52	2.09	1.04	1.35	1.57	0.88	1.78
15	NO2-N (mgN/L)	0.05	0.03	0.01	0.02	0.03	0.01	0.06
16	NO3-N (mgN/L)	1.47	2.06	1.03	1.33	1.55	0.87	1.72
17	P-Tot (mgP/L)	0.024	0.060	0.035	0.026	0.065	0.056	0.033
18	SiO2 (mg/L)	12.0	16.3	15.8	17.4	15.8	16.5	24.5
19	SO4 (mg/L)	10.6	10.4	16.7	38.4	23.4	19.3	52.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	3.0	0.7	1.1	2.5	1.0	0.6	1.1
2	COD (mg/L)	22.0	2.0	5.0	21.0	7.0	4.0	8.0
3	DO (mg/L)	6.8	6.3	6.7	7.5	7.3	7.9	7.6
4	DO_SAT% (%)	82	75	80	88	88	96	90
5	FCol-MPN (MPN/100mL)	1700	1100	2100	800	5000	8000	1200
6	Tcol-MPN (MPN/100mL)	5000	8000	11000	3000	22000	35000	2300
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.0	0.5	0.8	0.1	0.2
2	Cr (µg/L)	0.0	0.7	0.2	0.9	1.6	0.0	0.0
3	Cu (µg/L)	8.3	2.3	0.1	0.0	7.0	0.0	7.0
4	Hg (µg/L)			0.2		0.1		
5	Ni (µg/L)	4.0	6.7	2.9	1.6	6.9	1.7	0.9
6	Pb (µg/L)	3.0	1.0	2.0	0.0	0.0	0.0	7.0
7	Zn (µg/L)	13.2	18.5	10.0	1.4	12.9	4.2	0.5
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	47	38	54	57	33	39	97
2	HAR_Total (mgCaCO3/L)	57	50	73	95	57	60	155
3	Na% (%)	34	34	32	58	38	39	47
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.8	0.8	0.8	2.9	1.0	1.0	2.3
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	13-09-2022	21-09-2022	03-10-2022	11-10-2022	19-10-2022	01-11-2022	10-11-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	1635	938.4	267.0	310.0	1465	387.1	378.3
2	Colour_Cod (-)	Brown	Brown	Brown	Light Brown	Brown	Clear	Clear
3	EC_FLD (µmho/cm)	760	247	496	560	699	421	631
4	EC_GEN (µmho/cm)	171	201	433	490	398	467	661
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	6.8	7.2	6.9	7.6	7.4	7.2	7.6
7	pH_GEN (pH units)	7.1	7.3	7.4	7.8	7.4	7.5	7.8
8	TDS (mg/L)	125	162	302	374	325	361	570
9	Temp (deg C)	25.5	25.5	25.3	24.3	24.8	24.5	24.5
10	Turb (NTU)	46.9	63.2	27.1	18.4	28.9	17.8	18.9
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	55	63	142	100	118	136	196
3	B (mg/L)	0.04	0.06	0.13	0.09	0.07	0.06	0.27
4	Ca (mg/L)	23	18	36	46	39	43	63
5	Cl (mg/L)	31.3	31.0	138.3	104.0	85.6	77.8	86.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.05	0.08	0.10	0.08	0.07	0.10
8	Fe (mg/L)	1.4	0.3	0.1	0.1	0.9	0.1	0.1
9	HCO3 (mg/L)	67	77	173	122	144	166	239
10	K (mg/L)	4.2	2.7	5.5	5.0	3.5	6.5	7.0
11	Mg (mg/L)	5.8	5.5	14.6	19.3	12.1	14.6	13.4
12	Na (mg/L)	23.9	22.6	95.0	76.5	45.5	59.0	66.9
13	NH3-N (mg N/L)	0.12	0.09	0.11	0.15	0.04	0.05	0.05
14	NO2+NO3 (mg N/L)	1.28	1.09	2.04	2.26	2.03	2.64	3.19
15	NO2-N (mgN/L)	0.02	0.03	0.07	0.04	0.03	0.03	0.04
16	NO3-N (mgN/L)	1.25	1.06	1.97	2.22	2.00	2.61	3.15
17	P-Tot (mgP/L)	0.033	0.021	0.060	0.046	0.090	0.077	0.070
18	SiO2 (mg/L)	15.0	18.1	23.7	27.3	22.3	26.2	26.6
19	SO4 (mg/L)	20.6	23.4	54.2	63.5	42.5	54.3	45.1
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.9	0.7	0.7	0.9	0.9	1.2	2.3
2	COD (mg/L)	14.0	4.0	5.0	5.0	7.0	9.0	17.0
3	DO (mg/L)	7.4	7.1	7.2	7.4	7.6	6.9	6.7
4	DO_SAT% (%)	90	86	87	88	90	82	80
5	FCol-MPN (MPN/100mL)	24000	2100	1700	1700	5000	3000	1100
6	Tcol-MPN (MPN/100mL)	50000	11000	3000	22000	22000	5000	8000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.0	0.0	2.3	2.8	3.4
2	Cr (µg/L)	0.0	0.0	0.0	0.4	0.0	0.0	0.0
3	Cu (µg/L)	13.3	8.7	8.1	12.7	2.8	14.2	5.8
4	Hg (µg/L)							
5	Ni (µg/L)	1.3	3.0	1.9	3.5	1.0	3.9	10.6
6	Pb (µg/L)	0.0	3.0	3.0	0.0	3.0	4.0	11.0
7	Zn (µg/L)	7.7	13.7	3.7	0.0	2.1	2.2	9.2
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	58	44	89	116	98	108	156
2	HAR_Total (mgCaCO3/L)	82	67	150	196	148	169	212
3	Na% (%)	37	41	57	45	39	42	40
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	1.2	3.4	2.4	1.6	2.0	2.0
	PESTICIDES							

Water Quality Summary for the period : 2022-2023

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **Sub-Division : Upper Krishna SD , Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	4608	0.000	435.7
2	EC_FLD (µmho/cm)	14	760	136	412
3	EC_GEN (µmho/cm)	14	661	126	313
4	pH_FLD (pH units)	14	7.6	6.4	7.1
5	pH_GEN (pH units)	14	7.8	6.8	7.3
6	TDS (mg/L)	14	570	88	242
7	Temp (deg C)	14	25.5	23.5	24.8
8	Turb (NTU)	14	88.0	17.8	37.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	14	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	14	196	37	89
3	B (mg/L)	14	0.27	0.02	0.08
4	Ca (mg/L)	14	63	13	29
5	Cl (mg/L)	14	138.3	18.5	59.3
6	CO3 (mg/L)	14	0.0	0.0	0
7	F (mg/L)	14	0.10	0.04	0.07
8	Fe (mg/L)	14	1.4	0.0	0.5
9	HCO3 (mg/L)	14	239	45	109
10	K (mg/L)	14	7.0	2.1	4.2
11	Mg (mg/L)	14	19.3	2.4	9.2
12	Na (mg/L)	14	95.0	12.7	42.7
13	NH3-N (mg N/L)	14	0.21	0.04	0.11
14	NO2+NO3 (mg N/L)	14	3.19	0.88	1.77
15	NO2-N (mgN/L)	14	0.07	0.01	0.03
16	NO3-N (mgN/L)	14	3.15	0.87	1.74
17	P-Tot (mgP/L)	14	0.090	0.021	0.05
18	SiO2 (mg/L)	14	27.3	12.0	19.8
19	SO4 (mg/L)	14	63.5	10.4	33.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	14	3.0	0.6	1.3
2	COD (mg/L)	14	22.0	2.0	9.3
3	DO (mg/L)	14	7.9	6.3	7.2
4	DO_SAT% (%)	14	96	75	86
5	FCol-MPN (MPN/100mL)	14	24000	800	4179
6	Tcol-MPN (MPN/100mL)	14	50000	2300	14807
	TRACE & TOXIC				
1	Cd (µg/L)	14	3.4	0.0	0.7
2	Cr (µg/L)	14	1.6	0.0	0.3
3	Cu (µg/L)	14	14.2	0.0	6.5
4	Hg (µg/L)	2	0.2	0.1	0.1
5	Ni (µg/L)	14	10.6	0.9	3.6
6	Pb (µg/L)	14	11.0	0.0	2.6
7	Zn (µg/L)	14	18.5	0.0	7.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	14	156	33	74
2	HAR_Total (mgCaCO3/L)	14	212	50	112
3	Na% (%)	14	58	32	42
4	RSC (-)	14	0.0	0.0	0
5	SAR (-)	14	3.4	0.8	1.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	876.2	843.0	1394	1141	952.5	1352	1884
2	EC_FLD (µmho/cm)		294		389	312	373	460
3	EC_GEN (µmho/cm)	230	459	273	192	165	288	255
4	pH_FLD (pH units)		7.0		7.6	7.6	7.5	7.5
5	pH_GEN (pH units)	7.7	7.6	7.9	7.5	7.8	7.2	7.7
6	TDS (mg/L)							
7	Temp (deg C)	25.0	25.0	26.2	25.0	25.4	24.2	24.5
8	Turb (NTU)							
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	50	85	62	46	51	55	76
2	B (mg/L)	0.07	0.05	0.11	0.04	0.04	0.13	0.04
3	Ca (mg/L)	18	28	24	18	20	24	33
4	Cl (mg/L)	14.4	19.5	23.2	19.1	18.7	14.1	39.6
5	F (mg/L)	0.10	0.22	0.20	0.27	0.24	0.31	0.26
6	Fe (mg/L)	0.2	0.2	0.1	0.3	0.7	0.5	1.7
7	HCO3 (mg/L)	60	104	75	56	62	67	93
8	K (mg/L)	1.1	0.2	1.3	0.7	1.5	0.5	0.9
9	Mg (mg/L)	7.3	7.9	5.6	3.9	2.7	5.8	8.1
10	Na (mg/L)	9.1	11.6	15.3	13.6	12.2	8.6	23.8
11	NH3-N (mg N/L)							
12	NO2+NO3 (mg N/L)	0.57	0.66	0.18	0.96	0.85	0.90	1.63
13	NO2-N (mgN/L)	0.01	0.00	0.01	0.00	0.05	0.00	0.00
14	NO3-N (mgN/L)	0.57	0.66	0.17	0.95	0.80	0.89	1.63
15	P-Tot (mgP/L)	0.008	0.005	0.009	0.015	0.018	0.027	0.027
16	SiO2 (mg/L)	5.2	9.5	8.8	10.4	4.4	22.1	19.1
17	SO4 (mg/L)	23.9	22.6	18.7	15.4	8.9	23.8	24.3
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.4	0.8	1.4	0.7	0.6	0.5	1.9
2	COD (mg/L)	1.7	4.9	10.0	4.1	4.6	3.6	15.0
3	DO (mg/L)		6.8		7.7	7.5	7.6	7.6
4	DO_SAT% (%)		82		94	92	90	90
5	FCol-MPN (MPN/100mL)		28667	12100	174250	279750	6900	64333
6	Tcol-MPN (MPN/100mL)		41333	17600	289250	472250	10275	112000
	TRACE & TOXIC							
1	As (µg/L)					12.0	2.3	
2	Cd (µg/L)					0.2	0.5	
3	Cr (µg/L)					0.3	4.1	
4	Cu (µg/L)					3.5	1.7	
5	Hg (µg/L)						0.3	
6	Ni (µg/L)					7.6	6.6	
7	Pb (µg/L)					1.1	-0.5	
8	Zn (µg/L)					3.1	-0.1	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	46	71	59	46	49	59	83
2	HAR_Total (mgCaCO3/L)	76	104	82	62	60	83	117
3	Na% (%)	19	20	28	30	26	18	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.5	0.7	0.7	0.6	0.4	1.0
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Kurundwad (AK000V1) **Division : Upper Krishna Divn, Pune**

Local River : Krishna **River Water** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	361.6	302.8	832.0	1041	956.2	434.6	938.4	1118
2	EC_FLD (µmho/cm)	181	431	321	179	417	301	449	393
3	EC_GEN (µmho/cm)	228	308	242	157	239	275	218	271
4	pH_FLD (pH units)	7.6	7.4	7.2	6.7	7.8	7.6	7.6	7.1
5	pH_GEN (pH units)	7.6	7.8	7.6	7.7	7.7	8.1	7.6	7.3
6	TDS (mg/L)						154	122	205
7	Temp (deg C)	25.9	26.5	27.1	25.2	26.3	27.1	25.7	24.9
8	Turb (NTU)							20.8	41.1
	CHEMICAL								
1	ALK-TOT (mgCaCO3/L)	70	84	67	57	63	78	66	77
2	B (mg/L)	0.20	0.06	0.09	0.06	0.11	0.08	0.07	0.07
3	Ca (mg/L)	27	25	24	17	18	19	17	26
4	Cl (mg/L)	25.5	34.3	17.5	11.8	20.3	30.7	41.0	55.5
5	F (mg/L)	0.40	0.32	0.47	0.34	0.07	0.08	0.07	0.07
6	Fe (mg/L)	2.1	2.2	2.0	1.1	0.5	0.8	0.3	0.5
7	HCO3 (mg/L)	85	103	82	70	77	95	80	94
8	K (mg/L)	0.9	0.8	1.0	0.6	0.7	3.3	3.4	3.8
9	Mg (mg/L)	6.6	9.7	6.8	3.2	10.7	11.5	7.9	8.4
10	Na (mg/L)	14.3	20.7	11.9	8.0	12.1	23.3	30.4	39.3
11	NH3-N (mg N/L)							0.03	0.12
12	NO2+NO3 (mg N/L)	1.34	1.95	1.75	1.37	2.17	1.66	1.36	1.58
13	NO2-N (mgN/L)	0.00	0.01	0.02	0.02	0.02	0.02	0.06	0.03
14	NO3-N (mgN/L)	1.34	1.95	1.73	1.35	2.15	1.64	1.30	1.54
15	P-Tot (mgP/L)	0.011	0.018	0.028	0.025	0.066	0.042	0.042	0.046
16	SiO2 (mg/L)	6.5	5.6	6.4	1.8	4.5	17.6	18.1	18.7
17	SO4 (mg/L)	20.7	26.4	20.1	9.5	18.8	19.7	17.5	31.3
	BIOLOGICAL/BACTERIOLOGICAL								
1	BOD3-27 (mg/L)	1.0	0.9	0.9	0.9	0.7	1.2	1.5	1.3
2	COD (mg/L)	8.5	7.0	6.8	6.0	5.7	10.5	9.5	8.7
3	DO (mg/L)	6.4	6.2	6.6	6.1	6.5	6.9	6.8	7.2
4	DO_SAT% (%)	79	77	82	74	80	87	83	87
5	FCol-MPN (MPN/100mL)	13800	43758	513	3043	9075	725	1531	4533
6	Tcol-MPN (MPN/100mL)	18950	57750	5175	6300	17500	6950	19377	16192
	TRACE & TOXIC								
1	As (µg/L)							0.0	
2	Cd (µg/L)				0.2			0.2	0.3
3	Cr (µg/L)							0.0	0.3
4	Cu (µg/L)				2.0			1.9	5.9
5	Hg (µg/L)							0.1	0.1
6	Ni (µg/L)				15.8			0.0	2.9
7	Pb (µg/L)				4.1			8.8	1.8
8	Zn (µg/L)							7.3	7.3
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	68	62	59	42	45	48	42	64
2	HAR_Total (mgCaCO3/L)	96	103	87	56	89	96	75	99
3	Na% (%)	24	30	24	23	23	34	45	42
4	RSC (-)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.9	0.5	0.5	0.6	1.0	1.5	1.6
	PESTICIDES								

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Kurundwad (AK000V1) | **Division : Upper Krishna Divn, Pune**

Local River : Krishna | **River Water** | **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Winter					Summer	
		Nov - Feb					Mar - May	
		2010-2011	2019-2020	2020-2021	2022-2023	Samples not collected during Winter Season for the period 2008-2009 , 2009-2010, 2011-2012 to 2018-2019 and 2021-2022 due to dry bed / no flow condition	2020	Samples not collected during Summer Season for the period 2008 to 2019 and 2021 to 2023 due to dry bed / no flow condition
	PHYSICAL							
1	Q (cumec)	100.2	659.9	93.31	382.7		0.000	
2	EC_FLD (µmho/cm)		415	708	526		406	
3	EC_GEN (µmho/cm)	680	555	635	564		369	
4	pH_FLD (pH units)		8.2	7.5	7.4		7.6	
5	pH_GEN (pH units)	6.1	8.1	8.0	7.6		7.6	
6	TDS (mg/L)			360	466			
7	Temp (deg C)	25.3	27.0	25.6	24.5		27.0	
8	Turb (NTU)				18.3			
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	108	170	178	166		96	
2	B (mg/L)	0.14	0.14	0.21	0.17		0.08	
3	Ca (mg/L)	43	46	43	53		24	
4	Cl (mg/L)	39.5	43.4	143.3	82.2		34.7	
5	F (mg/L)	0.48	0.14	0.11	0.08		0.09	
6	Fe (mg/L)	0.2	0.0	0.1	0.1		0.1	
7	HCO3 (mg/L)	132	208	217	202		117	
8	K (mg/L)	1.3	1.1	7.0	6.8		7.3	
9	Mg (mg/L)	14.6	22.0	23.4	14.0		11.5	
10	Na (mg/L)	25.7	27.1	92.6	63.0		24.4	
11	NH3-N (mg N/L)				0.05			
12	NO2+NO3 (mg N/L)	0.43	3.02	3.07	2.91		1.26	
13	NO2-N (mgN/L)	0.01	0.04	0.02	0.03		0.01	
14	NO3-N (mgN/L)	0.43	2.98	3.05	2.88		1.25	
15	P-Tot (mgP/L)	0.013	0.129	0.041	0.073		0.075	
16	SiO2 (mg/L)	10.2	11.5	19.0	26.4		9.4	
17	SO4 (mg/L)	49.3	40.0	57.8	49.7		38.0	
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.9	0.9	1.0	1.8			
2	COD (mg/L)	6.1	7.0	7.6	13.0			
3	DO (mg/L)		6.5	6.9	6.8		6.0	
4	DO_SAT% (%)		82	84	81		76	
5	FCol-MPN (MPN/100mL)	54000	800	500	2050			
6	Tcol-MPN (MPN/100mL)	92000	3400	1850	6500			
	TRACE & TOXIC							
1	As (µg/L)							
2	Cd (µg/L)				3.1			
3	Cr (µg/L)				0.0			
4	Cu (µg/L)				10.0			
5	Hg (µg/L)							
6	Ni (µg/L)				7.3			
7	Pb (µg/L)				7.5			
8	Zn (µg/L)				5.7			
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	108	116	108	132		59	
2	HAR_Total (mgCaCO3/L)	169	208	206	190		107	
3	Na% (%)	25	22	47	41		32	
4	RSC (-)	0.0	0.0	0.0	0.0		0.0	
5	SAR (-)	0.9	0.8	2.8	2.0		1.0	
	PESTICIDES							

HISTORY SHEET

			Water Year	:	**2022-2023**
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, Miraj
Drainage Area	:	2425 Sq. Km.	Bank	:	Right
Latitude	:	16°40'27"	Longitude	:	74°34'29"
		Opening Date	Closing Date		
Gauge	:	01-03-1979			
Discharge	:	22-08-1979			
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	04-07-2022	13-07-2022	25-07-2022	01-08-2022	09-08-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	224.9	1039	261.8	160.6	1073
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Brown
3	EC_FLD (µmho/cm)	467	288	277	193	168
4	EC_GEN (µmho/cm)	114	121	140	180	144
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	6.4	7.1	6.9	7.6	7.1
7	pH_GEN (pH units)	6.9	7.0	7.2	7.3	7.1
8	TDS (mg/L)	79	87	117	140	122
9	Temp (deg C)	25.0	23.5	23.3	25.3	24.5
10	Turb (NTU)	16.0	25.0	18.9	11.7	29.3
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	30	36	49	66	45
3	B (mg/L)	0.06	0.05	0.04	0.02	0.03
4	Ca (mg/L)	11	13	14	14	12
5	Cl (mg/L)	15.6	21.8	17.7	27.2	21.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.05	0.07	0.05	0.05	0.07
8	Fe (mg/L)	0.6	1.3	0.3	0.2	2.4
9	HCO3 (mg/L)	36	44	59	80	55
10	K (mg/L)	3.2	2.8	2.0	4.2	3.3
11	Mg (mg/L)	2.0	2.3	3.2	6.3	5.8
12	Na (mg/L)	11.9	12.1	13.4	20.9	14.1
13	NH3-N (mg N/L)	0.15	0.13	0.14	0.21	0.25
14	NO2+NO3 (mg N/L)	1.59	2.07	0.97	1.13	1.79
15	NO2-N (mgN/L)	0.02	0.04	0.01	0.01	0.02
16	NO3-N (mgN/L)	1.57	2.03	0.97	1.12	1.78
17	P-Tot (mgP/L)	0.020	0.057	0.023	0.024	0.107
18	SiO2 (mg/L)	12.7	16.2	15.3	13.2	15.5
19	SO4 (mg/L)	6.1	8.5	11.3	23.6	18.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.8	1.1	0.9	1.7	0.9
2	COD (mg/L)	12.0	8.0	6.0	12.0	6.0
3	DO (mg/L)	7.3	6.9	7.3	6.9	7.3
4	DO_SAT% (%)	88	81	85	84	87
5	FCol-MPN (MPN/100mL)	1100	2700	13000	1700	3300
6	Tcol-MPN (MPN/100mL)	8000	5000	50000	3000	50000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	0.0	0.2	1.8	0.8
2	Cr (µg/L)	4.2	1.1	0.0	4.9	2.1
3	Cu (µg/L)	13.8	4.2	0.8	0.0	8.6
4	Hg (µg/L)	0.0		0.0		0.0
5	Ni (µg/L)	13.9	10.6	2.8	6.3	3.8
6	Pb (µg/L)	8.0	2.0	0.0	0.0	0.0
7	Zn (µg/L)	21.7	12.6	6.7	7.7	13.1
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	29	33	36	34	30
2	HAR_Total (mgCaCO3/L)	37	43	49	61	54
3	Na% (%)	39	36	36	41	35
4	RSC (-)	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	0.9	0.8	0.8	1.2	0.8
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	22-08-2022	05-09-2022	13-09-2022	21-09-2022	03-10-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	491.8	104.4	771.0	240.3	64.79
2	Colour_Cod (-)	Brown	Light Brown	Brown	Brown	Light Brown
3	EC_FLD (µmho/cm)	154	268	596	179	240
4	EC_GEN (µmho/cm)	137	290	136	166	241
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	6.9	7.3	6.7	7.1	7.2
7	pH_GEN (pH units)	7.1	7.2	6.9	7.0	7.1
8	TDS (mg/L)	101	246	96	107	175
9	Temp (deg C)	25.5	25.0	25.3	25.5	25.5
10	Turb (NTU)	21.5	18.7	32.6	39.1	17.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	45	81	47	50	74
3	B (mg/L)	0.01	0.01	0.05	0.05	0.06
4	Ca (mg/L)	15	27	17	15	25
5	Cl (mg/L)	22.8	45.8	26.1	24.6	44.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.03	0.06	0.03	0.07	0.07
8	Fe (mg/L)	0.0	0.1	1.2	0.3	0.3
9	HCO3 (mg/L)	55	98	58	62	91
10	K (mg/L)	2.1	4.8	3.5	2.5	3.6
11	Mg (mg/L)	2.5	6.2	3.8	5.0	4.6
12	Na (mg/L)	17.1	35.3	18.6	18.3	33.9
13	NH3-N (mg N/L)	0.11	0.18	0.09	0.15	0.27
14	NO2+NO3 (mg N/L)	0.84	1.43	1.09	1.07	1.44
15	NO2-N (mgN/L)	0.01	0.03	0.02	0.02	0.02
16	NO3-N (mgN/L)	0.83	1.40	1.07	1.05	1.41
17	P-Tot (mgP/L)	0.030	0.042	0.030	0.023	0.067
18	SiO2 (mg/L)	15.9	18.7	14.3	18.3	17.7
19	SO4 (mg/L)	9.5	24.0	17.1	18.9	16.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.8	0.7	0.7	0.9	1.8
2	COD (mg/L)	6.0	5.0	4.0	7.0	12.0
3	DO (mg/L)	7.6	6.8	7.2	6.8	6.6
4	DO_SAT% (%)	92	82	87	82	80
5	FCol-MPN (MPN/100mL)	7000	17000	7000	1700	5000
6	Tcol-MPN (MPN/100mL)	90000	160000	22000	14000	24000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	0.8	5.6	8.1	6.6	4.0
4	Hg (µg/L)					
5	Ni (µg/L)	2.0	12.3	0.0	0.0	0.0
6	Pb (µg/L)	0.0	10.0	3.0	5.0	0.0
7	Zn (µg/L)	5.3	1.8	3.7	9.5	2.8
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	37	68	44	36	63
2	HAR_Total (mgCaCO3/L)	47	94	59	57	82
3	Na% (%)	43	44	39	40	46
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.1	1.6	1.1	1.1	1.6
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **River Water Analysis** **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	11-10-2022	19-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	80.38	214.8	51.56	33.86	23.33
2	Colour_Cod (-)	Light Brown	Brown	Brown	Clear	Clear
3	EC_FLD (µmho/cm)	195	580	474	539	519
4	EC_GEN (µmho/cm)	204	299	411	585	667
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.2	7.5	7.9	7.5
7	pH_GEN (pH units)	7.4	7.2	7.4	7.9	7.6
8	TDS (mg/L)	144	187	304	427	477
9	Temp (deg C)	25.0	24.5	24.0	25.0	25.5
10	Turb (NTU)	28.4	42.1	38.6	17.2	9.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	85	98	115	180	191
3	B (mg/L)	0.01	0.03	0.03	0.25	0.27
4	Ca (mg/L)	21	31	42	54	56
5	Cl (mg/L)	46.5	46.1	58.1	81.6	115.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.07	0.08	0.08	0.08
8	Fe (mg/L)	0.2	0.9	0.1	0.1	0.1
9	HCO3 (mg/L)	103	120	140	219	233
10	K (mg/L)	3.0	4.6	6.0	7.0	9.5
11	Mg (mg/L)	8.1	7.4	11.1	14.8	16.6
12	Na (mg/L)	33.7	32.9	44.2	60.5	86.4
13	NH3-N (mg N/L)	0.35	0.06	0.04	0.29	0.46
14	NO2+NO3 (mg N/L)	1.03	1.76	1.98	2.83	2.13
15	NO2-N (mgN/L)	0.02	0.02	0.03	0.03	0.02
16	NO3-N (mgN/L)	1.02	1.74	1.95	2.81	2.11
17	P-Tot (mgP/L)	0.030	0.098	0.084	0.070	0.117
18	SiO2 (mg/L)	16.0	19.9	25.3	25.7	25.5
19	SO4 (mg/L)	30.2	28.7	38.8	54.6	62.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.0	2.1	1.7	3.7	3.0
2	COD (mg/L)	6.0	15.0	13.0	29.0	24.0
3	DO (mg/L)	6.6	6.8	6.5	6.5	6.3
4	DO_SAT% (%)	80	81	77	79	76
5	FCol-MPN (MPN/100mL)	5000	3400	14000	13000	17000
6	Tcol-MPN (MPN/100mL)	28000	35000	17000	50000	160000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	2.2	2.4	2.7	2.6
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	15.7	6.9	7.3	5.6	6.5
4	Hg (µg/L)					
5	Ni (µg/L)	0.0	2.3	3.5	8.5	8.5
6	Pb (µg/L)	2.0	0.0	6.0	10.0	11.0
7	Zn (µg/L)	0.3	0.0	1.3	11.7	8.2
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	53	79	105	135	141
2	HAR_Total (mgCaCO3/L)	86	109	152	197	210
3	Na% (%)	45	38	38	39	46
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.6	1.4	1.6	1.9	2.6
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

Station Name : Terwad (Seasonal) (AKW00A7) **Division : Upper Krishna Divn, Pune**

Local River : Panchganga **Sub-Division : Upper Krishna SD , Miraj**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	183	1829	0.000	306.5
2	EC_FLD (µmho/cm)	15	596	154	343
3	EC_GEN (µmho/cm)	15	667	114	256
4	pH_FLD (pH units)	15	7.9	6.4	7.2
5	pH_GEN (pH units)	15	7.9	6.9	7.2
6	TDS (mg/L)	15	477	79	187
7	Temp (deg C)	15	25.5	23.3	24.8
8	Turb (NTU)	15	42.1	9.9	24.4
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	15	191	30	79
3	B (mg/L)	15	0.27	0.01	0.06
4	Ca (mg/L)	15	56	11	25
5	Cl (mg/L)	15	115.9	15.6	41.1
6	CO3 (mg/L)	15	0.0	0.0	0
7	F (mg/L)	15	0.08	0.03	0.06
8	Fe (mg/L)	15	2.4	0.0	0.5
9	HCO3 (mg/L)	15	233	36	97
10	K (mg/L)	15	9.5	2.0	4.1
11	Mg (mg/L)	15	16.6	2.0	6.6
12	Na (mg/L)	15	86.4	11.9	30.2
13	NH3-N (mg N/L)	15	0.46	0.04	0.19
14	NO2+NO3 (mg N/L)	15	2.83	0.84	1.54
15	NO2-N (mgN/L)	15	0.04	0.01	0.02
16	NO3-N (mgN/L)	15	2.81	0.83	1.52
17	P-Tot (mgP/L)	15	0.117	0.020	0.055
18	SiO2 (mg/L)	15	25.7	12.7	18
19	SO4 (mg/L)	15	62.0	6.1	24.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	15	3.7	0.7	1.5
2	COD (mg/L)	15	29.0	4.0	11
3	DO (mg/L)	15	7.6	6.3	6.9
4	DO_SAT% (%)	15	92	76	83
5	FCol-MPN (MPN/100mL)	15	17000	1100	7460
6	Tcol-MPN (MPN/100mL)	15	160000	3000	47733
	TRACE & TOXIC				
1	Cd (µg/L)	15	2.7	0.0	0.8
2	Cr (µg/L)	15	4.9	0.0	0.8
3	Cu (µg/L)	15	15.7	0.0	6.3
4	Hg (µg/L)	3	0.0	0.0	0
5	Ni (µg/L)	15	13.9	0.0	5
6	Pb (µg/L)	15	11.0	0.0	3.8
7	Zn (µg/L)	15	21.7	0.0	7.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	15	141	29	61
2	HAR_Total (mgCaCO3/L)	15	210	37	89
3	Na% (%)	15	46	35	40
4	RSC (-)	15	0.1	0.0	0
5	SAR (-)	15	2.6	0.8	1.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2023

Station Name : Terwad (Seasonal) (AKW00A7) | **Division : Upper Krishna Divn, Pune**

Local River : Panchganga | **River Water** | **Sub-Division : Upper Krishna SD , Miraj**

S.No	Parameters	Flood				Winter				Summer	
		Jun - Oct				Nov - Feb				Mar - May	
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022	2022-2023	2020	
	PHYSICAL							Samples not collected due to Dry bed / No flow condition.			Samples not collected during Summer season from 2021 to 2023 due to Dry bed / No flow condition.
1	Q (cumec)	319.0	149.2	384.4	393.9	70.11	58.64		36.25		
2	EC_FLD (µmho/cm)	278	195	438	301	616	743		511	291	
3	EC_GEN (µmho/cm)	246	203	266	181	344	626		554	286	
4	pH_FLD (pH units)	7.9	7.4	7.3	7.1	8.3	7.5		7.6	7.5	
5	pH_GEN (pH units)	7.5	7.8	7.6	7.1	7.7	7.8		7.6	7.2	
6	TDS (mg/L)		114	149	133		350		403		
7	Temp (deg C)	26.1	25.8	25.5	24.8	26.5	24.0		24.8	26.6	
8	Turb (NTU)			22.3	25.0				21.9		
	CHEMICAL										
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.4	0.0	0.0	0.0		0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	66	57	60	59	100	168		162	79	
3	B (mg/L)	0.06	0.06	0.07	0.03	0.10	0.13		0.18	0.08	
4	Ca (mg/L)	18	14	17	18	29	43		51	21	
5	Cl (mg/L)	22.9	26.7	36.4	30.0	29.0	131.0		85.2	29.1	
6	CO3 (mg/L)	0.0	0.0	0.5	0.0	0.0	0.0		0.0	0.0	
7	F (mg/L)	0.07	0.06	0.06	0.06	0.09	0.27		0.08	0.08	
8	Fe (mg/L)	0.8	0.3	0.3	0.6	0.0	0.1		0.1	0.1	
9	HCO3 (mg/L)	80	69	72	72	122	205		197	96	
10	K (mg/L)	2.6	3.1	3.5	3.3	0.8	10.1		7.5	8.4	
11	Mg (mg/L)	8.6	8.1	6.8	4.8	15.0	20.5		14.2	9.6	
12	Na (mg/L)	15.0	19.5	25.6	21.9	21.1	97.8		63.7	19.9	
13	NH3-N (mg N/L)			0.06	0.17				0.26		
14	NO2+NO3 (mg N/L)	1.87	1.68	1.25	1.35	1.84	1.96		2.31	1.42	
15	NO2-N (mgN/L)	0.02	0.02	0.03	0.02	0.03	0.02		0.02	0.02	
16	NO3-N (mgN/L)	1.86	1.65	1.22	1.33	1.81	1.94		2.29	1.40	
17	P-Tot (mgP/L)	0.068	0.047	0.049	0.046	0.155	0.132		0.090	0.095	
18	SiO2 (mg/L)	4.2	15.6	17.8	16.1	8.1	16.5		25.5	9.2	
19	SO4 (mg/L)	17.2	12.3	12.2	17.8	18.2	47.4		51.8	18.5	
	BIOLOGICAL/BACTERIOLOGICAL										
1	BOD3-27 (mg/L)	0.9	1.2	1.1	1.2	0.6	1.5		2.8		
2	COD (mg/L)	7.6	9.8	6.2	8.3	4.0	11.5		22.0		
3	DO (mg/L)	5.3	6.8	6.5	7.0	5.5	6.4		6.4	6.0	
4	DO_SAT% (%)	64	83	79	84	68	75		77	74	
5	FCol-MPN (MPN/100mL)	4660	23825	6800	5658	400	6150		14667		
6	Tcol-MPN (MPN/100mL)	30400	43075	17246	40750	1700	49250		75667		
	TRACE & TOXIC										
1	Cd (µg/L)			0.2	0.4				2.6		
2	Cr (µg/L)			0.1	1.0				0.0		
3	Cu (µg/L)			1.4	6.3				6.5		
4	Hg (µg/L)			0.0	0.0						
5	Ni (µg/L)			0.0	4.5				6.8		
6	Pb (µg/L)			9.7	2.5				9.0		
7	Zn (µg/L)			5.7	7.1				7.1		
	CHEMICAL INDICES										
1	HAR_Ca (mgCaCO3/L)	45	36	41	45	73	107		127	53	
2	HAR_Total (mgCaCO3/L)	81	70	70	65	135	192		186	93	
3	Na% (%)	27	37	43	40	25	50		41	29	
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
5	SAR (-)	0.7	1.0	1.3	1.2	0.8	3.0		2.0	0.9	
	PESTICIDES										

HISTORY SHEET

Water Year : 2022-2023

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	:	CAUVERY DIVISION	Sub-Division	:	MKSD BAGALKOTE
Drainage Area	:	2770 Sq. Km.	Bank	:	Right
Latitude	:	16°11'24"	Longitude	:	74°47'29"
		Opening Date	Closing Date		
Gauge	:	21-03-1971			
Discharge	:	14-07-1971			
Sediment	:	27-12-2014			
Water Quality	:	01-09-2014			

Water Quality Datasheet for the period : 2022-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters		04-07-2022	11-07-2022	21-07-2022	01-08-2022	11-08-2022
			A	A	A	A	A
	PHYSICAL						
1	Q (cumec)		91.92	271.9	103.8	28.18	630.1
2	Colour_Cod (-)		Clear	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)		156	132	172	244	138
4	Odour_Code (-)		odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)		7.9	7.6	8.1	7.9	7.5
6	TDS (mg/L)		106	81	102	140	90
7	Temp (deg C)		24.0	23.0	23.0	23.0	24.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)		57	38	58	90	46
3	B (mg/L)		0.13	0.18	0.19	0.42	0.37
4	Ca (mg/L)		15	18	21	15	11
5	Cl (mg/L)		14.6	15.3	18.1	25.2	13.1
6	CO3 (mg/L)		0.0	0.0	0.0	0.0	0.0
7	F (mg/L)		0.07	0.05	0.06	0.06	0.07
8	HCO3 (mg/L)		69	47	70	110	56
9	K (mg/L)		1.2	1.5	1.6	1.4	1.5
10	Mg (mg/L)		6.7	1.9	3.9	12.2	4.0
11	Na (mg/L)		8.7	6.1	8.6	16.1	12.2
12	NO2-N (mgN/L)		0.01	0.01	0.01	0.01	0.06
13	o-PO4-P (mg P/L)		0.000	0.000	0.000	0.000	0.000
14	SiO2 (mg/L)		13.5	4.5	11.8	8.6	8.9
15	SO4 (mg/L)		5.2	5.0	5.9	11.7	5.8
16	Turb (NTU)		3.5	3.3	2.8	19.1	49.0
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD (mg/L)		2.7	3.1	0.3	2.6	3.0
2	COD (mg/L)		9.0	9.0	16.0	12.0	7.0
3	DO (mg/L)		7.7	7.2	6.2	6.2	8.0
4	DO_SAT% (%)		91	84	72	72	95
5	FCol-MPN (MPN/100mL)		4000	1700	450	1300	1400
6	Tcol-MPN (MPN/100mL)		92000	4600	2200	3300	3300
	TRACE & TOXIC						
1	As (µg/L)		0.10	0.05	0.62	0.05	0.02
2	Cd (µg/L)		0.04	0.00	0.51	0.00	0.00
3	Cr (µg/L)		0.00	35.02	0.09	0.06	0.07
4	Cu (µg/L)		1.27	1.86	1.34	1.46	1.93
5	Fe (mg/L)		0.1	0.3	0.0	0.1	0.1
6	Hg (µg/L)		0.24	0.32	0.45	0.12	0.10
7	Ni (µg/L)		0.51	0.70	0.87	0.57	0.53
8	Pb (µg/L)		0.11	0.36	0.04	0.17	0.32
9	Zn (µg/L)		7.12	6.26	4.16	4.04	5.43
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)		38	46	52	389	28
2	HAR_Total (mgCaCO3/L)		65	54	68	439	45
3	Na% (%)		22	19	21	7	36
4	RSC (-)		0.0	0.0	0.0	0.0	0.0
5	SAR (-)		0.5	0.4	0.5	0.3	0.8

Sample not submitted for analysis due to NO Flow Condition of the river for the month of June -2022

Water Quality Datasheet for the period : 2022-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	23-08-2022	01-09-2022	13-09-2022	21-09-2022	03-10-2022	11-10-2022
		A	B	A	A	A	A
	PHYSICAL						
1	Q (cumec)	137.4	30.69	1462	94.24	47.38	78.97
2	Colour_Cod (-)	Clear	Clear	Clear	Light Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	126	195	147	158	275	313
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.9	7.8	8.1	8.6	8.1
6	TDS (mg/L)	70	126	86	92	164	208
7	Temp (deg C)	24.0	24.0	22.0	22.0	24.0	22.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	15.9	0.0
2	ALK-TOT (mgCaCO3/L)	44	67	54	61	94	117
3	B (mg/L)	0.46	0.34	0.12	0.13	0.09	0.00
4	Ca (mg/L)	10	15	17	14	23	27
5	Cl (mg/L)	13.1	54.3	9.6	8.5	24.9	24.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	19.2	0.0
7	F (mg/L)	0.04	0.08	0.06	0.06	0.10	0.10
8	HCO3 (mg/L)	54	81	65	74	75	142
9	K (mg/L)	1.3	1.2	1.5	1.3	4.1	2.4
10	Mg (mg/L)	6.2	7.9	3.4	4.6	7.8	11.7
11	Na (mg/L)	5.5	12.1	9.8	10.9	25.5	24.0
12	NO2-N (mgN/L)	0.00	0.03	0.04	0.07	0.01	0.01
13	o-PO4-P (mg P/L)	0.031	0.000	0.052	0.000	0.000	0.021
14	SiO2 (mg/L)	9.4	17.0	24.1	15.7	16.7	16.7
15	SO4 (mg/L)	4.6	7.1	9.8	11.0	18.0	12.5
16	Turb (NTU)	15.1	15.0	85.0	13.1	4.6	11.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	3.3	1.2	0.7	4.6	0.4	1.9
2	COD (mg/L)	6.0	8.5	10.0	23.0	24.0	4.0
3	DO (mg/L)	6.6	6.9	6.4	8.4	7.0	6.9
4	DO_SAT% (%)	78	82	73	96	83	79
5	FCol-MPN (MPN/100mL)	13000	1400	2700	3200	1100	1700
6	Tcol-MPN (MPN/100mL)	35000	22000	54000	35000	54000	160000
	TRACE & TOXIC						
1	As (µg/L)	0.04	0.02	0.01	0.02	0.03	0.04
2	Cd (µg/L)	0.00	0.00	0.00	0.00	0.00	0.00
3	Cr (µg/L)	0.00	0.00	0.41	0.00	0.00	0.00
4	Cu (µg/L)	1.03	0.76	2.89	0.85	0.72	1.17
5	Fe (mg/L)	0.0	0.0	0.3	0.0	0.0	0.0
6	Hg (µg/L)	0.10	0.02	0.02	0.00	0.01	0.00
7	Ni (µg/L)	0.32	0.21	0.89	0.23	0.38	0.30
8	Pb (µg/L)	0.00	0.00	0.28	0.00	0.00	0.02
9	Zn (µg/L)	1.23	1.03	4.27	2.93	0.65	0.74
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	25	38	42	36	59	68
2	HAR_Total (mgCaCO3/L)	51	71	56	55	91	116
3	Na% (%)	19	27	27	30	37	31
4	RSC (-)	0.0	0.0	0.0	0.1	0.1	0.0
5	SAR (-)	0.3	0.6	0.6	0.6	1.2	1.0

Water Quality Datasheet for the period : 2022-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	21-10-2022	01-11-2022	14-11-2022	22-11-2022	01-12-2022	
		A	A	A	A	A	
	PHYSICAL						
1	Q (cumec)	286.8	12.96	11.33	10.58	10.99	
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	242	369	478	461	160	
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.3	8.5	8.3	8.5	8.0	
6	TDS (mg/L)	154	232	309	281	106	
7	Temp (deg C)	22.0	24.0	24.0	24.0	23.0	
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	20.9	0.0	12.9	0.0	
2	ALK-TOT (mgCaCO3/L)	87	141	168	176	54	
3	B (mg/L)	0.00	0.03	0.07	0.33	0.14	
4	Ca (mg/L)	27	27	40	29	11	
5	Cl (mg/L)	19.2	29.5	38.7	37.6	16.7	
6	CO3 (mg/L)	0.0	25.2	0.0	15.6	0.0	
7	F (mg/L)	0.10	0.17	0.17	0.15	0.06	
8	HCO3 (mg/L)	106	120	205	183	66	
9	K (mg/L)	1.8	3.2	3.0	3.0	1.0	
10	Mg (mg/L)	6.1	14.7	14.1	19.8	8.4	
11	Na (mg/L)	18.0	28.9	35.0	33.0	10.0	
12	NO2-N (mgN/L)	0.04	0.01	0.04	0.03	0.00	
13	o-PO4-P (mg P/L)	0.000	0.041	0.000	0.010	NA	
14	SiO2 (mg/L)	16.9	17.4	17.4	17.5	9.2	
15	SO4 (mg/L)	7.8	4.6	21.7	4.3	6.5	
16	Turb (NTU)	3.6	0.3	2.9	1.7	1.4	
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD (mg/L)	0.8	0.2	0.9	0.6	0.6	
2	COD (mg/L)	5.0	8.0	19.0	9.0	5.0	
3	DO (mg/L)	7.7	7.3	6.7	8.4	6.8	
4	DO_SAT% (%)	88	87	80	100	79	
5	FCol-MPN (MPN/100mL)	1700	1700	1700	680	1400	
6	Tcol-MPN (MPN/100mL)	13000	17000	22000	13000	13000	
	TRACE & TOXIC						
1	As (µg/L)	0.01	0.04	NA	NA	NA	
2	Cd (µg/L)	0.00	0.01	NA	NA	NA	
3	Cr (µg/L)	0.00	0.07	NA	NA	NA	
4	Cu (µg/L)	0.65	0.88	NA	NA	NA	
5	Fe (mg/L)	0.0	0.0	NA	NA	NA	
6	Hg (µg/L)	0.00	0.02	NA	NA	NA	
7	Ni (µg/L)	0.24	0.41	NA	NA	NA	
8	Pb (µg/L)	0.00	0.05	NA	NA	NA	
9	Zn (µg/L)	1.98	2.13	NA	NA	NA	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	67	67	99	73	28	
2	HAR_Total (mgCaCO3/L)	92	128	158	156	63	
3	Na% (%)	29	32	32	31	25	
4	RSC (-)	0.0	0.3	0.2	0.4	0.0	
5	SAR (-)	0.8	1.1	1.2	1.2	0.6	

Sample not submitted for the analysis from 2nd ten days of Decmber-2022 to May-2023 due to NO Flow Condition of the river.

Water Quality Summary for the period : 2022-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **Sub-Division : MKSD BAGALKOTE**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1610	0.000	71.79
2	EC_GEN (µmho/cm)	16	478	126	235
3	pH_GEN (pH units)	16	8.6	7.5	8
4	TDS (mg/L)	16	309	70	147
5	Temp (deg C)	16	24.0	22.0	23.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	16	20.9	0.0	3.1
2	ALK-TOT (mgCaCO3/L)	16	176	38	84
3	B (mg/L)	16	0.46	0.00	0.19
4	Ca (mg/L)	16	40	10	20
5	Cl (mg/L)	16	54.3	8.5	22.7
6	CO3 (mg/L)	16	25.2	0.0	3.8
7	F (mg/L)	16	0.17	0.04	0.09
8	HCO3 (mg/L)	16	205	47	95
9	K (mg/L)	16	4.1	1.0	1.9
10	Mg (mg/L)	16	19.8	1.9	8.3
11	Na (mg/L)	16	35.0	5.5	16.5
12	NO2-N (mgN/L)	16	0.07	0.00	0.03
13	o-PO4-P (mg P/L)	15	0.052	0.000	0.01
14	SiO2 (mg/L)	16	24.1	4.5	14.1
15	SO4 (mg/L)	16	21.7	4.3	8.8
16	Turb (NTU)	16	85.0	0.3	14.5
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD (mg/L)	16	4.6	0.2	1.7
2	COD (mg/L)	16	24.0	4.0	10.9
3	DO (mg/L)	16	8.4	6.2	7.1
4	DO_SAT% (%)	16	100	72	84
5	FCol-MPN (MPN/100mL)	16	13000	450	2446
6	Tcol-MPN (MPN/100mL)	16	160000	2200	33963
	TRACE & TOXIC				
1	As (µg/L)	13	0.62	0.01	0.08
2	Cd (µg/L)	13	0.51	0.00	0.04
3	Cr (µg/L)	13	35.02	0.00	2.75
4	Cu (µg/L)	13	2.89	0.65	1.29
5	Fe (mg/L)	13	0.3	0.0	0.1
6	Hg (µg/L)	13	0.45	0.00	0.11
7	Ni (µg/L)	13	0.89	0.21	0.47
8	Pb (µg/L)	13	0.36	0.00	0.1
9	Zn (µg/L)	13	7.12	0.65	3.23
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	16	389	25	72
2	HAR_Total (mgCaCO3/L)	16	439	45	107
3	Na% (%)	16	37	7	27
4	RSC (-)	16	0.4	0.0	0.1
5	SAR (-)	16	1.2	0.3	0.7

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Flood								
		Jun - Oct								
		2014	2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL									
1	Q (cumec)	75.15	108.6	9.979	27.54	38.95	152.1	162.3	74.71	272.0
2	EC_FLD (µmho/cm)		348	400	219					
3	EC_GEN (µmho/cm)	235	218	290	238	211	197	292	191	192
4	pH_FLD (pH units)		6.7	6.3	6.4					
5	pH_GEN (pH units)	7.6	7.7	7.6	7.5	7.6	7.6	7.8	7.9	7.9
6	TDS (mg/L)					138	130	191	127	118
7	Temp (deg C)	23.0	21.3	24.3	25.8	24.5	23.1	22.8	23.3	23.1
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	1.3
2	ALK-TOT (mgCaCO3/L)	96	50	76	56	66	60	86	57	68
3	B (mg/L)	0.04	0.07	0.07	0.11	0.13	0.09	0.03	0.13	0.20
4	Ca (mg/L)	35	21	22	24	22	17	16	16	29
5	Cl (mg/L)	51.8	19.8	43.0	26.4	21.7	19.9	31.5	20.9	20.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	1.6
7	F (mg/L)	0.24	0.48	0.37	0.47	0.09	0.08	0.09	0.10	0.07
8	HCO3 (mg/L)	117	61	93	69	80	73	104	59	79
9	K (mg/L)	0.7	0.8	3.0	1.4	1.9	1.6	2.5	1.4	1.7
10	Mg (mg/L)	12.6	5.8	8.0	5.8	4.7	8.5	9.3	6.7	6.4
11	Na (mg/L)	33.0	11.7	23.0	19.2	13.4	16.6	31.5	12.5	13.1
12	NO2+NO3 (mg N/L)	1.70	1.43	3.06	1.94	4.42	1.91	1.15	1.42	
13	NO2-N (mgN/L)	0.01	0.00	0.00	0.00	0.82	0.08	0.02	0.02	0.03
14	NO3-N (mgN/L)	1.69	1.42	3.05	1.94	3.60	1.84	1.12	1.40	
15	o-PO4-P (mg P/L)					0.258	0.090	0.028	0.008	0.009
16	P-Tot (mgP/L)	0.007	0.016	0.035	0.026					
17	SiO2 (mg/L)	24.8	11.2	7.1	6.3	8.3	9.6	12.2	8.4	13.6
18	SO4 (mg/L)	40.4	17.0	18.4	20.4	10.5	12.1	19.9	11.6	8.7
19	Turb (NTU)								14.9	18.8
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	1.8	1.2	0.9	1.2	1.7	1.1	0.8	0.8	2.0
2	COD (mg/L)	14.0	9.7	6.5	8.8	24.3	24.3	9.0	13.0	11.1
3	DO (mg/L)		6.8	5.8	6.3	6.4	6.1	6.5	6.8	7.1
4	DO_SAT% (%)		76	69	76	77	72	76	80	83
5	FCol-MPN (MPN/100mL)	58000	900	6280	4043	4518	820	440	355	2804
6	Tcol-MPN (MPN/100mL)	97500	1383	8447	9350	8625	9770	1600	1623	39867
	TRACE & TOXIC									
1	As (µg/L)					4.72	0.71	0.59	0.49	0.08
2	Cd (µg/L)					0.24	0.07	0.09	0.02	0.05
3	Cr (µg/L)					4.17	1.17	13.46	1.91	2.97
4	Cu (µg/L)					1.00	1.27	0.90	1.48	1.33
5	Fe (mg/L)	2.7	2.0	3.4	2.5	0.5	0.5	0.5	0.1	0.1
6	Hg (µg/L)								0.23	0.11
7	Ni (µg/L)					3.94	4.63	0.57	0.56	0.48
8	Pb (µg/L)					1.00	0.20	0.27	0.26	0.11
9	Zn (µg/L)					5.70	14.40	1.30	5.48	3.32
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	88	53	55	60	55	42	39	41	74
2	HAR_Total (mgCaCO3/L)	141	78	89	84	75	78	78	69	100
3	Na% (%)	34	25	34	31	26	25	39	27	25
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
5	SAR (-)	1.2	0.6	1.0	0.8	0.7	0.7	1.7	0.6	0.6
	PESTICIDES									

Water Quality Seasonal Average for the period: 2014-2023

Station Name : Gokak Falls (Seasonal) (AKT00P9) **Division : CAUVERY DIVISION**

Local River : Ghataprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Winter							Summer
		Nov - Feb							Mar - May
		2014-2015	2017-2018	2018-2019	2019-2020		2021-2022	2022-2023	
	PHYSICAL								
1	Q (cumec)	10.16	2.244		0.000		23.81	11.47	
2	EC_FLD (µmho/cm)		550						
3	EC_GEN (µmho/cm)	377	650	484	481		254	367	
4	pH_FLD (pH units)		5.2						
5	pH_GEN (pH units)	8.0	7.9	7.6	7.9		8.0	8.3	
6	TDS (mg/L)			291	368		171	232	
7	Temp (deg C)	20.8	23.5	20.0	24.3		22.6	23.8	
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0		0.0	8.5	
2	ALK-TOT (mgCaCO3/L)	112	142	142	134		81	135	
3	B (mg/L)	0.05	0.20	0.13	0.14			0.14	
4	Ca (mg/L)	42	51	29	57		17	27	
5	Cl (mg/L)	43.5	80.1	50.1	51.1		25.9	30.6	
6	CO3 (mg/L)	0.0	0.0	0.0	0.0		0.0	10.2	
7	F (mg/L)	0.35	0.54	0.21	0.18		0.15	0.14	
8	HCO3 (mg/L)	137	173	173	163		98	143	
9	K (mg/L)	0.2	5.8	4.3	4.2		1.5	2.6	
10	Mg (mg/L)	10.2	11.7	16.0	3.2		9.3	14.2	
11	Na (mg/L)	28.3	60.1	42.9	42.9		18.0	26.7	
12	NO2+NO3 (mg N/L)	2.10	0.76	1.38	6.16				
13	NO2-N (mgN/L)	0.01	0.00	0.01	0.23		0.00	0.02	
14	NO3-N (mgN/L)	2.09	0.76	1.37	5.93				
15	o-PO4-P (mg P/L)			0.072	0.460		0.026	0.017	
16	P-Tot (mgP/L)	0.008	0.002						
17	SiO2 (mg/L)	10.9	7.0	15.0	19.5		5.5	15.4	
18	SO4 (mg/L)	34.2	41.0	17.6	18.2		10.2	9.3	
19	Turb (NTU)						8.6	1.6	
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.6	1.2	5.8	1.0		1.1	0.6	
2	COD (mg/L)	14.4	11.4	42.0	23.0			10.3	
3	DO (mg/L)		5.8	5.0	6.1		7.1	7.3	
4	DO_SAT% (%)		68	54	72		83	86	
5	FCol-MPN (MPN/100mL)	13000	900	3175	745			1370	
6	Tcol-MPN (MPN/100mL)	19500	16000	7475	8850			16250	
	TRACE & TOXIC								
1	As (µg/L)			1.00	2.13		0.23	0.04	
2	Cd (µg/L)	1.29		0.02	0.04		0.00	0.01	
3	Cr (µg/L)	7.43		11.32	0.78		0.21	0.07	
4	Cu (µg/L)	5.21		1.25	4.43		1.74	0.88	
5	Fe (mg/L)	1.4	5.2	0.0	0.0		0.1	0.0	
6	Hg (µg/L)						0.00	0.02	
7	Ni (µg/L)	-0.50		1.59	1.88		1.38	0.41	
8	Pb (µg/L)	1.52		1.00	0.16		0.26	0.05	
9	Zn (µg/L)	10.00		3.20	10.00		4.36	2.13	
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	104	128	72	142		43	67	
2	HAR_Total (mgCaCO3/L)	147	177	139	155		82	126	
3	Na% (%)	28	42	39	36		29	30	
4	RSC (-)	0.0	0.0	0.1	0.0		0.2	0.2	
5	SAR (-)	1.0	2.0	1.6	1.5		0.8	1.0	
	PESTICIDES								

Sample not submitted for analysis in Winter 2015-2016 to 2016-2017 and 2020-2021 due to NO Flow/ Dry bedCondition.

Sample not submitted for analysis in summer 2015-2023due to NO Flow Condition.

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Cholachguda (Seasonal)**	**Code**	:	**AKS00H1**
State	:	Karnataka	District		Bagalkot
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Malaprabha	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Malaprabha
Division	:	CAUVERY DIVISION	Sub-Division	:	MKSD BAGALKOTE
Drainage Area	:	9373 Sq. Km.	Bank	:	Left
Latitude	:	15°52'43"	Longitude	:	75°43'16"
		Opening Date	Closing Date		
Gauge	:	01-06-1982			
Discharge	:	01-06-1982			
Sediment	:	01-06-1982			
Water Quality	:	01-06-1982			

Water Quality Datasheet for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters		13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
			A	A	A	A	A
	PHYSICAL						
1	Q (cumec)		5.021	18.43	7.239	23.71	22.68
2	Colour_Cod (-)		Clear	Light Brown	Clear	Light Brown	Light Brown
3	EC_GEN (µmho/cm)		2500	545	2590	1075	1111
4	Odour_Code (-)		odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)		7.9	8.1	8.1	8.2	8.5
6	TDS (mg/L)		1422	404	147	638	642
7	Temp (deg C)		25.0	25.0	25.0	23.0	24.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	0.0	16.4
2	ALK-TOT (mgCaCO3/L)		230	119	316	193	189
3	B (mg/L)		0.13	0.14	0.24	0.33	0.37
4	Ca (mg/L)		87	21	119	69	68
5	Cl (mg/L)		579.0	74.9	629.4	216.2	196.0
6	CO3 (mg/L)		0.0	0.0	0.0	0.0	19.8
7	F (mg/L)		0.49	0.73	0.05	0.59	0.36
8	HCO3 (mg/L)		280	146	385	236	190
9	K (mg/L)		6.0	3.5	8.2	7.2	7.5
10	Mg (mg/L)		69.6	9.1	63.5	34.9	27.8
11	Na (mg/L)	**Sample not submitted for analysis for 1st week of June-2022 , due to NO FLOW condition of the River**	330.5	79.9	380.4	131.1	139.3
12	NO2+NO3 (mg N/L)		NA	NA	NA	NA	NA
13	NO2-N (mgN/L)		0.00	0.00	0.06	0.01	0.01
14	NO3-N (mgN/L)		NA	NA	NA	NA	NA
15	o-PO4-P (mg P/L)		0.072	0.021	0.000	0.000	0.000
16	SiO2 (mg/L)		49.5	14.7	16.1	7.4	15.2
17	SO4 (mg/L)		67.6	44.1	71.3	58.6	69.6
18	Turb (NTU)		33.6	3.0	6.7	8.4	6.7
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD (mg/L)		4.0	2.0	3.1	2.7	0.7
2	COD (mg/L)		13.0	4.0	36.0	32.0	11.0
3	DO (mg/L)		7.0	7.0	7.9	5.8	6.4
4	DO_SAT% (%)		85	85	96	68	76
5	FCol-MPN (MPN/100mL)		450	600	4000	1700	1700
6	Tcol-MPN (MPN/100mL)		28000	28000	54000	4900	22000
	TRACE & TOXIC						
1	As (µg/L)		1.32	2.16	0.03	0.78	0.74
2	Cd (µg/L)		0.01	0.02	0.00	0.01	0.01
3	Cr (µg/L)		0.00	2.60	0.71	0.83	0.44
4	Cu (µg/L)		2.17	3.64	2.05	2.27	2.47
5	Fe (mg/L)		0.0	0.1	0.3	0.1	0.2
6	Hg (µg/L)		0.00	0.00	0.52	0.09	0.20
7	Ni (µg/L)		1.83	1.46	0.65	1.91	1.61
8	Pb (µg/L)		0.00	0.13	0.56	0.13	0.42
9	Zn (µg/L)		2.40	2.93	15.04	13.41	4.07
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)		219	53	297	172	169
2	HAR_Total (mgCaCO3/L)		509	91	562	317	285
3	Na% (%)		58	65	59	47	51
4	RSC (-)		0.0	0.6	0.0	0.0	0.0
5	SAR (-)		6.4	3.7	7.0	3.2	3.6

Water Quality Datasheet for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	78.20	58.23	28.66	337.5	173.3	121.9
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	911	896	1388	262	573	898
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.1	8.2	8.1	8.1	8.1
6	TDS (mg/L)	586	600	840	154	340	622
7	Temp (deg C)	23.0	24.0	26.0	26.0	23.0	23.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	182	197	227	100	128	150
3	B (mg/L)	0.63	0.57	0.62	0.36	0.05	0.17
4	Ca (mg/L)	43	32	59	16	20	44
5	Cl (mg/L)	140.2	130.3	245.7	14.9	77.0	131.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.44	0.33	0.24	0.63	0.23	0.17
8	HCO3 (mg/L)	222	241	276	122	157	183
9	K (mg/L)	6.1	5.9	6.2	4.0	3.3	4.8
10	Mg (mg/L)	26.0	29.9	44.3	6.4	18.5	33.3
11	Na (mg/L)	120.4	127.0	164.5	33.9	72.5	90.7
12	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
13	NO2-N (mgN/L)	0.07	0.01	0.01	0.06	0.03	0.08
14	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
15	o-PO4-P (mg P/L)	0.010	0.000	0.031	0.010	0.031	0.000
16	SiO2 (mg/L)	14.3	14.0	15.6	24.7	21.6	16.1
17	SO4 (mg/L)	65.3	59.1	102.2	21.2	62.2	142.5
18	Turb (NTU)	28.0	124.0	75.7	189.0	150.0	180.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	1.4	0.6	3.9	2.4	0.7	3.3
2	COD (mg/L)	15.0	3.0	7.0	7.5	10.0	10.0
3	DO (mg/L)	6.4	6.6	6.6	4.9	6.6	6.3
4	DO_SAT% (%)	75	78	81	60	77	73
5	FCol-MPN (MPN/100mL)	3900	2600	2200	2600	4000	3200
6	Tcol-MPN (MPN/100mL)	2800	22000	160000	140000	54000	160000
	TRACE & TOXIC						
1	As (µg/L)	0.91	0.67	0.52	0.75	0.24	0.52
2	Cd (µg/L)	0.00	0.00	0.00	0.01	0.00	0.23
3	Cr (µg/L)	0.55	2.27	0.04	17.82	0.54	0.85
4	Cu (µg/L)	3.21	3.30	1.39	3.16	2.46	2.36
5	Fe (mg/L)	0.0	0.1	0.0	0.7	0.3	0.3
6	Hg (µg/L)	0.11	0.11	0.15	0.03	0.01	0.30
7	Ni (µg/L)	1.67	1.45	0.84	3.03	1.39	1.82
8	Pb (µg/L)	0.00	0.05	0.00	0.41	0.12	0.15
9	Zn (µg/L)	8.74	10.05	5.45	8.85	2.95	5.64
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	108	81	147	41	51	110
2	HAR_Total (mgCaCO3/L)	216	206	332	68	127	249
3	Na% (%)	54	57	51	50	55	44
4	RSC (-)	0.0	0.0	0.0	0.7	0.0	0.0
5	SAR (-)	3.6	3.9	3.9	1.8	2.8	2.5

Water Quality Datasheet for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	658.8	159.2	365.6	16.95	27.13	35.46
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Clear	Light Brown
3	EC_GEN (µmho/cm)	358	466	475	2090	2000	1340
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.0	8.1	8.2	8.2	8.2	8.2
6	TDS (mg/L)	224	280	304	1440	1313	899
7	Temp (deg C)	26.0	23.0	23.0	24.0	24.0	23.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	118	131	123	330	256	170
3	B (mg/L)	0.22	0.05	0.10	0.11	0.25	0.51
4	Ca (mg/L)	23	27	28	107	106	66
5	Cl (mg/L)	32.0	58.6	50.4	392.6	383.8	229.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.40	0.42	0.40	0.04	0.32	0.27
8	HCO3 (mg/L)	144	159	150	402	312	208
9	K (mg/L)	1.9	2.6	3.5	2.0	6.0	6.0
10	Mg (mg/L)	10.0	13.5	9.1	74.4	80.2	47.6
11	Na (mg/L)	39.7	52.0	57.0	210.1	183.1	135.1
12	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
13	NO2-N (mgN/L)	0.10	0.06	0.04	0.03	0.03	0.01
14	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
15	o-PO4-P (mg P/L)	0.000	0.010	0.021	0.010	0.031	0.000
16	SiO2 (mg/L)	8.7	8.6	15.9	13.2	12.0	12.4
17	SO4 (mg/L)	16.1	27.6	40.7	160.8	184.8	172.8
18	Turb (NTU)	404.7	941.6	633.7	8.4	11.9	23.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	2.5	1.9	1.0	0.8	0.7	0.7
2	COD (mg/L)	18.0	39.0	125.0	11.0	26.0	21.0
3	DO (mg/L)	6.5	6.9	5.9	6.7	7.5	7.5
4	DO_SAT% (%)	80	80	69	80	89	87
5	FCol-MPN (MPN/100mL)	1400	1700	1400	1700	1400	680
6	Tcol-MPN (MPN/100mL)	3300	3900	13000	54000	13000	35000
	TRACE & TOXIC						
1	As (µg/L)	0.32	0.50	0.57	0.35	NA	NA
2	Cd (µg/L)	0.00	0.00	0.01	0.00	NA	NA
3	Cr (µg/L)	2.23	1.43	2.76	0.13	NA	NA
4	Cu (µg/L)	5.49	2.38	2.34	0.73	NA	NA
5	Fe (mg/L)	0.9	0.5	1.3	0.1	NA	NA
6	Hg (µg/L)	0.02	0.01	0.00	0.00	NA	NA
7	Ni (µg/L)	3.53	2.37	3.54	0.90	NA	NA
8	Pb (µg/L)	0.60	0.25	0.58	0.03	NA	NA
9	Zn (µg/L)	16.33	14.75	6.21	1.45	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	59	67	71	268	265	165
2	HAR_Total (mgCaCO3/L)	100	123	109	577	599	363
3	Na% (%)	46	47	52	44	40	44
4	RSC (-)	0.4	0.2	0.3	0.0	0.0	0.0
5	SAR (-)	1.7	2.0	2.4	3.8	3.3	3.1

Water Quality Datasheet for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	12-01-2023	24-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	42.37	47.83	44.84	33.66	44.81	24.14
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Clear	Clear
3	EC_GEN (µmho/cm)	1041	967	645	1004	878	1055
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.1	8.2	8.2	8.4	8.3
6	TDS (mg/L)	646	620	624	695	492	762
7	Temp (deg C)	22.5	22.0	23.0	24.0	17.0	19.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	6.0	13.7	14.9
2	ALK-TOT (mgCaCO3/L)	230	235	164	160	161	161
3	B (mg/L)	0.13	0.11	0.20	0.12	0.24	0.27
4	Ca (mg/L)	60	49	60	43	46	44
5	Cl (mg/L)	138.5	113.2	172.5	180.3	150.9	192.4
6	CO3 (mg/L)	0.0	0.0	0.0	7.2	16.5	18.0
7	F (mg/L)	0.40	0.36	0.42	0.42	0.37	0.29
8	HCO3 (mg/L)	281	287	200	181	163	160
9	K (mg/L)	4.0	4.0	4.0	9.0	4.0	5.0
10	Mg (mg/L)	42.3	46.7	32.1	38.8	36.7	40.7
11	Na (mg/L)	86.0	74.0	83.0	106.1	95.0	118.1
12	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
13	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
14	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
15	o-PO4-P (mg P/L)	NA	NA	NA	0.010	0.000	0.010
16	SiO2 (mg/L)	12.4	13.4	13.9	9.2	8.7	9.6
17	SO4 (mg/L)	75.2	78.4	73.4	76.5	61.6	82.2
18	Turb (NTU)	34.9	18.9	5.4	0.8	6.3	5.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	0.6	2.0	1.4	2.9	2.0	0.2
2	COD (mg/L)	8.0	13.0	18.0	13.0	7.0	13.0
3	DO (mg/L)	6.8	7.0	6.1	6.6	7.3	7.7
4	DO_SAT% (%)	78	80	71	78	76	83
5	FCol-MPN (MPN/100mL)	2700	1400	1400	4900	2600	2200
6	Tcol-MPN (MPN/100mL)	54000	35000	35000	22000	4600	22000
	TRACE & TOXIC						
1	As (µg/L)	NA	NA	0.88	0.53	0.21	0.61
2	Cd (µg/L)	NA	NA	0.65	0.02	0.02	0.03
3	Cr (µg/L)	NA	NA	14.41	3.89	3.71	2.19
4	Cu (µg/L)	NA	NA	6.11	2.79	1.89	2.19
5	Fe (mg/L)	NA	NA	6.6	0.6	0.3	0.4
6	Hg (µg/L)	NA	NA	0.03	0.00	0.00	0.00
7	Ni (µg/L)	NA	NA	11.68	3.23	1.03	2.77
8	Pb (µg/L)	NA	NA	16.63	10.14	5.04	2.23
9	Zn (µg/L)	NA	NA	42.14	9.19	2.18	3.99
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	151	123	150	109	115	111
2	HAR_Total (mgCaCO3/L)	327	317	283	270	268	281
3	Na% (%)	36	33	39	45	43	47
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.1	1.8	2.2	2.8	2.5	3.1

Water Quality Datasheet for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water Analysis** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	01-02-2023	14-02-2023	21-02-2023	01-03-2023	
		A	A	A	A	
	PHYSICAL					
1	Q (cumec)	31.14	25.64	25.49	21.17	
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	852	853	967	839	
4	Odour_Code (-)	odour free	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.4	8.4	8.5	8.4	
6	TDS (mg/L)	488	506	590	558	
7	Temp (deg C)	19.0	20.0	21.0	21.0	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	24.9	8.5	26.1	19.9	
2	ALK-TOT (mgCaCO3/L)	175	169	159	152	
3	B (mg/L)	0.21	0.20	0.23	0.14	
4	Ca (mg/L)	60	55	51	40	
5	Cl (mg/L)	53.6	149.8	182.8	157.3	
6	CO3 (mg/L)	30.0	10.2	31.5	24.0	
7	F (mg/L)	0.30	0.30	0.32	0.29	
8	HCO3 (mg/L)	152	185	129	137	
9	K (mg/L)	2.8	3.0	2.9	3.5	
10	Mg (mg/L)	12.5	26.6	38.4	35.5	
11	Na (mg/L)	84.1	85.4	93.8	95.5	**Sample not submitted for analysis from 2nd week of March-2023 to May-2023 , due to NO FLOW condition of the River**
12	NO2+NO3 (mg N/L)	NA	NA	NA	4.37	
13	NO2-N (mgN/L)	0.01	0.01	0.01	0.01	
14	NO3-N (mgN/L)	NA	NA	NA	4.36	
15	o-PO4-P (mg P/L)	0.052	0.021	0.021	0.000	
16	SiO2 (mg/L)	9.3	11.1	13.1	12.2	
17	SO4 (mg/L)	45.6	58.8	67.4	58.8	
18	Turb (NTU)	21.8	29.3	33.5	43.3	
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD (mg/L)	0.8	1.8	1.9	2.8	
2	COD (mg/L)	6.0	11.0	13.0	16.0	
3	DO (mg/L)	7.4	5.8	7.4	7.2	
4	DO_SAT% (%)	80	64	83	81	
5	FCol-MPN (MPN/100mL)	1400	1300	400	34000	
6	Tcol-MPN (MPN/100mL)	11000	3300	2300	350000	
	TRACE & TOXIC					
1	As (µg/L)	0.34	0.46	0.07	0.47	
2	Cd (µg/L)	0.05	0.02	0.02	0.01	
3	Cr (µg/L)	1.53	7.01	2.21	2.47	
4	Cu (µg/L)	8.89	5.81	2.00	2.74	
5	Fe (mg/L)	0.2	0.8	0.5	1.7	
6	Hg (µg/L)	0.00	0.00	0.00	0.00	
7	Ni (µg/L)	4.99	6.49	3.34	0.53	
8	Pb (µg/L)	4.12	5.68	3.10	12.14	
9	Zn (µg/L)	6.92	3.10	2.35	7.79	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	151	138	127	100	
2	HAR_Total (mgCaCO3/L)	203	249	287	247	
3	Na% (%)	47	43	41	45	
4	RSC (-)	0.0	0.0	0.0	0.0	
5	SAR (-)	2.6	2.4	2.4	2.7	

Water Quality Summary for the period : 2022-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **Sub-Division : MKSD BAGALKOTE**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1975	0.000	76.83
2	EC_GEN (µmho/cm)	27	2590	262	1058
3	pH_GEN (pH units)	27	8.5	7.9	8.2
4	TDS (mg/L)	27	1440	147	624
5	Temp (deg C)	27	26.0	17.0	22.9
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	27	26.1	0.0	4.8
2	ALK-TOT (mgCaCO3/L)	27	330	100	182
3	B (mg/L)	27	0.63	0.05	0.25
4	Ca (mg/L)	27	119	16	54
5	Cl (mg/L)	27	629.4	14.9	187.9
6	CO3 (mg/L)	27	31.5	0.0	5.8
7	F (mg/L)	27	0.73	0.04	0.35
8	HCO3 (mg/L)	27	402	122	211
9	K (mg/L)	27	9.0	1.9	4.7
10	Mg (mg/L)	27	80.2	6.4	35.1
11	Na (mg/L)	27	380.4	33.9	121.1
12	NO2+NO3 (mg N/L)	1	4.37	4.37	4.37
13	NO2-N (mgN/L)	27	0.10	0.00	0.02
14	NO3-N (mgN/L)	1	4.36	4.36	4.36
15	o-PO4-P (mg P/L)	24	0.072	0.000	0.015
16	SiO2 (mg/L)	27	49.5	7.4	14.5
17	SO4 (mg/L)	27	184.8	16.1	75.7
18	Turb (NTU)	27	941.6	0.8	112.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD (mg/L)	27	4.0	0.2	1.8
2	COD (mg/L)	27	125.0	3.0	18.8
3	DO (mg/L)	27	7.9	4.9	6.7
4	DO_SAT% (%)	27	96	60	78
5	FCol-MPN (MPN/100mL)	27	34000	400	3242
6	Tcol-MPN (MPN/100mL)	27	350000	2300	49522
	TRACE & TOXIC				
1	As (µg/L)	23	2.16	0.03	0.61
2	Cd (µg/L)	23	0.65	0.00	0.05
3	Cr (µg/L)	23	17.82	0.00	3.09
4	Cu (µg/L)	23	8.89	0.73	3.13
5	Fe (mg/L)	23	6.6	0.0	0.7
6	Hg (µg/L)	23	0.52	0.00	0.07
7	Ni (µg/L)	23	11.68	0.65	2.82
8	Pb (µg/L)	23	16.63	0.00	2.72
9	Zn (µg/L)	23	42.14	1.45	8.52
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	27	297	41	134
2	HAR_Total (mgCaCO3/L)	27	599	68	280
3	Na% (%)	27	65	33	48
4	RSC (-)	27	0.7	0.0	0.1
5	SAR (-)	27	7.0	1.7	3.1

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Flood								
		Jun - Oct								
		2008	2009	2010	2011	2012	2013	2014	2015	2016
	PHYSICAL									
1	Q (cumec)	33.96	292.9	13.19	22.72	2.660	36.55	13.14	133.4	10.62
2	EC_FLD (µmho/cm)	259	263	266	270	270	275	584	548	550
3	EC_GEN (µmho/cm)	1022	1645	966	798	541	440	589	314	559
4	pH_FLD (pH units)	7.3	7.4	7.3	7.3	7.1	7.2	7.1	7.2	7.1
5	pH_GEN (pH units)	7.8	7.8	8.2	7.9	7.3	7.6	7.8	7.9	8.2
6	TDS (mg/L)									
7	Temp (deg C)	22.5	22.5	23.7	22.5	21.0	25.8	25.5	23.0	23.3
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	84	153	157	139	97	95	117	97	102
3	B (mg/L)	0.20	0.26	0.39	0.11	0.15	0.13	0.05	0.08	0.07
4	Ca (mg/L)	36	53	60	54	37	29	38	34	22
5	Cl (mg/L)	72.4	153.5	167.4	60.4	77.1	63.1	73.3	51.6	89.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.73	0.69	0.54	0.38	0.40	0.58	0.48	0.56	0.70
8	HCO3 (mg/L)	103	186	192	169	118	115	143	118	125
9	K (mg/L)	3.9	0.9	4.9	2.1	2.0	2.2	2.2	1.3	1.7
10	Mg (mg/L)	10.2	17.9	20.1	7.8	11.7	9.1	12.6	3.9	10.7
11	Na (mg/L)	48.2	89.8	100.0	42.0	54.1	45.5	48.5	38.0	63.0
12	NO2+NO3 (mg N/L)	1.52	1.26	0.45	1.09	1.13	1.24	1.66	1.57	2.55
13	NO2-N (mgN/L)	0.01	0.01	0.01	0.00	0.24	0.00	0.01	0.01	0.03
14	NO3-N (mgN/L)	1.51	1.25	0.44	1.09	0.89	1.24	1.65	1.56	2.52
15	o-PO4-P (mg P/L)									
16	P-Tot (mgP/L)	0.041	0.016	0.013	0.016	0.049	0.014	0.012	0.008	0.023
17	SiO2 (mg/L)	9.3	6.8	5.9	8.3	0.0	0.6	11.1	2.3	3.1
18	SO4 (mg/L)	48.9	60.0	26.5	28.4	46.6	29.0	37.0	20.3	32.0
19	Turb (NTU)									
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	2.1	0.9	0.5	1.0	1.8	1.2	1.9	1.6	0.8
2	COD (mg/L)	3.8	5.9	4.4	4.3	10.6	10.1	16.7	15.0	5.8
3	DO (mg/L)	7.1	7.1	7.1	7.2	7.1	7.6	7.7	7.8	7.8
4	DO_SAT% (%)	81	82	83	82	80	93	94	91	90
5	FCol-MPN (MPN/100mL)		35000	9600	64000	33000	26933	15100		9500
6	Tcol-MPN (MPN/100mL)		54000	13667	90000	49000	65667	23267		9500
7	TOC (mg/L)									
	TRACE & TOXIC									
1	As (µg/L)					14.56	1.69			
2	Cd (µg/L)					0.11	1.62			
3	Cr (µg/L)					1.42	4.94			
4	Cu (µg/L)					6.54	4.23			
5	Fe (mg/L)	0.2	0.6	0.3	0.1	0.0	0.9	2.1	2.0	2.1
6	Hg (µg/L)						0.48			
7	Ni (µg/L)					13.34	18.23			
8	Pb (µg/L)					0.92	-0.50			
9	Zn (µg/L)					4.31	-0.05			
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	89	132	150	134	92	72	96	84	54
2	HAR_Total (mgCaCO3/L)	131	207	233	167	141	110	149	100	99
3	Na% (%)	37	49	48	36	45	45	41	45	58
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
5	SAR (-)	1.7	2.8	2.9	1.5	2.0	1.8	1.8	1.7	2.8
	PESTICIDES									
1	Aldrin (µg/L)									
2	BHC (µg/L)									
3	DDT (µg/L)									
4	Dieldrin (µg/L)									
5	Endos (µg/L)									

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Flood						Winter	
		Jun - Oct						Nov - Feb	
		2017	2018	2019	2020	2021	2022	2008-2009	2009-2010
	PHYSICAL								
1	Q (cumec)	186.9	No flow	80.35	53.55	50.78	147.0	32.14	14.51
2	EC_FLD (µmho/cm)	580	Dry bed					265	873
3	EC_GEN (µmho/cm)	224		459	838	1052	1003	394	2381
4	pH_FLD (pH units)	7.2						7.6	7.3
5	pH_GEN (pH units)	8.0		7.7	7.9	8.1	8.1	8.1	8.0
6	TDS (mg/L)			313	593	792	515		
7	Temp (deg C)	23.5		22.7	22.0	22.9	24.2	23.3	17.8
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0	1.2	0.5	0.0
2	ALK-TOT (mgCaCO3/L)	57		94	171	183	172	96	126
3	B (mg/L)	0.14		0.12	0.13	0.30	0.28	0.17	0.48
4	Ca (mg/L)	16		33	47	56	47	29	49
5	Cl (mg/L)	13.6		66.7	133.8	181.8	184.0	49.1	154.1
6	CO3 (mg/L)	0.0		0.0	0.0	0.0	1.4	0.6	0.0
7	F (mg/L)	0.62		0.15	0.19	0.26	0.39	0.60	0.17
8	HCO3 (mg/L)	70		115	208	222	207	115	154
9	K (mg/L)	1.1		2.1	4.3	5.3	5.1	1.4	9.8
10	Mg (mg/L)	5.8		13.3	28.2	29.8	28.3	10.2	17.7
11	Na (mg/L)	9.3		45.7	91.4	119.9	129.9	32.6	85.5
12	NO2+NO3 (mg N/L)	1.56		2.08	2.43	4.10		1.38	2.73
13	NO2-N (mgN/L)	0.00		0.05	0.01	0.03	0.04	0.16	0.01
14	NO3-N (mgN/L)	1.56		2.03	2.42	4.68		1.23	2.72
15	o-PO4-P (mg P/L)			0.017	0.021	0.019	0.015		
16	P-Tot (mgP/L)	0.008						0.038	0.006
17	SiO2 (mg/L)	2.7		18.5	13.3	7.7	17.3	5.8	8.8
18	SO4 (mg/L)	16.7		38.7	43.7	62.5	60.6	23.9	38.2
19	Turb (NTU)					161.9	199.0		
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)	2.7		1.0	0.5	1.2	2.2	0.6	0.5
2	COD (mg/L)	20.0		15.0		16.5	23.6	4.0	4.2
3	DO (mg/L)	7.7		7.6	6.5	6.1	6.5	7.3	7.2
4	DO_SAT% (%)	90		88	74	70	77	85	76
5	FCol-MPN (MPN/100mL)	5000		2367	895	1310	2246		51350
6	Tcol-MPN (MPN/100mL)	16000		60300	4500	10515	49707		88300
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)			0.98		1.30	0.72		
2	Cd (µg/L)			0.68		0.02	0.02		
3	Cr (µg/L)			5.53		1.01	2.36		
4	Cu (µg/L)			1.82		2.59	2.76		
5	Fe (mg/L)	2.4		0.2	0.3	0.1	0.4	0.2	0.5
6	Hg (µg/L)					1.93	0.11		
7	Ni (µg/L)			12.65		1.16	1.94		
8	Pb (µg/L)			0.04		0.26	0.24		
9	Zn (µg/L)			14.90		5.27	8.34		
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	40		81	117	139	117	72	123
2	HAR_Total (mgCaCO3/L)	64		137	234	264	235	114	197
3	Na% (%)	24		43	46	47	53	39	46
4	RSC (-)	0.0		0.1	0.0	0.0	0.2	0.1	0.0
5	SAR (-)	0.5		1.8	2.6	3.1	3.5	1.3	2.7
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Winter						
		Nov - Feb						
		2010-2011	2011-2012	2013-2014	2014-2015		2019-2020	2020-2021
	PHYSICAL							
1	Q (cumec)	15.59	31.03	6.313	10.15		43.90	12.13
2	EC_FLD (µmho/cm)	270	273	240	610			
3	EC_GEN (µmho/cm)	999	520	1820	953		673	784
4	pH_FLD (pH units)	7.2	7.2	7.1	7.2			
5	pH_GEN (pH units)	7.9	7.9	6.9	8.3		7.8	8.0
6	TDS (mg/L)						445	548
7	Temp (deg C)	19.0	19.4	20.0	23.0		22.9	23.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	154	117	140	148		130	133
3	B (mg/L)	0.26	0.12	0.09	0.08		0.25	
4	Ca (mg/L)	63	43	58	66		40	42
5	Cl (mg/L)	172.6	71.4	158.5	184.0		114.8	153.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0		0.0	0.0
7	F (mg/L)	1.02	0.35	0.40	0.29		0.14	
8	HCO3 (mg/L)	188	143	171	181		158	162
9	K (mg/L)	3.4	2.0	3.1	2.9		2.7	3.4
10	Mg (mg/L)	20.4	8.7	15.6	21.4		25.4	28.2
11	Na (mg/L)	110.0	45.2	103.5	95.5		65.5	82.1
12	NO2+NO3 (mg N/L)	0.85	1.12	1.66	2.18		1.75	1.95
13	NO2-N (mgN/L)	0.01	0.01	0.00	0.01		0.02	0.01
14	NO3-N (mgN/L)	0.84	1.12	1.66	2.17		1.73	1.93
15	o-PO4-P (mg P/L)						0.031	0.010
16	P-Tot (mgP/L)	0.054	0.026	0.012	0.009			
17	SiO2 (mg/L)	6.8	7.4	2.8	89.6		16.6	13.1
18	SO4 (mg/L)	44.1	33.4	60.0	50.7		37.4	59.0
19	Turb (NTU)							
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	1.0	0.7	0.3	1.1		1.2	0.8
2	COD (mg/L)	7.6	3.9	2.3	10.6		19.8	
3	DO (mg/L)	7.1	7.1	7.8	7.8		7.5	6.6
4	DO_SAT% (%)	77	77	86	91		88	77
5	FCol-MPN (MPN/100mL)	11000	90500	240000	7800		1000	
6	Tcol-MPN (MPN/100mL)	14000	134750	920000	13000		2050	
7	TOC (mg/L)							
	TRACE & TOXIC							
1	As (µg/L)						3.05	
2	Cd (µg/L)				0.26		0.04	
3	Cr (µg/L)				35.31		1.57	
4	Cu (µg/L)				15.98		3.16	
5	Fe (mg/L)	0.2	0.2	2.8	0.0		0.2	
6	Hg (µg/L)							
7	Ni (µg/L)				-0.50		9.30	
8	Pb (µg/L)				1.59		0.45	
9	Zn (µg/L)				10.00		8.80	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	156	107	144	164		99	104
2	HAR_Total (mgCaCO3/L)	241	144	209	253		205	221
3	Na% (%)	49	39	52	45		39	44
4	RSC (-)	0.0	0.0	0.0	0.0		0.0	0.0
5	SAR (-)	3.1	1.6	3.1	2.6		2.0	2.4
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Sample not submitted for analysis in Winter 2012-2012 and 2015-2016 to 2018-2019 due to NO FLOW / Dry Bed condition of the River

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Cholachguda (Seasonal) (AKS00H1) **Division : CAUVERY DIVISION**

Local River : Malaprabha **River Water** **Sub-Division : MKSD BAGALKOTE**

S.No	Parameters	Winter		Summer					
		Nov - Feb		Mar - May					
		2021-2022	2022-2023	2009	2010	2020		2022	2023
	PHYSICAL								
1	Q (cumec)	50.92	33.29	19.50		19.92		23.19	21.17
2	EC_FLD (µmho/cm)			280	270				
3	EC_GEN (µmho/cm)	887	1141	884	547	571		811	839
4	pH_FLD (pH units)			7.6	7.2				
5	pH_GEN (pH units)	8.1	8.3	8.0	8.1	7.9		8.2	8.4
6	TDS (mg/L)	565	756			328		540	558
7	Temp (deg C)	22.5	21.5	23.0	18.5	22.0		22.5	21.0
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	1.7	7.8	0.0	0.0	0.0		3.0	19.9
2	ALK-TOT (mgCaCO3/L)	152	197	84	128	130		211	152
3	B (mg/L)		0.21	0.00	0.60	0.12		0.13	0.14
4	Ca (mg/L)	42	62	33	41	31		39	40
5	Cl (mg/L)	147.5	195.0	115.5	68.7	93.4		108.3	157.3
6	CO3 (mg/L)	2.0	9.4	0.0	0.0	0.0		3.6	24.0
7	F (mg/L)	0.37	0.32	1.05	0.20	0.15		0.34	0.28
8	HCO3 (mg/L)	181	222	103	156	159		250	137
9	K (mg/L)	4.2	4.4	1.1	15.7	3.2		2.8	3.5
10	Mg (mg/L)	27.6	43.1	33.5	24.5	20.5		25.6	35.5
11	Na (mg/L)	106.5	112.8	27.1	40.0	55.4		99.4	95.5
12	NO2+NO3 (mg N/L)	0.01		0.85	1.90	1.33			4.37
13	NO2-N (mgN/L)	0.01	0.01	0.20	0.01	0.01		0.14	0.01
14	NO3-N (mgN/L)	0.00		0.65	1.89	1.32			4.36
15	o-PO4-P (mg P/L)	0.026	0.017			0.010		0.005	0.000
16	P-Tot (mgP/L)			0.010	0.015				
17	SiO2 (mg/L)	15.2	11.5	6.4	4.6	12.6		15.6	12.2
18	SO4 (mg/L)	49.8	94.8	23.7	40.9	24.5		31.8	58.8
19	Turb (NTU)	55.6	16.6					15.6	43.3
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)	1.5	1.3	1.1	1.1	1.4		2.5	2.8
2	COD (mg/L)	15.0	13.3	4.6	6.8	16.0		8.0	16.0
3	DO (mg/L)	7.0	7.0	7.2	7.2	7.5		8.0	7.2
4	DO_SAT% (%)	81	79	84	76	86		92	81
5	FCol-MPN (MPN/100mL)		1840		35000			93	34000
6	Tcol-MPN (MPN/100mL)		24267		54000			9200	350000
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)	0.92	0.43					0.78	0.65
2	Cd (µg/L)	0.00	0.10					0.01	0.01
3	Cr (µg/L)	0.57	4.30					0.21	3.59
4	Cu (µg/L)	2.69	3.80					2.53	2.89
5	Fe (mg/L)	0.0	1.2	0.0	0.4	0.3		0.0	1.7
6	Hg (µg/L)	0.00	0.00					0.28	0.00
7	Ni (µg/L)	0.87	4.30					0.95	3.33
8	Pb (µg/L)	0.15	5.87					0.07	12.14
9	Zn (µg/L)	3.82	8.92					3.77	7.79
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	104	156	82	103	77		97	100
2	HAR_Total (mgCaCO3/L)	219	335	222	205	163		203	247
3	Na% (%)	51	42	21	28	42		52	45
4	RSC (-)	0.0	0.0	0.0	0.0	0.0		0.3	0.0
5	SAR (-)	3.2	2.7	0.8	1.2	1.9		3.2	2.7
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Sample not submitted for analysis in Summer 2011 to 2019 and 2021 due to NO FLOW / Dry Bed condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Deosugur**	**Code**	:	**AK000L7**
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	:	129500 Sq. Km.	Bank	:	Right
Latitude	:	16°24'52"	Longitude	:	77°21'26"
		Opening Date	Closing Date		
Gauge	:	30-07-1963			
Discharge	:	10-08-1964	01-11-1974		
Sediment	:	01-06-1965	01-11-1974		
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)			GQ Site			
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Brown
3	EC_GEN (µmho/cm)	1575	1384	1210	1375	1289	461
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.6	8.4	8.5	8.5	8.1
6	TDS (mg/L)	961	1002	1047	995	1003	350
7	Temp (deg C)	25.0	26.0	26.0	27.0	25.0	26.0
8	Turb (NTU)	2.0	11.0	6.0	12.0	17.0	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	28.7	31.5	15.2	17.4	17.1	0.0
2	ALK-TOT (mgCaCO3/L)	204	197	180	201	184	69
3	B (mg/L)	0.22	0.11		0.97	0.96	1.23
4	Ca (mg/L)	52	55	45	61	62	35
5	Cl (mg/L)	227.2	188.8	182.0	201.0	255.0	67.7
6	CO3 (mg/L)	34.6	38.0	18.3	21.0	20.6	0.0
7	F (mg/L)	0.91	0.87	0.83	1.14	1.10	0.31
8	Fe (mg/L)	0.1	0.2	0.3	0.2	0.1	1.8
9	HCO3 (mg/L)	178	163	183	203	183	84
10	K (mg/L)	4.9	5.3	4.5	3.4	4.6	1.3
11	Mg (mg/L)	37.0	40.0	34.4	36.0	32.2	17.2
12	Na (mg/L)	190.0	139.7	161.6	188.0	155.2	33.6
13	NH3-N (mg N/L)	0.15	0.70		0.13	0.31	0.07
14	NO2+NO3 (mg N/L)	2.61	2.78	2.47	2.49	2.47	4.62
15	NO2-N (mgN/L)	0.01	0.05	0.14	0.01	0.00	0.01
16	NO3-N (mgN/L)	2.60	2.73	2.33	2.48	2.47	4.61
17	o-PO4-P (mg P/L)	0.170	0.250	0.320	0.190	0.260	0.230
18	SiO2 (mg/L)	15.0	25.0	9.5	8.9	11.0	3.9
19	SO4 (mg/L)	153.0	96.0	108.8	147.0	129.4	34.8
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.2	1.2	0.7	0.7	1.9	1.9
2	COD (mg/L)				3.8	5.9	9.3
3	DO (mg/L)	4.9	4.8	4.8	5.2	6.2	6.1
4	DO_SAT% (%)	59	59	59	65	75	75
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	2.6	0.4	2.4	0.2	1.6	0.1
2	Cr (µg/L)	7.5	4.8	8.4	0.6	0.0	8.8
3	Cu (µg/L)	6.5	3.7	2.7	5.4	1.3	2.4
4	Hg (µg/L)	0.0	0.0	0.1	0.0	0.0	0.0
5	Ni (µg/L)	7.9	0.4	0.0	7.5	7.2	5.8
6	Pb (µg/L)	11.0	5.0	0.0	8.0	0.0	27.0
7	Zn (µg/L)	7.4	2.0	14.5	6.5	0.7	79.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	130	138	112	153	155	88
2	HAR_Total (mgCaCO3/L)	284	305	255	303	289	159
3	Na% (%)	59	50	58	57	54	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.9	3.5	4.4	4.7	4.0	1.2
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Brown	Brown	Light Brown	Clear	Brown	Brown
3	EC_GEN (µmho/cm)	541	451	339	553	488	570
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.2	8.1	8.2	8.0	8.2
6	TDS (mg/L)	345	261	229	451	344	493
7	Temp (deg C)	26.0	25.0	27.0	26.0	23.0	24.0
8	Turb (NTU)	14.0	5.0	11.0	8.0	5.1	5.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	69	97	120	126	189	133
3	B (mg/L)	0.17	0.19	0.20	0.15	0.19	0.09
4	Ca (mg/L)	34	36	44	43	46	44
5	Cl (mg/L)	54.6	77.5	68.0	54.0	43.3	73.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.31	0.30	0.42	0.43	0.41	0.33
8	Fe (mg/L)	6.7	0.5	2.0	5.9	0.8	2.1
9	HCO3 (mg/L)	84	118	146	153	230	162
10	K (mg/L)	3.3	2.2	0.9	1.3	1.1	0.9
11	Mg (mg/L)	16.0	13.0	39.0	40.0	35.9	23.4
12	Na (mg/L)	49.3	35.0	17.7	37.4	33.1	35.6
13	NH3-N (mg N/L)	0.34	0.15	0.00	0.04	0.29	0.78
14	NO2+NO3 (mg N/L)	4.71	4.66	4.18	4.22	3.96	6.51
15	NO2-N (mgN/L)	0.03	0.03	0.07	0.02	0.02	0.04
16	NO3-N (mgN/L)	4.68	4.63	4.11	4.20	3.94	6.47
17	o-PO4-P (mg P/L)	0.495	0.200	0.420	0.250	0.200	0.170
18	SiO2 (mg/L)	12.5	9.3	26.0	17.0	7.9	19.7
19	SO4 (mg/L)	41.2	43.3	26.3	72.9	49.0	52.2
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	0.6	3.4	0.4	0.7	1.0	2.5
2	COD (mg/L)	2.0	23.7	2.0	5.7	7.2	20.6
3	DO (mg/L)	5.0	4.7	6.1	5.1	5.6	6.4
4	DO_SAT% (%)	62	57	77	63	65	76
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	2.9	3.4	0.0
2	Cr (µg/L)	14.0	0.0	0.0	1.8	1.1	2.7
3	Cu (µg/L)	8.7	3.3	4.6	8.6	4.6	3.3
4	Hg (µg/L)	0.1	0.3	0.0	0.0		
5	Ni (µg/L)	15.6	8.3	2.8	9.2	2.0	0.2
6	Pb (µg/L)	21.0	40.0	25.0	41.0	0.0	32.0
7	Zn (µg/L)	15.1	1.8	3.3	0.9	22.2	12.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	84	90	110	108	115	110
2	HAR_Total (mgCaCO3/L)	150	144	273	274	265	208
3	Na% (%)	41	34	12	23	21	27
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	1.3	0.5	1.0	0.9	1.1
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Clear	Light Brown	Light Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	682	569	645	772	941	1343
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.3	8.4	8.6	8.6	8.1
6	TDS (mg/L)	413	319	375	455	632	837
7	Temp (deg C)	24.0	24.0	24.0	23.0	23.0	25.0
8	Turb (NTU)	15.0	2.0	4.0	4.0	10.0	4.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	18.6	14.9	16.2	14.1	13.8	0.0
2	ALK-TOT (mgCaCO3/L)	132	145	137	177	182	226
3	B (mg/L)	0.07	0.07	0.28	0.35	0.36	0.18
4	Ca (mg/L)	44	37	37	45	46	54
5	Cl (mg/L)	73.3	60.0	66.3	88.6	107.7	98.8
6	CO3 (mg/L)	22.4	18.0	19.5	17.0	16.6	0.0
7	F (mg/L)	0.36	0.34	0.37	0.42	0.53	0.74
8	Fe (mg/L)	2.4	0.8	2.0	0.5	1.2	0.2
9	HCO3 (mg/L)	116	140	128	181	189	275
10	K (mg/L)	2.4	1.8	2.0	2.3	2.8	2.7
11	Mg (mg/L)	24.9	18.2	18.7	28.0	27.5	30.5
12	Na (mg/L)	63.3	49.4	52.5	59.2	90.4	134.3
13	NH3-N (mg N/L)	0.29	0.17	0.18	0.41	0.15	0.10
14	NO2+NO3 (mg N/L)	6.64	6.89	7.64	8.27	8.06	7.77
15	NO2-N (mgN/L)	0.04	0.02	0.04	0.02	0.02	0.02
16	NO3-N (mgN/L)	6.60	6.87	7.60	8.25	8.04	7.75
17	o-PO4-P (mg P/L)	0.220	0.482	0.116	0.085	0.240	0.235
18	SiO2 (mg/L)	18.8	8.0	10.7	18.0	15.9	11.1
19	SO4 (mg/L)	60.1	50.4	58.8	69.5	150.2	150.2
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	1.4	0.7	0.8	1.7	3.4	2.3
2	COD (mg/L)	3.8	3.8	1.9	12.0	18.2	16.2
3	DO (mg/L)	6.0	6.5	6.0	7.0	7.8	7.7
4	DO_SAT% (%)	71	77	71	82	91	93
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.8	0.0	0.0	1.7	0.3	1.1
2	Cr (µg/L)	1.1	0.1	0.0	0.6	0.0	4.9
3	Cu (µg/L)	3.3	2.7	3.3	4.2	4.0	2.7
4	Hg (µg/L)						
5	Ni (µg/L)	1.1	6.7	13.3	5.7	4.5	9.2
6	Pb (µg/L)	18.0	34.0	33.0	12.0	39.3	54.0
7	Zn (µg/L)	6.8	8.9	14.3	4.1	5.7	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	111	91	92	113	114	136
2	HAR_Total (mgCaCO3/L)	215	167	170	229	229	263
3	Na% (%)	39	39	40	36	46	52
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.9	1.7	1.8	1.7	2.6	3.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1130	1303	1259	1222	1243	1267
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.3	8.4	8.5	8.4	8.0
6	TDS (mg/L)	766	811	988	752	901	940
7	Temp (deg C)	23.0	21.0	24.0	23.0	23.0	27.0
8	Turb (NTU)	5.0	8.0	5.7	14.0	11.0	11.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	20.2	21.8	21.8	22.4	22.9	0.0
2	ALK-TOT (mgCaCO3/L)	204	188	193	179	176	189
3	B (mg/L)	0.41	0.36	0.30	0.46	0.49	0.67
4	Ca (mg/L)	53	54	63	61	62	70
5	Cl (mg/L)	144.0	64.0	152.0	159.0	163.0	189.0
6	CO3 (mg/L)	24.3	26.3	26.3	27.0	27.6	0.0
7	F (mg/L)	0.79	0.77	0.69	0.71	0.69	0.68
8	Fe (mg/L)	0.8	0.4	0.5	0.3	0.4	0.4
9	HCO3 (mg/L)	200	176	182	164	159	230
10	K (mg/L)	3.5	2.2	3.3	3.8	4.1	4.0
11	Mg (mg/L)	30.0	28.0	37.0	37.0	35.0	20.7
12	Na (mg/L)	100.4	43.6	90.0	118.7	114.5	136.1
13	NH3-N (mg N/L)	0.00	0.01	0.03	0.00	0.00	0.02
14	NO2+NO3 (mg N/L)	8.64	10.38	7.13	8.37	1.50	1.57
15	NO2-N (mgN/L)	0.03	0.01	0.01	0.01	0.02	0.01
16	NO3-N (mgN/L)	8.61	10.37	7.12	8.36	1.48	1.56
17	o-PO4-P (mg P/L)	0.061	0.020	0.130	0.960	0.490	0.650
18	SiO2 (mg/L)	12.0	29.9	22.0	8.9	9.0	11.1
19	SO4 (mg/L)	109.5	106.0	102.5	92.0	92.0	87.5
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	1.5	1.3	2.2	2.3	3.3	2.5
2	COD (mg/L)				7.3	7.3	5.5
3	DO (mg/L)	5.9	6.1	6.6	4.7	3.7	4.3
4	DO_SAT% (%)	69	68	78	55	43	54
5	FCol-MPN (MPN/100mL)			490	2200	790	9200
6	Tcol-MPN (MPN/100mL)			1700	2800	14000	16000
	TRACE & TOXIC						
1	Cd (µg/L)	0.9	0.0	0.4	0.9	0.0	0.3
2	Cr (µg/L)	2.8	2.8	5.3	2.3	1.1	2.7
3	Cu (µg/L)	2.7	3.6	2.3	4.4	4.0	3.3
4	Hg (µg/L)						
5	Ni (µg/L)	6.4	5.2	3.7	13.1	13.1	12.0
6	Pb (µg/L)	32.0	9.0	7.0	42.0	30.0	28.0
7	Zn (µg/L)	11.4	72.2	22.7	2.3	3.4	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	134	135	158	153	154	176
2	HAR_Total (mgCaCO3/L)	259	252	312	307	300	262
3	Na% (%)	46	27	38	45	45	53
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.7	1.2	2.2	3.0	2.9	3.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1230	1230	1248	1481	1641	1577
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.5	8.5	8.5	8.8	9.1	8.6
6	TDS (mg/L)	708	708	847	501	1434	1152
7	Temp (deg C)	24.0	25.0	25.0	24.0	25.0	24.0
8	Turb (NTU)	12.0	12.0	15.6	24.0	25.4	6.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	21.3	21.3	30.5	28.9	28.1	32.0
2	ALK-TOT (mgCaCO3/L)	215	215	201	221	225	258
3	B (mg/L)	0.71	0.71	0.99	0.80	0.72	0.70
4	Ca (mg/L)	73	73	73	85	128	85
5	Cl (mg/L)	202.0	201.6	190.0	289.5	364.0	303.5
6	CO3 (mg/L)	25.7	25.7	36.8	34.8	33.8	38.6
7	F (mg/L)	0.91	0.91	0.88	1.04	1.01	0.98
8	Fe (mg/L)	1.4	0.4	0.4	0.2	0.2	0.0
9	HCO3 (mg/L)	210	210	170	199	206	236
10	K (mg/L)	4.2	4.2	4.2	4.5	5.1	5.2
11	Mg (mg/L)	21.0	21.0	38.2	47.0	39.0	34.0
12	Na (mg/L)	126.0	126.4	136.0	172.0	159.0	182.0
13	NH3-N (mg N/L)	0.04	0.04	0.00	0.06	0.03	0.05
14	NO2+NO3 (mg N/L)	1.35	1.52	1.52	1.84	1.85	1.83
15	NO2-N (mgN/L)	0.01	0.01	0.01	0.08	0.01	0.04
16	NO3-N (mgN/L)	1.34	1.51	1.51	1.76	1.84	1.79
17	o-PO4-P (mg P/L)	0.050	0.200	0.000	1.000	0.500	0.800
18	SiO2 (mg/L)	9.6	9.6	14.1	15.5	13.9	10.4
19	SO4 (mg/L)	113.6	113.6	102.0	304.9	101.9	61.0
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	2.9	2.9	3.6	4.4	2.0	2.3
2	COD (mg/L)	3.7	3.7	7.6			
3	DO (mg/L)	7.0	6.0	5.9	4.7	5.2	5.9
4	DO_SAT% (%)	83	73	71	56	63	70
5	FCol-MPN (MPN/100mL)	2400	2400	1300	1400	1400	1100
6	Tcol-MPN (MPN/100mL)	5400	5400	2400	1700	2200	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	3.8	1.2	0.7	0.0
2	Cr (µg/L)	2.0	1.7	2.2	2.0	3.6	4.6
3	Cu (µg/L)	3.7	4.1	3.2	3.1	2.0	2.3
4	Hg (µg/L)						
5	Ni (µg/L)	7.3	4.1	7.4	11.7	8.5	6.6
6	Pb (µg/L)	36.0	26.0	25.0	46.0	48.0	27.0
7	Zn (µg/L)	2.7	45.6	1.9	4.7	32.9	29.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	183	183	183	212	320	213
2	HAR_Total (mgCaCO3/L)	270	270	342	408	483	354
3	Na% (%)	50	50	46	48	42	52
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.3	3.4	3.2	3.7	3.2	4.2
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1465	1659	1574	1505	1394	1420
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	9.0	8.9	8.8	8.8	8.5	8.5
6	TDS (mg/L)	1009	1352	1081	1151	1089	949
7	Temp (deg C)	23.0	25.0	25.0	23.0	24.0	27.0
8	Turb (NTU)	8.0	20.0	4.7	3.4	6.1	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	34.0	31.3	32.9	26.8	26.0	24.4
2	ALK-TOT (mgCaCO3/L)	252	218	258	237	243	208
3	B (mg/L)	0.21	0.25	0.20	0.31	0.35	0.16
4	Ca (mg/L)	88	49	66	103	87	107
5	Cl (mg/L)	203.4	94.5	217.0	203.8	214.0	182.9
6	CO3 (mg/L)	41.0	37.7	39.6	32.3	31.3	29.4
7	F (mg/L)	1.02	1.04	1.05	1.04	1.06	1.07
8	Fe (mg/L)	0.1	0.5	1.0	0.1	0.5	0.6
9	HCO3 (mg/L)	224	189	234	223	233	194
10	K (mg/L)	3.4	4.2	13.0	4.3	5.3	5.1
11	Mg (mg/L)	81.3	24.9	49.0	59.0	54.0	53.5
12	Na (mg/L)	145.3	46.9	230.0	123.7	185.0	96.4
13	NH3-N (mg N/L)	0.05	0.05	0.06	0.11	0.07	0.11
14	NO2+NO3 (mg N/L)	3.39	3.48	3.52	2.13	2.19	2.15
15	NO2-N (mgN/L)	0.00	0.00	0.02	0.04	0.07	0.00
16	NO3-N (mgN/L)	3.39	3.48	3.50	2.09	2.12	2.15
17	o-PO4-P (mg P/L)	0.600	0.500	0.800	0.960	0.490	0.650
18	SiO2 (mg/L)	14.7	16.0	11.4	15.7	14.5	14.6
19	SO4 (mg/L)	267.8	33.7	264.0	148.7	198.0	198.0
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD3-27 (mg/L)	3.1	2.1	1.0	2.6	1.7	2.1
2	COD (mg/L)				7.6	7.6	7.6
3	DO (mg/L)	4.3	4.7	2.4	4.7	3.7	4.3
4	DO_SAT% (%)	50	57	29	55	44	54
5	FCol-MPN (MPN/100mL)	1300	1300	1300	1700	1400	940
6	Tcol-MPN (MPN/100mL)	2800	2200	2400	2200	1700	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	2.2	1.3	0.0	3.4	2.0
2	Cr (µg/L)	4.5	10.5	8.4	7.9	2.5	1.3
3	Cu (µg/L)	1.5	3.6	3.1	0.3	0.3	4.0
4	Hg (µg/L)						
5	Ni (µg/L)	4.5	8.9	9.2	1.1	16.0	9.3
6	Pb (µg/L)	23.0	35.0	14.0	6.0	48.0	39.0
7	Zn (µg/L)	3.5	23.3	4.4	2.6	15.4	21.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	220	123	165	258	218	268
2	HAR_Total (mgCaCO3/L)	559	227	369	503	443	490
3	Na% (%)	36	31	57	35	47	30
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.7	1.4	5.2	2.4	3.8	1.9
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)				
2	EC_GEN (µmho/cm)	36	1659	339	1112
3	pH_GEN (pH units)	36	9.1	8.0	8.4
4	TDS (mg/L)	36	1434	229	768
5	Temp (deg C)	36	27.0	21.0	24.6
6	Turb (NTU)	36	25.4	2.0	9.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	34.0	0.0	17.6
2	ALK-TOT (mgCaCO3/L)	36	258	69	185
3	B (mg/L)	35	1.23	0.07	0.42
4	Ca (mg/L)	36	128	34	61
5	Cl (mg/L)	36	364.0	43.3	153.5
6	CO3 (mg/L)	36	41.0	0.0	21.2
7	F (mg/L)	36	1.14	0.30	0.73
8	Fe (mg/L)	36	6.7	0.0	1
9	HCO3 (mg/L)	36	275	84	182
10	K (mg/L)	36	13.0	0.9	3.6
11	Mg (mg/L)	36	81.3	13.0	33.9
12	Na (mg/L)	36	230.0	17.7	107.1
13	NH3-N (mg N/L)	35	0.78	0.00	0.14
14	NO2+NO3 (mg N/L)	36	10.38	1.35	4.31
15	NO2-N (mgN/L)	36	0.14	0.00	0.03
16	NO3-N (mgN/L)	36	10.37	1.34	4.29
17	o-PO4-P (mg P/L)	36	1.000	0.000	0.372
18	SiO2 (mg/L)	36	29.9	3.9	13.9
19	SO4 (mg/L)	36	304.9	26.3	110.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	4.4	0.4	2
2	COD (mg/L)	24	23.7	1.9	8.1
3	DO (mg/L)	36	7.8	2.4	5.4
4	DO_SAT% (%)	36	93	29	65
5	FCol-MPN (MPN/100mL)	16	9200	490	1914
6	Tcol-MPN (MPN/100mL)	16	16000	1400	4106
	TRACE & TOXIC				
1	Cd (µg/L)	36	3.8	0.0	1
2	Cr (µg/L)	36	14.0	0.0	3.5
3	Cu (µg/L)	36	8.7	0.3	3.5
4	Hg (µg/L)	10	0.3	0.0	0
5	Ni (µg/L)	36	16.0	0.0	7.1
6	Pb (µg/L)	36	54.0	0.0	25.6
7	Zn (µg/L)	36	79.5	0.0	14
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	320	84	153
2	HAR_Total (mgCaCO3/L)	36	559	144	294
3	Na% (%)	36	59	12	42
4	RSC (-)	36	0.0	0.0	0
5	SAR (-)	36	5.2	0.5	2.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood				Winter		
		Jun - Oct				Nov - Feb		
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022
	PHYSICAL							
1	Q (cumec)							
2	EC_FLD (µmho/cm)		500					
3	EC_GEN (µmho/cm)	484	1036	769	809	862	1124	1024
4	pH_GEN (pH units)	8.0	7.9	7.9	8.3	8.1	8.2	8.3
5	TDS (mg/L)	258	759	550	573	547	746	836
6	Temp (deg C)	25.0	27.7	25.9	25.2	26.0	26.3	24.5
7	Turb (NTU)	72.3	22.6	6.1	8.3	17.8	18.8	6.9
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	10.6	0.0	3.8	7.3
2	ALK-TOT (mgCaCO3/L)	140	173	173	146	198	238	213
3	B (mg/L)	0.22	0.28	0.19	0.35	0.31	0.36	0.33
4	Ca (mg/L)	53	33	48	45	38	41	56
5	Cl (mg/L)	67.7	144.0	94.6	112.8	113.3	149.2	137.0
6	CO3 (mg/L)	0.0	0.0	0.0	12.8	0.0	4.6	8.8
7	F (mg/L)	0.27	0.38	0.70	0.56	0.58	0.76	0.88
8	Fe (mg/L)	3.1	1.6	0.9	1.7	1.9	0.6	0.6
9	HCO3 (mg/L)	171	211	211	151	242	281	241
10	K (mg/L)	1.0	0.5	3.5	2.7	0.4	0.6	3.6
11	Mg (mg/L)	14.3	33.9	18.1	28.4	35.8	38.8	26.1
12	Na (mg/L)	46.1	122.0	75.8	82.8	107.1	163.4	101.4
13	NH3-N (mg N/L)	0.08	0.02		0.26	0.85	0.12	0.12
14	NO2+NO3 (mg N/L)	2.38	12.42		4.46	5.89	2.00	
15	NO2-N (mgN/L)	0.03	0.23	0.04	0.03	0.90	0.08	0.09
16	NO3-N (mgN/L)	2.35	12.40	6.18	4.42	4.99	1.90	
17	o-PO4-P (mg P/L)	0.227	1.111	0.928	0.265	0.455	0.554	1.113
18	P-Tot (mgP/L)		0.620	1.350				1.874
19	SiO2 (mg/L)	16.8	13.3		13.5	19.7	24.1	25.0
20	SO4 (mg/L)	73.8	97.8	53.0	74.9	94.2	149.2	91.0
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.9		1.2	1.3	2.2	11.6	2.2
2	COD (mg/L)	15.3	12.2	13.3	7.5	48.9	19.0	
3	DO (mg/L)	5.4	7.1	6.0	5.6	5.5	6.3	6.1
4	DO_SAT% (%)	62	89	73	67	56	77	73
5	FCol-MPN (MPN/100mL)	3157		538		2000	3533	881
6	Tcol-MPN (MPN/100mL)	6557		1231		9450	11367	1314
	TRACE & TOXIC							
1	As (µg/L)	0.7	0.5	1.9		2.8	0.9	
2	Cd (µg/L)	0.3	7.1	0.8	1.0	0.0	5.6	1.2
3	Cr (µg/L)	19.9	3.1	5.6	3.4	12.3	7.0	3.3
4	Cu (µg/L)	15.3	0.0	4.3	4.3	5.3	7.1	2.8
5	Hg (µg/L)		0.9	0.2	0.0		0.6	0.1
6	Ni (µg/L)	3.5	27.4	3.6	5.9	6.9	3.1	3.9
7	Pb (µg/L)	0.6	28.0	10.2	19.7	0.4	47.5	12.5
8	Zn (µg/L)	46.7	0.1	13.0	13.1	51.5	6.6	9.1
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	133	84	121	112	96	102	141
2	HAR_Total (mgCaCO3/L)	192	225	196	231	245	264	250
3	Na% (%)	33	51	43	39	48	55	46
4	RSC (-)	0.2	0.0	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	1.4	3.4	2.3	2.3	3.0	4.4	2.8
	PESTICIDES							

Water Quality Seasonal Average for the period: 2019-2023

Station Name : Deosugur (AK000L7) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter	Summer			
		Nov - Feb	Mar - May			
		2022-2023	2020	2021	2022	2023
	PHYSICAL					
1	Q (cumec)					
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	1182	1360	1476	1147	1524
4	pH_GEN (pH units)	8.4	8.1	8.1	8.6	8.8
5	TDS (mg/L)	779	1055	923	859	1080
6	Temp (deg C)	23.8	24.0	25.5	26.2	24.4
7	Turb (NTU)	9.4	31.8	10.3	6.8	11.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	17.5	0.8	6.0	27.8	29.4
2	ALK-TOT (mgCaCO3/L)	195	207	232	238	236
3	B (mg/L)	0.50	0.29	0.19	0.57	0.41
4	Ca (mg/L)	61	38	55	66	89
5	Cl (mg/L)	146.6	237.7	196.5	174.7	230.3
6	CO3 (mg/L)	21.1	1.0	7.2	33.5	35.4
7	F (mg/L)	0.73	0.53	0.81	0.98	1.03
8	Fe (mg/L)	0.6	0.4	0.4	0.3	0.3
9	HCO3 (mg/L)	196	251	268	223	215
10	K (mg/L)	3.4	0.8	4.0	3.4	5.6
11	Mg (mg/L)	29.5	50.0	33.9	39.1	49.1
12	Na (mg/L)	106.3	207.1	178.6	115.7	148.9
13	NH3-N (mg N/L)	0.07	0.03	0.22	0.46	0.06
14	NO2+NO3 (mg N/L)	5.50	4.22	2.98		2.49
15	NO2-N (mgN/L)	0.01	0.15	0.38	0.07	0.03
16	NO3-N (mgN/L)	5.49	4.10	6.78		2.46
17	o-PO4-P (mg P/L)	0.260	1.188	0.464	0.170	0.700
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)	14.3	20.9	26.8	25.9	14.1
20	SO4 (mg/L)	107.4	194.3	140.7	113.8	175.3
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	2.5	0.6	5.7	2.3	2.4
2	COD (mg/L)	9.1	24.2	24.8	9.8	7.6
3	DO (mg/L)	6.1	3.1	4.3	4.0	4.4
4	DO_SAT% (%)	72	37	54	50	53
5	FCol-MPN (MPN/100mL)	2683	500	1510		1316
6	Tcol-MPN (MPN/100mL)	6814	9000	4635		2000
	TRACE & TOXIC					
1	As (µg/L)			13.3		
2	Cd (µg/L)	0.8	0.0	2.0	1.2	1.2
3	Cr (µg/L)	2.4	1.3	5.7	3.9	5.0
4	Cu (µg/L)	3.5	2.2	8.5	2.3	2.2
5	Hg (µg/L)			0.5	0.8	
6	Ni (µg/L)	7.6	22.4	14.9	3.8	8.4
7	Pb (µg/L)	28.4	3.3	42.3	29.7	31.8
8	Zn (µg/L)	14.3	12.5	29.3	2.9	15.2
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	152	95	136	165	222
2	HAR_Total (mgCaCO3/L)	274	303	277	328	426
3	Na% (%)	45	60	57	43	42
4	RSC (-)	0.0	0.0	0.8	0.0	0.0
5	SAR (-)	2.8	5.2	4.9	2.8	3.2
	PESTICIDES					

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	01-02-1976			
Discharge	:	01-02-1976			
Sediment	:	01-06-1976			
Water Quality	:	01-02-1976			

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	15.67	15.47	9.454	10.86	7.456	1778
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Light Brown
3	EC_FLD (µmho/cm)	1145	818	965	1317	1155	432
4	EC_GEN (µmho/cm)	1328	1126	1119	1483	1434	480
5	Odour_Code (-)	odour free	odour free	odour free	Odour freeO	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.3	8.6	8.5	8.4	8.6	8.3
8	TDS (mg/L)	852	801	543	1115	901	333
9	Temp (deg C)	26.0	28.0	27.0	27.0	26.0	25.0
10	Turb (NTU)	1.0	11.0	5.0	15.0	21.0	4.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	19.1	24.1	21.5	23.6	22.1	15.3
2	ALK-TOT (mgCaCO3/L)	197	204	181	227	245	122
3	B (mg/L)	0.52	0.49		0.83	0.79	1.08
4	Ca (mg/L)	61	48	59	55	58	42
5	Cl (mg/L)	191.6	149.0	162.4	202.6	189.6	89.8
6	CO3 (mg/L)	23.0	29.0	25.9	28.4	26.6	18.4
7	F (mg/L)	0.75	0.77	0.83	1.25	1.20	0.28
8	Fe (mg/L)	1.7	0.1	0.3	0.5	1.6	0.3
9	HCO3 (mg/L)	194	190	169	219	245	112
10	K (mg/L)	4.9	4.9	3.4	3.1	3.3	3.7
11	Mg (mg/L)	34.7	30.6	30.2	43.0	40.3	14.0
12	Na (mg/L)	146.4	119.0	153.3	201.0	176.2	42.0
13	NH3-N (mg N/L)	0.55	0.58		0.34	0.22	0.08
14	NO2+NO3 (mg N/L)	3.15	4.15	3.37		4.57	5.06
15	NO2-N (mgN/L)	0.15	0.04	0.16	0.11	0.03	0.05
16	NO3-N (mgN/L)	3.00	4.11	3.21	4.18	4.54	5.01
17	o-PO4-P (mg P/L)	0.150	0.630	0.380	0.240	0.580	0.690
18	SiO2 (mg/L)	13.1	24.0	10.0	11.5	19.6	8.4
19	SO4 (mg/L)	153.0	86.0	102.3	154.8	121.6	34.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.7	0.4	0.8	1.7	2.9	1.7
2	COD (mg/L)				11.4	11.8	9.3
3	DO (mg/L)	4.7	5.0	5.6	5.4	7.2	6.0
4	DO_SAT% (%)	58	64	70	68	89	73
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.5	2.6	0.0	2.5	0.1
2	Cr (µg/L)	4.5	2.4	6.0	0.7	2.4	2.3
3	Cu (µg/L)	8.9	2.2	3.8	6.6	5.8	0.0
4	Hg (µg/L)	0.0	0.0	0.0	0.1	0.0	0.0
5	Ni (µg/L)	11.8	0.0	0.0	9.7	12.0	2.2
6	Pb (µg/L)	18.0	0.0	0.0	14.0	0.0	28.0
7	Zn (µg/L)	10.4	5.5	9.7	7.2	4.1	5.6
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	153	120	147	138	144	105
2	HAR_Total (mgCaCO3/L)	297	248	272	317	312	164
3	Na% (%)	51	51	55	58	55	35
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.7	3.3	4.1	4.9	4.4	1.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	573.0	6091	1769	681.1	2212	789.3
2	Colour_Cod (-)	Brown	Brown	Light Brown	Clear	Brown	Clear
3	EC_FLD (µmho/cm)	538	365	412	601	398	
4	EC_GEN (µmho/cm)	602	392	413	457	417	750
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.1	8.1	8.1	8.2	8.0	8.0
8	TDS (mg/L)	427	252	352	334	323	555
9	Temp (deg C)	25.0	25.0	24.0	27.0	24.0	26.0
10	Turb (NTU)	1.0	8.0	5.0	3.0	8.9	3.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	85	114	55	117	115	124
3	B (mg/L)	0.26	0.24	0.21	0.13	0.17	0.11
4	Ca (mg/L)	40	44	30	31	31	42
5	Cl (mg/L)	64.5	74.0	80.4	40.5	37.3	93.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.28	0.30	0.38	0.36	0.37	0.32
8	Fe (mg/L)	6.5	1.0	0.0	1.7	6.2	1.3
9	HCO3 (mg/L)	104	139	68	143	140	151
10	K (mg/L)	2.5	4.0	0.9	1.3	1.3	1.0
11	Mg (mg/L)	13.6	12.3	16.5	16.0	18.0	19.8
12	Na (mg/L)	71.3	33.8	19.2	27.4	29.3	44.4
13	NH3-N (mg N/L)	0.55	0.17	0.02	0.01	0.17	0.04
14	NO2+NO3 (mg N/L)	4.89	4.77	3.85	3.91	4.09	6.49
15	NO2-N (mgN/L)	0.26	0.05	0.04	0.01	0.08	0.07
16	NO3-N (mgN/L)	4.63	4.72	3.81	3.90	4.01	6.42
17	o-PO4-P (mg P/L)	0.438	0.270	0.190	0.290	0.490	0.310
18	SiO2 (mg/L)	3.6	6.4	35.0	19.0	13.0	16.7
19	SO4 (mg/L)	49.0	36.2	35.0	52.0	49.0	49.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.8	0.8	0.5	1.0	0.7	1.8
2	COD (mg/L)	9.8	3.6	2.0	5.7	3.6	11.2
3	DO (mg/L)	5.0	5.9	5.9	6.2	6.0	6.8
4	DO_SAT% (%)	61	71	70	78	71	84
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	1.2	0.0	0.0
2	Cr (µg/L)	16.5	0.0	0.0	0.0	2.9	0.5
3	Cu (µg/L)	12.5	3.8	0.7	7.5	4.1	2.6
4	Hg (µg/L)	0.1	0.1	0.0	0.0		
5	Ni (µg/L)	17.5	4.3	0.2	6.4	4.2	4.1
6	Pb (µg/L)	18.0	39.0	27.0	36.0	0.0	35.0
7	Zn (µg/L)	12.8	3.1	0.0	4.4	48.6	16.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	101	109	75	78	78	105
2	HAR_Total (mgCaCO3/L)	157	160	144	144	153	188
3	Na% (%)	49	31	22	29	29	34
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.5	1.2	0.7	1.0	1.0	1.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1933	1762	3189	298.9	70.60	72.56
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	559	534	519	685	885	928
4	EC_GEN (µmho/cm)	680	607	568	784	1081	1180
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.2	8.3	8.2	8.4	8.4	8.4
8	TDS (mg/L)	400	356	322	430	591	668
9	Temp (deg C)	27.0	25.0	27.0	23.0	26.0	24.0
10	Turb (NTU)	8.0	13.0	1.0	1.0	4.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	21.1	0.0	12.1	12.9	24.3
2	ALK-TOT (mgCaCO3/L)	161	128	143	97	185	222
3	B (mg/L)	0.05	0.21	0.37	0.30	0.37	0.32
4	Ca (mg/L)	41	38	38	39	40	60
5	Cl (mg/L)	78.6	63.0	51.3	90.0	120.9	199.8
6	CO3 (mg/L)	0.0	25.4	0.0	14.6	15.6	29.3
7	F (mg/L)	0.35	0.32	0.35	0.39	0.45	0.70
8	Fe (mg/L)	3.2	0.5	1.1	0.3	0.4	2.3
9	HCO3 (mg/L)	196	105	174	88	193	212
10	K (mg/L)	2.1	1.9	2.0	2.2	7.7	5.2
11	Mg (mg/L)	21.3	19.0	18.0	20.5	21.6	34.2
12	Na (mg/L)	63.2	55.8	45.5	62.0	122.6	237.4
13	NH3-N (mg N/L)	0.27	0.24	0.12	0.45	0.12	0.25
14	NO2+NO3 (mg N/L)	6.73	6.51	7.10	7.63	8.80	10.21
15	NO2-N (mgN/L)	0.03	0.04	0.05	0.04	0.10	0.04
16	NO3-N (mgN/L)	6.70	6.47	7.05	7.59	8.70	10.17
17	o-PO4-P (mg P/L)	0.189	0.556	0.066	0.147	0.340	0.301
18	SiO2 (mg/L)	18.0	10.2	13.1	12.8	17.5	16.5
19	SO4 (mg/L)	52.0	55.1	43.2	70.6	137.4	137.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.5	0.8	0.9	0.5	1.5	1.5
2	COD (mg/L)	3.8	3.8	1.9	6.1	22.3	6.1
3	DO (mg/L)	6.0	6.2	6.7	7.1	7.6	7.6
4	DO_SAT% (%)	75	75	84	83	94	90
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.1	0.0	1.1	0.0	0.0
2	Cr (µg/L)	3.3	0.0	0.0	0.9	0.0	5.2
3	Cu (µg/L)	6.8	2.0	1.1	2.9	2.3	2.6
4	Hg (µg/L)						
5	Ni (µg/L)	4.6	6.2	7.4	5.4	5.1	7.6
6	Pb (µg/L)	23.0	31.0	26.0	11.0	42.0	47.0
7	Zn (µg/L)	10.2	2.2	0.8	2.4	2.5	2.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	103	95	96	98	100	150
2	HAR_Total (mgCaCO3/L)	191	174	171	183	190	293
3	Na% (%)	42	41	37	42	57	63
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	1.8	1.5	2.0	3.9	6.1
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	35.31	27.40	41.53	8.056	36.74	60.61
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1018	1071	1115	1018	982	943
4	EC_GEN (µmho/cm)	1242	1341	1349	1301	1296	1226
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.5		8.2	8.5	8.6	8.5
7	pH_GEN (pH units)	8.3	8.4	8.3	8.3	8.4	8.0
8	TDS (mg/L)	829	1054	1165	768	922	902
9	Temp (deg C)	23.0	23.0	24.0	25.0	20.0	22.0
10	Turb (NTU)	3.0	4.0	3.1	6.0	5.0	4.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	23.4	24.3	18.6	19.3	24.6	0.0
2	ALK-TOT (mgCaCO3/L)	217	220	200	198	241	257
3	B (mg/L)	0.29	0.29	0.30	0.36	0.36	0.41
4	Ca (mg/L)	59	60	55	55	59	64
5	Cl (mg/L)	148.3	122.5	46.8	187.2	191.7	155.7
6	CO3 (mg/L)	28.2	29.3	22.4	23.3	29.6	0.0
7	F (mg/L)	0.92	0.93	0.72	0.77	0.73	0.75
8	Fe (mg/L)	0.6	0.3	0.4	1.4	0.9	0.9
9	HCO3 (mg/L)	207	208	198	194	234	313
10	K (mg/L)	3.4	2.5	2.6	4.0	3.8	4.0
11	Mg (mg/L)	34.0	34.0	32.3	31.2	30.0	31.7
12	Na (mg/L)	115.7	84.8	112.5	137.1	139.0	107.0
13	NH3-N (mg N/L)	0.00	0.01	0.12	0.00	0.12	0.00
14	NO2+NO3 (mg N/L)	9.92	11.87	9.01	10.02	2.51	2.30
15	NO2-N (mgN/L)	0.03	0.03	0.02	0.08	0.01	0.02
16	NO3-N (mgN/L)	9.89	11.84	8.99	9.94	2.50	2.28
17	o-PO4-P (mg P/L)	0.258	0.030	0.070	0.060	0.000	0.000
18	SiO2 (mg/L)	16.2	20.3	20.4	10.3	8.0	14.2
19	SO4 (mg/L)	110.0	118.5	109.3	109.0	109.0	114.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.1	1.5	2.4	2.3	0.7	1.8
2	COD (mg/L)				5.5	3.6	5.5
3	DO (mg/L)	7.5	6.4	7.7	6.6	6.1	7.3
4	DO_SAT% (%)	87	75	91	80	67	83
5	FCol-MPN (MPN/100mL)			1400	1700	1400	790
6	Tcol-MPN (MPN/100mL)			1700	2800	2800	790
	TRACE & TOXIC						
1	Cd (µg/L)	0.7	0.3	0.0	1.4	0.0	0.0
2	Cr (µg/L)	3.4	2.9	6.8	3.8	2.0	2.6
3	Cu (µg/L)	1.5	1.9	1.7	5.4	3.2	2.9
4	Hg (µg/L)						
5	Ni (µg/L)	7.6	3.7	1.6	13.6	11.0	12.6
6	Pb (µg/L)	30.0	8.0	8.0	43.0	33.0	28.0
7	Zn (µg/L)	31.9	1.1	275.8	5.5	28.0	3.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	148	151	138	138	148	160
2	HAR_Total (mgCaCO3/L)	289	292	272	268	273	292
3	Na% (%)	46	39	47	52	52	44
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.0	2.2	3.0	3.7	3.7	2.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	9.647	77.72	6.084	27.96	26.27	6.969
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1038	947	1134	1038	1166	1104
4	EC_GEN (µmho/cm)	1465	1197	1370	1221	1202	1421
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	8.7	8.5	8.9	8.8	8.6
7	pH_GEN (pH units)	8.3	8.4	8.6	8.8	8.8	8.7
8	TDS (mg/L)	812	801	941	168	417	907
9	Temp (deg C)	23.0	25.5	25.2	24.2	25.0	24.0
10	Turb (NTU)	5.0	14.7	13.1	146.0	16.0	2.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	41.0	37.0	39.0	31.3	40.7
2	ALK-TOT (mgCaCO3/L)	254	234	236	222	226	260
3	B (mg/L)	0.48	0.56	0.67	0.58	0.52	0.50
4	Ca (mg/L)	62	72	73	65	101	65
5	Cl (mg/L)	199.6	151.6	183.0	228.6	326.8	228.6
6	CO3 (mg/L)	0.0	49.4	44.6	47.0	37.7	49.0
7	F (mg/L)	0.97	0.74	0.72	1.00	1.03	1.02
8	Fe (mg/L)	0.8	0.2	0.4	0.1	0.3	0.4
9	HCO3 (mg/L)	310	185	197	176	199	217
10	K (mg/L)	1.6	3.3	3.4	3.2	3.0	4.3
11	Mg (mg/L)	35.3	37.1	36.0	53.6	24.0	31.0
12	Na (mg/L)	125.0	108.2	141.0	131.9	135.7	153.0
13	NH3-N (mg N/L)	0.07	0.08	0.09	0.06	0.04	0.04
14	NO2+NO3 (mg N/L)	2.34	2.29	2.21	2.03	2.00	2.00
15	NO2-N (mgN/L)	0.35	0.01	0.00	0.01	0.03	0.08
16	NO3-N (mgN/L)	1.99	2.28	2.21	2.02	1.97	1.92
17	o-PO4-P (mg P/L)	0.000	0.100	0.200	0.600	0.900	0.400
18	SiO2 (mg/L)	5.8	5.0	13.4	12.0	12.1	17.0
19	SO4 (mg/L)	129.0	101.7	115.7	149.0	74.6	25.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.5	2.2	2.1	2.4	2.1	1.8
2	COD (mg/L)	5.6	3.8	3.8			
3	DO (mg/L)	6.0	6.6	4.3	6.7	5.8	4.5
4	DO_SAT% (%)	70	80	52	80	70	53
5	FCol-MPN (MPN/100mL)	790	1100	1300	1400	1400	1700
6	Tcol-MPN (MPN/100mL)	2800	1400	5400	1700	1700	2200
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	4.3	1.2	0.6	0.7
2	Cr (µg/L)	2.3	1.5	2.2	1.7	6.0	3.9
3	Cu (µg/L)	4.7	3.3	3.2	3.7	1.5	3.5
4	Hg (µg/L)						
5	Ni (µg/L)	8.6	3.9	8.5	11.7	5.3	9.9
6	Pb (µg/L)	45.0	29.0	34.0	44.0	41.0	46.0
7	Zn (µg/L)	7.9	5.1	2.8	2.4	30.1	5.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	155	181	183	162	253	163
2	HAR_Total (mgCaCO3/L)	302	335	333	385	353	292
3	Na% (%)	47	41	48	43	45	53
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.1	2.6	3.4	2.9	3.1	3.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	16.66	25.35	9.221	45.50	25.46	5.269
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1099	1079	1272	1021	1157	1129
4	EC_GEN (µmho/cm)	1322	1281	1475	1405	1495	1540
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	8.7	8.6	8.3	8.3	8.3
7	pH_GEN (pH units)	9.0	8.7	8.7	8.8	8.3	8.2
8	TDS (mg/L)	1022	916	1116	1029	1074	1180
9	Temp (deg C)	27.0	27.8	28.5	28.4	31.5	28.2
10	Turb (NTU)	5.0	8.4	4.0	2.5	4.2	3.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	41.5	39.3	38.2	24.4	23.2	0.0
2	ALK-TOT (mgCaCO3/L)	181	266	269	301	293	257
3	B (mg/L)	0.07	0.10	0.10	0.05	0.32	0.20
4	Ca (mg/L)	55	72	48	80	72	117
5	Cl (mg/L)	187.5	193.0	214.0	195.7	250.3	209.7
6	CO3 (mg/L)	50.0	47.3	46.0	29.4	28.0	0.0
7	F (mg/L)	0.88	0.85	0.75	0.97	0.98	0.94
8	Fe (mg/L)	0.3	0.2	0.7	0.2	0.1	0.3
9	HCO3 (mg/L)	120	228	235	307	301	313
10	K (mg/L)	2.5	3.5	5.4	3.6	5.4	6.3
11	Mg (mg/L)	8.5	41.8	56.0	59.5	60.6	63.7
12	Na (mg/L)	121.9	118.0	209.0	196.0	200.0	126.4
13	NH3-N (mg N/L)	0.05	0.07	0.09	0.09	0.07	0.08
14	NO2+NO3 (mg N/L)	3.70	3.89	4.13	2.54	2.54	2.71
15	NO2-N (mgN/L)	0.00	0.00	0.02	0.06	0.08	0.07
16	NO3-N (mgN/L)	3.70	3.89	4.11	2.48	2.46	2.64
17	o-PO4-P (mg P/L)	0.400	0.900	0.400	0.600	0.900	0.300
18	SiO2 (mg/L)	22.8	30.3	15.2	18.3	15.0	13.8
19	SO4 (mg/L)	74.3	96.4	96.0	154.0	172.0	171.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.8	2.0	1.3	2.0	1.5
2	COD (mg/L)				3.8	9.5	7.6
3	DO (mg/L)	5.5	6.1	3.9	5.1	4.4	4.2
4	DO_SAT% (%)	69	77	50	65	59	54
5	FCol-MPN (MPN/100mL)	1100	2200	2200	1400	1400	1100
6	Tcol-MPN (MPN/100mL)	140	2800	2800	2200	2200	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	2.2	1.7	0.0	2.5	2.2
2	Cr (µg/L)	4.0	5.2	11.9	7.9	2.1	0.9
3	Cu (µg/L)	1.5	2.4	3.1	1.3	0.0	6.2
4	Hg (µg/L)						
5	Ni (µg/L)	5.3	6.6	9.4	1.6	14.2	7.7
6	Pb (µg/L)	26.0	33.0	12.0	15.0	33.0	10.0
7	Zn (µg/L)	3.9	20.3	2.0	2.7	5.7	8.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	138	180	120	200	180	293
2	HAR_Total (mgCaCO3/L)	173	354	353	448	433	558
3	Na% (%)	60	42	56	49	50	33
4	RSC (-)	0.2	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.0	2.7	4.9	4.0	4.2	2.3
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **Sub-Division : Middle Krishna SD 2 , Kurnool**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	6807	2.967	676.2
2	EC_FLD (µmho/cm)	35	1317	365	902
3	EC_GEN (µmho/cm)	36	1540	392	1085
4	pH_FLD (pH units)	17	8.9	7.8	8.5
5	pH_GEN (pH units)	36	9.0	8.0	8.4
6	TDS (mg/L)	36	1180	168	711
7	Temp (deg C)	36	31.5	20.0	25.5
8	Turb (NTU)	36	146.0	1.0	10.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	41.5	0.0	18.4
2	ALK-TOT (mgCaCO3/L)	36	301	55	196
3	B (mg/L)	35	1.08	0.05	0.36
4	Ca (mg/L)	36	117	30	56
5	Cl (mg/L)	36	326.8	37.3	150
6	CO3 (mg/L)	36	50.0	0.0	22.2
7	F (mg/L)	36	1.25	0.28	0.7
8	Fe (mg/L)	36	6.5	0.0	1
9	HCO3 (mg/L)	36	313	68	194
10	K (mg/L)	36	7.7	0.9	3.4
11	Mg (mg/L)	36	63.7	8.5	31.2
12	Na (mg/L)	36	237.4	19.2	114.2
13	NH3-N (mg N/L)	35	0.58	0.00	0.15
14	NO2+NO3 (mg N/L)	36	11.87	2.00	4.93
15	NO2-N (mgN/L)	36	0.35	0.00	0.06
16	NO3-N (mgN/L)	36	11.84	1.92	4.87
17	o-PO4-P (mg P/L)	36	0.900	0.000	
18	SiO2 (mg/L)	36	35.0	3.6	15
19	SO4 (mg/L)	36	172.0	25.0	95.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	2.9	0.4	1.6
2	COD (mg/L)	24	22.3	1.9	6.7
3	DO (mg/L)	36	7.7	3.9	6
4	DO_SAT% (%)	36	94	50	73
5	FCol-MPN (MPN/100mL)	16	2200	790	1399
6	Tcol-MPN (MPN/100mL)	16	5400	140	2177
	TRACE & TOXIC				
1	Cd (µg/L)	36	4.3	0.0	0.7
2	Cr (µg/L)	36	16.5	0.0	3.3
3	Cu (µg/L)	36	12.5	0.0	3.5
4	Hg (µg/L)	10	0.1	0.0	0
5	Ni (µg/L)	36	17.5	0.0	7
6	Pb (µg/L)	36	47.0	0.0	25.4
7	Zn (µg/L)	36	275.8	0.0	16.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	293	75	141
2	HAR_Total (mgCaCO3/L)	36	558	144	271
3	Na% (%)	36	63	22	45
4	RSC (-)	36	0.2	0.0	0
5	SAR (-)	36	6.1	0.7	3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood						
		Jun - Oct						
		2013	2014	2015	2016	2017	2018	2019
	PHYSICAL							
1	Q (cumec)	900.0	1413	27.03	175.7	345.8	1173	1409
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	545	774	1076	672	623	524	565
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	8.3	8.2	8.1	8.5	8.1	8.2	8.1
6	TDS (mg/L)	317	477	767	536	411	330	353
7	Temp (deg C)	26.3	25.2	26.7	25.4	26.8	26.0	27.2
8	Turb (NTU)	2.8	38.0	28.4	45.0	68.3	65.6	106.4
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	2.2	1.7	0.7	5.1	7.0	7.7	0.3
2	ALK-TOT (mgCaCO3/L)	183	145	183	168	142	125	140
3	B (mg/L)	0.28	0.24	0.20		0.04	0.06	0.18
4	Ca (mg/L)	52	31	49	47	42	30	41
5	Cl (mg/L)	39.2	82.8	135.9	74.3	68.3	53.9	64.6
6	CO3 (mg/L)	2.6	2.0	0.8	6.2	8.4	9.3	0.4
7	F (mg/L)	0.65	0.70	0.92	0.81	0.57	0.45	0.42
8	Fe (mg/L)	0.1	0.1	0.0	0.1	1.5	1.1	6.7
9	HCO3 (mg/L)	218	173	221	192	156	133	170
10	K (mg/L)	1.8	3.0	3.7	2.6	0.4	0.2	0.3
11	Mg (mg/L)	20.2	17.7	27.9	27.3	23.4	15.5	14.4
12	Na (mg/L)	53.0	94.4	146.1	78.0	67.0	48.8	57.1
13	NH3-N (mg N/L)	0.11	0.00	0.06	0.08	0.45	0.18	0.09
14	NO2+NO3 (mg N/L)	0.67	1.11	1.06		4.91	1.92	2.10
15	NO2-N (mgN/L)	0.00	0.01	0.05	0.00	0.12	0.06	0.04
16	NO3-N (mgN/L)	0.67	1.10	1.01	1.21	4.79	1.86	2.06
17	o-PO4-P (mg P/L)	0.284	0.115	0.211	0.097	0.633	0.270	0.332
18	P-Tot (mgP/L)		0.095					
19	SiO2 (mg/L)	15.6	18.4	23.2	15.6	17.3	33.1	21.9
20	SO4 (mg/L)	71.0	98.3	194.0	103.1	86.7	34.5	62.6
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.1	1.1	1.1	1.5	1.2	1.9	0.6
2	COD (mg/L)	7.0	7.0	10.4	9.5	18.0	10.5	11.5
3	DO (mg/L)	6.3	6.2	5.4	6.2	6.1	6.0	5.4
4	DO_SAT% (%)	79	75	67	76	76	73	68
5	FCol-MPN (MPN/100mL)	590	9692	506	970	1868	92	548
6	Tcol-MPN (MPN/100mL)	4575	10240	12854	5060	2343	642	1952
7	TOC (mg/L)	0.2		17.9				
	TRACE & TOXIC							
1	As (µg/L)	3.0						1.4
2	Cd (µg/L)	0.3						0.0
3	Cr (µg/L)	0.5						5.1
4	Cu (µg/L)					11.5	15.4	19.0
5	Hg (µg/L)	0.7						
6	Ni (µg/L)	33.1						5.7
7	Pb (µg/L)	1.2						1.0
8	Zn (µg/L)	0.0				113.9	24.0	44.8
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	130	79	122	118	106	76	102
2	HAR_Total (mgCaCO3/L)	214	152	239	232	203	141	161
3	Na% (%)	37	51	56	39	41	38	41
4	RSC (-)	0.0	0.4	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	3.3	4.1	2.2	2.0	1.7	1.9
	PESTICIDES							

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood			Winter				
		Jun - Oct			Nov - Feb				
		2020	2021	2022	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
	PHYSICAL								
1	Q (cumec)	172.5	889.3	1389	58.35	53.24	39.59	21.95	41.16
2	EC_FLD (µmho/cm)		578	697					
3	EC_GEN (µmho/cm)	1100	750	790	813	775	1160	754	857
4	pH_FLD (pH units)		8.1						
5	pH_GEN (pH units)	8.0	7.9	8.3	8.2	8.2	8.3	8.5	8.1
6	TDS (mg/L)	853	568	524	516	594	556	575	550
7	Temp (deg C)	26.9	26.4	25.9	26.0	24.6	25.5	24.5	24.5
8	Turb (NTU)	25.4	4.2	7.2	9.5	2.1	42.3	7.3	25.3
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	1.0	9.8	1.1	1.0	0.9	6.1	0.0
2	ALK-TOT (mgCaCO3/L)	188	168	148	207	220	213	189	244
3	B (mg/L)	0.49	0.15	0.39	0.62	0.20	0.08		0.07
4	Ca (mg/L)	28	48	44	45	50	48	51	62
5	Cl (mg/L)	133.4	105.7	104.5	71.7	88.6	103.1	109.5	89.1
6	CO3 (mg/L)	0.0	1.2	11.8	1.3	1.3	1.0	7.3	0.0
7	F (mg/L)	0.39	0.91	0.54	0.84	0.89	0.55	0.96	0.93
8	Fe (mg/L)	0.7	0.7	1.7	0.0	0.1	0.1	0.1	0.4
9	HCO3 (mg/L)	230	203	157	250	266	258	215	298
10	K (mg/L)	0.4	3.6	2.7	2.4	2.7	2.5	4.0	0.4
11	Mg (mg/L)	33.1	19.4	23.2	26.0	27.6	27.8	24.8	32.2
12	Na (mg/L)	139.0	81.9	81.8	79.1	104.7	108.9	144.8	108.9
13	NH3-N (mg N/L)	0.01		0.24	0.00	0.03	0.01	0.02	0.34
14	NO2+NO3 (mg N/L)	4.20		4.86	0.90	0.92	1.14	0.70	6.79
15	NO2-N (mgN/L)	0.15	0.03	0.08	0.00	0.03	0.02	0.09	0.04
16	NO3-N (mgN/L)	3.70	5.12	4.78	0.90	0.89	1.12	0.60	6.75
17	o-PO4-P (mg P/L)	0.107	0.521	0.365	0.140	0.135	0.146	0.120	0.955
18	P-Tot (mgP/L)		0.715						
19	SiO2 (mg/L)	17.0		14.8	22.7	27.8	11.7	15.7	18.7
20	SO4 (mg/L)	118.6	52.6	71.5	83.5	70.0	142.0	161.2	125.7
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.4	0.7	1.3	0.9	0.8	1.3	1.0	0.5
2	COD (mg/L)	13.2	18.8	6.5	6.3	11.1	6.8	8.8	11.9
3	DO (mg/L)	3.0	6.5	5.9	6.9	7.1	6.5	6.6	7.0
4	DO_SAT% (%)	38	81	73	86	85	79	79	84
5	FCol-MPN (MPN/100mL)	1100	391		4165	878	1483	960	2325
6	Tcol-MPN (MPN/100mL)	9000	765		4383	3008	12055	2325	4493
7	TOC (mg/L)					32.1	13.6		
	TRACE & TOXIC								
1	As (µg/L)	0.1	2.2						
2	Cd (µg/L)	4.6	0.8	0.5		2.0			
3	Cr (µg/L)	2.3	3.8	2.8		1.4			
4	Cu (µg/L)	0.0	4.0	4.6		1.5		0.0	5.0
5	Hg (µg/L)	0.4	0.3	0.0					
6	Ni (µg/L)	14.0	4.6	6.0		7.5			
7	Pb (µg/L)	25.0	10.3	19.7		14.5			
8	Zn (µg/L)	0.0	13.7	9.4		5.2		0.0	59.2
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	71	120	110	113	124	121	128	154
2	HAR_Total (mgCaCO3/L)	209	201	206	221	239	237	231	288
3	Na% (%)	54	42	41	44	49	49	53	45
4	RSC (-)	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.1
5	SAR (-)	4.3	2.4	2.3	2.3	3.0	3.1	4.3	2.8
	PESTICIDES								

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter					Summer	
		Nov - Feb					Mar - May	
		2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2014	2015
	PHYSICAL							
1	Q (cumec)	44.51	219.7	60.33	46.04	62.10	23.55	24.31
2	EC_FLD (µmho/cm)				970	980		
3	EC_GEN (µmho/cm)	893	883	1231	1042	1236	978	785
4	pH_FLD (pH units)			5.6	8.4	8.4		
5	pH_GEN (pH units)	8.2	8.3	8.2	8.2	8.4	8.2	8.3
6	TDS (mg/L)	536	597	853	707	824	650	539
7	Temp (deg C)	24.5	24.5	25.7	23.9	23.6	26.0	25.7
8	Turb (NTU)	3.0	24.5	27.5	13.2	5.5	13.7	13.7
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	5.8	4.9	7.9	19.8	0.7	2.3
2	ALK-TOT (mgCaCO3/L)	205	213	271	236	213	219	171
3	B (mg/L)	0.03	0.18	0.34	0.32	0.39	0.54	0.36
4	Ca (mg/L)	40	42	43	54	58	46	50
5	Cl (mg/L)	87.0	113.5	141.3	128.7	149.8	97.3	145.0
6	CO3 (mg/L)	0.0	7.0	5.9	9.5	23.9	0.8	2.8
7	F (mg/L)	0.46	0.66	0.84	0.91	0.73	0.95	1.13
8	Fe (mg/L)	0.6	0.6	0.4	0.5	0.7	0.5	0.0
9	HCO3 (mg/L)	251	245	318	268	212	265	203
10	K (mg/L)	0.2	0.3	0.5	3.2	3.6	3.1	3.0
11	Mg (mg/L)	28.5	34.3	42.7	31.8	31.5	26.7	28.7
12	Na (mg/L)	74.3	111.9	153.6	110.0	124.4	108.4	139.1
13	NH3-N (mg N/L)	0.09	0.06	0.24	0.06	0.11	0.02	0.01
14	NO2+NO3 (mg N/L)	1.06	4.78	3.14		6.59	1.19	0.59
15	NO2-N (mgN/L)	0.08	0.05	0.12	0.32	0.06	0.00	0.05
16	NO3-N (mgN/L)	0.98	4.73	2.90		6.53	1.19	0.54
17	o-PO4-P (mg P/L)	0.241	0.155	0.284	0.860	0.125	0.137	0.217
18	P-Tot (mgP/L)				1.997			
19	SiO2 (mg/L)	19.2	24.7	25.7	26.2	13.4	26.3	30.7
20	SO4 (mg/L)	91.2	95.5	118.4	99.3	113.5	135.8	159.3
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	1.2	1.2	8.2	1.9	1.8	1.3	0.7
2	COD (mg/L)	4.6	49.1	15.8		6.9	6.6	9.2
3	DO (mg/L)	6.5	6.2	6.2	6.3	6.7	5.7	5.2
4	DO_SAT% (%)	79	75	76	75	79	70	64
5	FCol-MPN (MPN/100mL)	115	795	1505	1111	1211	920	2
6	Tcol-MPN (MPN/100mL)	373	2625	13617	1670	2527	5673	5500
7	TOC (mg/L)							33.2
	TRACE & TOXIC							
1	As (µg/L)		3.4	1.4			2.1	3.2
2	Cd (µg/L)		0.1	3.3	1.3	0.7	0.0	3.0
3	Cr (µg/L)		2.6	4.9	2.3	2.8	0.4	0.0
4	Cu (µg/L)	8.0	4.5	3.1	2.2	3.0		
5	Hg (µg/L)			0.8	0.5		1.8	0.1
6	Ni (µg/L)		7.7	4.9	5.9	7.4	5.1	14.0
7	Pb (µg/L)		1.1	50.5	15.9	29.8	13.3	22.0
8	Zn (µg/L)	34.9	52.5	11.8	7.4	30.7	4.0	12.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	99	106	108	136	146	114	124
2	HAR_Total (mgCaCO3/L)	218	248	286	268	277	226	244
3	Na% (%)	41	48	53	46	48	50	54
4	RSC (-)	0.3	0.1	0.3	0.1	0.0	0.1	0.0
5	SAR (-)	2.2	3.1	3.9	2.9	3.3	3.2	3.9
	PESTICIDES							

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Huvinhedigi (AK000N2) **Division : Lower Krishna Divn., Hyderabad**

Local River : Krishna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Summer							
		Mar - May							
		2016	2017	2018	2019	2020	2021	2022	2023
	PHYSICAL								
1	Q (cumec)	63.07	11.38		131.3	4.290	4.918	32.64	20.96
2	EC_FLD (µmho/cm)							1127	1118
3	EC_GEN (µmho/cm)	654	1009		568	1364	1232	899	1374
4	pH_FLD (pH units)								8.5
5	pH_GEN (pH units)	7.8	7.8		8.1	8.3	8.2	8.5	8.7
6	TDS (mg/L)	484	601		374	1074	834	673	870
7	Temp (deg C)	29.3	28.0		25.0	25.0	25.4	27.8	27.2
8	Turb (NTU)	140.5	43.0		2.0	30.8	18.3	5.7	21.4
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	2.2	0.0		1.6	3.5	0.0	21.3	30.8
2	ALK-TOT (mgCaCO3/L)	118	200		145	281	309	227	253
3	B (mg/L)				0.06	0.10	0.64	0.47	0.27
4	Ca (mg/L)	39	64		36	33	70	48	75
5	Cl (mg/L)	63.2	77.5		62.2	207.4	200.0	123.5	226.0
6	CO3 (mg/L)	2.7	0.0		2.0	4.2	0.0	25.6	37.2
7	F (mg/L)	0.11	0.59		0.33	0.51	0.96	0.96	0.93
8	Fe (mg/L)	0.0	0.0		4.0	0.4	1.0	0.6	0.3
9	HCO3 (mg/L)	138	244		172	335	377	224	233
10	K (mg/L)	1.3	3.5		0.3	1.5	4.3	3.5	4.1
11	Mg (mg/L)	29.5	22.9		19.4	53.4	37.2	36.8	44.3
12	Na (mg/L)	75.5	126.5		49.0	177.2	163.3	93.0	154.7
13	NH3-N (mg N/L)	0.00	0.01		0.11	0.01	0.15	0.24	0.06
14	NO2+NO3 (mg N/L)	0.58	2.20		0.61	2.27	2.32		2.84
15	NO2-N (mgN/L)	0.06	0.12		0.01	0.04	0.32	0.16	0.04
16	NO3-N (mgN/L)	0.52	2.08		0.60	2.20	5.56		2.80
17	o-PO4-P (mg P/L)	0.122	0.670		0.444	0.344	0.393	0.222	0.600
18	P-Tot (mgP/L)								
19	SiO2 (mg/L)	10.6	35.5		11.9	29.1	21.8	28.5	17.4
20	SO4 (mg/L)	134.0	106.8		83.1	175.2	127.5	100.1	112.6
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	2.2	1.0		1.1	3.0	2.2	1.0	1.8
2	COD (mg/L)	16.1	10.5		6.2	31.1	19.2	5.2	7.0
3	DO (mg/L)	5.3	4.5		8.4	7.5	6.5	5.2	5.1
4	DO_SAT% (%)	69	58		111	91	79	67	64
5	FCol-MPN (MPN/100mL)	8010	435		203	2200	330		1544
6	Tcol-MPN (MPN/100mL)	8085	1500		3933	16000	1700		1904
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)		2.0		3.3		11.0		
2	Cd (µg/L)		1.7		1.1	0.0	2.4	0.6	1.2
3	Cr (µg/L)		0.0		2.7	1.5	3.9	4.7	4.8
4	Cu (µg/L)		0.0		15.0	4.2	7.3	2.7	2.6
5	Hg (µg/L)		0.7		0.3		0.4	0.4	
6	Ni (µg/L)		6.3		7.7	16.5	13.8	3.2	8.0
7	Pb (µg/L)		1.0		23.0	3.7	29.7	24.7	28.9
8	Zn (µg/L)		0.0		16.1	8.5	9.0	2.2	9.0
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	98	161		91	82	175	121	187
2	HAR_Total (mgCaCO3/L)	221	256		172	304	330	274	372
3	Na% (%)	43	53		37	56	51	40	48
4	RSC (-)	0.0	0.0		0.0	0.1	0.2	0.1	0.0
5	SAR (-)	2.3	3.5		1.6	4.5	3.9	2.4	3.6
	PESTICIDES								

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**SUDDAKAL**	**Code**	:	**SUDDAKALLU**
State	:	Andhra Pradesh	District		Mahbubnagar
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Dindi	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Middle Krishna SD 2 , Kurnool
Drainage Area	:	2700 Sq. Km.	Bank	:	Left
Latitude	:	16°34'22"	Longitude	:	78°25'24"
		Opening Date	Closing Date		
Gauge	:	20-11-2014			
Discharge	:	20-11-2014			
Sediment	:	20-11-2014			
Water Quality	:	01-06-2022			

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	21-06-2022		01-07-2022	11-07-2022	21-07-2022	01-08-2022
		A		A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000		0.000	2.421	0.000	2.335
2	Colour_Cod (-)	Light Brown		Light Brown	Clear	Clear	Light Brown
3	EC_GEN (µmho/cm)	413		456	476	646	582
4	Odour_Code (-)	odour free		odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2		8.5	8.0	8.3	8.3
6	TDS (mg/L)	286		341	333	502	387
7	Temp (deg C)	22.0		21.0	19.0	22.0	21.0
8	Turb (NTU)	11.0		38.0	41.0	3.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0		16.4	0.0	21.6	0.0
2	ALK-TOT (mgCaCO3/L)	130		160	80	184	85
3	B (mg/L)			0.92	0.93	0.94	0.14
4	Ca (mg/L)	28		29	31	33	32
5	Cl (mg/L)	44.2		46.8	79.2	60.9	66.6
6	CO3 (mg/L)	0.0		19.8	0.0	26.0	0.0
7	F (mg/L)	0.53		0.73	0.68	0.66	0.74
8	Fe (mg/L)	0.2		1.1	0.1	0.3	0.8
9	HCO3 (mg/L)	159		155	97	172	104
10	K (mg/L)	4.0		3.4	3.9	3.0	3.3
11	Mg (mg/L)	10.0	**Sample not**	12.9	12.2	18.3	17.8
12	Na (mg/L)	51.7	**submitted**	58.6	52.3	57.2	46.2
13	NH3-N (mg N/L)		**for analysis**	0.22	0.50	0.11	0.37
14	NO2+NO3 (mg N/L)	1.53	**in 01-06-**	1.96	1.89	3.60	3.54
15	NO2-N (mgN/L)	0.06	**2022 and 11-**	0.03	0.03	0.01	0.02
16	NO3-N (mgN/L)	1.47	**06-2022 due**	1.93	1.86	3.59	3.52
17	o-PO4-P (mg P/L)	0.370	**to NO FLOW**	0.240	0.410	0.300	0.214
18	SiO2 (mg/L)	5.3	**condition of**	6.2	8.4	4.1	9.6
19	SO4 (mg/L)	33.4	**the River**	38.6	49.0	41.5	44.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	3.4		2.5	1.9	1.9	1.0
2	COD (mg/L)			15.2	7.8	9.3	5.9
3	DO (mg/L)	5.6		4.3	5.1	5.1	3.3
4	DO_SAT% (%)	64		48	55	58	37
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.7		0.6	0.9	0.0	1.2
2	Cr (µg/L)	5.0		0.2	0.0	3.0	0.0
3	Cu (µg/L)	2.6		6.3	0.0	0.0	0.0
4	Hg (µg/L)	0.0		0.0	0.0	0.0	0.1
5	Ni (µg/L)	0.0		3.8	5.8	4.5	1.6
6	Pb (µg/L)	0.0		0.0	0.0	25.0	11.0
7	Zn (µg/L)	6.1		5.0	3.9	3.4	0.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	69		72	77	83	80
2	HAR_Total (mgCaCO3/L)	110		125	127	159	154
3	Na% (%)	49		50	46	43	39
4	RSC (-)	0.4		0.7	0.0	0.5	0.0
5	SAR (-)	2.1		2.3	2.0	2.0	1.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022	03-10-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	9.332	2.021	8.210	11.99	0.000	9.439
2	Colour_Cod (-)	Brown	Light Brown	Light Brown	Light Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	485	666	544	544	725	677
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.3	8.4	8.0	7.9	8.2
6	TDS (mg/L)	292	515	389	418	501	392
7	Temp (deg C)	20.0	21.0	20.0	21.0	20.0	20.0
8	Turb (NTU)	13.0	2.0	21.0	6.1	4.0	34.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	25.3	21.0	19.1	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	143	158	159	171	173	238
3	B (mg/L)	0.18	0.16	0.12	0.15	0.05	0.08
4	Ca (mg/L)	33	39	38	47	46	44
5	Cl (mg/L)	57.0	56.7	53.0	51.0	60.0	66.3
6	CO3 (mg/L)	30.5	25.3	23.0	0.0	0.0	0.0
7	F (mg/L)	0.72	0.79	0.84	0.80	0.71	0.67
8	Fe (mg/L)	0.6	0.9	4.2	0.5	0.3	1.7
9	HCO3 (mg/L)	112	142	147	209	211	290
10	K (mg/L)	4.1	2.1	2.4	2.0	1.7	3.0
11	Mg (mg/L)	16.0	14.0	15.0	9.9	33.0	33.8
12	Na (mg/L)	39.0	44.9	37.0	35.3	47.2	59.0
13	NH3-N (mg N/L)	0.19	0.02	0.04	0.34	0.22	0.35
14	NO2+NO3 (mg N/L)	3.67	4.72	4.76	4.67	8.17	8.84
15	NO2-N (mgN/L)	0.02	0.09	0.06	0.02	0.05	0.04
16	NO3-N (mgN/L)	3.65	4.63	4.70	4.65	8.12	8.80
17	o-PO4-P (mg P/L)	0.280	0.250	0.290	0.390	0.320	0.183
18	SiO2 (mg/L)	8.6	47.0	13.6	7.3	14.2	16.4
19	SO4 (mg/L)	47.0	47.0	29.1	32.0	58.8	54.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	0.5	2.4	2.8	2.6	3.0
2	COD (mg/L)	10.9	2.0	26.8	19.8	20.6	5.7
3	DO (mg/L)	6.2	4.5	4.5	6.0	6.4	6.4
4	DO_SAT% (%)	68	50	49	67	70	70
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	1.9	0.0	0.0	0.2
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	4.9	4.3	6.3	4.0	2.2	2.2
4	Hg (µg/L)	0.4	0.1	0.1			
5	Ni (µg/L)	5.1	5.1	6.5	4.1	2.1	1.2
6	Pb (µg/L)	41.0	33.0	37.0	0.0	28.0	17.0
7	Zn (µg/L)	15.0	4.7	1.3	4.3	18.5	4.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	83	98	94	118	115	110
2	HAR_Total (mgCaCO3/L)	149	156	157	159	253	251
3	Na% (%)	36	38	34	32	29	34
4	RSC (-)	0.0	0.1	0.1	0.3	0.0	0.0
5	SAR (-)	1.4	1.6	1.3	1.2	1.3	1.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022	01-12-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.761	8.212	5.721	0.000	0.000	0.000
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Clear	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	661	610	745	763	761	817
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.3	8.4	8.3	8.3	8.4
6	TDS (mg/L)	385	410	469	585	416	438
7	Temp (deg C)	20.0	21.0	20.0	21.0	20.0	21.0
8	Turb (NTU)	6.0	12.0	12.0	7.0	4.0	10.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	25.1	18.1	17.4	22.4	23.2
2	ALK-TOT (mgCaCO3/L)	187	212	141	228	232	202
3	B (mg/L)	0.25	0.73	0.16	0.18	0.30	0.31
4	Ca (mg/L)	43	45	25	26	37	36
5	Cl (mg/L)	61.4	55.1	83.9	88.6	85.5	117.1
6	CO3 (mg/L)	0.0	30.2	21.8	21.0	27.0	28.0
7	F (mg/L)	0.62	0.75	0.83	0.73	0.60	0.87
8	Fe (mg/L)	0.6	0.3	0.4	0.6	0.5	3.1
9	HCO3 (mg/L)	228	197	128	235	228	190
10	K (mg/L)	2.8	2.9	2.9	3.3	3.5	3.9
11	Mg (mg/L)	21.6	22.1	29.5	29.5	26.0	25.8
12	Na (mg/L)	57.4	47.3	59.0	80.3	76.0	82.4
13	NH3-N (mg N/L)	0.26	0.14	0.21	0.12	0.04	0.00
14	NO2+NO3 (mg N/L)	8.35	7.97	7.90	7.95	7.98	8.06
15	NO2-N (mgN/L)	0.02	0.04	0.02	0.04	0.05	0.02
16	NO3-N (mgN/L)	8.33	7.93	7.88	7.91	7.93	8.04
17	o-PO4-P (mg P/L)	0.418	0.081	0.043	0.160	0.395	0.048
18	SiO2 (mg/L)	10.6	0.6	15.8	8.8	8.5	10.2
19	SO4 (mg/L)	52.0	51.0	67.1	55.1	55.1	65.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	1.7	1.2	0.8	1.4	1.6
2	COD (mg/L)	3.8	3.8	20.2	10.1	10.1	
3	DO (mg/L)	5.5	5.8	7.5	6.4	6.6	7.2
4	DO_SAT% (%)	60	65	82	72	73	81
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	1.0	0.9	1.1	0.3
2	Cr (µg/L)	0.0	0.0	0.0	0.8	3.4	3.5
3	Cu (µg/L)	1.5	2.5	2.9	2.9	1.4	1.8
4	Hg (µg/L)						
5	Ni (µg/L)	7.2	10.2	6.0	6.4	2.3	7.6
6	Pb (µg/L)	30.0	30.0	5.0	38.0	46.0	35.0
7	Zn (µg/L)	9.1	84.7	41.4	9.1	0.0	20.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	108	112	63	64	93	89
2	HAR_Total (mgCaCO3/L)	198	204	185	187	201	197
3	Na% (%)	38	33	41	48	45	47
4	RSC (-)	0.0	0.2	0.0	0.9	0.7	0.1
5	SAR (-)	1.8	1.4	1.9	2.6	2.3	2.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023	01-02-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Light Brown	Light Green	Clear	Light Brown	Clear	Clear
3	EC_GEN (µmho/cm)	827	778	858	876	859	894
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.3	8.4	8.4	8.0	8.4
6	TDS (mg/L)	618	701	481	675	601	501
7	Temp (deg C)	19.0	20.0	20.0	18.0	20.0	20.0
8	Turb (NTU)	3.0	3.2	14.0	11.0	9.7	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	21.1	22.4	25.3	42.3	0.0	24.9
2	ALK-TOT (mgCaCO3/L)	197	160	236	217	155	199
3	B (mg/L)	0.29	0.19	0.28	0.27	0.32	0.34
4	Ca (mg/L)	37	49	46	50	39	38
5	Cl (mg/L)	105.0	153.1	102.2	93.7	116.7	116.0
6	CO3 (mg/L)	25.4	27.0	30.5	51.0	0.0	30.0
7	F (mg/L)	0.89	0.70	0.73	0.78	0.69	0.83
8	Fe (mg/L)	1.4	0.8	0.5	0.3	0.4	0.4
9	HCO3 (mg/L)	189	140	226	161	190	182
10	K (mg/L)	3.1	2.9	4.3	4.8	4.1	3.5
11	Mg (mg/L)	26.0	30.5	30.7	29.0	21.8	22.4
12	Na (mg/L)	68.1	81.7	76.6	66.2	89.1	88.4
13	NH3-N (mg N/L)	0.01	0.05	0.00	0.10	0.00	0.03
14	NO2+NO3 (mg N/L)	8.71	9.42	9.81	1.08	0.98	1.75
15	NO2-N (mgN/L)	0.01	0.00	0.01	0.01	0.02	0.02
16	NO3-N (mgN/L)	8.70	9.42	9.80	1.07	0.96	1.73
17	o-PO4-P (mg P/L)	0.010	0.180	0.020	0.000	0.140	0.000
18	SiO2 (mg/L)	14.1	15.6	6.2	5.0	9.1	3.1
19	SO4 (mg/L)	49.0	64.0	75.6	75.6	63.0	91.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.1	1.6	0.5	1.1	1.8	1.6
2	COD (mg/L)			1.8	3.6	3.6	3.7
3	DO (mg/L)	7.2	7.8	6.0	7.0	7.7	6.5
4	DO_SAT% (%)	78	86	66	74	85	71
5	FCol-MPN (MPN/100mL)		1400	230	790	1700	1100
6	Tcol-MPN (MPN/100mL)		2200	790	1400	2200	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.0	1.0	0.1	0.0	0.0
2	Cr (µg/L)	2.5	3.3	14.0	0.6	1.3	2.2
3	Cu (µg/L)	0.8	1.7	3.7	13.3	1.6	3.5
4	Hg (µg/L)						
5	Ni (µg/L)	0.4	0.0	10.1	8.6	6.8	4.4
6	Pb (µg/L)	4.0	0.0	27.0	17.0	9.0	17.0
7	Zn (µg/L)	7.8	14.1	2.6	35.0	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	93	123	115	125	97	95
2	HAR_Total (mgCaCO3/L)	201	250	243	246	187	188
3	Na% (%)	42	41	40	37	50	50
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.3
5	SAR (-)	2.1	2.3	2.1	1.8	2.8	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023	05-04-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	932	955	962	1097	1021	1172
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.5	8.7	9.0	8.7	9.1
6	TDS (mg/L)	599	696	822	790	707	898
7	Temp (deg C)	20.0	20.0	21.0	23.0	20.0	23.0
8	Turb (NTU)	17.0	14.8	35.0	7.2	10.7	26.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	34.6	33.8	28.1	25.7	34.4	37.3
2	ALK-TOT (mgCaCO3/L)	260	260	244	239	320	235
3	B (mg/L)	0.31	0.30	0.28	0.26	0.25	0.08
4	Ca (mg/L)	41	44	45	91	45	45
5	Cl (mg/L)	113.1	117.5	145.4	250.0	143.8	177.4
6	CO3 (mg/L)	41.7	40.7	33.8	31.0	41.5	44.9
7	F (mg/L)	0.82	0.80	0.90	0.87	0.76	0.99
8	Fe (mg/L)	0.2	0.3	0.8	0.3	0.6	0.4
9	HCO3 (mg/L)	233	235	229	229	306	195
10	K (mg/L)	5.0	2.2	4.1	4.1	5.9	4.1
11	Mg (mg/L)	30.5	28.6	14.2	29.0	14.0	27.0
12	Na (mg/L)	84.0	81.8	119.8	120.0	149.5	138.9
13	NH3-N (mg N/L)	0.03	0.10	0.04	0.04	0.04	0.05
14	NO2+NO3 (mg N/L)	1.17	1.24	1.32	1.28	1.25	3.53
15	NO2-N (mgN/L)	0.03	0.01	0.01	0.02	0.03	0.01
16	NO3-N (mgN/L)	1.14	1.23	1.31	1.26	1.22	3.52
17	o-PO4-P (mg P/L)	0.100	0.200	0.400	0.600	0.500	0.400
18	SiO2 (mg/L)	5.4	13.7	27.8	6.2	6.6	29.2
19	SO4 (mg/L)	69.0	64.0	18.5	18.5	18.5	83.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.0	1.8	1.5	2.7	2.1	1.5
2	COD (mg/L)	3.8	3.8				
3	DO (mg/L)	5.6	6.0	6.7	6.8	7.5	4.8
4	DO_SAT% (%)	62	66	75	79	82	56
5	FCol-MPN (MPN/100mL)	790	2200	790	790	790	2200
6	Tcol-MPN (MPN/100mL)	1400	2800	1100	1700	790	2800
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	4.3	0.3	0.0	0.0	0.0
2	Cr (µg/L)	0.5	0.8	1.6	2.0	2.9	6.9
3	Cu (µg/L)	3.8	1.7	4.7	1.2	1.2	1.4
4	Hg (µg/L)						
5	Ni (µg/L)	2.8	5.1	7.4	5.9	5.3	5.0
6	Pb (µg/L)	20.0	17.0	33.0	34.0	24.0	21.0
7	Zn (µg/L)	4.5	1.5	10.3	44.2	4.6	3.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	103	110	113	228	113	112
2	HAR_Total (mgCaCO3/L)	230	229	172	348	171	225
3	Na% (%)	44	44	60	43	65	57
4	RSC (-)	0.7	0.7	1.5	0.0	3.0	0.2
5	SAR (-)	2.4	2.4	4.0	2.8	5.0	4.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	0.000	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Dark Brown	Light Brown	Clear	Light Brown	Clear
3	EC_GEN (µmho/cm)	1179	1422	1175	905	865
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.9	8.4	8.8	8.3	8.4
6	TDS (mg/L)	848	1076	795	643	605
7	Temp (deg C)	24.0	23.0	29.0	23.0	23.0
8	Turb (NTU)	51.3	10.6	4.1	7.0	6.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	38.2	37.4	28.2	28.8	20.8
2	ALK-TOT (mgCaCO3/L)	314	150	303	299	228
3	B (mg/L)	0.12	0.10	0.09	0.35	0.18
4	Ca (mg/L)	63	47	86	55	59
5	Cl (mg/L)	203.8	194.3	172.0	127.5	116.9
6	CO3 (mg/L)	46.0	45.0	34.0	34.7	25.1
7	F (mg/L)	0.79	0.95	1.12	1.10	1.10
8	Fe (mg/L)	0.2	1.0	0.2	0.2	0.2
9	HCO3 (mg/L)	289	91	300	294	227
10	K (mg/L)	4.4	5.0	4.1	4.3	4.2
11	Mg (mg/L)	45.4	60.3	49.4	45.0	32.5
12	Na (mg/L)	116.3	116.0	127.0	123.0	118.2
13	NH3-N (mg N/L)	0.06	0.09	0.06	0.82	0.09
14	NO2+NO3 (mg N/L)	3.65	3.25	2.18	2.23	2.26
15	NO2-N (mgN/L)	0.08	0.02	0.02	0.03	0.03
16	NO3-N (mgN/L)	3.57	3.23	2.16	2.20	2.23
17	o-PO4-P (mg P/L)	0.300	0.500	0.400	0.600	0.700
18	SiO2 (mg/L)	9.3	8.1	10.4	11.5	11.1
19	SO4 (mg/L)	95.0	163.0	121.0	149.0	149.3
	BIOLOGICAL/BACTERIOLOGIC					
1	BOD3-27 (mg/L)	2.2	2.2	0.5	1.5	3.0
2	COD (mg/L)			1.9	7.6	7.6
3	DO (mg/L)	5.1	6.1	5.5	3.6	6.0
4	DO_SAT% (%)	61	71	72	42	70
5	FCol-MPN (MPN/100mL)	1300	700	1400	1400	1400
6	Tcol-MPN (MPN/100mL)	2200	1100	2200	2800	1700
	TRACE & TOXIC					
1	Cd (µg/L)	1.2	0.3	0.0	3.1	1.2
2	Cr (µg/L)	6.9	7.2	8.9	2.0	0.2
3	Cu (µg/L)	1.0	1.7	0.2	0.0	5.6
4	Hg (µg/L)					
5	Ni (µg/L)	3.0	4.5	0.0	9.0	0.0
6	Pb (µg/L)	18.0	0.0	11.0	32.0	11.0
7	Zn (µg/L)	29.8	1.8	3.3	4.5	35.1
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	158	118	215	138	148
2	HAR_Total (mgCaCO3/L)	347	370	421	325	283
3	Na% (%)	42	40	39	45	47
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.7	2.6	2.7	3.0	3.1
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **Sub-Division : Middle Krishna SD 2 , Kurnool**

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	15.00	0.000	1.622
2	EC_GEN (µmho/cm)	34	1422	413	804
3	pH_GEN (pH units)	34	9.1	7.9	8.4
4	TDS (mg/L)	34	1076	286	562
5	Temp (deg C)	34	29.0	18.0	21.1
6	Turb (NTU)	34	51.3	2.0	13.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	34	42.3	0.0	20.4
2	ALK-TOT (mgCaCO3/L)	34	320	80	203
3	B (mg/L)	33	0.94	0.05	0.29
4	Ca (mg/L)	34	91	25	44
5	Cl (mg/L)	34	250.0	44.2	105.3
6	CO3 (mg/L)	34	51.0	0.0	24.6
7	F (mg/L)	34	1.12	0.53	0.8
8	Fe (mg/L)	34	4.2	0.1	0.7
9	HCO3 (mg/L)	34	306	91	198
10	K (mg/L)	34	5.9	1.7	3.6
11	Mg (mg/L)	34	60.3	9.9	26
12	Na (mg/L)	34	149.5	35.3	79.3
13	NH3-N (mg N/L)	33	0.82	0.00	0.14
14	NO2+NO3 (mg N/L)	34	9.81	0.98	4.43
15	NO2-N (mgN/L)	34	0.09	0.00	0.03
16	NO3-N (mgN/L)	34	9.80	0.96	4.4
17	o-PO4-P (mg P/L)	34	0.700	0.000	0.278
18	SiO2 (mg/L)	34	47.0	0.6	11.4
19	SO4 (mg/L)	34	163.0	18.5	64.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	34	3.4	0.5	1.8
2	COD (mg/L)	24	26.8	1.8	8.7
3	DO (mg/L)	34	7.8	3.3	5.9
4	DO_SAT% (%)	34	86	37	67
5	FCol-MPN (MPN/100mL)	16	2200	230	1186
6	Tcol-MPN (MPN/100mL)	16	2800	790	1786
	TRACE & TOXIC				
1	Cd (µg/L)	34	4.3	0.0	0.6
2	Cr (µg/L)	34	14.0	0.0	2.3
3	Cu (µg/L)	34	13.3	0.0	2.7
4	Hg (µg/L)	8	0.4	0.0	0.1
5	Ni (µg/L)	34	10.2	0.0	4.6
6	Pb (µg/L)	34	46.0	0.0	19.7
7	Zn (µg/L)	34	84.7	0.0	12.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	34	228	63	109
2	HAR_Total (mgCaCO3/L)	34	421	110	218
3	Na% (%)	34	65	29	43
4	RSC (-)	34	3.0	0.0	0.3
5	SAR (-)	34	5.0	1.2	2.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2021-2023

Station Name : SUDDAKAL (SUDDAKALLU) **Division : Lower Krishna Divn., Hyderabad**

Local River : **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood		Winter		Summer	
		Jun - Oct		Nov - Feb		Mar - May	
		2021	2022	2021-2022	2022-2023	2022	2023
	PHYSICAL						
1	Q (cumec)	0.000	4.748	0.000	0.477	0.000	0.000
2	EC_GEN (µmho/cm)	591	576	795	839	1031	1089
3	pH_GEN (pH units)	8.1	8.2	8.2	8.3	8.5	8.7
4	TDS (mg/L)	426	396	596	565	727	798
5	Temp (deg C)	25.8	20.6	23.9	19.9	26.4	23.2
6	Turb (NTU)	5.1	15.1	6.7	9.4	15.9	17.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	8.7	9.9	8.5	23.8	25.0	31.0
2	ALK-TOT (mgCaCO3/L)	201	160	246	207	181	259
3	B (mg/L)	0.19	0.39	0.27	0.27	0.46	0.19
4	Ca (mg/L)	37	37	43	39	27	60
5	Cl (mg/L)	68.5	58.3	102.3	107.7	130.3	170.1
6	CO3 (mg/L)	10.4	11.9	10.3	28.7	30.1	37.3
7	F (mg/L)	0.79	0.71	0.84	0.77	1.01	0.95
8	Fe (mg/L)	1.0	0.9	0.9	0.7	0.6	0.4
9	HCO3 (mg/L)	224	171	279	195	160	240
10	K (mg/L)	4.0	3.0	4.3	3.6	4.8	4.5
11	Mg (mg/L)	17.4	18.2	28.1	27.5	24.5	35.2
12	Na (mg/L)	62.0	48.7	86.3	77.8	102.3	125.4
13	NH3-N (mg N/L)		0.23	0.17	0.06	0.26	0.14
14	NO2+NO3 (mg N/L)		4.90		5.50		2.32
15	NO2-N (mgN/L)	0.02	0.04	0.07	0.02	0.03	0.02
16	NO3-N (mgN/L)	3.00	4.86		5.48		2.30
17	o-PO4-P (mg P/L)	0.828	0.288	0.933	0.108	0.208	0.489
18	P-Tot (mgP/L)	1.230		1.588			
19	SiO2 (mg/L)		11.7	13.6	9.6	27.6	13.4
20	SO4 (mg/L)	43.6	44.4	69.6	66.2	86.5	90.6
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.2	2.1	2.6	1.4	3.6	1.9
2	COD (mg/L)	18.6	11.0		6.7	9.3	5.7
3	DO (mg/L)	5.7	5.3	6.3	6.8	5.4	5.8
4	DO_SAT% (%)	71	59	75	75	67	68
5	FCol-MPN (MPN/100mL)	436		791	1173		1197
6	Tcol-MPN (MPN/100mL)	754		1253	1741		1821
	TRACE & TOXIC						
1	As (µg/L)	3.3					
2	Cd (µg/L)	0.1	0.4	0.7	0.8	0.6	0.7
3	Cr (µg/L)	3.9	0.6	3.8	2.7	1.7	4.3
4	Cu (µg/L)	3.7	2.8	1.6	3.3	3.0	1.9
5	Hg (µg/L)	0.3	0.1	0.1		1.1	
6	Ni (µg/L)	1.8	4.4	3.3	5.0	1.8	4.5
7	Pb (µg/L)	9.3	19.4	6.8	19.6	19.3	20.4
8	Zn (µg/L)	16.5	12.3	6.0	11.4	3.3	15.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	94	93	106	97	68	149
2	HAR_Total (mgCaCO3/L)	166	169	224	212	171	296
3	Na% (%)	43	39	45	44	54	49
4	RSC (-)	0.8	0.2	0.5	0.3	0.5	0.5
5	SAR (-)	2.1	1.7	2.5	2.3	3.5	3.3
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Dhond**	**Code**	:	**AKP00V8**
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	:	Lower Bhima SD, Sholapur
Drainage Area	:	11660 Sq. Km.	Bank	:	Right
Latitude	:	18°28'26"	Longitude	:	74°34'35"
		Opening Date	Closing Date		
Gauge	:	22-05-1967			
Discharge	:	24-11-1967	31-05-2006		
Water Quality	:	03-07-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : Dhond (AKP00V8) River Water Analysis Division : Upper Krishna Divn, Pune

Local River : Bhima Sub-Division : Lower Bhima SD, Sholapur

S.No	Parameters	14-06-2022	14-07-2022	26-07-2022	02-08-2022	10-08-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	**This is GQ site No Discharge observation.**				
2	Colour_Cod (-)	Light Brown	Dark Brown	Clear	Clear	Light Brown
3	EC_GEN (µmho/cm)	1270	247	484	674	1013
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.3	7.4	7.4	7.7	7.6
6	TDS (mg/L)	823	188	322	516	849
7	Temp (deg C)	22.5	22.0	22.5	21.0	21.0
8	Turb (NTU)	9.3	40.0	9.6	7.8	9.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	277	77	146	181	261
3	B (mg/L)	0.47	0.08	0.11	0.25	0.23
4	Ca (mg/L)	59	25	45	45	61
5	Cl (mg/L)	323.3	35.1	68.8	111.4	194.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.44	0.08	0.11	0.12	0.23
8	Fe (mg/L)	0.0	1.5	0.1	0.1	0.1
9	HCO3 (mg/L)	338	94	178	221	319
10	K (mg/L)	21.5	5.2	7.0	8.5	10.3
11	Mg (mg/L)	40.0	6.5	13.4	21.7	26.8
12	Na (mg/L)	248.0	26.2	51.7	84.5	148.9
13	NH3-N (mg N/L)	0.06	0.13	0.74	0.09	0.09
16	NO3-N (mgN/L)	3.10	2.35	2.56	3.14	4.28
15	NO2-N (mgN/L)	0.07	0.04	0.04	0.06	0.08
			2.31	2.52	3.08	4.20
17	P-Tot (mgP/L)	0.697	0.127	0.224	0.238	0.337
18	SiO2 (mg/L)	23.6	19.4	27.8	28.2	30.8
19	SO4 (mg/L)	214.8	24.8	52.2	91.0	81.9
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.7	2.2	2.4	3.6	3.4
2	COD (mg/L)	19.0	21.0	18.0	28.0	29.0
3	DO (mg/L)	3.3	3.7	6.1	5.9	4.0
4	DO_SAT% (%)	38	42	70	66	45
5	FCol-MPN (MPN/100mL)	200	11000	8000	3000	14000
6	Tcol-MPN (MPN/100mL)	9000	160000	17000	5000	22000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	0.0	0.0	0.4	0.5
2	Cr (µg/L)	3.8	10.8	0.8	0.6	0.0
3	Cu (µg/L)	4.6	22.8	1.6	1.5	3.2
4	Hg (µg/L)	0.0	0.1		0.0	
5	Ni (µg/L)	8.3	26.2	7.1	7.4	11.0
6	Pb (µg/L)	20.0	5.0	8.0	7.0	11.0
7	Zn (µg/L)	16.5	53.3	29.0	18.7	8.1
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	147	63	111	113	152
2	HAR_Total (mgCaCO3/L)	314	90	167	204	263
3	Na% (%)	61	37	39	46	54
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	6.1	1.2	1.7	2.6	4.0
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Dhond (AKP00V8) River Water Analysis Division : Upper Krishna Divn, Pune

Local River : Bhima Sub-Division : Lower Bhima SD, Sholapur

S.No	Parameters	23-08-2022	06-09-2022	14-09-2022	22-09-2022	04-10-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	**This is GQ site No Discharge observation.**				
2	Colour_Cod (-)	Clear	Clear	Light Brown	Clear	Clear
3	EC_GEN (µmho/cm)	339	729	628	553	843
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.2	7.8	7.3	7.5	7.8
6	TDS (mg/L)	301	636	462	409	722
7	Temp (deg C)	21.0	21.0	23.0	21.5	21.0
8	Turb (NTU)	4.7	7.1	26.9	9.4	9.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	100	149	172	155	240
3	B (mg/L)	0.06	0.16	1.76	0.23	0.26
4	Ca (mg/L)	28	53	49	42	62
5	Cl (mg/L)	57.5	208.1	206.2	109.1	222.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.12	0.11	0.28	0.19
8	Fe (mg/L)	0.1	0.1	0.2	0.0	0.0
9	HCO3 (mg/L)	123	181	210	189	293
10	K (mg/L)	3.9	10.5	16.0	4.0	9.0
11	Mg (mg/L)	11.1	19.5	16.6	15.9	28.5
12	Na (mg/L)	43.0	152.5	142.7	76.4	172.0
13	NH3-N (mg N/L)	0.04	0.20	0.41	0.30	0.16
16	NO3-N (mgN/L)	1.89	3.45	4.24	2.97	4.88
15	NO2-N (mgN/L)	0.02	0.09	0.11	0.08	0.09
		1.88	3.36	4.13	2.89	4.79
17	P-Tot (mgP/L)	0.028	0.183	0.133	0.114	0.218
18	SiO2 (mg/L)	23.9	25.7	24.2	29.4	30.4
19	SO4 (mg/L)	39.7	78.8	67.9	68.5	118.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.9	2.6	3.2	1.4	2.9
2	COD (mg/L)	11.0	18.0	21.0	11.0	21.0
3	DO (mg/L)	5.7	5.6	4.8	5.7	7.6
4	DO_SAT% (%)	64	63	56	64	85
5	FCol-MPN (MPN/100mL)	7000	50000	30000	6000	17000
6	Tcol-MPN (MPN/100mL)	28000	160000	160000	17000	160000
	TRACE & TOXIC					
1	Cd (µg/L)	0.9	0.4	0.5	0.0	0.1
2	Cr (µg/L)	0.2	0.0	0.0	0.0	0.0
3	Cu (µg/L)	7.9	6.8	11.1	11.2	6.1
4	Hg (µg/L)					
5	Ni (µg/L)	6.1	3.0	9.1	2.3	17.7
6	Pb (µg/L)	5.0	2.0	7.0	5.0	5.0
7	Zn (µg/L)	16.8	4.8	17.2	17.4	8.3
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	71	131	123	105	154
2	HAR_Total (mgCaCO3/L)	117	212	192	171	273
3	Na% (%)	44	60	59	49	57
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.7	4.6	4.5	2.5	4.5
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Dhond (AKP00V8) River Water Analysis Division : Upper Krishna Divn, Pune

Local River : Bhima Sub-Division : Lower Bhima SD, Sholapur

S.No	Parameters	12-10-2022	20-10-2022	02-11-2022	11-11-2022	22-11-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	**This is GQ site No Discharge observation.**				
2	Colour_Cod (-)	Clear	Light Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	947	656	955	1117	1087
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.9	7.2	7.8	8.1	8.2
6	TDS (mg/L)	730	467	638	785	808
7	Temp (deg C)	22.0	21.0	20.0	18.0	20.0
8	Turb (NTU)	8.4	11.7	10.2	19.2	11.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	261	168	238	288	283
3	B (mg/L)	0.19	0.18	0.17	0.50	0.51
4	Ca (mg/L)	57	47	60	76	80
5	Cl (mg/L)	246.6	146.5	150.6	134.8	142.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.23	0.20	0.20	0.22	0.20
8	Fe (mg/L)	0.1	0.4	0.1	0.3	0.1
9	HCO3 (mg/L)	319	205	290	352	346
10	K (mg/L)	10.0	8.5	11.5	12.0	15.5
11	Mg (mg/L)	39.9	18.3	38.5	28.7	25.3
12	Na (mg/L)	187.5	111.6	113.5	101.2	110.2
13	NH3-N (mg N/L)	0.21	0.26	0.28	0.25	0.16
16	NO3-N (mgN/L)	4.86	4.91	5.21	5.09	4.34
15	NO2-N (mgN/L)	0.08	0.08	0.08	0.09	0.06
		4.78	4.83	5.14	5.00	4.28
17	P-Tot (mgP/L)	0.255	0.183	0.203	0.427	0.695
18	SiO2 (mg/L)	35.2	22.4	36.3	33.5	26.3
19	SO4 (mg/L)	152.3	71.1	92.4	105.2	89.1
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.1	2.8	2.7	4.2	4.3
2	COD (mg/L)	17.0	21.0	26.0	35.0	32.0
3	DO (mg/L)	6.0	3.4	6.9	7.7	8.0
4	DO_SAT% (%)	69	38	76	81	88
5	FCol-MPN (MPN/100mL)	3400	28000	17000	30000	90000
6	Tcol-MPN (MPN/100mL)	50000	160000	160000	160000	160000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	1.3	2.5	2.6	3.1
2	Cr (µg/L)	0.0	0.0	0.5	0.0	0.4
3	Cu (µg/L)	6.2	9.1	6.6	7.4	7.8
4	Hg (µg/L)					
5	Ni (µg/L)	3.6	0.0	4.6	8.4	8.8
6	Pb (µg/L)	0.0	0.0	5.0	9.0	9.0
7	Zn (µg/L)	1.4	1.1	0.0	10.0	11.6
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	144	117	150	191	201
2	HAR_Total (mgCaCO3/L)	310	193	310	310	306
3	Na% (%)	56	55	43	40	42
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.7	3.5	2.8	2.5	2.7
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Dhond (AKP00V8) Division : Upper Krishna Divn, Pune

Local River : Bhima River Water Summary Sub-Division : Lower Bhima SD, Sholapur

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	**This is GQ site No Discharge observation.**			
2	EC_GEN (µmho/cm)	15	1270	247	769
3	pH_GEN (pH units)	15	8.2	7.2	7.6
4	TDS (mg/L)	15	849	188	577
5	Temp (deg C)	15	23.0	18.0	21.2
6	Turb (NTU)	15	40.0	4.7	13
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	15	288	77	200
3	B (mg/L)	15	1.76	0.06	0.34
4	Ca (mg/L)	15	80	25	53
5	Cl (mg/L)	15	323.3	35.1	157.2
6	CO3 (mg/L)	15	0.0	0.0	0
7	F (mg/L)	15	0.44	0.06	0.19
8	Fe (mg/L)	15	1.5	0.0	0.2
9	HCO3 (mg/L)	15	352	94	244
10	K (mg/L)	15	21.5	3.9	10.2
11	Mg (mg/L)	15	40.0	6.5	23.4
12	Na (mg/L)	15	248.0	26.2	118
13	NH3-N (mg N/L)	15	0.74	0.04	0.22
14	NO2+NO3 (mg N/L)	15	5.21	1.89	3.82
15	NO2-N (mgN/L)	15	0.11	0.02	0.07
16	NO3-N (mgN/L)	15	5.14	1.88	3.75
19	SO4 (mg/L)	15	0.697	0.028	0.271
18	SiO2 (mg/L)	15	36.3	19.4	27.8
			214.8	24.8	89.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	15	4.3	1.4	2.8
2	COD (mg/L)	15	35.0	11.0	21.9
3	DO (mg/L)	15	8.0	3.3	5.6
4	DO_SAT% (%)	15	88	38	63
5	FCol-MPN (MPN/100mL)	15	90000	200	20973
6	Tcol-MPN (MPN/100mL)	15	160000	5000	95200
	TRACE & TOXIC				
1	Cd (µg/L)	15	3.1	0.0	0.8
2	Cr (µg/L)	15	10.8	0.0	1.1
3	Cu (µg/L)	15	22.8	1.5	7.6
4	Hg (µg/L)	3	0.1	0.0	0
5	Ni (µg/L)	15	26.2	0.0	8.2
6	Pb (µg/L)	15	20.0	0.0	6.5
7	Zn (µg/L)	15	53.3	0.0	14.3
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	15	201	63	132
2	HAR_Total (mgCaCO3/L)	15	314	90	229
3	Na% (%)	15	61	37	50
4	RSC (-)	15	0.0	0.0	0
5	SAR (-)	15	6.1	1.2	3.3
	PESTICIDES				

Water Quality Seasonal Average for the period : 2019-2023

Station Name : Dhond (AKP00V8) Division : Upper Krishna Divn, Pune

Local River : Bhima River Water Sub-Division : Lower Bhima SD, Sholapur

S.No	Parameters	Flood				Winter				Summer	
		Jun - Oct				Nov - Feb				Mar - May	
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022	2022-2023	2020	
	PHYSICAL										
1	Q (cumec)	**This is GQ site No Discharge observation.**									
2	EC_GEN (µmho/cm)	561	947	650	699	1061	1327		1053	1207	
3	pH_GEN (pH units)	8.1	8.0	7.9	7.5	8.2	8.0		8.0	7.9	
4	TDS (mg/L)		530	364	535		743		744		
5	Temp (deg C)	22.3	23.6	22.0	21.6	19.0	18.9		19.3	22.4	
6	Turb (NTU)			13.6	12.9				13.6		
	CHEMICAL										
1	ALK-TOT (mgCaCO3/L)	160	213	167	182	292	289		270	257	
2	B (mg/L)	0.19	0.34	0.25	0.33	0.45	0.47		0.39	0.38	
3	Ca (mg/L)	47	53	42	48	70	75		72	53	
4	Cl (mg/L)	44.6	132.8	141.7	160.8	133.1	202.6		142.7	132.4	
5	F (mg/L)	0.15	0.30	0.25	0.18	0.41	0.35		0.21	0.44	
6	Fe (mg/L)	0.6	0.3	0.1	0.2	0.3	0.1		0.2	0.2	
7	HCO3 (mg/L)	196	260	204	222	357	353		329	314	
8	K (mg/L)	4.5	7.4	10.8	9.5	2.5	15.0		13.0	36.5	
9	Mg (mg/L)	19.2	30.5	20.1	21.5	41.4	38.4		30.8	32.1	
10	Na (mg/L)	31.2	93.8	102.1	120.4	82.6	154.9		108.3	95.6	
11	NH3-N (mg N/L)			0.37	0.22				0.23		
12	NO2+NO3 (mg N/L)	4.35	3.03	2.95	3.56	11.14	5.12		4.88	2.37	
13	NO2-N (mgN/L)	0.04	0.03	0.07	0.07	0.10	0.10		0.08	0.04	
14	SiO2 (mg/L)	5.8	3.00	2.88	3.49	11.04	5.03		4.81	2.33	
15	P-Tot (mgP/L)	0.695	0.291	0.336	0.228	0.514	0.853		0.442	0.812	
16	NO3-N (mgN/L)		27.8	27.1	26.7	14.4	27.3		32.0	17.9	
17	SO4 (mg/L)	56.1	126.5	66.9	88.4	112.7	180.6		95.6	164.7	
	BIOLOGICAL/BACTERIOLOGICAL										
1	BOD3-27 (mg/L)	1.7	2.2	2.8	2.6	2.0	1.3		3.8		
2	COD (mg/L)	12.5	19.0	19.9	19.6	17.0	11.1		31.0		
3	DO (mg/L)		5.8	4.3	5.1		3.7		7.5		
4	DO_SAT% (%)		68	49	58		42		82		
5	FCol-MPN (MPN/100mL)	4625	1775	2691	14800	4000	10050		45667		
6	Tcol-MPN (MPN/100mL)	15400	4075	6573	79000	14000	53500		160000		
	TRACE & TOXIC										
1	Cd (µg/L)			0.2	0.3				2.7		
2	Cr (µg/L)			0.0	1.4				0.3		
3	Cu (µg/L)			1.4	7.7				7.3		
4	Hg (µg/L)			0.0	0.0						
5	Ni (µg/L)			0.0	8.5				7.3		
6	Pb (µg/L)			13.8	6.3				7.7		
7	Zn (µg/L)			9.0	16.0				7.2		
	CHEMICAL INDICES										
1	HAR_Ca (mgCaCO3/L)	117	133	104	119	174	188		181	132	
2	HAR_Total (mgCaCO3/L)	197	260	188	209	347	348		309	266	
3	Na% (%)	23	41	48	51	34	48		42	39	
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.1	
5	SAR (-)	0.9	2.4	3.1	3.5	1.9	3.6		2.7	2.5	
	PESTICIDES										

Samples not collected due to Dry bed / No flow condition.

Samples not collected during Summer Season from 2021 to 2023 due Drybed / No flow condition.

HISTORY SHEET

			Water Year	**:**	**2022-2023**
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	:	Upper Bhima SD, Pune
Drainage Area	:	6307 Sq. Km.	Bank	:	Right
Latitude	:	18°32'00"	Longitude	:	74°22'00"
		Opening Date	Closing Date		
Gauge	:	26-06-1986			
Discharge	:	02-09-2015			
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water Analysis** **Sub-Division : Upper Bhima SD, Pune**

S.No	Parameters	14-07-2022	26-07-2022	02-08-2022	10-08-2022	23-08-2022	06-09-2022	14-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	2350	390.6	113.5	431.2	540.1	125.0	455.7
2	Colour_Cod (-)	Brown	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	241	486	661	854	272	765	581
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.3	7.4	7.6	7.5	7.1	7.4	7.5
6	TDS (mg/L)	219	339	470	492	238	603	455
7	Temp (deg C)	24.0	24.0	25.5	24.0	25.0	25.0	24.5
8	Turb (NTU)	44.0	53.4	38.5	22.1	11.7	26.1	22.8
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	82	157	211	165	84	123	140
3	B (mg/L)	0.06	0.07	0.23	0.17	0.04	0.19	0.69
4	Ca (mg/L)	27	55	50	63	27	51	48
5	Cl (mg/L)	31.0	68.0	79.1	154.3	43.4	194.3	203.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.08	0.15	0.16	0.22	0.06	0.15	0.10
8	Fe (mg/L)	0.8	0.1	0.1	0.0	0.1	0.2	0.1
9	HCO3 (mg/L)	101	192	258	202	103	150	170
10	K (mg/L)	5.3	7.9	12.3	17.0	4.4	11.5	14.5
11	Mg (mg/L)	5.2	8.4	21.0	25.4	11.0	24.3	16.4
12	Na (mg/L)	42249.0	52.4	61.2	110.0	32.6	148.0	148.0
13	NH3-N (mg N/L)	0.71	0.74	0.68	0.13	0.35	1.20	0.45
16	NO3-N (mgN/L)	2.25	2.29	3.30	3.87	1.81	4.30	3.67
15	NO2-N (mgN/L)	0.04	0.04	0.06	0.04	0.01	0.13	0.10
			2.26	3.24	3.84	1.80	4.17	3.58
17	P-Tot (mgP/L)	0.179	0.352	0.341	0.643	0.026	0.404	0.205
18	SiO2 (mg/L)	19.0	28.8	18.4	31.0	23.8	27.5	27.1
19	SO4 (mg/L)	19.2	32.9	85.9	88.2	55.0	98.2	67.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	2.7	4.1	3.9	2.5	2.6	3.7	3.1
2	COD (mg/L)	19.0	37.0	31.0	17.0	19.0	31.0	25.0
3	DO (mg/L)	4.2	4.7	5.0	3.1	5.5	4.4	4.7
4	DO_SAT% (%)	50	56	60	37	67	53	56
5	FCol-MPN (MPN/100mL)	50000	2200	400	13000	14000	50000	1400
6	Tcol-MPN (MPN/100mL)	90000	5000	7000	90000	35000	160000	3400
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.7	0.7	0.3	0.5	0.0
2	Cr (µg/L)	3.4	2.3	0.1	5.8	0.1	0.0	0.0
3	Cu (µg/L)	3.6	3.8	0.7	12.3	5.8	7.6	13.5
4	Hg (µg/L)		0.0	0.0	0.1			
5	Ni (µg/L)	6.9	7.2	11.1	13.2	6.2	5.0	4.2
6	Pb (µg/L)	6.0	9.0	5.0	10.0	0.0	5.0	0.0
7	Zn (µg/L)	20.1	17.0	9.4	29.9	24.5	6.5	19.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	68	137	126	156	68	128	121
2	HAR_Total (mgCaCO3/L)	89	172	213	262	114	229	189
3	Na% (%)	35	39	37	46	37	57	61
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.1	1.7	1.8	3.0	1.3	4.3	4.7
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water Analysis** **Sub-Division : Upper Bhima SD, Pune**

S.No	Parameters	22-09-2022	04-10-2022	12-10-2022	20-10-2022	02-11-2022	11-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	340.0	148.4	161.1	411.8	83.22	44.08
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Green	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	431	784	881	641	586	786
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.4	7.4	7.7	7.3	7.8	7.6
6	TDS (mg/L)	321	638	693	569	458	639
7	Temp (deg C)	25.0	24.5	25.0	25.0	23.0	25.0
8	Turb (NTU)	27.2	15.5	16.1	14.2	23.9	31.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	132	239	267	172	165	232
3	B (mg/L)	0.08	0.24	0.12	0.14	0.16	0.36
4	Ca (mg/L)	34	63	70	53	66	68
5	Cl (mg/L)	69.6	238.8	250.5	139.8	106.2	93.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.31	0.19	0.23	0.15	0.21	0.15
8	Fe (mg/L)	0.0	0.1	0.7	0.2	0.1	0.3
9	HCO3 (mg/L)	161	291	326	210	202	283
10	K (mg/L)	4.2	14.0	13.5	9.0	9.5	13.0
11	Mg (mg/L)	14.4	24.8	31.0	18.2	33.2	17.7
12	Na (mg/L)	53.1	182.5	181.5	101.5	77.9	70.6
13	NH3-N (mg N/L)	0.43	1.20	1.50	0.62	1.20	3.80
16	NO3-N (mgN/L)	2.53	5.60	3.56	5.40	4.87	4.32
15	NO2-N (mgN/L)	0.07	0.09	0.06	0.08	0.08	0.06
		2.45	5.51	3.50	5.32	4.79	4.27
17	P-Tot (mgP/L)	0.181	0.604	0.578	0.255	0.355	0.768
18	SiO2 (mg/L)	26.9	30.1	34.6	25.1	38.8	31.3
19	SO4 (mg/L)	61.5	101.0	124.5	68.8	88.9	68.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.5	4.5	4.0	3.3	1.6	4.8
2	COD (mg/L)	18.0	39.0	32.0	26.0	14.0	38.0
3	DO (mg/L)	5.8	5.1	4.4	4.0	7.2	5.8
4	DO_SAT% (%)	70	61	53	48	84	70
5	FCol-MPN (MPN/100mL)	2200	30000	13000	22000	14000	17000
6	Tcol-MPN (MPN/100mL)	3400	160000	160000	160000	17000	160000
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.2	2.5	3.1	2.2
2	Cr (µg/L)	0.0	0.0	0.0	4.4	1.2	0.0
3	Cu (µg/L)	6.5	7.4	6.1	4.0	9.1	6.4
4	Hg (µg/L)						
5	Ni (µg/L)	1.3	3.8	6.1	8.9	8.9	6.8
6	Pb (µg/L)	5.0	1.0	0.0	3.0	12.0	9.0
7	Zn (µg/L)	12.4	2.8	1.2	14.0	2.4	10.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	86	158	175	132	164	169
2	HAR_Total (mgCaCO3/L)	146	261	304	208	303	243
3	Na% (%)	43	59	55	50	35	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.9	4.9	4.5	3.1	2.0	2.0
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Paragaon (AKP00V9) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Upper Bhima SD, Pune**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	2724	0.000	146.8
2	EC_GEN (µmho/cm)	13	881	241	613
3	pH_GEN (pH units)	13	7.8	7.1	7.5
4	TDS (mg/L)	13	693	219	472
5	Temp (deg C)	13	25.5	23.0	24.6
6	Turb (NTU)	13	53.4	11.7	26.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	13	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	13	267	82	167
3	B (mg/L)	13	0.69	0.04	0.2
4	Ca (mg/L)	13	70	27	52
5	Cl (mg/L)	13	250.5	31.0	128.6
6	CO3 (mg/L)	13	0.0	0.0	0
7	F (mg/L)	13	0.31	0.06	0.17
8	Fe (mg/L)	13	0.8	0.0	0.2
9	HCO3 (mg/L)	13	326	101	204
10	K (mg/L)	13	17.0	4.2	10.5
11	Mg (mg/L)	13	33.2	5.2	19.3
12	Na (mg/L)	13	182.5	23.4	95.6
13	NH3-N (mg N/L)	13	3.80	0.13	1
14	NO2+NO3 (mg N/L)	13	5.60	1.81	3.68
15	NO2-N (mgN/L)	13	0.13	0.01	0.07
16	NO3-N (mgN/L)	13	5.51	1.80	3.61
19	SO4 (mg/L)	13	0.768	0.026	0.376
18	SiO2 (mg/L)	13	38.8	18.4	27.9
			124.5	19.2	73.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	13	4.8	1.6	3.3
2	COD (mg/L)	13	39.0	14.0	26.6
3	DO (mg/L)	13	7.2	3.1	4.9
4	DO_SAT% (%)	13	84	37	59
5	FCol-MPN (MPN/100mL)	13	50000	400	17631
6	Tcol-MPN (MPN/100mL)	13	160000	3400	80831
	TRACE & TOXIC				
1	Cd (µg/L)	13	3.1	0.0	0.8
2	Cr (µg/L)	13	5.8	0.0	1.3
3	Cu (µg/L)	13	13.5	0.7	6.7
4	Hg (µg/L)	3	0.1	0.0	0
5	Ni (µg/L)	13	13.2	1.3	6.9
6	Pb (µg/L)	13	12.0	0.0	5
7	Zn (µg/L)	13	29.9	1.2	13.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	13	175	68	130
2	HAR_Total (mgCaCO3/L)	13	304	89	210
3	Na% (%)	13	61	35	45
4	RSC (-)	13	0.0	0.0	0
5	SAR (-)	13	4.9	1.1	2.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2020-2023

Station Name : Paragaon (AKP00V9) | **Division : Upper Krishna Divn, Pune**

Local River : Bhima | **River Water** | **Sub-Division : Upper Bhima SD, Pune**

S.No	Parameters	Flood			Winter			Summer
		Jun - Oct			Nov - Feb			Mar - May
		2020	2021	2022	2020-2021	2021-2022	2022-2023	
	PHYSICAL							
1	Q (cumec)	137.5	247.0	497.1	19.76	4.948	63.65	
2	EC_GEN (µmho/cm)	744	543	600	831	735	686	
3	pH_GEN (pH units)	8.1	7.8	7.4	7.7	8.1	7.7	
4	TDS (mg/L)	417	307	458	466	412	549	
5	Temp (deg C)	26.8	25.8	24.7	23.8	23.5	24.0	
6	Turb (NTU)		35.8	26.5		6.2	27.6	
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	186	167	161	235	229	199	
2	B (mg/L)	0.23	0.18	0.18	0.24	0.22	0.26	
3	Ca (mg/L)	49	42	49	58	53	67	
4	Cl (mg/L)	103.1	103.9	133.8	130.0	333.2	99.8	
5	F (mg/L)	0.32	0.22	0.16	0.31	0.29	0.18	
6	Fe (mg/L)	0.8	0.1	0.2	0.2	0.0	0.2	
7	HCO3 (mg/L)	227	204	197	286	279	243	
8	K (mg/L)	7.4	9.4	10.3	13.3	17.6	11.3	
9	Mg (mg/L)	24.6	16.2	18.2	26.3	21.2	25.5	
10	Na (mg/L)	71.2	75.9	99.5	97.9	208.4	74.3	
11	NH3-N (mg N/L)		0.26	0.73		0.01	2.50	
12	NO2+NO3 (mg N/L)	42249.00	3.42	3.51	7.60	4.77	4.60	
13	NO2-N (mgN/L)	0.04	0.07	0.07	0.03	0.04	0.07	
16	SiO2 (mg/L)	26.8	3.36	3.45	7.57	4.73	4.53	
15	P-Tot (mgP/L)	0.453	0.472	0.343	1.057	0.661	0.561	
			26.4	26.6	22.6	25.5	35.0	
17	SO4 (mg/L)	66.5	46.1	73.0	61.7	38.0	78.5	
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	3.4	3.6	3.4	3.3	3.9	3.2	
2	COD (mg/L)	28.0	28.3	26.7	25.7	22.0	26.0	
3	DO (mg/L)	5.4	4.5	4.6	5.6	4.7	6.5	
4	DO_SAT% (%)	67	55	56	66	55	77	
5	FCol-MPN (MPN/100mL)	2650	2931	18018	250	1400	15500	
6	Tcol-MPN (MPN/100mL)	4950	18769	79436	5000	3300	88500	
	TRACE & TOXIC							
1	Cd (µg/L)		0.4	0.4		0.0	2.6	
2	Cr (µg/L)		0.6	1.5		0.0	0.6	
3	Cu (µg/L)		3.6	6.5		0.0	7.8	
4	Hg (µg/L)		0.0	0.0		0.0		
5	Ni (µg/L)		0.0	6.7		0.0	7.8	
6	Pb (µg/L)		12.1	4.0		14.0	10.5	
7	Zn (µg/L)		13.7	14.3		8.9	6.6	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	123	105	123	146	131	167	
2	HAR_Total (mgCaCO3/L)	226	172	199	256	220	273	
3	Na% (%)	38	44	47	44	65	36	
4	RSC (-)	0.0	0.1	0.0	0.0	0.2	0.0	
5	SAR (-)	2.0	2.4	2.9	2.7	6.1	2.0	
	PESTICIDES							

Samples not collected during Summer Season from 2021 to 2023 due to Drybed / No flow condition.

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Mirawadi**	**Code**	:	**MIRAWADI**
State	:	Maharashtra	District		Pune
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	MulaMutta
Division	:	Upper Krishna Divn, Pune	Sub-Division	:	Upper Bhima SD, Pune
Drainage Area	:	2640 Sq. Km.	Bank	:	Left
Latitude	:	18°32'02"	Longitude	:	74°10'32"
		Opening Date	Closing Date		
Gauge	:	16-06-2018			
Discharge	:	16-06-2018			
Water Quality	:	03-07-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : Mirawadi (MIRAWADI)

Division : Upper Krishna Divn, Pune

Local River : Mulamutta River Water Analysis

Sub-Division : Upper Bhima SD, Pune

S.No	Parameters	14-07-2022	26-07-2022	02-08-2022	10-08-2022
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	1355	129.4	62.08	356.5
2	Colour_Cod (-)	Dark Brown	Clear	Clear	Light Brown
3	EC_FLD (µmho/cm)	257	517	744	692
4	EC_GEN (µmho/cm)	223	522	606	722
5	Odour_Code (-)	other-dis-agreeable	odour free	odour free	odour free
6	pH_FLD (pH units)	7.2	7.6	7.2	7.0
7	pH_GEN (pH units)	7.2	7.6	7.6	7.4
8	TDS (mg/L)	198	399	501	516
9	Temp (deg C)	21.0	22.0	22.5	23.5
10	Turb (NTU)	115.0	13.4	6.1	13.4
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	70	171	146	162
3	B (mg/L)	0.08	0.14	0.19	0.09
4	Ca (mg/L)	22	50	50	59
5	Cl (mg/L)	25.1	75.1	147.2	151.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.18	0.18	0.18
8	Fe (mg/L)	2.9	0.1	0.1	0.5
9	HCO3 (mg/L)	86	209	178	198
10	K (mg/L)	4.4	8.5	10.5	17.5
11	Mg (mg/L)	7.0	13.0	20.1	21.4
14	NO2+NO3 (mg N/L)	2.19	57.6	86.0	112.5
13	NH3-N (mg N/L)	0.26	1.10	1.10	0.98
			1.96	2.73	2.94
15	NO2-N (mgN/L)	0.02	0.03	0.23	0.05
16	NO3-N (mgN/L)	2.17	1.93	2.49	2.89
17	P-Tot (mgP/L)	0.146	0.422	0.444	0.713
18	SiO2 (mg/L)	18.8	30.6	27.1	32.0
19	SO4 (mg/L)	27.4	51.1	78.6	54.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	2.7	5.4	3.7	2.5
2	COD (mg/L)	18.0	33.0	33.0	21.0
3	DO (mg/L)	3.4	5.7	4.5	3.5
4	DO_SAT% (%)	38	65	52	41
5	FCol-MPN (MPN/100mL)	3300	11000	1100	30000
6	Tcol-MPN (MPN/100mL)	160000	30000	1700	90000
	TRACE & TOXIC				
1	Cd (µg/L)	0.0	0.0	0.5	0.4
2	Cr (µg/L)	24.3	0.9	0.1	8.5
3	Cu (µg/L)	55.1	2.9	0.7	28.2
4	Hg (µg/L)	0.2		0.1	0.1
5	Ni (µg/L)	24.4	6.2	8.7	17.2
6	Pb (µg/L)	9.0	6.0	7.0	13.0
7	Zn (µg/L)	97.0	25.8	13.8	6.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	56	125	125	148
2	HAR_Total (mgCaCO3/L)	85	179	209	237
3	Na% (%)	32	40	46	49
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	0.9	1.9	2.6	3.2
	PESTICIDES				

Water Quality Datasheet for the period : 2022-2023

Station Name : Mirawadi (MIRAWADI)

Division : Upper Krishna Divn, Pune

Local River : Mulamutta River Water Analysis

Sub-Division : Upper Bhima SD, Pune

S.No	Parameters	23-08-2022	06-09-2022	14-09-2022	22-09-2022	04-10-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	327.6	52.09	342.3	138.6	66.19
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	265	700	491	405	772
4	EC_GEN (µmho/cm)	273	732	556	417	752
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.1	7.0	7.1	7.2	7.3
7	pH_GEN (pH units)	7.0	7.5	7.3	7.5	7.5
8	TDS (mg/L)	216	628	315	289	626
9	Temp (deg C)	22.0	24.0	23.0	22.5	23.5
10	Turb (NTU)	6.2	9.2	15.8	9.9	14.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	87	170	157	133	234
3	B (mg/L)	0.02	0.19	0.23	0.10	0.22
4	Ca (mg/L)	27	54	51	36	61
5	Cl (mg/L)	43.0	170.2	186.4	75.8	162.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.14	0.12	0.22	0.20
8	Fe (mg/L)	0.0	0.0	0.1	0.0	0.1
9	HCO3 (mg/L)	106	207	192	162	286
10	K (mg/L)	4.1	12.0	16.0	4.2	10.0
11	Mg (mg/L)	8.8	13.2	20.7	13.4	23.7
14	NO2+NO3 (mg N/L)	33.2	126.5	133.5	46.8	119.0
13	NH3-N (mg N/L)	0.40	2.30	0.74	0.82	2.10
		1.67	3.19	3.68	2.25	3.98
15	NO2-N (mgN/L)	0.04	0.09	0.09	0.06	0.06
16	NO3-N (mgN/L)	1.63	3.10	3.58	2.19	3.92
17	P-Tot (mgP/L)	0.413	0.444	0.163	0.190	0.537
18	SiO2 (mg/L)	22.6	27.3	24.6	27.1	29.9
19	SO4 (mg/L)	32.8	54.9	88.4	55.4	86.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	2.2	4.0	2.8	2.0	4.5
2	COD (mg/L)	18.0	27.0	22.0	13.0	34.0
3	DO (mg/L)	5.5	5.0	4.1	5.1	5.2
4	DO_SAT% (%)	63	59	48	58	61
5	FCol-MPN (MPN/100mL)	14000	35000	5000	2300	50000
6	Tcol-MPN (MPN/100mL)	90000	160000	90000	5000	160000
	TRACE & TOXIC					
1	Cd (µg/L)	0.9	0.4	0.5	0.0	0.0
2	Cr (µg/L)	1.1	0.0	0.0	0.0	0.0
3	Cu (µg/L)	0.5	7.3	12.7	8.2	6.0
4	Hg (µg/L)					
5	Ni (µg/L)	3.9	4.4	7.2	2.0	7.4
6	Pb (µg/L)	0.0	4.0	2.0	0.0	5.0
7	Zn (µg/L)	16.2	4.0	17.1	11.8	3.9
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	67	136	126	90	153
2	HAR_Total (mgCaCO3/L)	104	191	213	145	252
3	Na% (%)	40	57	56	40	50
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.4	4.0	4.0	1.7	3.3
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Mirawadi (MIRAWADI)

Division : Upper Krishna Divn, Pune

Local River : Mulamutta River Water Analysis

Sub-Division : Upper Bhima SD, Pune

S.No	Parameters	12-10-2022	20-10-2022	02-11-2022	11-11-2022	22-11-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	118.5	239.8	59.07	27.39	30.15
2	Colour_Cod (-)	Clear	Light Brown	Light Green	Clear	Light Green
3	EC_FLD (µmho/cm)	762	572	779	813	840
4	EC_GEN (µmho/cm)	775	578	799	827	849
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.1	7.3	7.5	7.6
7	pH_GEN (pH units)	7.6	7.3	7.6	7.7	7.7
8	TDS (mg/L)	633	423	664	660	675
9	Temp (deg C)	23.0	24.5	21.5	19.5	21.5
10	Turb (NTU)	10.8	18.4	15.8	14.2	27.4
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	289	162	200	239	286
3	B (mg/L)	0.09	0.11	0.12	0.28	0.24
4	Ca (mg/L)	66	50	66	70	72
5	Cl (mg/L)	164.2	133.6	140.9	103.9	115.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.22	0.17	0.13	0.16	0.21
8	Fe (mg/L)	0.1	1.1	0.1	0.1	0.2
9	HCO3 (mg/L)	352	197	244	292	350
10	K (mg/L)	13.5	9.0	12.0	14.0	17.5
11	Mg (mg/L)	30.5	17.8	27.5	21.5	18.7
14	NO2+NO3 (mg N/L)	121.5	101.5	102.5	80.5	88.6
13	NH3-N (mg N/L)	0.96	0.62	0.84	5.70	9.90
		2.54	5.22	4.08	4.27	3.90
15	NO2-N (mgN/L)	0.05	0.06	0.07	0.08	0.06
16	NO3-N (mgN/L)	2.49	5.16	4.01	4.20	3.84
17	P-Tot (mgP/L)	0.859	0.288	0.499	0.978	1.230
18	SiO2 (mg/L)	35.3	23.7	35.3	33.0	35.5
19	SO4 (mg/L)	124.9	72.4	102.1	83.1	72.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	4.9	3.3	2.9	3.9	4.4
2	COD (mg/L)	37.0	28.0	23.0	34.0	34.0
3	DO (mg/L)	4.2	3.8	3.4	5.0	5.3
4	DO_SAT% (%)	49	45	38	54	60
5	FCol-MPN (MPN/100mL)	24000	30000	28000	24000	30000
6	Tcol-MPN (MPN/100mL)	160000	160000	160000	90000	160000
	TRACE & TOXIC					
1	Cd (µg/L)	0.1	2.4	3.4	2.8	3.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	10.1	2.7	7.5	8.2	6.7
4	Hg (µg/L)					
5	Ni (µg/L)	7.9	8.4	6.4	10.1	8.1
6	Pb (µg/L)	0.0	0.0	6.0	8.0	6.0
7	Zn (µg/L)	6.1	7.4	1.3	14.7	11.5
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	164	126	165	176	179
2	HAR_Total (mgCaCO3/L)	291	200	280	266	257
3	Na% (%)	46	51	43	38	41
4	RSC (-)	0.0	0.0	0.0	0.0	0.6
5	SAR (-)	3.1	3.1	2.7	2.2	2.4
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

Station Name : Mirawadi (MIRAWADI) Division : Upper Krishna Divn, Pune

Local River : Mulamutta River Water Summary Sub-Division : Upper Bhima SD, Pune

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1696	0.000	81.30
2	EC_FLD (µmho/cm)	14	840	257	615
3	EC_GEN (µmho/cm)	14	849	223	616
4	pH_FLD (pH units)	14	7.6	7.0	7.3
5	pH_GEN (pH units)	14	7.7	7.0	7.5
6	TDS (mg/L)	14	675	198	482
7	Temp (deg C)	14	24.5	19.5	22.4
8	Turb (NTU)	14	115.0	6.1	20.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	14	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	14	289	70	179
3	B (mg/L)	14	0.28	0.02	0.15
4	Ca (mg/L)	14	72	22	52
5	Cl (mg/L)	14	186.4	25.1	121.1
6	CO3 (mg/L)	14	0.0	0.0	0
7	F (mg/L)	14	0.22	0.06	0.16
8	Fe (mg/L)	14	2.9	0.0	0.4
9	HCO3 (mg/L)	14	352	86	218
10	K (mg/L)	14	17.5	4.1	10.9
11	Mg (mg/L)	14	30.5	7.0	18.4
12	Na (mg/L)	14	133.5	19.2	87.8
13	NH3-N (mg N/L)	14	9.90	0.26	1.99
14	NO2+NO3 (mg N/L)	14	5.22	1.67	3.19
17	P-Tot (mgP/L)	14	0.23	0.02	0.07
16	NO3-N (mgN/L)	14	5.16	1.63	3.11
			1.230	0.146	0.523
18	SiO2 (mg/L)	14	35.5	18.8	28.8
19	SO4 (mg/L)	14	124.9	27.4	70.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	14	5.4	2.0	3.5
2	COD (mg/L)	14	37.0	13.0	26.8
3	DO (mg/L)	14	5.7	3.4	4.5
4	DO_SAT% (%)	14	65	38	52
5	FCol-MPN (MPN/100mL)	14	50000	1100	20550
6	Tcol-MPN (MPN/100mL)	14	160000	1700	108336
	TRACE & TOXIC				
1	Cd (µg/L)	14	3.4	0.0	1
2	Cr (µg/L)	14	24.3	0.0	2.5
3	Cu (µg/L)	14	55.1	0.5	11.2
4	Hg (µg/L)	3	0.2	0.1	0.1
5	Ni (µg/L)	14	24.4	2.0	8.7
6	Pb (µg/L)	14	13.0	0.0	4.7
7	Zn (µg/L)	14	97.0	1.3	16.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	14	179	56	131
2	HAR_Total (mgCaCO3/L)	14	291	85	208
3	Na% (%)	14	57	32	45
4	RSC (-)	14	0.6	0.0	0
5	SAR (-)	14	4.0	0.9	2.6
	PESTICIDES				

Water Quality Seasonal Average for the period : 2019-2023

Station Name : Mirawadi (MIRAWADI)

Division : Upper Krishna Divn, Pune

Local River : Mulamutta

River Water

Sub-Division : Upper Bhima SD, Pune

S.No	Parameters	Flood				Winter				Summer	
		Jun - Oct				Nov - Feb				Mar - May	
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022	2022-2023	2020	
	PHYSICAL										
1	Q (cumec)	665.2	105.9	319.9	289.8	129.2	17.62	0.000	38.87	0.000	
2	EC_FLD (µmho/cm)	216	875	864	561		786	1652	811		
3	EC_GEN (µmho/cm)	440	629	503	560	679	742	756	825	626	
4	pH_FLD (pH units)	7.2	8.2	7.3	7.2		7.4	7.4	7.5		
5	pH_GEN (pH units)	7.6	8.2	7.7	7.4	7.8	7.6	7.6	7.7	7.5	
6	TDS (mg/L)		352	282	431		416	423	666		
7	Temp (deg C)	26.3	25.2	27.2	22.9		24.4	27.0	20.8	26.0	
8	Turb (NTU)			47.7	21.2			7.8	19.1		
	CHEMICAL										
1	ALK-TOT (mgCaCO3/L)	141	172	164	162	196	226	211	242	171	
2	B (mg/L)	0.12	0.16	0.16	0.13	0.12	0.19	0.20	0.21	0.06	
3	Ca (mg/L)	36	49	43	48	62	55	56	69	47	
4	Cl (mg/L)	34.6	97.9	96.9	121.3	49.4	126.8	358.8	120.2	50.8	
5	F (mg/L)	0.23	0.26	0.24	0.16	0.33	0.33	0.45	0.17	0.28	
6	Fe (mg/L)	0.6	0.2	0.2	0.5	0.2	0.2	0.1	0.1	0.1	
7	HCO3 (mg/L)	172	210	200	198	239	276	258	295	208	
8	K (mg/L)	3.7	6.3	10.3	10.0	0.8	13.4	22.4	14.5	15.7	
9	Mg (mg/L)	15.7	20.8	15.8	17.2	24.4	24.3	21.5	22.6	18.2	
10	Na (mg/L)	22.8	72.5	68.3	87.0	28.5	96.7	192.0	90.5	35.5	
11	NH3-N (mg N/L)			0.44	1.03			0.08	5.48		
14	NO3-N (mgN/L)	2.97	4.41	3.06	2.94	6.17	8.57	8.15	4.08	7.87	
13	NO2-N (mgN/L)	0.03	0.04	0.12	0.07	0.09	0.04	0.10	0.07	0.03	
			4.37	2.94	2.87	6.08	8.53	8.05	4.01	7.84	
15	P-Tot (mgP/L)	1.021	0.601	0.626	0.420	1.484	1.153	1.119	0.902	1.059	
16	SiO2 (mg/L)	7.1	24.8	26.7	27.2	11.6	17.5	29.2	34.6	4.0	
17	SO4 (mg/L)	29.1	44.3	32.8	66.1	43.8	38.7	34.0	85.9	60.7	
	BIOLOGICAL/BACTERIOLOGICAL										
1	BOD3-27 (mg/L)	1.9	2.6	3.2	3.5	2.9	4.1	3.4	3.7		
2	COD (mg/L)	17.0	21.3	22.8	25.8	21.0	33.5	29.0	30.3		
3	DO (mg/L)	4.3	5.1	4.3	4.5		5.3	4.2	4.6		
4	DO_SAT% (%)	54	62	55	53		63	53	51		
5	FCol-MPN (MPN/100mL)	11250	2933	8638	18700	2300	525	600	27333		
6	Tcol-MPN (MPN/100mL)	36000	9200	32923	100609	17000	43350	2700	136667		
	TRACE & TOXIC										
1	Cd (µg/L)			0.5	0.5			0.0	3.1		
2	Cr (µg/L)			0.3	3.2			0.0	0.0		
3	Cu (µg/L)			3.5	12.2			0.0	7.5		
4	Hg (µg/L)			0.0	0.1			0.0			
5	Ni (µg/L)			0.0	8.9			0.0	8.2		
6	Pb (µg/L)			12.3	4.2			10.0	6.7		
7	Zn (µg/L)			11.5	19.0			8.6	9.1		
	CHEMICAL INDICES										
1	HAR_Ca (mgCaCO3/L)	89	123	107	120	155	138	141	173	118	
2	HAR_Total (mgCaCO3/L)	154	209	173	191	257	239	230	267	194	
3	Na% (%)	21	40	42	46	19	45	62	41	27	
4	RSC (-)	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	
5	SAR (-)	0.7	2.1	2.2	2.7	0.8	2.7	5.5	2.4	1.1	
	PESTICIDES										

Samples not collected during Summer Season from 2021 to 2023 due to Drybed / No flow condition.

HISTORY SHEET

			Water Year	**:**	**2022-2023**
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	:	Upper Bhima SD, Pune
Drainage Area	:	2205 Sq. Km.	Bank	:	Right
Latitude	:	18°40'01"	Longitude	:	74°00'08"
		Opening Date	Closing Date		
Gauge	:	05-07-1986			
Discharge	:	21-07-1992			
Water Quality	:	02-08-1993			

Water Quality Datasheet for the period : 2022-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water Analysis** **Sub-Division : Upper Bhima SD, Pune**

S.No	Parameters	14-07-2022	26-07-2022	02-08-2022	10-08-2022	23-08-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	574.2	119.6	24.72	350.1	75.51
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Brown	Clear
3	EC_FLD (µmho/cm)	165	240	417	250	286
4	EC_GEN (µmho/cm)	194	277	495	293	284
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.4	7.2	7.8	7.3	7.3
7	pH_GEN (pH units)	7.4	7.3	7.7	7.4	7.2
8	TDS (mg/L)	152	189	326	189	180
9	Temp (deg C)	24.3	25.0	29.0	23.5	23.5
10	Turb (NTU)	30.0	92.5	4.7	28.5	12.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	64	98	154	97	106
3	B (mg/L)	0.09	0.05	0.11	0.08	0.06
4	Ca (mg/L)	19	33	46	31	32
5	Cl (mg/L)	24.0	25.9	87.4	32.0	36.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.07	0.10	0.07	0.06
8	Fe (mg/L)	1.5	0.1	0.1	0.0	0.1
9	HCO3 (mg/L)	78	120	187	119	130
10	K (mg/L)	4.3	4.7	7.1	7.2	4.4
11	Mg (mg/L)	8.6	6.4	17.9	8.9	
14	NO2+NO3 (mg N/L)	2.29	19.4	57.0	24.2	27.4
			0.14	0.06	0.07	0.13
15	NO2-N (mgN/L)	0.01	1.59	3.57	1.74	1.80
16	NO3-N (mgN/L)	2.28	0.02	0.05	0.03	0.03
17	P-Tot (mgP/L)	0.088	1.57	3.52	1.71	1.78
18	SiO2 (mg/L)	20.4	0.101	0.119	0.100	0.021
19	SO4 (mg/L)	33.6	21.3	25.8	20.9	22.9
	BIOLOGICAL/BACTERIOLOGICAL		24.2	74.8	35.8	36.2
1	BOD3-27 (mg/L)	1.8				
2	COD (mg/L)	15.0	2.3	2.7	2.8	2.9
3	DO (mg/L)	7.0	17.0	16.0	21.0	22.0
4	DO_SAT% (%)	83	5.6	7.1	5.6	6.1
5	FCol-MPN (MPN/100mL)	11000	68	92	65	71
6	Tcol-MPN (MPN/100mL)	160000	17000	2200	90000	50000
	TRACE & TOXIC		50000	3000	160000	160000
1	Cd (µg/L)	0.0				
2	Cr (µg/L)	11.1	0.0	1.2	2.2	0.5
3	Cu (µg/L)	12.9	1.1	0.0	9.2	0.3
4	Hg (µg/L)		3.0	0.5	14.2	0.5
5	Ni (µg/L)	22.0		0.0	0.1	
6	Pb (µg/L)	7.0	6.5	5.9	14.1	4.1
7	Zn (µg/L)	46.3	5.0	8.0	5.0	0.0
	CHEMICAL INDICES		14.4	3.0	9.4	8.6
1	HAR_Ca (mgCaCO3/L)	49				
2	HAR_Total (mgCaCO3/L)	85	82	116	77	79
3	Na% (%)	30	109	191	114	119
4	RSC (-)	0.0	27	38	30	32
5	SAR (-)	0.8	0.0	0.0	0.0	0.0
	PESTICIDES		0.8	1.8	1.0	1.1

Water Quality Datasheet for the period : 2022-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water Analysis** **Sub-Division : Upper Bhima SD, Pune**

S.No	Parameters	06-09-2022	14-09-2022	22-09-2022	04-10-2022	12-10-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	22.41	184.3	62.99	23.10	0.000
2	Colour_Cod (-)	Clear	Light Brown	Clear	Light Green	Light Green
3	EC_FLD (µmho/cm)	449	261	405	448	449
4	EC_GEN (µmho/cm)	502	374	412	516	585
5	Odour_Code (-)	odour free	odour free	odour free	other-dis-agree	odour free
6	pH_FLD (pH units)	7.6	7.1	7.7	5.9	7.6
7	pH_GEN (pH units)	7.6	7.4	7.5	7.7	7.7
8	TDS (mg/L)	306	309	265	316	427
9	Temp (deg C)	28.5	28.0	26.0	27.5	27.5
10	Turb (NTU)	4.8	29.7	7.9	19.1	14.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	142	131	140	190	235
3	B (mg/L)	0.11	1.39	0.10	0.17	0.02
4	Ca (mg/L)	51	42	41	53	66
5	Cl (mg/L)	92.0	55.7	48.0	112.0	98.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.07	0.08	0.11	0.14
8	Fe (mg/L)	0.1	0.1	0.0	0.1	0.1
9	HCO3 (mg/L)	173	160	170	232	287
10	K (mg/L)	6.9	6.8	4.3	8.5	11.5
11	Mg (mg/L)	14.9	19.8	14.4	18.9	23.0
14	NO2+NO3 (mg N/L)	54.0	39.7	35.8	86.0	72.6
		0.16	0.29	0.22	0.04	0.03
15	NO2-N (mgN/L)	3.14	1.84	2.32	3.76	1.97
16	NO3-N (mgN/L)	0.10	0.04	0.05	0.10	0.04
17	P-Tot (mgP/L)	3.04	1.81	2.28	3.66	1.93
18	SiO2 (mg/L)	0.156	0.102	0.104	0.132	0.351
19	SO4 (mg/L)	29.6	25.1	28.8	32.4	34.4
	BIOLOGICAL/BACTERIOLOGICAL	52.4	81.4	39.7	68.1	92.1
1	BOD3-27 (mg/L)					
2	COD (mg/L)	2.1	1.7	1.2	2.1	3.0
3	DO (mg/L)	13.0	12.0	10.0	15.0	16.0
4	DO_SAT% (%)	6.1	6.4	7.2	6.1	6.0
5	FCol-MPN (MPN/100mL)	78	82	89	77	75
6	Tcol-MPN (MPN/100mL)	30000	28000	2300	5000	8000
	TRACE & TOXIC	160000	160000	5000	22000	50000
1	Cd (µg/L)					
2	Cr (µg/L)	0.3	0.0	0.0	0.0	0.0
3	Cu (µg/L)	0.0	0.8	0.5	0.0	0.0
4	Hg (µg/L)	5.8	8.0	79.0	8.2	9.8
5	Ni (µg/L)					
6	Pb (µg/L)	3.3	2.8	6.3	1.4	4.3
7	Zn (µg/L)	6.0	0.0	1.0	0.0	0.0
	CHEMICAL INDICES	6.8	16.7	25.3	0.0	3.7
1	HAR_Ca (mgCaCO3/L)					
2	HAR_Total (mgCaCO3/L)	127	105	102	132	165
3	Na% (%)	189	187	162	211	261
4	RSC (-)	37	31	32	46	37
5	SAR (-)	0.0	0.0	0.0	0.0	0.0
	PESTICIDES	1.7	1.3	1.2	2.6	2.0

Water Quality Summary for the period : 2022-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Upper Bhima SD, Pune**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	638.3	0.000	38.13
2	EC_FLD (µmho/cm)	10	449	165	337
3	EC_GEN (µmho/cm)	10	585	194	393
4	pH_FLD (pH units)	10	7.8	5.9	7.3
5	pH_GEN (pH units)	10	7.7	7.2	7.5
6	TDS (mg/L)	10	427	152	266
7	Temp (deg C)	10	29.0	23.5	26.3
8	Turb (NTU)	10	92.5	4.7	24.4
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	10	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	10	235	64	136
3	B (mg/L)	10	1.39	0.02	0.22
4	Ca (mg/L)	10	66	19	41
5	Cl (mg/L)	10	112.0	24.0	61.2
6	CO3 (mg/L)	10	0.0	0.0	0
7	F (mg/L)	10	0.14	0.06	0.09
8	Fe (mg/L)	10	1.5	0.0	0.2
9	HCO3 (mg/L)	10	287	78	165
10	K (mg/L)	10	11.5	4.3	6.6
11	Mg (mg/L)	10	23.0	6.4	14.2
12	Na (mg/L)	10	86.0	17.4	43.3
13	NH3-N (mg N/L)	10	0.29	0.03	0.13
14	NO2+NO3 (mg N/L)	10	3.76	1.59	2.4
17	P-Tot (mgP/L)	10	0.10	0.01	0.05
			3.66	1.57	2.36
18	SiO2 (mg/L)	10	0.351	0.021	0.127
19	SO4 (mg/L)	10	34.4	20.4	26.1
	BIOLOGICAL/BACTERIOLOGICAL		92.1	24.2	53.8
1	BOD3-27 (mg/L)	10			
2	COD (mg/L)	10	3.0	1.2	2.3
3	DO (mg/L)	10	22.0	10.0	15.7
4	DO_SAT% (%)	10	7.2	5.6	6.3
5	FCol-MPN (MPN/100mL)	10	92	65	78
6	Tcol-MPN (MPN/100mL)	10	90000	2200	24350
	TRACE & TOXIC		160000	3000	93000
1	Cd (µg/L)	10			
2	Cr (µg/L)	10	2.2	0.0	0.4
3	Cu (µg/L)	10	11.1	0.0	2.3
4	Hg (µg/L)	2	79.0	0.5	14.2
5	Ni (µg/L)	10	0.1	0.0	0
6	Pb (µg/L)	10	22.0	1.4	7.1
7	Zn (µg/L)	10	8.0	0.0	3.2
	CHEMICAL INDICES		46.3	0.0	13.4
1	HAR_Ca (mgCaCO3/L)	10			
2	HAR_Total (mgCaCO3/L)	10	165	49	103
3	Na% (%)	10	261	85	163
4	RSC (-)	10	46	27	34
5	SAR (-)	10	0.0	0.0	0
	PESTICIDES		2.6	0.8	1.4

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Bhima SD, Sholapur**

S.No	Parameters	Flood								
		Jun - Oct								
		2008	2009	2010	2011	2012	2013	2014	2015	2016
	PHYSICAL									
1	Q (cumec)	126.8	133.2	150.9	126.0	No Flow	899.6	323.1	42.49	144.0
2	EC_FLD (µmho/cm)					Dry Bed				315
3	EC_GEN (µmho/cm)	197	708	268	243		81	232	269	327
4	pH_FLD (pH units)									7.7
5	pH_GEN (pH units)	7.7	7.7	7.8	7.9		7.3	7.8	8.0	8.0
6	TDS (mg/L)									
7	Temp (deg C)	23.2	22.8	23.7	22.0		26.5	22.8	23.0	25.3
8	Turb (NTU)									
	CHEMICAL									
1	ALK-TOT (mgCaCO3/L)	68	63	66	71		64	115	96	122
2	B (mg/L)	0.07	0.07	0.30	0.06		0.11	0.05	0.11	0.06
3	Ca (mg/L)	20	24	24	28		26	42	29	38
4	Cl (mg/L)	11.5	13.0	14.1	15.5		8.5	31.5	19.2	26.1
5	F (mg/L)	0.07	0.33	0.24	0.26		0.33	0.25	0.71	0.33
6	Fe (mg/L)	0.2	0.4	0.2	1.0		0.1	1.5	2.8	2.6
7	HCO3 (mg/L)	83	77	80	87		78	140	117	149
8	K (mg/L)	1.2	0.1	1.2	0.6		0.6	0.8	1.0	1.4
9	Mg (mg/L)	7.6	6.5	6.2	5.8		3.9	5.3	5.8	8.3
10	Na (mg/L)	7.9	8.1	8.4	10.5		5.0	23.8	10.2	14.4
11	NH3-N (mg N/L)									
12	NO2+NO3 (mg N/L)	1.16	0.63	0.19	1.23		0.32	0.99	1.84	2.48
13	NO2-N (mgN/L)	0.01	0.01	0.01	0.01		0.00	0.02	0.01	0.00
14	NO3-N (mgN/L)	1.16	0.62	0.18	1.22		0.31	0.97	1.84	2.48
15	P-Tot (mgP/L)	0.014	0.005	0.007	0.080		0.038	0.015	0.054	0.041
16	SiO2 (mg/L)	4.8	9.7	8.0	10.9		13.5	20.5	12.2	6.7
17	SO4 (mg/L)	10.2	24.9	18.8	18.4		14.2	12.6	14.6	21.4
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	1.2	1.0	1.0	0.8		1.9	2.6	1.1	0.6
2	COD (mg/L)	6.3	6.4	7.3	5.0		13.0	16.5	10.0	5.0
3	DO (mg/L)									6.1
4	DO_SAT% (%)									75
5	FCol-MPN (MPN/100mL)		8550	3900	4900		24000	46000		9200
6	Tcol-MPN (MPN/100mL)		8700	6350	7000		54000	82500		10500
	TRACE & TOXIC									
1	Cd (µg/L)						0.31			
2	Cr (µg/L)						2.67			
3	Cu (µg/L)						2.98			
4	Hg (µg/L)						0.56			
5	Ni (µg/L)						8.05			
6	Pb (µg/L)						-0.50			
7	Zn (µg/L)						-0.05			
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	49	60	60	70		64	106	72	94
2	HAR_Total (mgCaCO3/L)	80	87	86	94		80	128	96	129
3	Na% (%)	17	17	18	19		12	32	19	18
4	RSC (-)	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.4	0.4	0.5		0.2	1.0	0.5	0.5
	PESTICIDES									

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Bhima SD, Sholapur**

S.No	Parameters	Flood					
		Jun - Oct					
		2017	2018	2019	2020	2021	2022
	PHYSICAL						
1	Q (cumec)	85.65	72.73	316.8	66.32	129.8	143.7
2	EC_FLD (µmho/cm)	353	223	631	1189	479	337
3	EC_GEN (µmho/cm)	359	217	300	375	320	393
4	pH_FLD (pH units)	7.8	8.0	7.0	7.1	7.4	7.3
5	pH_GEN (pH units)	7.9	7.9	7.9	8.2	7.8	7.5
6	TDS (mg/L)				210	179	266
7	Temp (deg C)	24.8	24.0	24.9	24.0	25.6	26.3
8	Turb (NTU)					52.9	24.4
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	105	91	100	133	117	136
2	B (mg/L)	0.11	0.05	0.09	0.08	0.11	0.22
3	Ca (mg/L)	38	26	27	36	32	41
4	Cl (mg/L)	24.5	14.2	20.0	63.0	44.5	61.2
5	F (mg/L)	0.50	0.32	0.10	0.16	0.10	0.09
6	Fe (mg/L)	3.2	0.3	0.5	0.5	0.7	0.2
7	HCO3 (mg/L)	128	111	122	162	142	165
8	K (mg/L)	1.3	1.0	0.6	2.6	7.3	6.6
9	Mg (mg/L)	10.7	8.8	14.3	14.6	13.4	14.2
10	Na (mg/L)	15.8	7.7	12.2	46.9	32.0	43.3
11	NH3-N (mg N/L)					0.06	0.13
12	NO2+NO3 (mg N/L)	2.46	1.43	2.46	2.26	2.28	2.40
13	NO2-N (mgN/L)	0.01	0.01	0.03	0.02	0.06	0.05
14	NO3-N (mgN/L)	2.46	1.42	2.43	2.24	2.22	2.36
15	P-Tot (mgP/L)	0.049	0.031	0.190	0.119	0.129	0.127
16	SiO2 (mg/L)	8.1	22.5	5.2	21.0	24.5	26.1
17	SO4 (mg/L)	33.1	10.0	17.9	17.8	21.4	53.8
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.3	1.5	1.1	1.1	1.8	2.3
2	COD (mg/L)	8.8	9.0	7.0	8.5	12.1	15.7
3	DO (mg/L)	6.5	6.9	6.7	5.5	5.8	6.3
4	DO_SAT% (%)	78	81	80	65	70	78
5	FCol-MPN (MPN/100mL)	2585	1485	10500	400	2750	24350
6	Tcol-MPN (MPN/100mL)	9025	2600	69250	9000	26600	93000
	TRACE & TOXIC						
1	Cd (µg/L)					0.30	0.42
2	Cr (µg/L)					0.27	2.30
3	Cu (µg/L)					1.07	14.19
4	Hg (µg/L)					0.03	0.04
5	Ni (µg/L)					0.00	7.07
6	Pb (µg/L)					10.57	3.20
7	Zn (µg/L)					8.05	13.42
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	95	64	68	90	81	103
2	HAR_Total (mgCaCO3/L)	140	101	128	151	136	163
3	Na% (%)	20	14	17	36	33	34
4	RSC (-)	0.0	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.3	0.5	1.5	1.2	1.4
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Phulgaon (Seasonal) (AKP00X5) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Bhima SD, Sholapur**

S.No	Parameters	Winter		Summer	
		Nov - Feb		Mar - May	
		2020-2021	2022-2023	2020	
			Samples not collected during Winter Season from 2007-2008 to 2019-2020 and 2021-22,2022-23 due to Drybed / No flow condition.		Samples not collected during Summer season from 2008 to 2019 and 2021 to 2023 due to dry bed / no flow condition.
	PHYSICAL				
1	Q (cumec)	0.000			
2	EC_FLD (µmho/cm)	710		1479	
3	EC_GEN (µmho/cm)	985		450	
4	pH_FLD (pH units)	7.6		8.1	
5	pH_GEN (pH units)	8.1		7.8	
6	TDS (mg/L)	552			
7	Temp (deg C)	21.5		26.8	
8	Turb (NTU)				
	CHEMICAL				
1	ALK-TOT (mgCaCO3/L)	242		145	
2	B (mg/L)	0.48		0.08	
3	Ca (mg/L)	54		37	
4	Cl (mg/L)	185.0		40.7	
5	F (mg/L)	0.34		0.26	
6	Fe (mg/L)	0.1		0.0	
7	HCO3 (mg/L)	295		176	
8	K (mg/L)	10.7		6.8	
9	Mg (mg/L)	34.0		17.1	
10	Na (mg/L)	120.3		29.7	
11	NH3-N (mg N/L)				
12	NO2+NO3 (mg N/L)	3.66		2.40	
13	NO2-N (mgN/L)	0.02		0.03	
14	NO3-N (mgN/L)	3.64		2.36	
15	P-Tot (mgP/L)	0.226		0.430	
16	SiO2 (mg/L)	19.5		4.2	
17	SO4 (mg/L)	112.7		24.4	
	BIOLOGICAL/BACTERIOLOGIC/				
1	BOD3-27 (mg/L)	1.9			
2	COD (mg/L)	14.9			
3	DO (mg/L)	5.6		7.4	
4	DO_SAT% (%)	64		93	
5	FCol-MPN (MPN/100mL)	200			
6	Tcol-MPN (MPN/100mL)	667			
	TRACE & TOXIC				
1	Cd (µg/L)				
2	Cr (µg/L)				
3	Cu (µg/L)				
4	Hg (µg/L)				
5	Ni (µg/L)				
6	Pb (µg/L)				
7	Zn (µg/L)				
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	134		92	
2	HAR_Total (mgCaCO3/L)	276		163	
3	Na% (%)	43		27	
4	RSC (-)	0.0		0.0	
5	SAR (-)	2.9		1.0	
	PESTICIDES				

HISTORY SHEET

			Water Year	:	**2022-2023**
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	:	Lower Bhima SD, Sholapur
Drainage Area	:	7200 Sq. Km.	Bank	:	Left
Latitude	:	17°54'43"	Longitude	:	75°00'27"
		Opening Date	Closing Date		
Gauge	:	25-08-1963			
Discharge	:	16-08-1965			
Sediment	:	01-06-1966			
Water Quality	:	01-09-1972			

Water Quality Datasheet for the period : 2022-2023

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **River Water Analysis** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	05-07-2022	14-07-2022	26-07-2022	02-08-2022	10-08-2022	23-08-2022	06-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	12.12	41.06	10.21	40.96	48.36	170.9	175.0
2	Colour_Cod (-)	Light Green	Light Green	Light Green	Clear	Light Brown	Light Green	Clear
3	EC_FLD (µmho/cm)	2053	2363	18	1090	1546	299	943
4	EC_GEN (µmho/cm)	2088	2263	690	1391	1358	272	982
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	8.2	8.0	8.0	7.9	7.9	7.4
7	pH_GEN (pH units)	8.2	8.2	8.1	8.0	7.9	7.6	7.8
8	TDS (mg/L)	1235	1859	425	899	1123	169	792
9	Temp (deg C)	25.0	25.0	25.0	25.0	25.0	25.0	25.0
10	Turb (NTU)	8.2	28.0	42.1	3.9	21.7	9.6	12.2
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	312	303	154	216	256	75	121
3	B (mg/L)	0.98	1.00	0.21	0.56	0.39	0.03	0.24
4	Ca (mg/L)	37	38	31	47	55	22	38
5	Cl (mg/L)	340.5	304.4	107.4	542.0	384.1	53.2	289.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.36	0.47	0.11	0.18	0.30	0.07	0.14
8	Fe (mg/L)	0.1	0.1	0.1	0.3	0.2	0.0	0.1
9	HCO3 (mg/L)	380	370	187	264	312	92	147
10	K (mg/L)	20.5	17.0	10.0	16.0	18.0	2.5	14.0
11	Mg (mg/L)	34.5	43.7	14.5	30.5	32.9	7.2	21.9
12	Na (mg/L)	255.0	225.0	82.0	410.0	296.0	39.9	218.0
13	NH3-N (mg N/L)	0.05	0.39	0.05	0.04	0.03	0.03	0.11
14	NO2+NO3 (mg N/L)	1.65	1.75	1.95	3.97	5.59	0.93	3.49
15	NO2-N (mgN/L)	0.04	0.01	0.01	0.05	0.07	0.01	0.08
16	NO3-N (mgN/L)	1.61	1.74	1.94	3.93	5.52	0.92	3.41
17	P-Tot (mgP/L)	0.029	0.029	0.026	0.076	0.128	0.026	0.053
18	SiO2 (mg/L)	33.2	34.9	22.8	26.4	29.3	21.1	24.2
19	SO4 (mg/L)	188.4	169.3	57.4	118.3	131.0	27.6	92.3
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	3.0	3.7	2.0	2.3	1.5	1.0	1.3
2	COD (mg/L)	24.0	27.0	16.0	21.0	9.0	5.0	9.0
3	DO (mg/L)	6.1	7.4	6.0	6.6	7.4	7.2	5.4
4	DO_SAT% (%)	74	90	73	80	90	87	65
5	FCol-MPN (MPN/100mL)	2300	700	800	3300	2700	7000	1700
6	Tcol-MPN (MPN/100mL)	30000	1100	3000	14000	8000	35000	3000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	0.2	1.9	0.1	1.7	0.6
2	Cr (µg/L)	5.3	2.3	0.0	0.6	0.0	0.0	0.0
3	Cu (µg/L)	7.3	2.6	0.0	3.3	3.9	0.0	7.1
4	Hg (µg/L)				0.0			
5	Ni (µg/L)	14.7	16.5	4.2	8.2	13.7	2.1	6.7
6	Pb (µg/L)	30.0	23.0	3.0	6.0	11.0	0.0	2.0
7	Zn (µg/L)	12.9	13.2	9.4	17.2	5.3	2.7	4.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	94	95	78	118	137	55	95
2	HAR_Total (mgCaCO3/L)	238	277	138	245	273	85	186
3	Na% (%)	68	62	54	77	69	50	70
4	RSC (-)	1.5	0.6	0.3	0.0	0.0	0.0	0.0
5	SAR (-)	7.2	5.9	3.0	11.4	7.8	1.9	7.0
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **River Water Analysis** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	14-09-2022	22-09-2022	04-10-2022	12-10-2022	20-10-2022	02-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	244.6	141.1	45.64	138.3	434.8	43.30
2	Colour_Cod (-)	Light Brown	Clear	Light Green	Light Green	Light Brown	Light Green
3	EC_FLD (µmho/cm)	1154	665	1062	1316	1448	1145
4	EC_GEN (µmho/cm)	963	580	934	1690	561	1070
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.6	7.8	7.4	8.1	7.2	7.9
7	pH_GEN (pH units)	7.7	7.8	7.8	8.1	7.7	8.0
8	TDS (mg/L)	20	462	753	1425	414	824
9	Temp (deg C)	25.0	25.0	25.0	25.0	25.0	25.0
10	Turb (NTU)	19.5	6.7	16.2	12.2	17.4	21.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	195	155	233	345	112	235
3	B (mg/L)	0.69	0.16	0.55	0.31	0.24	0.21
4	Ca (mg/L)	53	34	46	58	38	48
5	Cl (mg/L)	234.8	145.1	265.6	290.4	47.3	131.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.12	0.28	0.16	0.24	0.14	0.20
8	Fe (mg/L)	0.4	0.0	0.1	0.1	1.1	0.1
9	HCO3 (mg/L)	237	189	284	420	137	286
10	K (mg/L)	23.0	4.5	10.0	16.5	1.7	9.0
11	Mg (mg/L)	9.4	17.7	27.9	37.7	18.0	38.8
12	Na (mg/L)	181.5	112.0	205.0	214.0	29.3	98.6
13	NH3-N (mg N/L)	0.04	0.04	0.03	0.03	0.10	0.22
14	NO2+NO3 (mg N/L)	3.85	2.19	3.52	5.20	2.75	4.34
15	NO2-N (mgN/L)	0.09	0.06	0.08	0.09	0.07	0.08
16	NO3-N (mgN/L)	3.77	2.12	3.44	5.11	2.68	4.26
17	P-Tot (mgP/L)	0.042	0.019	0.040	0.060	0.077	0.022
18	SiO2 (mg/L)	29.4	25.7	29.9	35.2	23.4	36.5
19	SO4 (mg/L)	44.9	82.3	112.4	150.6	72.6	143.8
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.9	1.3	1.5	1.7	1.8	2.1
2	COD (mg/L)	8.0	11.0	13.0	14.0	14.0	18.0
3	DO (mg/L)	5.6	5.2	5.4	5.6	7.6	6.4
4	DO_SAT% (%)	68	63	65	68	92	77
5	FCol-MPN (MPN/100mL)	2700	6000	13000	5000	35000	8000
6	Tcol-MPN (MPN/100mL)	17000	13000	90000	90000	90000	90000
	TRACE & TOXIC						
1	Cd (µg/L)	0.6	0.0	0.0	0.3	2.5	3.1
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cu (µg/L)	10.6	5.3	5.0	3.2	4.0	7.0
4	Hg (µg/L)						
5	Ni (µg/L)	7.0	8.2	2.1	5.4	5.3	6.1
6	Pb (µg/L)	5.0	4.0	1.0	0.0	2.0	14.0
7	Zn (µg/L)	9.5	12.5	0.0	0.0	3.9	4.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	132	86	115	144	95	120
2	HAR_Total (mgCaCO3/L)	172	160	232	302	170	282
3	Na% (%)	66	60	65	59	27	42
4	RSC (-)	0.5	0.0	0.1	0.9	0.0	0.0
5	SAR (-)	6.0	3.9	5.9	5.4	1.0	2.6
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **Sub-Division : Lower Bhima SD, Sholapur**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1450	0.000	68.34
2	EC_FLD (µmho/cm)	13	2363	18	1162
3	EC_GEN (µmho/cm)	13	2263	272	1142
4	pH_FLD (pH units)	13	8.2	7.2	7.8
5	pH_GEN (pH units)	13	8.2	7.6	7.9
6	TDS (mg/L)	13	1859	20	800
7	Temp (deg C)	13	25.0	25.0	25
8	Turb (NTU)	13	42.1	3.9	16.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	13	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	13	345	75	209
3	B (mg/L)	13	1.00	0.03	0.43
4	Ca (mg/L)	13	58	22	42
5	Cl (mg/L)	13	542.0	47.3	241.2
6	CO3 (mg/L)	13	0.0	0.0	0
7	F (mg/L)	13	0.47	0.07	0.21
8	Fe (mg/L)	13	1.1	0.0	0.2
9	HCO3 (mg/L)	13	420	92	254
10	K (mg/L)	13	23.0	1.7	12.5
11	Mg (mg/L)	13	43.7	7.2	25.7
12	Na (mg/L)	13	410.0	29.3	182
13	NH3-N (mg N/L)	13	0.39	0.03	0.09
14	NO2+NO3 (mg N/L)	13	5.59	0.93	3.17
15	NO2-N (mgN/L)	13	0.09	0.01	0.06
16	NO3-N (mgN/L)	13	5.52	0.92	3.11
17	P-Tot (mgP/L)	13	0.128	0.019	0.048
18	SiO2 (mg/L)	13	36.5	21.1	28.6
19	SO4 (mg/L)	13	188.4	27.6	107
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	13	3.7	0.9	1.8
2	COD (mg/L)	13	27.0	5.0	14.5
3	DO (mg/L)	13	7.6	5.2	6.3
4	DO_SAT% (%)	13	92	63	76
5	FCol-MPN (MPN/100mL)	13	35000	700	6785
6	Tcol-MPN (MPN/100mL)	13	90000	1100	37238
	TRACE & TOXIC				
1	Cd (µg/L)	13	3.1	0.0	0.8
2	Cr (µg/L)	13	5.3	0.0	0.6
3	Cu (µg/L)	13	10.6	0.0	4.6
4	Hg (µg/L)	1	0.0	0.0	0
5	Ni (µg/L)	13	16.5	2.1	7.7
6	Pb (µg/L)	13	30.0	0.0	7.8
7	Zn (µg/L)	13	17.2	0.0	7.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	13	144	55	105
2	HAR_Total (mgCaCO3/L)	13	302	85	212
3	Na% (%)	13	77	27	59
4	RSC (-)	13	1.5	0.0	0.3
5	SAR (-)	13	11.4	1.0	5.3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **River Water** **Sub-Division : Bhima SD, Sholapur**

S.No	Parameters	Flood							
		Jun - Oct							
		2013	2014	2015	2016	2017	2018	2019	2020
	PHYSICAL								
1	Q (cumec)	87.00	64.70		133.9	41.29	241.4	874.0	104.7
2	EC_FLD (µmho/cm)				1177	900	443	511	230
3	EC_GEN (µmho/cm)	920	869		972	927	360	585	1063
4	pH_FLD (pH units)				8.5	8.1	6.5	8.2	7.3
5	pH_GEN (pH units)	7.7	7.9		8.2	8.2	8.2	8.2	8.2
6	TDS (mg/L)								595
7	Temp (deg C)	26.3	26.0		25.0	29.0	26.3	28.5	31.7
8	Turb (NTU)								
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	86	154		158	102	108	156	230
3	B (mg/L)	0.08	0.01		0.46	0.35	0.17	0.26	0.39
4	Ca (mg/L)	33	59		42	39	17	34	43
5	Cl (mg/L)	32.1	67.5		115.2	56.0	56.3	45.6	145.5
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.34	0.36		0.43	0.56	0.13	0.16	0.30
8	Fe (mg/L)	1.2	3.0		6.3	4.6	0.5	0.5	0.2
9	HCO3 (mg/L)	105	188		192	125	132	190	281
10	K (mg/L)	1.4	3.7		2.4	1.7	0.5	1.3	7.9
11	Mg (mg/L)	19.4	24.3		33.0	26.2	11.1	19.3	30.1
12	Na (mg/L)	22.1	49.3		88.2	42.3	43.9	26.3	110.5
13	NH3-N (mg N/L)								
14	NO2+NO3 (mg N/L)	0.88	2.81		4.96	3.79	1.05	2.51	4.17
15	NO2-N (mgN/L)	0.02	0.00		0.01	0.00	0.04	0.03	0.03
16	NO3-N (mgN/L)	0.86	2.80		4.95	3.78	1.01	2.48	4.14
17	P-Tot (mgP/L)	0.028	0.028		0.026	0.008	0.006	0.463	0.021
18	SiO2 (mg/L)	16.7	33.1		6.8	5.5	5.3	8.3	20.2
19	SO4 (mg/L)	66.4	98.6		150.8	88.6	33.3	33.0	110.7
	BIOLOGICAL/BACTERIOLOGICAL								
1	BOD3-27 (mg/L)	0.8	2.3		0.6	2.0	1.4	0.7	1.6
2	COD (mg/L)	4.8	16.0		5.0	14.0	9.0	5.5	13.8
3	DO (mg/L)				5.2	6.4	9.3	8.3	7.5
4	DO_SAT% (%)				63	83	115	107	102
5	FCol-MPN (MPN/100mL)	23500	4900		20	40	340	5000	200
6	Tcol-MPN (MPN/100mL)	62500	7900		500	2200	1700	17500	650
	TRACE & TOXIC								
1	As (µg/L)	2.19							
2	Cd (µg/L)	0.41							
3	Cr (µg/L)	2.01							
4	Cu (µg/L)	4.17							
5	Hg (µg/L)	0.08							
6	Ni (µg/L)	10.55							
7	Pb (µg/L)	-0.50							
8	Zn (µg/L)	-0.05							
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	82	148		104	96	44	85	108
2	HAR_Total (mgCaCO3/L)	163	250		242	205	90	166	233
3	Na% (%)	24	30		44	31	52	22	47
4	RSC (-)	0.0	0.0		0.0	0.0	0.4	0.0	0.3
5	SAR (-)	0.8	1.4		2.5	1.3	2.0	0.8	3.0
	PESTICIDES								

Samples not collected due Drybed / No flow condition.

Water Quality Seasonal Average for the period: 2013-2023

Station Name : Sarati (AKPA0C2) **Division : Upper Krishna Divn, Pune**

Local River : Nira **River Water** **Sub-Division : Bhima SD, Sholapur**

S.No	Parameters	Flood		Winter				Summer
		Jun - Oct		Nov - Feb				Mar - May
		2021	2022	2019-2020	2020-2021		2022-2023	
	PHYSICAL							
1	Q (cumec)	24.06	125.2	237.2	24.36		43.30	
2	EC_FLD (µmho/cm)	1445	1163	996	659		1145	
3	EC_GEN (µmho/cm)	1547	1148	1012	1444		1070	
4	pH_FLD (pH units)	7.5	7.8	5.8	8.1		7.9	
5	pH_GEN (pH units)	7.8	7.9	8.2	8.2		8.0	
6	TDS (mg/L)	866	798		809		824	
7	Temp (deg C)	28.2	25.0	28.0	24.1		25.0	
8	Turb (NTU)	11.7	16.5				21.1	
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	1.6	0.0	0.0	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	225	206	244	255		235	
3	B (mg/L)	0.55	0.45	0.44	0.45		0.21	
4	Ca (mg/L)	38	41	58	58		48	
5	Cl (mg/L)	305.7	250.4	96.3	258.7		131.2	
6	CO3 (mg/L)	2.0	0.0	0.0	0.0		0.0	
7	F (mg/L)	0.34	0.21	0.25	0.22		0.20	
8	Fe (mg/L)	0.2	0.2	0.0	0.0		0.1	
9	HCO3 (mg/L)	270	252	298	311		286	
10	K (mg/L)	14.7	12.8	2.1	13.7		9.0	
11	Mg (mg/L)	32.3	24.7	32.7	51.0		38.8	
12	Na (mg/L)	227.5	189.0	67.9	196.2		98.6	
13	NH3-N (mg N/L)	0.20	0.08				0.22	
14	NO2+NO3 (mg N/L)	2.40	3.07	5.02	9.68		4.34	
15	NO2-N (mgN/L)	0.05	0.05	0.07	0.03		0.08	
16	NO3-N (mgN/L)	2.35	3.02	4.95	9.66		4.26	
17	P-Tot (mgP/L)	0.031	0.050	0.139	0.007		0.022	
18	SiO2 (mg/L)	29.4	27.9	10.7	24.3		36.5	
19	SO4 (mg/L)	166.6	103.9	114.7	195.7		143.8	
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	3.0	1.8	1.3	2.5		2.1	
2	COD (mg/L)	21.1	14.3	11.0	17.8		18.0	
3	DO (mg/L)	6.2	6.3	8.3	8.4		6.4	
4	DO_SAT% (%)	79	76	106	98		77	
5	FCol-MPN (MPN/100mL)	833	6683	5000	250		8000	
6	Tcol-MPN (MPN/100mL)	8856	32842	17000	2300		90000	
	TRACE & TOXIC							
1	As (µg/L)	0.00						
2	Cd (µg/L)	0.10	0.66				3.10	
3	Cr (µg/L)	0.00	0.68				0.00	
4	Cu (µg/L)	0.82	4.36				7.00	
5	Hg (µg/L)	0.02	0.00					
6	Ni (µg/L)	0.36	7.84				6.10	
7	Pb (µg/L)	14.80	7.25				14.00	
8	Zn (µg/L)	7.68	7.62				4.68	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	95	104	144	146		120	
2	HAR_Total (mgCaCO3/L)	230	206	281	358		282	
3	Na% (%)	64	61	34	53		42	
4	RSC (-)	0.6	0.3	0.0	0.0		0.0	
5	SAR (-)	6.4	5.5	1.8	4.5		2.6	
	PESTICIDES							

Samples not collected during Winter Season from 2013-2014 to 2018-2019 and 2021-2022 due to Drybed / no flow condition.

Samples not collected during Summer Season from 2014 to 2023 due Drybed / No flow condition.

HISTORY SHEET

			Water Year	:	**2022-2023**
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	:	Lower Bhima SD, Sholapur
Drainage Area	:	33916 Sq. Km.	Bank	:	Left
Latitude	:	17°24'51"	Longitude	:	75°50'52"
		Opening Date	Closing Date		
Gauge	:	14-07-1965			
Discharge	:	10-08-1965			
Sediment	:	01-12-1966			
Water Quality	:	01-09-1972			

Water Quality Datasheet for the period : 2022-2023

Station Name : Takli (AKP00K4) **River Water Analysis** **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	25-07-2022	22-08-2022	05-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	72.28	747.5	145.0	1452	1320
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Brown
3	EC_FLD (µmho/cm)	1145	624	900	850	620
4	EC_GEN (µmho/cm)	2061	560	884	779	576
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	7.8	7.9	8.2	7.7
7	pH_GEN (pH units)	8.0	7.6	7.8	7.5	7.6
8	TDS (mg/L)	1758	397	635	636	424
9	Temp (deg C)	26.0	25.0	29.0	28.0	27.0
10	Turb (NTU)	8.2	7.8	8.4	8.9	42.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	361	95	154	169	154
3	B (mg/L)	0.79	0.12	0.14	2.11	0.16
4	Ca (mg/L)	53	34	47	52	39
5	Cl (mg/L)	291.2	131.6	213.4	241.0	111.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.41	0.10	0.11	0.09	0.10
8	Fe (mg/L)	0.0	0.0	0.0	0.2	0.2
9	HCO3 (mg/L)	440	116	188	206	188
10	K (mg/L)	14.5	9.0	10.0	17.0	6.5
11	Mg (mg/L)	47.1	18.2	25.1	17.2	17.8
12	Na (mg/L)	215.7	102.0	162.0	182.0	82.5
13	NH3-N (mg N/L)	0.15	0.03	0.12	0.05	0.03
14	NO2+NO3 (mg N/L)	1.78	1.39	1.53	2.31	1.78
15	NO2-N (mgN/L)	0.03	0.01	0.08	0.04	0.03
16	NO3-N (mgN/L)	1.75	1.38	1.45	2.27	1.75
17	P-Tot (mgP/L)	0.019	0.679	0.009	0.070	0.056
18	SiO2 (mg/L)	32.1	22.6	23.0	22.6	25.2
19	SO4 (mg/L)	179.6	66.5	94.7	72.1	76.5
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	3.1	1.5	1.3	0.6	0.8
2	COD (mg/L)	19.0	11.0	9.0	5.0	7.0
3	DO (mg/L)	8.1	8.5	7.2	7.3	7.1
4	DO_SAT% (%)	100	103	94	93	89
5	FCol-MPN (MPN/100mL)	400	1100	7000	11000	11000
6	Tcol-MPN (MPN/100mL)	30000	50000	22000	160000	30000
	TRACE & TOXIC					
1	Cd (µg/L)	0.0	0.0	0.9	0.4	0.0
2	Cr (µg/L)	2.3	0.0	0.0	0.0	0.0
3	Cu (µg/L)	1.9	1.4	6.7	7.5	5.7
4	Ni (µg/L)	14.0	5.4	3.1	4.7	2.7
5	Pb (µg/L)	23.0	3.0	9.0	5.0	3.0
6	Zn (µg/L)	6.7	4.6	4.8	7.0	0.4
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	132	86	119	130	98
2	HAR_Total (mgCaCO3/L)	329	161	223	202	172
3	Na% (%)	58	56	60	64	50
4	RSC (-)	0.7	0.0	0.0	0.0	0.0
5	SAR (-)	5.2	3.5	4.7	5.6	2.7
	PESTICIDES					

Water Quality Datasheet for the period : 2022-2023

Station Name : Takli (AKP00K4) **River Water Analysis** **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	03-10-2022	11-10-2022	19-10-2022	01-11-2022
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	418.4	305.9	1364	268.5
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	677	742	825	957
4	EC_GEN (µmho/cm)	680	661	802	910
5	Odour_Code (-)	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	8.1	8.2	8.1
7	pH_GEN (pH units)	7.9	7.9	7.6	7.9
8	TDS (mg/L)	594	573	579	742
9	Temp (deg C)	27.0	27.0	27.0	27.0
10	Turb (NTU)	18.4	9.6	6.8	10.1
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	166	169	171	178
3	B (mg/L)	0.21	0.13	0.12	0.14
4	Ca (mg/L)	46	54	61	54
5	Cl (mg/L)	198.2	156.6	183.8	92.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0
7	F (mg/L)	0.18	0.14	0.23	0.16
8	Fe (mg/L)	0.0	0.1	0.0	0.3
9	HCO3 (mg/L)	202	206	209	217
10	K (mg/L)	7.5	6.5	8.5	2.3
11	Mg (mg/L)	21.9	24.9	17.9	30.0
12	Na (mg/L)	148.0	119.5	134.0	60.2
13	NH3-N (mg N/L)	0.04	0.05	0.03	0.04
14	NO2+NO3 (mg N/L)	2.05	2.24	2.66	2.64
15	NO2-N (mgN/L)	0.08	0.06	0.06	0.06
16	NO3-N (mgN/L)	1.97	2.17	2.60	2.58
17	P-Tot (mgP/L)	0.051	0.049	0.051	0.017
18	SiO2 (mg/L)	23.2	7.5	24.0	31.5
19	SO4 (mg/L)	88.4	96.8	71.1	105.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	0.7	0.8	1.2	1.8
2	COD (mg/L)	5.0	6.0	10.0	11.0
3	DO (mg/L)	7.2	7.9	6.8	6.5
4	DO_SAT% (%)	90	99	85	82
5	FCol-MPN (MPN/100mL)	3400	2100	30000	3300
6	Tcol-MPN (MPN/100mL)	30000	11000	90000	50000
	TRACE & TOXIC				
1	Cd (µg/L)	0.0	0.0	0.0	2.9
2	Cr (µg/L)	0.0	0.0	0.0	0.0
3	Cu (µg/L)	7.2	12.8	4.8	7.0
4	Ni (µg/L)	3.2	1.7	3.6	6.1
5	Pb (µg/L)	0.0	0.0	0.0	2.0
6	Zn (µg/L)	0.2	0.3	0.0	0.0
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	114	135	153	135
2	HAR_Total (mgCaCO3/L)	205	238	228	260
3	Na% (%)	60	51	55	33
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	4.5	3.4	3.9	1.6
	PESTICIDES				

Water Quality Summary for the period : 2022-2023

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **Sub-Division : Lower Bhima SD, Sholapur**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	3506	0.000	220.6
2	EC_FLD (µmho/cm)	9	1145	620	816
3	EC_GEN (µmho/cm)	9	2061	560	879
4	pH_FLD (pH units)	9	8.2	7.7	8
5	pH_GEN (pH units)	9	8.0	7.5	7.8
6	TDS (mg/L)	9	1758	397	704
7	Temp (deg C)	9	29.0	25.0	27
8	Turb (NTU)	9	42.7	6.8	13.4
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	9	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	9	361	95	180
3	B (mg/L)	9	2.11	0.12	0.44
4	Ca (mg/L)	9	61	34	49
5	Cl (mg/L)	9	291.2	92.8	180
6	CO3 (mg/L)	9	0.0	0.0	0
7	F (mg/L)	9	0.41	0.09	0.17
8	Fe (mg/L)	9	0.3	0.0	0.1
9	HCO3 (mg/L)	9	440	116	219
10	K (mg/L)	9	17.0	2.3	9.1
11	Mg (mg/L)	9	47.1	17.2	24.4
12	Na (mg/L)	9	215.7	60.2	134
13	NH3-N (mg N/L)	9	0.15	0.03	0.06
14	NO2+NO3 (mg N/L)	9	2.66	1.39	2.04
15	NO2-N (mgN/L)	9	0.08	0.01	0.05
16	NO3-N (mgN/L)	9	2.60	1.38	1.99
17	P-Tot (mgP/L)	9	0.679	0.009	0.111
18	SiO2 (mg/L)	9	32.1	7.5	23.5
19	SO4 (mg/L)	9	179.6	66.5	94.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	9	3.1	0.6	1.3
2	COD (mg/L)	9	19.0	5.0	9.2
3	DO (mg/L)	9	8.5	6.5	7.4
4	DO_SAT% (%)	9	103	82	93
5	FCol-MPN (MPN/100mL)	9	30000	400	7700
6	Tcol-MPN (MPN/100mL)	9	160000	11000	52556
	TRACE & TOXIC				
1	Cd (µg/L)	9	2.9	0.0	0.5
2	Cr (µg/L)	9	2.3	0.0	0.3
3	Cu (µg/L)	9	12.8	1.4	6.1
4	Ni (µg/L)	9	14.0	1.7	4.9
5	Pb (µg/L)	9	23.0	0.0	5
6	Zn (µg/L)	9	7.0	0.0	2.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	9	153	86	122
2	HAR_Total (mgCaCO3/L)	9	329	161	224
3	Na% (%)	9	64	33	54
4	RSC (-)	9	0.7	0.0	0.1
5	SAR (-)	9	5.6	1.6	3.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2009-2023

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	Flood						
		Jun - Oct						
		2009	2010	2011	2012	2013	2014	2015
	PHYSICAL				Samples not Collected due to Drybed/No flow condition.			Samples not Collected due to Drybed/No flow condition.
1	Q (cumec)	865.2	159.8	903.1		412.6	768.9	
2	EC_FLD (µmho/cm)					356	350	
3	EC_GEN (µmho/cm)	1242	921	579		721	984	
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	7.9	8.3	7.0		7.6	7.9	
6	TDS (mg/L)							
7	Temp (deg C)	26.5	26.5	27.0		25.8	25.0	
8	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.7	0.0		0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	103	183	89		78	102	
3	B (mg/L)	0.21	0.39	0.10		0.10	0.07	
4	Ca (mg/L)	36	52	32		34	48	
5	Cl (mg/L)	97.5	96.4	116.6		28.3	47.9	
6	CO3 (mg/L)	0.0	0.8	0.0		0.0	0.0	
7	F (mg/L)	0.37	0.48	0.37		0.37	0.37	
8	Fe (mg/L)	0.5	0.1	0.9		0.4	2.0	
9	HCO3 (mg/L)	126	221	108		96	125	
10	K (mg/L)	0.6	2.7	0.7		1.1	2.8	
11	Mg (mg/L)	12.9	20.1	12.6		12.6	17.5	
12	Na (mg/L)	69.3	63.3	81.6		19.8	37.0	
13	NH3-N (mg N/L)							
14	NO2+NO3 (mg N/L)	1.00	0.15	1.51		0.70	2.14	
15	NO2-N (mgN/L)	0.01	0.01	0.00		0.00	0.05	
16	NO3-N (mgN/L)	0.99	0.14	1.51		0.70	2.09	
17	P-Tot (mgP/L)	0.009	0.013	0.045		0.017	0.023	
18	SiO2 (mg/L)	8.6	7.3	5.6		20.9	40.8	
19	SO4 (mg/L)	50.2	31.2	69.2		56.2	86.3	
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.8	0.9	1.0		1.0	0.9	
2	COD (mg/L)	5.3	7.2	5.0		7.8	8.0	
3	DO (mg/L)							
4	DO_SAT% (%)							
5	FCol-MPN (MPN/100mL)	55367	8933	130000		1785	35000	
6	Tcol-MPN (MPN/100mL)	56713	12667	240000		2615	54000	
	TRACE & TOXIC							
1	Cd (µg/L)					0.5		
2	Cr (µg/L)					3.0		
3	Cu (µg/L)					2.0		
4	Hg (µg/L)					0.5		
5	Ni (µg/L)					9.9		
6	Pb (µg/L)					-0.5		
7	Zn (µg/L)					-0.1		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	89	131	80		84	120	
2	HAR_Total (mgCaCO3/L)	143	215	133		137	193	
3	Na% (%)	52	34	57		26	29	
4	RSC (-)	0.0	0.0	0.0		0.0	0.0	
5	SAR (-)	2.7	1.8	3.1		0.8	1.2	
	PESTICIDES							

Water Quality Seasonal Average for the period: 2009-2023

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	Flood						
		Jun - Oct						
		2016	2017	2018	2019	2020	2021	2022
	PHYSICAL							
1	Q (cumec)	128.7	118.3	196.6	441.2	240.9	265.5	728.2
2	EC_FLD (µmho/cm)	163	417	430	367	599	899	798
3	EC_GEN (µmho/cm)	930	649	464	388	957	1372	875
4	pH_FLD (pH units)	6.9	6.9	7.8	8.1	8.1	8.1	8.0
5	pH_GEN (pH units)	8.2	8.1	8.2	8.2	8.2	8.2	7.7
6	TDS (mg/L)					529	768	700
7	Temp (deg C)	25.5	28.5	28.0	27.5	29.3	30.0	27.0
8	Turb (NTU)						20.4	13.9
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	4.5	0.0
2	ALK-TOT (mgCaCO3/L)	171	116	118	110	185	211	180
3	B (mg/L)	0.07	0.27	0.26	0.16	0.30	0.34	0.47
4	Ca (mg/L)	43	38	28	29	48	62	48
5	Cl (mg/L)	118.4	65.3	62.2	29.2	158.1	342.1	190.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	5.4	0.0
7	F (mg/L)	0.42	0.55	0.17	0.14	0.25	0.26	0.17
8	Fe (mg/L)	3.0	1.5	0.2	0.1	0.1	0.2	0.1
9	HCO3 (mg/L)	209	142	144	134	226	246	219
10	K (mg/L)	1.9	2.1	1.3	0.8	6.1	14.7	9.9
11	Mg (mg/L)	33.0	21.4	17.4	14.2	33.4	42.5	23.8
12	Na (mg/L)	91.5	50.1	47.3	19.7	120.3	254.4	143.2
13	NH3-N (mg N/L)						0.09	0.06
14	NO2+NO3 (mg N/L)	3.06	1.48	0.78	1.58	2.84	2.80	1.97
15	NO2-N (mgN/L)	0.00	0.02	0.04	0.02	0.03	0.08	0.05
16	NO3-N (mgN/L)	3.06	1.46	0.75	1.56	2.81	2.72	1.92
17	P-Tot (mgP/L)	0.009	0.005	0.004	0.128	0.017	0.028	0.123
18	SiO2 (mg/L)	5.9	7.4	2.7	5.7	25.6	28.9	22.5
19	SO4 (mg/L)	153.6	81.5	66.5	41.7	126.7	258.4	93.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.7	2.8	0.9	2.2	1.8	2.3	1.3
2	COD (mg/L)	16.0	21.5	7.0	18.5	15.0	16.6	9.0
3	DO (mg/L)	5.2	8.9	4.5	6.8	8.4	8.1	7.5
4	DO_SAT% (%)	63	114	57	86	110	107	94
5	FCol-MPN (MPN/100mL)	90	20	340	16500	350	460	8250
6	Tcol-MPN (MPN/100mL)	220	370	2800	50500	725	1040	52875
	TRACE & TOXIC							
1	Cd (µg/L)						0.3	0.2
2	Cr (µg/L)						0.2	0.3
3	Cu (µg/L)						2.1	6.0
4	Hg (µg/L)						0.0	
5	Ni (µg/L)						1.5	4.8
6	Pb (µg/L)						20.0	5.4
7	Zn (µg/L)						6.2	3.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	108	94	71	74	121	154	121
2	HAR_Total (mgCaCO3/L)	246	183	143	133	260	332	220
3	Na% (%)	45	37	42	24	49	59	57
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5	SAR (-)	2.5	1.6	1.7	0.7	3.2	5.9	4.2
	PESTICIDES							

Water Quality Seasonal Average for the period: 2009-2023

Station Name : Takli (AKP00K4) **Division : Upper Krishna Divn, Pune**

Local River : Bhima **River Water** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	Winter				Summer	
		Nov - Feb				Mar - May	
		2019-2020	2020-2021	2021-2022	2022-2023	2020	2023
	PHYSICAL			Samples not collected from 2007-2008 to 2018 -2019 and 2021-2022 due to drybed / no flow condition.			Samples not collected from 2008 t0 2019 and 2021 to 2023 due to Drybed / no flow condition.
1	Q (cumec)	491.7	71.81		268.5	0.000	
2	EC_FLD (µmho/cm)	526	999		957	1112	
3	EC_GEN (µmho/cm)	693	1288		910	931	
4	pH_FLD (pH units)	8.2	8.5		8.1	8.1	
5	pH_GEN (pH units)	8.1	8.2		7.9	7.6	
6	TDS (mg/L)		721		742		
7	Temp (deg C)	29.0	26.5		27.0	29.0	
8	Turb (NTU)				10.1		
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	164	228		178	183	
3	B (mg/L)	0.32	0.27		0.14	0.21	
4	Ca (mg/L)	45	55		54	38	
5	Cl (mg/L)	65.0	246.0		92.8	105.7	
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	
7	F (mg/L)	0.19	0.23		0.16	0.28	
8	Fe (mg/L)	0.5	0.1		0.3	0.1	
9	HCO3 (mg/L)	200	278		217	223	
10	K (mg/L)	1.3	9.0		2.3	15.2	
11	Mg (mg/L)	24.0	50.2		30.0	32.3	
12	Na (mg/L)	39.7	186.8		60.2	71.2	
13	NH3-N (mg N/L)				0.04		
14	NO2+NO3 (mg N/L)	2.78	3.40		2.64	1.22	
15	NO2-N (mgN/L)	0.04	0.04		0.06	0.04	
16	NO3-N (mgN/L)	2.74	3.36		2.58	1.18	
17	P-Tot (mgP/L)	0.134	0.010		0.017	0.107	
18	SiO2 (mg/L)	8.3	21.7		31.5	24.1	
19	SO4 (mg/L)	78.4	195.5		105.6	124.0	
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.5	2.5		1.8		
2	COD (mg/L)	4.0	20.9		11.0		
3	DO (mg/L)	7.9	8.6		6.5	7.8	
4	DO_SAT% (%)	103	107		82	101	
5	FCol-MPN (MPN/100mL)	800	200		3300		
6	Tcol-MPN (MPN/100mL)	5000	800		50000		
	TRACE & TOXIC						
1	Cd (µg/L)				2.9		
2	Cr (µg/L)				0.0		
3	Cu (µg/L)				7.0		
4	Hg (µg/L)						
5	Ni (µg/L)				6.1		
6	Pb (µg/L)				2.0		
7	Zn (µg/L)				0.0		
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	112	139		135	96	
2	HAR_Total (mgCaCO3/L)	212	348		260	230	
3	Na% (%)	29	53		33	39	
4	RSC (-)	0.0	0.0		0.0	0.0	
5	SAR (-)	1.2	4.4		1.6	2.1	
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
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	:	Lower Bhima SD, Sholapur
Drainage Area	:	12092 Sq. Km.	Bank	:	Right
Latitude	:	17°32'03"	Longitude	:	75°53'06"
		Opening Date	Closing Date		
Gauge	:	19-07-1963			
Discharge	:	06-08-1964			
Water Quality	:	01-09-1972			

Note: Water Quality Observations Suspended on 01-11-2005 and Restarted on 01-06-2019.

Water Quality Datasheet for the period : 2022-2023

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **River Water Analysis** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	25-07-2022	01-08-2022	09-08-2022	22-08-2022	05-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	7.501	31.95	65.85	44.97	58.12	112.3	55.96
2	Colour_Cod (-)	Clear	Clear	Light Brown	Clear	Light Brown	Brown	Clear
3	EC_GEN (µmho/cm)	2324	2114	1168	1041	912	880	970
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.6	7.6	7.7	7.4	7.3	7.5	7.8
6	TDS (mg/L)	1689	1294	705	815	716	782	697
7	Temp (deg C)	26.5	26.5	27.0	28.0	29.0	28.5	26.5
8	Turb (NTU)	8.5	6.3	10.8	6.8	33.6	56.3	8.1
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	301	245	271	192	178	186	188
3	B (mg/L)	0.47	0.56	0.31	0.17	0.14	0.25	0.22
4	Ca (mg/L)	134	45	72	60	58	67	67
5	Cl (mg/L)	350.8	381.2	305.7	192.8	184.4	238.4	186.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.28	0.19	0.17	0.13	0.15	0.12	0.34
8	Fe (mg/L)		0.3	0.7	0.0	0.0	0.2	0.1
9	HCO3 (mg/L)	367	299	330	234	217	227	229
10	K (mg/L)	23.5	19.5	18.5	18.0	12.0	16.0	9.5
11	Mg (mg/L)	72.1	112.1	39.7	35.4	27.5	23.5	31.2
12	Na (mg/L)	256.5	294.5	236.0	149.0	136.2	183.0	138.5
13	NH3-N (mg N/L)	0.13	0.79	0.10	0.34	0.11	0.30	0.35
14	NO2+NO3 (mg N/L)	2.37	3.31	3.09	1.72	2.42	1.74	1.96
15	NO2-N (mgN/L)	0.05	0.07	0.06	0.02	0.08	0.06	0.04
16	NO3-N (mgN/L)	2.33	3.24	3.03	1.70	2.34	1.68	1.91
17	P-Tot (mgP/L)	0.458	0.102	0.112	0.413	0.035	0.011	0.025
18	SiO2 (mg/L)	32.4	24.9	25.7	25.2	23.4	22.8	27.8
19	SO4 (mg/L)	281.1	436.0	164.7	122.3	104.6	102.7	126.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	2.8	3.6	2.9	3.4	3.5	2.7	2.1
2	COD (mg/L)	15.0	33.0	23.0	24.0	28.0	24.0	17.0
3	DO (mg/L)	3.5	4.3	3.5	4.2	4.2	3.5	5.6
4	DO_SAT% (%)	43	54	44	54	55	45	69
5	FCol-MPN (MPN/100mL)	3400	35000	90000	50000	3000	50000	3300
6	Tcol-MPN (MPN/100mL)	13000	160000	160000	160000	6000	160000	17000
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	1.2	0.2	0.2	0.9	0.6	0.3
2	Cr (µg/L)	1.2	0.0	2.3	1.1	0.5	0.0	0.0
3	Cu (µg/L)	3.4	9.8	6.4	5.9	12.9	10.4	9.8
4	Hg (µg/L)			0.0				
5	Ni (µg/L)	20.5	18.6	12.6	13.4	7.2	21.7	5.4
6	Pb (µg/L)	31.0	24.0	13.0	9.0	5.0	6.0	2.0
7	Zn (µg/L)	7.5	16.2	10.2	7.8	4.4	13.7	6.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	334	113	180	150	146	168	169
2	HAR_Total (mgCaCO3/L)	635	580	345	298	260	266	298
3	Na% (%)	46	52	58	50	52	58	49
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.4	5.3	5.5	3.8	3.7	4.9	3.5
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **River Water Analysis** **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	03-10-2022	11-10-2022	19-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	145.7	193.5	443.4	90.74	43.53	8.393
2	Colour_Cod (-)	Clear	Clear	Light Brown	Light Green	Clear	Clear
3	EC_GEN (µmho/cm)	841	827	705	1081	1448	2331
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.7	7.6	7.7	7.8	7.6
6	TDS (mg/L)	710	669	608	709	1103	1606
7	Temp (deg C)	27.0	28.0	28.0	25.0	25.0	24.0
8	Turb (NTU)	6.4	7.1	17.9	20.4	21.0	12.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	185	201	162	205	256	312
3	B (mg/L)	0.24	0.12	0.12	0.13	0.49	0.58
4	Ca (mg/L)	57	64	58	62	90	127
5	Cl (mg/L)	219.7	212.2	151.6	167.0	206.9	395.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.22	0.21	0.25	0.20	0.20	0.22
8	Fe (mg/L)	0.1	0.1	0.4	0.9	0.1	0.1
9	HCO3 (mg/L)	225	245	197	250	313	381
10	K (mg/L)	12.0	13.5	10.0	17.0	13.5	18.0
11	Mg (mg/L)	30.3	34.2	23.6	49.6	51.1	89.3
12	Na (mg/L)	160.0	140.5	117.3	126.4	158.2	301.0
13	NH3-N (mg N/L)	0.19	0.23	0.02	0.04	3.40	4.10
14	NO2+NO3 (mg N/L)	1.55	1.78	1.96	2.64	3.60	3.51
15	NO2-N (mgN/L)	0.05	0.03	0.03	0.05	0.10	0.07
16	NO3-N (mgN/L)	1.51	1.76	1.93	2.59	3.50	3.44
17	P-Tot (mgP/L)	0.019	0.009	0.035	0.041	0.047	0.513
18	SiO2 (mg/L)	25.3	28.4	23.5	33.8	31.6	33.6
19	SO4 (mg/L)	100.8	142.0	88.3	169.8	198.4	308.9
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	4.0	1.6	1.6	2.2	4.0	2.8
2	COD (mg/L)	27.0	13.0	14.0	19.0	31.0	23.0
3	DO (mg/L)	4.5	2.3	5.0	6.1	4.7	3.5
4	DO_SAT% (%)	56	29	64	74	57	42
5	FCol-MPN (MPN/100mL)	17000	2300	22000	13000	90000	8000
6	Tcol-MPN (MPN/100mL)	50000	30000	90000	90000	160000	90000
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	3.2	3.8	3.4
2	Cr (µg/L)	0.0	0.0	0.0	0.8	3.0	0.4
3	Cu (µg/L)	5.8	6.0	2.9	9.3	8.3	8.2
4	Hg (µg/L)						
5	Ni (µg/L)	4.2	3.3	3.0	8.3	13.8	15.5
6	Pb (µg/L)	5.0	1.0	0.0	9.0	10.0	12.0
7	Zn (µg/L)	1.5	1.1	0.0	0.8	13.5	16.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	144	159	146	154	224	318
2	HAR_Total (mgCaCO3/L)	270	302	244	361	437	690
3	Na% (%)	55	49	50	42	43	48
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.3	3.5	3.3	2.9	3.3	5.0
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Wadakbal (AKP60C4) **Division : Upper Krishna Divn, Pune**

Local River : Sina **Sub-Division : Lower Bhima SD, Sholapur**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	827.6	0.000	45.08
2	EC_GEN (µmho/cm)	13	2331	705	1280
3	pH_GEN (pH units)	13	7.8	7.3	7.6
4	TDS (mg/L)	13	1689	608	931
5	Temp (deg C)	13	29.0	24.0	26.8
6	Turb (NTU)	13	56.3	6.3	16.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	13	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	13	312	162	222
3	B (mg/L)	13	0.58	0.12	0.29
4	Ca (mg/L)	13	134	45	74
5	Cl (mg/L)	13	395.0	151.6	245.5
6	CO3 (mg/L)	13	0.0	0.0	0
7	F (mg/L)	13	0.34	0.12	0.21
8	Fe (mg/L)	12	0.9	0.0	0.3
9	HCO3 (mg/L)	13	381	197	270
10	K (mg/L)	13	23.5	9.5	15.5
11	Mg (mg/L)	13	112.1	23.5	47.7
12	Na (mg/L)	13	301.0	117.3	184.4
13	NH3-N (mg N/L)	13	4.10	0.02	0.78
14	NO2+NO3 (mg N/L)	13	3.60	1.55	2.43
15	NO2-N (mgN/L)	13	0.10	0.02	0.05
16	NO3-N (mgN/L)	13	3.50	1.51	2.38
17	P-Tot (mgP/L)	13	0.513	0.009	0.14
18	SiO2 (mg/L)	13	33.8	22.8	27.6
19	SO4 (mg/L)	13	436.0	88.3	180.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	13	4.0	1.6	2.9
2	COD (mg/L)	13	33.0	13.0	22.4
3	DO (mg/L)	13	6.1	2.3	4.2
4	DO_SAT% (%)	13	74	29	53
5	FCol-MPN (MPN/100mL)	13	90000	2300	29769
6	Tcol-MPN (MPN/100mL)	13	160000	6000	91231
	TRACE & TOXIC				
1	Cd (µg/L)	13	3.8	0.0	1.1
2	Cr (µg/L)	13	3.0	0.0	0.7
3	Cu (µg/L)	13	12.9	2.9	7.6
4	Hg (µg/L)	1	0.0	0.0	0
5	Ni (µg/L)	13	21.7	3.0	11.3
6	Pb (µg/L)	13	31.0	0.0	9.8
7	Zn (µg/L)	13	16.2	0.0	7.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	13	334	113	185
2	HAR_Total (mgCaCO3/L)	13	690	244	384
3	Na% (%)	13	58	42	50
4	RSC (-)	13	0.0	0.0	0
5	SAR (-)	13	5.5	2.9	4.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2023

Station Name : Wadakbal (AKP60C4) | **Division : Upper Krishna Divn, Pune**

Local River : Sina | **River Water** | **Sub-Division : Lower Bhima SD, Sholapur**

S.No	Parameters	Flood				Winter				Summer
		Jun - Oct				Nov - Feb				Mar - May
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022	2022-2023	
	PHYSICAL									
1	Q (cumec)	26.53	10.50	28.28	115.9	31.28	16.35		47.55	
2	EC_GEN (µmho/cm)	563	1577	1386	1178	825	1769		1620	
3	pH_GEN (pH units)	7.9	8.1	8.0	7.6	7.8	8.1		7.7	
4	TDS (mg/L)		883	776	869		991		1139	
5	Temp (deg C)	27.3	26.8	26.1	27.5	27.0	24.8		24.7	
6	Turb (NTU)			36.2	16.2				18.1	
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	1.3	0.0	0.0	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	135	256	218	211	158	247		258	
3	B (mg/L)	0.20	0.34	0.35	0.26	0.30	0.44		0.40	
4	Ca (mg/L)	35	95	82	68	58	80		93	
5	Cl (mg/L)	36.1	304.5	357.5	242.3	95.9	321.6		256.3	
6	CO3 (mg/L)	0.0	0.0	1.6	0.0	0.0	0.0		0.0	
7	F (mg/L)	0.14	0.29	0.23	0.21	0.22	0.26		0.21	
8	Fe (mg/L)	0.3	0.3	0.3	0.2	0.7	0.1		0.4	
9	HCO3 (mg/L)	164	312	262	257	193	302		315	
10	K (mg/L)	0.9	11.1	16.1	15.3	2.1	19.2		16.2	
11	Mg (mg/L)	18.8	59.2	49.6	43.0	26.8	79.2		63.3	
12	Na (mg/L)	22.8	211.8	252.1	181.2	63.8	240.5		195.2	
13	NH3-N (mg N/L)			0.22	0.26				2.51	
14	NO2+NO3 (mg N/L)	2.43	3.86	2.78	2.19	3.13	3.15		3.25	
15	NO2-N (mgN/L)	0.03	0.04	0.07	0.05	0.05	0.04		0.07	
16	NO3-N (mgN/L)	2.40	3.83	2.71	2.14	3.08	3.11		3.18	
17	P-Tot (mgP/L)	0.929	0.449	0.122	0.122	0.627	0.393		0.200	
18	SiO2 (mg/L)	2.7	26.8	27.5	25.9	7.0	21.3		33.0	
19	SO4 (mg/L)	49.3	221.1	250.8	166.9	83.6	268.3		225.7	
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	2.4	2.7	3.3	2.8	1.7	4.9		3.0	
2	COD (mg/L)	21.0	23.3	23.4	21.8	14.0	41.6		24.3	
3	DO (mg/L)		3.2	3.9	4.1		6.2		4.8	
4	DO_SAT% (%)		40	48	51		74		57	
5	FCol-MPN (MPN/100mL)	12000	2800	700	27600	2300	22825		37000	
6	Tcol-MPN (MPN/100mL)	52000	17567	8000	84600	11000	54750		113333	
	TRACE & TOXIC									
1	Cd (µg/L)			0.8	0.3				3.5	
2	Cr (µg/L)			1.5	0.5				1.4	
3	Cu (µg/L)			6.6	7.3				8.6	
4	Hg (µg/L)			0.2	0.0					
5	Ni (µg/L)			3.4	11.0				12.5	
6	Pb (µg/L)			16.4	9.6				10.3	
7	Zn (µg/L)			8.9	6.9				10.2	
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	88	236	205	171	144	201		232	
2	HAR_Total (mgCaCO3/L)	167	483	411	350	255	531		496	
3	Na% (%)	22	46	55	52	35	49		44	
4	SAR (-)	0.8	4.0	5.3	4.2	1.7	4.5		3.7	
	PESTICIDES									

Samples not collected due to Drybed/No flow condition.

Samples not collected during Summer season from 2020 to 2022 due to Drybed/No flow condition.

Note: Water Quality Obsevations Suspended on 01-11-2005 and Restarted on 01-06-2019.

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**DEONGAON BRIDGE**	**Code**	:	**DEONGAON**
State	:	Karnataka	District		Kalaburagi
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Bhima	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Bhima
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Tungabhadra SD, Kurnool
Drainage Area	:	50843 Sq. Km.	Bank	:	
Latitude	:	17°10'00"	Longitude	:	76°19'42"
		Opening Date	Closing Date		
Gauge	:	18-06-1984			
Discharge	:				
Sediment	:				
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : DEONGAON BRIDGE (DEONGAON) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	01-06-2022		11-07-2022	21-07-2022		01-08-2022
		A		A	A		A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Light Brown		Light Brown	Light Brown		Light Brown
3	EC_GEN (µmho/cm)	2896		2290	4503		1165
4	Odour_Code (-)	odour free		odour free	odour free		odour free
5	pH_GEN (pH units)	8.3		8.3	8.5		8.4
6	TDS (mg/L)	2085		1563	985		906
7	Temp (deg C)	25.0					
8	Turb (NTU)	1.0		11.0	2.0		11.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	23.7		25.0	20.3		24.1
2	ALK-TOT (mgCaCO3/L)	255		162	167		161
3	B (mg/L)	0.60		0.62	0.61		0.32
4	Ca (mg/L)	123		49	47		45
5	Cl (mg/L)	403.2		276.6	198.3		158.6
6	CO3 (mg/L)	28.6		30.1	24.5		29.0
7	F (mg/L)	0.26		0.32	0.33		0.35
8	Fe (mg/L)	0.0		0.1	0.1		0.3
9	HCO3 (mg/L)	253		137	154		137
10	K (mg/L)	6.5		4.6	6.8		4.9
11	Mg (mg/L)	110.5		41.0	44.7		43.6
12	Na (mg/L)	267.0		237.0	135.2		102.5
13	NH3-N (mg N/L)	0.13		0.34	0.08		0.53
14	NO2+NO3 (mg N/L)	5.20		4.48	4.79		4.72
15	NO2-N (mgN/L)	0.07		0.01	0.05		0.07
16	NO3-N (mgN/L)	5.13		4.47	4.74		4.65
17	o-PO4-P (mg P/L)	0.090		0.150	0.300		0.490
18	SiO2 (mg/L)	15.0		17.9	4.1		10.2
19	SO4 (mg/L)	269.0		163.0	116.0		96.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.8		2.4	2.3		1.4
2	COD (mg/L)			7.8	16.7		9.8
3	DO (mg/L)	5.2		7.3	7.2		5.9
4	DO_SAT% (%)	63					
	TRACE & TOXIC						
1	Cd (µg/L)	0.00		4.10	0.20		0.30
2	Cr (µg/L)	1.90		1.70	5.10		1.50
3	Cu (µg/L)	9.50		3.40	0.00		1.90
4	Hg (µg/L)	0.08		0.00	0.00		0.04
5	Ni (µg/L)	15.60		12.40	7.00		4.90
6	Pb (µg/L)	30.00		0.00	39.00		24.00
7	Zn (µg/L)	7.91		3.56	5.31		5.68
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	308		123	117		113
2	HAR_Total (mgCaCO3/L)	768		293	303		295
3	Na% (%)	43		63	49		43
4	RSC (-)	0.0		0.0	0.0		0.0
5	SAR (-)	4.2		6.0	3.4		2.6
	PESTICIDES						

Sample not submitted for analysis in 11-06-2022 and 21-06-2022 due to NO FLOW condition of the River

Sample not submitted for analysis in 01-07-2022 due to NO FLOW condition of the River

Water Quality Datasheet for the period : 2022-2023

Station Name : DEONGAON BRIDGE (DEONGAON) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022	03-10-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)						
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	1093	622	786	692	555	872
4	Odour_Code (-)	odour free	OdouOr free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.0	8.3	7.8	8.0	8.2
6	TDS (mg/L)	795	509	608	509	401	558
7	Temp (deg C)						
8	Turb (NTU)	3.0	19.0	3.0	6.3	10.6	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	22.8	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	156	155	103	78	157	181
3	B (mg/L)	0.32	0.26	0.19	0.24	0.10	0.10
4	Ca (mg/L)	46	49	49	48	45	46
5	Cl (mg/L)	161.0	56.7	80.8	79.0	91.2	92.6
6	CO3 (mg/L)	0.0	0.0	27.5	0.0	0.0	0.0
7	F (mg/L)	0.34	0.31	0.30	0.27	0.24	0.26
8	Fe (mg/L)	1.3	4.1	0.4	1.1	8.9	1.7
9	HCO3 (mg/L)	190	190	70	95	192	221
10	K (mg/L)	7.2	1.7	1.8	2.0	1.4	2.9
11	Mg (mg/L)	42.0	12.3	11.6	13.0	23.0	19.5
12	Na (mg/L)	80.3	35.6	48.5	43.0	39.0	72.5
13	NH3-N (mg N/L)	0.15	0.04	0.04	0.23	0.24	0.20
14	NO2+NO3 (mg N/L)	4.77	5.21	5.31	5.28	7.19	7.53
15	NO2-N (mgN/L)	0.05	0.03	0.01	0.11	0.10	0.03
16	NO3-N (mgN/L)	4.72	5.18	5.30	5.17	7.09	7.50
17	o-PO4-P (mg P/L)	0.210	0.450	0.180	0.150	0.200	0.121
18	SiO2 (mg/L)	4.4	47.3	22.2	9.3	11.9	22.0
19	SO4 (mg/L)	111.1	47.3	96.1	79.0	43.9	64.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.7	0.7	0.8	0.4	1.2	1.7
2	COD (mg/L)	5.5	4.0	7.6	3.6	9.4	3.8
3	DO (mg/L)	5.7	5.4	5.9	5.0	6.5	6.1
4	DO_SAT% (%)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.00	0.00	2.80	0.00	0.00	0.30
2	Cr (µg/L)	0.00	11.20	0.00	1.20	14.30	1.80
3	Cu (µg/L)	6.30	32.10	4.10	8.00	20.30	9.80
4	Hg (µg/L)	1.75	0.12	0.01			
5	Ni (µg/L)	10.00	21.20	4.70	4.70	15.40	3.90
6	Pb (µg/L)	46.00	49.00	40.00	0.00	38.00	22.00
7	Zn (µg/L)	6.92	19.26	38.33	100.80	22.30	7.37
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	115	123	123	120	113	116
2	HAR_Total (mgCaCO3/L)	290	174	171	174	208	197
3	Na% (%)	37	31	38	35	29	44
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.1	1.2	1.6	1.4	1.2	2.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : DEONGAON BRIDGE (DEONGAON) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)					
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Light Brown	Clear
3	EC_GEN (µmho/cm)	902	688	1002	1052	1044
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.1	8.4	8.2	8.3
6	TDS (mg/L)	579	426	644	613	535
7	Temp (deg C)					
8	Turb (NTU)	3.0	6.0	6.0	5.0	6.0
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	24.9	0.0	10.5	0.0	19.0
2	ALK-TOT (mgCaCO3/L)	155	189	235	121	221
3	B (mg/L)	0.40	0.72	0.48	0.53	0.43
4	Ca (mg/L)	56	57	46	47	48
5	Cl (mg/L)	101.0	72.0	119.2	125.8	119.5
6	CO3 (mg/L)	30.0	0.0	12.6	0.0	22.9
7	F (mg/L)	0.25	0.25	0.24	0.24	0.29
8	Fe (mg/L)	1.4	4.3	0.5	1.2	0.2
9	HCO3 (mg/L)	128	230	261	148	223
10	K (mg/L)	2.5	2.9	2.7	3.3	3.5
11	Mg (mg/L)	26.1	26.1	36.4	35.5	36.0
12	Na (mg/L)	74.0	50.1	68.7	68.2	92.6
13	NH3-N (mg N/L)	0.29	0.10	0.31	0.11	0.45
14	NO2+NO3 (mg N/L)	7.40	9.11	10.55	10.30	10.15
15	NO2-N (mgN/L)	0.03	0.03	0.02	0.04	0.03
16	NO3-N (mgN/L)	7.37	9.08	10.53	10.26	10.12
17	o-PO4-P (mg P/L)	0.405	0.131	0.112	0.090	0.348
18	SiO2 (mg/L)	12.2	12.5	22.9	21.5	23.4
19	SO4 (mg/L)	80.7	56.6	90.2	117.1	117.1
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD3-27 (mg/L)	1.3	0.7	1.4	1.4	1.4
2	COD (mg/L)	3.8	1.9	24.3	12.1	8.1
3	DO (mg/L)	6.0	5.6	6.6	6.1	6.9
4	DO_SAT% (%)					
	TRACE & TOXIC					
1	Cd (µg/L)	0.00	0.00	1.10	0.00	0.60
2	Cr (µg/L)	0.40	2.00	2.40	0.00	4.50
3	Cu (µg/L)	4.60	12.90	4.40	3.30	2.70
4	Hg (µg/L)					
5	Ni (µg/L)	9.40	15.00	8.10	3.30	7.10
6	Pb (µg/L)	35.00	24.00	10.00	39.00	51.00
7	Zn (µg/L)	5.26	7.72	2.97	2.85	0.00
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	141	143	115	118	120
2	HAR_Total (mgCaCO3/L)	250	251	267	265	269
3	Na% (%)	39	30	36	36	43
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	1.4	1.8	1.8	2.5
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

Station Name : DEONGAON BRIDGE (DEONGAON) **Division : Lower Krishna Divn., Hyderabad**

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)				
2	EC_GEN (µmho/cm)	15	4503	555	1344
3	pH_GEN (pH units)	15	8.5	7.8	8.2
4	TDS (mg/L)	15	2085	401	781
5	Temp (deg C)	1	25.0	25.0	25
6	Turb (NTU)	15	19.0	1.0	6.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15	25.0	0.0	11.4
2	ALK-TOT (mgCaCO3/L)	15	255	78	166
3	B (mg/L)	15	0.72	0.10	0.39
4	Ca (mg/L)	15	123	45	53
5	Cl (mg/L)	15	403.2	56.7	142.4
6	CO3 (mg/L)	15	30.1	0.0	13.7
7	F (mg/L)	15	0.35	0.24	0.28
8	Fe (mg/L)	15	8.9	0.0	1.7
9	HCO3 (mg/L)	15	261	70	175
10	K (mg/L)	15	7.2	1.4	3.7
11	Mg (mg/L)	15	110.5	11.6	34.8
12	Na (mg/L)	15	267.0	35.6	94.3
13	NH3-N (mg N/L)	15	0.53	0.04	0.21
14	NO2+NO3 (mg N/L)	15	10.55	4.48	6.8
15	NO2-N (mgN/L)	15	0.11	0.01	0.04
16	NO3-N (mgN/L)	15	10.53	4.47	6.75
17	o-PO4-P (mg P/L)	15	0.490	0.090	0.228
18	SiO2 (mg/L)	15	47.3	4.1	17.1
19	SO4 (mg/L)	15	269.0	43.9	103.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	15	2.4	0.4	1.2
2	COD (mg/L)	14	24.3	1.9	8.5
3	DO (mg/L)	15	7.3	5.0	6.1
4	DO_SAT% (%)	1	63	63	63
	TRACE & TOXIC				
1	Cd (µg/L)	15	4.10	0.00	0.63
2	Cr (µg/L)	15	14.30	0.00	3.2
3	Cu (µg/L)	15	32.10	0.00	8.22
4	Hg (µg/L)	7	1.75	0.00	0.29
5	Ni (µg/L)	15	21.20	3.30	9.51
6	Pb (µg/L)	15	51.00	0.00	29.8
7	Zn (µg/L)	15	100.80	0.00	15.75
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	15	308	113	134
2	HAR_Total (mgCaCO3/L)	15	768	171	278
3	Na% (%)	15	63	29	40
4	RSC (-)	15	0.0	0.0	0
5	SAR (-)	15	6.0	1.2	2.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2020-2023

Station Name : DEONGAON BRIDGE (DEONGAON) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	Flood			Winter			Summer		
		Jun - Oct			Nov - Feb			Mar - May		
		2020	2021	2022	2020-2021	2021-2022	2022-2023	2021	2022	2023
	PHYSICAL									
1	Q (cumec)	WQ Site								
2	EC_GEN (µmho/cm)	1131	1117	1422	1605	1054	1033	1403	1493	
3	pH_GEN (pH units)	7.7	8.1	8.2	8.1	8.1	8.3	8.1	8.3	
4	TDS (mg/L)	917	858	827	1130	840	597	952	1099	
5	Temp (deg C)	28.0	24.0	25.0	25.7			25.5		
6	Turb (NTU)	30.8	2.6	6.9	25.6	4.9	5.7	11.5	6.3	
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	0.0	1.3	11.7	2.5	3.5	9.8	0.0	11.3	
2	ALK-TOT (mgCaCO3/L)	182	207	160	250	197	192	203	184	
3	B (mg/L)	0.62	0.23	0.37	0.28	0.35	0.48	1.05	0.63	
4	Ca (mg/L)	43	56	55	59	64	47	66	77	
5	Cl (mg/L)	164.6	138.6	147.6	203.7	151.9	121.5	239.0	230.8	
6	CO3 (mg/L)	0.0	1.6	14.1	3.0	4.2	11.8	0.0	13.6	
7	F (mg/L)	0.17	0.38	0.29	0.39	0.42	0.26	0.71	0.37	
8	Fe (mg/L)	0.8	1.4	2.0	0.2	0.5	0.6	0.3	0.3	
9	HCO3 (mg/L)	221	249	166	298	231	211	247	197	
10	K (mg/L)	0.4	5.6	3.8	0.7	4.0	3.2	2.6	3.7	
11	Mg (mg/L)	55.2	34.3	34.5	39.7	39.2	36.0	55.7	62.9	
12	Na (mg/L)	121.9	101.3	98.7	227.3	91.6	76.5	200.5	141.1	
13	NH3-N (mg N/L)	0.01		0.20	0.03	0.05	0.29	0.44	0.34	
14	NO2+NO3 (mg N/L)	9.85		5.91	4.41		10.33	4.92		
15	NO2-N (mgN/L)	0.43	0.04	0.05	0.27	0.02	0.03	0.12	0.05	
16	NO3-N (mgN/L)	9.80	3.00	5.87	4.00		10.30	5.75		
17	o-PO4-P (mg P/L)	1.241	0.447	0.240	0.474	0.532	0.183	0.144	0.144	
18	P-Tot (mgP/L)		0.620			0.822				
19	SiO2 (mg/L)	16.0		15.7	26.2	26.2	22.6	30.9	29.4	
20	SO4 (mg/L)	98.2	117.2	101.9	173.7	103.3	108.1	237.9	134.7	
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	3.8	1.0	1.2	1.8	1.5	1.4	1.6	0.6	
2	COD (mg/L)	10.5	12.2	6.7	17.6		14.8	19.2	6.1	
3	DO (mg/L)	4.9	5.9	6.0	5.5	6.6	6.5		5.4	
4	DO_SAT% (%)		88	63	98					
5	FCol-MPN (MPN/100mL)	800	485		3306	864		215		
6	Tcol-MPN (MPN/100mL)	3500	735		13020	1160		415		
	TRACE & TOXIC									
1	As (µg/L)		0.94		0.22					
2	Cd (µg/L)		0.25	0.64	0.87	1.06	0.57	1.90	1.02	
3	Cr (µg/L)		9.45	3.42	6.70	3.04	2.30	2.60	3.38	
4	Cu (µg/L)	0.01	5.71	9.41	3.73	1.81	3.47	14.00	2.13	
5	Hg (µg/L)		0.27	0.29	0.19	0.11			0.68	
6	Ni (µg/L)		5.76	10.35	6.07	4.09	6.17	30.60	5.37	
7	Pb (µg/L)		10.91	28.92	69.67	12.25	33.33	61.00	33.11	
8	Zn (µg/L)	0.06	19.28	19.20	5.75	6.71	1.94	6.88	2.36	
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	107	139	138	149	160	117	166	193	
2	HAR_Total (mgCaCO3/L)	337	282	281	314	323	267	398	455	
3	Na% (%)	44	42	40	55	38	38	52	40	
4	SAR (-)	2.9	2.6	2.4	5.5	2.2	2.0	4.4	2.9	
	PESTICIDES									

Sample not submitted for analysis in 2023 NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	30-09-1989			
Discharge	:	15-08-1990			
Sediment	:	08-09-1992			
Water Quality	:	01-06-1992			

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	2.430	2.828	2.577	39.58	284.4	181.8
2	Colour_Cod (-)	Light Brown	Clear	Clear	Brown	Brown	Brown
3	EC_GEN (µmho/cm)	546	515	547	445	333	523
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.6	8.5	8.5	8.0	8.2
6	TDS (mg/L)	336	321	313	304	201	401
7	Temp (deg C)	25.0	25.0	25.0	24.0	24.0	25.0
8	Turb (NTU)	3.0	7.0	7.0	12.0	59.0	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	23.7	24.8	16.0	14.3	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	206	185	193	187	134	130
3	B (mg/L)	0.41	0.23		0.42	0.41	0.42
4	Ca (mg/L)	31	23	23	33	35	31
5	Cl (mg/L)	42.6	45.0	46.3	25.0	30.3	28.4
6	CO3 (mg/L)	28.6	29.9	19.3	17.2	0.0	0.0
7	F (mg/L)	0.52	0.61	0.61	0.60	0.54	0.43
8	Fe (mg/L)	0.1	0.2	0.2	1.2	8.0	0.2
9	HCO3 (mg/L)	193	166	196	193	163	158
10	K (mg/L)	5.0	5.2	4.6	3.1	3.0	2.7
11	Mg (mg/L)	25.6	24.9	29.0	21.0	20.4	21.6
12	Na (mg/L)	45.2	48.4	59.2	42.5	27.0	40.0
13	NH3-N (mg N/L)	0.16	0.58		0.28	0.22	0.09
14	NO2+NO3 (mg N/L)	2.90	2.82	4.01	4.88	4.72	4.35
15	NO2-N (mgN/L)	0.03	0.04	0.03	0.05	0.02	0.01
16	NO3-N (mgN/L)	2.87	2.78	3.98	4.83	4.70	4.34
17	o-PO4-P (mg P/L)	0.120	0.860	0.270	0.170	0.300	0.260
18	SiO2 (mg/L)	12.4	28.8	7.0	11.2	9.9	10.9
19	SO4 (mg/L)	25.8	28.1	21.6	23.0	17.3	38.7
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.6	0.8	1.8	0.5	3.3	1.3
2	COD (mg/L)				1.9	5.9	7.4
3	DO (mg/L)	5.0	4.9	5.3	5.4	7.2	5.2
4	DO_SAT% (%)	61	59	64	64	86	63
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	1.6	0.0	1.0	1.4	0.7	0.2
2	Cr (µg/L)	3.3	2.7	4.8	0.8	17.6	4.1
3	Cu (µg/L)	4.8	2.7	1.5	6.2	27.5	0.0
4	Hg (µg/L)	0.1	0.0	0.0	0.0	0.0	0.0
5	Ni (µg/L)	3.0	0.0	0.0	4.0	19.0	3.3
6	Pb (µg/L)	4.0	0.0	0.0	2.0	0.0	27.0
7	Zn (µg/L)	9.5	6.0	6.0	6.5	13.7	2.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	77	57	58	83	88	78
2	HAR_Total (mgCaCO3/L)	183	161	178	170	173	168
3	Na% (%)	34	39	41	35	25	34
4	RSC (-)	0.5	0.5	0.3	0.4	0.0	0.0
5	SAR (-)	1.5	1.7	1.9	1.4	0.9	1.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	392.9	450.6	271.7	153.9	392.9	174.9
2	Colour_Cod (-)	Clear	Brown	Brown	Brown	Brown	Light Brown
3	EC_GEN (µmho/cm)	467	406	457	520	431	604
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.1	8.2	8.3	8.5	8.2
6	TDS (mg/L)	310	265	358	450	301	465
7	Temp (deg C)	25.0	26.0	26.0	26.0	25.0	25.0
8	Turb (NTU)	18.0	7.0	4.0	4.6	5.3	4.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	24.9	0.0	0.0	28.6	27.1	0.0
2	ALK-TOT (mgCaCO3/L)	170	165	95	213	155	141
3	B (mg/L)	0.15	0.18	0.17	0.08	0.14	0.04
4	Ca (mg/L)	29	31	39	37	37	39
5	Cl (mg/L)	36.2	37.0	40.3	34.9	25.5	28.2
6	CO3 (mg/L)	30.0	0.0	0.0	34.5	32.6	0.0
7	F (mg/L)	0.41	0.39	0.57	0.58	0.44	0.36
8	Fe (mg/L)	5.0	1.3	0.5	11.1	0.0	1.3
9	HCO3 (mg/L)	146	201	116	190	123	172
10	K (mg/L)	2.5	3.2	1.6	1.7	1.5	1.4
11	Mg (mg/L)	22.0	19.6	25.3	25.2	25.0	22.2
12	Na (mg/L)	40.2	35.4	18.1	24.9	22.5	31.1
13	NH3-N (mg N/L)	0.55	0.12	0.00	0.03	0.00	0.04
14	NO2+NO3 (mg N/L)	4.31	4.24	6.52	6.72	12.35	6.71
15	NO2-N (mgN/L)	0.09	0.04	0.03	0.02	6.45	0.03
16	NO3-N (mgN/L)	4.22	4.20	6.49	6.70	5.90	6.68
17	o-PO4-P (mg P/L)	0.550	0.270	0.220	0.280	0.190	0.180
18	SiO2 (mg/L)	13.8	9.4	37.0	28.7	16.2	10.0
19	SO4 (mg/L)	39.0	33.0	36.8	19.1	28.0	47.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	0.6	1.1	1.1	1.2	1.3
2	COD (mg/L)	11.8	3.6	8.1	9.6	7.2	9.4
3	DO (mg/L)	4.7	6.0	5.6	5.7	5.9	7.0
4	DO_SAT% (%)	57	74	69	70	71	85
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.0	0.0	4.9	0.8	0.0
2	Cr (µg/L)	6.5	0.0	0.0	11.0	2.9	0.0
3	Cu (µg/L)	10.4	5.9	4.1	9.8	9.3	2.8
4	Hg (µg/L)	0.1	0.2	0.1	0.0		
5	Ni (µg/L)	8.7	4.5	3.4	7.2	6.1	2.9
6	Pb (µg/L)	13.0	41.0	38.0	41.0	0.0	33.0
7	Zn (µg/L)	10.2	4.3	2.2	9.8	11.2	15.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	73	78	97	93	93	98
2	HAR_Total (mgCaCO3/L)	165	160	202	198	197	190
3	Na% (%)	34	32	16	21	20	26
4	RSC (-)	0.1	0.1	0.0	0.3	0.0	0.0
5	SAR (-)	1.4	1.2	0.6	0.8	0.7	1.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	210.3	392.9	270.7	106.5	97.62	59.63
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	526	463	519	646	666	639
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.2	8.1	8.3	8.3	8.3
6	TDS (mg/L)	325	292	321	417	491	408
7	Temp (deg C)	26.0	24.0	26.0	25.0	24.0	24.0
8	Turb (NTU)	8.0	17.0	8.0	8.0	5.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	18.1	16.2	18.3
2	ALK-TOT (mgCaCO3/L)	149	157	126	178	179	65
3	B (mg/L)	0.03	0.16	0.40	0.22	0.29	0.14
4	Ca (mg/L)	38	42	42	22	22	33
5	Cl (mg/L)	27.7	25.0	28.0	64.8	61.5	62.9
6	CO3 (mg/L)	0.0	0.0	0.0	21.8	19.5	22.0
7	F (mg/L)	0.38	0.37	0.42	0.58	0.58	0.58
8	Fe (mg/L)	2.8	2.7	2.1	0.6	1.3	0.7
9	HCO3 (mg/L)	182	191	153	173	179	35
10	K (mg/L)	2.3	2.1	2.6	2.6	2.5	3.8
11	Mg (mg/L)	22.0	13.4	14.0	71.0	67.8	25.0
12	Na (mg/L)	38.0	30.0	31.6	38.0	56.4	48.0
13	NH3-N (mg N/L)	0.11	0.38	0.34	0.39	0.12	0.15
14	NO2+NO3 (mg N/L)	7.12	6.91	10.26	11.59	11.99	13.13
15	NO2-N (mgN/L)	0.02	0.04	0.03	0.02	0.09	0.05
16	NO3-N (mgN/L)	7.10	6.87	10.23	11.57	11.90	13.08
17	o-PO4-P (mg P/L)	0.116	0.467	0.151	0.131	0.240	0.223
18	SiO2 (mg/L)	20.7	8.6	18.7	20.2	17.0	13.4
19	SO4 (mg/L)	49.0	40.0	44.0	58.1	87.2	87.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.5	0.7	0.1	0.7	0.7	1.3
2	COD (mg/L)	9.5	1.9	1.9	6.1	6.1	8.1
3	DO (mg/L)	6.2	5.6	4.7	6.9	7.0	7.2
4	DO_SAT% (%)	76	67	58	84	83	86
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.1	0.1	0.0	2.0	0.9	1.9
2	Cr (µg/L)	0.0	1.9	0.0	0.4	0.0	3.9
3	Cu (µg/L)	3.6	5.1	3.7	2.7	2.7	1.9
4	Hg (µg/L)						
5	Ni (µg/L)	1.8	8.1	10.9	5.1	2.8	4.7
6	Pb (µg/L)	19.0	34.0	28.0	6.0	31.0	37.0
7	Zn (µg/L)	5.5	7.5	1.5	3.7	3.1	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	95	105	105	55	56	83
2	HAR_Total (mgCaCO3/L)	187	161	163	351	338	187
3	Na% (%)	31	29	29	19	27	35
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	1.0	1.1	0.9	1.3	1.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	21-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	51.95	49.41	50.93	10.88	49.11	46.14
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	672	672	662	639	669	615
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.3	8.4	8.4	8.4	8.0
6	TDS (mg/L)	408	536	502	300	412	416
7	Temp (deg C)	24.0	24.0		23.0	23.0	24.0
8	Turb (NTU)	4.0	6.0	4.2	7.0	6.0	6.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	18.9	19.8	24.3	27.0	21.3	0.0
2	ALK-TOT (mgCaCO3/L)	145	150	233	225	213	185
3	B (mg/L)	0.10	0.11	0.10	0.12	0.07	0.14
4	Ca (mg/L)	32	34	52	48	57	43
5	Cl (mg/L)	37.8	44.0	56.5	59.5	92.0	70.1
6	CO3 (mg/L)	22.8	23.9	29.3	32.5	25.7	0.0
7	F (mg/L)	0.71	0.70	0.06	0.59	0.54	0.56
8	Fe (mg/L)	1.1	0.2	0.1	1.1	0.3	0.4
9	HCO3 (mg/L)	131	135	225	209	207	226
10	K (mg/L)	3.6	2.8	2.7	3.4	4.3	3.7
11	Mg (mg/L)	24.5	24.6	31.5	31.0	27.8	18.5
12	Na (mg/L)	45.0	32.0	46.9	46.8	60.0	53.5
13	NH3-N (mg N/L)	0.00	0.04	0.04	0.00	0.26	0.00
14	NO2+NO3 (mg N/L)	11.61	13.49	12.54	13.17	3.32	3.44
15	NO2-N (mgN/L)	0.02	0.03	0.03	0.02	0.02	0.01
16	NO3-N (mgN/L)	11.59	13.46	12.51	13.15	3.30	3.43
17	o-PO4-P (mg P/L)	0.071	0.060	0.040	0.080	0.000	0.070
18	SiO2 (mg/L)	21.3	21.6	24.1	10.1	8.0	14.3
19	SO4 (mg/L)	45.6	44.7	55.4	55.6	66.5	60.1
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.9	0.3	2.6	0.8	1.0	0.6
2	COD (mg/L)				3.6	1.8	3.6
3	DO (mg/L)	6.9	6.9	6.8	6.5	6.9	6.8
4	DO_SAT% (%)	82	82		76	80	81
5	FCol-MPN (MPN/100mL)			490	1100	790	5400
6	Tcol-MPN (MPN/100mL)			790	1400	1400	5400
	TRACE & TOXIC						
1	Cd (µg/L)	2.1	1.4	0.5	0.0	0.0	0.0
2	Cr (µg/L)	3.2	2.8	6.3	1.5	1.2	1.5
3	Cu (µg/L)	1.0	0.5	2.3	3.3	3.1	1.8
4	Hg (µg/L)						
5	Ni (µg/L)	7.7	0.0	0.0	9.3	7.4	7.1
6	Pb (µg/L)	25.0	1.0	0.0	30.0	15.0	7.0
7	Zn (µg/L)	12.1	0.0	48.0	3.2	11.1	1.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	80	84	130	120	142	107
2	HAR_Total (mgCaCO3/L)	182	186	261	249	258	184
3	Na% (%)	35	27	28	29	33	38
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.1
5	SAR (-)	1.5	1.0	1.3	1.3	1.6	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.381	7.105	5.306	5.312	4.571	4.239
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	639	618	551	942	652	628
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.4	8.5	8.7	8.2	8.9
6	TDS (mg/L)	439	444	368	581	1103	456
7	Temp (deg C)	24.0	23.0	23.0	24.0	24.0	25.0
8	Turb (NTU)	6.0	17.1	11.4	1.0	1.8	26.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	14.9	35.7	32.2	23.2	0.0	30.0
2	ALK-TOT (mgCaCO3/L)	179	216	215	199	210	136
3	B (mg/L)	0.27	0.39	0.37	0.35	0.32	0.34
4	Ca (mg/L)	35	42	45	55	61	39
5	Cl (mg/L)	59.7	77.2	78.6	102.4	51.0	117.8
6	CO3 (mg/L)	17.9	43.0	38.8	28.0	0.0	36.2
7	F (mg/L)	0.67	0.65	0.67	0.64	0.62	0.54
8	Fe (mg/L)	0.4	0.2	0.4	0.6	0.7	0.5
9	HCO3 (mg/L)	182	176	183	186	256	93
10	K (mg/L)	3.9	4.1	4.8	3.7	4.2	5.1
11	Mg (mg/L)	22.0	28.8	27.8	37.0	19.6	14.0
12	Na (mg/L)	46.0	57.5	54.5	45.6	50.1	80.9
13	NH3-N (mg N/L)	0.02	0.02	0.02	0.04	0.05	0.05
14	NO2+NO3 (mg N/L)	3.73	2.99	2.97	2.76	3.04	2.90
15	NO2-N (mgN/L)	0.00	0.01	0.01	0.00	0.08	0.01
16	NO3-N (mgN/L)	3.73	2.98	2.96	2.76	2.96	2.89
17	o-PO4-P (mg P/L)	0.100	0.200	0.300	0.400	0.700	0.300
18	SiO2 (mg/L)	12.4	9.8	13.6	24.0	20.3	12.0
19	SO4 (mg/L)	55.0	50.5	47.8	25.0	61.0	74.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.2	1.4	1.5	1.4	2.5	2.0
2	COD (mg/L)	1.9	3.8	1.9			
3	DO (mg/L)	6.5	6.7	6.5	6.9	6.7	6.9
4	DO_SAT% (%)	77	78	76	82	80	84
5	FCol-MPN (MPN/100mL)	2200	5400	1700	220	490	790
6	Tcol-MPN (MPN/100mL)	2800	9200	2200	2800	790	5400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.6	0.0	0.0	0.0
2	Cr (µg/L)	0.9	0.8	0.9	0.0	2.0	2.9
3	Cu (µg/L)	4.3	1.8	1.7	0.6	0.9	1.9
4	Hg (µg/L)						
5	Ni (µg/L)	3.8	4.0	1.1	2.6	2.9	5.6
6	Pb (µg/L)	25.0	12.0	10.0	19.0	36.0	26.0
7	Zn (µg/L)	12.1	47.2	0.7	4.0	34.0	2.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	86	105	113	138	152	98
2	HAR_Total (mgCaCO3/L)	178	225	229	292	234	156
3	Na% (%)	36	35	34	25	31	52
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.5	1.7	1.6	1.2	1.4	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	3.915	3.914	3.017	3.017	4.008	4.009
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	632	612	636	645	696	670
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	9.0	8.8	8.9	8.9	8.6	8.5
6	TDS (mg/L)	447	495	452	402	505	496
7	Temp (deg C)	26.0	26.0	26.0	25.0	26.0	26.0
8	Turb (NTU)	13.0	14.6	5.6	4.6	7.5	8.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	29.9	31.3	30.9	28.0	24.9	24.0
2	ALK-TOT (mgCaCO3/L)	212	218	219	245	251	210
3	B (mg/L)	0.00	0.03	0.02	0.00	0.00	0.00
4	Ca (mg/L)	41	49	24	43	49	65
5	Cl (mg/L)	58.6	94.5	48.1	45.0	92.0	116.7
6	CO3 (mg/L)	36.0	37.7	37.2	33.7	30.0	28.9
7	F (mg/L)	0.58	0.58	0.61	0.65	0.66	0.62
8	Fe (mg/L)	0.4	0.7	1.3	0.3	0.1	0.3
9	HCO3 (mg/L)	186	189	192	230	246	198
10	K (mg/L)	3.5	4.2	5.7	4.7	6.1	5.8
11	Mg (mg/L)	21.7	24.9	35.5	24.9	25.0	49.4
12	Na (mg/L)	39.7	46.9	63.8	56.0	68.4	75.6
13	NH3-N (mg N/L)	0.04	0.06	0.11	0.12	0.08	0.08
14	NO2+NO3 (mg N/L)	3.60	3.67	3.82	2.90	2.88	2.80
15	NO2-N (mgN/L)	0.01	0.01	0.05	0.30	0.32	0.01
16	NO3-N (mgN/L)	3.59	3.66	3.77	2.60	2.56	2.79
17	o-PO4-P (mg P/L)	0.960	0.650	0.360	0.400	0.700	0.800
18	SiO2 (mg/L)	16.0	15.6	15.0	17.4	15.1	16.7
19	SO4 (mg/L)	32.0	33.7	33.7	90.1	41.0	95.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.7	2.1	1.3	1.7	1.6	2.7
2	COD (mg/L)				3.8	7.6	9.5
3	DO (mg/L)	6.5	6.7	6.0	6.2	6.0	5.9
4	DO_SAT% (%)	80	83	74	75	74	73
5	FCol-MPN (MPN/100mL)	2200	1300	1400	2200	1100	700
6	Tcol-MPN (MPN/100mL)	2800	2200	1700	5400	1400	940
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.1	0.3	0.0	2.1	0.9
2	Cr (µg/L)	2.9	7.6	9.9	7.5	1.6	0.0
3	Cu (µg/L)	0.9	1.9	1.9	1.2	1.0	3.2
4	Hg (µg/L)						
5	Ni (µg/L)	1.0	1.6	1.7	0.2	12.8	1.1
6	Pb (µg/L)	14.0	16.0	0.0	9.0	31.0	28.0
7	Zn (µg/L)	6.2	18.2	4.6	17.3	5.0	6.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	101	123	60	108	123	163
2	HAR_Total (mgCaCO3/L)	192	227	208	211	227	368
3	Na% (%)	31	31	39	36	39	31
4	RSC (-)	0.4	0.0	0.3	0.7	0.5	0.0
5	SAR (-)	1.3	1.4	1.9	1.7	2.0	1.7
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **Sub-Division : Middle Krishna SD 2 , Kurnool**

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1296	2.413	108.2
2	EC_GEN (µmho/cm)	36	942	333	586
3	pH_GEN (pH units)	36	9.0	8.0	8.4
4	TDS (mg/L)	36	1103	201	418
5	Temp (deg C)	35	26.0	23.0	24.7
6	Turb (NTU)	36	59.0	1.0	9.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	35.7	0.0	17.5
2	ALK-TOT (mgCaCO3/L)	36	251	65	180
3	B (mg/L)	35	0.42	0.00	0.19
4	Ca (mg/L)	36	65	22	39
5	Cl (mg/L)	36	117.8	25.0	55.3
6	CO3 (mg/L)	36	43.0	0.0	21
7	F (mg/L)	36	0.71	0.06	0.54
8	Fe (mg/L)	36	11.1	0.0	1.3
9	HCO3 (mg/L)	36	256	35	177
10	K (mg/L)	36	6.1	1.4	3.5
11	Mg (mg/L)	36	71.0	13.4	27.3
12	Na (mg/L)	36	80.9	18.1	45.7
13	NH3-N (mg N/L)	35	0.58	0.00	0.13
14	NO2+NO3 (mg N/L)	36	13.49	2.76	6.14
15	NO2-N (mgN/L)	36	6.45	0.00	0.22
16	NO3-N (mgN/L)	36	13.46	2.56	5.92
17	o-PO4-P (mg P/L)	36	0.960	0.000	0.311
18	SiO2 (mg/L)	36	37.0	7.0	16.1
19	SO4 (mg/L)	36	95.9	17.3	47
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	3.3	0.1	1.4
2	COD (mg/L)	24	11.8	1.8	5.7
3	DO (mg/L)	36	7.2	4.7	6.2
4	DO_SAT% (%)	35	86	57	75
5	FCol-MPN (MPN/100mL)	16	5400	220	1718
6	Tcol-MPN (MPN/100mL)	16	9200	790	2914
	TRACE & TOXIC				
1	Cd (µg/L)	36	4.9	0.0	0.8
2	Cr (µg/L)	36	17.6	0.0	3.1
3	Cu (µg/L)	36	27.5	0.0	3.8
4	Hg (µg/L)	10	0.2	0.0	0
5	Ni (µg/L)	36	19.0	0.0	4.6
6	Pb (µg/L)	36	41.0	0.0	18.3
7	Zn (µg/L)	36	48.0	0.0	9.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	163	55	97
2	HAR_Total (mgCaCO3/L)	36	368	156	211
3	Na% (%)	36	52	16	32
4	RSC (-)	36	0.7	0.0	0.1
5	SAR (-)	36	2.8	0.6	1.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	16.54	383.7	86.12	123.8	7.217	27.32	16.99
2	EC_GEN (µmho/cm)	484	486	549	457	772	580	605
3	pH_FLD (pH units)							
4	pH_GEN (pH units)	8.0	8.0	8.2	8.1	8.1	8.2	8.1
5	TDS (mg/L)				270	519	344	372
6	Temp (deg C)	28.0	25.8	27.3	27.7	26.3	26.3	26.7
7	Turb (NTU)				1.0	3.0	3.0	10.3
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	2.7	0.0	0.0	1.4	0.0
2	ALK-TOT (mgCaCO3/L)	216	205	216	151	213	238	226
3	B (mg/L)	0.00	0.00	0.00	0.00	0.15	0.21	0.17
4	Ca (mg/L)	44	36	36	29	32	37	34
5	Cl (mg/L)	19.7	20.7	41.1	21.4	25.9	23.3	26.7
6	CO3 (mg/L)	0.0	0.0	3.2	0.0	0.0	1.7	0.0
7	F (mg/L)	0.63	0.59	0.79	0.77	0.64	0.75	0.66
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	264	251	257	184	260	287	275
10	K (mg/L)	3.1	3.5	3.5	3.5	3.8	3.6	4.1
11	Mg (mg/L)	14.1	16.8	20.1	15.9	18.5	21.2	19.3
12	Na (mg/L)	46.5	36.1	40.6	35.8	43.9	42.5	47.5
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.02	0.04	0.00
14	NO2+NO3 (mg N/L)	0.01	1.19	0.00	0.85	1.14	0.91	2.22
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.02
16	NO3-N (mgN/L)	0.01	1.19	0.00	0.85	1.14	0.91	2.20
17	o-PO4-P (mg P/L)				0.102	0.080	0.041	0.093
18	P-Tot (mgP/L)	0.001	0.000	0.076	0.102			0.087
19	SiO2 (mg/L)	22.4	20.3	24.3	19.2	26.8	17.7	25.1
20	SO4 (mg/L)	24.9	23.0	21.2	16.1	19.1	17.5	23.3
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.9	1.1	0.8	0.3	0.9	0.7	0.6
2	COD (mg/L)	19.9	5.8	36.8	8.3	14.1	8.3	5.1
3	DO (mg/L)	5.3	5.5	5.6	5.4	6.2	5.7	5.8
4	DO_SAT% (%)	67	68	70	69	77	70	73
5	FCol-MPN (MPN/100mL)		12500	9133	11667	10933	1333	6210
6	Tcol-MPN (MPN/100mL)		16000	11667	12333	11667	4600	7133
7	TOC (mg/L)				3.9	2.0	0.3	
	TRACE & TOXIC							
1	As (µg/L)					8.1	9.1	
2	Cd (µg/L)					0.1	0.6	
3	Cr (µg/L)					1.7	0.8	
4	Cu (µg/L)							
5	Hg (µg/L)						0.4	
6	Ni (µg/L)					1.9	2.5	
7	Pb (µg/L)					1.0	3.2	
8	Zn (µg/L)					23.1	0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	110	89	91	72	79	91	85
2	HAR_Total (mgCaCO3/L)	169	159	174	138	156	180	165
3	Na% (%)	36	32	33	34	37	33	38
4	RSC (-)	1.0	0.9	0.9	0.4	1.2	1.2	1.2
5	SAR (-)	1.5	1.2	1.4	1.3	1.6	1.4	1.6
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	2.139	188.8	41.36	2.085	24.07	27.47	181.8	214.9
2	EC_GEN (µmho/cm)	476	346	406	529	413	515	445	487
3	pH_FLD (pH units)								
4	pH_GEN (pH units)	8.0	8.2	8.1	8.2	7.8	7.8	8.0	8.3
5	TDS (mg/L)	303	208	291	387	268	400	326	331
6	Temp (deg C)	27.6	26.6	27.7	26.3	28.0	26.4	25.8	25.1
7	Turb (NTU)	15.0	78.6	191.3	28.6	32.5	24.4	3.2	11.0
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.6	7.2	1.2	0.0	0.0	0.0	10.6
2	ALK-TOT (mgCaCO3/L)	193	140	192	217	213	201	187	160
3	B (mg/L)	0.16		0.05	0.07	0.19	0.26	0.12	0.23
4	Ca (mg/L)	34	26	40	32	33	35	41	34
5	Cl (mg/L)	21.7	13.0	30.2	41.5	44.3	34.4	29.1	33.4
6	CO3 (mg/L)	0.0	0.7	8.6	1.5	0.0	0.0	0.0	12.8
7	F (mg/L)	0.59	0.33	0.50	0.64	0.45	0.30	0.55	0.48
8	Fe (mg/L)	0.1	0.1	2.1	1.2	1.1	1.3	1.0	2.4
9	HCO3 (mg/L)	236	170	216	261	260	245	228	170
10	K (mg/L)	4.4	3.2	0.5	0.6	1.1	0.5	2.8	2.8
11	Mg (mg/L)	18.8	14.8	22.7	26.7	30.3	27.1	17.8	22.1
12	Na (mg/L)	39.8	23.0	41.8	47.3	39.3	38.1	33.9	35.6
13	NH3-N (mg N/L)	0.02	0.00	0.05	0.11	0.08	0.01		0.21
14	NO2+NO3 (mg N/L)	1.63	1.52	7.57	2.52	2.54	4.05		5.92
15	NO2-N (mgN/L)	0.04	0.00	0.08	0.18	0.03	0.02	0.03	0.46
16	NO3-N (mgN/L)	1.59	1.52	7.49	2.34	2.51	4.00	7.14	5.46
17	o-PO4-P (mg P/L)	0.112	0.054	0.300	0.308	0.422	1.024	0.446	0.294
18	P-Tot (mgP/L)							0.620	
19	SiO2 (mg/L)	17.1	13.2	18.3	37.4	22.2	15.1		16.2
20	SO4 (mg/L)	17.0	9.1	19.2	30.0	11.5	25.6	55.6	32.7
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	0.7	1.2	1.3	1.4	1.6	1.7	1.4	1.3
2	COD (mg/L)	6.2	8.0	11.1	14.6	12.0	12.1	8.0	6.5
3	DO (mg/L)	5.5	5.0	6.1	5.7	5.9	6.8	6.5	5.6
4	DO_SAT% (%)	70	63	78	72	76	83	79	68
5	FCol-MPN (MPN/100mL)	3852	3258	8500	184	740	5000	344	
6	Tcol-MPN (MPN/100mL)	7820	10634	9360	4292	3233	16000	715	
7	TOC (mg/L)	14.7							
	TRACE & TOXIC								
1	As (µg/L)					2.2	0.0	0.7	
2	Cd (µg/L)					0.0	2.0	0.5	0.7
3	Cr (µg/L)					1.5	4.0	4.1	3.7
4	Cu (µg/L)			5.4	10.6	10.0	0.0	4.7	6.5
5	Hg (µg/L)						0.7	0.2	0.0
6	Ni (µg/L)					14.6	2.9	1.4	5.5
7	Pb (µg/L)					0.4	20.0	8.3	18.7
8	Zn (µg/L)			49.6	18.6	41.5	0.0	12.9	7.4
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	86	66	99	81	81	87	103	85
2	HAR_Total (mgCaCO3/L)	164	127	194	192	207	200	177	177
3	Na% (%)	34	26	31	34	30	29	29	30
4	RSC (-)	0.6	0.3	0.1	0.5	0.5	0.3	0.3	0.2
5	SAR (-)	1.4	0.9	1.3	1.5	1.2	1.2	1.1	1.2
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	10.79	12.44	12.99	2.910	4.633	12.81
2	EC_GEN (µmho/cm)	572	585	606	597	576	669
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	8.2	8.2	8.2	8.1	8.1	8.2
5	TDS (mg/L)				347	336	460
6	Temp (deg C)	26.0	22.5	24.8	24.5	23.0	24.0
7	Turb (NTU)				1.0	3.0	4.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	2.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	236	226	228	238	234	213
3	B (mg/L)	0.00	0.00	0.00	0.21	0.27	0.17
4	Ca (mg/L)	51	34	42	40	37	40
5	Cl (mg/L)	21.5	21.3	23.3	27.3	23.2	40.6
6	CO3 (mg/L)	2.4	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.69	1.12	0.68	0.84	0.95	0.63
8	Fe (mg/L)	0.0	0.0	0.0	0.1	0.4	0.0
9	HCO3 (mg/L)	283	276	279	290	286	260
10	K (mg/L)	3.7	3.4	3.5	3.4	2.3	3.1
11	Mg (mg/L)	14.6	16.5	24.3	22.8	21.4	22.8
12	Na (mg/L)	44.0	46.2	38.7	47.4	42.2	39.4
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.00	0.01
14	NO2+NO3 (mg N/L)	0.01	1.89	0.00	2.03	1.86	1.77
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.01	0.00	0.00
16	NO3-N (mgN/L)	0.01	1.89	0.00	2.02	1.86	1.77
17	o-PO4-P (mg P/L)				0.017	0.054	0.085
18	P-Tot (mgP/L)	0.001	0.000	0.077	0.017		
19	SiO2 (mg/L)	23.6	20.2	27.6	34.4	31.3	24.9
20	SO4 (mg/L)	16.7	22.8	19.3	15.1	21.4	17.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.7	0.7	0.5	1.0	0.8	1.2
2	COD (mg/L)	8.3	10.8	21.9	15.2	13.0	2.5
3	DO (mg/L)	6.5	6.8	6.9	6.3	6.5	6.9
4	DO_SAT% (%)	80	79	83	76	76	80
5	FCol-MPN (MPN/100mL)		16000	16000	2400	515	465
6	Tcol-MPN (MPN/100mL)		16000	16000	7000	3150	800
7	TOC (mg/L)				2.7	1.7	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	128	84	106	100	92	100
2	HAR_Total (mgCaCO3/L)	189	153	207	195	181	195
3	Na% (%)	33	39	28	34	33	30
4	RSC (-)	1.0	1.5	0.4	0.9	1.1	0.4
5	SAR (-)	1.4	1.6	1.2	1.5	1.4	1.2
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	2.990	3.382	18.63	13.18	0.572	2.114
2	EC_GEN (µmho/cm)	454	1280	568	567	628	516
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	8.3	8.3	8.4	8.0	8.0	8.0
5	TDS (mg/L)	314	311	390	365	275	351
6	Temp (deg C)	23.5	24.5	24.0	21.5	22.3	25.9
7	Turb (NTU)	0.1	19.8	5.5	24.8	3.7	28.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	2.1	2.4	4.9	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	194	233	232	250	186	235
3	B (mg/L)	0.21	0.00		0.03	0.03	0.06
4	Ca (mg/L)	42	36	51	48	28	36
5	Cl (mg/L)	21.2	24.7	33.3	36.8	40.0	37.8
6	CO3 (mg/L)	2.5	2.8	5.9	0.0	0.0	0.0
7	F (mg/L)	0.59	0.61	0.85	0.64	0.56	0.54
8	Fe (mg/L)	0.2	0.0	0.0	0.6	0.2	1.2
9	HCO3 (mg/L)	231	278	272	305	227	287
10	K (mg/L)	3.2	4.3	4.9	0.5	0.5	0.5
11	Mg (mg/L)	21.0	20.5	24.7	27.6	28.8	28.5
12	Na (mg/L)	41.6	49.5	57.8	45.5	38.6	41.8
13	NH3-N (mg N/L)	0.00	0.01	0.79	1.04	0.33	0.02
14	NO2+NO3 (mg N/L)	1.19	1.43	0.61	6.82	1.54	6.35
15	NO2-N (mgN/L)	0.02	0.01	0.01	0.03	0.08	0.03
16	NO3-N (mgN/L)	1.17	1.42	0.60	6.79	1.47	6.31
17	o-PO4-P (mg P/L)	0.095	0.078	0.066	0.590	0.213	0.118
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	21.0	9.4	19.0	24.7	25.6	28.1
20	SO4 (mg/L)	21.0	19.4	53.6	31.0	54.2	32.4
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.5	0.8	0.9	0.8	1.5	1.8
2	COD (mg/L)	5.7	3.6	3.7	8.6	6.3	32.2
3	DO (mg/L)	7.2	6.0	6.5	6.9	6.6	5.8
4	DO_SAT% (%)	85	72	77	78	76	71
5	FCol-MPN (MPN/100mL)	1450	8575	4585	1020	173	628
6	Tcol-MPN (MPN/100mL)	9200	16000	9100	1378	765	2900
7	TOC (mg/L)	27.4	22.0				
	TRACE & TOXIC						
1	As (µg/L)						5.9
2	Cd (µg/L)	0.6					0.0
3	Cr (µg/L)	0.6					8.1
4	Cu (µg/L)			0.0	3.3	10.0	3.5
5	Hg (µg/L)						
6	Ni (µg/L)	5.7					7.2
7	Pb (µg/L)	6.5					0.6
8	Zn (µg/L)	9.2		0.0	51.3	31.1	48.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	104	91	127	121	70	91
2	HAR_Total (mgCaCO3/L)	192	176	230	236	190	209
3	Na% (%)	32	37	35	30	30	31
4	RSC (-)	0.1	1.2	0.3	0.6	0.3	0.5
5	SAR (-)	1.3	1.6	1.7	1.3	1.2	1.3
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter			Summer		
		Nov - Feb			Mar - May		
		2020-2021	2021-2022	2022-2023	2009	2010	2011
	PHYSICAL						
1	Q (cumec)	6.330	25.58	45.16	2.870	6.171	2.922
2	EC_GEN (µmho/cm)	448	575	641	573	603	520
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	8.1	8.2	8.3	8.1	8.4	8.1
5	TDS (mg/L)	295	452	428			
6	Temp (deg C)	24.6	24.3	23.7	25.0	26.5	25.0
7	Turb (NTU)	26.7	9.2	7.2			
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	3.3	20.6	0.0	8.0	0.0
2	ALK-TOT (mgCaCO3/L)	240	239	182	244	180	216
3	B (mg/L)	0.30	0.17	0.19	0.00	0.00	0.00
4	Ca (mg/L)	34	43	39	37	29	32
5	Cl (mg/L)	52.8	39.2	63.7	23.7	22.5	24.1
6	CO3 (mg/L)	0.0	4.0	24.8	0.0	9.6	0.0
7	F (mg/L)	0.62	0.70	0.57	0.81	0.93	0.63
8	Fe (mg/L)	0.3	0.4	0.6	0.0	0.0	0.0
9	HCO3 (mg/L)	293	283	172	298	200	264
10	K (mg/L)	0.6	5.4	3.5	4.0	4.0	1.9
11	Mg (mg/L)	33.0	28.5	33.4	20.4	16.5	18.5
12	Na (mg/L)	56.0	52.8	48.7	40.6	45.9	24.3
13	NH3-N (mg N/L)	0.11	0.05	0.09	0.05	0.00	0.00
14	NO2+NO3 (mg N/L)	5.65		8.66	0.01	0.00	0.00
15	NO2-N (mgN/L)	0.09	0.02	0.03	0.00	0.00	0.00
16	NO3-N (mgN/L)	5.55		8.64	0.01	0.00	0.00
17	o-PO4-P (mg P/L)	0.277	0.521	0.126			
18	P-Tot (mgP/L)		0.876		0.001	0.000	0.065
19	SiO2 (mg/L)	26.2	24.6	15.5	29.4	23.1	25.2
20	SO4 (mg/L)	38.3	53.5	59.5	14.1	19.6	16.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.7	1.3	1.1	0.4	1.3	0.2
2	COD (mg/L)	13.9		4.1	4.0	17.7	9.1
3	DO (mg/L)	6.9	6.4	6.8	5.5	6.0	5.9
4	DO_SAT% (%)	82	76	80	67	74	71
5	FCol-MPN (MPN/100mL)	1083	923	2440		2400	16000
6	Tcol-MPN (MPN/100mL)	7517	2151	3313		3000	16000
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)	0.3				1.2	
2	Cd (µg/L)	2.2	1.1	0.9	2.1	0.0	0.0
3	Cr (µg/L)	3.9	2.5	2.0	2.0	0.0	0.0
4	Cu (µg/L)	2.8	1.1	2.3			
5	Hg (µg/L)	0.8	0.6				
6	Ni (µg/L)	4.5	3.2	4.4	1.0	2.2	2.1
7	Pb (µg/L)	29.0	9.1	16.6	18.1	0.0	5.5
8	Zn (µg/L)	5.3	5.8	11.9	4.0	8.5	17.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	86	108	97	92	72	80
2	HAR_Total (mgCaCO3/L)	224	227	236	177	141	157
3	Na% (%)	34	32	31	33	41	25
4	RSC (-)	0.5	0.4	0.0	1.4	0.8	1.2
5	SAR (-)	1.7	1.5	1.4	1.3	1.7	0.8
	PESTICIDES						
1	Aldrin (µg/L)				0.0	0.0	0.0
2	BHC (µg/L)				0.1	0.0	0.6
3	DDT (µg/L)				0.1	0.0	0.0
4	Dieldrin (µg/L)				0.0	0.0	0.0
5	Endos (µg/L)				0.1	0.1	0.0

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Summer					
		Mar - May					
		2012	2013	2014	2015	2016	2017
	PHYSICAL						
1	Q (cumec)	1.127	1.683	3.086	2.201	2.524	1.355
2	EC_GEN (µmho/cm)	720	739	560	492	700	529
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	8.1	7.9	8.1	8.2	8.3	8.3
5	TDS (mg/L)	426	468	416	323	313	307
6	Temp (deg C)	27.0	30.0	28.0	27.0	28.3	28.3
7	Turb (NTU)	1.0	2.6	8.0	6.3	24.0	29.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	1.2	2.5	6.2
2	ALK-TOT (mgCaCO3/L)	275	241	231	182	224	207
3	B (mg/L)	0.00	0.23	0.15	0.16		
4	Ca (mg/L)	38	29	34	32	34	41
5	Cl (mg/L)	29.8	25.2	25.0	22.9	27.9	24.7
6	CO3 (mg/L)	0.0	0.0	0.0	1.4	3.0	7.5
7	F (mg/L)	0.42	0.89	0.73	0.60	0.60	0.76
8	Fe (mg/L)	0.1	0.1	0.1	0.0	0.0	0.0
9	HCO3 (mg/L)	335	294	282	219	267	238
10	K (mg/L)	4.6	4.1	4.0	4.4	4.9	4.8
11	Mg (mg/L)	21.9	16.5	19.4	20.4	18.9	27.0
12	Na (mg/L)	59.6	50.1	40.8	40.4	52.7	44.8
13	NH3-N (mg N/L)	0.06	0.00	0.01	0.01	0.00	0.35
14	NO2+NO3 (mg N/L)	2.33	1.44	0.64	0.72	1.13	2.76
15	NO2-N (mgN/L)	0.01	0.00	0.00	0.15	0.05	0.03
16	NO3-N (mgN/L)	2.32	1.44	0.64	0.58	1.08	2.73
17	o-PO4-P (mg P/L)	0.318	0.093	0.000	0.080	0.079	0.090
18	P-Tot (mgP/L)	0.318					
19	SiO2 (mg/L)	15.5	19.0	28.8	23.9	10.2	27.1
20	SO4 (mg/L)	21.5	12.3	18.2	19.6	18.8	43.7
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	2.2	0.7	0.9	0.7	1.5	1.6
2	COD (mg/L)	21.7	3.2		4.5	7.2	12.6
3	DO (mg/L)	6.2	5.4	5.4	5.1	4.5	6.2
4	DO_SAT% (%)	78	71	69	64	58	80
5	FCol-MPN (MPN/100mL)	2400	230	230	15	6800	1233
6	Tcol-MPN (MPN/100mL)	9000	2800	2400	880	11233	2633
7	TOC (mg/L)	2.8	2.1		21.6		
	TRACE & TOXIC						
1	As (µg/L)	0.7	1.2	0.3	1.6	0.0	0.9
2	Cd (µg/L)	0.0	2.5	0.0	2.0	0.0	0.0
3	Cr (µg/L)	0.0	3.1	0.0	0.0	0.0	0.0
4	Cu (µg/L)						0.0
5	Hg (µg/L)	0.7	0.5	0.2	0.3	0.0	0.3
6	Ni (µg/L)	3.7	4.1	0.0	6.2	0.0	0.8
7	Pb (µg/L)	24.7	7.0	0.0	14.0	0.0	0.0
8	Zn (µg/L)	88.9	25.3	21.8	3.0	0.1	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	94	72	86	81	86	102
2	HAR_Total (mgCaCO3/L)	185	141	167	166	165	214
3	Na% (%)	41	43	34	34	40	31
4	RSC (-)	1.8	2.0	1.3	0.4	1.2	0.2
5	SAR (-)	1.9	1.8	1.4	1.4	1.8	1.3
	PESTICIDES						
1	Aldrin (µg/L)	0.0					
2	BHC (µg/L)	0.0					
3	DDT (µg/L)	0.0					
4	Dieldrin (µg/L)	0.0					
5	Endos (µg/L)	0.0					

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Malkhed (AKP10E1) **Division : Lower Krishna Divn., Hyderabad**

Local River : Kagna **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Summer					
		Mar - May					
		2018	2019	2020	2021	2022	2023
	PHYSICAL						
1	Q (cumec)	0.743	3.681	0.000	0.000	16.22	4.000
2	EC_GEN (µmho/cm)	503	522	718	611	663	679
3	pH_FLD (pH units)	8.0					
4	pH_GEN (pH units)	8.2	8.2	8.2	8.1	8.5	8.7
5	TDS (mg/L)	351	374	520	402	463	549
6	Temp (deg C)	24.7	29.0		24.5	25.5	25.3
7	Turb (NTU)	10.7	2.0	25.4	13.5	9.0	9.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.7	0.0	24.2	24.7
2	ALK-TOT (mgCaCO3/L)	287	172	221	184	223	211
3	B (mg/L)	0.08	0.12	0.24	0.89	0.34	0.12
4	Ca (mg/L)	41	26	32	33	40	47
5	Cl (mg/L)	40.9	41.5	50.0	41.9	90.8	80.7
6	CO3 (mg/L)	0.0	0.0	0.8	0.0	29.2	29.7
7	F (mg/L)	0.55	0.93	0.22	1.02	0.82	0.61
8	Fe (mg/L)	0.2	1.3	0.2	0.5	0.4	0.6
9	HCO3 (mg/L)	351	210	269	225	213	197
10	K (mg/L)	0.6	0.5	0.6	4.3	4.0	4.8
11	Mg (mg/L)	25.5	22.9	27.8	23.7	29.9	28.0
12	Na (mg/L)	52.4	39.6	75.2	64.1	59.4	58.5
13	NH3-N (mg N/L)	0.08	0.11	0.02	0.17	0.30	0.07
14	NO2+NO3 (mg N/L)	4.86	0.42		6.68		3.15
15	NO2-N (mgN/L)	0.05	0.01	0.09	0.38	0.06	0.09
16	NO3-N (mgN/L)	4.81	0.41		8.66		3.06
17	o-PO4-P (mg P/L)	0.603	0.167	0.402	0.460	0.175	0.586
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	24.8	22.6	24.4	28.7	33.3	16.9
20	SO4 (mg/L)	22.4	18.2	72.1	45.5	50.7	54.1
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.7	0.8		2.3	1.5	1.9
2	COD (mg/L)	9.0	70.9	21.0	5.5	6.2	7.0
3	DO (mg/L)	6.6	9.4		7.0	5.4	6.4
4	DO_SAT% (%)	80	122		85	66	78
5	FCol-MPN (MPN/100mL)	893	2400		245		1156
6	Tcol-MPN (MPN/100mL)	937	3000		235		2603
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)	1.4			2.2		
2	Cd (µg/L)	1.9		0.1	0.7	1.2	0.5
3	Cr (µg/L)	0.0		1.8	4.0	1.9	3.8
4	Cu (µg/L)	2.0	8.0	5.3	7.4	2.9	1.5
5	Hg (µg/L)	0.0			0.2	1.1	
6	Ni (µg/L)	9.1		15.9	4.4	2.9	3.3
7	Pb (µg/L)	23.0		1.1	17.0	19.4	19.9
8	Zn (µg/L)	11.3	18.0	0.0	18.1	2.0	10.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	102	64	80	82	99	118
2	HAR_Total (mgCaCO3/L)	209	159	196	181	224	235
3	Na% (%)	35	35	45	43	36	35
4	RSC (-)	1.6	0.3	0.5	0.3	0.4	0.2
5	SAR (-)	1.6	1.4	2.4	2.1	1.7	1.7
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Yadgir**	**Code**	:	**AKP00B6**
State	:	Karnataka	District		Gulbarga
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"
		Opening Date	Closing Date		
Gauge	:	05-09-1963			
Discharge	:	11-11-1964			
Sediment	:	01-06-1965			
Water Quality	:	01-01-1972			

Water Quality Datasheet for the period : 2022-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022	01-08-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	0.000	0.000	0.000	0.000	334.0	419.1	749.3
2	Colour_Cod (-)	Light Green	Light Green	Light Green	Light Green	Light Green	Light Brown	Clear
3	EC_GEN (µmho/cm)	1069	1024	993	1061	893	483	551
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.1	8.3	8.1	8.1	8.2	8.2
6	TDS (mg/L)	686	840	606	808	730	222	380
7	Temp (deg C)	25.0	29.0	25.0	27.0	26.0	26.0	27.0
8	Turb (NTU)	2.0	7.0	9.0	6.0	11.0	4.0	19.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	17.4	0.0	20.7	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	190	214	179	181	175	120	114
3	B (mg/L)	0.50	0.31		0.55	0.54	0.53	0.18
4	Ca (mg/L)	41	37	36	37	38	39	37
5	Cl (mg/L)	137.6	138.6	151.3	150.3	90.0	79.8	54.4
6	CO3 (mg/L)	21.0	0.0	24.9	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.68	0.61	0.79	0.74	0.39	0.44
8	Fe (mg/L)	0.6	0.3	0.4	0.1	0.0	0.5	2.9
9	HCO3 (mg/L)	189	261	168	221	213	146	139
10	K (mg/L)	4.9	37.3	4.6	4.6	2.5	3.0	2.2
11	Mg (mg/L)	32.6	36.8	37.9	39.0	37.6	17.3	17.2
12	Na (mg/L)	115.6	115.9	140.8	147.5	52.2	39.2	45.0
13	NH3-N (mg N/L)	0.06	0.57		0.37	0.22	0.07	0.35
14	NO2+NO3 (mg N/L)	1.80	3.60	2.20	3.72	3.72	3.06	3.15
15	NO2-N (mgN/L)	0.01	0.01	0.02	0.06	0.02	0.01	0.08
16	NO3-N (mgN/L)	1.79	3.59	2.18	3.66	3.70	3.05	3.07
17	o-PO4-P (mg P/L)	0.050	0.500	0.450	0.280	0.420	0.340	0.720
18	SiO2 (mg/L)	12.3	24.0	7.5	12.0	11.9	11.2	7.4
19	SO4 (mg/L)	138.9	57.5	66.4	117.0	88.2	28.0	43.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	4.0	5.1	3.1	3.1	4.4	2.2	1.3
2	COD (mg/L)				19.1	11.8	14.8	7.8
3	DO (mg/L)	0.9	1.9	3.3	3.3	7.3	5.1	4.5
4	DO_SAT% (%)	11	25	40	41	90	63	56
	TRACE & TOXIC							
1	Cd (µg/L)	2.6	0.0	2.1	0.0	2.8	0.1	1.4
2	Cr (µg/L)	2.9	4.2	6.6	0.0	0.0	4.0	3.8
3	Cu (µg/L)	7.2	3.7	2.5	3.9	0.7	0.3	5.6
4	Hg (µg/L)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
5	Ni (µg/L)	7.7	0.0	0.0	3.0	7.7	3.9	6.4
6	Pb (µg/L)	10.0	0.0	0.0	6.0	0.0	23.0	19.0
7	Zn (µg/L)	5.3	15.5	33.1	1.4	3.3	4.3	8.8
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	103	91	90	93	95	98	93
2	HAR_Total (mgCaCO3/L)	239	245	248	255	252	170	165
3	Na% (%)	51	46	55	55	31	33	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.3	3.2	3.9	4.0	1.4	1.3	1.5
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022	03-10-2022	11-10-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	1414	1767	559.0	4214	3794	1193	1766
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Dark Brown	Light Brown	Brown
3	EC_GEN (µmho/cm)	675	590	519	639	548	771	826
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.0	8.2	8.0	8.0	8.1	8.4
6	TDS (mg/L)	441	401	398	497	420	730	534
7	Temp (deg C)	26.0	26.0	26.0	25.0	24.0		25.0
8	Turb (NTU)	12.0	13.0	7.0	7.9	13.1	13.0	6.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	33.2
2	ALK-TOT (mgCaCO3/L)	136	144	156	99	155	206	159
3	B (mg/L)	0.22	0.20	0.08	0.14	0.06	0.05	0.15
4	Ca (mg/L)	40	41	41	41	58	57	60
5	Cl (mg/L)	56.7	57.0	63.8	65.1	69.6	79.2	91.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	40.0
7	F (mg/L)	0.42	0.37	0.42	0.40	0.26	0.30	0.29
8	Fe (mg/L)	4.5	4.1	9.5	1.4	1.1	2.4	0.3
9	HCO3 (mg/L)	166	176	190	121	189	251	113
10	K (mg/L)	6.0	1.6	1.7	1.9	1.7	2.7	2.5
11	Mg (mg/L)	16.1	25.0	25.0	22.6	27.8	27.3	28.0
12	Na (mg/L)	54.0	33.0	33.9	41.4	37.7	63.0	68.2
13	NH3-N (mg N/L)	0.14	0.04	0.06	0.12	0.29	0.33	0.38
14	NO2+NO3 (mg N/L)	3.21	4.79	4.82	4.80	7.41	7.82	8.01
15	NO2-N (mgN/L)	0.02	0.02	0.02	0.04	0.04	0.22	0.03
16	NO3-N (mgN/L)	3.19	4.77	4.80	4.76	7.37	7.60	7.98
17	o-PO4-P (mg P/L)	0.300	0.170	0.240	0.690	0.160	0.164	0.453
18	SiO2 (mg/L)	3.4	43.1	16.1	12.0	10.1	19.8	10.4
19	SO4 (mg/L)	65.5	43.0	45.8	93.1	43.5	55.5	75.0
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.6	1.4	1.5	1.3	1.8	2.1	1.3
2	COD (mg/L)	1.8	10.1	13.4	9.0	15.0	5.7	3.8
3	DO (mg/L)	5.9	5.9	4.9	5.6	6.5	6.0	5.7
4	DO_SAT% (%)	73	73	60	68	77		69
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.0	4.5	0.0	0.0	0.5	0.0
2	Cr (µg/L)	2.7	0.1	4.4	2.2	11.6	0.7	1.8
3	Cu (µg/L)	10.6	10.1	14.4	6.7	19.4	5.3	6.5
4	Hg (µg/L)	1.4	0.1	0.0				
5	Ni (µg/L)	4.2	8.2	12.3	5.7	14.7	2.6	10.9
6	Pb (µg/L)	48.0	41.0	41.0	26.0	38.0	27.0	36.0
7	Zn (µg/L)	6.5	10.0	11.1	97.4	35.3	6.7	11.1
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	101	102	103	103	145	143	150
2	HAR_Total (mgCaCO3/L)	168	206	207	197	261	256	267
3	Na% (%)	40	26	26	31	24	35	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	1.0	1.0	1.3	1.0	1.7	1.8
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water Analysis** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	21-10-2022	01-11-2022	10-11-2022	21-11-2022	01-12-2022	12-12-2022	
		A	A	A	A	A	A	
	PHYSICAL							
1	Q (cumec)	3306	749.4	495.7	0.000	0.000	0.000	
2	Colour_Cod (-)	Brown	Clear	Light Green	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	728	868	940	929	974	1186	
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.2	8.4	8.3	8.3	8.3	8.2	
6	TDS (mg/L)	435	507	536	524	598	923	
7	Temp (deg C)	26.0	22.0	25.0	26.0	24.0	24.0	
8	Turb (NTU)	4.0	4.0	10.0	3.0	4.0	8.0	
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	16.1	16.2	21.8	20.9	0.0	
2	ALK-TOT (mgCaCO3/L)	194	123	122	198	193	166	
3	B (mg/L)	0.55	0.24	0.29	0.22	0.18	0.18	
4	Ca (mg/L)	60	44	45	57	56	57	
5	Cl (mg/L)	72.7	91.0	97.8	93.9	108.1	63.4	
6	CO3 (mg/L)	0.0	19.4	19.5	26.3	25.2	0.0	
7	F (mg/L)	0.30	0.31	0.36	0.42	0.53	0.56	
8	Fe (mg/L)	4.5	1.1	0.4	0.3	0.9	0.5	
9	HCO3 (mg/L)	237	111	109	188	184	203	
10	K (mg/L)	2.8	2.8	2.6	3.5	4.4	5.4	
11	Mg (mg/L)	27.0	30.3	29.4	24.0	23.2	21.6	
12	Na (mg/L)	57.6	57.5	50.8	82.0	77.5	47.6	
13	NH3-N (mg N/L)	0.12	0.60	0.10	0.29	0.00	0.87	
14	NO2+NO3 (mg N/L)	9.83	10.91	10.99	11.06	10.96	13.74	
15	NO2-N (mgN/L)	0.22	0.02	0.09	0.06	0.64	0.01	
16	NO3-N (mgN/L)	9.61	10.89	10.90	11.00	10.32	13.73	
17	o-PO4-P (mg P/L)	0.110	0.110	0.180	0.279	0.092	0.370	
18	SiO2 (mg/L)	14.3	22.0	17.8	26.1	16.6	15.9	
19	SO4 (mg/L)	69.3	78.1	91.5	92.0	84.0	107.0	
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	1.5	1.4	1.3	0.9	1.5	3.0	
2	COD (mg/L)	3.8	16.2	16.2	6.1			
3	DO (mg/L)	6.4	6.7	6.4	6.7	6.7	3.3	
4	DO_SAT% (%)	79	77	77	83	80	39	
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	1.5	0.4	1.8	1.4	0.9	
2	Cr (µg/L)	2.3	0.8	0.0	4.5	3.1	2.8	
3	Cu (µg/L)	10.0	4.5	3.3	2.0	2.7	2.6	
4	Hg (µg/L)							
5	Ni (µg/L)	16.2	7.3	5.0	5.9	7.0	3.7	
6	Pb (µg/L)	34.0	13.0	40.0	46.0	34.0	13.0	
7	Zn (µg/L)	6.4	2.5	4.8	0.7	11.5	0.5	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	151	110	111	144	141	143	
2	HAR_Total (mgCaCO3/L)	263	236	234	244	238	233	
3	Na% (%)	32	34	32	42	41	30	
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	
5	SAR (-)	1.5	1.6	1.5	2.3	2.2	1.4	
	PESTICIDES							

Sample not submitted for analysis from 21-12-2022 to 21-05-2023 due to NO FLOW condition of the River

Water Quality Summary for the period : 2022-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **Sub-Division : Middle Krishna SD 2 , Kurnool**

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	4881	0.000	489.9
2	EC_GEN (µmho/cm)	20	1186	483	813
3	pH_GEN (pH units)	20	8.4	8.0	8.2
4	TDS (mg/L)	20	923	222	561
5	Temp (deg C)	19	29.0	22.0	25.5
6	Turb (NTU)	20	19.0	2.0	8.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	20	33.2	0.0	7.3
2	ALK-TOT (mgCaCO3/L)	20	214	99	161
3	B (mg/L)	19	0.55	0.05	0.27
4	Ca (mg/L)	20	60	36	46
5	Cl (mg/L)	20	151.3	54.4	90.6
6	CO3 (mg/L)	20	40.0	0.0	8.8
7	F (mg/L)	20	0.79	0.06	0.43
8	Fe (mg/L)	20	9.5	0.0	1.8
9	HCO3 (mg/L)	20	261	109	179
10	K (mg/L)	20	37.3	1.6	4.9
11	Mg (mg/L)	20	39.0	16.1	27.3
12	Na (mg/L)	20	147.5	33.0	68
13	NH3-N (mg N/L)	19	0.87	0.00	0.26
14	NO2+NO3 (mg N/L)	20	13.74	1.80	6.48
15	NO2-N (mgN/L)	20	0.64	0.01	0.08
16	NO3-N (mgN/L)	20	13.73	1.79	6.4
17	o-PO4-P (mg P/L)	20	0.720	0.050	0.304
18	SiO2 (mg/L)	20	43.1	3.4	15.7
19	SO4 (mg/L)	20	138.9	28.0	74.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	20	5.1	0.6	2.1
2	COD (mg/L)	15	19.1	1.8	10.3
3	DO (mg/L)	20	7.3	0.9	5.1
4	DO_SAT% (%)	19	90	11	62
	TRACE & TOXIC				
1	Cd (µg/L)	20	4.5	0.0	1
2	Cr (µg/L)	20	11.6	0.0	2.9
3	Cu (µg/L)	20	19.4	0.3	6.1
4	Hg (µg/L)	10	1.4	0.0	0.2
5	Ni (µg/L)	20	16.2	0.0	6.6
6	Pb (µg/L)	20	48.0	0.0	24.8
7	Zn (µg/L)	20	97.4	0.5	13.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	20	151	90	115
2	HAR_Total (mgCaCO3/L)	20	267	165	229
3	Na% (%)	20	55	24	37
4	RSC (-)	20	0.0	0.0	0
5	SAR (-)	20	4.0	1.0	1.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	422.8	2333	724.3	588.8	75.96	149.7	495.8
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	527	522	852	619	575	621	720
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	8.0	8.1	8.1	8.1	8.1	8.2	7.9
6	TDS (mg/L)				447	385	378	423
7	Temp (deg C)	26.5	23.5	27.8	25.7	25.3	26.3	25.3
8	Turb (NTU)				1.0	3.4	1.2	24.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	162	132	179	137	183	160	161
3	B (mg/L)	0.00	0.00	0.00	0.00	0.16	0.17	0.19
4	Ca (mg/L)	44	34	51	31	33	40	35
5	Cl (mg/L)	38.9	39.5	89.3	61.9	37.1	61.3	64.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.56	0.32	0.63	0.96	0.65	0.59	0.66
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	198	161	219	167	223	195	197
10	K (mg/L)	2.4	2.9	3.3	3.5	3.3	3.7	5.0
11	Mg (mg/L)	8.8	16.1	28.9	18.3	18.6	22.4	19.7
12	Na (mg/L)	42.6	54.3	65.4	54.5	58.6	50.9	88.3
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.13	0.05
14	NO2+NO3 (mg N/L)	0.01	1.04	0.00	0.56	1.29	1.21	1.06
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.02
16	NO3-N (mgN/L)	0.01	1.04	0.00	0.56	1.29	1.21	1.04
17	o-PO4-P (mg P/L)				0.205	0.149	0.117	0.154
18	P-Tot (mgP/L)	0.001	0.000	0.084	0.205			0.155
19	SiO2 (mg/L)	20.6	17.6	19.9	16.9	15.3	14.9	16.3
20	SO4 (mg/L)	52.2	62.2	130.5	85.8	47.0	70.0	97.7
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.1	1.0	1.2	0.6	1.1	1.7	2.1
2	COD (mg/L)	13.2	40.7	29.1	15.1	21.1	9.0	16.5
3	DO (mg/L)	5.9	6.1	6.5	6.0	5.2	6.4	6.7
4	DO_SAT% (%)	73	72	82	74	63	79	81
5	FCol-MPN (MPN/100mL)		16000	11500	13667	6210	610	12058
6	Tcol-MPN (MPN/100mL)		16000	16000	16000	10767	1867	12200
7	TOC (mg/L)				2.4	2.7	0.3	
	TRACE & TOXIC							
1	As (µg/L)					9.2	6.0	
2	Cd (µg/L)					0.5	1.1	
3	Cr (µg/L)					22.3	0.6	
4	Cu (µg/L)							
5	Hg (µg/L)						0.1	
6	Ni (µg/L)					12.2	18.9	
7	Pb (µg/L)					7.9	0.8	
8	Zn (µg/L)					9.0	0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	110	84	127	78	82	99	87
2	HAR_Total (mgCaCO3/L)	146	151	248	155	160	193	169
3	Na% (%)	39	42	36	42	44	36	51
4	RSC (-)	0.4	0.0	0.0	0.0	0.5	0.0	0.1
5	SAR (-)	1.6	1.9	1.8	1.9	2.0	1.6	3.0
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	47.45	443.9	358.3	191.8	808.9	291.8	452.0	1301
2	EC_FLD (µmho/cm)						168		
3	EC_GEN (µmho/cm)	666	395	573	589	426	881	741	758
4	pH_FLD (pH units)						9.5		
5	pH_GEN (pH units)	7.7	8.3	8.1	8.0	7.9	7.8	7.8	8.2
6	TDS (mg/L)	424	316	371	411	300	628	571	542
7	Temp (deg C)	25.7	24.5	25.1	23.7	23.2	25.3	24.1	25.9
8	Turb (NTU)	5.7	166.8	50.0	13.0	59.0	18.7	4.3	8.9
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	2.0	4.2	0.0	2.4	0.0	2.5	4.8
2	ALK-TOT (mgCaCO3/L)	175	151	152	96	144	179	180	161
3	B (mg/L)	0.20		0.00	0.07	0.24	0.46	0.14	0.29
4	Ca (mg/L)	37	33	38	30	43	35	45	44
5	Cl (mg/L)	61.7	27.4	60.2	57.5	69.7	113.3	85.6	90.5
6	CO3 (mg/L)	0.0	2.4	5.0	0.0	2.9	0.0	3.0	5.7
7	F (mg/L)	0.73	0.23	0.49	0.40	0.29	0.28	0.73	0.43
8	Fe (mg/L)	0.0	0.1	1.0	0.3	0.7	1.4	1.8	2.2
9	HCO3 (mg/L)	213	179	175	117	170	219	214	185
10	K (mg/L)	4.5	3.2	0.5	0.4	0.5	6.2	4.6	5.3
11	Mg (mg/L)	21.2	19.0	22.8	21.5	18.0	29.5	20.5	27.8
12	Na (mg/L)	74.4	32.7	66.2	58.5	56.6	103.0	72.3	69.7
13	NH3-N (mg N/L)	0.00	0.00	0.17	0.12	0.05	0.02		0.22
14	NO2+NO3 (mg N/L)	1.10	1.24	8.29	0.50	2.40	5.98		4.79
15	NO2-N (mgN/L)	0.04	0.01	0.07	0.23	0.25	0.10	0.04	0.05
16	NO3-N (mgN/L)	1.06	1.23	8.22	0.26	2.15	5.40	6.07	4.74
17	o-PO4-P (mg P/L)	0.130	0.082	0.666	0.267	0.327	0.245	0.361	0.336
18	P-Tot (mgP/L)							0.540	
19	SiO2 (mg/L)	13.6	14.3	12.1	12.0	17.4	20.5		14.4
20	SO4 (mg/L)	62.7	42.0	88.3	95.8	64.0	86.3	57.9	68.7
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	2.5	1.4	1.8	1.4	2.1	2.2	1.9	2.3
2	COD (mg/L)	18.2	6.5	9.1	12.9	9.7	16.3	16.1	9.7
3	DO (mg/L)	4.8	6.6	6.4	5.9	6.1	5.1	6.2	4.9
4	DO_SAT% (%)	58	79	77	70	71	62	74	59
5	FCol-MPN (MPN/100mL)	130	10255	6710	127	1130	700	594	
6	Tcol-MPN (MPN/100mL)	10767	14250	10340	3623	6633	5000	952	
7	TOC (mg/L)	12.1							
	TRACE & TOXIC								
1	As (µg/L)					1.0	0.5	1.9	
2	Cd (µg/L)					0.1	5.0	0.7	0.9
3	Cr (µg/L)					3.0	12.6	3.8	3.2
4	Cu (µg/L)			5.6	10.7	11.3	0.0	9.7	7.1
5	Hg (µg/L)						0.5	0.3	0.2
6	Ni (µg/L)					3.5	15.1	5.6	6.9
7	Pb (µg/L)					0.3	24.0	12.5	23.3
8	Zn (µg/L)			56.7	26.2	40.0	0.0	15.8	17.1
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	93	83	95	74	108	88	112	111
2	HAR_Total (mgCaCO3/L)	181	162	190	164	183	211	198	226
3	Na% (%)	47	31	43	44	39	50	42	37
4	RSC (-)	0.1	0.3	0.1	0.0	0.0	0.2	0.2	0.0
5	SAR (-)	2.4	1.2	2.1	2.0	1.8	3.3	2.2	2.0
	PESTICIDES								

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	77.90	158.8	310.4	88.46	46.53	74.94
2	EC_FLD (µmho/cm)					650	
3	EC_GEN (µmho/cm)	666	836	843	645	646	571
4	pH_FLD (pH units)					8.2	
5	pH_GEN (pH units)	8.5	8.5	8.2	8.5	8.2	8.3
6	TDS (mg/L)				449	427	420
7	Temp (deg C)	27.0	25.5	25.5	23.5	25.5	25.3
8	Turb (NTU)				1.0	2.1	8.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	8.0	6.0	4.0	10.1	0.0	2.2
2	ALK-TOT (mgCaCO3/L)	164	192	202	183	171	172
3	B (mg/L)	0.00	0.00	0.00	0.28	0.09	0.15
4	Ca (mg/L)	48	49	44	32	34	40
5	Cl (mg/L)	63.3	85.2	82.3	56.1	54.0	29.0
6	CO3 (mg/L)	9.6	7.2	4.8	12.2	0.0	2.6
7	F (mg/L)	0.87	0.55	0.45	0.74	0.67	0.61
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
9	HCO3 (mg/L)	181	220	237	198	209	204
10	K (mg/L)	3.2	3.1	3.5	3.3	2.1	4.0
11	Mg (mg/L)	8.7	24.3	24.8	18.2	18.8	22.8
12	Na (mg/L)	67.1	90.3	80.6	65.6	67.8	61.7
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.00
14	NO2+NO3 (mg N/L)	0.01	2.17	0.00	0.67	0.80	1.08
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	2.17	0.00	0.67	0.80	1.08
17	o-PO4-P (mg P/L)				0.186	0.106	0.125
18	P-Tot (mgP/L)	0.001	0.000	0.085	0.186		
19	SiO2 (mg/L)	19.0	16.1	17.7	18.6	18.9	19.9
20	SO4 (mg/L)	68.8	117.4	113.5	80.9	71.5	73.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	3.1	2.4	1.6	1.0	1.3	1.6
2	COD (mg/L)	21.0	19.8	19.9	19.5	16.4	9.4
3	DO (mg/L)	6.4	7.3	7.0	6.4	6.0	6.9
4	DO_SAT% (%)	80	89	85	75	74	83
5	FCol-MPN (MPN/100mL)		12500	5350	9200	1850	160
6	Tcol-MPN (MPN/100mL)		16000	9750	12500	9000	440
7	TOC (mg/L)				2.0	2.1	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	120	122	110	81	84	99
2	HAR_Total (mgCaCO3/L)	156	224	213	157	162	194
3	Na% (%)	48	47	45	47	47	40
4	RSC (-)	0.2	0.0	0.2	0.5	0.2	0.1
5	SAR (-)	2.3	2.6	2.4	2.3	2.3	1.9
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	No Flow	68.95	8.876	183.5	54.45	741.3
2	EC_FLD (µmho/cm)	Dry Bed					
3	EC_GEN (µmho/cm)		674	738	665	624	349
4	pH_FLD (pH units)						
5	pH_GEN (pH units)		8.0	8.6	7.9	8.1	7.9
6	TDS (mg/L)		239	413	442	599	244
7	Temp (deg C)		26.0	23.0	25.5	24.0	23.0
8	Turb (NTU)		2.0	0.0	22.0	2.0	54.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)		0.0	6.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)		165	151	194	192	165
3	B (mg/L)		0.00		0.15	0.07	0.01
4	Ca (mg/L)		34	38	52	31	37
5	Cl (mg/L)		67.3	61.5	83.6	79.0	58.0
6	CO3 (mg/L)		0.0	7.2	0.0	0.0	0.0
7	F (mg/L)		0.65	0.38	0.30	0.41	0.24
8	Fe (mg/L)		0.0	0.1	0.6	0.0	5.6
9	HCO3 (mg/L)		201	170	237	234	201
10	K (mg/L)		3.6	3.9	0.4	0.4	0.3
11	Mg (mg/L)		18.7	20.5	28.1	31.4	29.0
12	Na (mg/L)		85.6	66.4	71.8	65.9	46.9
13	NH3-N (mg N/L)		0.00	0.00	2.76	0.14	0.03
14	NO2+NO3 (mg N/L)		1.11	0.48	5.72	1.80	9.61
15	NO2-N (mgN/L)		0.00	0.00	0.03	0.10	0.14
16	NO3-N (mgN/L)		1.10	0.48	5.69	1.70	9.47
17	o-PO4-P (mg P/L)		0.251	0.071	0.560	0.100	0.190
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)		7.5	17.8	15.5	12.7	21.9
20	SO4 (mg/L)		112.0	54.0	144.2	120.3	46.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)		1.8	0.3	1.6	0.6	1.6
2	COD (mg/L)		8.9	5.0	34.4	8.8	74.8
3	DO (mg/L)		4.9	7.0	6.9	4.6	7.3
4	DO_SAT% (%)		60	82	84	55	85
5	FCol-MPN (MPN/100mL)		3000	16000	3000	40	1100
6	Tcol-MPN (MPN/100mL)		16000	16000	16000	170	3500
7	TOC (mg/L)		4.5				
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)				2.0	8.0	20.0
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)				35.0	13.7	60.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)		84	94	129	77	93
2	HAR_Total (mgCaCO3/L)		162	180	246	208	213
3	Na% (%)		53	44	39	41	32
4	RSC (-)		0.1	0.0	0.0	0.0	0.0
5	SAR (-)		2.9	2.2	2.0	2.0	1.4
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : Yadgir (AKP00B6) **Division : Lower Krishna Divn., Hyderabad**

Local River : Bhima **River Water** **Sub-Division : Middle Krishna SD 2 , Kurnool**

S.No	Parameters	Winter			Summer			
		Nov - Feb			Mar - May			
		2020-2021	2021-2022	2022-2023	2020	2021	2022	2023
	PHYSICAL							
1	Q (cumec)	172.4	8.477	249.0	0.000	0.000	0.000	
2	EC_FLD (µmho/cm)	166						
3	EC_GEN (µmho/cm)	876	847	979	1049	1118	959	
4	pH_FLD (pH units)	9.5						
5	pH_GEN (pH units)	8.0	8.0	8.3	7.9	8.1	8.3	
6	TDS (mg/L)	605	657	618	759	713	677	
7	Temp (deg C)	25.0	20.7	24.2		24.5	25.8	
8	Turb (NTU)	19.2	9.2	5.8	22.2	17.3	7.0	
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	2.0	15.0	0.0	3.2	19.8	
2	ALK-TOT (mgCaCO3/L)	233	218	160	178	209	211	
3	B (mg/L)	0.26	0.27	0.22	0.21	0.69	0.41	
4	Ca (mg/L)	38	51	52	37	61	47	
5	Cl (mg/L)	122.2	104.0	90.8	164.2	166.9	136.6	
6	CO3 (mg/L)	0.0	2.4	18.1	0.0	3.9	23.9	
7	F (mg/L)	0.41	0.62	0.43	0.23	0.57	0.73	
8	Fe (mg/L)	1.1	1.3	0.6	0.2	1.0	0.3	
9	HCO3 (mg/L)	284	261	159	218	248	209	
10	K (mg/L)	0.8	6.5	3.7	0.8	5.2	5.0	
11	Mg (mg/L)	38.3	32.3	25.7	34.6	28.5	36.5	
12	Na (mg/L)	124.1	84.6	63.1	106.2	145.5	103.9	
13	NH3-N (mg N/L)	0.06	0.05	0.37	0.04	0.15	0.30	
14	NO2+NO3 (mg N/L)	8.90		11.53		2.52		
15	NO2-N (mgN/L)	0.28	0.03	0.16	0.02	0.72	0.05	
16	NO3-N (mgN/L)	8.60		11.37		4.52		
17	o-PO4-P (mg P/L)	0.300	0.829	0.206	0.454	0.878	0.172	
18	P-Tot (mgP/L)		1.371					
19	SiO2 (mg/L)	24.3	23.5	19.7	21.6	16.3	28.1	
20	SO4 (mg/L)	88.8	75.7	90.5	102.0	127.3	92.5	
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	4.4	2.3	1.6		4.1	2.1	
2	COD (mg/L)	18.3		12.8	22.0	22.1	9.5	
3	DO (mg/L)	6.8	5.7	6.0		4.6	3.6	
4	DO_SAT% (%)	83	63	71		54	42	
5	FCol-MPN (MPN/100mL)	1988	927			1400		
6	Tcol-MPN (MPN/100mL)	9283	1517			2250		
7	TOC (mg/L)							
	TRACE & TOXIC							
1	As (µg/L)	0.4				3.3		
2	Cd (µg/L)	2.2	1.2	1.2	0.0	1.3	1.1	
3	Cr (µg/L)	5.3	4.3	2.2	1.4	3.3	2.4	
4	Cu (µg/L)	5.7	1.9	3.0	3.8	5.9	2.3	
5	Hg (µg/L)	1.0	0.1			0.3	0.9	
6	Ni (µg/L)	5.3	4.3	5.8	12.3	8.9	2.3	
7	Pb (µg/L)	39.0	9.8	29.2	3.1	18.3	17.7	
8	Zn (µg/L)	36.1	12.9	4.0	0.0	32.3	3.3	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	95	127	130	93	153	118	
2	HAR_Total (mgCaCO3/L)	255	261	237	238	272	271	
3	Na% (%)	50	40	36	49	53	45	
4	RSC (-)	0.3	0.0	0.0	0.0	0.0	0.0	
5	SAR (-)	3.4	2.3	1.8	3.0	3.9	2.8	
	PESTICIDES							

Sample not submitted for analysis from 2009 to2019 and 2023 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**LAKKAVALLI**	**Code**	:	**LAKKAVALLI**
State	:	Karnataka	District		Shimoga
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Bhadra
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga SD, Devangere
Drainage Area	:	1975 Sq. Km.	Bank	:	Right
Latitude	:	13°42'22"	Longitude	:	75°38'42"
		Opening Date	Closing Date		
Gauge	:	11-07-2016			
Discharge	:	13-12-2018			
Sediment	:				
Water Quality	:	01-05-2019			

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	6.568	6.579	6.584	6.578	7.643	56.86
2	Colour_Cod (-)	Clear	Clear	Clear	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	91	95	88	96	77	77
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.5	7.2	7.2	7.3	7.4	7.8
6	TDS (mg/L)	64	70	56	57	48	50
7	Temp (deg C)	25.0	26.0	25.0	25.0	24.0	25.0
8	Turb (NTU)	2.0	4.4	1.4	2.3	2.5	3.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	35	38	38	37	20	24
3	B (mg/L)	0.00	0.00	0.00	0.05	0.13	0.19
4	Ca (mg/L)	8	14	9	8	8	5
5	Cl (mg/L)	5.7	6.4	4.3	8.9	9.6	8.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.06	0.06	0.04	0.00	0.04
8	Fe (mg/L)	0.8	1.2	1.5	0.0	0.2	0.1
9	HCO3 (mg/L)	43	46	46	45	24	30
10	K (mg/L)	1.1	1.1	1.3	1.4	1.4	1.5
11	Mg (mg/L)	3.4	0.7	3.0	4.9	2.7	4.1
12	Na (mg/L)	50.6	5.4	4.6	4.8	3.4	3.2
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.01	0.01	0.00
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.000	0.072	0.031	0.030	0.030	0.000
17	SiO2 (mg/L)	18.1	18.3	18.6	18.0	17.2	17.2
18	SO4 (mg/L)	2.0	1.9	1.6	2.3	6.1	2.6
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.4	0.6	0.2	0.8	2.7	0.5
2	COD (mg/L)	4.4	5.0	6.0	3.0	3.0	3.0
3	DO (mg/L)	7.4	7.0	7.0	6.7	7.2	7.0
4	DO_SAT% (%)	90	86	85	81	86	85
5	FCol-MPN (MPN/100mL)	200	450	450	2700	4700	1400
6	Tcol-MPN (MPN/100mL)	2300	1300	1300	13000	160000	9000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.0	0.2	0.3	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.0	0.0	3.2	0.3
4	Cu (µg/L)	0.3	1.0	0.3	0.8	1.9	1.6
5	Hg (µg/L)	0.0	0.0	0.0	0.4	0.1	0.3
6	Ni (µg/L)	0.4	0.4	0.6	0.7	1.1	0.7
7	Pb (µg/L)	0.1	0.1	0.6	0.1	0.2	0.1
8	Zn (µg/L)	0.8	3.0	3.8	3.3	5.7	20.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	21	36	23	21	19	14
2	HAR_Total (mgCaCO3/L)	35	39	35	41	30	31
3	Na% (%)	75	23	21	20	19	18
4	RSC (-)	0.0	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	3.7	0.4	0.3	0.3	0.3	0.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	78.47	504.2	52.22	148.9	148.9	50.38
2	Colour_Cod (-)	Clear	Clear	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	112	76	70	70	71	67
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.5	7.6	7.3	7.7	7.9	7.4
6	TDS (mg/L)	72	46	100	46	44	42
7	Temp (deg C)	24.0	24.0	24.0	25.0	23.0	25.0
8	Turb (NTU)	17.1	13.0	19.1	6.0	3.0	8.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	47	0	25	26	22	13
3	B (mg/L)	0.49	0.51	0.47	0.28	0.04	0.06
4	Ca (mg/L)	13	4	5	6	6	5
5	Cl (mg/L)	7.1	8.5	3.6	7.8	6.7	9.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.05	0.03	0.04	0.04	0.04
8	Fe (mg/L)	0.8	0.0	0.2	0.0	0.0	0.1
9	HCO3 (mg/L)	57	0	30	32	27	16
10	K (mg/L)	2.0	1.4	1.3	1.3	1.5	1.4
11	Mg (mg/L)	2.7	3.2	3.6	2.7	3.8	3.0
12	Na (mg/L)	4.9	6.3	3.1	4.2	3.6	4.8
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.01	0.00	0.00	0.01	0.00	0.01
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.000	0.021	0.186	0.072	0.062	0.000
17	SiO2 (mg/L)	10.5	8.7	8.1	16.9	25.2	11.8
18	SO4 (mg/L)	1.4	0.9	4.1	1.2	4.7	5.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	1.2	1.7	0.2	0.3	5.2
2	COD (mg/L)	4.0	3.0	4.0	10.5	8.0	21.0
3	DO (mg/L)	6.6	8.2	7.0	7.5	6.4	8.0
4	DO_SAT% (%)	78	97	83	91	75	97
5	FCol-MPN (MPN/100mL)	1400	1400	2600	1700	1700	2300
6	Tcol-MPN (MPN/100mL)	17000	2200	22000	13000	7900	22000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.0	0.1	0.0	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.2	0.2	10.0	0.1
4	Cu (µg/L)	0.8	0.6	1.0	0.5	0.6	0.6
5	Hg (µg/L)	0.2	0.1	0.2	0.0	0.0	0.0
6	Ni (µg/L)	0.8	0.5	0.7	0.4	0.4	0.5
7	Pb (µg/L)	0.1	0.0	0.2	0.1	0.0	0.1
8	Zn (µg/L)	4.6	2.2	6.6	1.9	1.9	12.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	33	11	12	14	14	12
2	HAR_Total (mgCaCO3/L)	44	24	27	25	30	24
3	Na% (%)	19	35	19	26	20	29
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.6	0.3	0.4	0.3	0.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.947	36.77	44.95	7.876	7.921	7.963
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	73	72	75	128	79	81
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.2	7.3	7.5	7.6	7.5	7.6
6	TDS (mg/L)	46	44	46	73	48	45
7	Temp (deg C)	24.0	24.0	24.0	23.0	24.0	25.0
8	Turb (NTU)	0.2	0.2	0.2	4.9	0.4	1.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	30	24	25	53	26	30
3	B (mg/L)	0.00	0.00	0.00	0.01	0.00	0.12
4	Ca (mg/L)	5	7	10	13	6	7
5	Cl (mg/L)	6.0	5.3	7.5	10.3	8.9	8.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.04	0.04	0.04	0.04	0.06
8	Fe (mg/L)	0.1	0.1	0.1	0.1		
9	HCO3 (mg/L)	36	29	30	64	31	37
10	K (mg/L)	1.2	1.4	1.3	2.0	1.0	1.0
11	Mg (mg/L)	3.0	2.2	0.0	5.1	2.3	3.3
12	Na (mg/L)	6.2	5.0	5.0	5.7	6.0	6.2
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.01	0.00	0.00	0.00	0.00	0.00
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.000	0.000	0.021	0.000	0.000	0.000
17	SiO2 (mg/L)	13.6	12.8	14.2	12.7	12.2	11.6
18	SO4 (mg/L)	1.2	5.2	2.4	1.2	1.8	1.2
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.7	2.1	0.6	1.0	0.7	0.5
2	COD (mg/L)	26.0	3.0	4.0	4.0	13.0	12.0
3	DO (mg/L)	7.6	7.1	7.7	7.5	7.7	5.9
4	DO_SAT% (%)	90	84	91	87	91	71
5	FCol-MPN (MPN/100mL)	1100	1300	1700	1700	2600	1700
6	Tcol-MPN (MPN/100mL)	2200	3300	2600	28000	17000	2800
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.0	0.1	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.1	0.1	0.1	0.0	NA	NA
4	Cu (µg/L)	0.6	0.6	0.5	0.4	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.5	0.4	0.5	0.4	NA	NA
7	Pb (µg/L)	0.1	0.0	0.0	0.1	NA	NA
8	Zn (µg/L)	12.0	3.5	2.1	1.9	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	13	18	25	33	16	18
2	HAR_Total (mgCaCO3/L)	25	27	25	54	26	32
3	Na% (%)	34	27	29	18	33	29
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.4	0.4	0.3	0.5	0.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	12-01-2023	24-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.627	7.587	7.672	7.735	7.730	7.689
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	81	85	77	80	81	78
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.6	7.5	7.5	7.5	7.4	7.5
6	TDS (mg/L)	50	62	52	53	54	54
7	Temp (deg C)	25.0	24.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	0.8	0.4	0.5	1.1	0.6	0.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	32	28	32	34	31	34
3	B (mg/L)	0.20	0.15	0.15	0.02	0.10	0.08
4	Ca (mg/L)	8	9	9	6	9	6
5	Cl (mg/L)	6.7	9.2	6.0	6.0	8.2	5.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.04	0.04	0.03	0.02	0.29
8	Fe (mg/L)			0.0	0.3	0.2	0.1
9	HCO3 (mg/L)	39	34	39	41	38	41
10	K (mg/L)	1.0	2.0	1.0	1.0	2.0	1.0
11	Mg (mg/L)	2.2	1.7	1.0	2.4	0.7	2.4
12	Na (mg/L)	5.0	5.0	5.0	7.0	7.0	7.0
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)				0.000	0.000	0.010
17	SiO2 (mg/L)	13.5	14.3	14.4	8.7	8.2	8.8
18	SO4 (mg/L)	1.5	3.2	1.7	0.7	1.5	0.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.6	1.4	0.8	1.4	2.2	0.6
2	COD (mg/L)	5.0	12.0	5.0	8.0	7.0	6.0
3	DO (mg/L)	7.6	6.6	6.3	8.4	7.7	8.1
4	DO_SAT% (%)	92	78	76	102	93	98
5	FCol-MPN (MPN/100mL)	1400	2600	22000	7900	2200	1300
6	Tcol-MPN (MPN/100mL)	22000	28000	160000	92000	14000	7900
	TRACE & TOXIC						
1	As (µg/L)	NA	NA	0.0	0.1	0.1	0.0
2	Cd (µg/L)	NA	NA	0.0	0.0	0.0	0.1
3	Cr (µg/L)	NA	NA	6.7	2.1	1.8	3.9
4	Cu (µg/L)	NA	NA	0.5	2.1	2.1	1.5
5	Hg (µg/L)	NA	NA	0.0	0.0	0.0	0.0
6	Ni (µg/L)	NA	NA	0.8	1.7	1.3	9.2
7	Pb (µg/L)	NA	NA	0.0	4.2	7.2	6.0
8	Zn (µg/L)	NA	NA	3.5	3.3	3.7	2.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	20	23	23	15	24	14
2	HAR_Total (mgCaCO3/L)	29	30	27	25	27	24
3	Na% (%)	26	25	28	37	34	38
4	RSC (-)	0.1	0.0	0.1	0.2	0.1	0.2
5	SAR (-)	0.4	0.4	0.4	0.6	0.6	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	01-02-2023	14-02-2023	21-02-2023	01-03-2023	14-03-2023	23-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	61.00	7.866	7.860	6.143	117.2	7.468
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	82	89	88	87	93	92
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.4	7.6	7.8	7.7	7.8	7.9
6	TDS (mg/L)	60	52	54	56	64	52
7	Temp (deg C)	25.0	24.0	24.0	25.0	25.0	25.0
8	Turb (NTU)	3.7	3.0	4.4	1.6	3.5	1.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	38	36	37	36	35	28
3	B (mg/L)	0.19	0.16	0.25	0.03	0.08	0.15
4	Ca (mg/L)	9	6	10	11	7	11
5	Cl (mg/L)	4.6	6.7	6.7	6.0	6.7	9.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.04	0.06	0.04	0.04	0.04
8	Fe (mg/L)	0.3	0.2	0.0	0.5	0.1	0.1
9	HCO3 (mg/L)	46	44	45	43	43	34
10	K (mg/L)	1.3	1.3	0.1	1.5	0.0	2.0
11	Mg (mg/L)	2.9	5.6	3.6	1.2	4.3	0.9
12	Na (mg/L)	3.4	3.8	3.8	5.0	5.0	7.6
13	NO2+NO3 (mg N/L)				0.38	0.13	1.29
14	NO2-N (mgN/L)	0.01	0.00	0.01	0.03	0.01	0.01
15	NO3-N (mgN/L)				0.35	0.11	1.28
16	o-PO4-P (mg P/L)	0.021	0.041	0.031	0.021	0.031	0.021
17	SiO2 (mg/L)	5.6	22.0	12.4	10.2	12.4	13.8
18	SO4 (mg/L)	0.9	0.2	0.8	1.1	2.1	2.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.6	1.9	0.9	0.8	0.8
2	COD (mg/L)	11.0	13.0	16.0	11.0	13.0	
3	DO (mg/L)	7.6	7.4	5.4	7.4	7.2	6.5
4	DO_SAT% (%)	92	88	64	90	87	79
5	FCol-MPN (MPN/100mL)	14000	1400	1700	22000	110000	4500
6	Tcol-MPN (MPN/100mL)	54000	13000	3300	27000	220000	27000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.2	0.1	0.0	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.1
3	Cr (µg/L)	7.2	6.4	5.1	0.0	0.0	2.6
4	Cu (µg/L)	0.7	0.0	0.5	1.9	0.9	1.3
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	2.5	4.7	5.2	0.0	0.0	7.6
7	Pb (µg/L)	8.1	2.5	2.1	4.3	7.5	5.0
8	Zn (µg/L)	8.0	3.6	20.1	3.4	2.2	2.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	23	14	25	29	19	27
2	HAR_Total (mgCaCO3/L)	35	37	40	34	36	30
3	Na% (%)	17	18	17	23	23	34
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.3	0.3	0.4	0.4	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

Local River : Bhadra **River Water Analysis** **Sub-Division : Upper Tunga SD, Devangere**

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	02-05-2023	11-05-2023	23-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.482	7.497	7.010	36.08	32.99	7.484
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	88	91	94	101	98	92
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.5	7.6	7.9	7.6	7.7	7.9
6	TDS (mg/L)	60	52	72	72	72	62
7	Temp (deg C)	25.0	24.0	25.0	25.0	26.0	25.5
8	Turb (NTU)	4.9	1.7	5.8	0.0	9.2	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	28	37	28	32	29	23
3	B (mg/L)	0.23	0.27	0.30	0.05	0.03	0.00
4	Ca (mg/L)	7	7	7	7	7	7
5	Cl (mg/L)	9.6	9.2	11.7	9.6	11.0	12.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.19	0.04	0.06	0.04	0.01	0.04
8	Fe (mg/L)	0.2	0.0	0.3	0.0	1.4	0.2
9	HCO3 (mg/L)	34	45	34	40	35	29
10	K (mg/L)	2.7	2.3	1.5	1.7	1.5	2.2
11	Mg (mg/L)	2.2	2.7	3.0	3.2	4.9	1.8
12	Na (mg/L)	8.6	8.9	7.8	9.4	7.9	10.2
13	NO2+NO3 (mg N/L)	0.35	0.21	0.65	0.28	0.97	0.39
14	NO2-N (mgN/L)	0.14	0.00	0.41	0.01	0.01	0.00
15	NO3-N (mgN/L)	0.21	0.21	0.24	0.27	0.95	0.39
16	o-PO4-P (mg P/L)	0.000	0.310	0.000	0.000	0.000	0.010
17	SiO2 (mg/L)	24.4	17.0	16.0	14.2	13.4	11.2
18	SO4 (mg/L)	3.2	1.4	1.6	8.4	24.7	9.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.5	1.4	0.6	0.8	0.8	1.4
2	COD (mg/L)						
3	DO (mg/L)	7.4	6.8	6.8	6.8	7.2	7.2
4	DO_SAT% (%)	90	81	82	82	89	87
5	FCol-MPN (MPN/100mL)	6800	14000	14000	140000	140000	110000
6	Tcol-MPN (MPN/100mL)	33000	170000	54000	280000	220000	220000
	TRACE & TOXIC						
1	As (µg/L)	0.5	0.4	0.1	0.0	0.3	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.0	0.0	55.8	0.1
4	Cu (µg/L)	0.0	0.0	0.0	0.0	4.0	0.6
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	Pb (µg/L)	0.0	0.0	0.0	0.0	1.8	0.0
8	Zn (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	17	17	17	18	17	19
2	HAR_Total (mgCaCO3/L)	26	28	30	31	37	26
3	Na% (%)	39	39	35	39	31	43
4	RSC (-)	0.0	0.2	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.7	0.6	0.7	0.6	0.9
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1750	5.036	73.83
2	EC_GEN (µmho/cm)	36	128	67	85
3	pH_GEN (pH units)	36	7.9	7.2	7.6
4	TDS (mg/L)	36	100	42	57
5	Temp (deg C)	36	26.0	23.0	24.6
6	Turb (NTU)	36	19.1	0.0	3.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	36	53	0	30
3	B (mg/L)	36	0.51	0.00	0.13
4	Ca (mg/L)	36	14	4	8
5	Cl (mg/L)	36	12.8	3.6	7.8
6	CO3 (mg/L)	36	0.0	0.0	0
7	F (mg/L)	36	0.29	0.00	0.05
8	Fe (mg/L)	32	1.5	0.0	0.3
9	HCO3 (mg/L)	36	64	0	37
10	K (mg/L)	36	2.7	0.0	1.4
11	Mg (mg/L)	36	5.6	0.0	2.8
12	Na (mg/L)	36	50.6	3.1	6.9
13	NO2+NO3 (mg N/L)	9	1.29	0.13	0.52
14	NO2-N (mgN/L)	36	0.41	0.00	0.02
15	NO3-N (mgN/L)	9	1.28	0.11	0.45
16	o-PO4-P (mg P/L)	33	0.310	0.000	0.031
17	SiO2 (mg/L)	36	25.2	5.6	14
18	SO4 (mg/L)	36	24.7	0.2	3.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	5.2	0.2	1.3
2	COD (mg/L)	29	26.0	3.0	8.4
3	DO (mg/L)	36	8.4	5.4	7.2
4	DO_SAT% (%)	36	102	64	86
5	FCol-MPN (MPN/100mL)	36	140000	200	17969
6	Tcol-MPN (MPN/100mL)	36	280000	1300	54781
	TRACE & TOXIC				
1	As (µg/L)	32	0.5	0.0	0.1
2	Cd (µg/L)	32	0.2	0.0	0
3	Cr (µg/L)	32	72.4	0.0	5
4	Cu (µg/L)	32	4.7	0.3	1.1
5	Hg (µg/L)	32	0.4	0.0	0
6	Ni (µg/L)	32	12.5	0.4	2.6
7	Pb (µg/L)	32	12.0	0.0	2.4
8	Zn (µg/L)	32	33.5	0.8	7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	36	11	20
2	HAR_Total (mgCaCO3/L)	36	54	24	31
3	Na% (%)	36	75	17	29
4	RSC (-)	36	0.2	0.0	0
5	SAR (-)	36	3.7	0.3	0.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2022

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

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

S.No	Parameters	Flood				Winter		
		Jun - Oct				Nov - Feb		
		2019	2020	2021	2022	2019-2020	2020-2021	2021-2022
	PHYSICAL							
1	Q (cumec)	30.11	5.179	23.14	77.57	28.29	6.725	15.75
2	EC_GEN (µmho/cm)	75	82	73	81	75	72	80
3	pH_GEN (pH units)	7.5	7.1	7.5	7.4	7.4	7.4	7.6
4	TDS (mg/L)	47	54	51	55	56	44	53
5	Temp (deg C)	25.0	24.4	24.8	24.5	22.4	24.4	24.8
6	Turb (NTU)			11.0	5.5			5.0
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	23	21	19	27	19	24	27
2	B (mg/L)	0.07	0.07	0.12	0.15	0.13	0.00	
3	Ca (mg/L)	7	6	6	8	6	7	7
4	Cl (mg/L)	8.4	7.7	9.7	7.0	9.1	7.5	8.1
5	F (mg/L)	0.03	0.05	0.07	0.04	0.26	0.04	0.06
6	Fe (mg/L)	0.3	0.8	0.2	0.3	0.4	0.2	0.2
7	HCO3 (mg/L)	28	25	23	33	24	30	33
8	K (mg/L)	1.2	1.2	1.3	1.4	1.7	1.4	1.1
9	Mg (mg/L)	2.6	4.5	3.4	2.9	1.4	3.2	3.0
10	Na (mg/L)	3.6	3.3	3.3	7.7	6.6	3.0	4.2
11	NO2+NO3 (mg N/L)	0.40	0.31	0.03		0.64	0.22	
12	NO2-N (mgN/L)	0.01	0.01	0.01	0.01	0.02	0.00	0.01
13	NO3-N (mgN/L)	0.39	0.30	0.57		0.62	0.22	
14	o-PO4-P (mg P/L)	0.050	0.021	0.025	0.035	0.026	0.005	0.009
15	SiO2 (mg/L)	11.2	11.7	4.6	15.3	17.9	8.1	17.7
16	SO4 (mg/L)	3.6	9.4	3.3	2.9	4.1	1.6	3.9
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.2	0.9	0.7	1.6	1.0	0.6	1.3
2	COD (mg/L)	12.2	6.0	11.8	7.2	10.3	4.0	7.7
3	DO (mg/L)	7.3	7.6	7.1	7.2	4.8	7.6	7.7
4	DO_SAT% (%)	88	91	86	87	56	91	93
5	FCol-MPN (MPN/100mL)	336	386	258	1673	940		
6	Tcol-MPN (MPN/100mL)	2804	3320	1620	18607	3358		
	TRACE & TOXIC							
1	As (µg/L)	0.5	0.3	0.5	0.1	4.3	6.0	0.3
2	Cd (µg/L)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
3	Cr (µg/L)	1.0	11.8	1.5	1.0	11.3	3.7	0.1
4	Cu (µg/L)	0.1	11.9	1.7	0.8	2.4	2.3	1.1
5	Hg (µg/L)		0.9	0.1	0.1			0.0
6	Ni (µg/L)	2.6	15.4	1.4	0.6	13.0	11.9	0.7
7	Pb (µg/L)	0.1	0.2	0.3	0.1	0.5	5.5	0.2
8	Zn (µg/L)	14.2	9.9	3.4	5.6	9.5	0.5	3.5
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	18	15	15	19	16	17	17
2	HAR_Total (mgCaCO3/L)	29	34	29	31	22	30	30
3	Na% (%)	20	17	19	28	36	17	23
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.3	0.3	0.6	0.9	0.2	0.3
	PESTICIDES							

Water Quality Seasonal Average for the period: 2019-2022

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

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

S.No	Parameters	Winter	Summer			
		Nov - Feb	Mar - May			
		2022-2023	2020	2021	2022	2023
	PHYSICAL					
1	Q (cumec)	12.21	4.296	17.42	21.50	25.49
2	EC_GEN (µmho/cm)	86	83	77	103	93
3	pH_GEN (pH units)	7.5	7.5	7.1	7.6	7.7
4	TDS (mg/L)	55	61	46	71	62
5	Temp (deg C)	24.5	23.0	24.8	24.7	25.1
6	Turb (NTU)	1.9			2.2	3.3
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)	34	32	21	42	31
2	B (mg/L)	0.12	0.04	0.13	0.04	0.13
3	Ca (mg/L)	8	8	6	8	8
4	Cl (mg/L)	7.3	7.6	9.8	5.7	9.5
5	F (mg/L)	0.06	0.29	0.05	0.05	0.06
6	Fe (mg/L)	0.1	0.5	0.1	0.6	0.3
7	HCO3 (mg/L)	42	39	26	51	37
8	K (mg/L)	1.2	1.6	1.2	1.1	1.7
9	Mg (mg/L)	2.8	3.2	3.6	5.1	2.7
10	Na (mg/L)	5.4	4.4	3.4	4.4	7.8
11	NO2+NO3 (mg N/L)		0.09	0.24		0.52
12	NO2-N (mgN/L)	0.00	0.01	0.01	0.02	0.07
13	NO3-N (mgN/L)		0.08	0.23		0.45
14	o-PO4-P (mg P/L)	0.011	0.367	0.000	0.007	0.044
15	SiO2 (mg/L)	12.0	17.2	12.6	8.5	14.7
16	SO4 (mg/L)	1.3	2.3	4.3	1.7	6.1
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.2	0.2	0.5	1.6	0.9
2	COD (mg/L)	9.3	10.5	3.8	3.2	12.0
3	DO (mg/L)	7.2	4.3	7.4	7.4	7.0
4	DO_SAT% (%)	86	51	89	89	85
5	FCol-MPN (MPN/100mL)	5042	40	890	57	62367
6	Tcol-MPN (MPN/100mL)	36833	1700	6350	543	139000
	TRACE & TOXIC					
1	As (µg/L)	0.1		0.9	0.2	0.2
2	Cd (µg/L)	0.0		1.7	0.0	0.0
3	Cr (µg/L)	4.1		0.0	0.0	12.6
4	Cu (µg/L)	1.1		4.7	1.0	1.6
5	Hg (µg/L)	0.0		0.0	0.0	0.0
6	Ni (µg/L)	3.2		17.5	0.4	5.3
7	Pb (µg/L)	3.8		26.0	0.3	5.1
8	Zn (µg/L)	5.8		2.3	3.5	10.4
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	21	19	15	21	20
2	HAR_Total (mgCaCO3/L)	32	32	30	42	31
3	Na% (%)	27	22	19	18	34
4	RSC (-)	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.3	0.3	0.3	0.6
	PESTICIDES					

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	26-11-1997			
Discharge	:	01-07-2003			
Water Quality	:	01-07-2003			

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	28.82	24.51	23.75	92.14	225.2	186.8
2	Colour_Cod (-)	Clear	Light Brown	Light Brown	Clear	Light Brown	Clear
3	EC_GEN (µmho/cm)	201	201	171	177	268	150
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	7.9	7.8	7.8	7.7	8.0
6	TDS (mg/L)	126	118	170	116	172	106
7	Temp (deg C)	25.0	25.0	24.0	24.0	23.0	24.0
8	Turb (NTU)	2.2	8.2	1.0	2.8	2.8	6.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	82	72	68	63	95	49
3	B (mg/L)	0.00	0.00	0.00	0.07	0.12	0.21
4	Ca (mg/L)	21	14	15	16	26	11
5	Cl (mg/L)	13.1	14.9	11.4	9.3	28.0	15.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.12	0.07	0.06	0.11	0.72
8	Fe (mg/L)	0.0	0.2	0.2	0.3	0.6	0.6
9	HCO3 (mg/L)	100	88	84	77	115	59
10	K (mg/L)	1.8	2.4	1.9	2.0	5.6	1.9
11	Mg (mg/L)	7.5	10.0	6.7	8.4	11.8	8.0
12	Na (mg/L)	10.3	13.2	9.2	9.6	13.3	7.1
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.00	0.03	0.00	0.01	0.03	0.00
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.000	0.093	0.021	0.050	0.000	0.000
17	SiO2 (mg/L)	15.3	15.3	15.5	6.3	14.2	14.5
18	SO4 (mg/L)	2.4	13.8	2.0	22.6	2.8	5.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.3	1.8	3.0	0.4	1.3	1.2
2	COD (mg/L)	3.4	9.0	8.0	4.0	4.0	4.0
3	DO (mg/L)	7.3	7.2	6.4	6.3	6.0	7.8
4	DO_SAT% (%)	88	87	76	75	70	93
5	FCol-MPN (MPN/100mL)	400	680	400	1700	1200	4000
6	Tcol-MPN (MPN/100mL)	3300	3300	3300	22000	2400	54000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.2	0.1	0.0	0.2	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.0	0.5	0.8	0.8
4	Cu (µg/L)	2.4	2.7	1.1	2.6	2.3	2.3
5	Hg (µg/L)	0.0	0.0	0.0	0.2	0.2	0.2
6	Ni (µg/L)	0.9	0.7	1.1	0.6	1.9	1.3
7	Pb (µg/L)	0.0	0.1	0.0	0.8	0.6	0.4
8	Zn (µg/L)	0.0	1.5	0.1	11.3	4.4	5.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	52	35	38	41	64	27
2	HAR_Total (mgCaCO3/L)	83	76	66	76	113	60
3	Na% (%)	21	27	23	21	20	20
4	RSC (-)	0.0	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	0.5	0.7	0.5	0.5	0.5	0.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	B	A	A
	PHYSICAL						
1	Q (cumec)	123.6	735.7	123.1	275.6	200.7	122.0
2	Colour_Cod (-)	Clear	Light Brown	Clear	Light Brown	Clear	Light Brown
3	EC_GEN (µmho/cm)	139	143	177	155	110	157
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.8	7.6	7.9	7.8	7.9	7.9
6	TDS (mg/L)	86	80	120	100	66	104
7	Temp (deg C)	24.0	23.0	24.0	24.0	24.0	23.0
8	Turb (NTU)	16.1	26.8	31.9	40.0	10.0	13.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	48	51	50	55	33	49
3	B (mg/L)	0.30	0.30	0.41	0.31	0.11	0.06
4	Ca (mg/L)	14	10	12	13	12	16
5	Cl (mg/L)	15.3	15.6	18.5	15.6	8.5	14.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.05	0.07	0.07	0.02	0.10	0.13
8	Fe (mg/L)	0.1	0.1	0.1	0.1	0.1	0.1
9	HCO3 (mg/L)	59	62	61	68	40	59
10	K (mg/L)	1.6	1.9	1.7	1.9	1.3	1.9
11	Mg (mg/L)	4.6	4.7	9.4	6.3	3.4	3.5
12	Na (mg/L)	5.8	12.2	7.8	8.1	5.1	10.1
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.01	0.01	0.00	0.01	0.00	0.01
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.000	0.010	1.963	0.000	0.031	0.000
17	SiO2 (mg/L)	16.6	9.5	19.5	21.2	17.2	15.4
18	SO4 (mg/L)	3.5	5.1	9.5	7.0	11.9	13.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	3.0	1.8	1.5	0.2	0.5	1.7
2	COD (mg/L)	5.0	4.0	3.0	5.5	3.0	27.0
3	DO (mg/L)	8.0	8.2	6.3	6.5	6.6	7.0
4	DO_SAT% (%)	95	96	75	77	78	82
5	FCol-MPN (MPN/100mL)	1400	4000	1300	4000	2700	1300
6	Tcol-MPN (MPN/100mL)	3300	34000	11000	54000	17000	11000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.0	0.1	0.0	0.1
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.1	0.0	0.3	0.2	0.0	0.2
4	Cu (µg/L)	0.9	1.7	1.1	0.6	0.7	0.6
5	Hg (µg/L)	0.2	0.1	0.2	0.1	0.0	0.0
6	Ni (µg/L)	0.5	0.7	0.6	0.5	0.3	0.4
7	Pb (µg/L)	0.5	0.1	0.0	0.0	0.0	0.0
8	Zn (µg/L)	2.7	3.5	1.8	7.1	2.3	4.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	36	26	31	32	30	40
2	HAR_Total (mgCaCO3/L)	55	46	70	58	44	55
3	Na% (%)	18	36	19	23	20	28
4	RSC (-)	0.0	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.8	0.4	0.5	0.3	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	B	A	A	A
	PHYSICAL						
1	Q (cumec)	70.61	108.4	127.5	65.08	66.59	57.45
2	Colour_Cod (-)	Light Brown	Brown	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	271	194	208	293	236	224
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.0	7.0	8.0	8.2	7.9	8.1
6	TDS (mg/L)	186	132	140	164	163	139
7	Temp (deg C)	24.0	25.0	24.0	23.5	23.5	24.0
8	Turb (NTU)	60.8	6.7	34.7	4.3	0.7	2.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	88	74	74	107	75	81
3	B (mg/L)	0.02	0.02	0.00	0.05	0.06	0.04
4	Ca (mg/L)	21	18	15	22	17	17
5	Cl (mg/L)	26.6	16.7	18.8	28.0	29.5	22.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.08	0.08	0.08	0.11	0.10	0.10
8	Fe (mg/L)	0.0	0.0	0.3	0.0		
9	HCO3 (mg/L)	108	91	91	130	92	99
10	K (mg/L)	1.8	2.4	2.5	3.4	2.0	3.0
11	Mg (mg/L)	12.5	6.6	9.2	14.2	11.4	9.5
12	Na (mg/L)	19.4	14.0	15.0	20.1	16.0	15.0
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.06	0.01	0.01	0.00	0.01	0.01
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)	0.010	0.000	0.031	0.000	0.010	0.010
17	SiO2 (mg/L)	12.3	12.5	12.7	13.5	11.7	13.4
18	SO4 (mg/L)	18.6	3.9	6.8	6.5	5.5	4.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	2.5	0.6	0.2	0.5	0.7
2	COD (mg/L)	11.0	37.0	4.0	6.0	9.0	9.0
3	DO (mg/L)	6.6	6.5	7.1	6.3	7.1	7.1
4	DO_SAT% (%)	78	79	84	74	83	84
5	FCol-MPN (MPN/100mL)	780	780	1300	2600	1700	3400
6	Tcol-MPN (MPN/100mL)	1700	2200	3300	92000	54000	92000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.0	0.1	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.1	0.0	0.6	0.0	NA	NA
4	Cu (µg/L)	0.7	0.5	0.8	0.4	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.5	0.4	0.9	0.5	NA	NA
7	Pb (µg/L)	0.1	0.0	0.2	0.0	NA	NA
8	Zn (µg/L)	1.7	1.4	13.5	0.8	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	52	46	38	55	43	43
2	HAR_Total (mgCaCO3/L)	104	73	76	114	91	82
3	Na% (%)	29	29	29	27	27	28
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.8	0.7	0.7	0.8	0.7	0.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	12-01-2023	24-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	68.20	33.14	32.51	32.16	40.08	73.24
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	264	223	254	198	144	181
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	7.9	8.1	8.0	8.1	7.9
6	TDS (mg/L)	172	132	147	122	84	112
7	Temp (deg C)	23.5	23.0	23.5	23.0	23.0	23.0
8	Turb (NTU)	0.9	0.8	1.1	1.1	1.0	1.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	88	74	94	76	54	67
3	B (mg/L)	0.13	0.14	0.15	0.00	0.01	0.00
4	Ca (mg/L)	23	18	21	18	17	16
5	Cl (mg/L)	24.9	23.4	26.3	20.9	15.6	15.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.08	0.10	0.08	0.03	0.04	0.05
8	Fe (mg/L)			0.4	0.3	0.2	0.3
9	HCO3 (mg/L)	108	91	114	92	66	81
10	K (mg/L)	2.0	2.0	2.0	2.4	2.8	2.7
11	Mg (mg/L)	11.3	11.8	12.4	5.3	1.0	6.9
12	Na (mg/L)	14.0	12.0	13.0	15.0	12.0	12.0
13	NO2+NO3 (mg N/L)						
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
15	NO3-N (mgN/L)						
16	o-PO4-P (mg P/L)				0.093	0.072	0.000
17	SiO2 (mg/L)	13.4	14.0	13.8	7.6	7.2	7.3
18	SO4 (mg/L)	5.9	12.5	1.2	6.1	6.1	4.2
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.0	2.3	1.4	3.5	1.8	3.0
2	COD (mg/L)	4.0	17.0	8.0	9.0	18.0	15.0
3	DO (mg/L)	6.8	7.2	6.7	7.2	6.9	7.3
4	DO_SAT% (%)	79	84	78	84	80	85
5	FCol-MPN (MPN/100mL)	2200	2200	7900	3300	2700	4900
6	Tcol-MPN (MPN/100mL)	13000	54000	24000	35000	24000	17000
	TRACE & TOXIC						
1	As (µg/L)	NA	NA	0.1	0.1	0.1	0.1
2	Cd (µg/L)	NA	NA	0.1	0.0	0.0	0.0
3	Cr (µg/L)	NA	NA	6.9	0.9	3.5	0.7
4	Cu (µg/L)	NA	NA	4.8	1.3	2.2	1.9
5	Hg (µg/L)	NA	NA	0.0	0.0	0.0	0.0
6	Ni (µg/L)	NA	NA	2.3	0.9	3.2	0.9
7	Pb (µg/L)	NA	NA	4.2	2.1	4.5	2.8
8	Zn (µg/L)	NA	NA	17.9	1.1	4.1	2.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	58	46	52	46	42	40
2	HAR_Total (mgCaCO3/L)	105	95	104	68	46	69
3	Na% (%)	22	21	21	32	35	27
4	RSC (-)	0.0	0.0	0.0	0.2	0.2	0.0
5	SAR (-)	0.6	0.5	0.6	0.8	0.8	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	01-02-2023	14-02-2023	21-02-2023	01-03-2023	14-03-2023	23-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	91.06	67.79	64.01	67.09	130.3	74.56
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	116	151	147	148	105	134
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.1	8.4	8.1	7.9	8.1
6	TDS (mg/L)	92	90	84	118	68	82
7	Temp (deg C)	23.0	23.0	23.0	23.0	24.0	24.0
8	Turb (NTU)	6.6	5.4	4.3	1.3	18.4	1.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	45	61	59	55	37	43
3	B (mg/L)	0.08	0.00	0.00	0.00	0.01	0.01
4	Ca (mg/L)	10	16	18	19	10	17
5	Cl (mg/L)	9.2	11.7	12.1	13.5	8.2	11.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.04	0.04	0.04	0.06	0.06
8	Fe (mg/L)	0.3	0.2	0.6	1.0	0.8	0.5
9	HCO3 (mg/L)	55	74	72	67	46	52
10	K (mg/L)	1.5	1.7	1.9	2.0	0.0	2.6
11	Mg (mg/L)	6.0	5.3	3.4	1.9	3.0	0.7
12	Na (mg/L)	4.9	6.0	6.3	8.6	5.4	10.7
13	NO2+NO3 (mg N/L)				1.09	1.39	2.19
14	NO2-N (mgN/L)	0.01	0.00	0.04	0.01	0.01	0.01
15	NO3-N (mgN/L)				1.08	1.37	2.17
16	o-PO4-P (mg P/L)	0.052	0.093	0.080	0.000	0.000	0.021
17	SiO2 (mg/L)	5.2	16.1	11.3	12.2	7.6	12.2
18	SO4 (mg/L)	1.4	1.3	1.3	0.7	0.9	1.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.8	0.9	0.9	0.8	0.6
2	COD (mg/L)	13.0	11.0	7.0	8.0	13.0	
3	DO (mg/L)	7.2	7.0	5.6	7.0	6.6	6.1
4	DO_SAT% (%)	84	82	65	82	78	72
5	FCol-MPN (MPN/100mL)	1400	1400	1400	39000	23000	23000
6	Tcol-MPN (MPN/100mL)	92000	17000	24000	47000	130000	350000
	TRACE & TOXIC						
1	As (µg/L)	0.4	0.1	0.4	0.0	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	2.2	6.8	14.2	1.9	1.5	3.5
4	Cu (µg/L)	2.4	0.9	2.5	3.3	2.5	0.8
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	7.1	2.8	7.8	0.0	0.0	0.1
7	Pb (µg/L)	4.3	7.7	4.2	8.0	4.5	5.6
8	Zn (µg/L)	55.1	6.9	55.9	3.4	4.0	1.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	26	40	46	49	26	44
2	HAR_Total (mgCaCO3/L)	50	62	60	57	39	47
3	Na% (%)	17	17	18	24	23	32
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.3	0.4	0.5	0.4	0.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water Analysis Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	02-05-2023	11-05-2023	23-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	56.28	56.99	61.70	108.0	103.7	57.73
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	157	149	152	148	125	156
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	7.9	8.1	7.8	7.7	8.2
6	TDS (mg/L)	94	126	100	108	72	104
7	Temp (deg C)	24.0	25.0	24.5	24.0	24.0	24.0
8	Turb (NTU)	21.2	4.9	4.2	0.5	10.2	29.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	8.2	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	58	55	60	49	33	44
3	B (mg/L)	0.19	0.32	0.25	0.00	0.00	0.07
4	Ca (mg/L)	13	13	11	17	12	7
5	Cl (mg/L)	13.5	16.7	13.5	14.6	14.2	17.8
6	CO3 (mg/L)	9.9	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.02	0.06	0.04	0.09	0.05	0.08
8	Fe (mg/L)	0.0	0.2	0.2	0.4	0.6	3.9
9	HCO3 (mg/L)	50	67	73	60	40	54
10	K (mg/L)	3.1	3.0	2.2	2.0	2.6	1.6
11	Mg (mg/L)	5.2	4.4	5.0	4.3	2.6	0.9
12	Na (mg/L)	12.3	12.8	12.0	9.7	10.1	6.4
13	NO2+NO3 (mg N/L)	0.50	0.50	0.83	0.28	1.56	0.60
14	NO2-N (mgN/L)	0.14	0.14	0.55	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.36	0.36	0.28	0.27	1.54	0.59
16	o-PO4-P (mg P/L)	0.930	1.137	0.930	0.031	0.000	0.041
17	SiO2 (mg/L)	42.4	15.8	16.2	18.2	13.8	13.2
18	SO4 (mg/L)	4.3	3.6	3.9	8.4	5.5	10.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.8	1.4	0.8	0.8	0.6	1.2
2	COD (mg/L)						
3	DO (mg/L)	5.6	3.9	6.0	7.0	6.8	6.6
4	DO_SAT% (%)	67	47	71	83	81	78
5	FCol-MPN (MPN/100mL)	13000	2000	1400	130000	170000	33000
6	Tcol-MPN (MPN/100mL)	79000	220000	92000	240000	280000	39000
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.1	0.2	0.3	0.6
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.0	26.9	0.0	9.9
4	Cu (µg/L)	0.0	0.0	0.0	4.8	1.8	6.4
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	Pb (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
8	Zn (µg/L)	0.0	0.0	0.0	0.0	20.7	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	32	34	27	43	30	19
2	HAR_Total (mgCaCO3/L)	54	52	48	60	40	22
3	Na% (%)	32	34	34	25	34	37
4	RSC (-)	0.1	0.1	0.2	0.0	0.0	0.4
5	SAR (-)	0.7	0.8	0.8	0.5	0.7	0.6
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **Sub-Division : Upper Tunga Subdn, Davanagere**

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1157	23.08	121.5
2	EC_GEN (µmho/cm)	36	293	105	179
3	pH_GEN (pH units)	36	8.4	7.0	7.9
4	TDS (mg/L)	36	186	66	117
5	Temp (deg C)	36	25.0	23.0	23.8
6	Turb (NTU)	36	60.8	0.5	10.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	8.2	0.0	0.2
2	ALK-TOT (mgCaCO3/L)	36	107	33	63
3	B (mg/L)	36	0.41	0.00	0.1
4	Ca (mg/L)	36	26	7	16
5	Cl (mg/L)	36	29.5	8.2	16.8
6	CO3 (mg/L)	36	9.9	0.0	0.3
7	F (mg/L)	36	0.72	0.02	0.09
8	Fe (mg/L)	32	3.9	0.0	0.4
9	HCO3 (mg/L)	36	130	40	76
10	K (mg/L)	36	5.6	0.0	2.2
11	Mg (mg/L)	36	14.2	0.7	6.6
12	Na (mg/L)	36	20.1	4.9	11
13	NO2+NO3 (mg N/L)	9	2.19	0.28	0.99
14	NO2-N (mgN/L)	36	0.55	0.00	0.03
15	NO3-N (mgN/L)	9	2.17	0.27	0.89
16	o-PO4-P (mg P/L)	33	1.963	0.000	0.173
17	SiO2 (mg/L)	36	42.4	5.2	14
18	SO4 (mg/L)	36	22.6	0.7	6.2
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	3.5	0.2	1.4
2	COD (mg/L)	29	37.0	3.0	9.6
3	DO (mg/L)	36	8.2	3.9	6.7
4	DO_SAT% (%)	36	96	47	79
5	FCol-MPN (MPN/100mL)	36	170000	400	13762
6	Tcol-MPN (MPN/100mL)	36	350000	1700	62244
	TRACE & TOXIC				
1	As (µg/L)	32	0.7	0.0	0.1
2	Cd (µg/L)	32	0.1	0.0	0
3	Cr (µg/L)	32	46.4	0.0	4.5
4	Cu (µg/L)	32	12.5	0.1	2.2
5	Hg (µg/L)	32	0.2	0.0	0
6	Ni (µg/L)	32	12.8	0.3	2.5
7	Pb (µg/L)	32	8.0	0.0	2.2
8	Zn (µg/L)	32	55.9	0.0	10.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	64	19	40
2	HAR_Total (mgCaCO3/L)	36	114	22	67
3	Na% (%)	36	37	17	26
4	RSC (-)	36	0.4	0.0	0
5	SAR (-)	36	0.8	0.3	0.6
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Flood				
		Jun - Oct				
		2008	2009	2010	2011	2012
	PHYSICAL					
1	Q (cumec)	84.44		197.1	230.5	39.26
2	EC_GEN (µmho/cm)	215		227	182	284
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.7		7.7	7.1	7.3
5	TDS (mg/L)					
6	Temp (deg C)	24.7		24.5	25.0	25.4
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	64		72	55	68
3	B (mg/L)	0.29		0.02		
4	Ca (mg/L)	16		19	15	20
5	Cl (mg/L)	24.8		24.6	20.8	40.7
6	CO3 (mg/L)	0.0		0.0	0.0	0.0
7	F (mg/L)	0.10		0.15	0.23	0.19
8	Fe (mg/L)	0.3		0.3	0.2	
9	HCO3 (mg/L)	78		88	67	83
10	K (mg/L)	2.4		2.6	2.0	2.5
11	Mg (mg/L)	8.0		7.8	5.8	6.8
12	Na (mg/L)	15.5		13.9	12.7	26.8
13	NO2+NO3 (mg N/L)	0.90		0.97	1.07	1.89
14	NO2-N (mgN/L)	0.01		0.00	0.00	0.01
15	NO3-N (mgN/L)	0.89		0.97	1.06	1.87
16	o-PO4-P (mg P/L)	0.000		0.021	0.008	
17	SiO2 (mg/L)	10.6		14.3	12.2	
18	SO4 (mg/L)	5.2		4.8	6.4	6.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	0.9			0.7	0.7
2	COD (mg/L)					
3	DO (mg/L)	4.7		5.4	5.9	5.6
4	DO_SAT% (%)	57		65	72	68
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)					
3	Cr (µg/L)					
4	Cu (µg/L)					
5	Hg (µg/L)					
6	Ni (µg/L)					
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	39		48	37	51
2	HAR_Total (mgCaCO3/L)	72		80	61	80
3	Na% (%)	31		26	29	40
4	RSC (-)	0.0		0.0	0.0	0.0
5	SAR (-)	0.8		0.7	0.7	1.3
	PESTICIDES					

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Flood				
		Jun - Oct				
		2013	2014	2015	2016	2017
	PHYSICAL					
1	Q (cumec)	286.3	170.7	62.38	31.78	19.49
2	EC_GEN (µmho/cm)	199	205	217	205	236
3	pH_FLD (pH units)		7.4			
4	pH_GEN (pH units)	7.3	7.3	7.3	7.0	7.4
5	TDS (mg/L)				123	155
6	Temp (deg C)	25.9	25.3	24.1	22.8	23.2
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	60	60	48	60	83
3	B (mg/L)	0.03	0.31	0.25	0.16	0.24
4	Ca (mg/L)	15	16	21	16	21
5	Cl (mg/L)	22.8	24.4	28.9	23.6	19.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.11	0.19		0.14
8	Fe (mg/L)	0.1	0.3	0.9	0.2	0.2
9	HCO3 (mg/L)	73	73	72	73	101
10	K (mg/L)	2.3	2.4	3.5	3.1	3.6
11	Mg (mg/L)	5.1	6.4	7.3	7.1	9.2
12	Na (mg/L)	19.3	15.3	12.3	15.7	13.5
13	NO2+NO3 (mg N/L)	1.72	1.94	0.91	1.76	1.18
14	NO2-N (mgN/L)	0.02	0.04	0.02	0.02	0.01
15	NO3-N (mgN/L)	1.71	1.90	0.89	1.74	1.16
16	o-PO4-P (mg P/L)	0.044	0.068	0.203	0.066	0.282
17	SiO2 (mg/L)	12.1	7.9	11.5	15.0	10.6
18	SO4 (mg/L)	7.3	6.9	9.5	8.0	11.3
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	0.8	1.7	0.5	1.1	0.8
2	COD (mg/L)					
3	DO (mg/L)	6.0	6.0	4.7	5.3	5.0
4	DO_SAT% (%)	73	73	55	62	59
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)	2.1				2.0
2	Cd (µg/L)	0.1				0.0
3	Cr (µg/L)	1.3				45.0
4	Cu (µg/L)	1.0				4.0
5	Hg (µg/L)					
6	Ni (µg/L)	9.5				
7	Pb (µg/L)	5.7				515.0
8	Zn (µg/L)	0.0				11.0
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	37	41	52	40	53
2	HAR_Total (mgCaCO3/L)	58	68	82	69	91
3	Na% (%)	36	31	24	31	23
4	RSC (-)	0.2	0.0	0.0	0.2	0.0
5	SAR (-)	1.1	0.8	0.6	1.0	0.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Flood				
		Jun - Oct				
		2018	2019	2020	2021	2022
	PHYSICAL					
1	Q (cumec)	123.5	117.0	105.8	70.25	164.6
2	EC_GEN (µmho/cm)	211	162	198	210	181
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.5	7.7	7.6	7.8	7.8
5	TDS (mg/L)	135	107	129	146	121
6	Temp (deg C)	23.4	23.1	24.0	23.3	24.0
7	Turb (NTU)				13.3	17.6
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	2.2	0.0
2	ALK-TOT (mgCaCO3/L)	73	55	64	72	63
3	B (mg/L)	0.08	0.09	0.05	0.04	0.13
4	Ca (mg/L)	21	15	17	17	16
5	Cl (mg/L)	18.1	15.8	18.0	22.5	16.2
6	CO3 (mg/L)	0.0	0.0	0.0	2.7	0.0
7	F (mg/L)	0.18	0.09	0.16	0.12	0.12
8	Fe (mg/L)	0.5	0.4	0.4	0.1	0.2
9	HCO3 (mg/L)	89	68	78	82	77
10	K (mg/L)	3.6	2.3	2.7	2.8	2.2
11	Mg (mg/L)	7.5	6.1	11.3	9.1	7.5
12	Na (mg/L)	10.4	7.1	9.9	11.8	10.7
13	NO2+NO3 (mg N/L)	1.02	0.80	0.58	0.34	
14	NO2-N (mgN/L)	0.02	0.06	0.03	0.03	0.01
15	NO3-N (mgN/L)	1.00	0.75	0.55	1.08	
16	o-PO4-P (mg P/L)	0.043	0.112	0.034	0.075	0.147
17	SiO2 (mg/L)	9.4	14.2	13.0	4.6	14.5
18	SO4 (mg/L)	11.8	5.7	14.5	11.2	8.5
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	2.5	1.0	1.2	1.2	1.5
2	COD (mg/L)	15.7	11.0	16.8	14.5	8.8
3	DO (mg/L)	6.3	6.3	6.8	6.8	6.9
4	DO_SAT% (%)	73	74	80	79	82
5	FCol-MPN (MPN/100mL)	1883	1082	2074	553	1729
6	Tcol-MPN (MPN/100mL)	5533	15866	12922	1623	15053
	TRACE & TOXIC					
1	As (µg/L)	4.2	4.2	0.4	0.8	0.1
2	Cd (µg/L)	0.1	0.1	0.2	0.0	0.0
3	Cr (µg/L)	1.1	1.4	99.4	2.8	0.2
4	Cu (µg/L)	3.8	0.8	7.1	1.9	1.4
5	Hg (µg/L)			1.8	0.1	0.1
6	Ni (µg/L)	3.1	2.8	25.6	0.8	0.8
7	Pb (µg/L)	0.8	0.1	0.1	0.2	0.2
8	Zn (µg/L)	4.8	17.3	12.7	4.5	4.1
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	52	39	43	43	39
2	HAR_Total (mgCaCO3/L)	84	64	90	81	70
3	Na% (%)	20	19	20	23	24
4	RSC (-)	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	0.5	0.4	0.5	0.6	0.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Winter				
		Nov - Feb				
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013
	PHYSICAL					
1	Q (cumec)	33.79		63.83	37.17	52.24
2	EC_GEN (µmho/cm)	240		194	279	250
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.6		7.5	7.0	7.1
5	TDS (mg/L)					
6	Temp (deg C)	23.5		24.4	24.3	23.1
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	64		56	71	58
3	B (mg/L)	0.14		0.06		
4	Ca (mg/L)	17		16	21	21
5	Cl (mg/L)	33.2		20.3	44.1	40.1
6	CO3 (mg/L)	0.0		0.0	0.0	0.0
7	F (mg/L)	0.14		0.14		0.14
8	Fe (mg/L)	0.2		0.0	0.0	
9	HCO3 (mg/L)	78		68	86	71
10	K (mg/L)	2.3		1.8	2.5	2.2
11	Mg (mg/L)	5.6		6.1	5.3	4.6
12	Na (mg/L)	23.0		13.0	26.6	23.9
13	NO2+NO3 (mg N/L)	0.54		0.99	1.51	1.59
14	NO2-N (mgN/L)	0.02		0.05	0.02	0.02
15	NO3-N (mgN/L)	0.52		0.94	1.48	1.57
16	o-PO4-P (mg P/L)	0.049		0.018	0.000	
17	SiO2 (mg/L)	12.5		12.4	12.5	
18	SO4 (mg/L)	5.9		9.0	6.9	5.2
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.5		0.2	1.0	1.0
2	COD (mg/L)					
3	DO (mg/L)	5.4		6.2	5.3	6.1
4	DO_SAT% (%)	63		74	63	71
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)				0.3	0.5
2	Cd (µg/L)				0.2	0.1
3	Cr (µg/L)				1.1	0.5
4	Cu (µg/L)					3.1
5	Hg (µg/L)					
6	Ni (µg/L)				5.0	11.6
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	42		39	53	52
2	HAR_Total (mgCaCO3/L)	65		64	75	71
3	Na% (%)	40		29	41	41
4	RSC (-)	0.0		0.0	0.0	0.0
5	SAR (-)	1.2		0.7	1.3	1.2
	PESTICIDES					

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Winter				
		Nov - Feb				
		2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
	PHYSICAL					
1	Q (cumec)	34.55	28.57	27.24	30.65	21.64
2	EC_GEN (µmho/cm)	265	191	206	177	179
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.3	7.6	7.5	7.4	7.2
5	TDS (mg/L)			99	106	117
6	Temp (deg C)	24.5	22.8	22.4	22.8	22.8
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	73	59	67	53	62
3	B (mg/L)	0.02	0.20	0.33	0.32	0.03
4	Ca (mg/L)	19	19	19	16	15
5	Cl (mg/L)	36.8	23.7	21.8	18.4	14.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.19	0.11	0.17		0.21
8	Fe (mg/L)	0.2	0.1	0.3	0.1	0.1
9	HCO3 (mg/L)	87	72	84	65	76
10	K (mg/L)	2.4	5.6	1.7	2.0	1.9
11	Mg (mg/L)	6.6	6.8	8.0	6.8	8.2
12	Na (mg/L)	27.8	8.7	10.1	10.6	8.5
13	NO2+NO3 (mg N/L)	1.64	1.12	1.00	1.51	0.67
14	NO2-N (mgN/L)	0.02	0.02	0.01	0.03	0.01
15	NO3-N (mgN/L)	1.62	1.10	0.99	1.48	0.67
16	o-PO4-P (mg P/L)	0.075	0.039	0.351	0.028	0.019
17	SiO2 (mg/L)	12.7	10.4	16.9	19.3	9.8
18	SO4 (mg/L)	6.7	6.5	8.1	9.0	9.0
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.2	1.0	1.5	1.1	0.6
2	COD (mg/L)					
3	DO (mg/L)	6.2	6.4	6.6	6.2	5.5
4	DO_SAT% (%)	73	73	75	71	63
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)			0.7	0.7	2.1
2	Cd (µg/L)		0.0	0.0	0.0	0.0
3	Cr (µg/L)		0.2	0.1	0.1	9.8
4	Cu (µg/L)		7.3	0.1	4.1	5.2
5	Hg (µg/L)					
6	Ni (µg/L)		1.6	0.7	0.5	1.5
7	Pb (µg/L)		1.0	0.1	0.1	1.0
8	Zn (µg/L)		9.8	3.1	0.6	15.4
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	47	47	48	40	37
2	HAR_Total (mgCaCO3/L)	74	75	81	68	71
3	Na% (%)	44	19	21	24	21
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.4	0.4	0.5	0.6	0.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Winter				
		Nov - Feb				
		2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
	PHYSICAL					
1	Q (cumec)	32.01	77.55		69.15	57.61
2	EC_GEN (µmho/cm)	223	203		179	203
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.7	7.9		7.8	8.1
5	TDS (mg/L)	140	147		123	125
6	Temp (deg C)	22.6	22.9		23.0	23.3
7	Turb (NTU)				7.4	2.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.6	0.0		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	81	77		62	73
3	B (mg/L)	0.17	0.09			0.05
4	Ca (mg/L)	18	17		15	18
5	Cl (mg/L)	18.3	17.1		16.9	19.9
6	CO3 (mg/L)	0.7	0.0		0.0	0.0
7	F (mg/L)	0.16	0.11		0.10	0.07
8	Fe (mg/L)	0.2	0.3		0.1	0.3
9	HCO3 (mg/L)	97	94		75	90
10	K (mg/L)	2.4	2.3		2.0	2.3
11	Mg (mg/L)	11.3	7.9		7.9	8.2
12	Na (mg/L)	10.9	9.6		8.6	12.2
13	NO2+NO3 (mg N/L)	1.55	1.78			
14	NO2-N (mgN/L)	0.01	0.01		0.01	0.01
15	NO3-N (mgN/L)	1.54	1.76			
16	o-PO4-P (mg P/L)	0.100	0.041		0.019	0.046
17	SiO2 (mg/L)	15.5	13.9		16.5	11.2
18	SO4 (mg/L)	7.5	11.8		7.3	4.7
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	2.0	1.2		1.5	1.6
2	COD (mg/L)	16.3	16.3		7.0	10.5
3	DO (mg/L)	6.4	6.4		7.1	6.9
4	DO_SAT% (%)	74	75		82	80
5	FCol-MPN (MPN/100mL)	3146	1079			2925
6	Tcol-MPN (MPN/100mL)	9208	5115			44833
	TRACE & TOXIC					
1	As (µg/L)	0.2	1.7		0.2	0.2
2	Cd (µg/L)	0.0	0.0		0.0	0.0
3	Cr (µg/L)	1.4	1.0		0.3	4.4
4	Cu (µg/L)	1.6	3.6		2.1	2.0
5	Hg (µg/L)				0.0	0.0
6	Ni (µg/L)	2.9	2.6		1.0	3.2
7	Pb (µg/L)	1.6	0.2		0.2	3.7
8	Zn (µg/L)	1.1	9.9		4.8	18.0
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	44		37	45
2	HAR_Total (mgCaCO3/L)	91	76		69	79
3	Na% (%)	20	21		21	24
4	RSC (-)	0.0	0.3		0.0	0.0
5	SAR (-)	0.5	0.5		0.5	0.6
	PESTICIDES					

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Summer				
		Mar - May				
		2009	2010	2011	2012	2013
	PHYSICAL					
1	Q (cumec)	67.84		66.63	82.77	71.71
2	EC_GEN (µmho/cm)	164		177	169	159
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.4		7.1	7.0	6.9
5	TDS (mg/L)					
6	Temp (deg C)	25.2		22.8	24.5	25.0
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	51		53	48	41
3	B (mg/L)	0.07		0.03		0.00
4	Ca (mg/L)	13		15	13	13
5	Cl (mg/L)	18.5		19.3	20.9	20.5
6	CO3 (mg/L)	0.0		0.0	0.0	0.0
7	F (mg/L)	0.06		0.25	0.15	
8	Fe (mg/L)	0.2		0.0		0.1
9	HCO3 (mg/L)	63		65	58	50
10	K (mg/L)	1.4		1.7	2.3	1.3
11	Mg (mg/L)	4.5		6.2	5.5	5.7
12	Na (mg/L)	12.7		9.8	12.3	8.9
13	NO2+NO3 (mg N/L)	0.51		0.92	1.58	1.65
14	NO2-N (mgN/L)	0.02		0.01	0.02	0.01
15	NO3-N (mgN/L)	0.49		0.91	1.56	1.64
16	o-PO4-P (mg P/L)	0.010		0.026		0.041
17	SiO2 (mg/L)	11.5		16.3		13.1
18	SO4 (mg/L)	3.0		5.1	5.3	6.4
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.3			0.6	0.4
2	COD (mg/L)					
3	DO (mg/L)	5.5		5.6	5.4	4.9
4	DO_SAT% (%)	66		65	65	59
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)			1.6	0.5	7.1
2	Cd (µg/L)				0.4	0.1
3	Cr (µg/L)			1.8	1.9	0.3
4	Cu (µg/L)	3.4		4.3	1.1	2.9
5	Hg (µg/L)					
6	Ni (µg/L)	11.3			4.3	1.2
7	Pb (µg/L)				3.6	1.6
8	Zn (µg/L)				40.0	77.9
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	33		37	32	33
2	HAR_Total (mgCaCO3/L)	52		63	55	56
3	Na% (%)	34		24	31	25
4	RSC (-)	0.0		0.0	0.0	0.0
5	SAR (-)	0.8		0.5	0.7	0.5
	PESTICIDES					

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Summer				
		Mar - May				
		2014	2015	2016	2017	2018
	PHYSICAL					
1	Q (cumec)	88.10	28.15	31.39	38.84	43.06
2	EC_GEN (µmho/cm)	160	188	141	141	188
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.0	7.3	6.9	7.5	7.2
5	TDS (mg/L)			66	94	118
6	Temp (deg C)	24.8	24.0	25.3	24.3	24.1
7	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	51	61	39	53	71
3	B (mg/L)	0.04	0.48	0.18	0.15	0.06
4	Ca (mg/L)	13	14	12	12	18
5	Cl (mg/L)	17.7	22.1	16.9	8.5	12.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.22	0.19	0.23	0.14	0.19
8	Fe (mg/L)	0.1	0.1	0.1	0.1	0.1
9	HCO3 (mg/L)	63	74	51	64	86
10	K (mg/L)	3.7	6.0	1.4	1.7	2.6
11	Mg (mg/L)	4.9	5.2	5.5	6.2	7.6
12	Na (mg/L)	11.9	15.3	6.9	6.8	7.7
13	NO2+NO3 (mg N/L)	1.26	0.52	1.17	0.63	0.50
14	NO2-N (mgN/L)	0.01	0.04	0.01	0.01	0.02
15	NO3-N (mgN/L)	1.24	0.48	1.15	0.62	0.48
16	o-PO4-P (mg P/L)	0.048	0.021	0.517	0.048	0.076
17	SiO2 (mg/L)	17.2	4.7	13.5	11.0	12.4
18	SO4 (mg/L)	4.5	4.0	4.9	7.8	5.8
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.6	3.3	0.6	0.9	1.5
2	COD (mg/L)					13.0
3	DO (mg/L)	6.2	5.3	5.6	5.5	4.9
4	DO_SAT% (%)	74	62	68	65	58
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)	0.7		3.7		0.5
2	Cd (µg/L)	0.1				0.0
3	Cr (µg/L)	0.5		1.0		0.3
4	Cu (µg/L)	0.3		1.0		1.0
5	Hg (µg/L)					
6	Ni (µg/L)	9.1		1.3		2.1
7	Pb (µg/L)	0.4				1.2
8	Zn (µg/L)	18.0		20.8		1.6
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	33	36	31	31	46
2	HAR_Total (mgCaCO3/L)	54	58	54	57	77
3	Na% (%)	31	33	22	20	18
4	RSC (-)	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	0.7	0.9	0.4	0.4	0.4
	PESTICIDES					

Water Quality Seasonal Average for the period: 2007-2022

Station Name : HOLEHONNUR (AKLE0A4) **Division : Cauvery Division, Bangalore**

Local River : Bhadra **River Water** **Sub-Division : Upper Tunga Subdn, Davanagere**

S.No	Parameters	Summer				
		Mar - May				
		2019	2020	2021	2022	2023
	PHYSICAL					
1	Q (cumec)	41.79	31.44		57.08	79.60
2	EC_GEN (µmho/cm)	172	172		174	142
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	7.5	7.7		7.9	8.0
5	TDS (mg/L)	121	116		128	97
6	Temp (deg C)	24.3	24.4		24.1	24.1
7	Turb (NTU)				7.1	10.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.9
2	ALK-TOT (mgCaCO3/L)	56	56		69	48
3	B (mg/L)	0.13	0.03		0.05	0.09
4	Ca (mg/L)	16	17		17	13
5	Cl (mg/L)	16.7	16.2		9.7	13.7
6	CO3 (mg/L)	0.0	0.0		0.0	1.1
7	F (mg/L)	0.23	0.48		0.12	0.05
8	Fe (mg/L)	0.1	0.1		0.2	0.9
9	HCO3 (mg/L)	69	68		85	57
10	K (mg/L)	1.9	2.3		2.3	2.1
11	Mg (mg/L)	6.3	6.2		9.0	3.1
12	Na (mg/L)	7.1	8.9		7.9	9.8
13	NO2+NO3 (mg N/L)	0.38	1.03			0.99
14	NO2-N (mgN/L)	0.12	0.01		0.01	0.10
15	NO3-N (mgN/L)	0.25	1.02		0.01	0.89
16	o-PO4-P (mg P/L)	0.049	0.258		0.141	0.343
17	SiO2 (mg/L)	12.7	13.6		9.4	16.8
18	SO4 (mg/L)	1.2	3.7		3.1	4.4
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.3	0.5		1.6	0.9
2	COD (mg/L)	22.1	9.5		4.7	10.5
3	DO (mg/L)	6.2	5.8		6.3	6.2
4	DO_SAT% (%)	74	69		75	73
5	FCol-MPN (MPN/100mL)	1758	542		202	48267
6	Tcol-MPN (MPN/100mL)	4259	3740		2696	164111
	TRACE & TOXIC					
1	As (µg/L)	0.3			0.2	0.2
2	Cd (µg/L)	0.0			0.0	0.0
3	Cr (µg/L)	0.1			0.2	11.8
4	Cu (µg/L)	0.4			1.9	3.9
5	Hg (µg/L)				0.0	0.0
6	Ni (µg/L)	2.1			0.8	4.9
7	Pb (µg/L)	2.6			0.1	4.3
8	Zn (µg/L)	6.7			2.7	13.1
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	41	42		42	33
2	HAR_Total (mgCaCO3/L)	67	68		80	46
3	Na% (%)	18	22		18	30
4	RSC (-)	0.0	0.0		0.0	0.1
5	SAR (-)	0.4	0.5		0.4	0.6
	PESTICIDES					

Sample not collected due to dry bed / no flow condition

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	21-06-1971			
Discharge	:	22-01-1972			
Sediment	:	14-09-1972			
Water Quality	:	01-01-1973			

Water Quality Datasheet for the period : 2022-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters		04-07-2022	11-07-2022	21-07-2022	01-08-2022	11-08-2022
			A	A	B	A	A
	PHYSICAL						
1	Q (cumec)		1201	2296	638.2	182.2	1539
2	Colour_Cod (-)		Light Brown	Light Brown	Light Brown	Light Brown	Brown
3	EC_GEN (µmho/cm)		51	38	67	101	51
4	Odour_Code (-)		odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)		7.0	7.1	7.7	7.2	7.1
6	TDS (mg/L)		33	23	44	66	34
7	Temp (deg C)		28.0	23.0	25.0	26.0	26.0
8	Turb (NTU)		3.5	4.3	2.8	16.1	80.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)		15	10	20	32	6
3	B (mg/L)		0.11	0.15	0.28	0.20	0.02
4	Ca (mg/L)		7	5	9	6	5
5	Cl (mg/L)		7.1	7.8	10.3	13.8	7.5
6	CO3 (mg/L)		0.0	0.0	0.0	0.0	0.0
7	F (mg/L)		0.03	0.03	0.04	0.05	0.04
8	Fe (mg/L)		0.5	0.2	0.4	0.2	0.4
9	HCO3 (mg/L)		18	12	25	39	8
10	K (mg/L)		1.6	1.1	1.2	1.4	1.5
11	Mg (mg/L)		0.0	0.0	1.0	6.0	0.6
12	Na (mg/L)		3.0	2.7	3.4	5.1	4.6
13	NO2-N (mgN/L)		0.02	0.01	0.01	0.01	0.01
14	o-PO4-P (mg P/L)		0.040	0.000	0.000	0.000	0.010
15	SiO2 (mg/L)		11.6	11.0	10.8	9.7	7.3
16	SO4 (mg/L)		1.8	0.4	2.2	3.9	7.9
	BIOLOGICAL/BACTERIOLOGIC						
1	BOD (mg/L)		1.2	2.5	0.5	0.8	1.0
2	COD (mg/L)		4.0	17.0	14.0	5.0	11.0
3	DO (mg/L)		6.1	7.6	6.6	4.4	7.6
4	DO_SAT% (%)		78	89	80	54	94
5	FCol-MPN (MPN/100mL)		3300	0	4700	1700	1400
6	Tcol-MPN (MPN/100mL)		22000	1700	16000	4700	2200
	TRACE & TOXIC						
1	As (µg/L)		0.1	0.1	0.2	0.0	0.0
2	Cd (µg/L)		0.0	0.0	0.1	0.0	0.0
3	Cr (µg/L)		0.5	0.6	0.2	0.0	11.9
4	Cu (µg/L)		4.0	1.1	1.1	0.8	1.6
5	Hg (µg/L)		0.2	0.4	0.2	0.2	0.1
6	Ni (µg/L)		0.8	0.6	0.5	0.4	0.7
7	Pb (µg/L)		0.4	0.1	0.2	0.1	0.4
8	Zn (µg/L)		6.3	3.4	4.4	5.6	5.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)		19	13	23	16	12
2	HAR_Total (mgCaCO3/L)		19	13	27	41	15
3	Na% (%)		24	29	21	21	38
4	RSC (-)		0.0	0.0	0.0	0.0	0.0
5	SAR (-)		0.3	0.3	0.3	0.3	0.5

Sample not submitted for analysis due to NO FLOW for the month of June-2022.

Water Quality Datasheet for the period : 2022-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	23-08-2022	01-09-2022	13-09-2022	21-09-2022	03-10-2022	11-10-2022
		A	B	A	A	A	A
	PHYSICAL						
1	Q (cumec)	671.0	595.7	490.4	171.5	100.3	102.5
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Clear	Clear
3	EC_GEN (µmho/cm)	58	68	60	71	72	90
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.3	7.4	7.3	7.3	7.3	7.2
6	TDS (mg/L)	38	40	36	38	44	60
7	Temp (deg C)	26.0	26.0	26.0	26.0	26.0	27.0
8	Turb (NTU)	29.0	90.0	44.0	9.2	0.9	11.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	16	18	16	21	22	31
3	B (mg/L)	0.02	0.28	0.05	0.05	0.03	0.05
4	Ca (mg/L)	5	7	8	16	7	8
5	Cl (mg/L)	7.1	4.6	7.1	9.6	9.2	9.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.02	0.10	0.04	0.06	0.06
8	Fe (mg/L)	0.2	0.2	0.2	0.2	0.1	0.1
9	HCO3 (mg/L)	19	22	20	26	27	38
10	K (mg/L)	1.1	1.1	1.2	1.0	3.2	0.9
11	Mg (mg/L)	2.4	2.8	1.1	3.4	0.0	2.7
12	Na (mg/L)	3.4	2.8	3.8	5.8	7.4	8.0
13	NO2-N (mgN/L)	0.00	0.03	0.00	0.00	0.01	0.00
14	o-PO4-P (mg P/L)	0.196	0.000	0.031	0.000	0.000	0.000
15	SiO2 (mg/L)	7.3	22.0	16.8	12.8	10.4	10.4
16	SO4 (mg/L)	5.1	4.9	39.8	3.8	2.3	2.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	2.7	0.2	0.5	1.3	0.6	1.3
2	COD (mg/L)	3.0	11.5	11.0	20.0	17.0	5.0
3	DO (mg/L)	6.8	6.5	6.2	5.7	5.1	5.3
4	DO_SAT% (%)	84	80	76	70	63	67
5	FCol-MPN (MPN/100mL)	2300	1400	1400	2300	1700	1700
6	Tcol-MPN (MPN/100mL)	13000	54000	24000	13000	4900	3900
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.1	0.0	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	1.4	2.2	0.8	0.0	0.0	0.8
4	Cu (µg/L)	1.0	1.4	1.8	0.5	0.3	0.6
5	Hg (µg/L)	0.1	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	0.3	0.5	0.5	0.2	0.1	1.3
7	Pb (µg/L)	0.2	0.3	0.2	0.0	0.0	0.2
8	Zn (µg/L)	2.0	3.2	3.0	2.3	2.5	4.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	12	17	19	40	19	20
2	HAR_Total (mgCaCO3/L)	22	28	24	54	19	31
3	Na% (%)	24	17	25	18	41	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	0.3	0.2	0.3	0.3	0.7	0.6

Water Quality Datasheet for the period : 2022-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	21-10-2022	01-11-2022	14-11-2022	22-11-2022	01-12-2022	13-12-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	87.69	10.05	20.94	8.412	42.63	67.49
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	83	103	118	104	90	100
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.4	7.6	7.6	7.6	7.7	7.5
6	TDS (mg/L)	50	62	69	68	60	58
7	Temp (deg C)	26.0	26.0	26.0	25.0	26.0	25.0
8	Turb (NTU)	34.1	5.0	1.0	1.2	0.1	1.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	24	30	38	35	35	32
3	B (mg/L)	0.00	0.00	0.00	0.00	0.13	0.17
4	Ca (mg/L)	6	11	9	7	8	13
5	Cl (mg/L)	10.0	11.4	11.0	11.0	6.0	11.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.06	0.08	0.06	0.06	0.04
8	Fe (mg/L)	0.3	0.1	NA	NA	NA	NA
9	HCO3 (mg/L)	29	36	47	42	43	39
10	K (mg/L)	1.5	2.2	1.0	2.0	1.0	1.0
11	Mg (mg/L)	2.1	1.1	3.3	2.9	2.9	0.9
12	Na (mg/L)	8.0	9.6	10.0	9.1	6.0	6.0
13	NO2-N (mgN/L)	0.01	0.00	0.00	0.00	0.00	0.00
14	o-PO4-P (mg P/L)	0.010	0.000	0.000	0.000	NA	NA
15	SiO2 (mg/L)	10.9	12.0	12.1	12.0	11.9	11.8
16	SO4 (mg/L)	4.5	8.4	3.8	13.9	1.6	0.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	0.2	2.2	0.9	0.5	0.9	1.4
2	COD (mg/L)	4.0	4.0	5.0	6.0	8.0	8.0
3	DO (mg/L)	4.9	8.1	6.1	6.3	6.1	6.6
4	DO_SAT% (%)	60	100	75	76	75	80
5	FCol-MPN (MPN/100mL)	1100	1300	2600	2700	2200	2700
6	Tcol-MPN (MPN/100mL)	3900	35000	54000	24000	35000	35000
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	NA	NA	NA	NA
2	Cd (µg/L)	0.0	0.0	NA	NA	NA	NA
3	Cr (µg/L)	0.2	0.0	NA	NA	NA	NA
4	Cu (µg/L)	0.6	0.4	NA	NA	NA	NA
5	Hg (µg/L)	0.0	0.0	NA	NA	NA	NA
6	Ni (µg/L)	0.3	0.2	NA	NA	NA	NA
7	Pb (µg/L)	0.1	0.1	NA	NA	NA	NA
8	Zn (µg/L)	3.1	1.2	NA	NA	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	16	28	24	18	20	33
2	HAR_Total (mgCaCO3/L)	24	32	37	30	32	36
3	Na% (%)	40	38	36	38	28	26
4	RSC (-)	0.0	0.0	0.0	0.1	0.1	0.0
5	SAR (-)	0.7	0.7	0.7	0.7	0.5	0.4

Water Quality Datasheet for the period : 2022-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	21-12-2022	03-01-2023	12-01-2023	24-01-2023	01-02-2023	
		A	B	B		A	
	PHYSICAL						
1	Q (cumec)	24.92	9.118	14.88		7.297	
2	Colour_Cod (-)	Clear	Light Brown	Brown		Clear	
3	EC_GEN (µmho/cm)	87	93	100		119	
4	Odour_Code (-)	odour free	odour free	odour free		odour free	
5	pH_GEN (pH units)	7.6	7.9	7.6		7.8	
6	TDS (mg/L)	50	65	64		88	
7	Temp (deg C)	26.0	26.0	22.0		23.0	
8	Turb (NTU)	0.3	1.7	0.9		5.2	
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	34	38	38		47	
3	B (mg/L)	0.15	0.00	0.00		0.07	
4	Ca (mg/L)	8	7	8		19	
5	Cl (mg/L)	10.3	10.3	9.2		10.7	
6	CO3 (mg/L)	0.0	0.0	0.0		0.0	
7	F (mg/L)	0.06	0.06	0.05		0.13	
8	Fe (mg/L)	0.6	0.1	0.3		0.1	
9	HCO3 (mg/L)	41	46	46		57	
10	K (mg/L)	1.0	1.9	2.1		1.7	
11	Mg (mg/L)	3.0	1.3	2.1		1.3	
12	Na (mg/L)	6.0	10.0	10.0		5.7	
13	NO2-N (mgN/L)	0.00	0.00	0.00		0.01	
14	o-PO4-P (mg P/L)	NA	0.010	0.000		0.041	
15	SiO2 (mg/L)	12.6	7.7	7.3		10.0	
16	SO4 (mg/L)	1.3	0.3	1.4		1.7	
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD (mg/L)	1.2	2.9	0.8		1.0	
2	COD (mg/L)	4.0	11.0	4.0		8.0	
3	DO (mg/L)	6.3	6.4	6.5		6.8	
4	DO_SAT% (%)	78	79	74		79	
5	FCol-MPN (MPN/100mL)	7900	35000	14000		7900	
6	Tcol-MPN (MPN/100mL)	16000	160000	35000		11000	
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.3	0.1		0.4	
2	Cd (µg/L)	0.5	0.1	0.0		0.0	
3	Cr (µg/L)	9.3	1.2	2.7		3.9	
4	Cu (µg/L)	3.7	0.9	5.6		2.2	
5	Hg (µg/L)	0.0	0.0	0.0		0.0	
6	Ni (µg/L)	2.4	1.1	6.1		2.2	
7	Pb (µg/L)	13.1	1.0	4.6		3.1	
8	Zn (µg/L)	25.3	2.9	1.1		3.2	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	20	19	19		48	
2	HAR_Total (mgCaCO3/L)	32	24	28		53	
3	Na% (%)	28	45	42		18	
4	RSC (-)	0.0	0.3	0.2		0.0	
5	SAR (-)	0.5	0.9	0.8		0.3	

The SAMPLE NOT SUBMITTED FOR ANALYSIS DUE TO NO FLOW CONDITION OF RIVER

Sample not submitted for analysis from February 2nd week to May-2023 , due to NO FLOW condition of the River

Water Quality Summary for the period : 2022-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	2886	0.000	213.9
2	EC_GEN (µmho/cm)	21	119	38	82
3	pH_GEN (pH units)	21	7.9	7.0	7.4
4	TDS (mg/L)	21	88	23	52
5	Temp (deg C)	21	28.0	22.0	25.5
6	Turb (NTU)	21	90.0	0.1	16.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	21	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	21	47	6	27
3	B (mg/L)	21	0.28	0.00	0.08
4	Ca (mg/L)	21	19	5	9
5	Cl (mg/L)	21	13.8	4.6	9.3
6	CO3 (mg/L)	21	0.0	0.0	0
7	F (mg/L)	21	0.13	0.02	0.05
8	Fe (mg/L)	17	0.6	0.1	0.2
9	HCO3 (mg/L)	21	57	8	32
10	K (mg/L)	21	3.2	0.9	1.5
11	Mg (mg/L)	21	6.0	0.0	1.9
12	Na (mg/L)	21	10.0	2.7	6.2
13	NO2-N (mgN/L)	21	0.03	0.00	0.01
14	o-PO4-P (mg P/L)	18	0.196	0.000	0.019
15	SiO2 (mg/L)	21	22.0	7.3	11.3
16	SO4 (mg/L)	21	39.8	0.3	5.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD (mg/L)	21	2.9	0.2	1.2
2	COD (mg/L)	21	20.0	3.0	8.6
3	DO (mg/L)	21	8.1	4.4	6.3
4	DO_SAT% (%)	21	100	54	77
5	FCol-MPN (MPN/100mL)	21	35000	0	4729
6	Tcol-MPN (MPN/100mL)	21	160000	1700	27062
	TRACE & TOXIC				
1	As (µg/L)	17	0.4	0.0	0.1
2	Cd (µg/L)	17	0.5	0.0	0
3	Cr (µg/L)	17	11.9	0.0	2.1
4	Cu (µg/L)	17	5.6	0.3	1.6
5	Hg (µg/L)	17	0.4	0.0	0.1
6	Ni (µg/L)	17	6.1	0.1	1.1
7	Pb (µg/L)	17	13.1	0.0	1.4
8	Zn (µg/L)	17	25.3	1.1	4.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	21	48	12	21
2	HAR_Total (mgCaCO3/L)	21	54	13	29
3	Na% (%)	21	45	17	30
4	RSC (-)	21	0.3	0.0	0
5	SAR (-)	21	0.9	0.2	0.5

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	444.6	470.7	815.9	236.1	387.3	886.7	17.51
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	64	52	43	41	45	57	61
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	7.5	7.3	7.1	6.2	7.0	6.9	7.1
6	TDS (mg/L)							
7	Temp (deg C)	27.0	24.5	25.0	24.5	24.0	25.3	25.0
8	Turb (NTU)							
	CHEMICAL							
1	ALK-TOT (mgCaCO3/L)	15	15	12	12	12	13	19
2	B (mg/L)		0.00		0.00		0.00	0.11
3	Ca (mg/L)	4	3	3	3	3	4	6
4	Cl (mg/L)	6.7	5.8	5.7	3.9	5.0	6.9	7.1
5	F (mg/L)	0.02	0.06	0.02	0.00	0.04	0.03	0.08
6	Fe (mg/L)		0.2	0.3	0.1		0.2	0.1
7	HCO3 (mg/L)	19	19	14	14	14	16	23
8	K (mg/L)	0.8	0.7	1.0	2.6	0.9	0.9	1.3
9	Mg (mg/L)	2.9	2.9	1.9	1.0	1.9	2.4	1.9
10	Na (mg/L)	3.9	3.2	2.8	3.0	2.9	3.7	3.1
11	NO2+NO3 (mg N/L)	0.59	0.49	0.43	0.38	0.63	0.66	0.31
12	NO2-N (mgN/L)	0.01	0.01	0.01	0.00	0.01	0.09	0.01
13	NO3-N (mgN/L)	0.57	0.48	0.42	0.38	0.62	0.57	0.29
14	o-PO4-P (mg P/L)		0.000	0.000	0.000		0.036	0.001
15	SiO2 (mg/L)		9.5	8.4	7.3		10.1	5.2
16	SO4 (mg/L)	3.6	3.2	2.3	3.0	3.0	3.9	3.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.2	0.6		2.6	0.4	0.2	0.6
2	COD (mg/L)							
3	DO (mg/L)	7.8	6.8	7.2	6.9	6.8	6.7	5.3
4	DO_SAT% (%)	98	80	87	83	81	81	65
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)					0.1	0.6	
2	Cd (µg/L)					0.6	0.0	
3	Cr (µg/L)					4.9	8.0	
4	Cu (µg/L)					3.3	0.5	
5	Hg (µg/L)							
6	Ni (µg/L)					1.5	10.2	
7	Pb (µg/L)						0.5	
8	Zn (µg/L)						0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	10	8	8	8	8	10	16
2	HAR_Total (mgCaCO3/L)	22	20	16	12	16	20	24
3	Na% (%)	27	25	26	30	27	28	21
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.3	0.3	0.4	0.3	0.4	0.3
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	296.9	550.2	287.7	324.0	580.6	190.4	444.0	673.0
2	EC_FLD (µmho/cm)					308			
3	EC_GEN (µmho/cm)	60	54	56	60	68	72	60	68
4	pH_FLD (pH units)					6.7			
5	pH_GEN (pH units)	7.1	6.3	6.9	7.1	7.5	7.0	7.4	7.2
6	TDS (mg/L)		30	40	48	44	51	42	42
7	Temp (deg C)	24.5	24.0	24.3	23.8	24.1	26.3	24.7	25.9
8	Turb (NTU)							16.8	27.1
	CHEMICAL								
1	ALK-TOT (mgCaCO3/L)	16	13	16	14	15	17	11	19
2	B (mg/L)	0.08	0.11	0.31	0.00	0.07	0.01	0.08	0.10
3	Ca (mg/L)	5	5	7	9	7	6	6	7
4	Cl (mg/L)	6.9	7.5	5.3	4.8	5.7	6.7	9.2	8.6
5	F (mg/L)	0.12		0.05	0.05	0.05	0.04	0.06	0.05
6	Fe (mg/L)	0.3	0.3	0.3	0.4	0.5	0.2	0.3	0.2
7	HCO3 (mg/L)	19	16	19	18	19	20	14	24
8	K (mg/L)	1.0	0.9	0.9	1.4	4.0	0.9	1.1	1.4
9	Mg (mg/L)	1.7	1.5	0.7	0.5	0.9	2.6	2.2	1.8
10	Na (mg/L)	4.2	3.8	3.3	3.0	3.4	4.3	3.9	4.8
11	NO2+NO3 (mg N/L)	0.48	0.60	0.78	0.67	0.33	0.13	0.40	
12	NO2-N (mgN/L)	0.01	0.01	0.01	0.01	0.02	0.00	0.01	0.01
13	NO3-N (mgN/L)	0.46	0.58	0.77	0.67	0.31	0.13	0.39	
14	o-PO4-P (mg P/L)	0.207	0.000	0.010	0.021	0.140	0.013	0.016	0.024
15	SiO2 (mg/L)	11.4	13.5	5.0	4.7	8.8	9.8	4.7	11.7
16	SO4 (mg/L)	3.1	2.9	3.2	6.9	4.6	9.5	6.8	6.6
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	0.4	0.8	1.4	1.3	1.7	0.4	0.8	1.1
2	COD (mg/L)				15.5	9.5	12.5	12.6	10.2
3	DO (mg/L)	4.8	5.3	5.5	5.1	6.2	6.3	5.9	6.1
4	DO_SAT% (%)	57	63	66	59	73	77	71	75
5	FCol-MPN (MPN/100mL)				2990	1160	1300	570	1917
6	Tcol-MPN (MPN/100mL)				17100	15400	2300	3747	13608
	TRACE & TOXIC								
1	As (µg/L)			1.0	1.2	5.7	0.3	0.4	0.0
2	Cd (µg/L)			0.0	0.2	0.2	0.0	0.0	0.0
3	Cr (µg/L)			15.0	19.2	1.1	0.5	5.2	1.5
4	Cu (µg/L)			3.0	1.5	0.8	0.6	3.0	1.2
5	Hg (µg/L)							0.0	0.1
6	Ni (µg/L)				3.6	4.6	0.8	2.8	0.5
7	Pb (µg/L)			2.0	1.2	0.0	0.2	0.3	0.2
8	Zn (µg/L)			7.0	10.0	15.0	4.2	5.1	3.8
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	13	12	17	22	17	15	14	19
2	HAR_Total (mgCaCO3/L)	20	18	20	24	21	26	23	26
3	Na% (%)	30	30	25	20	23	26	26	28
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4
	PESTICIDES								

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	7.848	103.8	51.94	35.90	102.7	46.92
2	EC_FLD (µmho/cm)						
3	EC_GEN (µmho/cm)	111	75	66	78	87	75
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	7.6	7.8	7.4	6.9	7.0	7.1
6	TDS (mg/L)						
7	Temp (deg C)	25.8	25.3	25.0	24.3	23.8	23.5
8	Turb (NTU)						
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	52	27		23	29	23
2	B (mg/L)	0.09	0.04	0.08			0.00
3	Ca (mg/L)	8	6	4	6	7	6
4	Cl (mg/L)	11.7	7.8	6.0	9.4	9.1	8.9
5	F (mg/L)	0.08	0.03	0.06		0.09	0.06
6	Fe (mg/L)	0.1	0.1	0.2	0.1		0.1
7	HCO3 (mg/L)	63	33	28	28	35	29
8	K (mg/L)	2.5	0.9	0.9	1.0	1.3	1.0
9	Mg (mg/L)	3.4	2.9	3.2	3.4	3.4	2.9
10	Na (mg/L)	8.0	4.0	3.5	4.6	5.1	4.6
11	NO2+NO3 (mg N/L)	0.53	0.41	0.46	0.61	0.71	0.70
12	NO2-N (mgN/L)	0.09	0.01	0.01	0.01	0.01	0.01
13	NO3-N (mgN/L)	0.44	0.41	0.45	0.60	0.70	0.69
14	o-PO4-P (mg P/L)	0.124	0.005	0.000	0.000		0.036
15	SiO2 (mg/L)	12.4	10.2	11.1	11.0		8.0
16	SO4 (mg/L)	1.2	0.9	2.1	2.2	2.4	1.6
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.8	0.9		0.9	1.2	0.8
2	COD (mg/L)						
3	DO (mg/L)	6.8	7.4	6.6	5.9	5.9	6.6
4	DO_SAT% (%)	82	90	80	70	69	78
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	As (µg/L)				0.3		
2	Cd (µg/L)				0.2		
3	Cr (µg/L)				1.1		
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)				5.2		
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	20	16	11	14	17	16
2	HAR_Total (mgCaCO3/L)	34	28	22	28	31	28
3	Na% (%)	31	23	23	26	26	26
4	RSC (-)	0.4	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.6	0.3	0.3	0.4	0.4	0.4
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	11.01	26.11	21.18	35.47	28.26	164.2
2	EC_FLD (µmho/cm)					69	
3	EC_GEN (µmho/cm)	76	74	74	68	79	85
4	pH_FLD (pH units)					7.0	
5	pH_GEN (pH units)	7.4	7.1	7.3	7.1	7.5	7.4
6	TDS (mg/L)		37	39	40	47	63
7	Temp (deg C)	24.0	24.3	22.8	22.5	22.8	23.3
8	Turb (NTU)						
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	24	21	19	23	23	24
2	B (mg/L)	0.15	0.24	0.02	0.02	0.11	0.08
3	Ca (mg/L)	7	7	5	9	6	7
4	Cl (mg/L)	8.5	9.2	9.2	6.6	10.8	11.1
5	F (mg/L)	0.07	0.08		0.07	0.33	0.06
6	Fe (mg/L)	0.0	0.2	0.0	0.2	0.1	0.2
7	HCO3 (mg/L)	29	26	23	28	28	30
8	K (mg/L)	2.3	1.1	1.1	1.1	1.2	1.4
9	Mg (mg/L)	3.2	2.4	4.0	0.9	3.4	1.5
10	Na (mg/L)	3.5	3.9	3.9	3.5	4.8	8.8
11	NO2+NO3 (mg N/L)	0.90	0.56	1.16	0.60	9.42	0.19
12	NO2-N (mgN/L)	0.06	0.00	0.01	0.01	0.07	0.00
13	NO3-N (mgN/L)	0.84	0.56	1.15	0.59	9.35	0.18
14	o-PO4-P (mg P/L)	0.005	0.320	0.000	0.000	1.137	0.024
15	SiO2 (mg/L)	5.5	17.1	7.4	7.7	9.9	15.7
16	SO4 (mg/L)	3.0	2.0	2.1	1.8	1.1	3.9
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.7	0.5	1.3	0.7	1.1	1.0
2	COD (mg/L)					16.5	15.0
3	DO (mg/L)	5.8	6.1	6.2	5.9	5.5	5.1
4	DO_SAT% (%)	69	72	72	68	63	60
5	FCol-MPN (MPN/100mL)					8500	501
6	Tcol-MPN (MPN/100mL)					36500	3077
	TRACE & TOXIC						
1	As (µg/L)			1.4	3.5	0.6	2.0
2	Cd (µg/L)	0.1		0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.8		0.1	5.2	5.9	6.1
4	Cu (µg/L)	4.3		1.1	0.8	1.8	2.2
5	Hg (µg/L)						
6	Ni (µg/L)	1.8		0.6	1.2	1.9	11.2
7	Pb (µg/L)	1.5		0.0	0.6	0.0	0.1
8	Zn (µg/L)	8.3		4.1	17.4	3.0	9.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	17	18	14	22	16	17
2	HAR_Total (mgCaCO3/L)	30	28	30	26	30	23
3	Na% (%)	19	23	21	22	25	42
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.1
5	SAR (-)	0.3	0.3	0.3	0.3	0.4	0.9
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter			Summer		
		Nov - Feb			Mar-May		
		2020-2021	2021-2022	2022-2023	2012	2013	2014
	PHYSICAL						
1	Q (cumec)	42.60	71.38	22.86	4.179	0.378	3.504
2	EC_FLD (µmho/cm)						
3	EC_GEN (µmho/cm)	74	86	102	141	148	130
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	7.8	7.4	7.6	6.9	7.5	7.2
6	TDS (mg/L)	50	60	65			
7	Temp (deg C)	21.5	24.6	25.0	24.8	27.5	26.8
8	Turb (NTU)		7.6	1.8			
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	19	23	36	46	45	43
2	B (mg/L)			0.06		0.00	0.10
3	Ca (mg/L)	7	8	10	10	11	10
4	Cl (mg/L)	13.1	10.1	10.1	14.2	14.2	11.0
5	F (mg/L)	0.06	0.08	0.06	0.14		0.10
6	Fe (mg/L)	0.2	0.3	0.2		0.1	0.1
7	HCO3 (mg/L)	23	28	44	56	54	52
8	K (mg/L)	1.1	1.1	1.5	3.1	4.1	3.9
9	Mg (mg/L)	3.0	2.6	2.1	5.3	4.9	4.4
10	Na (mg/L)	4.5	4.9	8.0	7.0	8.7	9.0
11	NO2+NO3 (mg N/L)	0.06			1.50	2.89	2.09
12	NO2-N (mgN/L)	0.00	0.00	0.00	0.12	0.01	0.01
13	NO3-N (mgN/L)	0.06			1.38	2.87	2.07
14	o-PO4-P (mg P/L)	0.000	0.010	0.009		0.155	0.078
15	SiO2 (mg/L)	3.2	9.5	10.8		10.1	7.5
16	SO4 (mg/L)	1.6	7.2	3.7	2.2	2.9	3.7
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.3	0.7	1.3	1.5	0.2	1.0
2	COD (mg/L)			6.4			
3	DO (mg/L)	7.4	6.1	6.6	4.7	4.0	4.3
4	DO_SAT% (%)	83	73	80	56	50	53
5	FCol-MPN (MPN/100mL)			8478			
6	Tcol-MPN (MPN/100mL)			45000			
	TRACE & TOXIC						
1	As (µg/L)	3.8	0.1	0.2		2.2	1.2
2	Cd (µg/L)	0.1	0.0	0.1		0.1	0.0
3	Cr (µg/L)	4.8	0.5	3.4		0.1	0.5
4	Cu (µg/L)	0.1	1.8	2.5		2.8	1.4
5	Hg (µg/L)		0.0	0.0			
6	Ni (µg/L)	53.2	0.5	2.4		14.1	11.4
7	Pb (µg/L)	0.4	0.5	4.4		1.5	2.0
8	Zn (µg/L)	1.3	3.4	6.7		14.1	14.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	17	19	25	26	28	24
2	HAR_Total (mgCaCO3/L)	30	29	34	48	48	42
3	Na% (%)	24	26	33	23	26	29
4	RSC (-)	0.0	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	0.4	0.4	0.6	0.4	0.5	0.6
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

Station Name : SHIMOGA (AKLD0C6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	2015	2016	2019	2022	
	PHYSICAL					
1	Q (cumec)	2.901	2.268	0.000	93.84	
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	135	154	157	101	
4	pH_FLD (pH units)			7.0		
5	pH_GEN (pH units)	7.4	6.5	7.0	7.3	
6	TDS (mg/L)		72	123	60	
7	Temp (deg C)	27.0	27.3	24.0	27.0	
8	Turb (NTU)				20.9	
	CHEMICAL					
1	ALK-TOT (mgCaCO3/L)	44	47	56	33	
2	B (mg/L)	0.37	0.20	0.12	0.03	
3	Ca (mg/L)	11	11	14	13	
4	Cl (mg/L)	15.6	17.6	15.3	7.5	
5	F (mg/L)	0.13		0.09	0.06	
6	Fe (mg/L)	0.1	0.0	0.1	0.3	
7	HCO3 (mg/L)	53	58	69	40	
8	K (mg/L)	3.4	3.1	3.2	2.2	
9	Mg (mg/L)	5.3	6.6	4.8	1.6	
10	Na (mg/L)	7.2	8.6	8.0	5.3	
11	NO2+NO3 (mg N/L)	0.90	0.75	2.20		
12	NO2-N (mgN/L)	0.08	0.10	0.14	0.05	
13	NO3-N (mgN/L)	0.81	0.65	2.06		
14	o-PO4-P (mg P/L)	0.010	0.067	0.052	0.020	
15	SiO2 (mg/L)	4.8	15.3	13.1	5.8	
16	SO4 (mg/L)	2.5	4.6	2.5	6.8	
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	0.7	11.1	6.6	2.4	
2	COD (mg/L)			45.0	4.0	
3	DO (mg/L)	4.0	1.0	2.0	5.2	
4	DO_SAT% (%)	50	12	24	65	
5	FCol-MPN (MPN/100mL)			250	110	
6	Tcol-MPN (MPN/100mL)			945	260	
	TRACE & TOXIC					
1	As (µg/L)		3.1		0.1	
2	Cd (µg/L)				0.0	
3	Cr (µg/L)		2.0		0.7	
4	Cu (µg/L)		0.3		1.8	
5	Hg (µg/L)				0.0	
6	Ni (µg/L)		0.1		0.4	
7	Pb (µg/L)				0.3	
8	Zn (µg/L)		0.7		9.3	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	28	27	35	34	
2	HAR_Total (mgCaCO3/L)	50	54	55	40	
3	Na% (%)	22	24	23	21	
4	RSC (-)	0.0	0.0	0.0	0.0	
5	SAR (-)	0.4	0.5	0.5	0.4	
	PESTICIDES					

2009 to 2011, 2017 to 2018 and 2020 to 2021 and 2023 Sample not collected due to dry bed / no flow condition

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**HARIHARAPURA**	**Code**	:	**HARIHARAPURA**
State	:	Karnataka	District		Chikmagalur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Tungabhadra	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	Tunga
Division	:	Cauvery Division, Bangalore	Sub-Division	:	Upper Tunga SD, Devangere
Drainage Area	:	663 Sq. Km.	Bank	:	Left
Latitude	:	13°31'20"	Longitude	:	75°18'12"
		Opening Date	Closing Date		
Gauge	:	29-10-2014			
Discharge	:	14-12-2018			
Water Quality	:	01-05-2019			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	17.45	17.40	30.00	494.8	775.1	283.4
2	Colour_Cod (-)	Clear	Clear	Light Brown	Brown	Brown	Brown
3	EC_GEN (µmho/cm)	70	59	43	54	40	61
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.4	7.4	6.9	6.9	7.8
6	TDS (mg/L)	40	40	24	37	23	34
7	Temp (deg C)	27.0	26.0	24.0	22.0	21.0	23.0
8	Turb (NTU)	4.2	4.5	2.0	4.3	3.7	2.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	25	21	15	13	12	17
3	B (mg/L)	0.00	0.00	0.00	0.09	0.13	0.20
4	Ca (mg/L)	8	7	5	6	7	10
5	Cl (mg/L)	5.7	4.3	3.9	7.8	8.2	7.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.05	0.06	0.04	0.04	0.03	0.03
8	Fe (mg/L)	0.1	0.2	0.2	0.2	0.1	0.2
9	HCO3 (mg/L)	31	26	18	16	15	20
10	K (mg/L)	0.9	0.8	0.8	1.8	1.1	1.0
11	Mg (mg/L)	1.1	1.0	0.6	0.6	0.0	0.0
12	Na (mg/L)	4.4	4.3	3.1	3.0	2.1	2.8
13	NO2+NO3 (mg N/L)						
16	o-PO4-P (mg P/L)	0.000	0.00	0.00	0.02	0.01	0.00
15	NO3-N (mgN/L)						
			0.052	0.031	0.020	0.000	0.000
17	SiO2 (mg/L)	12.3	12.4	12.3	9.8	8.8	8.7
18	SO4 (mg/L)	1.5	2.0	1.2	2.1	0.4	3.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.4	0.6	1.6	0.8	0.9	0.3
2	COD (mg/L)	3.4	8.0	3.0	19.0	4.0	4.0
3	DO (mg/L)	6.8	7.0	6.6	6.7	6.0	5.1
4	DO_SAT% (%)	85	86	78	77	67	59
5	FCol-MPN (MPN/100mL)	2200	680	780	2200	1100	2100
6	Tcol-MPN (MPN/100mL)	4900	3300	3300	2700	3200	54000
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.0	0.1	0.1	0.2
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.1	0.2
3	Cr (µg/L)	0.0	0.0	0.0	1.4	0.1	0.3
4	Cu (µg/L)	0.3	1.2	0.8	2.2	0.8	0.9
5	Hg (µg/L)	0.0	0.0	0.0	0.4	0.2	0.4
6	Ni (µg/L)	0.2	0.2	0.2	1.3	0.2	0.3
7	Pb (µg/L)	0.0	0.2	0.1	0.3	0.0	0.1
8	Zn (µg/L)	0.1	6.4	5.4	10.1	3.9	4.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	21	17	12	16	17	25
2	HAR_Total (mgCaCO3/L)	26	21	14	18	17	25
3	Na% (%)	26	30	31	24	20	19
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.4	0.4	0.3	0.2	0.2
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	150.4	461.1	352.1	269.1	230.1	126.3
2	Colour_Cod (-)	Brown	Brown	Brown	Brown	Brown	Light Brown
3	EC_GEN (µmho/cm)	48	39	34	68	45	42
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.2	7.0	7.1	7.3	7.3	7.2
6	TDS (mg/L)	30	26	20	40	24	24
7	Temp (deg C)	23.0	21.0	20.0	19.0	19.0	20.0
8	Turb (NTU)	9.2	47.7	75.7	100.0	20.0	11.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	15	8	9	15	14	9
3	B (mg/L)	0.59	0.59	0.03	0.28	0.06	0.12
4	Ca (mg/L)	6	2	2	6	3	4
5	Cl (mg/L)	6.0	6.7	2.1	4.6	5.3	8.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.03	0.03	0.02	0.04	0.04
8	Fe (mg/L)	0.2	0.1	0.2	0.2	0.1	0.1
9	HCO3 (mg/L)	18	10	11	18	17	11
10	K (mg/L)	0.9	1.0	0.9	1.1	0.6	0.8
11	Mg (mg/L)	0.9	1.0	1.2	2.7	2.1	0.5
12	Na (mg/L)	2.7	4.0	2.4	2.8	2.6	4.3
13	NO2+NO3 (mg N/L)						
16	o-PO4-P (mg P/L)	0.00	0.01	0.01	0.03	0.00	0.01
15	NO3-N (mgN/L)						
		0.000	0.000	0.207	0.000	0.021	0.000
17	SiO2 (mg/L)	5.2	2.1	2.7	17.6	16.5	11.0
18	SO4 (mg/L)	1.4	2.8	5.5	10.7	2.5	2.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	1.0	2.9	0.2	0.7	3.5
2	COD (mg/L)	12.0	8.0	3.0	11.5	4.0	20.0
3	DO (mg/L)	7.0	7.8	6.6	6.7	7.4	7.2
4	DO_SAT% (%)	82	87	73	72	80	79
5	FCol-MPN (MPN/100mL)	1100	2100	1300	2100	1700	1300
6	Tcol-MPN (MPN/100mL)	2200	17000	92000	35000	13000	92000
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.0	0.0	0.2	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.2	0.0
3	Cr (µg/L)	0.0	0.5	0.3	1.0	0.1	0.4
4	Cu (µg/L)	0.6	0.6	1.0	1.4	1.1	0.3
5	Hg (µg/L)	0.1	0.2	0.1	0.0	0.1	0.0
6	Ni (µg/L)	0.2	0.2	0.3	0.4	0.4	0.1
7	Pb (µg/L)	0.1	0.1	0.1	0.3	0.1	0.0
8	Zn (µg/L)	3.7	4.3	1.5	3.3	1.9	3.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	16	6	6	16	9	9
2	HAR_Total (mgCaCO3/L)	19	10	11	27	17	11
3	Na% (%)	22	44	30	18	24	44
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.5	0.3	0.2	0.3	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	87.64	74.60	98.65	54.52	49.67	42.98
2	Colour_Cod (-)	Clear	Light Brown	Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	52	51	54	58	58	58
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.3	7.2	7.2	7.5	7.5	7.5
6	TDS (mg/L)	30	32	28	36	38	35
7	Temp (deg C)	21.0	22.0	24.0	24.0	24.0	24.0
8	Turb (NTU)	6.8	12.5	141.0	1.6	1.9	0.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	14	17	20	19	19	21
3	B (mg/L)	0.06	0.06	0.03	0.00	0.00	0.00
4	Ca (mg/L)	4	5	3	8	6	5
5	Cl (mg/L)	7.8	5.0	5.7	6.7	6.7	5.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.04	0.04	0.11	0.04	0.04
8	Fe (mg/L)	0.1	0.1	0.3	0.2		
9	HCO3 (mg/L)	16	20	24	24	23	26
10	K (mg/L)	2.4	0.9	1.6	1.4	1.0	1.0
11	Mg (mg/L)	0.2	0.7	0.9	0.4	0.6	3.3
12	Na (mg/L)	5.7	5.0	7.0	5.8	5.0	6.0
13	NO2+NO3 (mg N/L)						
16	o-PO4-P (mg P/L)	0.01	0.00	0.01	0.00	0.00	0.00
15	NO3-N (mgN/L)						
		0.000	0.010	0.031	0.000	0.000	0.000
17	SiO2 (mg/L)	7.8	7.6	7.4	13.1	12.1	12.7
18	SO4 (mg/L)	1.5	2.4	1.6	8.6	1.7	0.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.6	2.1	1.0	0.8	0.5	0.7
2	COD (mg/L)	14.0	13.0	19.0	4.0	11.0	4.0
3	DO (mg/L)	7.2	7.1	6.9	7.3	7.1	7.1
4	DO_SAT% (%)	81	81	82	87	84	84
5	FCol-MPN (MPN/100mL)	1700	1100	1400	1700	1700	4900
6	Tcol-MPN (MPN/100mL)	11000	14000	3300	13000	17000	13000
	TRACE & TOXIC						
1	As (µg/L)	0.0	0.0	0.0	0.0	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.0	0.1	1.3	0.5	NA	NA
4	Cu (µg/L)	0.6	0.5	1.3	0.2	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.1	0.4	0.5	0.1	NA	NA
7	Pb (µg/L)	0.0	0.0	0.3	0.3	NA	NA
8	Zn (µg/L)	5.6	0.9	4.1	1.9	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	10	12	8	19	15	13
2	HAR_Total (mgCaCO3/L)	11	15	12	21	17	27
3	Na% (%)	48	41	53	36	37	32
4	RSC (-)	0.1	0.0	0.2	0.0	0.0	0.0
5	SAR (-)	0.8	0.6	0.9	0.6	0.5	0.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	13-01-2023	24-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	39.04	50.25	26.14	24.70	20.85	7.167
2	Colour_Cod (-)	Clear	Brown	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	63	61	57	62	63	66
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.6	7.6	7.5	7.6	7.5	7.6
6	TDS (mg/L)	38	40	41	52	50	52
7	Temp (deg C)	25.0	25.0	23.0	25.0	24.0	24.0
8	Turb (NTU)	1.0	0.5	0.9	1.1	0.3	1.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	13	18	24	22	21	20
3	B (mg/L)	0.09	0.13	0.14	0.00	0.03	0.03
4	Ca (mg/L)	7	8	8	6	6	6
5	Cl (mg/L)	8.9	7.5	3.6	8.5	7.5	7.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.04	0.02	0.04	0.04	0.03	0.03
8	Fe (mg/L)			1.1	0.3	0.1	0.2
9	HCO3 (mg/L)	16	22	29	27	26	25
10	K (mg/L)	1.0	1.0	1.0	1.1	1.2	1.1
11	Mg (mg/L)	1.2	0.9	0.2	0.4	0.2	1.2
12	Na (mg/L)	5.0	4.0	4.0	7.0	7.0	6.2
13	NO2+NO3 (mg N/L)						
16	o-PO4-P (mg P/L)	0.00	0.00	0.00	0.00	0.00	0.00
15	NO3-N (mgN/L)						
					0.041	0.010	0.000
17	SiO2 (mg/L)	10.6	10.9	11.5	8.1	7.6	8.1
18	SO4 (mg/L)	5.2	1.2	2.9	0.5	1.7	2.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.8	1.0	0.8	1.6	2.0	2.6
2	COD (mg/L)	8.0	12.0	4.0	7.0	7.0	9.0
3	DO (mg/L)	7.0	7.2	6.5	6.8	7.5	7.5
4	DO_SAT% (%)	85	87	76	82	89	89
5	FCol-MPN (MPN/100mL)	1700	1700	1700	35000	7900	4600
6	Tcol-MPN (MPN/100mL)	54000	35000	35000	160000	14000	11000
	TRACE & TOXIC						
1	As (µg/L)	NA	NA	0.0	0.0	0.1	0.2
2	Cd (µg/L)	NA	NA	0.2	0.0	0.0	0.0
3	Cr (µg/L)	NA	NA	12.9	3.2	0.5	9.9
4	Cu (µg/L)	NA	NA	2.2	3.0	1.1	2.8
5	Hg (µg/L)	NA	NA	0.0	0.0	0.0	0.0
6	Ni (µg/L)	NA	NA	5.0	2.3	1.1	5.3
7	Pb (µg/L)	NA	NA	10.9	5.2	7.5	1.7
8	Zn (µg/L)	NA	NA	15.6	3.2	2.2	26.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	17	20	20	14	16	15
2	HAR_Total (mgCaCO3/L)	22	23	21	16	17	20
3	Na% (%)	32	26	29	47	45	39
4	RSC (-)	0.0	0.0	0.1	0.1	0.1	0.0
5	SAR (-)	0.5	0.4	0.4	0.8	0.7	0.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	14-02-2023	21-02-2023	01-03-2023	14-03-2023	23-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.101	6.340	5.394	4.543	3.764	4.161
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	63	63	58	65	62	65
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.8	7.7	7.8	7.7	7.8
6	TDS (mg/L)	40	44	38	34	36	44
7	Temp (deg C)	24.0	26.0	26.0	26.0	26.0	27.0
8	Turb (NTU)	8.5	6.3	6.3	1.9	5.6	1.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	24	24	25	26	23	19
3	B (mg/L)	0.20	0.12	0.18	0.05	0.01	0.14
4	Ca (mg/L)	9	4	5	7	7	5
5	Cl (mg/L)	5.7	5.3	2.8	5.7	3.6	7.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.06	0.04	0.06	0.06	0.15
8	Fe (mg/L)	0.2	0.5	0.0	0.8	0.0	0.3
9	HCO3 (mg/L)	29	30	31	31	28	23
10	K (mg/L)	1.1	1.1	1.1	1.2	0.0	1.8
11	Mg (mg/L)	0.6	3.6	2.4	1.5	1.6	1.1
12	Na (mg/L)	3.2	3.2	3.2	4.3	4.0	6.3
13	NO2+NO3 (mg N/L)				0.01	0.71	0.73
16	o-PO4-P (mg P/L)	0.01	0.00	0.00	0.01	0.01	0.00
15	NO3-N (mgN/L)				0.00	0.70	0.73
		0.010	0.000	0.000	0.021	0.000	0.000
17	SiO2 (mg/L)	4.4	16.2	7.0	10.3	9.8	10.5
18	SO4 (mg/L)	0.2	0.4	1.0	0.8	0.9	2.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	0.4	0.9	0.5	0.8	0.8
2	COD (mg/L)	7.0	6.0	5.0	13.0	13.0	
3	DO (mg/L)	7.6	6.2	7.0	7.4	6.8	6.5
4	DO_SAT% (%)	90	76	86	91	84	82
5	FCol-MPN (MPN/100mL)	2200	1700	7000	13000	4500	15000
6	Tcol-MPN (MPN/100mL)	54000	54000	28000	22000	33000	17000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.1	0.0	0.1	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.1	0.0	0.0
3	Cr (µg/L)	9.1	2.2	1.6	0.5	0.0	2.8
4	Cu (µg/L)	1.8	3.0	0.3	4.0	3.2	1.8
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	8.2	1.7	1.9	0.0	0.0	0.0
7	Pb (µg/L)	4.2	1.4	9.0	25.9	5.9	4.6
8	Zn (µg/L)	19.5	4.9	4.0	9.2	4.7	2.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	23	11	13	18	18	13
2	HAR_Total (mgCaCO3/L)	25	26	23	24	24	18
3	Na% (%)	21	21	22	27	27	41
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.3	0.3	0.4	0.4	0.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	02-05-2023	11-05-2023	23-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.125	4.152	3.100	1.153	1.700	1.332
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	74	52	66	86	81	71
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.5	7.7	8.1	7.7	8.0
6	TDS (mg/L)	40	40	38	66	56	48
7	Temp (deg C)	27.0	27.0	27.0	28.0	30.0	28.0
8	Turb (NTU)	2.3	1.4	6.0	0.0	2.5	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	25	21	22	22	33	25
3	B (mg/L)	0.23	0.12	0.17	0.00	0.00	0.00
4	Ca (mg/L)	6	4	5	9	12	7
5	Cl (mg/L)	8.9	6.7	8.5	9.6	9.6	7.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.02	0.08	0.08	0.04	0.00	0.08
8	Fe (mg/L)	0.2	0.6	0.0	0.3	0.4	0.8
9	HCO3 (mg/L)	31	26	27	27	40	30
10	K (mg/L)	2.0	2.3	1.3	1.5	2.6	1.6
11	Mg (mg/L)	1.5	1.6	0.9	0.1	2.6	0.9
12	Na (mg/L)	7.5	7.3	7.0	7.8	10.1	6.4
13	NO2+NO3 (mg N/L)	0.24	0.53	0.54	0.24	0.88	0.24
16	o-PO4-P (mg P/L)	0.14	0.41	0.41	0.00	0.01	0.00
15	NO3-N (mgN/L)	0.10	0.11	0.13	0.24	0.87	0.24
		0.310	0.620	0.000	0.000	0.000	0.010
17	SiO2 (mg/L)	15.9	9.0	14.8	13.3	12.4	12.6
18	SO4 (mg/L)	2.4	2.0	1.5	4.5	7.4	1.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.6	0.8	0.6	1.6	0.8	2.6
2	COD (mg/L)						
3	DO (mg/L)	6.6	5.4	6.8	5.6	7.7	7.0
4	DO_SAT% (%)	83	68	85	72	102	89
5	FCol-MPN (MPN/100mL)	22000	130000	2200	240000	46000	110000
6	Tcol-MPN (MPN/100mL)	130000	280000	54000	350000	150000	170000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.2	0.0	0.1	0.1	0.1
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
4	Cu (µg/L)	0.1	0.0	0.0	2.2	1.8	2.2
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	Pb (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
8	Zn (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	16	9	13	23	30	19
2	HAR_Total (mgCaCO3/L)	624	16	17	24	40	22
3	Na% (%)	40	46	46	40	34	37
4	RSC (-)	0.1	0.1	0.1	0.0	0.0	0.1
5	SAR (-)	0.7	0.8	0.7	0.7	0.7	0.6
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	950.6	0.000	103.8
2	EC_GEN (µmho/cm)	36	86	34	59
3	pH_GEN (pH units)	36	8.1	6.9	7.5
4	TDS (mg/L)	36	66	20	38
5	Temp (deg C)	36	30.0	19.0	24.2
6	Turb (NTU)	36	141.0	0.0	14
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	36	33	8	19
3	B (mg/L)	36	0.59	0.00	0.11
4	Ca (mg/L)	36	12	2	6
5	Cl (mg/L)	36	9.6	2.1	6.5
6	CO3 (mg/L)	36	0.0	0.0	0
7	F (mg/L)	36	0.15	0.00	0.05
8	Fe (mg/L)	32	1.1	0.0	0.3
9	HCO3 (mg/L)	36	40	10	23
10	K (mg/L)	36	2.6	0.0	1.2
11	Mg (mg/L)	36	3.6	0.0	1.1
12	Na (mg/L)	36	10.1	2.1	4.9
13	NO2+NO3 (mg N/L)	9	0.88	0.01	0.46
14	NO2-N (mgN/L)	36	0.41	0.00	0.03
15	NO3-N (mgN/L)	9	0.87	0.00	0.35
16	o-PO4-P (mg P/L)	33	0.620	0.000	0.042
	BIOLOGICAL/BACTERIOLOGICAL		17.6	2.1	10.3
18	SO4 (mg/L)	36	10.7	0.2	2.5
1	BOD3-27 (mg/L)	36	3.5	0.2	1.2
2	COD (mg/L)	29	20.0	3.0	8.8
3	DO (mg/L)	36	7.8	5.1	6.9
4	DO_SAT% (%)	36	102	59	82
5	FCol-MPN (MPN/100mL)	36	240000	680	18816
6	Tcol-MPN (MPN/100mL)	36	350000	2200	56803
	TRACE & TOXIC				
1	As (µg/L)	32	0.2	0.0	0.1
2	Cd (µg/L)	32	0.2	0.0	0
3	Cr (µg/L)	32	12.9	0.0	3
4	Cu (µg/L)	32	4.2	0.0	1.5
5	Hg (µg/L)	32	0.4	0.0	0
6	Ni (µg/L)	32	8.7	0.1	2
7	Pb (µg/L)	32	25.9	0.0	3
8	Zn (µg/L)	32	27.0	0.1	6.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	30	6	15
2	HAR_Total (mgCaCO3/L)	36	624	10	36
3	Na% (%)	36	53	18	33
4	RSC (-)	36	0.2	0.0	0
5	SAR (-)	36	0.9	0.2	0.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2022

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

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

S.No	Parameters	Flood				Winter	
		Jun - Oct				Nov - Feb	
		2019	2020	2021	2022	2019-2020	2020-2021
	PHYSICAL						
1	Q (cumec)	66.78	59.79	150.1	231.2	35.76	34.50
2	EC_GEN (µmho/cm)	54	63	49	51	56	65
3	pH_GEN (pH units)	7.3	7.2	7.2	7.3	7.3	7.4
4	TDS (mg/L)	35	43	30	30	39	40
5	Temp (deg C)	26.0	25.4	24.5	22.1	25.5	24.3
6	Turb (NTU)			15.7	29.7		
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	16	14	8	15	15	16
2	B (mg/L)	0.06	0.04	0.07	0.15	0.13	0.00
3	Ca (mg/L)	5	5	4	5	8	6
4	Cl (mg/L)	7.2	6.5	6.2	5.9	6.7	7.9
5	F (mg/L)	0.03	0.03	0.05	0.04	0.05	0.04
6	Fe (mg/L)	0.2	0.2	0.3	0.2	0.4	0.2
7	HCO3 (mg/L)	18	17	9	18	18	20
8	K (mg/L)	0.9	0.8	0.7	1.1	1.2	1.2
9	Mg (mg/L)	2.1	3.0	1.0	0.9	2.1	2.3
10	Na (mg/L)	3.0	3.3	3.0	3.7	3.9	3.4
11	NO2+NO3 (mg N/L)	0.65	0.22	0.02		0.34	0.14
12	NO2-N (mgN/L)	0.10	0.01	0.01	0.01	0.01	0.00
13	NO3-N (mgN/L)	0.55	0.21	0.25		0.33	0.14
14	o-PO4-P (mg P/L)	0.041	0.010	0.010		0.028	0.003
15	SiO2 (mg/L)	11.0	11.6	4.7	2.7	13.9	9.2
16	SO4 (mg/L)	2.8	8.3	5.0	9.5	3.1	1.8
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.1	0.6	1.1	1.3	1.0	0.6
2	COD (mg/L)	8.8	7.7	12.9	9.7	8.3	7.0
3	DO (mg/L)	7.2	8.1	7.0	6.8	6.5	7.2
4	DO_SAT% (%)	89	99	84	78	79	86
5	FCol-MPN (MPN/100mL)	386	644	415	1524	878	
6	Tcol-MPN (MPN/100mL)	7984	2358	2323	23393	3025	
	TRACE & TOXIC						
1	As (µg/L)	0.9	0.3	0.8	0.1	2.2	0.4
2	Cd (µg/L)	0.1	0.0	0.0	0.0	0.1	0.1
3	Cr (µg/L)	1.0	7.9	1.1	0.4	9.1	4.0
4	Cu (µg/L)	0.2	5.6	1.5	0.9	1.1	1.8
5	Hg (µg/L)		0.8	0.0	0.1		
6	Ni (µg/L)	5.5	15.7	18.7	0.3	19.0	44.4
7	Pb (µg/L)	0.1	0.0	0.8	0.1	0.2	1.1
8	Zn (µg/L)	14.8	10.7	4.0	3.9	10.2	1.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	13	12	10	13	19	16
2	HAR_Total (mgCaCO3/L)	21	24	14	17	27	25
3	Na% (%)	24	22	30	32	24	22
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.3	0.3	0.3	0.4	0.3	0.3
	PESTICIDES						

Water Quality Seasonal Average for the period: 2019-2022

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

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

S.No	Parameters	Winter		Summer			
		Nov - Feb		Mar - May			
		2021-2022	2022-2023	2020	2021	2022	2023
	PHYSICAL						
1	Q (cumec)	38.48	27.85	15.56	11.97	15.73	3.114
2	EC_GEN (µmho/cm)	58	61	63	61	72	69
3	pH_GEN (pH units)	7.5	7.6	7.4	7.3	7.6	7.8
4	TDS (mg/L)	40	42	45	41	51	45
5	Temp (deg C)	23.8	24.5	26.0	29.0	27.0	27.3
6	Turb (NTU)	4.7	2.5			5.9	3.1
	CHEMICAL						
1	ALK-TOT (mgCaCO3/L)	17	21	20	16	28	24
2	B (mg/L)		0.08	0.05	0.13	0.04	0.08
3	Ca (mg/L)	5	6	5	7	7	7
4	Cl (mg/L)	7.3	6.4	6.7	8.7	4.9	7.5
5	F (mg/L)	0.07	0.05	0.27	0.04	0.04	0.06
6	Fe (mg/L)	0.2	0.3	0.4	0.1	48.9	0.4
7	HCO3 (mg/L)	21	26	24	19	34	29
8	K (mg/L)	0.8	1.1	1.7	1.1	1.2	1.6
9	Mg (mg/L)	2.1	1.3	2.3	1.3	2.2	1.3
10	Na (mg/L)	4.0	5.0	4.2	3.7	6.0	6.7
11	NO2+NO3 (mg N/L)			0.07	0.03		0.46
12	NO2-N (mgN/L)	0.00	0.00	0.01	0.01	0.00	0.11
13	NO3-N (mgN/L)			0.06	0.02		0.35
14	o-PO4-P (mg P/L)	0.021		0.413	0.000	0.007	
15	SiO2 (mg/L)	13.9	0.007	14.2	13.1	7.2	0.107
16	SO4 (mg/L)	3.7	10.2	3.7	3.4	1.5	12.1
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.2	1.2	0.7	0.4	1.5	1.0
2	COD (mg/L)	10.3	7.0	10.5	6.8	7.3	13.0
3	DO (mg/L)	7.3	7.1	7.0	6.4	6.5	6.6
4	DO_SAT% (%)	86	85	86	84	82	84
5	FCol-MPN (MPN/100mL)		5983	0	615	118	64744
6	Tcol-MPN (MPN/100mL)		40667	170	1650	416	134000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1		0.9	0.1	0.1
2	Cd (µg/L)	0.1	0.0		0.0	0.0	0.0
3	Cr (µg/L)	0.1	5.0		0.0	0.0	5.7
4	Cu (µg/L)	1.0	1.4		1.0	1.6	2.5
5	Hg (µg/L)	0.0	0.0		0.0	0.0	0.0
6	Ni (µg/L)	0.3	3.2		0.0	0.1	3.6
7	Pb (µg/L)	0.3	5.0		27.0	0.2	6.1
8	Zn (µg/L)	6.7	9.8		33.0	3.8	8.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	13	16	14	17	18	18
2	HAR_Total (mgCaCO3/L)	21	21	23	23	27	90
3	Na% (%)	28	32	26	25	28	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.4	0.5	0.4	0.3	0.5	0.6
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	01-06-1980			
Discharge	:	21-06-1980			
Sediment	:	15-09-1995			
Water Quality	:	02-06-1986			

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	40.32	32.74	42.66	739.5	1720	753.5
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	323	270	291	108	99	115
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.6	8.0	7.9	7.3	8.2	7.6
6	TDS (mg/L)	210	182	184	61	65	72
7	Temp (deg C)	25.0	25.0	26.0	25.0	25.0	25.0
8	Turb (NTU)	5.4	5.2	7.6	5.5	3.4	5.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	15.4	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	101	89	91	34	30	36
3	B (mg/L)	0.00	0.04	0.02	0.08	0.12	0.18
4	Ca (mg/L)	29	20	18	7	13	17
5	Cl (mg/L)	30.2	25.2	22.7	11.7	14.2	10.7
6	CO3 (mg/L)	18.6	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.18	0.14	0.01	0.07	0.05	0.08
8	Fe (mg/L)	0.0	0.0	0.2	0.2	0.3	0.4
9	HCO3 (mg/L)	85	109	111	42	37	44
10	K (mg/L)	2.9	2.1	3.4	1.9	1.5	1.5
11	Mg (mg/L)	12.4	9.6	14.8	5.1	1.5	0.0
12	Na (mg/L)	19.9	19.4	17.9	8.7	4.5	5.9
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.00	0.00	0.01	0.01	0.01	0.01
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.000	0.103	0.052	0.090	0.010	0.000
17	SiO2 (mg/L)	16.7	17.3	17.1	7.8	14.5	14.2
18	SO4 (mg/L)	16.7	12.5	16.6	3.9	2.4	4.9
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.2	1.4	1.4	1.0	1.5	1.8
2	COD (mg/L)	5.4	3.0	4.0	3.0	4.0	3.0
3	DO (mg/L)	8.0	6.8	6.1	5.9	7.0	7.4
4	DO_SAT% (%)	97	82	75	71	85	90
5	FCol-MPN (MPN/100mL)	4600	2100	1700	3300	780	3300
6	Tcol-MPN (MPN/100mL)	160000	17000	13000	22000	1400	22000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.2	0.2	0.0	0.5	0.1
2	Cd (µg/L)	0.0	0.0	0.0	0.1	0.0	0.0
3	Cr (µg/L)	0.0	0.0	63.2	0.4	0.7	1.2
4	Cu (µg/L)	1.0	1.1	2.2	2.9	3.5	2.2
5	Hg (µg/L)	0.0	0.0	0.0	1.1	0.2	0.2
6	Ni (µg/L)	0.9	0.7	1.2	0.9	0.8	0.8
7	Pb (µg/L)	0.0	0.0	0.3	2.5	0.5	0.4
8	Zn (µg/L)	0.0	0.5	11.5	11.5	11.4	16.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	73	50	46	17	33	44
2	HAR_Total (mgCaCO3/L)	124	89	108	38	39	44
3	Na% (%)	25	32	26	32	20	22
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.8	0.9	0.8	0.6	0.3	0.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	548.9	1292	617.6	843.2	1033	393.1
2	Colour_Cod (-)	Light Brown	Brown	Light Brown	Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	167	153	160	197	145	130
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.5	7.7	7.6	7.8	7.8
6	TDS (mg/L)	108	104	100	128	82	86
7	Temp (deg C)	26.0	25.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	13.1	69.4	16.1	130.0	34.0	11.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	56	49	16	67	53	44
3	B (mg/L)	0.11	0.16	0.15	0.30	0.02	0.13
4	Ca (mg/L)	12	10	11	15	9	8
5	Cl (mg/L)	18.5	16.7	7.1	19.9	10.7	10.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.09	0.04	0.12	0.11	0.08	0.06
8	Fe (mg/L)	0.2	0.3	0.1	0.2	0.2	0.0
9	HCO3 (mg/L)	69	60	19	82	65	54
10	K (mg/L)	1.8	1.8	1.4	2.0	1.4	1.3
11	Mg (mg/L)	7.8	4.5	8.1	5.8	6.7	6.4
12	Na (mg/L)	9.5	17.0	11.0	14.9	11.1	10.4
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.01	0.01	0.00	0.03	0.01	0.07
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.000	0.010	0.041	0.000	0.021	0.000
17	SiO2 (mg/L)	13.6	4.9	12.2	24.8	20.2	23.0
18	SO4 (mg/L)	8.6	9.1	5.1	10.9	8.7	8.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	0.6	2.7	1.4	0.7	3.3
2	COD (mg/L)	7.0	4.0	3.0	5.5	4.0	19.0
3	DO (mg/L)	6.4	6.8	6.4	6.1	6.6	7.2
4	DO_SAT% (%)	79	82	77	74	80	87
5	FCol-MPN (MPN/100mL)	1100	3300	1700	3300	17000	1700
6	Tcol-MPN (MPN/100mL)	3300	4000	14000	24000	22000	14000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.0	0.1	0.0	0.1
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.1
3	Cr (µg/L)	0.3	0.5	0.0	1.2	0.3	0.1
4	Cu (µg/L)	1.2	1.8	1.9	1.3	1.0	0.6
5	Hg (µg/L)	0.1	0.1	0.2	0.1	0.0	0.1
6	Ni (µg/L)	0.7	0.9	0.3	0.9	0.5	0.3
7	Pb (µg/L)	0.2	0.2	0.1	0.2	0.1	0.0
8	Zn (µg/L)	4.8	5.9	3.3	4.0	3.2	5.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	31	26	28	38	23	20
2	HAR_Total (mgCaCO3/L)	63	44	62	62	51	47
3	Na% (%)	24	44	27	33	32	32
4	RSC (-)	0.0	0.1	0.0	0.1	0.1	0.0
5	SAR (-)	0.5	1.1	0.6	0.8	0.7	0.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		B	B	A	A	A	A
	PHYSICAL						
1	Q (cumec)	181.1	355.9	355.9	142.8	120.1	112.2
2	Colour_Cod (-)	Clear	Light Brown	Light Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	200	362	189	279	266	239
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.0	8.0	7.9	8.2	8.1	8.1
6	TDS (mg/L)	124	208	124	168	176	166
7	Temp (deg C)	25.0	25.0	25.0	23.5	24.0	24.5
8	Turb (NTU)	0.7	27.8	19.9	4.7	2.5	1.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	62	105	61	89	87	83
3	B (mg/L)	0.05	0.02	0.03	0.02	0.04	0.03
4	Ca (mg/L)	18	22	15	18	20	16
5	Cl (mg/L)	20.2	33.4	19.9	27.3	27.0	21.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.10	0.11	0.13	0.13	0.11
8	Fe (mg/L)	0.1	0.1	0.1	0.0	NA	NA
9	HCO3 (mg/L)	76	128	74	108	106	101
10	K (mg/L)	1.4	2.7	2.1	2.5	2.0	2.0
11	Mg (mg/L)	6.7	16.2	5.8	17.0	11.1	11.2
12	Na (mg/L)	17.0	25.0	17.0	22.1	20.0	17.0
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.04	0.01	0.01	0.00	0.00	0.00
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.000	0.031	0.021	0.000	0.010	0.000
17	SiO2 (mg/L)	13.6	13.9	13.6	10.5	11.6	10.9
18	SO4 (mg/L)	17.4	27.6	5.2	13.1	6.6	4.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	2.1	0.4	0.2	1.1	0.5
2	COD (mg/L)	16.0	7.0	5.0	5.0	12.0	5.0
3	DO (mg/L)	6.6	6.7	6.7	6.7	7.5	7.5
4	DO_SAT% (%)	80	81	81	78	89	89
5	FCol-MPN (MPN/100mL)	1100	1100	780	930	1700	780
6	Tcol-MPN (MPN/100mL)	2600	17000	1700	3300	3900	17000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.0	0.0	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.0	0.2	0.3	0.0	NA	NA
4	Cu (µg/L)	0.6	1.2	0.6	0.5	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.3	0.6	0.4	0.4	NA	NA
7	Pb (µg/L)	0.0	0.3	0.1	0.0	NA	NA
8	Zn (µg/L)	1.4	4.7	3.6	0.4	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	45	56	39	46	50	40
2	HAR_Total (mgCaCO3/L)	73	123	63	117	96	87
3	Na% (%)	33	30	36	29	31	29
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.9	1.0	0.9	0.9	0.9	0.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	12-01-2023	24-01-2023
		A	A	A		A	A
	PHYSICAL						
1	Q (cumec)	112.2	120.1	113.8	59.49	55.65	55.65
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	213	257	195	177	167	192
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.0	7.9	8.1	8.4	8.2
6	TDS (mg/L)	122	170	126	131	104	126
7	Temp (deg C)	24.0	22.0	23.0	25.0	25.0	25.0
8	Turb (NTU)	1.8	2.3	1.4	1.8	1.2	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	9.2	0.0
2	ALK-TOT (mgCaCO3/L)	70	97	73	64	55	73
3	B (mg/L)	0.11	0.14	0.14	0.17	0.04	0.06
4	Ca (mg/L)	16	19	15	14	14	15
5	Cl (mg/L)	21.3	24.9	24.1	19.9	19.9	22.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	11.1	0.0
7	F (mg/L)	0.19	0.19	0.19	0.04	0.09	0.13
8	Fe (mg/L)	NA	NA	0.3	0.0	0.3	0.6
9	HCO3 (mg/L)	86	118	88	77	44	89
10	K (mg/L)	2.0	2.0	2.0	2.4	2.6	3.1
11	Mg (mg/L)	11.3	12.6	8.6	5.5	2.6	6.0
12	Na (mg/L)	13.0	15.0	13.0	16.0	16.0	17.0
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.02
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	NA	NA	NA	0.010	0.010	0.010
17	SiO2 (mg/L)	8.3	9.3	9.4	10.8	10.7	11.5
18	SO4 (mg/L)	12.0	1.3	3.3	40.3	43.7	4.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.0	0.8	1.2	1.6	1.4	3.2
2	COD (mg/L)	7.0	13.0	6.0	11.0	5.0	8.0
3	DO (mg/L)	7.8	6.8	5.9	7.8	8.5	7.3
4	DO_SAT% (%)	93	78	69	94	103	88
5	FCol-MPN (MPN/100mL)	1400	680	22000	7000	1700	1700
6	Tcol-MPN (MPN/100mL)	17000	3900	160000	9400	7000	7000
	TRACE & TOXIC						
1	As (µg/L)	NA	NA	0.1	0.1	0.2	0.3
2	Cd (µg/L)	NA	NA	0.3	0.0	0.0	0.1
3	Cr (µg/L)	NA	NA	3.2	2.5	24.6	13.8
4	Cu (µg/L)	NA	NA	5.1	0.4	1.0	2.1
5	Hg (µg/L)	NA	NA	0.0	0.0	0.0	0.0
6	Ni (µg/L)	NA	NA	1.7	3.2	1.8	8.3
7	Pb (µg/L)	NA	NA	11.1	2.4	6.6	10.5
8	Zn (µg/L)	NA	NA	13.8	2.7	21.3	13.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	40	49	37	36	36	37
2	HAR_Total (mgCaCO3/L)	87	101	73	59	47	62
3	Na% (%)	24	24	27	36	41	36
4	RSC (-)	0.0	0.0	0.0	0.1	0.2	0.2
5	SAR (-)	0.6	0.7	0.7	0.9	1.0	0.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	01-02-2023	14-02-2023	21-02-2023	01-03-2023	14-03-2023	23-03-2023
		A		A	A	A	
	PHYSICAL						
1	Q (cumec)	88.74	42.45	40.74	31.71	143.2	64.99
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	181	183	225	228	202	144
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.9	8.2	9.0	8.4	8.2	8.2
6	TDS (mg/L)	100	118	132	150	114	86
7	Temp (deg C)	25.0	25.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	4.5	3.2	8.2	1.9	18.0	8.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	15.9	0.0	15.9	17.2	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	82	68	82	85	71	47
3	B (mg/L)	0.08	0.17	0.08	0.04	0.03	0.21
4	Ca (mg/L)	23	19	23	20	16	12
5	Cl (mg/L)	19.2	16.7	19.2	18.8	18.5	9.6
6	CO3 (mg/L)	19.2	0.0	19.2	20.7	0.0	0.0
7	F (mg/L)	0.11	0.17	0.11	0.15	0.15	0.11
8	Fe (mg/L)	0.5	0.0	0.3	0.5	0.6	0.0
9	HCO3 (mg/L)	61	83	61	62	86	57
10	K (mg/L)	2.0	1.7	2.0	2.3	0.0	2.4
11	Mg (mg/L)	8.7	8.0	8.7	10.0	8.6	3.4
12	Na (mg/L)	10.1	8.9	10.1	14.5	11.8	12.5
13	NO2+NO3 (mg N/L)	NA	NA	NA	1.29	0.78	2.02
14	NO2-N (mgN/L)	0.03	0.01	0.03	0.01	0.01	0.00
15	NO3-N (mgN/L)	NA	NA	NA	1.28	0.77	2.02
16	o-PO4-P (mg P/L)	0.010	0.021	0.010	0.000	0.041	0.000
17	SiO2 (mg/L)	6.3	17.2	10.1	10.2	9.6	12.9
18	SO4 (mg/L)	6.0	3.9	6.0	5.4	5.3	5.2
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.2	1.9	0.8	1.2	1.2
2	COD (mg/L)	9.0	8.0	13.0	9.0	14.0	NA
3	DO (mg/L)	5.6	8.5	7.6	6.8	5.6	5.7
4	DO_SAT% (%)	68	103	92	82	68	69
5	FCol-MPN (MPN/100mL)	680	1700	7000	17000	110000	27000
6	Tcol-MPN (MPN/100mL)	160000	35000	92000	47000	170000	130000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.1	0.3	0.0	0.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.1	0.0	0.0
3	Cr (µg/L)	1.6	0.0	9.9	4.8	0.8	0.0
4	Cu (µg/L)	3.3	0.2	3.0	6.2	2.1	0.0
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	2.0	0.4	5.9	0.0	0.0	0.0
7	Pb (µg/L)	2.6	0.1	2.3	7.5	4.0	0.1
8	Zn (µg/L)	3.6	0.0	12.8	47.4	3.4	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	58	47	58	50	40	31
2	HAR_Total (mgCaCO3/L)	94	80	94	92	76	45
3	Na% (%)	19	19	19	25	25	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.4	0.5	0.7	0.6	0.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	02-05-2023	11-05-2023	23-05-2023
				A	A		
	PHYSICAL						
1	Q (cumec)	30.14	30.92	31.71	96.17	96.17	27.00
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	208	202	208	157	304	196
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.5	8.3	8.3	8.2	7.8	8.2
6	TDS (mg/L)	162	170	124	112	102	120
7	Temp (deg C)	26.0	26.0	26.0	26.0	25.0	25.0
8	Turb (NTU)	1.7	9.1	5.5	0.0	4.2	10.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	9.2	6.5	23.9	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	85	76	76	32	82	55
3	B (mg/L)	0.00	0.22	0.35	0.06	0.00	0.12
4	Ca (mg/L)	15	17	15	10	22	13
5	Cl (mg/L)	18.8	18.8	17.4	16.3	34.4	20.9
6	CO3 (mg/L)	11.1	7.8	28.8	0.0	0.0	0.0
7	F (mg/L)	0.15	0.13	0.15	0.13	0.18	0.11
8	Fe (mg/L)	0.0	0.5	0.0	0.2	0.5	0.2
9	HCO3 (mg/L)	82	76	34	39	100	67
10	K (mg/L)	3.5	3.4	2.5	2.9	4.8	2.3
11	Mg (mg/L)	6.9	5.5	5.6	7.5	8.9	8.0
12	Na (mg/L)	19.0	17.7	16.8	13.4	23.9	15.7
13	NO2+NO3 (mg N/L)	0.53	0.60	0.61	0.53	2.66	0.60
14	NO2-N (mgN/L)	0.00	0.14	0.14	0.14	0.04	0.00
15	NO3-N (mgN/L)	0.53	0.46	0.48	0.39	2.62	0.60
16	o-PO4-P (mg P/L)	0.000	0.723	0.310	0.207	0.000	0.021
17	SiO2 (mg/L)	21.9	5.1	14.7	19.2	19.0	9.4
18	SO4 (mg/L)	3.6	4.4	5.9	26.7	22.8	11.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	0.4	0.7	1.8	1.0	1.2
2	COD (mg/L)	NA	NA	NA	NA	NA	NA
3	DO (mg/L)	6.0	5.6	6.2	6.0	6.4	6.8
4	DO_SAT% (%)	74	69	76	74	77	82
5	FCol-MPN (MPN/100mL)	6800	280000	680	46000	70000	120000
6	Tcol-MPN (MPN/100mL)	49000	1600000	160000	70000	110000	210000
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.1	0.2	0.2	0.4
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	3.5	1.6	0.0	0.0	7.2	27.0
4	Cu (µg/L)	0.5	3.3	0.0	2.3	1.5	2.4
5	Hg (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
6	Ni (µg/L)	3.2	2.0	0.0	0.0	0.0	0.0
7	Pb (µg/L)	1.4	2.6	0.0	0.0	9.3	0.0
8	Zn (µg/L)	2.7	3.6	0.0	0.0	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	39	42	39	26	56	33
2	HAR_Total (mgCaCO3/L)	67	64	62	57	92	66
3	Na% (%)	37	36	36	33	35	33
4	RSC (-)	0.4	0.2	0.3	0.0	0.0	0.0
5	SAR (-)	1.0	1.0	0.9	0.8	1.1	0.8
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	4213	17.01	356.6
2	EC_GEN (µmho/cm)	36	362	99	204
3	pH_GEN (pH units)	36	9.0	7.3	8.1
4	TDS (mg/L)	36	210	61	128
5	Temp (deg C)	36	26.0	22.0	24.9
6	Turb (NTU)	36	130.0	0.0	12.4
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	23.9	0.0	3.1
2	ALK-TOT (mgCaCO3/L)	36	105	16	67
3	B (mg/L)	36	0.35	0.00	0.1
4	Ca (mg/L)	36	29	7	16
5	Cl (mg/L)	36	34.4	7.1	19.7
6	CO3 (mg/L)	36	28.8	0.0	3.8
7	F (mg/L)	36	0.19	0.01	0.12
8	Fe (mg/L)	32	1.0	0.0	0.3
9	HCO3 (mg/L)	36	128	19	74
10	K (mg/L)	36	4.8	0.0	2.2
11	Mg (mg/L)	36	17.0	0.0	8
12	Na (mg/L)	36	25.0	4.5	14.8
13	NO2+NO3 (mg N/L)	9	2.66	0.53	1.07
14	NO2-N (mgN/L)	36	0.14	0.00	0.02
15	NO3-N (mgN/L)	9	2.62	0.39	1.02
16	o-PO4-P (mg P/L)	33	0.723	0.000	0.053
17	SiO2 (mg/L)	36	24.8	4.9	13.2
18	SO4 (mg/L)	36	43.7	1.3	11
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	3.3	0.2	1.4
2	COD (mg/L)	29	19.0	3.0	7.5
3	DO (mg/L)	36	8.5	5.6	6.8
4	DO_SAT% (%)	36	103	68	82
5	FCol-MPN (MPN/100mL)	36	280000	680	21434
6	Tcol-MPN (MPN/100mL)	36	1600000	1400	94431
	TRACE & TOXIC				
1	As (µg/L)	32	0.5	0.0	0.1
2	Cd (µg/L)	32	0.3	0.0	0
3	Cr (µg/L)	32	63.2	0.0	7.1
4	Cu (µg/L)	32	6.4	0.2	1.9
5	Hg (µg/L)	32	1.1	0.0	0.1
6	Ni (µg/L)	32	8.5	0.3	2.1
7	Pb (µg/L)	32	19.5	0.0	2.8
8	Zn (µg/L)	32	47.4	0.0	8.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	73	17	40
2	HAR_Total (mgCaCO3/L)	36	124	38	74
3	Na% (%)	36	44	19	30
4	RSC (-)	36	0.4	0.0	0
5	SAR (-)	36	1.1	0.3	0.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Flood						
		Jun - Oct						
		2009	2010	2011	2012	2013	2014	2015
	PHYSICAL							
1	Q (cumec)	308.8	776.5	1445	361.9	1657	449.3	297.8
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	121	88	56	63	80	100	107
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	7.7	7.2	6.4	7.1	7.0	7.4	7.2
6	TDS (mg/L)							
7	Temp (deg C)	26.8	25.6	26.9	25.8	25.8	26.5	27.0
8	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	38	27	16	19	22	30	32
3	B (mg/L)	0.01				0.01	0.11	0.82
4	Ca (mg/L)	10	7	4	4	6	8	9
5	Cl (mg/L)	12.6	9.6	6.0	6.6	9.9	11.9	11.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.07	0.12	0.06	0.05	0.05	0.10	0.13
8	Fe (mg/L)	0.2	0.3	0.1		0.2	0.1	0.2
9	HCO3 (mg/L)	47	33	20	23	27	36	40
10	K (mg/L)	1.6	1.2	1.0	1.1	1.1	1.4	1.3
11	Mg (mg/L)	4.4	3.9	1.5	2.7	2.4	4.1	3.9
12	Na (mg/L)	8.4	5.2	3.5	3.8	5.5	6.7	5.9
13	NH3-N (mg N/L)							
14	NO2+NO3 (mg N/L)	0.65	0.69	0.53	0.71	0.73	0.77	0.66
15	NO2-N (mgN/L)	0.00	0.33	0.00	0.01	0.03	0.03	0.05
16	NO3-N (mgN/L)	0.65	0.36	0.53	0.71	0.69	0.74	0.61
17	o-PO4-P (mg P/L)	0.140	0.010	0.005		0.031	0.021	0.134
18	SiO2 (mg/L)	10.2	9.0	5.8		8.7	4.9	17.4
19	SO4 (mg/L)	3.5	4.2	3.4	3.2	3.7	4.1	4.1
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)			0.4	0.5	0.4	0.5	0.4
2	COD (mg/L)							
3	DO (mg/L)		5.3	6.1	6.4	6.3	5.7	5.5
4	DO_SAT% (%)		65	76	78	77	71	69
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)				0.6	4.7		
2	Cd (µg/L)				0.2	0.0		
3	Cr (µg/L)				7.3	1.3		
4	Cu (µg/L)				5.4	0.7		
5	Hg (µg/L)							
6	Ni (µg/L)				2.3	7.6		
7	Pb (µg/L)					5.4		
8	Zn (µg/L)					0.0		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	24	18	10	11	16	19	23
2	HAR_Total (mgCaCO3/L)	42	34	16	22	26	36	39
3	Na% (%)	28	24	31	26	30	28	24
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.4	0.4	0.4	0.5	0.5	0.4
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Flood						
		Jun - Oct						
		2016	2017	2018	2019	2020	2021	2022
	PHYSICAL							
1	Q (cumec)	325.9	248.1	447.3	302.6	148.3	458.9	596.7
2	EC_FLD (µmho/cm)				271			
3	EC_GEN (µmho/cm)	85	60	97	137	157	111	194
4	pH_FLD (pH units)				7.4			
5	pH_GEN (pH units)	6.4	7.1	7.3	7.5	7.5	7.6	7.8
6	TDS (mg/L)	45	46	66	103	95	77	123
7	Temp (deg C)	24.8	24.3	25.5	25.4	25.4	24.5	25.1
8	Turb (NTU)						12.8	23.6
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	1.0
2	ALK-TOT (mgCaCO3/L)	24	17	22	46	48	30	60
3	B (mg/L)	0.11	0.03	0.24	0.09	0.04	0.10	0.09
4	Ca (mg/L)	5	7	5	10	12	9	15
5	Cl (mg/L)	8.3	5.9	10.6	14.6	17.3	11.6	18.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	1.2
7	F (mg/L)		0.05	0.09	0.28	0.10	0.08	0.09
8	Fe (mg/L)	0.4	0.2	0.4	0.2	0.4	0.3	0.2
9	HCO3 (mg/L)	29	21	27	56	58	37	70
10	K (mg/L)	1.3	1.1	1.2	1.9	1.7	1.4	1.9
11	Mg (mg/L)	2.2	1.6	2.4	6.1	6.6	5.0	7.4
12	Na (mg/L)	10.4	3.3	6.0	7.2	10.3	6.1	14.0
13	NH3-N (mg N/L)		3.27					
14	NO2+NO3 (mg N/L)	0.89	0.89	0.43	0.43	0.29	0.40	
15	NO2-N (mgN/L)	0.03	0.01	0.03	0.14	0.00	0.00	0.02
16	NO3-N (mgN/L)	0.86	0.88	0.40	0.30	0.29	0.77	
17	o-PO4-P (mg P/L)	0.016	0.661	0.021	0.037	0.017	0.010	0.025
18	SiO2 (mg/L)	32.3	4.7	6.8	9.9	12.0	4.8	15.1
19	SO4 (mg/L)	4.7	4.0	10.6	3.2	11.2	7.3	10.6
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.4	0.5	1.1	6.1	1.2	0.8	1.6
2	COD (mg/L)			14.5	30.6	16.3	12.3	6.2
3	DO (mg/L)	7.3	5.7	6.9	6.4	7.7	6.4	6.7
4	DO_SAT% (%)	87	68	84	78	94	76	81
5	FCol-MPN (MPN/100mL)			3985	2128	2080	576	3124
6	Tcol-MPN (MPN/100mL)			17650	38400	7540	2584	22533
	TRACE & TOXIC							
1	As (µg/L)		3.0	0.2	9.6	0.6	0.2	0.1
2	Cd (µg/L)		0.0	0.2	0.2	0.3	0.0	0.0
3	Cr (µg/L)		11.0	6.4	2.3	17.6	2.4	4.6
4	Cu (µg/L)		2.0	1.2	1.2	5.2	1.8	1.5
5	Hg (µg/L)					1.1	0.1	0.1
6	Ni (µg/L)			4.6	7.9	14.7	1.0	0.7
7	Pb (µg/L)		2.0	1.3	0.2	0.1	0.6	0.3
8	Zn (µg/L)		7.0	4.9	15.6	18.6	5.1	5.8
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	12	17	13	26	30	22	38
2	HAR_Total (mgCaCO3/L)	21	24	24	52	57	43	69
3	Na% (%)	48	22	47	23	28	24	30
4	RSC (-)	0.1	0.0	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	0.3	0.8	0.4	0.6	0.4	0.7
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter				
		Nov - Feb				
		2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL					
1	Q (cumec)	145.7	80.10	52.15	90.40	134.8
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	152	154	177	235	211
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	7.5	7.7	7.2	7.5	7.4
6	TDS (mg/L)					
7	Temp (deg C)	25.8	26.4	28.0	25.3	25.5
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	45	50	59	78	68
3	B (mg/L)	0.06	0.05			0.00
4	Ca (mg/L)	12	11	13	22	15
5	Cl (mg/L)	17.5	19.0	20.1	26.6	21.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.06	0.05		0.19	0.29
8	Fe (mg/L)	0.1	0.0	0.0		0.1
9	HCO3 (mg/L)	55	61	72	95	83
10	K (mg/L)	2.4	1.2	1.5	1.6	1.7
11	Mg (mg/L)	5.8	7.3	6.8	6.3	6.8
12	Na (mg/L)	9.0	8.2	12.6	15.1	17.5
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	0.97	0.86	1.00	0.83	1.25
15	NO2-N (mgN/L)	0.02	0.01	0.44	0.01	0.00
16	NO3-N (mgN/L)	0.95	0.85	0.56	0.83	1.25
17	o-PO4-P (mg P/L)	0.021	0.016	0.000		0.021
18	SiO2 (mg/L)	13.4	11.1			9.6
19	SO4 (mg/L)	2.7	4.3	5.3	4.1	3.8
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD3-27 (mg/L)		1.8	0.6	0.9	3.0
2	COD (mg/L)					
3	DO (mg/L)		6.4	6.2	5.4	5.2
4	DO_SAT% (%)		79	79	66	64
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)			0.2	3.6	
2	Cd (µg/L)			0.2		
3	Cr (µg/L)			3.2	0.2	
4	Cu (µg/L)				0.4	
5	Hg (µg/L)					
6	Ni (µg/L)			5.6	8.9	
7	Pb (µg/L)					
8	Zn (µg/L)					
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	30	27	32	56	38
2	HAR_Total (mgCaCO3/L)	54	57	60	82	66
3	Na% (%)	26	23	29	26	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.5	0.7	0.7	0.9
	PESTICIDES					

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter				
		Nov - Feb				
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019
	PHYSICAL					
1	Q (cumec)	48.62	65.37	33.12	37.25	43.17
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	222	178	174	155	135
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	7.9	7.3	8.0	7.8	7.9
6	TDS (mg/L)			96	99	85
7	Temp (deg C)	25.2	25.0	24.3	25.0	24.8
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	54	59	47	54	68
3	B (mg/L)	0.21	0.18	0.20	0.06	0.09
4	Ca (mg/L)	15	17	13	11	14
5	Cl (mg/L)	22.0	19.3	23.1	15.8	14.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.15	0.17	3.42	0.14	0.10
8	Fe (mg/L)	0.0	0.1	0.0	0.0	0.2
9	HCO3 (mg/L)	66	72	57	66	83
10	K (mg/L)	4.1	1.7	1.6	1.4	1.6
11	Mg (mg/L)	7.3	6.3	7.9	7.2	7.3
12	Na (mg/L)	8.6	9.1	9.9	9.0	10.2
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	1.68	0.81	1.07	0.36	6.26
15	NO2-N (mgN/L)	0.39	0.00	0.01	0.01	0.07
16	NO3-N (mgN/L)	1.29	0.81	1.06	0.36	6.19
17	o-PO4-P (mg P/L)	0.021	0.181	0.000	0.000	1.240
18	SiO2 (mg/L)	4.9	16.0	10.1	9.6	10.0
19	SO4 (mg/L)	4.4	3.9	9.5	7.1	4.0
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD3-27 (mg/L)	1.3	1.5	1.1	1.2	1.1
2	COD (mg/L)					16.0
3	DO (mg/L)	5.4	7.3	7.2	7.5	6.6
4	DO_SAT% (%)	65	88	85	90	79
5	FCol-MPN (MPN/100mL)					3380
6	Tcol-MPN (MPN/100mL)					27830
	TRACE & TOXIC					
1	As (µg/L)			1.0	2.3	0.4
2	Cd (µg/L)	0.0		0.0	0.1	0.0
3	Cr (µg/L)	1.2		0.2	7.6	1.0
4	Cu (µg/L)	5.7		1.3	2.2	0.3
5	Hg (µg/L)					
6	Ni (µg/L)	1.6		3.9	1.7	8.7
7	Pb (µg/L)	0.9		1.0	0.5	0.1
8	Zn (µg/L)	9.7		0.7	16.4	1.5
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	38	42	31	28	36
2	HAR_Total (mgCaCO3/L)	68	68	64	58	66
3	Na% (%)	20	22	25	25	25
4	RSC (-)	0.0	0.0	0.0	0.0	0.1
5	SAR (-)	0.5	0.5	0.5	0.5	0.5
	PESTICIDES					

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Winter			
		Nov - Feb			
		2019-2020	2020-2021	2021-2022	2022-2023
	PHYSICAL				
1	Q (cumec)	171.9	55.25	141.7	88.65
2	EC_FLD (µmho/cm)				
3	EC_GEN (µmho/cm)	179	150	194	215
4	pH_FLD (pH units)				
5	pH_GEN (pH units)	7.6	7.7	7.9	8.2
6	TDS (mg/L)	125	106	132	137
7	Temp (deg C)	24.1	25.0	24.6	24.3
8	Turb (NTU)			5.3	2.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	3.4
2	ALK-TOT (mgCaCO3/L)	61	54	61	77
3	B (mg/L)	0.10			0.09
4	Ca (mg/L)	16	12	14	18
5	Cl (mg/L)	15.6	13.5	19.2	21.9
6	CO3 (mg/L)	0.0	0.0	0.0	4.1
7	F (mg/L)	0.12	0.09	0.13	0.13
8	Fe (mg/L)	0.4	0.1	0.1	0.3
9	HCO3 (mg/L)	74	66	74	85
10	K (mg/L)	2.2	1.5	1.9	2.2
11	Mg (mg/L)	6.8	7.2	8.4	9.3
12	Na (mg/L)	9.8	7.7	12.3	14.9
13	NH3-N (mg N/L)				
14	NO2+NO3 (mg N/L)	0.97	0.11		
15	NO2-N (mgN/L)	0.01	0.00	0.01	0.01
16	NO3-N (mgN/L)	0.96	0.11		
17	o-PO4-P (mg P/L)	0.031	0.000	0.026	0.009
18	SiO2 (mg/L)	14.3	2.4	22.5	10.5
19	SO4 (mg/L)	9.5	7.1	9.8	12.1
	BIOLOGICAL/BACTERIOLOGIC				
1	BOD3-27 (mg/L)	2.8	0.9	1.5	1.3
2	COD (mg/L)	22.0		10.0	8.5
3	DO (mg/L)	6.8	7.8	7.4	7.3
4	DO_SAT% (%)	81	94	89	87
5	FCol-MPN (MPN/100mL)	653			3939
6	Tcol-MPN (MPN/100mL)	4233			42958
	TRACE & TOXIC				
1	As (µg/L)	4.3	1.4	0.3	0.2
2	Cd (µg/L)	0.0	0.1	0.0	0.1
3	Cr (µg/L)	7.1	12.0	0.4	6.9
4	Cu (µg/L)	6.6	18.2	2.6	1.9
5	Hg (µg/L)			0.0	0.0
6	Ni (µg/L)	4.4	73.7	1.4	2.6
7	Pb (µg/L)	0.1	2.7	0.4	4.5
8	Zn (µg/L)	7.9	2.1	7.8	8.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	41	30	35	44
2	HAR_Total (mgCaCO3/L)	69	59	70	83
3	Na% (%)	23	21	28	28
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	0.5	0.4	0.7	0.7
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Summer				
		Mar - May				
		2009	2010	2011	2012	2013
	PHYSICAL					
1	Q (cumec)	61.46	38.27	46.91	88.92	33.34
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	149	228	258	157	186
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	7.4	7.8	7.4	7.1	7.2
6	TDS (mg/L)					
7	Temp (deg C)	29.3	26.9	30.4	28.0	28.5
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	48	76	78	48	58
3	B (mg/L)	0.07	0.06	0.29		0.00
4	Ca (mg/L)	12	18	19	13	15
5	Cl (mg/L)	17.2	22.2	22.9	17.0	18.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.08	0.18	0.39	0.16	
8	Fe (mg/L)	0.2	0.1	0.1		0.1
9	HCO3 (mg/L)	59	93	96	58	71
10	K (mg/L)	1.4	2.2	2.2	2.0	1.6
11	Mg (mg/L)	4.4	7.8	8.7	5.1	6.8
12	Na (mg/L)	11.3	16.4	17.0	9.1	11.5
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	0.49	0.95	0.99	1.74	1.90
15	NO2-N (mgN/L)	0.01	0.04	0.01	0.07	0.01
16	NO3-N (mgN/L)	0.48	0.90	0.98	1.67	1.88
17	o-PO4-P (mg P/L)	0.016	0.010	0.016		0.031
18	SiO2 (mg/L)	11.0	13.3	15.8		13.1
19	SO4 (mg/L)	2.6	3.9	4.8	4.9	6.0
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)				1.0	0.7
2	COD (mg/L)					
3	DO (mg/L)			5.8	5.3	5.0
4	DO_SAT% (%)			77	67	65
5	FCol-MPN (MPN/100mL)					
6	Tcol-MPN (MPN/100mL)					
	TRACE & TOXIC					
1	As (µg/L)			1.6	1.1	6.8
2	Cd (µg/L)			0.0	0.2	0.1
3	Cr (µg/L)			1.1	2.3	0.4
4	Cu (µg/L)	1.7			2.0	3.8
5	Hg (µg/L)					
6	Ni (µg/L)	11.7			9.2	3.3
7	Pb (µg/L)				3.7	2.5
8	Zn (µg/L)				10.0	123.6
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	30	46	48	33	38
2	HAR_Total (mgCaCO3/L)	48	78	84	54	66
3	Na% (%)	33	31	30	26	27
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	0.8	0.8	0.5	0.6
	PESTICIDES					

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Summer				
		Mar - May				
		2014	2015	2016	2017	2018
	PHYSICAL					
1	Q (cumec)	118.8	35.17	34.31	12.50	25.17
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	239	230	144	164	247
4	pH_FLD (pH units)					
5	pH_GEN (pH units)	7.5	7.4	6.8	7.9	7.8
6	TDS (mg/L)			68	94	152
7	Temp (deg C)	28.0	28.3	30.0	26.3	27.0
8	Turb (NTU)					
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	77	83	39	59	101
3	B (mg/L)	0.11	0.40	0.22	0.19	0.05
4	Ca (mg/L)	18	17	13	9	22
5	Cl (mg/L)	23.3	22.7	20.2	15.3	11.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.27	0.27		0.18	0.21
8	Fe (mg/L)	0.1	0.1	0.2	0.0	0.0
9	HCO3 (mg/L)	94	101	47	72	123
10	K (mg/L)	1.8	5.0	1.4	1.7	2.1
11	Mg (mg/L)	8.7	9.2	5.8	8.7	13.9
12	Na (mg/L)	17.2	15.3	6.3	12.7	7.0
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	2.24	1.45	0.88	0.62	0.84
15	NO2-N (mgN/L)	0.01	0.05	0.01	0.03	0.00
16	NO3-N (mgN/L)	2.23	1.40	0.87	0.60	0.84
17	o-PO4-P (mg P/L)	0.052	0.021	0.000	0.041	0.041
18	SiO2 (mg/L)	10.3	6.0	14.3	7.9	9.4
19	SO4 (mg/L)	5.1	5.2	6.1	7.8	10.8
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	2.8	2.3	0.5	0.7	0.9
2	COD (mg/L)					12.0
3	DO (mg/L)	5.8	5.2	5.2	6.1	5.5
4	DO_SAT% (%)	75	67	68	75	68
5	FCol-MPN (MPN/100mL)					280
6	Tcol-MPN (MPN/100mL)					560
	TRACE & TOXIC					
1	As (µg/L)	5.7		3.0		0.6
2	Cd (µg/L)	0.5				0.0
3	Cr (µg/L)	0.5		3.0		0.3
4	Cu (µg/L)	1.0		0.5		2.3
5	Hg (µg/L)					
6	Ni (µg/L)	7.9		3.3		0.2
7	Pb (µg/L)	2.9				0.9
8	Zn (µg/L)	16.0		9.8		0.7
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	44	42	32	23	56
2	HAR_Total (mgCaCO3/L)	80	80	56	59	113
3	Na% (%)	31	28	20	29	12
4	RSC (-)	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	0.8	0.7	0.4	0.7	0.3
	PESTICIDES					

Water Quality Seasonal Average for the period: 2008-2022

Station Name : HONNALI (AKL00X6) **Division : Cauvery Division, Bangalore**

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

S.No	Parameters	Summer				
		Mar - May				
		2019	2020	2021	2022	2023
	PHYSICAL					
1	Q (cumec)	38.86	35.79	Dry Bed	74.25	61.33
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)	223	222		238	205
4	pH_FLD (pH units)	7.6				
5	pH_GEN (pH units)	7.1	7.7		8.1	8.2
6	TDS (mg/L)	163	145		179	127
7	Temp (deg C)	27.5	23.5		26.4	25.4
8	Turb (NTU)				8.6	6.6
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		1.9	6.3
2	ALK-TOT (mgCaCO3/L)	79	76		77	68
3	B (mg/L)	0.10	0.04		0.04	0.11
4	Ca (mg/L)	17	17		17	16
5	Cl (mg/L)	20.2	20.2		16.1	19.3
6	CO3 (mg/L)	0.0	0.0		2.3	7.6
7	F (mg/L)	0.19	0.15		0.19	0.14
8	Fe (mg/L)	0.1	0.0		0.1	0.4
9	HCO3 (mg/L)	96	93		90	67
10	K (mg/L)	2.8	3.2		2.2	2.7
11	Mg (mg/L)	9.5	11.1		12.7	7.2
12	Na (mg/L)	11.8	6.5		12.5	16.1
13	NH3-N (mg N/L)					
14	NO2+NO3 (mg N/L)	1.42	0.18			1.07
15	NO2-N (mgN/L)	0.01	0.01		0.00	0.05
16	NO3-N (mgN/L)	1.41	0.17			1.02
17	o-PO4-P (mg P/L)	0.000	0.439		0.050	0.145
18	SiO2 (mg/L)	11.9	14.4		7.0	13.5
19	SO4 (mg/L)	8.6	7.0		12.7	10.1
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	3.6	1.3		2.2	1.1
2	COD (mg/L)	45.5	21.5		7.2	11.5
3	DO (mg/L)	7.6	6.5		6.5	6.1
4	DO_SAT% (%)	96	78		81	75
5	FCol-MPN (MPN/100mL)	580	20		225	75276
6	Tcol-MPN (MPN/100mL)	1265	790		1279	282889
	TRACE & TOXIC					
1	As (µg/L)	1.3			0.4	0.2
2	Cd (µg/L)	0.0			0.0	0.0
3	Cr (µg/L)	0.0			0.1	11.6
4	Cu (µg/L)	2.5			1.9	2.4
5	Hg (µg/L)				0.0	0.0
6	Ni (µg/L)	2.9			0.9	4.0
7	Pb (µg/L)	2.4			0.1	5.6
8	Zn (µg/L)	4.9			3.2	14.3
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	43	42		42	39
2	HAR_Total (mgCaCO3/L)	83	88		95	69
3	Na% (%)	23	11		22	33
4	RSC (-)	0.1	0.0		0.0	0.1
5	SAR (-)	0.6	0.3		0.6	0.9
	PESTICIDES					

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	01-06-1990			
Discharge	:	24-07-1990			
Sediment	:	23-07-2014			
Water Quality	:	01-07-1994			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	10.03	32.44	8.712	11.37	103.0	183.8
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Light Brown	Brown
3	EC_GEN (µmho/cm)	664	799	801	923	272	242
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.0	8.0	8.1	7.9	8.1
6	TDS (mg/L)	426	452	480	508	154	142
7	Temp (deg C)	25.0	25.0	25.0	24.0	25.0	25.0
8	Turb (NTU)	8.8	10.2	1.6	6.5	5.5	5.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	160	218	200	223	78	75
3	B (mg/L)	0.03	0.14	0.16	0.50	0.50	0.59
4	Ca (mg/L)	34	45	43	66	24	24
5	Cl (mg/L)	89.5	92.7	115.4	136.7	32.0	29.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.36	0.47	0.41	0.34	0.13	0.15
8	Fe (mg/L)	0.0	0.0	0.1	0.0	0.0	0.3
9	HCO3 (mg/L)	195	266	244	272	95	91
10	K (mg/L)	3.3	3.9	4.4	5.3	34.0	30.9
11	Mg (mg/L)	30.5	32.3	25.2	26.7	12.8	8.3
12	Na (mg/L)	59.4	66.1	82.9	99.0	13.8	13.3
13	NO2-N (mgN/L)	0.00	0.04	0.01	0.02	0.01	0.02
14	o-PO4-P (mg P/L)	0.000	0.093	0.021	0.030	0.021	0.000
15	SiO2 (mg/L)	21.1	21.2	20.7	16.6	7.9	15.3
16	SO4 (mg/L)	35.7	32.6	41.0	45.7	18.4	14.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD (mg/L)	2.2	0.8	2.4	2.4	1.9	0.5
2	COD (mg/L)	10.4	9.0	11.0	15.0	23.0	18.0
3	DO (mg/L)	5.6	5.8	6.6	6.7	6.2	5.7
4	DO_SAT% (%)	68	70	80	80	75	69
5	FCol-MPN (MPN/100mL)	200	780	200	7000	3300	2200
6	Tcol-MPN (MPN/100mL)	17000	2400	2100	17000	22000	3300
	TRACE & TOXIC						
1	As (µg/L)	0.4	0.6	0.5	0.4	0.2	0.2
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.1
3	Cr (µg/L)	0.5	0.0	0.2	0.1	0.3	0.6
4	Cu (µg/L)	1.0	1.0	1.4	1.5	1.4	2.9
5	Hg (µg/L)	0.0	0.0	0.0	0.2	0.4	0.2
6	Ni (µg/L)	3.8	1.1	1.1	1.0	2.8	1.3
7	Pb (µg/L)	0.0	0.0	0.1	0.2	0.3	0.6
8	Zn (µg/L)	0.1	0.9	0.0	2.4	4.4	9.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	84	112	107	166	61	59
2	HAR_Total (mgCaCO3/L)	211	247	212	277	114	93
3	Na% (%)	38	37	46	43	16	18
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	1.8	2.5	2.6	0.6	0.6

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	63.01	494.5	66.87	202.8	72.97	50.39
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	420	237	378	278	369	395
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	7.6	7.9	7.6	8.0	8.1
6	TDS (mg/L)	260	140	240	168	226	222
7	Temp (deg C)	25.0	24.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	13.1	163.7	53.9	80.0	40.0	31.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	117	69	106	83	109	114
3	B (mg/L)	0.09	0.16	0.14	0.33	0.05	0.06
4	Ca (mg/L)	29	18	25	25	25	23
5	Cl (mg/L)	49.7	30.5	47.9	34.4	49.7	47.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.17	0.14	0.16	0.13	0.17	0.36
8	Fe (mg/L)	0.0	0.3	0.1	0.0	0.1	0.1
9	HCO3 (mg/L)	143	85	130	101	133	139
10	K (mg/L)	3.0	2.8	2.6	2.6	2.6	2.7
11	Mg (mg/L)	22.8	7.2	20.7	7.3	20.8	17.9
12	Na (mg/L)	22.3	23.2	22.2	17.7	26.2	27.9
13	NO2-N (mgN/L)	0.08	0.01	0.01	0.03	0.03	0.01
14	o-PO4-P (mg P/L)	0.010	0.000	0.031	0.000	0.021	0.000
15	SiO2 (mg/L)	15.5	14.0	14.6	27.2	27.2	13.1
16	SO4 (mg/L)	16.2	14.1	16.4	11.7	17.6	32.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	1.2	1.6	2.7	1.4	1.6	1.7
2	COD (mg/L)	7.0	10.0	8.0	7.5	5.0	28.0
3	DO (mg/L)	5.2	7.0	6.3	5.3	5.8	5.7
4	DO_SAT% (%)	63	83	76	64	70	69
5	FCol-MPN (MPN/100mL)	2700	2200	2200	2200	2200	2200
6	Tcol-MPN (MPN/100mL)	35000	3300	17000	35000	2700	17000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.2	0.2	0.2	0.2	0.2
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.0	2.1	0.2	3.2	0.1	0.2
4	Cu (µg/L)	1.4	3.8	2.2	1.3	1.4	1.1
5	Hg (µg/L)	0.1	0.1	0.1	0.0	0.0	0.0
6	Ni (µg/L)	0.8	1.3	0.6	0.8	0.9	0.8
7	Pb (µg/L)	0.0	0.3	0.1	0.0	0.3	0.1
8	Zn (µg/L)	2.4	9.9	1.0	3.7	2.7	3.6
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	73	44	62	63	62	59
2	HAR_Total (mgCaCO3/L)	168	74	148	93	149	133
3	Na% (%)	22	40	24	29	27	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.8	1.2	0.8	0.8	0.9	1.1

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	B	B	A	A	B
	PHYSICAL						
1	Q (cumec)	41.73	51.52	71.46	31.28	31.74	35.47
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	461	620	523	594	748	784
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	7.9	8.1	8.1	8.0	8.2
6	TDS (mg/L)	268	424	362	372	425	536
7	Temp (deg C)	24.0	25.0	25.0	24.0	24.0	24.0
8	Turb (NTU)	9.0	12.5	66.2	2.6	0.7	0.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	119	157	164	225	223	228
3	B (mg/L)	0.10	0.00	0.00	0.14	0.11	0.40
4	Ca (mg/L)	30	31	31	35	42	45
5	Cl (mg/L)	67.5	86.3	69.9	49.3	92.7	100.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.25	0.26	0.27	0.30	0.32	0.32
8	Fe (mg/L)	0.0	0.5	0.5	0.0	NA	NA
9	HCO3 (mg/L)	145	191	201	275	272	279
10	K (mg/L)	4.7	3.7	3.8	4.1	4.0	4.0
11	Mg (mg/L)	23.0	27.3	23.8	29.3	34.3	37.7
12	Na (mg/L)	33.5	52.0	38.9	39.8	54.0	54.0
13	NO2-N (mgN/L)	0.01	0.01	0.01	0.01	0.00	0.01
14	o-PO4-P (mg P/L)	0.010	0.041	0.010	0.000	0.000	0.021
15	SiO2 (mg/L)	10.8	10.3	10.8	14.3	17.0	16.9
16	SO4 (mg/L)	25.1	25.2	16.1	19.7	24.7	21.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD (mg/L)	1.6	1.3	2.0	1.4	1.1	0.5
2	COD (mg/L)	11.0	8.0	4.0	8.0	28.0	23.0
3	DO (mg/L)	7.0	5.9	6.7	7.3	7.5	7.3
4	DO_SAT% (%)	83	71	81	87	89	87
5	FCol-MPN (MPN/100mL)	1100	54000	1700	1700	3300	1400
6	Tcol-MPN (MPN/100mL)	3200	160000	35000	13000	17000	13000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.1	0.1	0.2	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.0	0.9	0.9	0.0	NA	NA
4	Cu (µg/L)	1.1	1.2	1.2	0.6	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.6	1.7	1.7	0.6	NA	NA
7	Pb (µg/L)	0.0	0.3	0.3	0.0	NA	NA
8	Zn (µg/L)	3.1	9.3	9.3	2.8	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	75	79	78	87	106	113
2	HAR_Total (mgCaCO3/L)	171	192	177	209	248	269
3	Na% (%)	29	37	32	29	32	30
4	RSC (-)	0.0	0.0	0.0	0.4	0.0	0.0
5	SAR (-)	1.1	1.6	1.3	1.2	1.5	1.4

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	
		B	A	A	
	PHYSICAL				
1	Q (cumec)	28.96	6.423	4.086	
2	Colour_Cod (-)	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	663	694	643	
4	Odour_Code (-)	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.1	8.0	8.3	
6	TDS (mg/L)	410	434	402	
7	Temp (deg C)	24.0	24.0	24.0	
8	Turb (NTU)	0.6	0.8	0.8	
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	243	247	215	
3	B (mg/L)	0.19	0.13	0.10	
4	Ca (mg/L)	39	44	47	
5	Cl (mg/L)	56.1	57.9	55.4	
6	CO3 (mg/L)	0.0	0.0	0.0	
7	F (mg/L)	0.21	0.21	0.25	
8	Fe (mg/L)	NA	NA	0.2	**Sample not submitted for analysis from January-2023 to May-2023 , due to NO FLOW condition of the River**
9	HCO3 (mg/L)	297	302	263	
10	K (mg/L)	4.0	4.0	4.0	
11	Mg (mg/L)	35.7	38.9	30.4	
12	Na (mg/L)	37.0	37.0	33.0	
13	NO2-N (mgN/L)	0.00	0.00	0.00	
14	o-PO4-P (mg P/L)	NA	NA	NA	
15	SiO2 (mg/L)	11.6	12.6	13.1	
16	SO4 (mg/L)	7.9	14.5	14.0	
	BIOLOGICAL/BACTERIOLOGIC/				
1	BOD (mg/L)	1.2	1.4	1.2	
2	COD (mg/L)	8.0	22.0	4.0	
3	DO (mg/L)	7.0	6.4	6.3	
4	DO_SAT% (%)	83	76	75	
5	FCol-MPN (MPN/100mL)	2600	1400	17000	
6	Tcol-MPN (MPN/100mL)	22000	22000	92000	
	TRACE & TOXIC				
1	As (µg/L)	NA	NA	0.2	
2	Cd (µg/L)	NA	NA	0.0	
3	Cr (µg/L)	NA	NA	5.8	
4	Cu (µg/L)	NA	NA	1.9	
5	Hg (µg/L)	NA	NA	0.0	
6	Ni (µg/L)	NA	NA	1.8	
7	Pb (µg/L)	NA	NA	18.3	
8	Zn (µg/L)	NA	NA	12.9	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	97	110	118	
2	HAR_Total (mgCaCO3/L)	246	272	245	
3	Na% (%)	24	23	22	
4	RSC (-)	0.0	0.0	0.0	
5	SAR (-)	1.0	1.0	0.9	

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	332	494.5	0.000	50.15
2	EC_GEN (µmho/cm)	21	923	237	548
3	pH_GEN (pH units)	21	8.3	7.6	8
4	TDS (mg/L)	21	536	140	336
5	Temp (deg C)	21	25.0	24.0	24.6
6	Turb (NTU)	21	163.7	0.6	24.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	21	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	21	247	69	161
3	B (mg/L)	21	0.59	0.00	0.19
4	Ca (mg/L)	21	66	18	34
5	Cl (mg/L)	21	136.7	29.1	66.2
6	CO3 (mg/L)	21	0.0	0.0	0
7	F (mg/L)	21	0.47	0.13	0.26
8	Fe (mg/L)	17	0.5	0.0	0.1
9	HCO3 (mg/L)	21	302	85	196
10	K (mg/L)	21	34.0	2.6	6.4
11	Mg (mg/L)	21	38.9	7.2	24.4
12	Na (mg/L)	21	99.0	13.3	40.6
13	NO2-N (mgN/L)	21	0.08	0.00	0.02
14	o-PO4-P (mg P/L)	18	0.093	0.000	0.017
15	SiO2 (mg/L)	21	27.2	7.9	15.8
16	SO4 (mg/L)	21	45.7	7.9	22.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD (mg/L)	21	2.7	0.5	1.5
2	COD (mg/L)	21	28.0	4.0	12.8
3	DO (mg/L)	21	7.5	5.2	6.3
4	DO_SAT% (%)	21	89	63	76
5	FCol-MPN (MPN/100mL)	21	54000	200	5313
6	Tcol-MPN (MPN/100mL)	21	160000	2100	26238
	TRACE & TOXIC				
1	As (µg/L)	17	0.6	0.1	0.3
2	Cd (µg/L)	17	0.1	0.0	0
3	Cr (µg/L)	17	5.8	0.0	0.9
4	Cu (µg/L)	17	3.8	0.6	1.6
5	Hg (µg/L)	17	0.4	0.0	0.1
6	Ni (µg/L)	17	3.8	0.6	1.3
7	Pb (µg/L)	17	18.3	0.0	1.2
8	Zn (µg/L)	17	12.9	0.0	4.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	21	166	44	86
2	HAR_Total (mgCaCO3/L)	21	277	74	188
3	Na% (%)	21	46	16	30
4	RSC (-)	21	0.4	0.0	0
5	SAR (-)	21	2.6	0.6	1.3

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	22.59	56.14	118.8	31.66	16.87	132.2	148.5
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	298	292	343	343	334	307	247
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	8.0	7.9	7.8	7.4	7.4	7.5	7.4
6	TDS (mg/L)							
7	Temp (deg C)	25.1	25.8	26.2	26.2	25.8	26.5	26.0
8	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	88	85	106	100	119	92	69
3	B (mg/L)	0.33	0.04				0.01	0.11
4	Ca (mg/L)	29	24	27	27	31	29	20
5	Cl (mg/L)	28.8	34.0	42.3	39.5	34.4	33.8	28.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.19	0.26	0.22	0.29	0.32	0.30	0.16
8	Fe (mg/L)	0.1	0.2	0.5	0.1		0.3	0.6
9	HCO3 (mg/L)	108	104	129	122	133	112	85
10	K (mg/L)	3.1	3.4	2.5	2.6	3.0	2.8	3.9
11	Mg (mg/L)	8.7	9.0	13.1	11.0	8.3	7.1	9.1
12	Na (mg/L)	17.3	22.0	25.1	23.9	21.3	27.2	16.2
13	NO2+NO3 (mg N/L)	1.36	1.20	1.70	1.69	2.37	3.25	2.90
14	NO2-N (mgN/L)	0.02	0.03	0.01	0.01	0.01	0.01	0.05
15	NO3-N (mgN/L)	1.34	1.17	1.69	1.68	2.35	3.23	2.85
16	o-PO4-P (mg P/L)	0.000	0.023	0.028	0.000		0.090	0.062
17	SiO2 (mg/L)	10.0	10.7	9.6	10.2		7.9	6.4
18	SO4 (mg/L)	12.5	15.6	11.1	7.0	10.2	13.7	12.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)							1.4
2	COD (mg/L)							
3	DO (mg/L)							6.0
4	DO_SAT% (%)							74
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)					1.6	6.0	
2	Cd (µg/L)					0.7	0.3	
3	Cr (µg/L)					3.4	1.0	
4	Cu (µg/L)					11.6	1.9	
5	Hg (µg/L)							
6	Ni (µg/L)					3.5	11.9	
7	Pb (µg/L)						12.8	
8	Zn (µg/L)						0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	72	60	68	68	78	73	51
2	HAR_Total (mgCaCO3/L)	108	97	123	114	112	103	88
3	Na% (%)	25	30	29	31	29	34	29
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.7	1.0	0.9	1.0	0.9	1.1	0.8
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	12.94	3.026		8.376	34.26	25.43	55.26	97.64
2	EC_FLD (µmho/cm)					294			
3	EC_GEN (µmho/cm)	311	569		253	314	370	357	492
4	pH_FLD (pH units)					7.6			
5	pH_GEN (pH units)	7.5	7.5		7.7	7.6	7.9	8.0	8.0
6	TDS (mg/L)		350		151	223	236	234	298
7	Temp (deg C)	27.5	26.8		25.8	25.0	25.7	25.1	24.8
8	Turb (NTU)							25.7	33.9
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	0.0	2.4	0.0
2	ALK-TOT (mgCaCO3/L)	89	135		80	85	95	100	133
3	B (mg/L)	0.67	0.16		0.08	0.16	0.07	0.12	0.19
4	Ca (mg/L)	25	34		27	18	30	26	32
5	Cl (mg/L)	38.9	83.2		25.0	37.0	41.4	42.1	65.2
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	0.0	2.9	0.0
7	F (mg/L)	0.34			0.15	0.18	0.31	0.16	0.25
8	Fe (mg/L)	0.2	0.2		0.3	0.3	0.2	0.2	0.1
9	HCO3 (mg/L)	108	165		98	104	121	117	162
10	K (mg/L)	3.4	4.2		2.0	3.8	2.6	2.3	7.4
11	Mg (mg/L)	10.2	28.0		8.7	13.6	17.2	15.8	20.4
12	Na (mg/L)	20.9	42.7		28.8	21.4	20.7	21.3	39.9
13	NO2+NO3 (mg N/L)	1.06	2.48		0.24	1.36	0.80	2.31	
14	NO2-N (mgN/L)	0.01	0.01		0.01	0.06	0.00	0.01	0.02
15	NO3-N (mgN/L)	1.04	2.48		0.23	1.30	0.80	2.30	
16	o-PO4-P (mg P/L)	0.256	0.031		0.007	0.034	0.024	0.005	0.019
17	SiO2 (mg/L)	14.6	13.5		7.1	12.6	11.7	5.0	16.4
18	SO4 (mg/L)	12.3	34.5		11.6	22.3	13.9	11.8	24.1
	BIOLOGICAL/BACTERIOLOGIC								
1	BOD3-27 (mg/L)	1.3	2.2		3.3	1.4	0.7	0.6	1.7
2	COD (mg/L)				15.7	10.3	25.0	10.4	11.7
3	DO (mg/L)	4.8	6.4		6.7	6.6	7.4	6.4	6.1
4	DO_SAT% (%)	61	80		82	80	90	77	74
5	FCol-MPN (MPN/100mL)				3790	1833	963	458	5612
6	Tcol-MPN (MPN/100mL)				14900	20733	4167	2850	24800
	TRACE & TOXIC								
1	As (µg/L)				9.9	1.7	0.1	0.8	0.3
2	Cd (µg/L)				0.3	0.1	0.1	0.0	0.0
3	Cr (µg/L)				7.4	4.3	7.7	1.1	0.6
4	Cu (µg/L)				2.0	2.2	0.6	2.2	1.6
5	Hg (µg/L)							0.7	0.1
6	Ni (µg/L)				6.7	9.0	0.1	1.1	1.4
7	Pb (µg/L)				0.6	0.0	0.2	0.5	0.2
8	Zn (µg/L)				7.5	18.7	0.9	4.5	4.2
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	63	84		67	44	76	66	79
2	HAR_Total (mgCaCO3/L)	106	201		103	100	148	132	164
3	Na% (%)	29	28		34	30	23	26	31
4	RSC (-)	0.0	0.0		0.0	0.1	0.0	0.0	0.0
5	SAR (-)	0.9	1.3		1.3	0.9	0.7	0.8	1.3
	PESTICIDES								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2013-2014	2014-2015
	PHYSICAL						
1	Q (cumec)	5.039	10.37	10.84	17.05	4.564	13.91
2	EC_FLD (µmho/cm)						
3	EC_GEN (µmho/cm)	382	456	602	460	526	633
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	7.9	7.8	7.9	7.3	7.6	8.3
6	TDS (mg/L)						
7	Temp (deg C)	24.8	24.5	25.2	26.5	26.5	25.0
8	Turb (NTU)						
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	133	149	161	137	153	177
3	B (mg/L)	0.19	0.15	0.13		0.02	0.44
4	Ca (mg/L)	34	42	44	38	43	50
5	Cl (mg/L)	40.6	48.6	79.4	58.0	67.1	96.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.28	0.30	0.32		0.40	0.38
8	Fe (mg/L)	0.1	0.1	0.0	0.0	0.1	0.0
9	HCO3 (mg/L)	162	182	197	168	187	216
10	K (mg/L)	2.7	2.1	3.7	2.1	2.3	8.7
11	Mg (mg/L)	13.1	16.5	21.1	14.1	18.5	22.4
12	Na (mg/L)	24.1	32.2	45.3	32.2	40.5	40.5
13	NO2+NO3 (mg N/L)	0.88	1.58	2.65	2.12	2.05	2.44
14	NO2-N (mgN/L)	0.01	0.04	0.01	0.01	0.01	0.01
15	NO3-N (mgN/L)	0.86	1.54	2.64	2.11	2.03	2.42
16	o-PO4-P (mg P/L)	0.031	0.000	0.000	0.000	0.021	0.010
17	SiO2 (mg/L)	11.5	13.2	12.4	12.1	13.3	7.7
18	SO4 (mg/L)	6.1	12.2	22.9	12.3	9.8	12.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)						1.3
2	COD (mg/L)						
3	DO (mg/L)						6.7
4	DO_SAT% (%)						81
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	86	104	110	94	108	124
2	HAR_Total (mgCaCO3/L)	141	173	197	153	185	217
3	Na% (%)	27	29	32	31	32	28
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	0.9	1.1	1.4	1.1	1.3	1.2
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					Summer	
		Nov - Feb					Mar - May	
		2018-2019	2019-2020	2021-2022	2022-2023	2012 - 2013, 2015 - 2016 to 2017 - 2018 and 2020 - 2021 Sample not collected due to dry bed / no flow condition	2022	2009 to 2021 Sample not collected due to dry bed / no flow condition
	PHYSICAL							
1	Q (cumec)	1.078	27.87	51.41	22.99		62.90	
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	575	574	601	688		345	
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	7.9	8.0	8.0	8.1		7.8	
6	TDS (mg/L)	296	450	387	430		216	
7	Temp (deg C)	25.5	24.8	24.4	24.0		24.0	
8	Turb (NTU)			10.3	1.1		66.2	
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	3.4	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	182	209	151	230		116	
3	B (mg/L)	0.05	0.15		0.18		0.12	
4	Ca (mg/L)	50	27	35	42		50	
5	Cl (mg/L)	80.2	74.7	82.5	68.7		22.7	
6	CO3 (mg/L)	0.0	0.0	4.1	0.0		0.0	
7	F (mg/L)	0.34	0.23	0.29	0.27		0.21	
8	Fe (mg/L)	0.0	1.3	0.0	0.1		0.2	
9	HCO3 (mg/L)	222	255	176	281		141	
10	K (mg/L)	3.0	3.4	3.5	4.0		3.5	
11	Mg (mg/L)	14.6	31.8	25.3	34.4		0.0	
12	Na (mg/L)	53.0	39.8	48.0	42.5		17.9	
13	NO2+NO3 (mg N/L)	0.91	2.11					
14	NO2-N (mgN/L)	0.00	0.01	0.00	0.00		0.04	
15	NO3-N (mgN/L)	0.91	2.09					
16	o-PO4-P (mg P/L)	0.000	0.000	0.000	0.007		0.060	
17	SiO2 (mg/L)	8.8	12.1	9.1	14.2		7.0	
18	SO4 (mg/L)	23.0	13.9	22.1	17.1		20.1	
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	1.0	4.3	1.2	1.1		1.8	
2	COD (mg/L)	8.0	10.5		15.5		4.0	
3	DO (mg/L)	6.8	3.6	6.7	7.0		5.8	
4	DO_SAT% (%)	82	44	80	83		69	
5	FCol-MPN (MPN/100mL)	650	873		4567		170	
6	Tcol-MPN (MPN/100mL)	1150	2815		29833		1700	
	TRACE & TOXIC							
1	As (µg/L)		1.9	1.0	0.2		0.5	
2	Cd (µg/L)		0.0	0.0	0.0		0.0	
3	Cr (µg/L)		6.2	0.3	2.9		0.4	
4	Cu (µg/L)		2.9	2.4	1.2		3.8	
5	Hg (µg/L)			0.0	0.0		0.0	
6	Ni (µg/L)		8.0	1.3	1.2		1.0	
7	Pb (µg/L)		0.2	0.8	9.2		0.2	
8	Zn (µg/L)		9.8	4.8	7.8		11.1	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	124	67	87	105		126	
2	HAR_Total (mgCaCO3/L)	185	200	192	248		126	
3	Na% (%)	38	26	33	27		23	
4	RSC (-)	0.0	0.4	0.1	0.1		0.0	
5	SAR (-)	1.7	1.1	1.5	1.2		0.7	
	PESTICIDES							

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	21-03-1985			
Discharge	:	11-06-1985			
Sediment	:	10-12-1997			
Water Quality	:	02-06-1986			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.841	4.037	5.248	4.449	7.854	17.39
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	575	698	588	731	750	792
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.1	8.9	8.2	8.3	8.2
6	TDS (mg/L)	402	450	412	414	442	534
7	Temp (deg C)	26.0	27.0	27.0	26.0	25.0	25.0
8	Turb (NTU)	3.0	3.0	0.7	3.3	3.2	6.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	44.3	0.0	34.4	0.0
2	ALK-TOT (mgCaCO3/L)	163	230	187	237	262	221
3	B (mg/L)	0.00	0.07	0.07	0.17	0.14	0.21
4	Ca (mg/L)	29	51	24	26	34	41
5	Cl (mg/L)	60.4	73.5	63.5	68.2	75.6	78.8
6	CO3 (mg/L)	0.0	0.0	53.4	0.0	41.4	0.0
7	F (mg/L)	0.64	0.79	0.62	0.56	0.61	0.71
8	Fe (mg/L)	0.0	0.0	0.0	0.1	0.2	0.1
9	HCO3 (mg/L)	199	280	120	289	236	269
10	K (mg/L)	3.4	4.5	5.7	6.3	6.5	6.6
11	Mg (mg/L)	18.7	10.4	12.9	25.5	28.8	25.8
12	Na (mg/L)	75.1	90.0	81.3	103.1	85.4	89.4
13	NO2-N (mgN/L)	0.00	0.20	0.00	0.02	0.02	0.00
14	o-PO4-P (mg P/L)	0.010	0.227	0.093	0.140	0.050	0.040
15	SiO2 (mg/L)	15.8	15.4	15.8	17.2	8.3	15.6
16	SO4 (mg/L)	39.8	18.7	42.8	44.8	24.7	46.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.4	2.2	1.0	1.6	4.4	0.9
2	COD (mg/L)	10.4	4.0	6.0	18.0	20.0	27.0
3	DO (mg/L)	6.8	6.2	7.8	6.5	7.0	6.8
4	DO_SAT% (%)	84	78	98	80	85	82
5	FCol-MPN (MPN/100mL)	450	680	790	1200	1400	2600
6	Tcol-MPN (MPN/100mL)	1100	3400	2700	2200	2700	110000
	TRACE & TOXIC						
1	As (µg/L)	0.7	0.7	0.9	0.7	0.5	0.6
2	Cd (µg/L)	0.0	0.0	0.0	0.1	0.4	0.0
3	Cr (µg/L)	0.0	0.0	0.0	0.1	12.9	0.1
4	Cu (µg/L)	1.1	1.0	2.0	1.7	4.9	1.7
5	Hg (µg/L)	0.0	0.0	0.0	0.4	0.2	0.2
6	Ni (µg/L)	1.0	1.0	1.1	2.1	3.2	1.8
7	Pb (µg/L)	0.0	0.0	0.0	0.1	4.9	0.1
8	Zn (µg/L)	1.0	0.0	0.3	8.6	69.2	5.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	72	127	60	65	85	102
2	HAR_Total (mgCaCO3/L)	149	171	114	171	204	209
3	Na% (%)	52	53	60	56	47	47
4	RSC (-)	0.3	1.2	1.5	1.3	1.2	0.3
5	SAR (-)	2.7	3.0	3.3	3.4	2.6	2.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	77.88	61.20	25.73	64.19	45.99	27.77
2	Colour_Cod (-)	Clear	Light Brown	Clear	Light Brown	Light Brown	Clear
3	EC_GEN (µmho/cm)	407	431	475	395	542	547
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.0	8.1	7.9	8.2	8.2
6	TDS (mg/L)	258	250	300	234	326	378
7	Temp (deg C)	27.0	26.0	26.0	27.0	26.0	26.0
8	Turb (NTU)	23.0	59.6	29.0	61.0	17.0	8.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	135	154	163	130	159	164
3	B (mg/L)	0.14	0.15	0.15	0.36	0.13	0.12
4	Ca (mg/L)	21	25	28	27	32	34
5	Cl (mg/L)	38.0	38.3	43.7	40.1	64.3	64.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.50	0.48	0.54	0.48	0.34	0.36
8	Fe (mg/L)	0.3	0.2	0.0	0.2	0.0	0.0
9	HCO3 (mg/L)	165	188	198	158	194	201
10	K (mg/L)	4.2	4.1	3.3	3.7	5.5	4.2
11	Mg (mg/L)	13.5	22.7	17.3	12.4	13.1	19.2
12	Na (mg/L)	45.4	27.6	48.3	37.1	59.1	51.7
13	NO2-N (mgN/L)	0.04	0.01	0.07	0.07	0.03	0.01
14	o-PO4-P (mg P/L)	0.010	0.134	0.124	0.000	0.052	0.000
15	SiO2 (mg/L)	9.4	7.3	7.2	19.4	20.9	15.1
16	SO4 (mg/L)	31.9	24.2	24.6	21.4	37.7	42.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.5	3.7	2.4	2.6	4.5
2	COD (mg/L)	12.0	17.0	14.0	11.5	7.0	28.0
3	DO (mg/L)	6.0	7.0	6.8	6.1	7.6	6.8
4	DO_SAT% (%)	75	86	84	77	94	84
5	FCol-MPN (MPN/100mL)	14000	2600	1100	2700	780	1100
6	Tcol-MPN (MPN/100mL)	54000	17000	14000	54000	1100	14000
	TRACE & TOXIC						
1	As (µg/L)	0.6	0.4	0.4	0.4	0.4	0.4
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.9	0.4	0.0	0.9	0.0	0.1
4	Cu (µg/L)	1.8	3.6	2.0	1.6	1.6	1.2
5	Hg (µg/L)	0.1	0.1	0.1	0.0	0.0	0.0
6	Ni (µg/L)	0.7	1.9	1.3	1.7	1.1	1.1
7	Pb (µg/L)	0.3	0.1	0.0	0.1	0.0	0.0
8	Zn (µg/L)	4.2	2.6	1.5	2.8	1.7	2.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	52	64	71	68	79	85
2	HAR_Total (mgCaCO3/L)	108	158	143	119	134	164
3	Na% (%)	47	27	42	40	48	40
4	RSC (-)	0.6	0.0	0.4	0.2	0.5	0.0
5	SAR (-)	1.9	1.0	1.8	1.5	2.2	1.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	35.00	44.85	66.15	18.46	13.06	8.560
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	393	473	586	663	599	559
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.9	8.4	8.5	8.3	8.2	8.1
6	TDS (mg/L)	230	290	350	448	411	369
7	Temp (deg C)	25.0	25.0	25.0	27.0	26.0	26.0
8	Turb (NTU)	57.7	5.0	2.3	0.3	0.4	1.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	12.2	24.9	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	119	162	195	206	199	203
3	B (mg/L)	0.14	0.00	0.00	0.05	0.09	0.25
4	Ca (mg/L)	25	27	34	37	32	33
5	Cl (mg/L)	61.8	46.9	66.4	74.6	62.1	53.3
6	CO3 (mg/L)	0.0	14.7	30.0	0.0	0.0	0.0
7	F (mg/L)	0.44	0.42	0.44	0.36	0.38	0.38
8	Fe (mg/L)	0.3	0.1	0.0	0.1		
9	HCO3 (mg/L)	145	167	177	251	242	248
10	K (mg/L)	2.2	5.3	5.4	6.0	4.0	4.0
11	Mg (mg/L)	16.0	20.5	23.8	21.4	23.1	22.2
12	Na (mg/L)	35.6	45.0	54.0	64.0	53.0	47.0
13	NO2-N (mgN/L)	0.11	0.00	0.03	0.01	0.01	0.01
14	o-PO4-P (mg P/L)	0.041	0.072	0.620	0.000	0.010	0.000
15	SiO2 (mg/L)	9.8	9.8	9.9	26.4	14.7	13.9
16	SO4 (mg/L)	21.7	15.9	14.3	16.7	16.5	17.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	2.5	1.0	1.0	0.9	0.5
2	COD (mg/L)	21.0	12.0	13.0	15.0	28.0	20.0
3	DO (mg/L)	6.3	7.5	6.5	6.5	7.9	8.1
4	DO_SAT% (%)	76	91	79	82	97	100
5	FCol-MPN (MPN/100mL)	1400	1700	1700	1700	1100	2200
6	Tcol-MPN (MPN/100mL)	2100	160000	54000	35000	54000	17000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.4	0.4	0.1		
2	Cd (µg/L)	0.0	0.0	0.0	0.0		
3	Cr (µg/L)	0.6	0.2	0.0	0.2		
4	Cu (µg/L)	2.1	1.9	0.9	0.9		
5	Hg (µg/L)	0.0	0.0	0.0	0.0		
6	Ni (µg/L)	1.7	1.2	1.1	6.4		
7	Pb (µg/L)	0.1	0.1	0.0	0.1		
8	Zn (µg/L)	8.9	3.7	1.2	3.3		
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	63	67	85	92	81	82
2	HAR_Total (mgCaCO3/L)	130	152	184	181	177	175
3	Na% (%)	37	38	38	43	39	36
4	RSC (-)	0.0	0.2	0.3	0.5	0.5	0.6
5	SAR (-)	1.4	1.6	1.7	2.1	1.7	1.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	
		B	A	A	
	PHYSICAL				
1	Q (cumec)	6.916	6.529	5.143	
2	Colour_Cod (-)	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	528	616	563	
4	Odour_Code (-)	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.5	8.2	8.7	
6	TDS (mg/L)	366	404	308	
7	Temp (deg C)	27.0	26.0	26.0	
8	Turb (NTU)	0.8	1.7	1.1	
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	26.4	0.0	26.1	
2	ALK-TOT (mgCaCO3/L)	182	220	193	
3	B (mg/L)	0.11	0.09	0.13	
4	Ca (mg/L)	27	53	35	
5	Cl (mg/L)	60.0	65.0	61.8	
6	CO3 (mg/L)	31.8	0.0	31.5	
7	F (mg/L)	0.30	0.36	0.34	
8	Fe (mg/L)			0.4	
9	HCO3 (mg/L)	158	269	171	
10	K (mg/L)	3.0	4.0	4.0	**Sample not submitted for analysis from January-2023 to May-2023 , due to NO FLOW condition of the River**
11	Mg (mg/L)	25.4	19.2	28.2	
12	Na (mg/L)	39.0	42.0	42.0	
13	NO2-N (mgN/L)	0.00	0.00	0.00	
14	o-PO4-P (mg P/L)				
15	SiO2 (mg/L)	5.8	5.4	5.8	
16	SO4 (mg/L)	19.0	18.2	17.9	
	BIOLOGICAL/BACTERIOLOGICA				
1	BOD3-27 (mg/L)	0.6	3.3	1.0	
2	COD (mg/L)	5.0	18.0	12.0	
3	DO (mg/L)	7.4	8.4	6.7	
4	DO_SAT% (%)	93	104	83	
5	FCol-MPN (MPN/100mL)	680	1400	2200	
6	Tcol-MPN (MPN/100mL)	17000	13000	17000	
	TRACE & TOXIC				
1	As (µg/L)			0.3	
2	Cd (µg/L)			0.1	
3	Cr (µg/L)			15.4	
4	Cu (µg/L)			3.3	
5	Hg (µg/L)			0.1	
6	Ni (µg/L)			3.4	
7	Pb (µg/L)			14.9	
8	Zn (µg/L)			17.1	
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	67	132	87	
2	HAR_Total (mgCaCO3/L)	173	211	204	
3	Na% (%)	33	30	31	
4	RSC (-)	0.2	0.2	0.0	
5	SAR (-)	1.3	1.3	1.3	
	PESTICIDES				

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	129.3	0.000	14.74
2	EC_GEN (µmho/cm)	21	792	393	567
3	pH_GEN (pH units)	21	8.9	7.9	8.2
4	TDS (mg/L)	21	534	230	361
5	Temp (deg C)	21	27.0	25.0	26
6	Turb (NTU)	21	61.0	0.3	13.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	21	44.3	0.0	8
2	ALK-TOT (mgCaCO3/L)	21	262	119	185
3	B (mg/L)	21	0.36	0.00	0.12
4	Ca (mg/L)	21	53	21	32
5	Cl (mg/L)	21	78.8	38.0	60
6	CO3 (mg/L)	21	53.4	0.0	9.7
7	F (mg/L)	21	0.79	0.30	0.48
8	Fe (mg/L)	17	0.4	0.0	0.1
9	HCO3 (mg/L)	21	289	120	206
10	K (mg/L)	21	6.6	2.2	4.6
11	Mg (mg/L)	21	28.8	10.4	20
12	Na (mg/L)	21	103.1	27.6	57.9
13	NO2-N (mgN/L)	21	0.20	0.00	0.03
14	o-PO4-P (mg P/L)	18	0.620	0.000	0.09
15	SiO2 (mg/L)	21	26.4	5.4	12.8
16	SO4 (mg/L)	21	46.0	14.3	26.5
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	21	4.5	0.5	2
2	COD (mg/L)	21	28.0	4.0	15.2
3	DO (mg/L)	21	8.4	6.0	7
4	DO_SAT% (%)	21	104	75	86
5	FCol-MPN (MPN/100mL)	21	14000	450	2070
6	Tcol-MPN (MPN/100mL)	21	160000	1100	30729
	TRACE & TOXIC				
1	As (µg/L)	17	0.9	0.1	0.5
2	Cd (µg/L)	17	0.4	0.0	0
3	Cr (µg/L)	17	15.4	0.0	1.9
4	Cu (µg/L)	17	4.9	0.9	2
5	Hg (µg/L)	17	0.4	0.0	0.1
6	Ni (µg/L)	17	6.4	0.7	1.9
7	Pb (µg/L)	17	14.9	0.0	1.2
8	Zn (µg/L)	17	69.2	0.0	7.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	21	132	52	80
2	HAR_Total (mgCaCO3/L)	21	211	108	163
3	Na% (%)	21	60	27	42
4	RSC (-)	21	1.5	0.0	0.5
5	SAR (-)	21	3.4	1.0	2
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2022

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2009	2010	2011	2012	2013	2014	2015
	PHYSICAL							
1	Q (cumec)	24.01	31.75	21.61	20.33	27.79	21.97	27.48
2	EC_GEN (µmho/cm)	548	565	599	572	516	654	633
3	pH_FLD (pH units)							
4	pH_GEN (pH units)	7.9	7.8	7.7	7.7	7.9	7.9	7.7
5	TDS (mg/L)							
6	Temp (deg C)	24.3	25.9	28.5	27.0	26.1	24.9	25.5
7	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	177	178	192	186	143	216	183
3	B (mg/L)	0.11	0.09	0.05		0.04	0.23	0.71
4	Ca (mg/L)	33	33	35	36	32	39	43
5	Cl (mg/L)	49.5	54.3	59.6	55.6	52.8	67.7	66.6
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.69	0.56	0.75	0.92	0.29	0.29	0.88
8	Fe (mg/L)	0.1	0.0	0.0		0.1	0.1	0.1
9	HCO3 (mg/L)	216	217	234	227	203	263	223
10	K (mg/L)	5.2	4.0	4.6	3.0	3.8	5.6	4.6
11	Mg (mg/L)	15.1	17.7	15.9	13.6	13.4	18.5	16.0
12	Na (mg/L)	62.7	60.3	69.2	65.0	58.3	68.7	67.9
13	NO2+NO3 (mg N/L)	1.22	1.24	1.32	2.85	2.36	2.30	1.35
14	NO2-N (mgN/L)	0.04	0.06	0.02	0.02	0.01	0.05	0.09
15	NO3-N (mgN/L)	1.18	1.15	1.29	2.83	2.34	2.25	1.26
16	o-PO4-P (mg P/L)	0.220	0.129	0.096		0.065	0.235	0.289
17	SiO2 (mg/L)	11.8	9.8	10.6		16.4	7.2	13.3
18	SO4 (mg/L)	30.2	28.1	31.9	20.0	19.6	18.2	53.3
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)							
2	COD (mg/L)							
3	DO (mg/L)							
4	DO_SAT% (%)							
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)				0.8	9.1		
2	Cd (µg/L)				0.2	0.9		
3	Cr (µg/L)				2.0	1.8		
4	Cu (µg/L)				31.4	1.6		
5	Hg (µg/L)							
6	Ni (µg/L)				1.1	15.1		
7	Pb (µg/L)					3.8		
8	Zn (µg/L)					0.0		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	83	83	88	89	81	97	107
2	HAR_Total (mgCaCO3/L)	146	157	154	146	137	174	174
3	Na% (%)	46	44	48	48	44	44	45
4	RSC (-)	0.6	0.5	0.8	0.8	0.7	0.9	0.2
5	SAR (-)	2.2	2.1	2.4	2.3	2.0	2.2	2.2
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2022

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2016	2017	2018	2019	2020	2021	2022
	PHYSICAL							
1	Q (cumec)	22.14		6.468	3.622	9.609	20.36	32.84
2	EC_GEN (µmho/cm)	734		655	660	709	513	559
3	pH_FLD (pH units)				7.0			
4	pH_GEN (pH units)	8.1		8.1	7.9	7.9	8.1	8.2
5	TDS (mg/L)	455		419	424	432	358	351
6	Temp (deg C)	24.0		25.1	25.9	26.0	26.1	25.9
7	Turb (NTU)						14.0	18.8
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0	1.8	7.7
2	ALK-TOT (mgCaCO3/L)	196		193	179	200	146	179
3	B (mg/L)	0.20		0.16	0.19	0.10	0.24	0.12
4	Ca (mg/L)	35		38	35	29	32	30
5	Cl (mg/L)	83.1		65.4	69.6	77.9	43.7	58.9
6	CO3 (mg/L)	0.0		0.0	0.0	0.0	2.2	9.3
7	F (mg/L)			0.76	0.65	0.87	0.51	0.53
8	Fe (mg/L)	0.0		0.2	0.5	0.2	0.2	0.1
9	HCO3 (mg/L)	239		236	218	244	173	199
10	K (mg/L)	3.9		2.4	4.1	3.2	3.5	4.7
11	Mg (mg/L)	23.3		25.9	19.0	24.2	15.1	18.7
12	Na (mg/L)	98.0		62.2	80.0	92.0	54.8	61.9
13	NO2+NO3 (mg N/L)	3.61		0.28	1.02	0.93	2.34	
14	NO2-N (mgN/L)	0.01		0.01	0.19	0.04	0.01	0.04
15	NO3-N (mgN/L)	3.60		0.27	0.83	0.89	3.10	
16	o-PO4-P (mg P/L)	0.413		0.145	0.231	0.163	0.153	0.108
17	SiO2 (mg/L)	10.1		6.6	11.5	12.3	4.6	13.1
18	SO4 (mg/L)	44.1		45.6	55.6	46.9	50.0	30.1
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)			1.9	2.1	1.4	1.5	2.3
2	COD (mg/L)			28.3	13.0	16.0	16.2	14.7
3	DO (mg/L)			5.8	6.4	5.7	6.5	6.8
4	DO_SAT% (%)			69	78	69	80	83
5	FCol-MPN (MPN/100mL)			3733	1077	1498	864	2280
6	Tcol-MPN (MPN/100mL)			14400	15033	5850	4260	32820
	TRACE & TOXIC							
1	As (µg/L)			0.2	0.8	0.6	1.5	0.5
2	Cd (µg/L)			0.4	0.7	0.0	0.0	0.0
3	Cr (µg/L)			0.3	0.7	23.7	1.1	1.1
4	Cu (µg/L)			2.3	1.8	2.7	2.0	1.9
5	Hg (µg/L)						0.3	0.1
6	Ni (µg/L)			3.7	12.6	3.0	1.7	1.5
7	Pb (µg/L)			1.1	0.0	0.2	0.5	0.4
8	Zn (µg/L)			7.8	14.9	9.2	3.8	7.6
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	88		96	86	74	80	76
2	HAR_Total (mgCaCO3/L)	185		204	165	174	143	154
3	Na% (%)	53		41	51	51	45	45
4	RSC (-)	0.2		0.3	0.4	0.6	0.2	0.5
5	SAR (-)	3.1		1.9	2.7	3.0	2.0	2.2
	PESTICIDES							

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2008-2022

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
	PHYSICAL						
1	Q (cumec)	8.290	19.36	6.850	170.4	4.156	12.45
2	EC_GEN (µmho/cm)	572	604	708	683	610	649
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	7.9	7.9	7.3	7.6	7.7	7.9
5	TDS (mg/L)						
6	Temp (deg C)	25.2	28.7	28.5	23.5	25.5	24.7
7	Turb (NTU)						
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	197	190	294	232	218	220
3	B (mg/L)	0.12	0.14			0.02	0.33
4	Ca (mg/L)	34	38	41	42	37	43
5	Cl (mg/L)	55.5	66.1	57.7	64.8	55.2	70.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.55	0.49		0.65	0.70	0.60
8	Fe (mg/L)	0.0	0.0	0.0		0.0	0.0
9	HCO3 (mg/L)	241	232	297	284	266	268
10	K (mg/L)	4.0	4.8	3.0	4.1	2.4	12.1
11	Mg (mg/L)	16.5	16.8	15.1	17.5	15.6	17.8
12	Na (mg/L)	67.2	64.7	92.3	70.8	80.1	67.0
13	NO2+NO3 (mg N/L)	0.94	1.01	1.46	1.69	1.90	2.18
14	NO2-N (mgN/L)	0.05	0.04	0.03	0.03	0.07	0.02
15	NO3-N (mgN/L)	0.90	0.98	1.43	1.66	1.83	2.16
16	o-PO4-P (mg P/L)	0.124	0.065	0.078		0.098	0.093
17	SiO2 (mg/L)	10.6	10.3	11.4		14.2	9.3
18	SO4 (mg/L)	25.0	27.5	31.5	16.3	20.6	23.9
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)						
2	COD (mg/L)						
3	DO (mg/L)						
4	DO_SAT% (%)						
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						0.2
3	Cr (µg/L)						0.0
4	Cu (µg/L)						4.5
5	Hg (µg/L)						
6	Ni (µg/L)						0.0
7	Pb (µg/L)						1.3
8	Zn (µg/L)						9.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	84	94	102	106	92	107
2	HAR_Total (mgCaCO3/L)	153	165	165	179	157	181
3	Na% (%)	48	44	54	46	52	41
4	RSC (-)	0.9	0.5	1.6	1.1	1.2	0.8
5	SAR (-)	2.4	2.2	3.1	2.3	2.8	2.1
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2022

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
	PHYSICAL						
1	Q (cumec)	9.518	6.206		7.090	10.59	18.28
2	EC_GEN (µmho/cm)	577	870		832	602	630
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	7.9	7.9		7.9	8.1	7.6
5	TDS (mg/L)		562		470	455	448
6	Temp (deg C)	25.0	24.5		25.6	25.9	25.7
7	Turb (NTU)						
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	192	300		244	203	199
3	B (mg/L)	0.35	0.01		0.18	0.20	
4	Ca (mg/L)	33	44		43	25	40
5	Cl (mg/L)	60.3	91.4		91.7	54.2	59.5
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	0.0
7	F (mg/L)	0.70			0.79	0.53	0.55
8	Fe (mg/L)	0.1	0.0		0.0	0.0	0.1
9	HCO3 (mg/L)	234	366		297	247	243
10	K (mg/L)	2.2	2.8		4.3	3.6	2.7
11	Mg (mg/L)	18.5	23.4		24.5	19.2	21.6
12	Na (mg/L)	66.9	106.1		98.0	76.5	70.3
13	NO2+NO3 (mg N/L)	1.62	1.64		2.56	1.06	0.18
14	NO2-N (mgN/L)	0.04	0.02		0.00	0.05	0.01
15	NO3-N (mgN/L)	1.58	1.62		2.56	1.02	0.18
16	o-PO4-P (mg P/L)	0.434	0.460		4.003	0.086	0.078
17	SiO2 (mg/L)	14.8	24.7		11.2	16.7	5.2
18	SO4 (mg/L)	30.4	47.0		55.2	24.8	40.8
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)				1.1	1.7	2.1
2	COD (mg/L)				15.0	15.3	
3	DO (mg/L)				6.5	6.7	7.5
4	DO_SAT% (%)				79	82	91
5	FCol-MPN (MPN/100mL)				6417	860	
6	Tcol-MPN (MPN/100mL)				16233	4167	
	TRACE & TOXIC						
1	As (µg/L)		0.9		0.1	1.5	1.2
2	Cd (µg/L)		0.1		0.0	0.0	0.1
3	Cr (µg/L)		0.2		35.9	4.2	4.5
4	Cu (µg/L)		1.0		2.0	4.0	0.4
5	Hg (µg/L)						
6	Ni (µg/L)		1.0		5.8	0.3	106.3
7	Pb (µg/L)		0.0		1.0	0.3	1.8
8	Zn (µg/L)		2.0		11.0	8.0	7.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	82	109		108	64	99
2	HAR_Total (mgCaCO3/L)	159	206		210	144	189
3	Na% (%)	48	53		49	50	45
4	RSC (-)	0.7	1.9		0.7	1.2	0.2
5	SAR (-)	2.3	3.2		2.9	2.8	2.2
	PESTICIDES						

Sample not collected due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2008-2022

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

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

S.No	Parameters	Winter		Summer		
		Nov - Feb		Mar - May		
		2021-2022	2022-2023	2012	2022	2022
	PHYSICAL					
1	Q (cumec)	16.55	9.778	40.28	11.32	
2	EC_GEN (µmho/cm)	539	588	531	581	
3	pH_FLD (pH units)					
4	pH_GEN (pH units)	8.1	8.3	7.5	8.2	
5	TDS (mg/L)	348	384		376	
6	Temp (deg C)	26.1	26.3	29.5	26.6	
7	Turb (NTU)	5.3	1.0		7.1	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	2.0	8.8	0.0	4.7	
2	ALK-TOT (mgCaCO3/L)	170	200	181	177	
3	B (mg/L)		0.12		0.09	
4	Ca (mg/L)	30	36	32	31	
5	Cl (mg/L)	51.1	62.8	47.9	57.9	
6	CO3 (mg/L)	2.4	10.5	0.0	5.7	
7	F (mg/L)	0.49	0.35	0.84	0.73	
8	Fe (mg/L)	0.1	0.3		0.1	
9	HCO3 (mg/L)	202	223	220	205	
10	K (mg/L)	3.9	4.2	4.2	2.9	
11	Mg (mg/L)	14.5	23.2	19.4	22.3	
12	Na (mg/L)	62.4	47.8	54.0	60.3	
13	NO2+NO3 (mg N/L)			2.60		
14	NO2-N (mgN/L)	0.02	0.01	0.08	0.03	
15	NO3-N (mgN/L)			2.52		
16	o-PO4-P (mg P/L)	0.127	0.003		0.242	
17	SiO2 (mg/L)	16.6	12.0		9.2	
18	SO4 (mg/L)	33.8	17.7	19.1	27.0	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD3-27 (mg/L)	1.3	1.2		1.1	
2	COD (mg/L)	5.7	16.3		5.8	
3	DO (mg/L)	6.6	7.5		6.2	
4	DO_SAT% (%)	81	93		77	
5	FCol-MPN (MPN/100mL)		1547		148	
6	Tcol-MPN (MPN/100mL)		25500		543	
	TRACE & TOXIC					
1	As (µg/L)	0.7	0.2	0.6	1.2	
2	Cd (µg/L)	0.0	0.0	0.2	0.0	
3	Cr (µg/L)	0.3	7.8	2.7	0.6	
4	Cu (µg/L)	1.8	2.1	3.0	2.3	
5	Hg (µg/L)	0.0	0.0		0.0	
6	Ni (µg/L)	1.2	4.9	5.1	1.6	
7	Pb (µg/L)	0.2	7.5	3.8	0.1	
8	Zn (µg/L)	3.2	10.2	55.0	3.1	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	76	90	80	78	
2	HAR_Total (mgCaCO3/L)	136	187	161	170	
3	Na% (%)	49	35	42	41	
4	RSC (-)	0.7	0.3	0.4	0.3	
5	SAR (-)	2.5	1.5	1.9	2.0	
	PESTICIDES					

2009 to 2011 and 2013 to 2021 and 2023 Sample not collected due to dry bed / no flow condition.

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	11-08-1965			
Discharge	:	13-12-1966			
Sediment	:	01-11-1972			
Water Quality	:	01-11-1972			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	04-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	40.82	23.39	24.60	372.8	1489	1079
2	Colour_Cod (-)	Light Brown	Clear	Clear	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	542	729	757	245	201	163
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	7.8	8.0	7.7	7.3	7.9
6	TDS (mg/L)	332	458	440	145	135	104
7	Temp (deg C)	25.0	25.0	24.0	25.0	24.0	25.0
8	Turb (NTU)	4.5	3.2	1.4	4.3	4.1	4.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	134	213	184	66	58	46
3	B (mg/L)	0.02	0.10	0.14	0.01	0.11	0.15
4	Ca (mg/L)	25	37	25	21	15	10
5	Cl (mg/L)	66.0	86.6	101.5	62.5	25.9	19.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.32	0.41	0.40	0.10	0.08	0.10
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.4	0.1
9	HCO3 (mg/L)	164	260	224	81	71	56
10	K (mg/L)	4.1	6.6	8.1	2.7	3.9	2.7
11	Mg (mg/L)	20.8	26.5	20.0	7.3	9.6	8.0
12	Na (mg/L)	61.6	72.2	106.1	19.4	11.1	10.2
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.00	0.01	0.10	0.01	0.05	0.01
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.000	0.114	0.052	0.090	0.000	0.000
17	SiO2 (mg/L)	12.7	12.8	13.0	15.2	7.5	14.7
18	SO4 (mg/L)	39.5	16.8	52.1	14.9	4.0	10.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD (mg/L)	2.6	2.0	3.3	2.0	2.3	0.3
2	COD (mg/L)	8.4	6.0	13.0	12.0	9.0	9.0
3	DO (mg/L)	7.6	7.0	7.0	6.7	5.4	5.8
4	DO_SAT% (%)	92	85	83	81	64	70
5	FCol-MPN (MPN/100mL)	1200	780	1400	1700	780	1400
6	Tcol-MPN (MPN/100mL)	22000	4700	4000	2200	1700	3300
	TRACE & TOXIC						
1	As (µg/L)	0.5	0.6	0.7	0.4	1.0	0.0
2	Cd (µg/L)	0.0	0.0	0.0	0.2	0.4	0.0
3	Cr (µg/L)	0.0	0.1	0.2	0.2	20.5	0.3
4	Cu (µg/L)	0.9	2.2	1.8	2.0	7.5	1.3
5	Hg (µg/L)	0.0	0.0	0.0	0.5	0.1	0.2
6	Ni (µg/L)	0.8	0.9	1.1	1.5	15.0	0.6
7	Pb (µg/L)	0.0	0.1	0.1	0.1	5.8	0.2
8	Zn (µg/L)	0.9	68.4	0.6	5.2	106.9	2.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	62	93	64	53	37	26
2	HAR_Total (mgCaCO3/L)	149	203	147	83	76	59
3	Na% (%)	47	43	60	33	23	26
4	RSC (-)	0.0	0.2	0.8	0.0	0.0	0.0
5	SAR (-)	2.2	2.2	3.8	0.9	0.6	0.6

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	569.5	3347	402.3	928.2	660.6	273.5
2	Colour_Cod (-)	Light Brown	Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	432	123	326	411	338	419
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.8	7.5	7.7	7.7	8.0	7.6
6	TDS (mg/L)	238	72	226	234	200	244
7	Temp (deg C)	25.0	25.0	25.0	24.0	25.0	25.0
8	Turb (NTU)	17.1	18.8	44.0	44.0	40.0	8.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	101	31	85	103	99	108
3	B (mg/L)	0.11	0.14	0.14	0.09	0.08	0.11
4	Ca (mg/L)	20	13	18	23	24	25
5	Cl (mg/L)	54.3	16.3	42.2	52.9	44.4	54.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.16	0.08	0.15	0.02	0.76	0.17
8	Fe (mg/L)	0.1	0.3	0.0	0.0	0.1	0.0
9	HCO3 (mg/L)	123	38	104	125	121	132
10	K (mg/L)	9.0	1.9	2.1	4.3	2.3	2.5
11	Mg (mg/L)	14.6	1.3	15.3	17.5	12.0	16.5
12	Na (mg/L)	43.7	11.2	23.2	39.2	26.8	35.9
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.01	0.01	0.01	0.04	0.04	0.01
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.000	0.021	0.041	0.010	0.041	0.000
17	SiO2 (mg/L)	11.0	9.2	9.7	23.0	19.4	12.2
18	SO4 (mg/L)	27.9	11.6	18.2	24.5	27.9	38.6
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD (mg/L)	0.6	1.4	3.1	2.2	1.2	2.7
2	COD (mg/L)	8.0	10.0	7.0	14.5	10.0	31.0
3	DO (mg/L)	4.8	7.2	6.3	6.1	6.4	6.5
4	DO_SAT% (%)	58	87	76	72	77	79
5	FCol-MPN (MPN/100mL)	1700	1400	1300	2700	2700	1300
6	Tcol-MPN (MPN/100mL)	35000	3900	1700	17000	13000	1700
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.2	0.3	0.1	0.1
2	Cd (µg/L)	0.0	0.0	0.0	0.0	0.0	0.0
3	Cr (µg/L)	0.4	1.3	0.0	0.0	0.1	0.0
4	Cu (µg/L)	1.3	2.5	0.7	1.1	1.1	0.6
5	Hg (µg/L)	0.1	0.1	0.1	0.0	0.0	0.0
6	Ni (µg/L)	0.6	1.1	0.4	0.8	0.6	0.4
7	Pb (µg/L)	0.0	0.6	0.0	0.0	0.0	0.0
8	Zn (µg/L)	3.8	8.1	1.0	1.5	2.0	3.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	50	32	46	58	61	62
2	HAR_Total (mgCaCO3/L)	111	37	109	131	111	130
3	Na% (%)	44	38	31	39	34	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	0.8	1.0	1.5	1.1	1.4

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022	22-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	354.0	291.6	413.1	93.98	73.70	64.47
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	763	461	483	590	603	528
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.8	8.1	8.1	8.1	8.2
6	TDS (mg/L)	420	276	266	362	403	339
7	Temp (deg C)	25.0	24.0	25.0	25.0	25.0	24.0
8	Turb (NTU)	4.6	53.3	24.8	3.9	1.0	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	194	129	123	162	171	163
3	B (mg/L)	0.04	0.00	0.00	0.10	0.04	0.30
4	Ca (mg/L)	34	35	31	26	32	29
5	Cl (mg/L)	94.8	55.0	63.2	76.3	67.1	61.8
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.22	0.23	0.22	0.21	0.27	0.25
8	Fe (mg/L)	0.0	0.1	0.3	0.0	NA	NA
9	HCO3 (mg/L)	236	157	150	198	208	199
10	K (mg/L)	5.3	3.6	3.6	5.4	5.0	4.0
11	Mg (mg/L)	30.6	12.6	17.7	25.2	24.1	24.3
12	Na (mg/L)	78.0	39.0	39.0	55.5	57.0	39.0
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	NA	NA
14	NO2-N (mgN/L)	0.07	0.01	0.04	0.01	0.01	0.01
15	NO3-N (mgN/L)	NA	NA	NA	NA	NA	NA
16	o-PO4-P (mg P/L)	0.031	0.041	0.031	0.000	0.010	0.000
17	SiO2 (mg/L)	13.2	12.3	13.2	11.6	12.8	10.9
18	SO4 (mg/L)	40.1	25.2	27.9	24.5	33.0	12.6
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD (mg/L)	1.4	2.3	1.6	1.0	0.9	0.1
2	COD (mg/L)	14.0	17.0	9.0	7.0	28.0	5.0
3	DO (mg/L)	6.1	6.7	7.1	6.9	7.5	7.9
4	DO_SAT% (%)	74	80	86	84	91	94
5	FCol-MPN (MPN/100mL)	2600	1100	3300	2700	450	680
6	Tcol-MPN (MPN/100mL)	22000	34000	54000	3300	2300	49000
	TRACE & TOXIC						
1	As (µg/L)	0.2	0.2	0.1	0.2	NA	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA	NA
3	Cr (µg/L)	0.2	0.1	0.7	0.0	NA	NA
4	Cu (µg/L)	0.7	0.8	0.8	0.7	NA	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA	NA
6	Ni (µg/L)	0.5	0.7	1.1	0.6	NA	NA
7	Pb (µg/L)	0.0	0.1	0.2	0.1	NA	NA
8	Zn (µg/L)	6.1	4.4	7.9	2.2	NA	NA
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	86	88	78	64	81	74
2	HAR_Total (mgCaCO3/L)	214	141	152	169	181	175
3	Na% (%)	44	37	35	41	40	32
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.3	1.4	1.4	1.9	1.8	1.3

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	13-12-2022	21-12-2022	03-01-2023	12-01-2023	24-01-2023	01-02-2023
		A	A	A	A		A	A
	PHYSICAL							
1	Q (cumec)	58.32	16.17	41.19	10.08		10.09	26.67
2	Colour_Cod (-)	Clear	Clear	Clear	Clear		Clear	Light Brown
3	EC_GEN (µmho/cm)	467	505	391	464		488	480
4	Odour_Code (-)	odour free	odour free	odour free	odour free		odour free	odour free
5	pH_GEN (pH units)	8.1	8.1	8.1	8.2		8.6	8.9
6	TDS (mg/L)	304	304	296	301		324	278
7	Temp (deg C)	25.0	23.0	24.0	25.0		25.0	25.0
8	Turb (NTU)	1.0	0.6	1.7	2.1		0.9	6.8
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	10.5		16.7	16.7
2	ALK-TOT (mgCaCO3/L)	134	128	115	133		140	133
3	B (mg/L)	0.12	0.10	0.14	0.10		0.17	0.14
4	Ca (mg/L)	32	29	27	11		32	26
5	Cl (mg/L)	54.7	90.5	46.5	57.2		54.7	53.6
6	CO3 (mg/L)	0.0	0.0	0.0	12.6		20.1	20.1
7	F (mg/L)	0.21	0.19	0.21	0.20		0.14	0.19
8	Fe (mg/L)	NA	NA	0.7	0.6		0.5	0.6
9	HCO3 (mg/L)	163	156	140	137		130	121
10	K (mg/L)	3.0	3.0	3.0	4.7		5.1	3.3
11	Mg (mg/L)	18.5	9.6	18.5	2.6		14.9	17.7
12	Na (mg/L)	33.0	63.0	27.0	95.0	**THE SAMPLE**	52.0	47.8
13	NO2+NO3 (mg N/L)	NA	NA	NA	NA	**NOT**	NA	NA
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	**SUBMITTED**	0.00	0.01
15	NO3-N (mgN/L)	NA	NA	NA	NA	**FOR**	NA	NA
16	o-PO4-P (mg P/L)	NA	NA	NA	0.031	**ANALYSIS**	0.000	0.021
17	SiO2 (mg/L)	9.3	9.9	9.4	8.3	**DUE TO NO**	8.4	3.7
18	SO4 (mg/L)	23.0	17.0	9.6	26.2	**FLOW**	33.9	26.0
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD (mg/L)	1.1	1.2	1.0	1.8		0.8	2.7
2	COD (mg/L)	4.0	15.0	7.0	7.0		17.0	11.0
3	DO (mg/L)	6.6	6.4	6.1	8.6		8.1	8.0
4	DO_SAT% (%)	80	75	72	104		98	97
5	FCol-MPN (MPN/100mL)	2700	2700	2200	13000		1300	1400
6	Tcol-MPN (MPN/100mL)	4900	17000	22000	35000		24000	7000
	TRACE & TOXIC							
1	As (µg/L)	NA	NA	0.2	0.3		0.8	0.6
2	Cd (µg/L)	NA	NA	0.1	0.0		0.1	0.0
3	Cr (µg/L)	NA	NA	3.7	5.3		21.1	9.9
4	Cu (µg/L)	NA	NA	2.4	2.9		3.1	2.3
5	Hg (µg/L)	NA	NA	0.0	0.0		0.0	0.0
6	Ni (µg/L)	NA	NA	1.9	3.7		8.7	9.2
7	Pb (µg/L)	NA	NA	13.4	1.2		24.6	2.9
8	Zn (µg/L)	NA	NA	11.2	2.3		25.1	27.4
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	80	73	68	27		80	64
2	HAR_Total (mgCaCO3/L)	156	112	144	37		142	138
3	Na% (%)	31	54	29	83		43	42
4	RSC (-)	0.0	0.3	0.0	1.9		0.0	0.0
5	SAR (-)	1.2	2.6	1.0	6.8		1.9	1.8

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	14-02-2023	21-02-2023	23-03-2023		02-05-2023	11-05-2023	23-05-2023
		A		A		A	A	
	PHYSICAL							
1	Q (cumec)	10.09		54.58		46.90	46.90	
2	Colour_Cod (-)	Clear		Clear		Clear	Clear	
3	EC_GEN (µmho/cm)	403		318		665	509	
4	Odour_Code (-)	odour free		odour free		odour free	odour free	
5	pH_GEN (pH units)	8.6		8.4		8.4	8.3	
6	TDS (mg/L)	228		180		402	376	
7	Temp (deg C)	26.0		26.0		27.0	26.0	
8	Turb (NTU)	4.4		7.0		0.0	7.0	
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	8.0		10.5		18.9	10.2	
2	ALK-TOT (mgCaCO3/L)	108		101		155	122	
3	B (mg/L)	0.10		0.16		0.00	0.03	
4	Ca (mg/L)	24		18		33	27	
5	Cl (mg/L)	44.0		32.0		68.5	62.1	
6	CO3 (mg/L)	9.6		12.6		22.8	12.3	
7	F (mg/L)	0.19		0.06		0.51	0.37	
8	Fe (mg/L)	0.1		0.8		0.1	0.5	
9	HCO3 (mg/L)	112		97		143	124	
10	K (mg/L)	2.4		3.8		4.9	4.9	
11	Mg (mg/L)	19.2		11.8		23.2	17.3	
12	Na (mg/L)	37.6		30.6		71.8	47.4	
13	NO2+NO3 (mg N/L)	NA		2.52		1.02	3.57	
14	NO2-N (mgN/L)	0.01		0.01		0.14	0.03	
15	NO3-N (mgN/L)	NA		2.51		0.88	3.55	
16	o-PO4-P (mg P/L)	0.062		0.041		0.000	0.000	
17	SiO2 (mg/L)	18.5		7.7		11.0	20.5	
18	SO4 (mg/L)	32.0		15.0		66.1	40.6	
	BIOLOGICAL/BACTERIOLOGIC							
1	BOD (mg/L)	0.8		0.6		0.6	1.4	
2	COD (mg/L)	8.0		NA		NA	NA	
3	DO (mg/L)	8.2		5.1		4.8	7.0	
4	DO_SAT% (%)	101		63		60	86	
5	FCol-MPN (MPN/100mL)	1100		22000		13000	32000	
6	Tcol-MPN (MPN/100mL)	2600		49000		23000	140000	
	TRACE & TOXIC							
1	As (µg/L)	0.7		0.2		0.5	0.7	
2	Cd (µg/L)	0.1		0.0		0.0	0.0	
3	Cr (µg/L)	15.2		5.0		0.0	8.7	
4	Cu (µg/L)	3.8		1.7		1.7	2.5	
5	Hg (µg/L)	0.0		0.0		0.0	0.0	
6	Ni (µg/L)	9.0		1.9		0.0	0.0	
7	Pb (µg/L)	14.1		1.5		0.0	4.4	
8	Zn (µg/L)	15.1		2.6		0.0	0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	60		46		83	69	
2	HAR_Total (mgCaCO3/L)	139		95		179	140	
3	Na% (%)	37		40		46	41	
4	RSC (-)	0.0		0.1		0.0	0.0	
5	SAR (-)	1.4		1.4		2.3	1.7	

THE SAMPLE NOT SUBMITTED FOR ANALYSIS DUE TO NO FLOW

THE SAMPLE NOT SUBMITTED FOR ANALYSIS DUE TO NO FLOW FOR THE MONTH OF APRIL-2023

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	4263	0.000	302.3
2	EC_GEN (µmho/cm)	28	763	123	457
3	pH_GEN (pH units)	28	8.9	7.3	8
4	TDS (mg/L)	28	458	72	282
5	Temp (deg C)	28	27.0	23.0	24.9
6	Turb (NTU)	28	53.3	0.0	11.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	28	18.9	0.0	3.3
2	ALK-TOT (mgCaCO3/L)	28	213	31	123
3	B (mg/L)	28	0.30	0.00	0.1
4	Ca (mg/L)	28	37	10	25
5	Cl (mg/L)	28	101.5	16.3	57.4
6	CO3 (mg/L)	28	22.8	0.0	3.9
7	F (mg/L)	28	0.76	0.02	0.23
8	Fe (mg/L)	24	0.8	0.0	0.2
9	HCO3 (mg/L)	28	260	38	142
10	K (mg/L)	28	9.0	1.9	4.1
11	Mg (mg/L)	28	30.6	1.3	16.3
12	Na (mg/L)	28	106.1	10.2	45.5
13	NO2+NO3 (mg N/L)	3	3.57	1.02	2.37
14	NO2-N (mgN/L)	28	0.14	0.00	0.02
15	NO3-N (mgN/L)	3	3.55	0.88	2.31
16	o-PO4-P (mg P/L)	25	0.114	0.000	0.026
17	SiO2 (mg/L)	28	23.0	3.7	12.2
18	SO4 (mg/L)	28	66.1	4.0	26.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	28	3.3	0.1	1.5
2	COD (mg/L)	25	31.0	4.0	11.5
3	DO (mg/L)	28	8.6	4.8	6.7
4	DO_SAT% (%)	28	104	58	81
5	FCol-MPN (MPN/100mL)	28	32000	450	4307
6	Tcol-MPN (MPN/100mL)	28	140000	1700	21404
	TRACE & TOXIC				
1	As (µg/L)	24	1.0	0.0	0.4
2	Cd (µg/L)	24	0.4	0.0	0
3	Cr (µg/L)	24	25.2	0.0	5.1
4	Cu (µg/L)	24	7.5	0.6	2
5	Hg (µg/L)	24	0.5	0.0	0.1
6	Ni (µg/L)	24	15.0	0.4	3.4
7	Pb (µg/L)	24	24.6	0.0	3.4
8	Zn (µg/L)	24	106.9	0.6	14.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	28	93	26	63
2	HAR_Total (mgCaCO3/L)	28	214	37	131
3	Na% (%)	28	83	23	40
4	RSC (-)	28	1.9	0.0	0.1
5	SAR (-)	28	6.8	0.6	1.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2009	2010	2011	2012	2013	2014	2015
	PHYSICAL							
1	Q (cumec)	199.6	692.3	770.9	393.0	1097	478.3	170.1
2	EC_GEN (µmho/cm)	253	136	95	109	138	189	332
3	pH_GEN (pH units)	7.8	7.3	6.6	7.3	7.2	7.5	7.3
4	TDS (mg/L)							
5	Temp (deg C)	25.5	26.0	26.0	25.8	25.3	25.0	25.0
6	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	71	41	28	31	38	52	75
3	B (mg/L)	0.02				0.02	0.14	0.99
4	Ca (mg/L)	17	10	6	8	10	13	21
5	Cl (mg/L)	26.3	14.4	9.9	13.0	16.9	24.7	42.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.19	0.14	0.06	0.08	0.06	0.15	0.26
8	Fe (mg/L)	0.1	0.1	0.2		0.1	0.1	0.3
9	HCO3 (mg/L)	87	50	34	37	46	63	92
10	K (mg/L)	2.6	1.5	1.2	1.3	1.5	1.7	4.6
11	Mg (mg/L)	7.3	4.9	3.4	3.2	4.9	6.3	8.3
12	Na (mg/L)	27.1	12.1	7.5	9.4	10.5	17.3	32.5
13	NO2+NO3 (mg N/L)	1.03	0.95	0.76	1.15	1.00	0.98	0.98
14	NO2-N (mgN/L)	0.01	0.01	0.01	0.01	0.01	0.03	0.01
15	NO3-N (mgN/L)	1.02	0.93	0.74	1.14	0.99	0.95	0.97
16	o-PO4-P (mg P/L)	0.021	0.021	0.000		0.067	0.031	0.129
17	SiO2 (mg/L)	11.8	12.4	8.1		10.1	6.5	13.1
18	SO4 (mg/L)	12.6	7.9	6.5	5.5	8.4	5.8	25.8
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)				0.7	0.4	1.1	0.4
2	COD (mg/L)							
3	DO (mg/L)				6.0	5.9	5.4	4.9
4	DO_SAT% (%)				73	71	65	59
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)				4.4	1.0		
2	Cd (µg/L)				0.2	0.0		
3	Cr (µg/L)				7.3	1.7		
4	Cu (µg/L)				29.4	0.4		
5	Hg (µg/L)							
6	Ni (µg/L)				5.4	9.0		
7	Pb (µg/L)					0.0		
8	Zn (µg/L)					0.0		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	42	24	16	20	26	32	52
2	HAR_Total (mgCaCO3/L)	72	44	30	33	46	58	86
3	Na% (%)	43	36	34	35	31	37	43
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.3	0.8	0.6	0.7	0.7	1.0	1.5
	PESTICIDES							

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2016	2017	2018	2019	2020	2021	2022
	PHYSICAL							
1	Q (cumec)	447.5	168.6	362.8	236.3	103.2	320.6	684.6
2	EC_GEN (µmho/cm)	186	116	151	227	287	310	426
3	pH_GEN (pH units)	6.5	7.2	7.4	7.6	7.3	7.8	7.8
4	TDS (mg/L)	108	77	81	138	177	221	253
5	Temp (deg C)	24.5	24.3	25.0	25.4	25.0	25.2	24.7
6	Turb (NTU)						14.0	18.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	4.3	0.0	1.5	0.0
2	ALK-TOT (mgCaCO3/L)	47	34	44	64	71	84	112
3	B (mg/L)	0.16	0.11	0.00	0.09	0.06	0.09	0.08
4	Ca (mg/L)	17	11	14	15	17	19	24
5	Cl (mg/L)	24.1	11.9	18.3	23.0	33.0	38.9	55.9
6	CO3 (mg/L)	0.0	0.0	0.0	5.2	0.0	1.8	0.0
7	F (mg/L)		0.08	0.10	0.18	0.21	0.13	0.23
8	Fe (mg/L)	0.3	0.2	0.2	0.4	0.2	0.3	0.1
9	HCO3 (mg/L)	58	41	54	68	86	99	136
10	K (mg/L)	2.2	1.6	2.0	2.3	1.9	2.9	4.2
11	Mg (mg/L)	8.3	3.8	4.9	8.7	9.6	10.3	15.4
12	Na (mg/L)	7.3	7.3	9.2	18.7	27.0	30.2	41.1
13	NO2+NO3 (mg N/L)	1.58	0.80	0.73	0.52	0.62	0.28	
14	NO2-N (mgN/L)	0.02	0.01	0.01	0.14	0.01	0.02	0.03
15	NO3-N (mgN/L)	1.56	0.78	0.72	0.38	0.61	1.50	
16	o-PO4-P (mg P/L)	0.000	0.000	0.016	0.018	0.052	0.012	0.031
17	SiO2 (mg/L)	14.7	5.3	7.8	8.8	11.2	7.3	13.3
18	SO4 (mg/L)	9.4	6.0	10.0	14.6	23.5	15.0	25.3
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.6	0.9	1.1	1.6	0.5	0.8	1.9
2	COD (mg/L)			17.5	25.3	9.0	13.5	11.9
3	DO (mg/L)	7.5	5.6	6.9	6.8	7.4	5.9	6.4
4	DO_SAT% (%)	89	67	84	83	89	72	78
5	FCol-MPN (MPN/100mL)			7050	995	1273	789	1691
6	Tcol-MPN (MPN/100mL)			19300	4448	9250	5354	14680
	TRACE & TOXIC							
1	As (µg/L)		1.0	0.3	1.0	0.7	0.5	0.3
2	Cd (µg/L)		0.0	0.2	0.0	0.7	0.0	0.0
3	Cr (µg/L)		21.0	26.7	1.9	3.5	2.8	1.6
4	Cu (µg/L)		2.0	1.1	0.6	0.6	1.6	1.7
5	Hg (µg/L)						1.0	0.1
6	Ni (µg/L)			1.3	4.9	0.1	0.8	1.7
7	Pb (µg/L)		2.0	0.3	0.1	0.3	0.4	0.5
8	Zn (µg/L)		36.0	9.8	14.6	0.9	3.6	14.8
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	43	27	36	37	43	47	60
2	HAR_Total (mgCaCO3/L)	77	42	56	73	83	90	124
3	Na% (%)	20	27	25	32	40	40	38
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
5	SAR (-)	0.4	0.5	0.5	0.9	1.3	1.4	1.5
	PESTICIDES							

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
	PHYSICAL						
1	Q (cumec)	88.34	101.0	46.51	135.0	51.28	48.43
2	EC_GEN (µmho/cm)	407	301	384	385	363	479
3	pH_GEN (pH units)	7.6	7.7	7.6	7.6	7.5	7.8
4	TDS (mg/L)						
5	Temp (deg C)	25.3	25.5	25.5	24.0	26.5	25.0
6	Turb (NTU)						
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	98	84	101	112	101	135
3	B (mg/L)	0.08	0.06	0.00		0.01	0.32
4	Ca (mg/L)	25	19	22	26	22	32
5	Cl (mg/L)	48.6	25.9	46.1	37.6	37.3	64.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.24	0.16			0.32	0.30
8	Fe (mg/L)	0.1	0.0	0.0		0.1	0.0
9	HCO3 (mg/L)	119	103	124	137	123	165
10	K (mg/L)	3.4	1.7	2.1	1.7	2.4	9.2
11	Mg (mg/L)	10.2	9.2	10.2	9.7	5.8	12.6
12	Na (mg/L)	47.1	27.5	40.8	36.3	48.3	49.5
13	NO2+NO3 (mg N/L)	1.04	1.13	1.24	1.26	1.64	1.18
14	NO2-N (mgN/L)	0.03	0.03	0.01	0.00	0.01	0.03
15	NO3-N (mgN/L)	1.00	1.10	1.23	1.26	1.63	1.16
16	o-PO4-P (mg P/L)	0.041	0.026	0.041		0.062	0.036
17	SiO2 (mg/L)	14.1	10.8	10.5		10.0	7.7
18	SO4 (mg/L)	38.0	21.9	25.2	12.0	13.6	16.8
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)			1.7	1.2	0.6	0.8
2	COD (mg/L)						
3	DO (mg/L)			6.0	5.3	6.3	6.0
4	DO_SAT% (%)			72	64	78	72
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	As (µg/L)			0.2			
2	Cd (µg/L)			0.2			0.1
3	Cr (µg/L)			1.2			6.6
4	Cu (µg/L)						2.5
5	Hg (µg/L)						
6	Ni (µg/L)			5.5			0.2
7	Pb (µg/L)						1.7
8	Zn (µg/L)						10.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	62	48	56	64	56	80
2	HAR_Total (mgCaCO3/L)	105	86	99	105	80	133
3	Na% (%)	47	41	46	43	56	42
4	RSC (-)	0.0	0.0	0.1	0.2	0.4	0.1
5	SAR (-)	2.0	1.3	1.8	1.5	2.4	1.8
	PESTICIDES						

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	PHYSICAL							
1	Q (cumec)	46.99	10.45	22.79	13.89	193.6	39.20	136.2
2	EC_GEN (µmho/cm)	539	507	426	490	256	492	464
3	pH_GEN (pH units)	7.5	7.5	8.1	7.7	7.7	7.7	7.9
4	TDS (mg/L)		348	250	268	249	302	305
5	Temp (deg C)	25.5	25.5	25.0	24.5	25.5	25.0	24.4
6	Turb (NTU)							7.1
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	2.9
2	ALK-TOT (mgCaCO3/L)	142	158	112	146	78	133	117
3	B (mg/L)	0.27	0.05	0.10	0.24	0.07		
4	Ca (mg/L)	30	24	22	27	20	12	25
5	Cl (mg/L)	73.8	44.0	48.3	58.2	29.5	60.3	56.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	3.5
7	F (mg/L)	0.59		0.32	0.36	0.15	0.17	0.25
8	Fe (mg/L)	0.3	0.1	0.1	0.0	0.1	0.3	0.0
9	HCO3 (mg/L)	173	193	137	179	95	162	136
10	K (mg/L)	5.7	5.1	2.4	3.3	2.3	4.1	3.7
11	Mg (mg/L)	14.6	14.7	16.0	20.4	11.7	8.5	13.6
12	Na (mg/L)	58.0	56.8	40.0	58.3	11.7	50.9	48.0
13	NO2+NO3 (mg N/L)	2.05	1.60	0.41	0.43	1.00	0.24	
14	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.01	0.01	0.00
15	NO3-N (mgN/L)	2.05	1.60	0.41	0.43	0.99	0.22	
16	o-PO4-P (mg P/L)	0.258	0.000	0.000	0.000	0.005	0.010	0.043
17	SiO2 (mg/L)	26.2	11.7	11.0	9.7	18.7	2.2	15.9
18	SO4 (mg/L)	17.1	32.1	27.6	27.7	14.0	26.6	22.5
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	0.4	1.8	0.4	1.0	1.5	0.7	1.6
2	COD (mg/L)				27.0	28.5		6.5
3	DO (mg/L)	5.6	7.3	6.3	7.8	6.6	6.8	6.9
4	DO_SAT% (%)	68	89	76	93	80	82	82
5	FCol-MPN (MPN/100mL)				90	640		
6	Tcol-MPN (MPN/100mL)				156	2400		
	TRACE & TOXIC							
1	As (µg/L)			3.6	0.5	3.2	5.6	0.6
2	Cd (µg/L)			0.0	0.0	0.0	0.1	0.0
3	Cr (µg/L)			12.1	92.7	1.5	5.8	0.2
4	Cu (µg/L)			4.1	0.3	4.8	1.4	1.7
5	Hg (µg/L)							0.0
6	Ni (µg/L)			3.6	6.8	5.4	21.0	0.9
7	Pb (µg/L)			0.6	0.8	0.1	0.3	0.2
8	Zn (µg/L)			17.8	4.4	8.7	2.7	3.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	76	61	56	68	49	30	63
2	HAR_Total (mgCaCO3/L)	137	122	122	153	98	65	119
3	Na% (%)	47	49	41	45	20	61	45
4	RSC (-)	0.1	0.7	0.0	0.0	0.0	1.4	0.2
5	SAR (-)	2.2	2.2	1.6	2.1	0.5	2.8	1.9
	PESTICIDES							

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Winter	Summer				
		Nov - Feb	Mar - May				
		2022-2023	2009	2010	2011	2012	2013
	PHYSICAL						
1	Q (cumec)	40.48		30.50	52.18	125.2	32.01
2	EC_GEN (µmho/cm)	492	230	468	501	270	398
3	pH_GEN (pH units)	8.3	8.1	8.0	7.6	7.3	8.4
4	TDS (mg/L)	314					
5	Temp (deg C)	24.7	26.0	26.0	26.0	26.0	26.5
6	Turb (NTU)	2.4					
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	5.2	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	139	70	123	124	81	101
3	B (mg/L)	0.13	0.10	0.10	0.16		0.00
4	Ca (mg/L)	27	16	26	26	18	32
5	Cl (mg/L)	60.6	24.9	51.0	54.0	26.8	44.7
6	CO3 (mg/L)	6.2	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.21	0.08	0.21	0.49	0.30	
8	Fe (mg/L)	0.4	0.1	0.1	0.2		0.1
9	HCO3 (mg/L)	157	85	150	151	98	123
10	K (mg/L)	3.9	2.0	3.4	4.1	2.1	2.2
11	Mg (mg/L)	17.4	6.8	12.1	12.6	7.3	6.8
12	Na (mg/L)	50.7	22.1	55.8	50.4	24.3	40.4
13	NO2+NO3 (mg N/L)		1.02	0.88	1.02	1.75	2.27
14	NO2-N (mgN/L)	0.01	0.00	0.01	0.00	0.12	0.01
15	NO3-N (mgN/L)		1.02	0.86	1.02	1.63	2.26
16	o-PO4-P (mg P/L)	0.018	0.021	0.026	0.031		0.031
17	SiO2 (mg/L)	10.3	10.6	14.3	16.6		9.9
18	SO4 (mg/L)	23.8	15.8	33.2	39.8	14.4	22.1
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.1				1.9	1.0
2	COD (mg/L)	10.9					
3	DO (mg/L)	7.4				5.2	5.4
4	DO_SAT% (%)	90				64	66
5	FCol-MPN (MPN/100mL)	2823					
6	Tcol-MPN (MPN/100mL)	16710					
	TRACE & TOXIC						
1	As (µg/L)	0.5			1.6	1.6	7.0
2	Cd (µg/L)	0.0			0.0	0.3	0.1
3	Cr (µg/L)	9.2			1.3	2.4	0.7
4	Cu (µg/L)	2.7				2.0	6.2
5	Hg (µg/L)	0.0					
6	Ni (µg/L)	5.5				7.7	4.7
7	Pb (µg/L)	9.4				3.8	5.5
8	Zn (µg/L)	13.9				44.0	410.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	67	40	64	64	46	80
2	HAR_Total (mgCaCO3/L)	139	68	115	117	76	108
3	Na% (%)	43	41	51	48	40	44
4	RSC (-)	0.2	0.0	0.2	0.2	0.1	0.0
5	SAR (-)	2.2	1.2	2.3	2.0	1.2	1.7
	PESTICIDES						

Water Quality Seasonal Average for the period: 2007-2022

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

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

S.No	Parameters	Summer							
		Mar - May							
		2014	2015	2018	2019	2020		2022	2023
	PHYSICAL								
1	Q (cumec)	32.62	18.71	8.087	13.05	35.31		109.8	49.46
2	EC_GEN (µmho/cm)	480	421			376		526	497
3	pH_GEN (pH units)	7.1	7.3			8.4		8.0	8.4
4	TDS (mg/L)					208		359	319
5	Temp (deg C)	25.5	25.0			26.0		25.0	26.3
6	Turb (NTU)							27.1	4.7
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0			9.5		5.8	13.2
2	ALK-TOT (mgCaCO3/L)	160	119			106		144	126
3	B (mg/L)	0.21	0.33			0.04		0.14	0.06
4	Ca (mg/L)	29	29			17		26	26
5	Cl (mg/L)	43.3	54.0			38.0		59.1	54.2
6	CO3 (mg/L)	0.0	0.0			11.4		7.0	15.9
7	F (mg/L)	0.47	0.47			0.27		0.32	0.31
8	Fe (mg/L)	0.1	0.1			0.1		0.1	0.5
9	HCO3 (mg/L)	195	145			106		162	121
10	K (mg/L)	2.7	12.5			2.3		4.4	4.5
11	Mg (mg/L)	9.7	9.7			15.8		19.5	17.4
12	Na (mg/L)	55.5	43.6			42.2		53.8	49.9
13	NO2+NO3 (mg N/L)	1.25	1.30			0.15			2.37
14	NO2-N (mgN/L)	0.10	0.23			0.00		0.06	0.06
15	NO3-N (mgN/L)	1.15	1.06			0.15			2.31
16	o-PO4-P (mg P/L)	0.062	0.010			0.827		0.122	0.014
17	SiO2 (mg/L)	11.7	4.7			19.3		4.2	13.0
18	SO4 (mg/L)	26.3	18.5			22.3		29.9	40.6
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.2				0.4		2.2	0.9
2	COD (mg/L)					10.0		11.5	
3	DO (mg/L)	4.3	5.2			8.9		5.9	5.6
4	DO_SAT% (%)	52	63			110		71	70
5	FCol-MPN (MPN/100mL)					40		211	22333
6	Tcol-MPN (MPN/100mL)					230		1488	70667
	TRACE & TOXIC								
1	As (µg/L)			0.8	2.0			0.7	0.6
2	Cd (µg/L)			0.4	0.0			0.0	0.0
3	Cr (µg/L)			0.3	0.6			0.2	14.2
4	Cu (µg/L)			2.8	0.3			2.6	2.5
5	Hg (µg/L)							0.0	0.0
6	Ni (µg/L)			0.6	4.3			1.0	7.3
7	Pb (µg/L)			0.7	2.8			0.1	6.3
8	Zn (µg/L)			2.9	5.4			3.9	15.1
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	72	72			42		66	66
2	HAR_Total (mgCaCO3/L)	113	113			108		147	138
3	Na% (%)	51	43			46		42	42
4	RSC (-)	1.0	0.1			0.0		0.1	0.0
5	SAR (-)	2.3	1.8			1.8		1.9	1.8
	PESTICIDES								

2016, 2017 and 2021 Sample not collected due to dry bed / no flow condition

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	05-02-1965			
Discharge	:	01-02-1966			
Sediment	:	16-09-1972			
Water Quality	:	01-02-1973			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022		04-07-2022	11-07-2022	21-07-2022	01-08-2022
		A		A	A	A	A
	PHYSICAL						
1	Q (cumec)	6.085		48.92	602.9	925.3	138.8
2	Colour_Cod (-)	Light Brown		Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	492		350	221	115	273
4	Odour_Code (-)	odour free		odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1		7.9	7.5	7.7	7.8
6	TDS (mg/L)	276		238	142	72	184
7	Temp (deg C)	25.0		25.0	24.0	24.0	25.0
8	Turb (NTU)	17.7		2.5	5.4	5.8	21.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	117		89	61	33	71
3	B (mg/L)	0.00		0.03	0.08	0.16	0.89
4	Ca (mg/L)	54		23	28	8	20
5	Cl (mg/L)	64.3		44.4	29.8	15.6	43.0
6	CO3 (mg/L)	0.0		0.0	0.0	0.0	0.0
7	F (mg/L)	0.18		0.12	0.10	0.08	0.10
8	Fe (mg/L)	0.0		0.1	0.0	0.3	0.1
9	HCO3 (mg/L)	142		108	74	40	87
10	K (mg/L)	3.0	**Sample not**	3.0	2.3	1.8	1.9
11	Mg (mg/L)	5.6	**submitted**	7.0	5.0	5.3	15.7
12	Na (mg/L)	49.8	**for analysis**	37.4	10.3	6.2	21.2
13	NO2-N (mgN/L)	0.00	**due to NO**	0.04	0.02	0.02	0.01
14	o-PO4-P (mg P/L)	0.000	**FLOW for**	0.050	0.010	0.000	0.031
15	SiO2 (mg/L)	15.7	**the 2nd and**	12.6	3.9	11.0	11.3
16	SO4 (mg/L)	32.7	**3 rd week of**	12.3	3.2	5.2	13.2
	BIOLOGICAL/BACTERIOLOGICAL		**June -2022.**				
1	BOD3-27 (mg/L)	2.4		2.4	1.5	0.3	2.4
2	COD (mg/L)	7.4		18.0	12.0	12.0	11.0
3	DO (mg/L)	7.6		7.3	6.6	5.5	6.6
4	DO_SAT% (%)	92		88	78	65	80
5	FCol-MPN (MPN/100mL)	1700		680	1300	2200	1700
6	Tcol-MPN (MPN/100mL)	14000		1400	1700	7900	13000
	TRACE & TOXIC						
1	As (µg/L)	0.3		0.2	0.4	0.1	0.2
2	Cd (µg/L)	0.0		0.0	0.1	0.0	0.0
3	Cr (µg/L)	0.0		0.3	0.3	0.4	0.0
4	Cu (µg/L)	0.9		1.5	0.9	1.5	1.3
5	Hg (µg/L)	0.0		0.4	0.2	0.2	0.2
6	Ni (µg/L)	0.8		1.3	0.9	0.9	0.6
7	Pb (µg/L)	0.1		0.1	0.1	0.5	0.0
8	Zn (µg/L)	2.2		4.0	2.0	5.4	1.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	135		59	69	21	49
2	HAR_Total (mgCaCO3/L)	158		88	90	43	114
3	Na% (%)	40		47	20	23	28
4	RSC (-)	0.0		0.0	0.0	0.0	0.0
5	SAR (-)	1.7		1.7	0.5	0.4	0.9

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-08-2022	23-08-2022	01-09-2022	13-09-2022	21-09-2022	03-10-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1062	150.2	656.6	346.7	129.3	89.48
2	Colour_Cod (-)	Brown	Light Brown	Light Brown	Light Brown	Clear	Light Brown
3	EC_GEN (µmho/cm)	188	294	297	363	403	625
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.5	7.6	7.7	7.9	7.7	7.7
6	TDS (mg/L)	116	200	166	234	266	346
7	Temp (deg C)	24.0	25.0	24.0	24.0	26.0	24.0
8	Turb (NTU)	114.4	42.1	140.0	76.0	69.8	63.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	42	71	82	97	93	136
3	B (mg/L)	0.09	0.09	0.12	0.06	0.11	0.06
4	Ca (mg/L)	12	20	23	21	28	33
5	Cl (mg/L)	25.9	43.0	37.3	47.2	55.0	94.4
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.11	0.10	0.17	0.15	0.17	0.19
8	Fe (mg/L)	0.5	0.1	0.1	0.2	0.0	0.1
9	HCO3 (mg/L)	52	87	100	118	114	166
10	K (mg/L)	2.2	1.9	2.3	2.6	3.2	3.6
11	Mg (mg/L)	4.5	15.7	8.7	17.6	10.1	17.0
12	Na (mg/L)	19.9	21.2	22.3	28.0	38.7	71.3
13	NO2-N (mgN/L)	0.01	0.01	0.07	0.04	0.01	0.01
14	o-PO4-P (mg P/L)	0.041	0.031	0.000	0.041	0.000	0.000
15	SiO2 (mg/L)	8.5	8.5	19.4	24.1	14.6	10.2
16	SO4 (mg/L)	16.7	13.2	2.0	18.6	31.1	35.1
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.6	2.9	1.6	1.9	3.1	1.8
2	COD (mg/L)	10.0	6.0	11.5	3.0	22.0	13.0
3	DO (mg/L)	6.2	6.2	6.7	7.2	6.8	6.8
4	DO_SAT% (%)	74	75	80	86	84	81
5	FCol-MPN (MPN/100mL)	2200	2300	2200	2200	2300	780
6	Tcol-MPN (MPN/100mL)	4000	7000	22000	14000	7000	1700
	TRACE & TOXIC						
1	As (µg/L)	0.1	0.1	0.2	0.6	0.2	0.2
2	Cd (µg/L)	0.0	0.0	0.0	0.4	0.0	0.0
3	Cr (µg/L)	0.8	0.0	10.6	0.3	0.4	0.1
4	Cu (µg/L)	2.4	0.8	1.0	1.4	0.8	1.9
5	Hg (µg/L)	0.1	0.1	0.3	0.2	0.0	0.0
6	Ni (µg/L)	1.3	0.4	0.7	1.1	0.5	0.9
7	Pb (µg/L)	0.4	0.1	0.2	0.1	0.0	0.0
8	Zn (µg/L)	6.0	0.9	5.7	2.2	3.7	5.6
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	30	49	57	52	71	82
2	HAR_Total (mgCaCO3/L)	49	114	93	125	113	152
3	Na% (%)	46	28	34	32	42	50
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.2	0.9	1.0	1.1	1.6	2.5

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-10-2022	21-10-2022	01-11-2022	14-11-2022	
		A	A	A	A	
	PHYSICAL					
1	Q (cumec)	182.3	151.7	38.23	8.287	
2	Colour_Cod (-)	Brown	Brown	Clear	Clear	
3	EC_GEN (µmho/cm)	394	544	660	802	
4	Odour_Code (-)	odour free	odour free	odour free	odour free	
5	pH_GEN (pH units)	7.8	8.0	8.1	8.2	
6	TDS (mg/L)	242	310	404	563	
7	Temp (deg C)	25.0	24.0	24.0	25.0	
8	Turb (NTU)	222.0	198.2	5.6	2.5	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	
2	ALK-TOT (mgCaCO3/L)	101	138	180	172	
3	B (mg/L)	0.00	0.01	0.00	0.00	
4	Ca (mg/L)	31	28	24	34	
5	Cl (mg/L)	49.3	73.1	89.1	125.3	
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	
7	F (mg/L)	0.21	0.02	0.23	0.21	
8	Fe (mg/L)	0.3	0.6	0.1	NA	
9	HCO3 (mg/L)	123	168	219	210	
10	K (mg/L)	3.6	5.9	4.1	3.0	
11	Mg (mg/L)	10.7	23.8	31.6	32.2	**Sample not submitted for analysis due to NO FLOW from 3 rd week of November - 2022 to may-2023**
12	Na (mg/L)	34.0	43.0	62.0	81.0	
13	NO2-N (mgN/L)	0.03	0.41	0.01	0.01	
14	o-PO4-P (mg P/L)	0.031	0.010	0.000	0.000	
15	SiO2 (mg/L)	9.6	9.8	58.5	26.2	
16	SO4 (mg/L)	21.9	27.0	26.0	39.9	
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)	1.3	1.6	1.8	1.1	
2	COD (mg/L)	25.0	12.0	9.0	28.0	
3	DO (mg/L)	6.3	6.3	7.3	8.1	
4	DO_SAT% (%)	76	75	87	98	
5	FCol-MPN (MPN/100mL)	2800	13000	2200	680	
6	Tcol-MPN (MPN/100mL)	160000	92000	4900	3300	
	TRACE & TOXIC					
1	As (µg/L)	0.2	0.1	0.2	NA	
2	Cd (µg/L)	0.0	0.0	0.0	NA	
3	Cr (µg/L)	0.5	2.0	0.0	NA	
4	Cu (µg/L)	1.1	1.2	0.5	NA	
5	Hg (µg/L)	0.0	0.0	0.0	NA	
6	Ni (µg/L)	1.0	1.6	0.4	NA	
7	Pb (µg/L)	0.2	0.4	0.0	NA	
8	Zn (µg/L)	59.8	4.2	0.6	NA	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	78	71	60	84	
2	HAR_Total (mgCaCO3/L)	123	170	191	218	
3	Na% (%)	37	35	41	44	
4	RSC (-)	0.0	0.0	0.0	0.0	
5	SAR (-)	1.3	1.4	2.0	2.4	

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	282	1190	0.000	147.7
2	EC_GEN (µmho/cm)	15	802	115	401
3	pH_GEN (pH units)	15	8.2	7.5	7.8
4	TDS (mg/L)	15	563	72	251
5	Temp (deg C)	15	26.0	24.0	24.5
6	Turb (NTU)	15	222.0	2.5	65.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	15	0.0	0.0	0
2	ALK-TOT (mgCaCO3/L)	15	180	33	99
3	B (mg/L)	15	0.89	0.00	0.11
4	Ca (mg/L)	15	54	8	26
5	Cl (mg/L)	15	125.3	15.6	55.8
6	CO3 (mg/L)	15	0.0	0.0	0
7	F (mg/L)	15	0.23	0.02	0.14
8	Fe (mg/L)	14	0.6	0.0	0.2
9	HCO3 (mg/L)	15	219	40	121
10	K (mg/L)	15	5.9	1.8	3
11	Mg (mg/L)	15	32.2	4.5	14
12	Na (mg/L)	15	81.0	6.2	36.4
13	NO2-N (mgN/L)	15	0.41	0.00	0.05
14	o-PO4-P (mg P/L)	15	0.050	0.000	0.016
15	SiO2 (mg/L)	15	58.5	3.9	16.2
16	SO4 (mg/L)	15	39.9	2.0	19.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	15	3.1	0.3	1.8
2	COD (mg/L)	15	28.0	3.0	13.3
3	DO (mg/L)	15	8.1	5.5	6.8
4	DO_SAT% (%)	15	98	65	81
5	FCol-MPN (MPN/100mL)	15	13000	680	2549
6	Tcol-MPN (MPN/100mL)	15	160000	1400	23593
	TRACE & TOXIC				
1	As (µg/L)	14	0.6	0.1	0.2
2	Cd (µg/L)	14	0.4	0.0	0
3	Cr (µg/L)	14	10.6	0.0	1.1
4	Cu (µg/L)	14	2.4	0.5	1.2
5	Hg (µg/L)	14	0.4	0.0	0.1
6	Ni (µg/L)	14	1.6	0.4	0.9
7	Pb (µg/L)	14	0.5	0.0	0.2
8	Zn (µg/L)	14	59.8	0.6	7.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	15	135	21	64
2	HAR_Total (mgCaCO3/L)	15	218	43	123
3	Na% (%)	15	50	20	37
4	RSC (-)	15	0.0	0.0	0
5	SAR (-)	15	2.5	0.4	1.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	160.3	269.1	290.1	217.4	163.9	213.1	401.0
2	EC_GEN (µmho/cm)	383	233	111	129	101	195	150
3	pH_FLD (pH units)							
4	pH_GEN (pH units)	7.9	7.6	7.5	7.1	7.3	7.3	7.2
5	TDS (mg/L)							
6	Temp (deg C)	25.5	23.9	24.4	24.8	26.5	26.5	26.0
7	Turb (NTU)							
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	79	69	34	40	29	65	42
3	B (mg/L)	0.39	0.05				0.01	0.10
4	Ca (mg/L)	23	17	9	10	7	15	12
5	Cl (mg/L)	30.4	24.4	12.0	14.1	12.0	17.9	16.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.19	0.17	0.15	0.07	0.07	0.21	0.11
8	Fe (mg/L)	0.1	0.3	0.4	0.5		0.4	0.5
9	HCO3 (mg/L)	96	84	41	48	33	79	51
10	K (mg/L)	1.9	1.9	1.2	1.1	1.0	1.5	1.4
11	Mg (mg/L)	7.0	6.6	4.1	4.6	3.2	4.1	5.2
12	Na (mg/L)	21.7	23.2	8.0	9.4	7.8	20.9	10.2
13	NO2+NO3 (mg N/L)	1.02	1.08	0.75	0.90	1.08	1.78	1.95
14	NO2-N (mgN/L)	0.04	0.05	0.01	0.01	0.01	0.02	0.03
15	NO3-N (mgN/L)	0.98	1.03	0.73	0.89	1.06	1.76	1.91
16	o-PO4-P (mg P/L)	0.000	0.010	0.008	0.000		0.090	0.038
17	SiO2 (mg/L)	12.0	8.7	8.3	7.6		8.4	8.3
18	SO4 (mg/L)	13.2	11.8	5.5	6.3	5.4	9.1	7.8
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)							
2	COD (mg/L)							
3	DO (mg/L)							
4	DO_SAT% (%)							
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	As (µg/L)					5.1	8.6	
2	Cd (µg/L)					0.0	0.1	
3	Cr (µg/L)					2.0	1.0	
4	Cu (µg/L)					11.2	0.8	
5	Hg (µg/L)							
6	Ni (µg/L)					1.1	10.5	
7	Pb (µg/L)						0.5	
8	Zn (µg/L)						0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	58	43	23	26	19	38	31
2	HAR_Total (mgCaCO3/L)	87	70	40	45	32	55	52
3	Na% (%)	32	33	29	30	32	37	27
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.3	0.0
5	SAR (-)	0.9	1.0	0.5	0.6	0.6	1.0	0.6
	PESTICIDES							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	64.26	13.71	75.23	59.33	153.8	58.81	130.8	345.4
2	EC_GEN (µmho/cm)	121	110	217	104	120	167	232	351
3	pH_FLD (pH units)					7.0			
4	pH_GEN (pH units)	7.3	7.2	7.4	7.5	7.5	7.6	7.8	7.8
5	TDS (mg/L)		66	143	70	85	110	159	215
6	Temp (deg C)	26.8	26.0	26.0	25.3	24.8	23.7	23.5	24.5
7	Turb (NTU)							15.5	75.2
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0
2	ALK-TOT (mgCaCO3/L)	32	30	52	32	31	44	62	87
3	B (mg/L)	0.60	0.07	0.45	0.03	0.07	0.04	0.10	0.13
4	Ca (mg/L)	10	9	12	10	11	13	16	25
5	Cl (mg/L)	15.4	15.6	36.8	12.2	14.7	18.5	30.1	47.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0
7	F (mg/L)	0.11		0.49	0.05	0.07	0.09	0.14	0.13
8	Fe (mg/L)	0.4	0.4	0.1	0.5	0.5	0.5	0.3	0.2
9	HCO3 (mg/L)	39	36	63	39	38	54	72	106
10	K (mg/L)	1.2	1.1	1.4	1.2	1.5	1.4	1.9	2.9
11	Mg (mg/L)	4.6	5.8	6.1	3.4	4.0	7.9	8.9	11.3
12	Na (mg/L)	6.8	4.2	27.5	6.8	7.4	10.1	18.2	31.0
13	NO2+NO3 (mg N/L)	0.71	1.00	1.41	0.56	0.87	0.64	1.06	
14	NO2-N (mgN/L)	0.01	0.01	0.02	0.00	0.15	0.01	0.01	0.05
15	NO3-N (mgN/L)	0.69	0.99	1.40	0.56	0.71	0.63	0.96	
16	o-PO4-P (mg P/L)	0.191	0.057	0.110	0.024	0.057	0.017	0.010	0.019
17	SiO2 (mg/L)	12.3	19.7	9.2	7.1	8.8	10.1	5.2	12.2
18	SO4 (mg/L)	8.0	3.8	8.5	4.9	10.3	14.2	10.1	17.9
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)			2.1	2.1	4.4	0.5	1.4	1.8
2	COD (mg/L)				10.0	24.3	17.0	16.3	12.5
3	DO (mg/L)			5.4	6.0	6.7	7.2	7.0	6.6
4	DO_SAT% (%)			66	73	81	85	82	79
5	FCol-MPN (MPN/100mL)				20467	1978	787	937	2720
6	Tcol-MPN (MPN/100mL)				36333	21543	1397	6537	26592
	TRACE & TOXIC								
1	As (µg/L)			3.0	1.9	1.7	0.2	0.6	0.2
2	Cd (µg/L)			0.0	0.3	0.1	0.1	0.0	0.0
3	Cr (µg/L)			12.0	14.9	3.6	2.9	1.8	1.2
4	Cu (µg/L)			3.0	0.6	1.1	1.5	2.0	1.3
5	Hg (µg/L)							1.0	0.1
6	Ni (µg/L)				3.9	5.1	0.4	0.7	0.9
7	Pb (µg/L)			2.0	1.1	0.1	0.3	4.2	0.2
8	Zn (µg/L)			6.0	8.4	15.4	9.5	4.6	8.0
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	25	24	29	25	28	32	41	63
2	HAR_Total (mgCaCO3/L)	44	48	55	39	45	65	78	110
3	Na% (%)	24	17	42	27	26	25	32	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	0.4	0.3	1.5	0.5	0.5	0.5	0.9	1.3
	PESTICIDES								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2019-2020
	PHYSICAL						
1	Q (cumec)	23.03	72.23	11.05	95.09	184.3	118.4
2	EC_GEN (µmho/cm)	283	241	215	276	259	185
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	7.8	7.2	7.6	7.6	8.0	7.9
5	TDS (mg/L)						142
6	Temp (deg C)	25.0	25.0	26.0	27.5	26.5	25.0
7	Turb (NTU)						
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	76	77	69	85	77	59
3	B (mg/L)	0.03			0.01	0.21	0.09
4	Ca (mg/L)	20	18	14	24	22	12
5	Cl (mg/L)	34.6	27.5	22.0	32.7	37.3	20.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.10			0.17	0.17	0.17
8	Fe (mg/L)	0.1	0.0		0.1	0.0	0.2
9	HCO3 (mg/L)	93	94	84	103	93	71
10	K (mg/L)	1.4	1.3	1.0	1.5	5.0	1.8
11	Mg (mg/L)	9.2	6.8	5.8	5.8	8.7	11.2
12	Na (mg/L)	23.0	19.5	19.5	25.7	16.0	8.6
13	NO2+NO3 (mg N/L)	1.07	1.16	1.13	1.53	1.57	0.88
14	NO2-N (mgN/L)	0.01	0.01	0.03	0.11	0.01	0.01
15	NO3-N (mgN/L)	1.06	1.15	1.11	1.42	1.56	0.87
16	o-PO4-P (mg P/L)	0.000	0.047		0.021	0.000	0.000
17	SiO2 (mg/L)	10.5	10.2		9.2	8.3	8.7
18	SO4 (mg/L)	14.2	9.1	5.5	5.1	4.4	7.6
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)						1.0
2	COD (mg/L)						28.0
3	DO (mg/L)						6.5
4	DO_SAT% (%)						79
5	FCol-MPN (MPN/100mL)						0
6	Tcol-MPN (MPN/100mL)						45
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)					0.0	
3	Cr (µg/L)					2.6	
4	Cu (µg/L)					4.8	
5	Hg (µg/L)						
6	Ni (µg/L)					0.0	
7	Pb (µg/L)					1.2	
8	Zn (µg/L)					10.0	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	50	46	36	60	56	30
2	HAR_Total (mgCaCO3/L)	88	74	60	84	92	76
3	Na% (%)	36	36	41	39	26	19
4	RSC (-)	0.0	0.1	0.2	0.0	0.0	0.0
5	SAR (-)	1.1	1.0	1.1	1.2	0.7	0.4
	PESTICIDES						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter				Summer	
		Nov - Feb				Mar - May	
		2020-2021	2021-2022	2022-2023		2022	
	PHYSICAL						
1	Q (cumec)	19.17	156.9	23.26		106.3	
2	EC_GEN (µmho/cm)	365	349	731		338	
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	7.8	7.9	8.1		7.8	
5	TDS (mg/L)	240	211	484		188	
6	Temp (deg C)	24.0	23.8	24.5		24.0	
7	Turb (NTU)		20.2	4.1		199.2	
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0		0.0	
2	ALK-TOT (mgCaCO3/L)	108	87	176		87	
3	B (mg/L)			0.00		0.18	
4	Ca (mg/L)	26	24	29		24	
5	Cl (mg/L)	49.0	46.1	107.2		40.1	
6	CO3 (mg/L)	0.0	0.0	0.0		0.0	
7	F (mg/L)		0.18	0.22		0.42	
8	Fe (mg/L)		0.0	0.1		0.2	
9	HCO3 (mg/L)	132	106	214		106	
10	K (mg/L)	2.7	2.7	3.6		2.8	
11	Mg (mg/L)	12.6	11.7	31.9		8.0	
12	Na (mg/L)	34.8	23.3	71.5		34.9	
13	NO2+NO3 (mg N/L)	2.52					
14	NO2-N (mgN/L)	0.00	0.00	0.01		0.11	
15	NO3-N (mgN/L)	2.52					
16	o-PO4-P (mg P/L)	0.010		0.000		0.020	
17	SiO2 (mg/L)	9.6		42.3		2.6	
18	SO4 (mg/L)	13.0	15.5	32.9		22.0	
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.8	1.0	1.4		3.2	
2	COD (mg/L)			18.5		14.0	
3	DO (mg/L)	6.8	7.3	7.7		7.0	
4	DO_SAT% (%)	81	86	92		83	
5	FCol-MPN (MPN/100mL)			1440		170	
6	Tcol-MPN (MPN/100mL)			4100		5400	
	TRACE & TOXIC						
1	As (µg/L)		0.5	0.2		0.6	
2	Cd (µg/L)		0.0	0.0		0.0	
3	Cr (µg/L)		0.2	0.0			
4	Cu (µg/L)		1.9	0.5		2.2	
5	Hg (µg/L)		0.0	0.0		0.0	
6	Ni (µg/L)		0.7	0.4		1.2	
7	Pb (µg/L)		0.3	0.0		0.3	
8	Zn (µg/L)		2.9	0.6		11.5	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	64	61	72		61	
2	HAR_Total (mgCaCO3/L)	117	110	205		94	
3	Na% (%)	39	32	43		44	
4	RSC (-)	0.0	0.1	0.0		0.0	
5	SAR (-)	1.4	1.0	2.2		1.6	
	PESTICIDES						

2008-2009 to 2009-2010 and 2015 - 2016 to 2018 - 2019 Sample not collected due to dry bed / no flow condition

2009 to 2021 and 2023 Sample not collected due to dry bed / no flow condition

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	28-11-1997			
Discharge	:	02-10-2001			
Water Quality	:	01-06-2008			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters		11-08-2022	01-09-2022	13-09-2022	21-09-2022
			A	A	A	A
	PHYSICAL					
1	Q (cumec)		31.17	96.95	18.69	8.990
2	Colour_Cod (-)		Light Brown	Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)		550	387	533	600
4	Odour_Code (-)		odour free	odour free	odour free	odour free
5	pH_GEN (pH units)		8.2	8.0	8.4	8.4
6	TDS (mg/L)		310	220	356	412
7	Temp (deg C)		25.0	25.0	25.0	25.0
8	Turb (NTU)		35.7	175.0	32.0	15.1
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	0.0	54.8
2	ALK-TOT (mgCaCO3/L)		197	144	174	198
3	B (mg/L)		0.48	0.32	0.12	0.08
4	Ca (mg/L)		26	24	19	31
5	Cl (mg/L)		58.6	34.1	48.6	60.4
6	CO3 (mg/L)		0.0	0.0	0.0	66.0
7	F (mg/L)		0.21	0.23	0.19	0.23
8	Fe (mg/L)		0.1	0.2	0.1	0.1
9	HCO3 (mg/L)		241	176	213	107
10	K (mg/L)		4.3	4.3	3.4	3.6
11	Mg (mg/L)		1.0	10.4	14.3	13.4
12	Na (mg/L)		103.8	21.3	81.4	73.1
13	NO2-N (mgN/L)		0.03	0.04	0.01	0.01
14	o-PO4-P (mg P/L)		0.134	0.000	0.062	0.000
15	SiO2 (mg/L)		13.3	21.0	18.6	16.8
16	SO4 (mg/L)		21.7	16.8	32.0	38.6
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD (mg/L)		1.8	0.6	1.5	3.3
2	COD (mg/L)		13.0	4.5	3.0	29.0
3	DO (mg/L)		7.0	5.9	7.0	6.3
4	DO_SAT% (%)		85	71	85	76
5	FCol-MPN (MPN/100mL)		1700	2400	3900	4700
6	Tcol-MPN (MPN/100mL)		3300	92000	16000	54000
	TRACE & TOXIC					
1	As (µg/L)		0.8	0.2	1.0	0.5
2	Cd (µg/L)		0.0	0.0	0.4	0.0
3	Cr (µg/L)		0.2	5.3	0.2	0.6
4	Cu (µg/L)		2.2	2.3	2.3	0.8
5	Hg (µg/L)		0.2	0.6	0.3	0.4
6	Ni (µg/L)		1.2	1.4	1.3	0.8
7	Pb (µg/L)		0.5	0.3	0.1	0.1
8	Zn (µg/L)		3.0	5.1	2.0	2.4
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		66	60	47	78
2	HAR_Total (mgCaCO3/L)		70	104	106	134
3	Na% (%)		75	30	62	54
4	RSC (-)		2.5	0.8	1.4	1.3
5	SAR (-)		5.4	0.9	3.5	2.8

Sample not submitted for analysis from June-2022 to 1st week of August- 2022 , due to NO FLOW condition of the River

NA-N0T ANALYZED

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	14-11-2022
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	10.62	6.735	43.47	6.991	4.255
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Clear	Light Brown
3	EC_GEN (µmho/cm)	614	650	601	674	750
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.4	8.4	8.4	8.4
6	TDS (mg/L)	346	422	404	448	439
7	Temp (deg C)	25.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	22.4	15.0	37.4	2.8	1.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	18.4	20.9	17.2	31.6	74.9
2	ALK-TOT (mgCaCO3/L)	211	237	210	245	269
3	B (mg/L)	0.20	0.00	0.01	0.09	0.70
4	Ca (mg/L)	26	34	26	31	32
5	Cl (mg/L)	60.7	63.9	54.0	64.3	76.0
6	CO3 (mg/L)	22.2	25.2	20.7	38.1	90.3
7	F (mg/L)	0.27	0.28	0.29	0.30	0.30
8	Fe (mg/L)	0.0	1.3	0.4	0.0	NA
9	HCO3 (mg/L)	212	238	215	222	145
10	K (mg/L)	10.9	4.5	4.9	6.0	5.0
11	Mg (mg/L)	21.9	18.3	20.9	24.1	24.4
12	Na (mg/L)	77.0	82.0	73.0	81.4	87.0
13	NO2-N (mgN/L)	0.03	0.01	0.01	0.00	0.00
14	o-PO4-P (mg P/L)	0.010	0.083	0.052	0.000	0.000
15	SiO2 (mg/L)	16.9	16.6	16.8	15.7	16.1
16	SO4 (mg/L)	25.0	4.4	16.1	21.1	18.3
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD (mg/L)	2.3	1.3	0.8	0.8	0.7
2	COD (mg/L)	16.0	9.0	16.0	6.0	12.0
3	DO (mg/L)	7.0	6.5	6.9	7.1	7.1
4	DO_SAT% (%)	85	79	84	86	86
5	FCol-MPN (MPN/100mL)	11000	9400	1700	2600	1100
6	Tcol-MPN (MPN/100mL)	54000	92000	22000	17000	13000
	TRACE & TOXIC					
1	As (µg/L)	0.4	0.2	0.4	0.5	NA
2	Cd (µg/L)	0.0	0.0	0.0	0.0	NA
3	Cr (µg/L)	0.0	2.7	0.7	0.0	NA
4	Cu (µg/L)	1.1	2.3	2.2	0.6	NA
5	Hg (µg/L)	0.0	0.0	0.0	0.0	NA
6	Ni (µg/L)	0.8	3.1	1.3	0.7	NA
7	Pb (µg/L)	0.0	0.7	0.2	0.0	NA
8	Zn (µg/L)	4.5	7.9	1.9	0.3	NA
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	65	86	64	77	80
2	HAR_Total (mgCaCO3/L)	156	162	151	177	182
3	Na% (%)	50	52	50	49	50
4	RSC (-)	1.1	1.5	1.2	1.4	1.8
5	SAR (-)	2.7	2.8	2.6	2.7	2.8

NA-N0T ANALYZED

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	22-11-2022	01-12-2022	13-12-2022	21-12-2022	03-01-2023
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	10.91	10.24	4.999	14.90	3.293
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	761	652	692	715	777
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.4	8.4	8.5	8.4
6	TDS (mg/L)	489	476	414	386	522
7	Temp (deg C)	25.0	25.0	25.0	25.0	25.0
8	Turb (NTU)	4.2	0.2	1.6	2.0	1.7
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	27.9	36.9	42.6	37.1	26.4
2	ALK-TOT (mgCaCO3/L)	262	228	250	252	280
3	B (mg/L)	0.36	0.12	0.11	0.16	0.00
4	Ca (mg/L)	25	25	33	32	56
5	Cl (mg/L)	77.0	78.1	76.3	82.0	91.9
6	CO3 (mg/L)	33.6	44.4	51.3	44.7	31.8
7	F (mg/L)	0.30	0.23	0.23	0.23	0.21
8	Fe (mg/L)	NA	NA	NA	1.0	0.4
9	HCO3 (mg/L)	251	188	200	217	277
10	K (mg/L)	5.0	4.0	4.0	4.0	2.6
11	Mg (mg/L)	29.0	30.5	30.4	31.2	31.5
12	Na (mg/L)	81.0	66.0	60.0	64.0	57.0
13	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00
14	o-PO4-P (mg P/L)	0.000	NA	NA	NA	0.040
15	SiO2 (mg/L)	15.4	15.7	16.3	16.8	15.6
16	SO4 (mg/L)	11.5	1.2	24.6	20.4	4.0
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD (mg/L)	0.5	0.8	2.7	1.0	3.1
2	COD (mg/L)	7.0	16.0	29.0	17.0	9.0
3	DO (mg/L)	7.3	6.8	7.2	6.3	4.9
4	DO_SAT% (%)	88	82	87	76	59
5	FCol-MPN (MPN/100mL)	680	1400	1400	680	17000
6	Tcol-MPN (MPN/100mL)	13000	17000	17000	13000	35000
	TRACE & TOXIC					
1	As (µg/L)	NA	NA	NA	0.6	0.1
2	Cd (µg/L)	NA	NA	NA	0.2	0.0
3	Cr (µg/L)	NA	NA	NA	17.3	2.8
4	Cu (µg/L)	NA	NA	NA	5.9	6.0
5	Hg (µg/L)	NA	NA	NA	0.2	0.0
6	Ni (µg/L)	NA	NA	NA	3.7	1.1
7	Pb (µg/L)	NA	NA	NA	9.9	10.1
8	Zn (µg/L)	NA	NA	NA	18.4	19.2
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	63	63	83	81	140
2	HAR_Total (mgCaCO3/L)	184	190	209	211	271
3	Na% (%)	48	43	38	39	31
4	RSC (-)	1.6	0.8	0.8	0.9	0.2
5	SAR (-)	2.6	2.1	1.8	1.9	1.5

NA-N0T ANALYZED

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	12-01-2023	24-01-2023	01-02-2023	14-02-2023	
		A	A	A	A	
	PHYSICAL					
1	Q (cumec)	0.765	3.319	2.551	0.837	
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	
3	EC_GEN (µmho/cm)	880	830	801	904	
4	Odour_Code (-)	odour free	odour free	odour free	odour free	
5	pH_GEN (pH units)	8.4	8.6	8.6	8.6	
6	TDS (mg/L)	520	490	566	510	
7	Temp (deg C)	25.0	25.0	25.0	25.0	
8	Turb (NTU)	0.9	0.6	3.8	3.4	
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	27.9	16.2	40.1	36.9	
2	ALK-TOT (mgCaCO3/L)	299	277	247	253	
3	B (mg/L)	0.03	0.08	0.08	0.18	
4	Ca (mg/L)	53	47	28	43	
5	Cl (mg/L)	107.2	104.7	98.7	109.0	
6	CO3 (mg/L)	33.6	19.5	48.3	44.4	
7	F (mg/L)	0.19	0.17	0.04	0.21	
8	Fe (mg/L)	0.2	0.3	0.2	0.4	
9	HCO3 (mg/L)	296	298	203	218	
10	K (mg/L)	2.5	2.3	3.8	3.6	
11	Mg (mg/L)	13.9	17.3	23.8	23.1	
12	Na (mg/L)	129.1	119.0	102.2	110.7	
13	NO2-N (mgN/L)	0.00	0.02	0.01	0.00	
14	o-PO4-P (mg P/L)	0.010	0.010	0.062	0.041	
15	SiO2 (mg/L)	14.7	15.7	23.4	23.7	
16	SO4 (mg/L)	4.4	4.4	21.7	30.3	
	BIOLOGICAL/BACTERIOLOGICAL					
1	BOD (mg/L)	1.8	1.2	2.0	2.0	
2	COD (mg/L)	11.0	14.0	13.0	13.0	
3	DO (mg/L)	7.3	7.1	6.6	7.6	
4	DO_SAT% (%)	88	86	80	92	
5	FCol-MPN (MPN/100mL)	2600	2200	1700	2200	
6	Tcol-MPN (MPN/100mL)	17000	13000	54000	35000	
	TRACE & TOXIC					
1	As (µg/L)	0.2	0.4	0.5	0.2	
2	Cd (µg/L)	0.0	0.1	0.0	0.1	
3	Cr (µg/L)	3.1	2.6	2.2	2.0	
4	Cu (µg/L)	4.3	6.4	4.0	2.2	
5	Hg (µg/L)	0.0	0.0	0.0	0.0	
6	Ni (µg/L)	2.2	5.0	7.2	4.0	
7	Pb (µg/L)	14.5	5.8	2.0	4.6	
8	Zn (µg/L)	12.9	10.0	4.7	2.0	
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	133	117	70	109	
2	HAR_Total (mgCaCO3/L)	190	189	169	205	
3	Na% (%)	59	58	56	54	
4	RSC (-)	2.2	1.8	1.6	1.0	
5	SAR (-)	4.1	3.8	3.4	3.4	

Sample not submitted for analysis from 3rd week of February to May-2023 , due to NO FLOW condition of the River

NA-N0T ANALYZED

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	184.9	0.000	8.618
2	EC_GEN (µmho/cm)	18	904	387	687
3	pH_GEN (pH units)	18	8.6	8.0	8.4
4	TDS (mg/L)	18	566	220	429
5	Temp (deg C)	18	25.0	25.0	25
6	Turb (NTU)	18	175.0	0.2	19.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	18	74.9	0.0	28.3
2	ALK-TOT (mgCaCO3/L)	18	299	144	235
3	B (mg/L)	18	0.70	0.00	0.17
4	Ca (mg/L)	18	56	19	33
5	Cl (mg/L)	18	109.0	34.1	74.7
6	CO3 (mg/L)	18	90.3	0.0	34.1
7	F (mg/L)	18	0.30	0.04	0.23
8	Fe (mg/L)	14	1.3	0.0	0.3
9	HCO3 (mg/L)	18	298	107	217
10	K (mg/L)	18	10.9	2.3	4.4
11	Mg (mg/L)	18	31.5	1.0	21.1
12	Na (mg/L)	18	129.1	21.3	81.6
13	NO2-N (mgN/L)	18	0.04	0.00	0.01
14	o-PO4-P (mg P/L)	15	0.134	0.000	0.034
15	SiO2 (mg/L)	18	23.7	13.3	17.2
16	SO4 (mg/L)	18	38.6	1.2	17.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD (mg/L)	18	3.3	0.5	1.6
2	COD (mg/L)	18	29.0	3.0	13.2
3	DO (mg/L)	18	7.6	4.9	6.8
4	DO_SAT% (%)	18	92	59	82
5	FCol-MPN (MPN/100mL)	18	17000	680	3798
6	Tcol-MPN (MPN/100mL)	18	92000	3300	32072
	TRACE & TOXIC				
1	As (µg/L)	14	1.0	0.1	0.4
2	Cd (µg/L)	14	0.4	0.0	0.1
3	Cr (µg/L)	14	17.3	0.0	2.8
4	Cu (µg/L)	14	6.4	0.6	3
5	Hg (µg/L)	14	0.6	0.0	0.1
6	Ni (µg/L)	14	7.2	0.7	2.6
7	Pb (µg/L)	14	14.5	0.0	3.5
8	Zn (µg/L)	14	19.2	0.3	6.7
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	18	140	47	82
2	HAR_Total (mgCaCO3/L)	18	271	70	170
3	Na% (%)	18	75	30	50
4	RSC (-)	18	2.5	0.2	1.3
5	SAR (-)	18	5.4	0.9	2.8

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood				Winter	
		Jun - Oct				Nov - Feb	
		2009	2010	2022		2008-2009	2009-2010
	PHYSICAL						
1	Q (cumec)	0.620	1.110	30.95		3.745	0.952
2	EC_GEN (µmho/cm)	851	1176	562		682	1610
3	pH_GEN (pH units)	8.0	8.3	8.3		8.2	8.1
4	TDS (mg/L)			353			
5	Temp (deg C)	28.0	24.5	25.0		28.0	23.5
6	Turb (NTU)			47.5			
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	15.9		0.0	0.0
2	ALK-TOT (mgCaCO3/L)	262	375	196		244	471
3	B (mg/L)	0.11		0.17		0.13	0.30
4	Ca (mg/L)	29	34	27		34	34
5	Cl (mg/L)	88.6	141.1	54.3		66.4	252.8
6	CO3 (mg/L)	0.0	0.0	19.2		0.0	0.0
7	F (mg/L)	0.76	0.57	0.24		0.47	1.42
8	Fe (mg/L)	0.0	0.1	0.3		0.1	0.0
9	HCO3 (mg/L)	319	457	200		297	574
10	K (mg/L)	2.8	3.4	5.1		3.5	1.7
11	Mg (mg/L)	17.5	26.2	14.3		17.5	28.2
12	Na (mg/L)	140.5	198.1	73.1		95.0	322.0
13	NO2+NO3 (mg N/L)	1.88	1.43				2.21
14	NO2-N (mgN/L)	0.00	0.01	0.02		0.01	0.03
15	NO3-N (mgN/L)	1.88	1.42				2.19
16	o-PO4-P (mg P/L)	0.000	0.010	0.049		0.052	0.000
17	SiO2 (mg/L)	26.6	0.0	17.1		17.4	30.0
18	SO4 (mg/L)	35.2	37.7	22.1		24.6	19.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)			1.7			
2	COD (mg/L)			12.9			
3	DO (mg/L)			6.7			
4	DO_SAT% (%)			81			
5	FCol-MPN (MPN/100mL)			4971			
6	Tcol-MPN (MPN/100mL)			47614			
	TRACE & TOXIC						
1	As (µg/L)			0.5			
2	Cd (µg/L)			0.1			
3	Cr (µg/L)			1.4			
4	Cu (µg/L)			1.9			
5	Hg (µg/L)			0.2			
6	Ni (µg/L)			1.4			
7	Pb (µg/L)			0.2			
8	Zn (µg/L)			3.8			
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	72	84	67		84	84
2	HAR_Total (mgCaCO3/L)	145	193	126		157	201
3	Na% (%)	67	69	53		56	78
4	RSC (-)	2.4	3.7	1.4		1.8	5.4
5	SAR (-)	5.1	6.2	2.9		3.3	9.9
	PESTICIDES						

2008, 2011 to 2021 Sample not collecteed due to dry bed / no flow condition

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					Summer
		Nov - Feb					Mar - May
		2010-2011	2015-2016	2021-2022	2022-2023	2011 - 2012 to 2014-2015 and 2016-17 to 2020-2021 Sample not collecteed due to dry bed / no flow condition	2009 to 2023 Sample not collecteed due to dry bed / no flow condition
	PHYSICAL						
1	Q (cumec)	1.406	6.473	3.343	5.733		
2	EC_GEN (µmho/cm)	1453	441	543	767		
3	pH_GEN (pH units)	8.8	8.1	8.3	8.5		
4	TDS (mg/L)			349	478		
5	Temp (deg C)	23.0	17.0	24.2	25.0		
6	Turb (NTU)			8.4	2.1		
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	69.0	0.0	20.0	36.2		
2	ALK-TOT (mgCaCO3/L)	438	166	187	260		
3	B (mg/L)	0.32	0.15		0.17		
4	Ca (mg/L)	16	26	24	37		
5	Cl (mg/L)	226.5	43.0	50.4	87.7		
6	CO3 (mg/L)	83.1	0.0	24.2	43.6		
7	F (mg/L)	1.46	0.17	0.29	0.22		
8	Fe (mg/L)	0.0	0.2	0.1	0.4		
9	HCO3 (mg/L)	366	202	179	229		
10	K (mg/L)	1.6	1.7	4.0	3.9		
11	Mg (mg/L)	27.2	12.6	12.8	25.4		
12	Na (mg/L)	278.1	48.5	83.7	87.0		
13	NO2+NO3 (mg N/L)	1.50	1.02				
14	NO2-N (mgN/L)	0.00	0.01		0.00		
15	NO3-N (mgN/L)	1.50	1.01				
16	o-PO4-P (mg P/L)	0.010	0.279	0.005	0.020		
17	SiO2 (mg/L)	23.0	8.9	9.4	17.2		
18	SO4 (mg/L)	17.1	8.6	22.6	14.7		
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)			1.0	1.5		
2	COD (mg/L)				13.4		
3	DO (mg/L)			7.4	6.8		
4	DO_SAT% (%)			89	83		
5	FCol-MPN (MPN/100mL)				3051		
6	Tcol-MPN (MPN/100mL)				22182		
	TRACE & TOXIC						
1	As (µg/L)			1.1	0.4		
2	Cd (µg/L)			0.0	0.1		
3	Cr (µg/L)			0.2	4.3		
4	Cu (µg/L)			2.4	4.2		
5	Hg (µg/L)			0.0	0.0		
6	Ni (µg/L)			1.0	3.8		
7	Pb (µg/L)			0.4	6.7		
8	Zn (µg/L)			3.8	9.7		
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	40	64	59	92		
2	HAR_Total (mgCaCO3/L)	153	117	113	198		
3	Na% (%)	80	47	57	48		
4	RSC (-)	5.7	1.0	1.5	1.3		
5	SAR (-)	9.8	2.0	4.8	2.7		
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	01-06-1990			
Discharge	:	11-07-1990			
Sediment	:				
Water Quality	:	01-07-1994			

Note : SAMPLE NOT RECEIVED FOR ANALYSIS FROM JUNE-2022 TO MAY-2023 DUE TO NO FLOW CONDITION OF THE RIVER

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	13-07-1963			
Discharge	:	23-08-1964			
Water Quality	:	01-01-1980			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	12.82	11.81	4.529	2.149	3.883	11.43
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	2582	2269	1274	2566	2537	1494
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.4	8.5	8.4	8.4	8.4	8.6
8	TDS (mg/L)	1643	1658	867	1935	1756	999
9	Temp (deg C)	25.0	26.0	26.0	25.0	24.0	24.5
10	Turb (NTU)	3.0	6.0	8.0	8.0	7.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	27.9	32.0	21.5	33.6	30.4	17.8
2	ALK-TOT (mgCaCO3/L)	304	303	177	254	299	158
3	B (mg/L)	0.62	0.45		0.92	0.87	0.97
4	Ca (mg/L)	111	67	57	93	95	63
5	Cl (mg/L)	350.7	206.8	191.4	395.2	250.0	231.7
6	CO3 (mg/L)	33.6	38.5	25.9	40.5	36.6	21.5
7	F (mg/L)	0.72	0.79	0.72	1.03	0.97	0.77
8	Fe (mg/L)	0.1	0.1	0.0	0.3	0.3	0.2
9	HCO3 (mg/L)	303	292	163	227	290	149
10	K (mg/L)	8.7	9.2	4.2	6.2	7.3	8.6
11	Mg (mg/L)	45.7	47.9	21.5	53.0	46.2	23.4
12	Na (mg/L)	329.0	172.9	182.9	373.4	247.2	111.3
13	NH3-N (mg N/L)	0.11	0.65		0.57	1.12	0.08
14	NO2+NO3 (mg N/L)	7.83	10.12	5.77	10.58	10.31	5.32
15	NO2-N (mgN/L)	0.04	0.00	0.03	0.03	0.01	0.01
16	NO3-N (mgN/L)	7.79	10.12	5.74	10.55	10.30	5.31
17	o-PO4-P (mg P/L)	0.160	0.310	0.380	0.390	0.560	0.360
18	SiO2 (mg/L)	6.8	22.6	5.1	7.3	20.1	10.1
19	SO4 (mg/L)	165.2	76.7	128.3	185.0	175.4	92.5
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.0	0.9	0.9	0.3	0.7	0.7
2	COD (mg/L)				1.9	3.9	3.7
3	DO (mg/L)	5.8	5.6	4.6	6.7	7.2	7.1
4	DO_SAT% (%)	70	69	57	81	86	84
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.00	1.00	3.00	0.60	4.70	1.00
2	Cr (µg/L)	8.40	5.90	6.30	2.70	2.40	5.20
3	Cu (µg/L)	9.50	4.30	1.90	6.80	2.50	0.00
4	Hg (µg/L)	0.15	0.01	0.00	0.07	0.00	0.00
5	Ni (µg/L)	12.20	4.20	0.00	14.50	6.50	7.80
6	Pb (µg/L)	23.00	14.00	0.00	24.00	0.00	34.00
7	Zn (µg/L)	5.47	2.76	19.05	7.72	1.04	4.63
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	277	167	142	233	236	157
2	HAR_Total (mgCaCO3/L)	467	367	231	453	429	255
3	Na% (%)	60	50	63	64	55	48
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	6.6	3.9	5.2	7.7	5.2	3.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	75.26	126.1	37.42	121.8	778.3	265.3
2	Colour_Cod (-)	Brown	Clear	Clear	Light Brown	Clear	Clear
3	EC_FLD (µmho/cm)		530				
4	EC_GEN (µmho/cm)	1086	987	1307	982	628	792
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)		8.4				
7	pH_GEN (pH units)	8.2	8.2	8.2	8.1	7.8	8.1
8	TDS (mg/L)	735	661	825	773	417	601
9	Temp (deg C)	24.0	24.0	24.0	25.0	24.0	23.0
10	Turb (NTU)	137.0	4.0	4.0	11.0	11.3	13.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	118	155	171	172	101	99
3	B (mg/L)	0.29	0.34	0.34	0.21	0.27	0.21
4	Ca (mg/L)	60	63	45	47	45	41
5	Cl (mg/L)	130.9	51.6	41.0	72.4	74.9	80.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.83	0.78	0.69	0.71	0.69	0.41
8	Fe (mg/L)	3.2	0.4	1.7	4.7	1.1	1.1
9	HCO3 (mg/L)	144	189	209	210	123	120
10	K (mg/L)	5.3	7.5	2.9	2.0	2.5	1.8
11	Mg (mg/L)	23.3	20.0	8.0	8.7	8.8	16.0
12	Na (mg/L)	100.2	40.1	125.3	91.6	46.3	50.0
13	NH3-N (mg N/L)	0.35	0.17	0.00	0.02	0.28	0.40
14	NO2+NO3 (mg N/L)	5.39	5.29	5.37	5.42	5.12	7.36
15	NO2-N (mgN/L)	0.06	0.05	0.02	0.02	0.03	0.04
16	NO3-N (mgN/L)	5.33	5.24	5.35	5.40	5.09	7.32
17	o-PO4-P (mg P/L)	0.595	0.150	0.280	0.270	0.150	0.210
18	SiO2 (mg/L)	10.7	6.4	95.0	13.9	12.4	11.8
19	SO4 (mg/L)	78.4	84.0	103.3	107.7	58.6	60.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	1.9	0.2	1.6	1.1	2.3
2	COD (mg/L)	11.8	18.2	2.0	15.3	9.0	11.2
3	DO (mg/L)	4.1	5.9	5.1	5.1	2.5	6.1
4	DO_SAT% (%)	49	70	61	62	30	71
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.30	0.00	0.00	3.20	0.00	0.00
2	Cr (µg/L)	8.40	0.00	1.00	1.60	1.80	14.30
3	Cu (µg/L)	3.70	3.60	6.30	7.50	5.80	8.40
4	Hg (µg/L)	0.06	1.99	0.00	0.02		
5	Ni (µg/L)	8.80	3.70	11.90	11.70	4.60	14.20
6	Pb (µg/L)	16.00	47.00	53.00	48.00	0.00	38.00
7	Zn (µg/L)	4.45	6.44	5.75	5.18	124.00	21.32
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	150	158	113	118	114	103
2	HAR_Total (mgCaCO3/L)	247	241	146	154	150	169
3	Na% (%)	46	26	65	56	40	39
4	RSC (-)	0.0	0.0	0.5	0.4	0.0	0.0
5	SAR (-)	2.8	1.1	4.5	3.2	1.6	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	476.8	196.2	439.5	271.5	145.2	88.28
2	Colour_Cod (-)	Clear	Brown	Dark Green	Clear	Brown	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	914	1078	775	869	981	1073
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.0	8.2	8.3	8.3	8.4	8.2
8	TDS (mg/L)	561	653	440	490	621	605
9	Temp (deg C)	23.0	23.0	23.0	20.0	22.0	21.0
10	Turb (NTU)	24.0	4.0	24.0	24.0	12.0	12.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	17.3	16.2	0.0
2	ALK-TOT (mgCaCO3/L)	187	207	109	134	133	235
3	B (mg/L)	0.07	0.14	0.30	0.15	0.17	0.30
4	Ca (mg/L)	43	55	56	41	42	67
5	Cl (mg/L)	105.0	127.1	90.0	112.3	120.5	118.1
6	CO3 (mg/L)	0.0	0.0	0.0	20.9	19.5	0.0
7	F (mg/L)	0.50	0.48	0.45	0.43	0.44	0.46
8	Fe (mg/L)	2.5	2.5	5.7	0.7	2.9	2.3
9	HCO3 (mg/L)	228	253	133	120	122	287
10	K (mg/L)	2.9	2.9	3.0	3.0	2.9	4.3
11	Mg (mg/L)	16.1	21.3	21.0	22.5	22.6	18.8
12	Na (mg/L)	117.5	123.9	80.6	78.0	82.3	120.4
13	NH3-N (mg N/L)	0.40	0.21	0.30	0.39	0.17	0.15
14	NO2+NO3 (mg N/L)	8.04	8.32	8.33	8.57	8.74	9.13
15	NO2-N (mgN/L)	0.04	0.02	0.01	0.01	0.04	0.03
16	NO3-N (mgN/L)	8.00	8.30	8.32	8.56	8.70	9.10
17	o-PO4-P (mg P/L)	0.336	0.504	0.156	0.110	0.150	0.232
18	SiO2 (mg/L)	10.4	9.1	10.0	9.9	12.0	12.1
19	SO4 (mg/L)	76.4	87.6	65.4	78.2	104.3	104.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.1	0.7	0.3	0.8	1.1	1.2
2	COD (mg/L)	5.7	1.9	1.9	10.1	12.1	8.1
3	DO (mg/L)	4.8	5.5	5.7	6.2	7.3	7.0
4	DO_SAT% (%)	56	64	66	68	83	79
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.80	0.00	0.00	1.80	0.00	1.50
2	Cr (µg/L)	5.20	2.80	9.50	0.70	4.70	9.60
3	Cu (µg/L)	5.90	3.00	6.20	3.30	4.90	4.80
4	Hg (µg/L)						
5	Ni (µg/L)	9.40	14.10	22.60	6.60	8.20	10.40
6	Pb (µg/L)	26.00	33.00	34.00	7.00	34.00	55.00
7	Zn (µg/L)	9.56	8.08	9.35	2.30	6.32	4.19
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	108	138	140	103	105	168
2	HAR_Total (mgCaCO3/L)	175	226	228	197	199	246
3	Na% (%)	59	54	43	46	47	51
4	RSC (-)	0.3	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.9	3.6	2.3	2.4	2.5	3.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	64.43	40.28	50.02	39.08	20.35	24.71
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	1154	1468	1135	1274	1575	1450
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.4	8.4	8.3	8.3	8.3	8.1
8	TDS (mg/L)	743	1205	801	756	1118	1002
9	Temp (deg C)	22.0	22.0	20.0	21.0	18.0	21.0
10	Turb (NTU)	8.0	9.0	4.3	13.0	12.0	9.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	24.1	22.7	25.9	29.1	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	217	167	206	201	239	235
3	B (mg/L)	0.16	0.17	0.11	0.27	0.25	0.32
4	Ca (mg/L)	66	67	62	64	64	88
5	Cl (mg/L)	157.1	95.0	122.0	171.0	211.8	196.4
6	CO3 (mg/L)	29.0	27.3	31.2	35.0	0.0	0.0
7	F (mg/L)	0.62	0.62	0.58	0.62	0.57	0.58
8	Fe (mg/L)	2.6	0.4	1.6	0.4	0.8	1.1
9	HCO3 (mg/L)	206	148	188	174	292	287
10	K (mg/L)	4.2	2.7	2.6	4.7	5.1	5.1
11	Mg (mg/L)	18.6	19.1	36.0	38.0	36.7	25.0
12	Na (mg/L)	112.8	65.2	97.5	128.0	165.5	146.5
13	NH3-N (mg N/L)	0.00	0.01	0.01	0.00	0.13	0.00
14	NO2+NO3 (mg N/L)	10.11	13.58	12.43	13.61	3.22	3.59
15	NO2-N (mgN/L)	0.03	0.03	0.01	0.01	0.03	0.00
16	NO3-N (mgN/L)	10.08	13.55	12.42	13.60	3.19	3.59
17	o-PO4-P (mg P/L)	0.108	0.110	0.400	0.130	0.000	0.190
18	SiO2 (mg/L)	11.0	14.9	15.2	4.1	5.0	9.1
19	SO4 (mg/L)	80.5	86.3	95.0	116.2	116.2	110.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.6	0.6	0.7	0.9	0.6	1.0
2	COD (mg/L)				9.1	3.6	3.6
3	DO (mg/L)	6.8	6.6	6.6	5.9	6.0	6.9
4	DO_SAT% (%)	78	75	73	66	63	77
5	FCol-MPN (MPN/100mL)			1400	1700	790	940
6	Tcol-MPN (MPN/100mL)			2200	2800	1700	2800
	TRACE & TOXIC						
1	Cd (µg/L)	1.10	0.90	0.00	0.80	0.70	12.80
2	Cr (µg/L)	3.20	2.20	5.90	2.20	3.60	2.60
3	Cu (µg/L)	3.90	0.70	3.60	4.40	5.80	0.00
4	Hg (µg/L)						
5	Ni (µg/L)	8.20	0.00	2.20	13.90	14.00	22.00
6	Pb (µg/L)	37.00	1.00	9.00	42.00	34.00	5.85
7	Zn (µg/L)	15.62	0.00	14.90	2.94	4.82	0.00
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	165	168	155	160	160	220
2	HAR_Total (mgCaCO3/L)	243	248	305	318	313	324
3	Na% (%)	50	36	41	46	53	49
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.2	1.8	2.4	3.1	4.1	3.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	19.17	12.80	9.269	7.049	4.431	9.481
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Clear
3	EC_FLD (µmho/cm)			987			
4	EC_GEN (µmho/cm)	1492	1633	1573	1794	2390	1955
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)			8.1			
7	pH_GEN (pH units)	8.4	8.2	8.2	8.5	8.4	8.5
8	TDS (mg/L)	925	1022	1011	1102	898	1345
9	Temp (deg C)	19.0	20.0		23.0	23.0	23.0
10	Turb (NTU)	6.0	17.4	11.8	4.0	4.6	17.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	27.4	0.0	0.0	24.1	23.2	30.7
2	ALK-TOT (mgCaCO3/L)	257	281	279	247	246	213
3	B (mg/L)	0.48	0.62	0.64	0.62	0.63	0.62
4	Ca (mg/L)	91	83	83	128	143	66
5	Cl (mg/L)	239.0	239.6	220.0	395.0	419.9	395.2
6	CO3 (mg/L)	33.0	0.0	0.0	29.0	28.0	37.0
7	F (mg/L)	0.84	0.82	0.84	0.71	0.68	0.65
8	Fe (mg/L)	1.5	0.7	0.2	0.4	0.3	0.4
9	HCO3 (mg/L)	247	343	340	242	243	185
10	K (mg/L)	4.2	5.8	3.0	4.5	5.0	5.1
11	Mg (mg/L)	25.8	28.7	29.0	56.8	78.0	16.0
12	Na (mg/L)	168.7	183.7	155.4	218.8	197.0	242.0
13	NH3-N (mg N/L)	0.07	0.01	0.00	0.73	0.03	0.04
14	NO2+NO3 (mg N/L)	4.79	3.86	3.83	4.37	3.87	3.76
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.01	0.01	0.01
16	NO3-N (mgN/L)	4.79	3.86	3.83	4.36	3.86	3.75
17	o-PO4-P (mg P/L)	0.200	0.300	0.400	0.600	0.500	0.600
18	SiO2 (mg/L)	5.2	5.0	4.6	11.7	10.9	7.2
19	SO4 (mg/L)	131.0	140.0	133.0	325.0	152.5	101.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.3	1.0	0.6	1.0	1.1	2.3
2	COD (mg/L)	3.7	5.7	3.8			
3	DO (mg/L)	6.0	6.2	5.7	6.8	6.0	5.7
4	DO_SAT% (%)	65	68		79	70	66
5	FCol-MPN (MPN/100mL)	2200	790	1300	1700	790	1100
6	Tcol-MPN (MPN/100mL)	5400	1400	2200	2200	2200	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.00	0.00	4.50	1.60	2.40	0.80
2	Cr (µg/L)	3.30	2.40	1.80	2.70	5.30	4.90
3	Cu (µg/L)	3.70	3.40	3.00	3.70	3.50	4.40
4	Hg (µg/L)						
5	Ni (µg/L)	9.40	8.00	9.10	12.90	15.70	13.10
6	Pb (µg/L)	38.00	36.00	29.00	43.00	54.00	43.00
7	Zn (µg/L)	1.38	32.90	1.79	5.94	35.49	3.99
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	227	208	208	320	358	166
2	HAR_Total (mgCaCO3/L)	334	327	328	557	683	232
3	Na% (%)	52	55	51	46	39	69
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.0	4.4	3.7	4.0	3.3	6.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	11-05-2023	22-05-2023
		A	A	A	A
	PHYSICAL				
1	Q (cumec)	1.284	2.377	12.49	1.530
2	Colour_Cod (-)	Clear	Clear	Light Brown	Clear
3	EC_FLD (µmho/cm)				
4	EC_GEN (µmho/cm)	2550	2210	1672	2640
5	Odour_Code (-)	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)				
7	pH_GEN (pH units)	8.7	8.6	8.2	8.1
8	TDS (mg/L)	2022	1801	1290	1221
9	Temp (deg C)	23.0	26.0	28.5	28.0
10	Turb (NTU)	10.0	14.1	6.4	7.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	32.4	32.4	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	299	301	310	390
3	B (mg/L)	0.34	0.39	0.45	0.25
4	Ca (mg/L)	77	96	96	142
5	Cl (mg/L)	298.0	472.6	271.1	364.0
6	CO3 (mg/L)	39.0	39.0	0.0	0.0
7	F (mg/L)	0.90	0.87	0.92	0.88
8	Fe (mg/L)	0.2	0.2	0.5	0.8
9	HCO3 (mg/L)	285	288	378	476
10	K (mg/L)	9.4	10.2	8.5	10.2
11	Mg (mg/L)	29.0	79.3	79.0	114.5
12	Na (mg/L)	256.8	281.0	142.0	325.8
13	NH3-N (mg N/L)	0.04	0.06	0.07	0.15
14	NO2+NO3 (mg N/L)	2.82	2.78	2.85	2.76
15	NO2-N (mgN/L)	0.00	0.00	0.07	0.03
16	NO3-N (mgN/L)	2.82	2.78	2.78	2.73
17	o-PO4-P (mg P/L)	0.300	0.500	0.500	0.500
18	SiO2 (mg/L)	10.6	10.7	11.4	11.8
19	SO4 (mg/L)	268.0	266.0	150.0	343.0
	BIOLOGICAL/BACTERIOLOGIC/				
1	BOD3-27 (mg/L)	1.8	2.3	1.1	2.1
2	COD (mg/L)			5.7	7.6
3	DO (mg/L)	5.8	6.1	4.8	5.1
4	DO_SAT% (%)	68	75	61	65
5	FCol-MPN (MPN/100mL)	790	3500	1400	1400
6	Tcol-MPN (MPN/100mL)	1400	5400	1700	1700
	TRACE & TOXIC				
1	Cd (µg/L)	1.90	2.40	3.60	3.50
2	Cr (µg/L)	7.00	10.90	3.70	3.90
3	Cu (µg/L)	2.90	2.90	3.40	5.30
4	Hg (µg/L)				
5	Ni (µg/L)	14.50	10.40	18.10	13.20
6	Pb (µg/L)	43.00	36.00	47.00	16.00
7	Zn (µg/L)	4.88	29.38	17.86	8.07
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	193	240	240	355
2	HAR_Total (mgCaCO3/L)	313	570	569	832
3	Na% (%)	63	51	35	46
4	RSC (-)	0.0	0.0	0.0	0.0
5	SAR (-)	6.3	5.1	2.6	4.9
	PESTICIDES				

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	367	2093	0.000	112.5
2	EC_FLD (µmho/cm)	2	987	530	759
3	EC_GEN (µmho/cm)	34	2640	628	1534
4	pH_FLD (pH units)	2	8.4	8.1	8.3
5	pH_GEN (pH units)	34	8.7	7.8	8.3
6	TDS (mg/L)	34	2022	417	1015
7	Temp (deg C)	33	28.5	18.0	23.2
8	Turb (NTU)	34	137.0	2.0	13.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	34	33.6	0.0	13.8
2	ALK-TOT (mgCaCO3/L)	34	390	99	218
3	B (mg/L)	33	0.97	0.07	0.39
4	Ca (mg/L)	34	143	41	74
5	Cl (mg/L)	34	472.6	41.0	206.4
6	CO3 (mg/L)	34	40.5	0.0	16.6
7	F (mg/L)	34	1.03	0.41	0.69
8	Fe (mg/L)	34	5.7	0.0	1.2
9	HCO3 (mg/L)	34	476	120	232
10	K (mg/L)	34	10.2	1.8	5.2
11	Mg (mg/L)	34	114.5	8.0	33.9
12	Na (mg/L)	34	373.4	40.1	157.6
13	NH3-N (mg N/L)	33	1.12	0.00	0.2
14	NO2+NO3 (mg N/L)	34	13.61	2.76	6.68
15	NO2-N (mgN/L)	34	0.07	0.00	0.02
16	NO3-N (mgN/L)	34	13.60	2.73	6.66
17	o-PO4-P (mg P/L)	34	0.600	0.000	0.313
18	SiO2 (mg/L)	34	95.0	4.1	12.8
19	SO4 (mg/L)	34	343.0	58.6	130.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	34	2.3	0.2	1.1
2	COD (mg/L)	23	18.2	1.9	6.9
3	DO (mg/L)	34	7.3	2.5	5.9
4	DO_SAT% (%)	33	86	30	68
5	FCol-MPN (MPN/100mL)	14	3500	790	1414
6	Tcol-MPN (MPN/100mL)	14	5400	1400	2464
	TRACE & TOXIC				
1	Cd (µg/L)	34	12.80	0.00	1.61
2	Cr (µg/L)	34	14.30	0.00	4.59
3	Cu (µg/L)	34	9.50	0.00	4.21
4	Hg (µg/L)	10	1.99	0.00	0.23
5	Ni (µg/L)	34	22.60	0.00	10.47
6	Pb (µg/L)	34	55.00	0.00	29.41
7	Zn (µg/L)	34	124.00	0.00	12.58
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	34	358	103	184
2	HAR_Total (mgCaCO3/L)	34	832	146	326
3	Na% (%)	34	69	26	50
4	RSC (-)	34	0.5	0.0	0
5	SAR (-)	34	7.7	1.1	3.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	56.06	225.5	45.64	7.341	61.02	18.68	10.65
2	EC_FLD (µmho/cm)							
3	EC_GEN (µmho/cm)	1176	1432	1695	1794	1088	1740	1213
4	pH_FLD (pH units)							
5	pH_GEN (pH units)	8.1	8.1	8.2	8.2	8.0	8.2	8.0
6	TDS (mg/L)				895	696	1164	690
7	Temp (deg C)	26.5	26.3	25.8	26.2	25.0	25.0	24.2
8	Turb (NTU)				1.0	40.0	0.1	214.8
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	3.0	2.7	2.0	0.8	0.0	0.0	0.8
2	ALK-TOT (mgCaCO3/L)	188	185	213	233	157	241	159
3	B (mg/L)	0.00	0.00	0.00	0.00	0.17	0.42	0.32
4	Ca (mg/L)	60	47	53	58	41	44	39
5	Cl (mg/L)	167.0	179.1	193.8	247.1	117.4	231.8	129.7
6	CO3 (mg/L)	3.6	3.2	2.4	1.0	0.0	0.0	1.0
7	F (mg/L)	0.79	0.84	0.95	1.93	0.85	0.80	1.02
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	222	220	255	282	192	294	192
10	K (mg/L)	4.1	4.4	5.2	5.6	4.4	5.5	4.7
11	Mg (mg/L)	18.0	23.0	30.6	33.9	24.1	25.3	22.5
12	Na (mg/L)	181.5	170.5	237.9	254.3	98.1	258.0	176.1
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.01	0.02
14	NO2+NO3 (mg N/L)	0.01	1.54	0.00	0.48	1.70	0.78	1.79
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.01	1.54	0.00	0.48	1.70	0.78	1.78
17	o-PO4-P (mg P/L)				0.612	0.361	0.440	0.291
18	P-Tot (mgP/L)	0.001	0.000	0.317	0.612			0.304
19	SiO2 (mg/L)	16.3	14.6	15.1	15.8	7.8	13.3	13.4
20	SO4 (mg/L)	239.0	294.5	397.5	352.0	100.5	172.0	214.0
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.6	0.9	1.2	0.3	1.1	1.2	1.0
2	COD (mg/L)	28.2	49.5	22.7	31.7	27.6	2.4	22.8
3	DO (mg/L)	5.6	6.2	6.0	5.8	5.2	6.2	5.6
4	DO_SAT% (%)	69	77	74	71	63	75	67
5	FCol-MPN (MPN/100mL)		16000	5590	12058	8250	16000	772
6	Tcol-MPN (MPN/100mL)		16000	6690	12058	8050	16000	2260
7	TOC (mg/L)				4.0	3.6		
	TRACE & TOXIC							
1	As (µg/L)					7.38		
2	Cd (µg/L)					2.49		
3	Cr (µg/L)					23.65		
4	Cu (µg/L)							
5	Hg (µg/L)							
6	Ni (µg/L)					8.51		
7	Pb (µg/L)					3.31		
8	Zn (µg/L)					28.13		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	149	118	132	146	102	110	98
2	HAR_Total (mgCaCO3/L)	224	213	260	287	202	216	192
3	Na% (%)	62	60	65	65	51	72	66
4	RSC (-)	0.1	0.0	0.3	0.3	0.0	0.5	0.0
5	SAR (-)	5.1	4.9	6.4	6.6	3.1	7.7	5.6
	PESTICIDES							
1	BHC (µg/L)							
2	DDT (µg/L)							
3	Dieldrin (µg/L)							
4	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	48.85	6.067	49.59	13.94	31.74	124.4	32.95	170.9
2	EC_FLD (µmho/cm)								530
3	EC_GEN (µmho/cm)	979	1622	530	1107	1004	1844	1403	1418
4	pH_FLD (pH units)								8.4
5	pH_GEN (pH units)	7.7	8.4	7.9	8.0	7.6	7.9	8.0	8.2
6	TDS (mg/L)	627	1094	397	777	818	1467	1059	968
7	Temp (deg C)	27.5	25.8	26.8	26.9	24.5	25.6	25.2	24.2
8	Turb (NTU)	64.8	98.8	251.0	86.8	31.0	17.3	5.6	17.8
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	5.2	2.0	8.3	0.0	2.0	0.5	10.9
2	ALK-TOT (mgCaCO3/L)	151	191	123	158	144	235	238	188
3	B (mg/L)	0.45		0.07	0.05	0.36	0.51	0.36	0.43
4	Ca (mg/L)	38	58	34	44	53	31	71	63
5	Cl (mg/L)	95.1	210.9	60.1	97.0	182.8	248.2	185.8	159.9
6	CO3 (mg/L)	0.0	6.3	2.4	10.0	0.0	2.5	0.7	13.1
7	F (mg/L)	0.91	0.79	0.62	0.68	0.62	0.56	0.84	0.70
8	Fe (mg/L)	0.1	0.1	7.1	0.5	15.2	0.9	0.6	1.6
9	HCO3 (mg/L)	184	220	145	173	175	282	289	202
10	K (mg/L)	4.0	5.9	0.4	0.5	0.4	0.7	7.6	5.0
11	Mg (mg/L)	21.6	33.0	17.9	19.3	18.0	59.9	24.9	25.4
12	Na (mg/L)	138.7	243.9	72.2	84.3	212.8	261.3	160.2	146.1
13	NH3-N (mg N/L)	0.01	0.01	0.06	0.13	0.05	0.03		0.33
14	NO2+NO3 (mg N/L)	1.76	2.09	5.58	2.47	3.71	18.72		7.24
15	NO2-N (mgN/L)	0.00	0.00	0.27	0.28	0.12	0.05	0.03	0.03
16	NO3-N (mgN/L)	1.76	2.08	5.31	2.19	3.59	18.65	3.35	7.21
17	o-PO4-P (mg P/L)	0.304	0.272	1.287	0.273	0.120	0.093	0.654	0.321
18	P-Tot (mgP/L)							0.940	
19	SiO2 (mg/L)	14.2	14.1	14.3	25.6	15.8	17.9		16.8
20	SO4 (mg/L)	159.0	271.8	102.7	93.0	318.4	161.3	123.8	103.0
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.7	1.4	0.8	2.0	2.5	1.1	1.5	1.1
2	COD (mg/L)	18.0	13.1	12.9	31.6	22.0	28.3	20.4	7.2
3	DO (mg/L)	5.4	5.6	5.8	5.2	6.6	5.1	6.3	5.5
4	DO_SAT% (%)	69	69	72	65	78	63	76	65
5	FCol-MPN (MPN/100mL)	5251	6412	3055	73	1410	2850	320	
6	Tcol-MPN (MPN/100mL)	12085	13400	3103	285	9500	12500	810	
7	TOC (mg/L)	20.5							
	TRACE & TOXIC								
1	As (µg/L)							2.59	
2	Cd (µg/L)							0.78	0.97
3	Cr (µg/L)							3.95	5.03
4	Cu (µg/L)			9.75	19.75	38.67	0.01	6.20	5.03
5	Hg (µg/L)							0.35	0.23
6	Ni (µg/L)							10.05	9.75
7	Pb (µg/L)							14.77	26.00
8	Zn (µg/L)			27.88	34.46	68.67	0.02	14.61	15.65
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	94	145	85	110	133	77	177	157
2	HAR_Total (mgCaCO3/L)	184	283	160	190	207	326	280	263
3	Na% (%)	61	64	46	45	65	63	54	51
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
5	SAR (-)	4.4	6.2	2.4	2.7	6.0	6.3	4.2	3.8
	PESTICIDES								
1	BHC (µg/L)								
2	DDT (µg/L)								
3	Dieldrin (µg/L)								
4	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	40.96	31.96	79.42	81.42	18.70	44.38
2	EC_FLD (µmho/cm)						
3	EC_GEN (µmho/cm)	1170	1380	1040	1010	1360	1240
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	8.3	8.5	8.1	8.2	8.1	8.2
6	TDS (mg/L)				570	796	724
7	Temp (deg C)	25.0	27.0	25.0	27.0	25.0	26.0
8	Turb (NTU)				1.0	0.1	35.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	8.0	8.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	216	220	200	224	237	220
3	B (mg/L)	0.00	0.00	0.00	0.00	0.37	0.38
4	Ca (mg/L)	61	79	45	33	53	54
5	Cl (mg/L)	131.4	164.1	122.5	123.0	151.7	136.2
6	CO3 (mg/L)	9.6	9.6	0.0	0.0	0.0	0.0
7	F (mg/L)	0.97	1.08	0.69	0.82	0.79	0.74
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
9	HCO3 (mg/L)	244	249	244	273	289	268
10	K (mg/L)	3.2	3.8	4.1	3.5	1.5	4.2
11	Mg (mg/L)	16.5	22.4	24.3	19.9	31.1	21.4
12	Na (mg/L)	149.0	173.2	134.0	145.5	192.4	179.0
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.05	0.00
14	NO2+NO3 (mg N/L)	0.01	1.70	0.00	0.70	0.43	1.48
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	1.70	0.00	0.70	0.43	1.48
17	o-PO4-P (mg P/L)				0.858	0.356	0.360
18	P-Tot (mgP/L)	0.001	0.000	0.580	0.858		
19	SiO2 (mg/L)	12.2	13.1	9.2	11.7	14.0	12.4
20	SO4 (mg/L)	161.5	271.0	160.0	182.0	115.0	184.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.5	0.9	0.5	0.3	0.9	1.2
2	COD (mg/L)	25.2	21.7	13.8	13.0	7.7	6.5
3	DO (mg/L)	6.5	6.9	6.6	5.9	6.8	6.8
4	DO_SAT% (%)	79	87	80	74	82	84
5	FCol-MPN (MPN/100mL)		2800	16000	16000	2400	16000
6	Tcol-MPN (MPN/100mL)		3500	16000	16000	5000	16000
7	TOC (mg/L)				3.7	2.7	
	TRACE & TOXIC						
1	As (µg/L)		2.78				
2	Cd (µg/L)		0.00				
3	Cr (µg/L)		0.00				
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)		2.66				
7	Pb (µg/L)		0.00				
8	Zn (µg/L)		4.29				
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	153	196	112	83	132	134
2	HAR_Total (mgCaCO3/L)	221	290	214	165	262	223
3	Na% (%)	59	56	57	65	62	63
4	RSC (-)	0.0	0.0	0.0	1.2	0.0	0.0
5	SAR (-)	4.4	4.4	4.0	4.9	5.2	5.2
	PESTICIDES						
1	BHC (µg/L)		0.199				
2	DDT (µg/L)		0.015				
3	Dieldrin (µg/L)		0.002				
4	Endos (µg/L)		0.052				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	19.02	12.17	8.994	13.22	11.17	38.12
2	EC_FLD (µmho/cm)						
3	EC_GEN (µmho/cm)	1465	3509	1310	1596	1635	1301
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	8.2	8.3	8.3	8.0	8.3	7.9
6	TDS (mg/L)	927	874	789	1046	947	903
7	Temp (deg C)	22.8	24.4	25.0	24.3	20.3	23.7
8	Turb (NTU)	5.3	27.8	5.0	78.3	10.0	15.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	2.8	6.5	0.0	10.4	0.0
2	ALK-TOT (mgCaCO3/L)	227	230	218	198	224	238
3	B (mg/L)	0.25	0.01		0.08	0.04	0.23
4	Ca (mg/L)	51	50	56	66	35	35
5	Cl (mg/L)	171.7	178.2	136.1	198.5	157.7	170.5
6	CO3 (mg/L)	0.0	3.3	7.8	0.0	12.5	0.0
7	F (mg/L)	0.88	0.76	0.87	0.68	0.93	0.59
8	Fe (mg/L)	0.1	0.1	0.0	1.9	0.2	6.6
9	HCO3 (mg/L)	277	274	251	242	248	290
10	K (mg/L)	3.8	4.8	2.8	0.6	0.4	0.6
11	Mg (mg/L)	29.0	28.4	30.6	40.6	43.6	44.8
12	Na (mg/L)	156.9	209.3	171.2	214.4	124.2	180.6
13	NH3-N (mg N/L)	0.04	0.00	0.03	0.72	0.07	0.09
14	NO2+NO3 (mg N/L)	2.10	1.96	0.26	6.53	1.44	5.89
15	NO2-N (mgN/L)	0.06	0.02	0.00	0.03	0.09	0.12
16	NO3-N (mgN/L)	2.04	1.94	0.26	6.50	1.35	5.78
17	o-PO4-P (mg P/L)	0.259	0.206	0.358	0.778	0.327	0.320
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	11.1	9.5	11.1	12.6	6.6	9.4
20	SO4 (mg/L)	175.5	276.5	167.0	366.1	141.5	158.4
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.6	1.2	1.8	1.2	0.9	0.8
2	COD (mg/L)	14.0	9.9	9.2	12.7	6.6	102.2
3	DO (mg/L)	7.0	7.1	6.5	6.7	6.8	5.2
4	DO_SAT% (%)	81	84	79	80	75	56
5	FCol-MPN (MPN/100mL)	1858	2750	900	208	753	925
6	Tcol-MPN (MPN/100mL)	9100	16000	900	350	3477	3000
7	TOC (mg/L)	26.8	16.7				
	TRACE & TOXIC						
1	As (µg/L)						3.88
2	Cd (µg/L)	5.06					0.04
3	Cr (µg/L)	3.46					6.59
4	Cu (µg/L)	1.70			6.75	12.33	12.00
5	Hg (µg/L)						
6	Ni (µg/L)	21.12					12.45
7	Pb (µg/L)	26.13					0.92
8	Zn (µg/L)	6.35			54.65	16.00	58.50
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	126	125	140	164	88	88
2	HAR_Total (mgCaCO3/L)	247	243	268	333	269	274
3	Na% (%)	56	65	58	58	49	59
4	RSC (-)	0.2	0.2	0.0	0.0	0.0	0.0
5	SAR (-)	4.4	5.9	4.6	5.2	3.3	4.8
	PESTICIDES						
1	BHC (µg/L)						
2	DDT (µg/L)						
3	Dieldrin (µg/L)						
4	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter			Summer		
		Nov - Feb			Mar-May		
		2020-2021	2021-2022	2022-2023	2015	2016	2018
	PHYSICAL						
1	Q (cumec)	29.60	157.6	65.42	10.39	47.89	1.420
2	EC_FLD (µmho/cm)			987			
3	EC_GEN (µmho/cm)	1376	1283	1306	1875	201	4500
4	pH_FLD (pH units)			8.1			
5	pH_GEN (pH units)	8.1	8.1	8.3	7.8	7.2	7.5
6	TDS (mg/L)	859	1056	858	1303		3531
7	Temp (deg C)	23.8	21.9	20.5	27.0	26.0	22.0
8	Turb (NTU)	58.8	11.6	11.6	12.3	94.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	1.0	13.5	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	241	215	215	247	120	360
3	B (mg/L)	0.47	0.31	0.30	0.40		0.06
4	Ca (mg/L)	41	70	68	53	38	230
5	Cl (mg/L)	174.5	160.4	166.9	251.6	35.1	687.3
6	CO3 (mg/L)	0.0	1.2	16.3	0.0	0.0	0.0
7	F (mg/L)	0.74	0.62	0.62	1.00	0.74	1.00
8	Fe (mg/L)	0.7	0.5	1.3	0.1	0.0	0.1
9	HCO3 (mg/L)	294	260	230	302	146	439
10	K (mg/L)	0.6	3.7	4.0	6.6	3.3	2.6
11	Mg (mg/L)	34.6	25.1	26.7	30.8	20.6	87.6
12	Na (mg/L)	190.6	127.3	125.3	281.5	81.4	811.1
13	NH3-N (mg N/L)	0.08	0.05	0.08	0.02	0.02	0.12
14	NO2+NO3 (mg N/L)	4.74		7.95	1.13	1.78	7.71
15	NO2-N (mgN/L)	0.08	0.01	0.02	0.07	0.00	0.41
16	NO3-N (mgN/L)	4.65		7.94	1.07	1.78	7.30
17	o-PO4-P (mg P/L)	0.358	0.823	0.194	0.187	0.111	0.750
18	P-Tot (mgP/L)		1.295				
19	SiO2 (mg/L)	19.9	20.2	9.0	10.6	12.0	25.5
20	SO4 (mg/L)	133.4	116.2	107.9	388.0	1.0	907.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	15.8	1.3	0.9	1.3	1.3	1.3
2	COD (mg/L)	18.8		6.6	21.8		17.5
3	DO (mg/L)	6.1	6.3	6.4	5.0	4.0	5.2
4	DO_SAT% (%)	71	72	72	63	49	59
5	FCol-MPN (MPN/100mL)	2678	739	1303	5335	20	170
6	Tcol-MPN (MPN/100mL)	11183	1153	2643	5427	2200	9000
7	TOC (mg/L)				43.6		
	TRACE & TOXIC						
1	As (µg/L)	1.45			13.81		
2	Cd (µg/L)	4.22	1.40	2.01	3.49		
3	Cr (µg/L)	5.60	3.91	3.52	6.51		
4	Cu (µg/L)	3.62	1.82	3.46			13.00
5	Hg (µg/L)	0.99	0.17		0.00		
6	Ni (µg/L)	4.60	5.92	9.33	20.72		
7	Pb (µg/L)	59.75	15.58	27.32	29.07		
8	Zn (µg/L)	5.63	8.72	7.26	16.28		45.10
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	102	174	170	133	95	576
2	HAR_Total (mgCaCO3/L)	246	279	282	261	181	941
3	Na% (%)	63	49	48	69	49	65
4	RSC (-)	0.3	0.1	0.0	0.0	0.0	0.0
5	SAR (-)	5.3	3.3	3.2	7.6	2.6	11.5
	PESTICIDES						
1	BHC (µg/L)						
2	DDT (µg/L)						
3	Dieldrin (µg/L)						
4	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters		Summer			
			Mar-May			
		2019	2020	2021	2022	2023
		Sample not submitted for analysis in Summer from 2009 to2014 and 2017 and 2019 due to NO FLOW condition of the River				
	PHYSICAL					
1	Q (cumec)		3.780	26.15	9.832	5.520
2	EC_FLD (µmho/cm)					
3	EC_GEN (µmho/cm)		1849	1987	1512	2173
4	pH_FLD (pH units)					
5	pH_GEN (pH units)		8.0	8.0	8.5	8.4
6	TDS (mg/L)		1274	1311	1107	1383
7	Temp (deg C)		23.0	23.0	25.7	24.9
8	Turb (NTU)		23.0	1.0	4.9	9.2
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)		0.0	0.0	20.5	20.4
2	ALK-TOT (mgCaCO3/L)		303	313	271	286
3	B (mg/L)		0.45	0.81	0.83	0.47
4	Ca (mg/L)		25	90	88	107
5	Cl (mg/L)		288.0	271.0	231.4	373.7
6	CO3 (mg/L)		0.0	0.0	24.7	24.6
7	F (mg/L)		1.18	1.13	0.94	0.80
8	Fe (mg/L)		0.4	0.9	0.5	0.4
9	HCO3 (mg/L)		370	382	280	299
10	K (mg/L)		1.0	0.6	4.6	7.6
11	Mg (mg/L)		72.0	28.6	38.5	64.7
12	Na (mg/L)		364.0	321.6	151.3	237.6
13	NH3-N (mg N/L)		0.02	0.13	0.31	0.16
14	NO2+NO3 (mg N/L)		5.90	7.71		3.32
15	NO2-N (mgN/L)		0.20	0.41	0.04	0.02
16	NO3-N (mgN/L)		5.70	7.30		3.30
17	o-PO4-P (mg P/L)		0.360	0.499	0.155	0.500
18	P-Tot (mgP/L)					
19	SiO2 (mg/L)		15.9	27.6	24.2	10.6
20	SO4 (mg/L)		262.0	347.0	143.0	229.5
	BIOLOGICAL/BACTERIOLOGICA					
1	BOD3-27 (mg/L)		0.8	3.3	0.9	1.7
2	COD (mg/L)		32.4	19.8	6.8	6.6
3	DO (mg/L)		3.6	7.5	6.0	5.8
4	DO_SAT% (%)		42	87	73	69
5	FCol-MPN (MPN/100mL)		500	1400		1526
6	Tcol-MPN (MPN/100mL)		16000	1700		2286
7	TOC (mg/L)					
	TRACE & TOXIC					
1	As (µg/L)					
2	Cd (µg/L)				2.27	2.31
3	Cr (µg/L)				4.41	5.49
4	Cu (µg/L)		0.00	40.00	3.02	3.73
5	Hg (µg/L)				0.73	
6	Ni (µg/L)				7.69	13.99
7	Pb (µg/L)				33.89	40.29
8	Zn (µg/L)		22.00	0.05	3.95	15.09
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)		63	224	220	267
2	HAR_Total (mgCaCO3/L)		363	343	381	537
3	Na% (%)		69	67	46	50
4	RSC (-)		0.0	0.0	0.0	0.0
5	SAR (-)		8.4	7.6	3.4	4.8
	PESTICIDES					
1	BHC (µg/L)					
2	DDT (µg/L)					
3	Dieldrin (µg/L)					
4	Endos (µg/L)					

HISTORY SHEET

			Water Year	:	**2022-2023**
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°56'00"	Longitude	:	77°25'00"
		Opening Date	Closing Date		
Gauge	:	10-03-1972			
Discharge	:	01-06-1972			
Sediment	:	26-07-1977			
Water Quality	:	01-08-1977			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	25.45	34.11	17.45	7.460	0.000	3642
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Brown
3	EC_FLD (µmho/cm)	1209	1193	1203	1174	1084	215
4	EC_GEN (µmho/cm)	1844	1247	1675	1752	1770	271
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.2	7.0	7.2	7.0	7.1	7.2
7	pH_GEN (pH units)	8.5	8.4	8.5	8.6	8.4	8.0
8	TDS (mg/L)	1152	801	1263	1222	1253	158
9	Temp (deg C)	24.0	24.0	25.0	25.0	22.0	23.5
10	Turb (NTU)	2.0	6.0	5.0	4.0	12.0	12.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	27.9	24.8	29.9	22.4	14.2	0.0
2	ALK-TOT (mgCaCO3/L)	232	184	217	238	191	95
3	B (mg/L)	0.53	0.28		0.85	0.83	0.81
4	Ca (mg/L)	81	62	69	61	61	31
5	Cl (mg/L)	232.2	162.0	309.0	242.0	201.8	38.6
6	CO3 (mg/L)	33.6	29.9	36.0	27.0	17.1	0.0
7	F (mg/L)	0.80	0.77	0.83	1.05	0.98	0.43
8	Fe (mg/L)	0.2	0.0	0.5	0.2	0.2	0.5
9	HCO3 (mg/L)	215	163	191	236	199	116
10	K (mg/L)	7.6	6.2	6.4	5.2	5.6	1.1
11	Mg (mg/L)	29.2	23.2	33.9	37.0	36.0	9.7
12	Na (mg/L)	210.2	148.9	274.3	265.0	224.0	22.6
13	NH3-N (mg N/L)	0.18	0.16		0.17	0.16	0.08
14	NO2+NO3 (mg N/L)	3.18	3.85	3.66	3.53	3.66	3.76
15	NO2-N (mgN/L)	0.02	0.01	0.05	0.03	0.02	0.01
16	NO3-N (mgN/L)	3.16	3.84	3.61	3.50	3.64	3.75
17	o-PO4-P (mg P/L)	0.210	0.320	0.330	0.240	0.230	0.460
18	SiO2 (mg/L)	5.2	20.3	5.6	6.9	11.2	7.2
19	SO4 (mg/L)	157.1	89.5	82.7	163.0	161.0	16.6
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.6	0.9	1.2	1.3	1.3	1.3
2	COD (mg/L)				7.6	5.9	5.6
3	DO (mg/L)	4.2	4.9	4.7	4.2	5.3	5.3
4	DO_SAT% (%)	50	58	57	51	61	62
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	1.4	3.0	2.7	0.2	3.2	0.1
2	Cr (µg/L)	3.9	4.5	8.0	0.6	0.0	3.0
3	Cu (µg/L)	9.4	4.6	2.5	5.7	1.6	0.0
4	Hg (µg/L)	0.1	0.0	0.0	0.0	0.0	0.0
5	Ni (µg/L)	9.6	0.0	0.0	9.2	5.8	2.2
6	Pb (µg/L)	13.0	0.0	0.0	14.0	0.0	20.0
7	Zn (µg/L)	9.6	1.3	4.7	5.3	0.9	3.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	202	155	174	153	153	78
2	HAR_Total (mgCaCO3/L)	323	251	315	307	303	118
3	Na% (%)	58	56	65	65	61	29
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	5.1	4.1	6.7	6.6	5.6	0.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1197	5172	533.8	2700	1478	603.0
2	Colour_Cod (-)	Brown	Brown	Brown	Clear	Light Brown	Brown
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	483	349	418	433	563	688
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.0	7.2	7.2	7.0	7.2	7.0
7	pH_GEN (pH units)	8.1	8.1	8.2	8.4	8.0	8.1
8	TDS (mg/L)	295	220	293	352	401	503
9	Temp (deg C)	24.0	22.0	23.0	24.0	22.0	23.0
10	Turb (NTU)	47.0	4.0	4.0	12.0	11.7	19.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	5.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	93	98	101	96	99	98
3	B (mg/L)	4.12	0.18	0.19	0.09	0.15	0.21
4	Ca (mg/L)	29	30	29	28	31	41
5	Cl (mg/L)	47.0	37.0	101.2	69.1	66.0	79.8
6	CO3 (mg/L)	0.0	0.0	0.0	6.0	0.0	0.0
7	F (mg/L)	0.44	0.42	0.35	0.36	0.34	0.41
8	Fe (mg/L)	6.0	4.5	1.0	3.9	0.7	5.6
9	HCO3 (mg/L)	113	120	123	105	121	120
10	K (mg/L)	4.0	3.0	1.3	1.6	2.0	1.8
11	Mg (mg/L)	9.2	9.1	32.2	32.3	30.2	15.6
12	Na (mg/L)	46.3	28.0	24.0	30.0	42.0	49.8
13	NH3-N (mg N/L)	0.35	0.15	0.00	0.03	0.24	0.29
14	NO2+NO3 (mg N/L)	3.80	3.78	3.46	3.43	3.41	7.69
15	NO2-N (mgN/L)	0.03	0.06	0.02	0.03	0.04	0.02
16	NO3-N (mgN/L)	3.77	3.72	3.44	3.40	3.37	7.67
17	o-PO4-P (mg P/L)	0.439	0.140	0.240	0.270	0.210	0.190
18	SiO2 (mg/L)	9.1	5.8	34.0	11.4	11.4	11.8
19	SO4 (mg/L)	38.2	33.0	34.0	39.0	56.2	60.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.2	0.9	1.1	0.4	1.5	2.3
2	COD (mg/L)	2.0	5.5	6.1	1.9	10.8	18.7
3	DO (mg/L)	4.6	5.7	6.0	5.8	6.0	6.0
4	DO_SAT% (%)	55	65	70	69	69	70
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	2.7	0.0	0.0
2	Cr (µg/L)	13.8	5.1	0.0	0.0	1.6	9.3
3	Cu (µg/L)	5.9	4.8	3.5	5.3	3.6	6.1
4	Hg (µg/L)	0.3	1.3	0.0	0.0		
5	Ni (µg/L)	14.6	5.9	3.2	5.9	4.2	11.2
6	Pb (µg/L)	15.0	38.0	28.0	38.0	0.0	35.0
7	Zn (µg/L)	12.2	9.6	2.7	4.8	52.4	17.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	73	75	73	70	79	102
2	HAR_Total (mgCaCO3/L)	111	113	207	205	204	167
3	Na% (%)	47	34	20	24	31	39
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.9	1.1	0.7	0.9	1.3	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	2629	590.8	1810	252.4	156.6	104.6
2	Colour_Cod (-)	Brown	Brown	Brown	Light Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)	1219			973	911	994
4	EC_GEN (µmho/cm)	711	783	588	857	1024	1142
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.2			7.3	7.6	7.8
7	pH_GEN (pH units)	7.8	8.3	8.3	8.4	8.5	8.5
8	TDS (mg/L)	455	453	326	496	673	652
9	Temp (deg C)	23.0	21.0	23.0	24.0	23.0	22.0
10	Turb (NTU)	44.0	9.0	13.0	13.0	10.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	13.8	0.0	16.1	14.9	24.1
2	ALK-TOT (mgCaCO3/L)	155	130	99	210	134	209
3	B (mg/L)	0.24	0.15	0.67	0.22	0.24	0.26
4	Ca (mg/L)	40	44	45	38	40	55
5	Cl (mg/L)	82.0	92.6	63.8	107.1	132.9	133.9
6	CO3 (mg/L)	0.0	16.6	0.0	19.4	18.0	29.0
7	F (mg/L)	0.42	0.41	0.44	0.46	0.49	0.53
8	Fe (mg/L)	2.2	0.5	2.1	0.9	1.0	0.2
9	HCO3 (mg/L)	189	125	121	217	127	196
10	K (mg/L)	3.2	2.6	2.7	3.0	3.9	4.5
11	Mg (mg/L)	15.5	18.5	17.6	31.6	28.4	24.9
12	Na (mg/L)	78.7	80.4	52.5	74.0	95.2	132.9
13	NH3-N (mg N/L)	0.55	0.27	0.14	0.51	0.13	0.20
14	NO2+NO3 (mg N/L)	7.94	7.70	8.24	8.98	8.82	9.07
15	NO2-N (mgN/L)	0.04	0.02	0.02	0.01	0.04	0.08
16	NO3-N (mgN/L)	7.90	7.68	8.22	8.97	8.78	8.99
17	o-PO4-P (mg P/L)	0.397	0.511	0.087	0.135	0.340	0.355
18	SiO2 (mg/L)	9.4	7.4	6.9	12.7	11.2	14.6
19	SO4 (mg/L)	55.5	64.0	53.3	77.1	123.5	123.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.5	1.0	1.4	1.5	2.2	0.1
2	COD (mg/L)	7.6	3.8	3.8	22.3	20.2	4.0
3	DO (mg/L)	5.3	6.4	5.7	4.9	6.6	6.1
4	DO_SAT% (%)	62	72	66	58	77	70
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	1.7	0.3	1.8
2	Cr (µg/L)	0.0	0.0	0.7	30.6	0.1	4.0
3	Cu (µg/L)	3.6	1.6	4.8	3.6	3.7	2.4
4	Hg (µg/L)						
5	Ni (µg/L)	1.4	8.4	13.9	7.5	7.2	7.0
6	Pb (µg/L)	19.0	31.0	30.0	9.0	34.0	53.0
7	Zn (µg/L)	4.1	16.4	3.7	3.9	2.9	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	100	110	112	96	99	138
2	HAR_Total (mgCaCO3/L)	165	187	185	228	218	241
3	Na% (%)	50	48	38	41	48	54
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.7	2.6	1.7	2.1	2.8	3.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	118.2	57.13	58.85	26.19	42.30	60.81
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)	867			867		
4	EC_GEN (µmho/cm)	1142	1284	1344	1397	1470	1494
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.7			7.7	7.9	7.5
7	pH_GEN (pH units)	8.4	8.5	8.4	8.4	8.6	8.0
8	TDS (mg/L)	895	936	1144	818	1003	1121
9	Temp (deg C)	23.0	22.0		26.0	23.0	23.0
10	Turb (NTU)	3.0	5.0	5.8	4.0	4.0	6.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	25.0	24.3	22.7	25.7	39.4	0.0
2	ALK-TOT (mgCaCO3/L)	206	214	232	217	231	249
3	B (mg/L)	0.27	0.26	0.09	0.94	0.74	0.81
4	Ca (mg/L)	55	55	60	51	54	86
5	Cl (mg/L)	136.4	149.0	53.8	187.0	191.7	201.7
6	CO3 (mg/L)	30.1	29.3	27.3	31.0	47.5	0.0
7	F (mg/L)	0.69	0.68	0.57	0.60	0.55	0.57
8	Fe (mg/L)	0.8	1.6	0.8	0.5	0.1	1.0
9	HCO3 (mg/L)	190	202	227	202	185	304
10	K (mg/L)	4.3	4.3	3.1	5.5	5.9	5.6
11	Mg (mg/L)	25.4	25.5	40.3	46.0	46.0	24.0
12	Na (mg/L)	115.0	119.0	102.5	134.8	122.0	140.6
13	NH3-N (mg N/L)	0.00	0.00	0.00	0.00	0.13	0.00
14	NO2+NO3 (mg N/L)	9.11	11.04	10.37	11.68	2.53	2.65
15	NO2-N (mgN/L)	0.03	0.02	0.02	0.07	0.03	0.01
16	NO3-N (mgN/L)	9.08	11.02	10.35	11.61	2.50	2.64
17	o-PO4-P (mg P/L)	0.113	0.040	0.050	0.080	0.000	0.050
18	SiO2 (mg/L)	6.5	13.7	13.7	5.8	6.0	4.8
19	SO4 (mg/L)	100.2	144.0	92.3	109.3	109.3	106.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.9	2.6	1.5	2.4	2.2	3.1
2	COD (mg/L)				5.5	9.1	7.3
3	DO (mg/L)	6.1	5.8	5.7	5.5	5.4	5.4
4	DO_SAT% (%)	71	66		68	63	63
5	FCol-MPN (MPN/100mL)			490	1400	790	1400
6	Tcol-MPN (MPN/100mL)			790	1700	1400	1700
	TRACE & TOXIC						
1	Cd (µg/L)	1.3	1.3	0.3	0.8	0.5	0.0
2	Cr (µg/L)	2.9	2.4	5.7	2.7	1.6	1.6
3	Cu (µg/L)	2.1	1.6	1.6	4.3	3.0	2.7
4	Hg (µg/L)						
5	Ni (µg/L)	8.0	2.6	3.5	12.4	12.0	12.4
6	Pb (µg/L)	35.0	4.0	9.0	40.0	33.0	25.0
7	Zn (µg/L)	22.7	0.3	39.0	3.8	4.4	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	136	138	150	128	135	215
2	HAR_Total (mgCaCO3/L)	242	245	318	319	326	315
3	Na% (%)	50	51	41	48	44	49
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.2	3.3	2.5	3.3	2.9	3.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	27.48	47.90	11.66	45.94	44.36	67.18
2	Colour_Cod (-)	Light Brown	Light Green	Clear	Light Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)	890	905		1002	891	
4	EC_GEN (µmho/cm)	1593	1328	1369	1768	1131	1077
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	7.8	7.9		7.9	7.6	
7	pH_GEN (pH units)	8.5	8.6	8.8	8.9	8.8	8.7
8	TDS (mg/L)	975	975	985	975	883	807
9	Temp (deg C)	26.0	26.0	26.0	26.0	27.0	26.0
10	Turb (NTU)	4.0	35.0	19.0	15.0	15.8	5.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	30.7	35.7	34.2	25.2	24.4	36.9
2	ALK-TOT (mgCaCO3/L)	264	237	238	219	230	240
3	B (mg/L)	0.47	0.55	0.60	0.56	0.53	0.51
4	Ca (mg/L)	89	87	87	77	79	112
5	Cl (mg/L)	208.2	180.7	220.0	252.0	246.0	252.5
6	CO3 (mg/L)	37.0	43.0	41.2	30.4	29.4	44.4
7	F (mg/L)	0.94	0.92	0.92	0.72	0.70	0.68
8	Fe (mg/L)	1.3	0.7	0.7	0.6	0.4	6.5
9	HCO3 (mg/L)	247	202	207	205	221	203
10	K (mg/L)	4.0	9.0	3.1	4.3	4.4	4.3
11	Mg (mg/L)	23.0	20.0	21.0	9.6	37.0	39.0
12	Na (mg/L)	145.6	123.0	156.4	119.6	126.0	135.0
13	NH3-N (mg N/L)	0.06	0.01	0.00	0.03	0.03	0.05
14	NO2+NO3 (mg N/L)	3.43	2.02	1.95	1.29	1.32	1.30
15	NO2-N (mgN/L)	0.02	0.02	0.00	0.01	0.08	0.10
16	NO3-N (mgN/L)	3.41	2.00	1.95	1.28	1.24	1.20
17	o-PO4-P (mg P/L)	0.000	0.190	0.420	0.300	0.400	0.500
18	SiO2 (mg/L)	3.5	4.4	7.7	7.6	7.9	6.5
19	SO4 (mg/L)	141.0	108.0	123.9	35.0	92.3	68.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.4	2.0	2.0	1.7	2.7
2	COD (mg/L)	3.7	3.8	3.8			
3	DO (mg/L)	5.6	5.7	5.2	6.0	7.2	5.7
4	DO_SAT% (%)	69	70	64	74	90	70
5	FCol-MPN (MPN/100mL)	1300	1400	270	1300	1300	790
6	Tcol-MPN (MPN/100mL)	2200	2200	1700	2800	1700	790
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	3.9	0.5	0.0	0.0
2	Cr (µg/L)	1.9	2.7	2.2	1.2	2.6	3.9
3	Cu (µg/L)	5.6	3.6	3.1	2.4	1.0	1.7
4	Hg (µg/L)						
5	Ni (µg/L)	12.4	9.0	9.2	6.9	5.1	4.8
6	Pb (µg/L)	44.0	36.0	28.0	27.0	35.0	28.0
7	Zn (µg/L)	1.4	12.4	2.5	8.3	35.8	7.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	222	218	217	193	199	280
2	HAR_Total (mgCaCO3/L)	318	301	304	233	353	443
3	Na% (%)	50	46	53	52	43	40
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.6	3.1	3.9	3.4	2.9	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023		11-05-2023	22-05-2023
		A		A	A
	PHYSICAL				
1	Q (cumec)	5.667		21.00	6.039
2	Colour_Cod (-)	Light Brown		Light Brown	Light Brown
3	EC_FLD (µmho/cm)	903		920	
4	EC_GEN (µmho/cm)	1306		1543	2010
5	Odour_Code (-)	odour free		odour free	odour free
6	pH_FLD (pH units)			8.0	7.7
7	pH_GEN (pH units)	9.1		8.6	8.4
8	TDS (mg/L)	1012		1211	1741
9	Temp (deg C)	30.0		29.0	28.0
10	Turb (NTU)	13.0		8.1	5.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	38.9		34.0	33.6
2	ALK-TOT (mgCaCO3/L)	236		248	254
3	B (mg/L)	0.17		0.25	0.15
4	Ca (mg/L)	55		98	135
5	Cl (mg/L)	187.0		223.5	265.0
6	CO3 (mg/L)	46.9		41.0	40.5
7	F (mg/L)	0.80		0.70	0.74
8	Fe (mg/L)	0.0		0.5	0.5
9	HCO3 (mg/L)	192		219	227
10	K (mg/L)	3.7		3.3	7.0
11	Mg (mg/L)	30.6		60.7	99.4
12	Na (mg/L)	136.0		225.4	166.7
13	NH3-N (mg N/L)	0.05		0.07	0.08
14	NO2+NO3 (mg N/L)	2.64		2.66	2.62
15	NO2-N (mgN/L)	0.00		0.06	0.02
16	NO3-N (mgN/L)	2.64		2.60	2.60
17	o-PO4-P (mg P/L)	0.400		0.400	0.400
18	SiO2 (mg/L)	8.6		11.8	11.9
19	SO4 (mg/L)	143.0		249.0	304.9
	BIOLOGICAL/BACTERIOLOGIC/				
1	BOD3-27 (mg/L)	1.5		1.4	2.2
2	COD (mg/L)			5.7	9.5
3	DO (mg/L)	5.5		2.6	3.7
4	DO_SAT% (%)	73		34	47
5	FCol-MPN (MPN/100mL)	1300		1400	1100
6	Tcol-MPN (MPN/100mL)	2200		1700	1400
	TRACE & TOXIC				
1	Cd (µg/L)	0.0		3.7	2.2
2	Cr (µg/L)	6.6		3.8	1.9
3	Cu (µg/L)	0.3		4.4	2.5
4	Hg (µg/L)				
5	Ni (µg/L)	2.7		18.2	4.8
6	Pb (µg/L)	13.1		38.0	5.0
7	Zn (µg/L)	1.8		7.8	5.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	137		245	338
2	HAR_Total (mgCaCO3/L)	264		498	752
3	Na% (%)	53		50	32
4	RSC (-)	0.0		0.0	0.0
5	SAR (-)	3.7		4.4	2.7
	PESTICIDES				

Sample not submitted for analysis in 11-04-2023 ,21-04-2023 and 01-05-2023 due to NO FLOW condition of the River

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	5172	0.000	607.8
2	EC_FLD (µmho/cm)	18	1219	215	968
3	EC_GEN (µmho/cm)	33	2010	271	1147
4	pH_FLD (pH units)	26	8.0	7.0	7.4
5	pH_GEN (pH units)	33	9.1	7.8	8.4
6	TDS (mg/L)	33	1741	158	801
7	Temp (deg C)	32	30.0	21.0	24.3
8	Turb (NTU)	33	47.0	2.0	11.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	33	39.4	0.0	18.9
2	ALK-TOT (mgCaCO3/L)	33	264	93	188
3	B (mg/L)	32	4.12	0.09	0.53
4	Ca (mg/L)	33	135	28	60
5	Cl (mg/L)	33	309.0	37.0	156.1
6	CO3 (mg/L)	33	47.5	0.0	22.8
7	F (mg/L)	33	1.05	0.34	0.63
8	Fe (mg/L)	33	6.5	0.0	1.4
9	HCO3 (mg/L)	33	304	105	183
10	K (mg/L)	33	9.0	1.1	4.2
11	Mg (mg/L)	33	99.4	9.1	29.7
12	Na (mg/L)	33	274.3	22.6	119.6
13	NH3-N (mg N/L)	32	0.55	0.00	0.13
14	NO2+NO3 (mg N/L)	33	11.68	1.29	4.99
15	NO2-N (mgN/L)	33	0.10	0.00	0.03
16	NO3-N (mgN/L)	33	11.61	1.20	4.96
17	o-PO4-P (mg P/L)	33	0.511	0.000	0.256
18	SiO2 (mg/L)	33	34.0	3.5	9.8
19	SO4 (mg/L)	33	304.9	16.6	101.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	33	3.1	0.1	1.6
2	COD (mg/L)	23	22.3	1.9	7.6
3	DO (mg/L)	33	7.2	2.6	5.4
4	DO_SAT% (%)	32	90	34	64
5	FCol-MPN (MPN/100mL)	13	1400	270	1095
6	Tcol-MPN (MPN/100mL)	13	2800	790	1714
	TRACE & TOXIC				
1	Cd (µg/L)	33	3.9	0.0	1
2	Cr (µg/L)	33	30.6	0.0	3.9
3	Cu (µg/L)	33	9.4	0.0	3.4
4	Hg (µg/L)	10	1.3	0.0	0.2
5	Ni (µg/L)	33	18.2	0.0	7.3
6	Pb (µg/L)	33	53.0	0.0	23.5
7	Zn (µg/L)	33	52.4	0.0	9.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	33	338	70	151
2	HAR_Total (mgCaCO3/L)	33	752	111	275
3	Na% (%)	33	65	20	46
4	RSC (-)	33	0.0	0.0	0
5	SAR (-)	33	6.7	0.7	3.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2013-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2013	2014	2015	2016	2017	2018	2019
	PHYSICAL							
1	Q (cumec)	903.5	1116	34.03	47.24	164.9	398.9	1092
2	EC_FLD (µmho/cm)				1534	1020	610	
3	EC_GEN (µmho/cm)	512	893	1126	995	755	693	480
4	pH_FLD (pH units)				6.0	6.7	6.9	
5	pH_GEN (pH units)	8.5	7.9	8.1	8.8	8.2	8.1	8.1
6	TDS (mg/L)	364	538	774	662	520	392	271
7	Temp (deg C)	27.3	25.4	31.5	27.2	28.8	27.6	26.4
8	Turb (NTU)	1.4	37.0	9.0	52.4	162.7	92.2	59.6
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	3.2	0.0	0.9	4.8	8.0	4.2	1.3
2	ALK-TOT (mgCaCO3/L)	137	135	181	164	96	119	108
3	B (mg/L)	0.24	0.21	0.29		0.08	0.06	0.12
4	Ca (mg/L)	29	34	41	41	33	29	39
5	Cl (mg/L)	53.5	91.2	124.0	117.0	93.3	69.2	59.2
6	CO3 (mg/L)	3.9	0.0	1.0	5.8	9.6	5.1	1.5
7	F (mg/L)	0.56	0.72	0.86	0.73	0.68	0.46	0.46
8	Fe (mg/L)	0.1	0.1	0.0	0.1	1.4	2.6	2.5
9	HCO3 (mg/L)	159	165	219	189	98	134	129
10	K (mg/L)	2.7	3.9	6.6	5.3	0.4	0.4	0.4
11	Mg (mg/L)	16.2	18.6	23.6	23.3	20.0	14.8	6.6
12	Na (mg/L)	64.7	121.2	161.2	149.4	108.6	63.9	56.7
13	NH3-N (mg N/L)	0.13	0.04	0.01	0.01	0.22	0.19	0.06
14	NO2+NO3 (mg N/L)	1.27	1.60	1.36	1.34	7.90	1.95	2.40
15	NO2-N (mgN/L)	0.00	0.04	0.06	0.00	0.07	0.03	0.20
16	NO3-N (mgN/L)	1.27	1.56	1.30	1.34	7.83	1.92	2.20
17	o-PO4-P (mg P/L)	0.154	0.277	0.251	0.227	0.893	0.246	0.212
18	P-Tot (mgP/L)		0.244					
19	SiO2 (mg/L)	9.1	10.4	10.6	10.9	10.4	16.4	12.6
20	SO4 (mg/L)	55.8	124.4	172.5	149.2	129.5	71.3	53.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.8	0.8	2.0	1.9	1.8	1.8	3.1
2	COD (mg/L)	10.3	9.2	22.5	13.4	19.0	27.7	21.7
3	DO (mg/L)	6.1	5.5	4.5	5.9	5.9	5.7	7.2
4	DO_SAT% (%)	77	68	60	74	77	72	89
5	FCol-MPN (MPN/100mL)	2271	6492	5330	11400	975	124	1168
6	Tcol-MPN (MPN/100mL)	4059	7040	8260	16000	4970	954	4346
7	TOC (mg/L)	0.2		14.0				
	TRACE & TOXIC							
1	As (µg/L)	8.1						0.4
2	Cd (µg/L)	0.3						1.4
3	Cr (µg/L)	0.5						5.3
4	Cu (µg/L)					3.8	19.0	11.4
5	Hg (µg/L)	0.5						
6	Ni (µg/L)	3.9						10.7
7	Pb (µg/L)	7.1						0.8
8	Zn (µg/L)	0.0				45.2	29.5	25.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	73	84	103	104	82	72	98
2	HAR_Total (mgCaCO3/L)	140	161	202	201	166	134	125
3	Na% (%)	45	56	62	61	59	39	47
4	RSC (-)	0.1	0.0	0.2	0.2	0.0	0.0	0.1
5	SAR (-)	2.4	3.9	4.9	4.6	3.7	2.2	2.2
	PESTICIDES							

Water Quality Seasonal Average for the period: 2013-2023

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

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

S.No	Parameters	Flood			Winter			
		Jun - Oct			Nov - Feb			
		2020	2021	2022	2013-2014	2014-2015	2015-2016	2016-2017
	PHYSICAL							
1	Q (cumec)	112.0	385.8	1363	70.11	75.50	22.38	19.29
2	EC_FLD (µmho/cm)	817	1287	1042				1665
3	EC_GEN (µmho/cm)	770	825	905	1023	1070	1781	1568
4	pH_FLD (pH units)	7.1	7.2	7.1				6.3
5	pH_GEN (pH units)	7.8	7.9	8.3	8.4	8.3	8.5	8.5
6	TDS (mg/L)	472	596	610	576	729	682	946
7	Temp (deg C)	27.0	24.3	23.2	24.5	22.3	27.5	27.0
8	Turb (NTU)	15.4	6.6	13.6	8.7	4.1	42.5	18.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	9.2	2.8	2.9	3.4	9.3
2	ALK-TOT (mgCaCO3/L)	160	163	142	206	212	219	205
3	B (mg/L)	0.35	0.18	0.66	0.36	0.30	0.13	
4	Ca (mg/L)	41	44	45	44	49	46	56
5	Cl (mg/L)	92.5	103.1	121.6	107.9	124.0	127.3	182.9
6	CO3 (mg/L)	0.0	0.0	11.1	3.3	3.5	4.0	11.2
7	F (mg/L)	0.46	0.70	0.56	0.76	0.83	0.78	0.94
8	Fe (mg/L)	2.6	0.8	1.8	0.0	0.1	0.1	0.0
9	HCO3 (mg/L)	195	199	150	244	251	259	227
10	K (mg/L)	0.4	4.0	3.6	4.5	5.1	4.5	5.0
11	Mg (mg/L)	14.9	15.3	23.3	25.2	27.9	26.2	30.5
12	Na (mg/L)	110.2	94.1	105.1	127.5	161.5	164.4	212.2
13	NH3-N (mg N/L)	0.04		0.20	0.01	0.04	0.00	0.12
14	NO2+NO3 (mg N/L)	6.02		4.74	1.29	0.98	0.76	0.13
15	NO2-N (mgN/L)	0.06	0.02	0.03	0.00	0.04	0.01	0.00
16	NO3-N (mgN/L)	5.96	3.92	4.71	1.29	0.94	0.74	0.13
17	o-PO4-P (mg P/L)	0.134	0.513	0.285	0.323	0.227	0.231	0.183
18	P-Tot (mgP/L)		0.705					
19	SiO2 (mg/L)	18.2		10.9	10.9	11.8	6.8	9.5
20	SO4 (mg/L)	85.0	67.4	73.5	95.3	191.9	212.8	288.5
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	4.0	1.8	1.3	1.5	1.0	1.0	0.9
2	COD (mg/L)	15.5	20.3	6.6	2.7	17.2	12.0	14.9
3	DO (mg/L)	6.4	6.8	5.3	6.6	6.6	6.5	6.1
4	DO_SAT% (%)	83	81	62	78	76	82	76
5	FCol-MPN (MPN/100mL)	3050	287		5543	4158	575	8065
6	Tcol-MPN (MPN/100mL)	10500	558		6767	4430	8250	8065
7	TOC (mg/L)					32.8	17.6	
	TRACE & TOXIC							
1	As (µg/L)	1.8	3.7					
2	Cd (µg/L)	4.3	0.7	0.9		3.3		
3	Cr (µg/L)	3.6	2.7	3.4		4.5		
4	Cu (µg/L)	0.0	5.2	4.2		1.5		0.0
5	Hg (µg/L)	0.6	0.2	0.2				
6	Ni (µg/L)	13.1	7.1	6.4		16.2		
7	Pb (µg/L)	23.0	12.9	18.7		18.6		
8	Zn (µg/L)	0.2	13.1	9.9		5.4		0.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	102	109	114	110	123	115	140
2	HAR_Total (mgCaCO3/L)	163	173	211	214	239	224	267
3	Na% (%)	58	50	44	56	59	61	63
4	RSC (-)	0.2	0.1	0.0	0.0	0.1	0.1	0.0
5	SAR (-)	3.7	3.0	2.9	3.8	4.5	4.8	5.7
	PESTICIDES							

Water Quality Seasonal Average for the period: 2013-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
	PHYSICAL						
1	Q (cumec)	40.92	26.15	132.2	78.33	475.2	80.35
2	EC_FLD (µmho/cm)	1022	852		1243	1108	915
3	EC_GEN (µmho/cm)	1493	1076	986	1184	1003	1287
4	pH_FLD (pH units)	7.8			7.1		7.7
5	pH_GEN (pH units)	8.2	8.3	8.1	8.2	8.3	8.5
6	TDS (mg/L)	957	433	643	806	820	889
7	Temp (deg C)	27.8	26.2	24.8	24.8	23.7	24.0
8	Turb (NTU)	41.8	1.0	47.8	35.5	4.9	9.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	10.7	8.3	3.7	2.5	11.0	24.4
2	ALK-TOT (mgCaCO3/L)	226	202	189	199	173	220
3	B (mg/L)	0.12	0.05	0.28	0.44	0.29	0.45
4	Ca (mg/L)	65	36	43	43	51	63
5	Cl (mg/L)	180.9	99.5	128.8	158.1	119.4	158.5
6	CO3 (mg/L)	12.9	10.0	4.4	3.0	13.2	29.4
7	F (mg/L)	0.77	0.61	0.60	0.70	0.61	0.66
8	Fe (mg/L)	1.1	0.1	2.6	0.3	0.3	0.8
9	HCO3 (mg/L)	249	226	222	236	184	209
10	K (mg/L)	0.6	0.2	0.4	0.6	3.6	4.7
11	Mg (mg/L)	37.2	24.7	25.3	26.1	21.9	29.7
12	Na (mg/L)	206.9	99.0	148.6	179.4	103.7	121.8
13	NH3-N (mg N/L)	1.14	0.07	0.03	0.08	0.07	0.09
14	NO2+NO3 (mg N/L)	5.33	1.10	3.83	3.08		6.80
15	NO2-N (mgN/L)	0.05	0.02	0.05	0.11	0.02	0.03
16	NO3-N (mgN/L)	5.28	1.08	3.78	2.90		6.78
17	o-PO4-P (mg P/L)	0.810	0.251	0.182	0.308	0.830	0.148
18	P-Tot (mgP/L)					1.371	
19	SiO2 (mg/L)	12.7	12.7	11.8	16.0	14.7	8.7
20	SO4 (mg/L)	285.4	73.7	138.7	154.7	87.8	113.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.3	1.0	2.0	2.9	1.5	1.9
2	COD (mg/L)	23.0	6.6	42.4	20.1		8.9
3	DO (mg/L)	6.6	6.5	7.2	6.8	5.6	5.7
4	DO_SAT% (%)	83	79	87	81	66	67
5	FCol-MPN (MPN/100mL)	640	188	275	2283	909	1007
6	Tcol-MPN (MPN/100mL)	998	1750	2375	10667	1611	1670
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)			3.0	1.4		
2	Cd (µg/L)			0.1	1.9	1.2	1.0
3	Cr (µg/L)			7.6	4.0	3.7	4.9
4	Cu (µg/L)	6.8	8.0	8.3	2.9	2.0	3.1
5	Hg (µg/L)				0.5	1.3	
6	Ni (µg/L)			10.5	27.2	4.6	8.6
7	Pb (µg/L)			0.8	60.0	10.8	29.2
8	Zn (µg/L)	33.4	23.9	72.3	18.8	5.6	7.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	162	91	108	107	126	158
2	HAR_Total (mgCaCO3/L)	317	194	213	216	217	281
3	Na% (%)	58	46	58	63	50	48
4	RSC (-)	0.0	0.5	0.0	0.2	0.0	0.0
5	SAR (-)	5.1	2.9	4.4	5.2	3.1	3.2
	PESTICIDES						

Water Quality Seasonal Average for the period: 2013-2023

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

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

S.No	Parameters	Summer							
		Mar - May							
		2014	2015	2016	2018	2020	2021	2022	2023
	PHYSICAL								
1	Q (cumec)	8.403	19.40	79.21	12.02	4.775	27.59	52.60	31.70
2	EC_FLD (µmho/cm)				685		1477	1189	929
3	EC_GEN (µmho/cm)	1575	834	395	999	1151	1253	868	1473
4	pH_FLD (pH units)				6.0		7.3	7.3	7.8
5	pH_GEN (pH units)	8.4	8.4	7.2	8.2	8.1	8.2	8.4	8.7
6	TDS (mg/L)	858	540		679	639	890	632	1105
7	Temp (deg C)	24.5	25.7	25.0	24.0	29.4	26.0	24.9	27.7
8	Turb (NTU)	12.6	4.0	134.0	34.0	12.7	17.3	4.6	10.5
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	2.1	3.5	0.0	0.0	0.6	17.4	20.7	32.2
2	ALK-TOT (mgCaCO3/L)	241	237	78	219	201	218	206	238
3	B (mg/L)	0.27	0.37		0.05	0.28	0.74	0.51	0.36
4	Ca (mg/L)	52	49	52	59	30	53	51	93
5	Cl (mg/L)	198.7	128.3	22.3	136.7	158.0	180.0	131.9	237.7
6	CO3 (mg/L)	2.5	4.2	0.0	0.0	0.7	21.0	24.9	38.8
7	F (mg/L)	1.09	0.92	0.56	0.69	0.63	1.08	0.86	0.72
8	Fe (mg/L)	1.1	0.1	0.6	1.3	0.2	0.8	0.3	1.4
9	HCO3 (mg/L)	289	281	95	267	244	223	201	211
10	K (mg/L)	4.0	5.7	3.9	0.6	0.6	4.3	3.4	4.5
11	Mg (mg/L)	30.1	28.1	30.1	38.1	34.4	24.5	26.8	46.1
12	Na (mg/L)	280.0	160.3	36.0	160.1	178.3	150.6	98.5	151.4
13	NH3-N (mg N/L)	0.03	0.02	0.04	0.08	0.01	0.13	0.20	0.05
14	NO2+NO3 (mg N/L)	1.02	0.69	1.53	3.29	2.60	3.53		1.97
15	NO2-N (mgN/L)	0.00	0.25	0.01	0.01	0.02	0.33	0.06	0.04
16	NO3-N (mgN/L)	1.02	0.44	1.52	3.28	2.58	4.37		1.93
17	o-PO4-P (mg P/L)	0.045	0.343	0.222	0.980	0.193	0.398	0.165	0.400
18	P-Tot (mgP/L)								
19	SiO2 (mg/L)	16.6	17.0	9.4	4.8	21.8	13.1	22.3	9.0
20	SO4 (mg/L)	191.0	191.3	26.8	165.6	164.7	100.0	96.1	148.8
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)	0.8	0.8	0.8	0.9	2.3	2.8	1.1	1.9
2	COD (mg/L)	5.7	11.4		49.8	25.6	14.5	5.8	7.6
3	DO (mg/L)	4.8	4.9	6.2	4.3	7.7	5.6	4.6	5.1
4	DO_SAT% (%)	58	59	75	51	90	68	56	65
5	FCol-MPN (MPN/100mL)	60	21	9000	110	140	790		1198
6	Tcol-MPN (MPN/100mL)	130	650	9000	210	340	1243		1765
7	TOC (mg/L)		31.7						
	TRACE & TOXIC								
1	As (µg/L)	2.0	8.3				2.1		
2	Cd (µg/L)	0.0	3.0			0.0	1.2	1.3	1.1
3	Cr (µg/L)	0.3	0.0			2.2	1.0	4.2	3.3
4	Cu (µg/L)				4.0	0.5	10.9	2.1	2.1
5	Hg (µg/L)	0.1	0.1				0.6	0.8	
6	Ni (µg/L)	0.3	12.4			16.9	13.4	2.6	7.1
7	Pb (µg/L)	36.0	19.0			1.9	29.0	24.4	24.4
8	Zn (µg/L)	15.4	7.0		19.5	11.0	10.8	2.9	11.1
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	129	122	130	147	75	134	127	232
2	HAR_Total (mgCaCO3/L)	255	239	256	306	218	236	239	424
3	Na% (%)	70	59	23	53	64	57	46	45
4	RSC (-)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	7.7	4.5	1.0	4.0	5.3	4.2	2.8	3.3
	PESTICIDES								

Sample not submitted for analysis in Summer 2017 and 2019 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Bawapuram**	**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"
		Opening Date	Closing Date		
Gauge	:	14-03-1964			
Discharge	:	01-04-1964			
Sediment	:	01-06-1965			
Water Quality	:	01-01-1972			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022	01-08-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	14.27	14.76	5.903	4.284	5.568	2847	1004
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Light Brown	Clear
3	EC_FLD (µmho/cm)	1340	1770	1610	1630	1650	300	680
4	EC_GEN (µmho/cm)	1225	1475	1225	1360	1458	241	412
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	8.2	8.1	8.7	8.5	8.4	7.9	7.9
7	pH_GEN (pH units)	8.3	8.5	8.5	8.4	8.3	8.3	8.1
8	TDS (mg/L)	733	1105	932	991	998	176	276
9	Temp (deg C)	21.0	20.0	20.0	22.0	21.0	30.5	30.5
10	Turb (NTU)	8.0	4.0	6.0	4.0	6.0	11.0	5.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	18.7	20.2	19.3	21.4	14.2	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	167	200	171	179	178	107	104
3	B (mg/L)	0.37	0.14		0.79	0.76	0.75	1.30
4	Ca (mg/L)	57	58	53	57	59	32	30
5	Cl (mg/L)	145.6	184.8	155.2	183.0	79.2	40.0	43.7
6	CO3 (mg/L)	22.5	24.3	23.3	25.8	17.1	0.0	0.0
7	F (mg/L)	0.64	0.79	0.77	0.98	0.88	0.34	0.34
8	Fe (mg/L)	0.1	0.2	0.1	0.1	1.8	1.2	4.7
9	HCO3 (mg/L)	157	194	161	166	182	130	127
10	K (mg/L)	5.9	20.8	4.9	4.1	5.4	1.4	3.9
11	Mg (mg/L)	18.1	33.4	24.2	27.0	24.9	7.9	7.5
12	Na (mg/L)	129.4	164.4	177.8	201.0	88.4	23.7	50.3
13	NH3-N (mg N/L)	0.20	0.18		0.16	0.30	0.08	0.37
14	NO2+NO3 (mg N/L)	2.57	3.29	2.32	2.45	2.55	3.52	3.51
15	NO2-N (mgN/L)	0.02	0.01	0.12	0.01	0.02	0.02	0.03
16	NO3-N (mgN/L)	2.55	3.28	2.20	2.44	2.53	3.50	3.48
17	o-PO4-P (mg P/L)	0.210	0.210	0.330	0.270	0.180	0.220	0.453
18	SiO2 (mg/L)	5.4	20.0	6.7	6.9	10.0	8.3	20.0
19	SO4 (mg/L)	187.4	105.5	125.1	149.3	129.4	18.2	29.4
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.8	0.4	1.2	0.6	0.9	0.9	1.4
2	COD (mg/L)				3.8	3.9	5.6	9.8
3	DO (mg/L)	3.1	5.3	5.0	4.2	5.0	5.0	4.8
4	DO_SAT% (%)	35	58	55	48	56	66	64
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	Cd (µg/L)	4.8	0.7	0.3	0.6	0.9	2.0	0.2
2	Cr (µg/L)	3.7	4.6	5.9	0.0	2.3	5.4	10.4
3	Cu (µg/L)	9.3	5.5	1.3	5.2	2.1	0.0	5.2
4	Hg (µg/L)	0.2	0.0	0.0	0.0	0.0	0.0	0.1
5	Ni (µg/L)	6.7	2.4	0.0	7.2	7.2	2.3	11.9
6	Pb (µg/L)	8.0	4.0	0.0	9.0	0.0	21.0	16.0
7	Zn (µg/L)	10.2	3.6	18.7	6.0	7.7	7.5	12.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	144	145	132	143	148	80	76
2	HAR_Total (mgCaCO3/L)	219	284	233	255	252	113	107
3	Na% (%)	56	54	62	63	43	31	50
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.8	4.3	5.1	5.5	2.4	1.0	2.1
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022	03-10-2022	11-10-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	4396	356.0	2566	1127	390.6	1804	358.4
2	Colour_Cod (-)	Light Brown	Light Brown	Brown	Light Brown	Brown	Brown	Clear
3	EC_FLD (µmho/cm)		590	600	750	780	670	
4	EC_GEN (µmho/cm)	287	356	379	484	570	605	662
5	Odour_Code (-)	odour free	odour free	odour free	odour freeo	odour free	odour free	odour free
6	pH_FLD (pH units)		8.3	7.6	8.1	8.2	7.8	7.9
7	pH_GEN (pH units)	8.1	8.2	8.2	8.1	8.2	7.3	8.4
8	TDS (mg/L)	197	878	305	330	419	375	396
9	Temp (deg C)	26.7	28.5	30.6	28.6	28.5	28.1	28.6
10	Turb (NTU)	12.0	5.0	17.0	11.5	9.4	28.0	4.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0	21.1
2	ALK-TOT (mgCaCO3/L)	100	95	56	50	98	161	134
3	B (mg/L)	0.16	0.19	0.12	0.19	0.17	0.18	0.28
4	Ca (mg/L)	30	30	29	29	39	37	37
5	Cl (mg/L)	41.0	30.1	57.1	57.0	74.0	62.5	72.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0	25.4
7	F (mg/L)	0.32	0.31	0.31	0.32	0.37	0.39	0.35
8	Fe (mg/L)	4.2	1.3	5.1	0.4	3.1	1.1	0.7
9	HCO3 (mg/L)	122	116	69	61	119	196	112
10	K (mg/L)	2.4	1.2	1.5	2.0	1.5	2.5	2.3
11	Mg (mg/L)	6.7	9.0	7.9	7.2	30.0	31.1	14.0
12	Na (mg/L)	24.5	20.1	28.9	34.7	42.0	61.2	66.4
13	NH3-N (mg N/L)	0.14	0.01	0.04	0.01	0.46	0.32	0.26
14	NO2+NO3 (mg N/L)	3.55	3.22	3.21	3.41	5.73	6.23	6.36
15	NO2-N (mgN/L)	0.05	0.03	0.01	0.01	0.06	0.33	0.01
16	NO3-N (mgN/L)	3.50	3.19	3.20	3.40	5.67	5.90	6.35
17	o-PO4-P (mg P/L)	0.150	0.210	0.250	0.300	0.160	0.242	0.442
18	SiO2 (mg/L)	4.9	28.6	11.9	11.8	13.2	9.9	6.1
19	SO4 (mg/L)	26.0	28.6	32.1	46.3	45.0	55.1	54.8
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	2.1	1.0	0.4	0.6	1.6	2.1	0.7
2	COD (mg/L)	14.6	6.1	3.8	3.6	9.4	3.8	1.9
3	DO (mg/L)	5.5	5.4	6.2	6.2	7.1	5.8	6.7
4	DO_SAT% (%)	68	69	82	79	91	74	86
5	FCol-MPN (MPN/100mL)							
6	Tcol-MPN (MPN/100mL)							
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.2	1.7	0.0	0.0	0.0	0.0
2	Cr (µg/L)	0.0	0.0	1.8	0.3	1.9	0.1	0.0
3	Cu (µg/L)	3.0	3.5	7.1	4.0	3.0	2.2	3.0
4	Hg (µg/L)	1.5	0.0	0.0				
5	Ni (µg/L)	6.3	3.1	8.3	3.0	3.6	0.0	13.0
6	Pb (µg/L)	34.0	26.0	33.0	0.0	32.0	14.0	33.0
7	Zn (µg/L)	6.9	3.7	3.4	56.2	31.0	3.8	2.4
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	76	74	72	73	98	94	93
2	HAR_Total (mgCaCO3/L)	104	112	105	103	223	223	151
3	Na% (%)	33	28	37	42	29	37	49
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.0	0.8	1.2	1.5	1.2	1.8	2.4
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	21-10-2022	01-11-2022	10-11-2022	21-11-2022	01-12-2022	12-12-2022	21-12-2022
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	962.6	230.6	53.87	91.80	104.2	47.97	17.05
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	890	970	1160		1690	1460	1550
4	EC_GEN (µmho/cm)	612	814	1008	1091	1121	1222	1357
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)		8.3	8.3	8.4	8.4	8.2	8.1
7	pH_GEN (pH units)	8.3	8.5	8.5	8.5	8.4	8.3	8.4
8	TDS (mg/L)	355	483	660	648	663	961	1082
9	Temp (deg C)	29.9	26.7	27.0	23.9	27.5	24.0	25.5
10	Turb (NTU)	11.0	11.0	6.0	4.0	3.0	4.0	4.1
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	27.8	26.3	21.8	20.8	22.2	20.8
2	ALK-TOT (mgCaCO3/L)	84	189	194	191	186	195	211
3	B (mg/L)	0.73	0.11	0.15	0.22	0.24	0.27	0.11
4	Ca (mg/L)	38	42	42	49	48	49	51
5	Cl (mg/L)	66.8	110.3	125.2	114.4	159.3	122.5	132.6
6	CO3 (mg/L)	0.0	33.5	31.7	26.3	25.0	26.8	25.0
7	F (mg/L)	0.40	0.48	0.50	0.56	0.68	0.71	0.63
8	Fe (mg/L)	5.8	0.2	0.3	0.3	1.5	0.3	0.1
9	HCO3 (mg/L)	102	163	172	180	176	184	206
10	K (mg/L)	2.6	2.9	3.0	3.9	4.2	4.3	3.2
11	Mg (mg/L)	15.0	29.7	27.8	25.8	27.2	27.0	28.3
12	Na (mg/L)	58.0	71.6	89.6	123.0	118.4	112.0	105.3
13	NH3-N (mg N/L)	0.10	0.51	0.11	0.17	0.00	0.01	0.05
14	NO2+NO3 (mg N/L)	7.39	8.16	8.08	7.82	8.45	9.09	9.87
15	NO2-N (mgN/L)	0.03	0.01	0.11	0.05	0.02	0.01	0.02
16	NO3-N (mgN/L)	7.36	8.15	7.97	7.77	8.43	9.08	9.85
17	o-PO4-P (mg P/L)	0.121	0.107	0.480	0.294	0.083	0.160	0.090
18	SiO2 (mg/L)	7.2	12.0	10.6	13.3	7.7	12.1	13.9
19	SO4 (mg/L)	57.1	73.3	110.0	110.0	92.1	139.0	96.0
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	1.0	0.5	1.5	1.5	2.1	1.2	1.6
2	COD (mg/L)	1.9	4.0	10.1	8.1			
3	DO (mg/L)	7.0	6.1	6.1	6.2	6.5	5.4	6.9
4	DO_SAT% (%)	91	75	77	72	82	64	84
5	FCol-MPN (MPN/100mL)							1700
6	Tcol-MPN (MPN/100mL)							2800
	TRACE & TOXIC							
1	Cd (µg/L)	0.0	0.3	0.5	1.3	1.5	0.3	0.0
2	Cr (µg/L)	5.2	8.2	0.0	3.9	3.4	2.6	2.2
3	Cu (µg/L)	4.9	1.2	2.9	1.3	1.0	1.6	1.7
4	Hg (µg/L)							
5	Ni (µg/L)	14.4	3.0	4.6	6.2	6.2	2.6	2.3
6	Pb (µg/L)	27.0	0.0	40.0	51.0	31.0	0.0	9.0
7	Zn (µg/L)	4.9	0.1	2.0	0.0	10.2	0.0	14.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	95	105	106	123	121	123	128
2	HAR_Total (mgCaCO3/L)	158	229	222	230	234	235	245
3	Na% (%)	44	40	47	53	52	50	48
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	2.1	2.6	3.5	3.4	3.2	2.9
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	02-01-2023	11-01-2023	20-01-2023	01-02-2023	13-02-2023	21-02-2023	01-03-2023
		A	A	A	A	A	A	A
	PHYSICAL							
1	Q (cumec)	6.118	4.433	6.571	8.404	3.897	3.742	3.434
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Light Brown	Clear
3	EC_FLD (µmho/cm)	1690			2090	1870		
4	EC_GEN (µmho/cm)	1463	1479	1552	1620	1533	1659	1649
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odourfree	odour free
6	pH_FLD (pH units)	8.4	8.6	8.2	8.5	8.1	8.5	8.9
7	pH_GEN (pH units)	8.4	8.4	8.0	8.3	8.4	8.7	8.9
8	TDS (mg/L)	841	1019	1146	910	1023	1116	899
9	Temp (deg C)	27.4	23.5	23.9	23.5	24.5	26.5	22.3
10	Turb (NTU)	6.0	5.0	5.9	3.0	15.9	7.7	5.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	22.9	34.9	0.0	0.0	25.7	26.1	29.5
2	ALK-TOT (mgCaCO3/L)	198	186	216	267	205	209	249
3	B (mg/L)	0.62	0.61	0.64	0.48	0.56	0.55	0.54
4	Ca (mg/L)	51	52	69	69	54	55	111
5	Cl (mg/L)	201.0	203.3	212.0	243.5	219.0	250.4	394.0
6	CO3 (mg/L)	27.6	42.0	0.0	0.0	31.0	31.5	35.5
7	F (mg/L)	0.67	0.65	0.68	0.91	0.89	0.87	1.11
8	Fe (mg/L)	0.5	0.1	0.3	0.5	0.5	0.3	1.0
9	HCO3 (mg/L)	186	141	264	326	187	191	231
10	K (mg/L)	5.8	5.7	5.9	5.0	5.2	3.3	6.0
11	Mg (mg/L)	29.0	30.1	24.0	23.9	36.0	36.1	59.9
12	Na (mg/L)	152.0	126.0	166.4	174.3	152.0	173.0	236.8
13	NH3-N (mg N/L)	0.00	0.00	0.00	0.03	0.02	0.00	0.07
14	NO2+NO3 (mg N/L)	11.20	2.11	2.08	0.03	0.01	0.01	0.02
15	NO2-N (mgN/L)	0.02	0.01	0.04	0.03	0.01	0.01	0.02
16	NO3-N (mgN/L)	11.18	2.10	2.04	0.00	0.00	0.00	0.00
17	o-PO4-P (mg P/L)	0.040	0.000	0.000	0.000	0.120	0.140	0.410
18	SiO2 (mg/L)	4.5	5.0	7.5	4.3	5.4	6.0	7.5
19	SO4 (mg/L)	98.0	98.0	136.7	155.0	129.0	140.1	152.5
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.4	0.6	1.4	1.3	0.9	1.7	2.7
2	COD (mg/L)	3.6	3.6	5.5	1.9	5.7	1.9	
3	DO (mg/L)	6.1	6.8	7.6	6.6	6.1	6.3	7.0
4	DO_SAT% (%)	77	79	89	77	73	78	80
5	FCol-MPN (MPN/100mL)	790	790	1700	790	790	2800	1700
6	Tcol-MPN (MPN/100mL)	1400	1700	2800	790	1400	3500	5400
	TRACE & TOXIC							
1	Cd (µg/L)	0.8	0.7	0.0	0.0	0.0	4.3	2.1
2	Cr (µg/L)	2.5	1.3	1.6	1.1	1.6	1.8	1.5
3	Cu (µg/L)	4.7	3.5	2.7	0.0	3.0	3.1	2.8
4	Hg (µg/L)							
5	Ni (µg/L)	1.5	15.6	9.3	7.4	8.4	9.8	11.4
6	Pb (µg/L)	39.0	28.0	20.0	28.0	35.0	34.0	38.0
7	Zn (µg/L)	11.2	5.9	0.0	8.6	3.9	2.0	7.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	128	130	173	172	135	137	276
2	HAR_Total (mgCaCO3/L)	248	255	273	272	285	287	526
3	Na% (%)	57	51	57	58	53	57	49
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.2	3.4	4.4	4.6	3.9	4.5	4.5
	PESTICIDES							

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	20-03-2023		01-05-2023	11-05-2023	22-05-2023
		A		A	A	A
	PHYSICAL					
1	Q (cumec)	1.211		1.638	8.223	5.078
2	Colour_Cod (-)	Clear		Clear	Clear	Clear
3	EC_FLD (µmho/cm)			2260	1780	1880
4	EC_GEN (µmho/cm)	1117		1654	1376	1406
5	Odour_Code (-)	odour free		odour free	odour free	odour free
6	pH_FLD (pH units)	8.2		8.4	8.7	8.7
7	pH_GEN (pH units)	8.4		9.0	8.7	8.6
8	TDS (mg/L)	1129		1258	1011	1021
9	Temp (deg C)	18.8		25.8	20.2	22.3
10	Turb (NTU)	6.8		1.9	3.6	4.9
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	28.5		19.2	18.4	16.8
2	ALK-TOT (mgCaCO3/L)	254		249	233	235
3	B (mg/L)	0.49		0.27	0.38	0.18
4	Ca (mg/L)	80		104	94	93
5	Cl (mg/L)	162.0		294.3	198.4	192.5
6	CO3 (mg/L)	34.3		23.1	22.2	20.2
7	F (mg/L)	1.07		0.83	0.81	0.81
8	Fe (mg/L)	0.8		0.6	0.3	0.2
9	HCO3 (mg/L)	240		257	239	246
10	K (mg/L)	4.4		5.6	5.4	5.9
11	Mg (mg/L)	22.7		71.9	48.5	57.3
12	Na (mg/L)	108.0		236.2	138.6	130.0
13	NH3-N (mg N/L)	0.05		0.11	0.08	0.10
14	NO2+NO3 (mg N/L)	0.01		2.80	2.83	2.71
15	NO2-N (mgN/L)	0.01		0.04	0.03	0.04
16	NO3-N (mgN/L)	0.00		2.76	2.80	2.67
17	o-PO4-P (mg P/L)	0.370		0.580	0.340	0.420
18	SiO2 (mg/L)	6.2		13.7	8.1	8.0
19	SO4 (mg/L)	74.0		209.5	182.0	181.7
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD3-27 (mg/L)	2.3		1.7	1.4	3.6
2	COD (mg/L)			5.7	5.7	11.3
3	DO (mg/L)	5.5		5.9	4.1	6.9
4	DO_SAT% (%)	58		72	45	79
5	FCol-MPN (MPN/100mL)	1400		2200	1700	3500
6	Tcol-MPN (MPN/100mL)	2200		5400	2800	5400
	TRACE & TOXIC					
1	Cd (µg/L)	0.5		0.2	3.1	1.2
2	Cr (µg/L)	4.7		9.8	2.5	1.5
3	Cu (µg/L)	4.8		9.0	3.3	6.2
4	Hg (µg/L)					
5	Ni (µg/L)	9.7		8.4	15.3	0.9
6	Pb (µg/L)	41.0		19.0	36.0	0.0
7	Zn (µg/L)	3.7		5.4	11.7	20.7
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	200		259	235	232
2	HAR_Total (mgCaCO3/L)	295		558	437	471
3	Na% (%)	44		48	41	37
4	RSC (-)	0.0		0.0	0.0	0.0
5	SAR (-)	2.7		4.4	2.9	2.6
	PESTICIDES					

Sample not submitted for analysis in 11-03-2023 andApril due to NO FLOW condition of the River

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	4970	0.000	484.6
2	EC_FLD (µmho/cm)	24	2260	300	1319
3	EC_GEN (µmho/cm)	32	1659	241	1077
4	pH_FLD (pH units)	30	8.9	7.6	8.3
5	pH_GEN (pH units)	32	9.0	7.3	8.4
6	TDS (mg/L)	32	1258	176	761
7	Temp (deg C)	32	30.6	18.8	25.2
8	Turb (NTU)	32	28.0	1.9	7.5
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	32	34.9	0.0	14.9
2	ALK-TOT (mgCaCO3/L)	32	267	50	173
3	B (mg/L)	31	1.30	0.11	0.4
4	Ca (mg/L)	32	111	29	54
5	Cl (mg/L)	32	394.0	30.1	144.6
6	CO3 (mg/L)	32	42.0	0.0	17.9
7	F (mg/L)	32	1.11	0.31	0.64
8	Fe (mg/L)	32	5.8	0.1	1.2
9	HCO3 (mg/L)	32	326	61	175
10	K (mg/L)	32	20.8	1.2	4.4
11	Mg (mg/L)	32	71.9	6.7	27.2
12	Na (mg/L)	32	236.8	20.1	112
13	NH3-N (mg N/L)	31	0.51	0.00	0.13
14	NO2+NO3 (mg N/L)	32	11.20	0.01	4.21
15	NO2-N (mgN/L)	32	0.33	0.01	0.04
16	NO3-N (mgN/L)	32	11.18	0.00	4.17
17	o-PO4-P (mg P/L)	32	0.580	0.000	0.231
18	SiO2 (mg/L)	32	28.6	4.3	9.9
19	SO4 (mg/L)	32	209.5	18.2	102.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	32	3.6	0.4	1.3
2	COD (mg/L)	24	14.6	1.9	5.6
3	DO (mg/L)	32	7.6	3.1	5.9
4	DO_SAT% (%)	32	91	35	71
5	FCol-MPN (MPN/100mL)	12	3500	790	1655
6	Tcol-MPN (MPN/100mL)	12	5400	790	2966
	TRACE & TOXIC				
1	Cd (µg/L)	32	4.8	0.0	0.9
2	Cr (µg/L)	32	10.4	0.0	2.9
3	Cu (µg/L)	32	9.3	0.0	3.5
4	Hg (µg/L)	10	1.5	0.0	0.2
5	Ni (µg/L)	32	15.6	0.0	6.6
6	Pb (µg/L)	32	51.0	0.0	22.1
7	Zn (µg/L)	32	56.2	0.0	8.9
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	32	276	72	135
2	HAR_Total (mgCaCO3/L)	32	558	103	248
3	Na% (%)	32	63	28	47
4	RSC (-)	32	0.0	0.0	0
5	SAR (-)	32	5.5	0.8	3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	89.00	228.5	107.9	126.5	30.63	1175	908.4
2	EC_FLD (µmho/cm)		511					
3	EC_GEN (µmho/cm)	906	772	905	1020	1094	336	801
4	pH_FLD (pH units)		7.6				8.1	
5	pH_GEN (pH units)	8.4	8.2	8.4	8.3	8.3	8.5	8.2
6	TDS (mg/L)				410	702	219	493
7	Temp (deg C)	23.4	23.6	22.4	21.6	25.2	27.7	25.3
8	Turb (NTU)				1.0	5.6	1.4	46.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	4.8	2.0	3.2	1.2	0.8	2.9	1.0
2	ALK-TOT (mgCaCO3/L)	174	128	152	172	158	82	120
3	B (mg/L)	0.00	0.00	0.00	0.00	0.21	0.16	0.32
4	Ca (mg/L)	43	36	41	40	32	19	33
5	Cl (mg/L)	101.6	66.8	102.3	126.2	135.8	27.7	88.6
6	CO3 (mg/L)	5.8	2.4	3.8	1.4	1.0	3.5	1.3
7	F (mg/L)	0.67	0.58	0.87	1.22	0.99	0.35	0.68
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	200	151	178	207	191	93	143
10	K (mg/L)	4.0	2.6	3.8	5.1	4.3	2.0	3.7
11	Mg (mg/L)	13.2	11.9	50.2	22.7	18.3	10.2	18.7
12	Na (mg/L)	138.9	70.7	537.9	133.8	160.6	34.2	109.3
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.11	0.00
14	NO2+NO3 (mg N/L)	0.01	0.26	0.00	0.24	1.04	1.14	1.17
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.01	0.26	0.00	0.24	1.04	1.14	1.16
17	o-PO4-P (mg P/L)				0.474	0.116	0.257	0.283
18	P-Tot (mgP/L)	0.001	0.000	0.207	0.474			0.226
19	SiO2 (mg/L)	14.8	13.2	11.8	11.5	12.3	6.2	9.7
20	SO4 (mg/L)	102.5	102.9	182.8	163.9	110.4	24.7	96.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.8	3.2	1.6	1.4	1.3	1.2	0.8
2	COD (mg/L)	19.5	28.4	25.7	26.5	30.9	12.9	11.9
3	DO (mg/L)	6.2	6.5	6.8	6.2	5.8	6.4	5.1
4	DO_SAT% (%)	73	76	78	70	70	81	62
5	FCol-MPN (MPN/100mL)		16000	5360	10046	4680	113	4858
6	Tcol-MPN (MPN/100mL)		16000	9080	12846	7960	277	7600
7	TOC (mg/L)				2.9	4.5	0.2	
	TRACE & TOXIC							
1	As (µg/L)					10.0	8.2	
2	Cd (µg/L)					0.4	0.4	
3	Cr (µg/L)					7.1	1.1	
4	Cu (µg/L)							
5	Hg (µg/L)						0.0	
6	Ni (µg/L)					6.5	13.8	
7	Pb (µg/L)					1.0	5.4	
8	Zn (µg/L)					328.0	0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	108	91	102	99	79	47	83
2	HAR_Total (mgCaCO3/L)	163	141	311	194	155	89	161
3	Na% (%)	64	47	66	57	67	43	54
4	RSC (-)	0.3	0.1	0.1	0.2	0.4	0.0	0.0
5	SAR (-)	4.7	2.5	14.6	4.1	5.7	1.5	3.5
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	2.780	8.398	206.2	127.2	1539	96.06	405.3	1057
2	EC_FLD (µmho/cm)		1030	1210	330		1050	754	1020
3	EC_GEN (µmho/cm)	1467	952	884	623	498	983	830	757
4	pH_FLD (pH units)		8.6	8.6	8.4		8.7	7.8	8.1
5	pH_GEN (pH units)	8.2	8.6	7.9	8.1	7.9	7.9	7.9	8.2
6	TDS (mg/L)	950	503	609	349	248	706	594	564
7	Temp (deg C)	26.7	27.9	28.8	23.8	24.6	23.6	26.7	26.3
8	Turb (NTU)	7.2	31.8	86.7	20.2	141.3	18.6	6.4	9.5
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	1.4	2.3	0.0	3.2	0.0	0.0	0.0	7.7
2	ALK-TOT (mgCaCO3/L)	180	175	139	101	129	164	162	125
3	B (mg/L)	0.40		0.10	0.07	0.13	0.46	0.14	0.44
4	Ca (mg/L)	45	40	46	29	52	33	40	41
5	Cl (mg/L)	195.6	118.4	129.3	69.0	63.3	141.2	105.7	86.2
6	CO3 (mg/L)	1.7	2.8	0.0	3.9	0.0	0.0	0.0	9.2
7	F (mg/L)	1.08	0.79	0.75	0.45	0.39	0.48	0.62	0.50
8	Fe (mg/L)	0.0	0.1	3.4	2.1	1.8	0.9	0.7	2.0
9	HCO3 (mg/L)	216	208	169	115	157	200	198	134
10	K (mg/L)	7.3	4.3	0.8	0.3	0.4	0.5	4.1	4.2
11	Mg (mg/L)	25.8	21.8	20.6	11.4	7.7	25.8	13.7	17.6
12	Na (mg/L)	231.5	132.6	158.7	69.5	55.2	159.9	98.4	78.0
13	NH3-N (mg N/L)	0.01	0.02	0.08	0.10	0.04	0.03		0.19
14	NO2+NO3 (mg N/L)	1.10	1.44	9.08	2.38	2.77	9.31		3.95
15	NO2-N (mgN/L)	0.04	0.00	0.09	0.29	0.20	0.05	0.03	0.05
16	NO3-N (mgN/L)	1.05	1.44	8.98	2.09	2.57	9.26	4.47	3.90
17	o-PO4-P (mg P/L)	0.209	0.301	0.910	0.144	0.310	0.182	0.492	0.250
18	P-Tot (mgP/L)							0.690	
19	SiO2 (mg/L)	10.5	9.2	8.9	23.7	9.9	22.3		11.4
20	SO4 (mg/L)	264.6	70.6	161.0	87.8	78.6	133.4	65.4	72.6
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	2.1	1.2	1.2	1.5	0.9	2.2	0.9	1.0
2	COD (mg/L)	19.7	12.3	27.9	24.1	16.6	19.6	27.3	5.7
3	DO (mg/L)	4.2	5.4	6.1	6.2	5.7	9.5	6.4	5.5
4	DO_SAT% (%)	52	68	78	72	69	103	82	68
5	FCol-MPN (MPN/100mL)	542	12100	1967	70	1740	3050	324	
6	Tcol-MPN (MPN/100mL)	5994	12100	1967	1152	9267	9750	755	
7	TOC (mg/L)	19.2							
	TRACE & TOXIC								
1	As (µg/L)					0.7	1.3	3.3	
2	Cd (µg/L)					1.3	3.9	0.5	0.8
3	Cr (µg/L)					2.3	4.8	2.5	2.8
4	Cu (µg/L)			10.7	11.2	11.3	0.0	4.1	4.0
5	Hg (µg/L)						0.9	0.3	0.2
6	Ni (µg/L)					2.2	14.1	5.2	6.0
7	Pb (µg/L)					0.3	22.0	10.9	17.1
8	Zn (µg/L)			80.7	21.8	32.7	0.0	13.5	11.9
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	112	99	114	73	130	83	101	103
2	HAR_Total (mgCaCO3/L)	220	190	200	120	162	190	158	176
3	Na% (%)	69	60	61	41	43	59	51	44
4	RSC (-)	0.0	0.2	0.0	0.0	0.1	0.0	0.3	0.0
5	SAR (-)	6.8	4.2	4.7	2.4	1.9	4.7	3.3	2.4
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	64.31	108.1	73.31	128.3	3.556	1.925
2	EC_FLD (µmho/cm)						400
3	EC_GEN (µmho/cm)	1022	1133	1024	1046	1238	1156
4	pH_FLD (pH units)						8.2
5	pH_GEN (pH units)	8.5	8.7	8.5	8.4	8.3	8.4
6	TDS (mg/L)				712	712	745
7	Temp (deg C)	22.5	21.9	21.4	23.0	24.3	27.6
8	Turb (NTU)				1.0	1.3	3.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	8.0	8.0	7.5	6.2	3.2	4.2
2	ALK-TOT (mgCaCO3/L)	209	200	193	198	205	189
3	B (mg/L)	0.00	0.00	0.00	0.29	0.26	0.03
4	Ca (mg/L)	56	54	40	39	45	44
5	Cl (mg/L)	114.9	132.9	118.7	117.3	124.8	129.2
6	CO3 (mg/L)	9.6	9.6	9.0	7.4	3.8	5.0
7	F (mg/L)	0.77	1.22	2.62	0.91	1.22	0.74
8	Fe (mg/L)	0.0	0.0	0.0	0.1	0.0	0.0
9	HCO3 (mg/L)	236	224	217	226	242	220
10	K (mg/L)	4.9	4.0	4.0	4.2	3.3	3.9
11	Mg (mg/L)	11.6	19.9	23.0	22.1	26.3	25.0
12	Na (mg/L)	203.8	159.1	137.9	153.9	174.3	142.3
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.01	0.04	0.01
14	NO2+NO3 (mg N/L)	0.01	0.73	0.00	0.77	0.98	0.80
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.02	0.00	0.00
16	NO3-N (mgN/L)	0.01	0.73	0.00	0.75	0.98	0.80
17	o-PO4-P (mg P/L)				0.536	0.181	0.197
18	P-Tot (mgP/L)	0.001	0.000	0.153	0.536		
19	SiO2 (mg/L)	15.8	13.0	16.3	12.1	15.7	10.5
20	SO4 (mg/L)	124.0	218.8	184.0	196.8	197.0	87.9
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.7	1.7	1.2	0.9	1.1	1.2
2	COD (mg/L)	17.9	23.4	21.1	11.8	12.0	3.5
3	DO (mg/L)	6.8	6.9	7.4	6.7	7.0	6.4
4	DO_SAT% (%)	79	78	84	78	84	78
5	FCol-MPN (MPN/100mL)		6500	7750	4665	801	4290
6	Tcol-MPN (MPN/100mL)		12500	10750	6365	4621	4858
7	TOC (mg/L)				3.6	3.3	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	139	134	101	97	113	109
2	HAR_Total (mgCaCO3/L)	188	217	197	189	222	213
3	Na% (%)	65	61	59	63	63	59
4	RSC (-)	0.5	0.2	0.2	0.3	0.1	0.0
5	SAR (-)	6.4	4.7	4.3	4.9	5.1	4.2
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	15.07	1.328	Dry bed	2.267	1.145	109.6
2	EC_FLD (µmho/cm)			No flow	1317	1053	
3	EC_GEN (µmho/cm)	1130	2800		1426	1535	949
4	pH_FLD (pH units)				8.4	8.2	
5	pH_GEN (pH units)	8.4	8.5		8.3	8.4	8.1
6	TDS (mg/L)	715	677		903	933	632
7	Temp (deg C)	26.6	25.6		25.2	23.5	27.4
8	Turb (NTU)	4.8	10.0		9.0	0.7	40.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	2.9	4.0		8.0	12.3	0.0
2	ALK-TOT (mgCaCO3/L)	211	215		202	191	157
3	B (mg/L)	0.23	0.05		0.08	0.03	0.42
4	Ca (mg/L)	48	43		64	40	37
5	Cl (mg/L)	125.3	133.6		182.1	153.5	119.3
6	CO3 (mg/L)	3.5	4.8		9.6	14.9	0.0
7	F (mg/L)	0.82	0.56		0.77	0.72	0.56
8	Fe (mg/L)	0.1	0.0		0.1	0.1	1.5
9	HCO3 (mg/L)	250	252		226	203	191
10	K (mg/L)	3.7	4.4		0.9	0.5	0.4
11	Mg (mg/L)	26.4	24.4		21.5	29.7	25.3
12	Na (mg/L)	149.1	167.4		205.4	133.1	151.9
13	NH3-N (mg N/L)	0.04	0.01		0.77	0.05	0.03
14	NO2+NO3 (mg N/L)	1.24	0.61		5.80	1.10	3.40
15	NO2-N (mgN/L)	0.09	0.01		0.01	0.03	0.03
16	NO3-N (mgN/L)	1.15	0.60		5.79	1.06	3.38
17	o-PO4-P (mg P/L)	0.260	0.138		0.843	0.204	0.158
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	12.2	7.3		11.3	7.3	10.1
20	SO4 (mg/L)	202.6	196.5		276.7	142.3	155.5
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.3	1.8		2.0	2.0	1.0
2	COD (mg/L)	17.3	12.2		21.8	7.6	42.3
3	DO (mg/L)	6.8	6.3		7.1	7.8	6.0
4	DO_SAT% (%)	84	76		85	91	76
5	FCol-MPN (MPN/100mL)	4393	4478		63	158	295
6	Tcol-MPN (MPN/100mL)	5098	12001		157	2393	2400
7	TOC (mg/L)	33.0	14.9				
	TRACE & TOXIC						
1	As (µg/L)						2.7
2	Cd (µg/L)	3.4					0.0
3	Cr (µg/L)	2.4					4.6
4	Cu (µg/L)	1.9			4.3	12.0	5.8
5	Hg (µg/L)						
6	Ni (µg/L)	16.9					9.3
7	Pb (µg/L)	18.0					0.9
8	Zn (µg/L)	6.5			27.1	34.3	59.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	121	108		159	100	92
2	HAR_Total (mgCaCO3/L)	231	209		249	223	197
3	Na% (%)	57	63		64	55	59
4	RSC (-)	0.1	0.1		0.0	0.0	0.0
5	SAR (-)	4.2	5.0		5.7	3.9	4.6
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter			Summer			
		Nov - Feb			Mar - May			
		2020-2021	2021-2022	2022-2023	2009	2010	2011	2012
	PHYSICAL							
1	Q (cumec)	83.70	342.7	48.23	1.440	10.15	5.109	0.718
2	EC_FLD (µmho/cm)	1080	1191	1560				
3	EC_GEN (µmho/cm)	1128	1029	1327	1553	1247	1370	1349
4	pH_FLD (pH units)	8.3	8.2	8.3				
5	pH_GEN (pH units)	8.2	8.2	8.4	8.4	8.9	8.2	8.3
6	TDS (mg/L)	706	825	879				788
7	Temp (deg C)	26.4	25.6	25.3	24.3	23.5	22.0	25.7
8	Turb (NTU)	22.3	4.8	6.3				1.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	1.1	6.8	20.8	8.0	9.3	0.0	1.4
2	ALK-TOT (mgCaCO3/L)	196	185	204	208	199	186	183
3	B (mg/L)	0.38	0.35	0.38	0.00	0.00	0.00	0.08
4	Ca (mg/L)	43	50	53	45	42	43	32
5	Cl (mg/L)	150.5	128.9	174.5	209.1	159.7	169.3	174.9
6	CO3 (mg/L)	1.3	8.2	25.0	9.6	11.2	0.0	1.7
7	F (mg/L)	0.57	0.65	0.68	1.19	1.19	1.03	1.15
8	Fe (mg/L)	0.4	0.3	0.4	0.0	0.0	0.0	0.2
9	HCO3 (mg/L)	236	208	198	234	220	227	220
10	K (mg/L)	0.6	3.7	4.4	7.6	5.2	5.9	4.9
11	Mg (mg/L)	24.3	22.2	28.7	17.8	23.0	25.3	18.5
12	Na (mg/L)	157.5	102.8	130.3	102.2	183.5	194.0	202.5
13	NH3-N (mg N/L)	0.06	0.10	0.08	0.05	0.00	0.00	0.04
14	NO2+NO3 (mg N/L)	2.15		5.57	0.01	0.00	0.00	0.81
15	NO2-N (mgN/L)	0.08	0.01	0.03	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	2.10		5.55	0.01	0.00	0.00	0.80
17	o-PO4-P (mg P/L)	0.202	0.962	0.126				0.161
18	P-Tot (mgP/L)		1.683		0.001	0.000	0.068	0.161
19	SiO2 (mg/L)	16.8	14.9	8.5	13.6	15.6	11.2	18.0
20	SO4 (mg/L)	129.2	88.0	114.8	132.1	292.0	255.0	223.0
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	1.9	1.5	1.2	1.2	2.4	1.1	2.4
2	COD (mg/L)	20.2		4.9	9.4	27.6	34.9	17.2
3	DO (mg/L)	5.8	6.0	6.4	5.5	5.9	6.5	5.6
4	DO_SAT% (%)	72	74	77	65	70	74	69
5	FCol-MPN (MPN/100mL)	3087	1080	1337		11467	16000	1277
6	Tcol-MPN (MPN/100mL)	11295	1794	2056		11467	16000	2077
7	TOC (mg/L)							5.8
	TRACE & TOXIC							
1	As (µg/L)	1.7				10.4		6.8
2	Cd (µg/L)	4.2	1.3	0.8	2.7	0.0		0.7
3	Cr (µg/L)	5.1	3.7	2.5	2.0	0.0		0.0
4	Cu (µg/L)	4.1	1.5	2.2				
5	Hg (µg/L)	3.3	0.1					1.0
6	Ni (µg/L)	1.9	4.0	6.4	9.6	3.8		6.8
7	Pb (µg/L)	46.8	11.7	26.3	44.0	0.0		36.0
8	Zn (µg/L)	17.1	5.4	4.8	6.9	6.3		17.4
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	106	124	132	114	104	108	79
2	HAR_Total (mgCaCO3/L)	208	217	251	188	200	214	156
3	Na% (%)	61	49	52	41	66	66	73
4	RSC (-)	0.3	0.1	0.0	0.4	0.1	0.0	0.6
5	SAR (-)	4.7	3.1	3.6	3.2	5.7	5.8	7.1
	PESTICIDES							
1	Aldrin (µg/L)				0.0	0.0		0.0
2	BHC (µg/L)				0.1	0.0		0.0
3	DDT (µg/L)				0.1	0.1		0.0
4	Dieldrin (µg/L)				0.0	0.0		0.0
5	Endos (µg/L)				0.1	0.1		0.1

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer						
		Mar - May						
		2013	2014	2015	2020	2021	2022	2023
	PHYSICAL							
1	Q (cumec)	0.486	9.365	0.938	0.898	3.170	60.70	3.917
2	EC_FLD (µmho/cm)					1347	1323	1973
3	EC_GEN (µmho/cm)	1260	1410	1468	1707	1517	1014	1440
4	pH_FLD (pH units)					8.3	8.2	8.6
5	pH_GEN (pH units)	8.3	8.2	8.4	8.3	8.3	8.5	8.7
6	TDS (mg/L)	691	828	923	1148	971	709	1064
7	Temp (deg C)	23.5	28.0	27.3	26.0	25.1	22.2	21.9
8	Turb (NTU)	1.1	1.0	3.0	21.7	15.5	3.9	4.4
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	2.1	0.0	3.5	1.1	5.2	20.5	22.5
2	ALK-TOT (mgCaCO3/L)	167	231	208	193	218	221	244
3	B (mg/L)	0.38	0.03	0.47	0.11	0.73	0.48	0.37
4	Ca (mg/L)	36	45	49	29	44	50	96
5	Cl (mg/L)	150.8	155.1	178.3	240.7	228.2	137.7	248.2
6	CO3 (mg/L)	2.5	0.0	4.2	1.3	6.2	24.7	27.1
7	F (mg/L)	0.74	0.75	0.86	0.68	0.87	0.88	0.93
8	Fe (mg/L)	0.2	0.0	0.1	0.3	0.4	0.2	0.6
9	HCO3 (mg/L)	199	282	245	233	253	219	243
10	K (mg/L)	4.6	6.0	5.9	0.9	5.2	4.6	5.4
11	Mg (mg/L)	20.6	25.8	28.5	30.5	31.5	25.9	52.1
12	Na (mg/L)	195.3	132.0	208.1	262.3	211.2	112.0	169.9
13	NH3-N (mg N/L)	0.00	0.01	0.01	0.01	0.12	0.16	0.08
14	NO2+NO3 (mg N/L)	1.19	0.89	0.97	2.52	3.34		1.67
15	NO2-N (mgN/L)	0.00	0.00	0.15	0.02	0.24	0.07	0.03
16	NO3-N (mgN/L)	1.19	0.89	0.82	2.50	4.98		1.65
17	o-PO4-P (mg P/L)	0.125	0.110	0.233	0.120	0.291	0.144	0.424
18	P-Tot (mgP/L)							
19	SiO2 (mg/L)	13.2	10.6	14.7	20.5	19.1	17.6	8.7
20	SO4 (mg/L)	184.0	155.0	272.0	244.0	169.2	96.7	159.9
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	0.7	1.1	1.0	2.7	2.2	1.2	2.3
2	COD (mg/L)	8.9	4.1	15.2	19.0	37.9	6.3	7.6
3	DO (mg/L)	5.5	6.9	5.3	7.5	6.5	5.1	5.9
4	DO_SAT% (%)	65	88	67	92	80	59	67
5	FCol-MPN (MPN/100mL)	66	230	21	330	1093		2100
6	Tcol-MPN (MPN/100mL)	260	2400	667	3500	3490		4240
7	TOC (mg/L)	4.1		31.1				
	TRACE & TOXIC							
1	As (µg/L)	4.8		11.8		1.8		
2	Cd (µg/L)	1.6		4.0	0.0	1.4	1.3	1.4
3	Cr (µg/L)	0.7		0.0	6.4	0.9	2.2	4.0
4	Cu (µg/L)				1.1	8.6	1.5	5.2
5	Hg (µg/L)	0.4		0.1		0.5	0.4	
6	Ni (µg/L)	9.0		13.6	24.8	17.7	2.1	9.1
7	Pb (µg/L)	6.5		19.0	1.0	34.7	22.4	26.8
8	Zn (µg/L)	7.8		9.0	6.5	12.1	2.2	9.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	89	112	124	72	111	124	240
2	HAR_Total (mgCaCO3/L)	175	220	243	199	242	232	457
3	Na% (%)	70	56	65	74	63	50	44
4	RSC (-)	0.0	0.3	0.0	0.6	0.1	0.2	0.0
5	SAR (-)	6.5	3.9	5.9	8.7	5.9	3.2	3.4
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Sample not submitted for analysis in Summer 2016 to 2019 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**HALIA**	**Code**	:	**AKH00G2**
State	:	Andhra Pradesh	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	:	3100 Sq. Km.	Bank	:	
Latitude	:	16°46'00"	Longitude	:	79°21'00"
		Opening Date	Closing Date		
Gauge	:	01-06-1984			
Discharge	:	11-07-1984			
Sediment	:				
Water Quality	:	01-06-1992			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1.402	0.000	0.000	0.000	24.39	3.855
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	934	887	940	778	856	1085
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.4	8.6	8.4	8.1	8.5
6	TDS (mg/L)	569	598	658	548	622	802
7	Temp (deg C)	29.0	28.0	28.0	28.0	28.0	29.0
8	Turb (NTU)	5.0	5.0	4.0	11.0	14.0	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	29.5	24.8	30.3	24.1	0.0	26.6
2	ALK-TOT (mgCaCO3/L)	217	212	249	210	199	239
3	B (mg/L)	0.25	0.34		0.74	0.73	0.75
4	Ca (mg/L)	36	27	33	33	36	30
5	Cl (mg/L)	116.5	112.9	142.6	104.0	55.8	54.0
6	CO3 (mg/L)	35.5	29.9	36.5	29.0	0.0	32.0
7	F (mg/L)	0.84	0.91	1.05	0.98	0.91	1.39
8	Fe (mg/L)	0.1	0.2	0.2	0.0	0.5	0.1
9	HCO3 (mg/L)	193	198	230	197	243	227
10	K (mg/L)	4.3	20.1	4.4	3.4	4.8	1.9
11	Mg (mg/L)	34.1	29.7	29.1	27.0	23.7	30.6
12	Na (mg/L)	98.9	115.1	151.8	114.7	110.4	95.4
13	NH3-N (mg N/L)	0.13	0.38		0.10	0.31	0.08
14	NO2+NO3 (mg N/L)	3.18	3.25	3.10	2.72	2.66	5.84
15	NO2-N (mgN/L)	0.02	0.00	0.03	0.01	0.01	0.01
16	NO3-N (mgN/L)	3.16	3.25	3.07	2.71	2.65	5.83
17	o-PO4-P (mg P/L)	0.120	0.210	0.240	0.210	0.210	0.340
18	SiO2 (mg/L)	3.9	24.3	8.3	9.0	10.6	6.3
19	SO4 (mg/L)	86.2	57.5	76.2	89.0	66.7	68.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.9	0.3	1.1	5.0	0.3	0.3
2	COD (mg/L)				19.1	2.0	1.9
3	DO (mg/L)	4.7	4.8	4.9	5.4	4.4	4.4
4	DO_SAT% (%)	61	61	63	69	56	57
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	2.1	1.6	0.1	1.3	3.2	0.0
2	Cr (µg/L)	0.9	3.8	6.2	0.0	0.0	3.7
3	Cu (µg/L)	9.4	3.0	3.2	3.8	3.4	0.0
4	Hg (µg/L)	0.1	0.1	0.0	0.0	0.0	0.0
5	Ni (µg/L)	4.4	0.0	0.0	2.1	6.5	3.8
6	Pb (µg/L)	6.0	0.0	0.0	0.0	0.0	29.0
7	Zn (µg/L)	7.1	1.0	36.8	4.6	5.0	2.6
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	90	69	81	83	89	76
2	HAR_Total (mgCaCO3/L)	232	192	203	195	188	204
3	Na% (%)	48	54	62	56	56	50
4	RSC (-)	0.0	0.4	1.0	0.3	0.3	0.8
5	SAR (-)	2.8	3.6	4.7	3.6	3.5	2.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1.952	2.710	4.002	32.37	83.40	16.58
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1135	1191	1090	977	851	780
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.4	8.3	8.2	8.2	8.1
6	TDS (mg/L)	768	802	671	700	683	548
7	Temp (deg C)	28.0	29.3	29.3	27.0	27.5	27.2
8	Turb (NTU)	4.8	2.0	2.0	6.0	2.1	3.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	30.3	31.5	26.6	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	244	251	237	259	246	155
3	B (mg/L)	0.23	0.23	0.29	0.16	0.25	0.09
4	Ca (mg/L)	29	31	59	61	61	40
5	Cl (mg/L)	139.4	46.2	48.2	98.3	97.0	92.2
6	CO3 (mg/L)	36.5	38.0	32.0	0.0	0.0	0.0
7	F (mg/L)	1.48	1.42	1.25	1.30	1.25	0.82
8	Fe (mg/L)	0.4	5.6	0.3	0.3	0.6	0.6
9	HCO3 (mg/L)	224	229	224	316	300	189
10	K (mg/L)	4.0	7.2	2.3	2.8	2.4	1.5
11	Mg (mg/L)	29.6	27.3	41.0	45.0	42.8	27.0
12	Na (mg/L)	100.8	99.0	69.6	86.4	71.6	57.0
13	NH3-N (mg N/L)	0.33	0.14	0.03	0.04	0.18	0.30
14	NO2+NO3 (mg N/L)	7.90	5.89	4.89	5.12	5.02	5.56
15	NO2-N (mgN/L)	5.90	0.04	0.05	0.02	0.01	0.06
16	NO3-N (mgN/L)	2.00	5.85	4.84	5.10	5.01	5.50
17	o-PO4-P (mg P/L)	0.034	0.190	0.330	0.230	0.480	0.150
18	SiO2 (mg/L)	10.4	6.5	98.0	30.0	17.0	15.0
19	SO4 (mg/L)	39.0	85.2	110.3	89.0	77.0	65.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.3	0.4	0.6	2.0	0.9	1.6
2	COD (mg/L)	15.7	1.8	4.0	19.1	5.4	11.2
3	DO (mg/L)	4.8	5.0	5.0	4.6	5.2	5.9
4	DO_SAT% (%)	61	65	65	58	65	74
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	3.3	0.0	0.0
2	Cr (µg/L)	19.0	0.0	0.0	0.0	1.0	0.0
3	Cu (µg/L)	0.0	3.4	3.9	3.9	3.3	2.3
4	Hg (µg/L)	4.3	2.0	0.0	0.1		
5	Ni (µg/L)	0.0	5.7	5.3	4.2	5.6	4.6
6	Pb (µg/L)	0.0	46.0	40.0	43.0	0.0	35.0
7	Zn (µg/L)	0.2	10.6	2.1	5.1	91.0	17.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	71	78	148	153	153	100
2	HAR_Total (mgCaCO3/L)	195	191	318	341	331	213
3	Na% (%)	53	52	32	36	32	37
4	RSC (-)	1.0	1.2	0.0	0.0	0.0	0.0
5	SAR (-)	3.2	3.1	1.7	2.0	1.7	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	74.22	53.51	31.13	14.93	12.30	10.77
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	851	902	906	983	1037	1044
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.9	8.3	8.2	8.3	8.2	8.4
6	TDS (mg/L)	536	557	517	596	661	575
7	Temp (deg C)	28.0	28.5	28.5	28.7	27.7	26.5
8	Turb (NTU)	6.0	4.0	4.0	4.0	9.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	29.1	0.0	31.8	0.0	25.7
2	ALK-TOT (mgCaCO3/L)	242	257	286	181	182	272
3	B (mg/L)	0.13	0.37	0.72	0.19	0.20	0.34
4	Ca (mg/L)	38	44	44	29	29	49
5	Cl (mg/L)	94.0	102.1	96.7	108.3	120.1	113.4
6	CO3 (mg/L)	0.0	35.0	0.0	38.3	0.0	31.0
7	F (mg/L)	0.93	1.06	1.10	1.14	1.10	1.09
8	Fe (mg/L)	0.7	0.4	0.4	0.8	0.5	0.2
9	HCO3 (mg/L)	295	242	349	143	222	269
10	K (mg/L)	3.0	2.6	3.0	2.8	2.9	4.2
11	Mg (mg/L)	27.3	24.0	25.0	28.4	28.4	23.0
12	Na (mg/L)	105.9	102.4	100.0	89.6	92.3	119.0
13	NH3-N (mg N/L)	0.29	0.31	0.10	0.27	0.09	0.18
14	NO2+NO3 (mg N/L)	6.24	5.99	7.63	9.16	8.91	8.57
15	NO2-N (mgN/L)	0.04	0.01	0.02	0.01	0.08	0.08
16	NO3-N (mgN/L)	6.20	5.98	7.61	9.15	8.83	8.49
17	o-PO4-P (mg P/L)	0.173	0.308	0.060	0.047	0.090	0.450
18	SiO2 (mg/L)	21.0	11.0	13.3	25.1	21.0	9.0
19	SO4 (mg/L)	73.3	78.0	79.0	88.5	82.0	82.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	0.7	0.7	0.9	0.9	0.6
2	COD (mg/L)	1.9	1.9	1.9	10.1	8.1	4.0
3	DO (mg/L)	5.0	5.4	5.8	5.7	5.1	6.5
4	DO_SAT% (%)	64	69	74	73	64	80
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	0.9	0.4	1.3
2	Cr (µg/L)	0.1	0.0	0.0	0.8	0.0	3.2
3	Cu (µg/L)	2.3	1.3	1.7	2.6	2.7	1.3
4	Hg (µg/L)						
5	Ni (µg/L)	0.4	11.0	11.6	7.6	6.0	3.0
6	Pb (µg/L)	17.0	32.0	34.0	1.0	42.0	39.0
7	Zn (µg/L)	5.2	2.4	0.0	3.9	4.0	0.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	95	110	110	71	72	123
2	HAR_Total (mgCaCO3/L)	209	210	214	190	190	218
3	Na% (%)	52	51	50	50	51	54
4	RSC (-)	0.7	1.0	1.5	0.0	0.0	1.1
5	SAR (-)	3.2	3.1	3.0	2.8	2.9	3.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	10.19	5.078	4.903	3.465	8.891	5.235
2	Colour_Cod (-)	Clear	Dark Brown	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1028	124	1040	1041	1052	1061
4	Odour_Code (-)	odour free	odour free	odour free	odour freeo	odour free	odour free
5	pH_GEN (pH units)	8.3	8.3	8.2	8.3	8.2	8.0
6	TDS (mg/L)	568	92	799	575	798	706
7	Temp (deg C)	27.3	25.5	25.5	25.0	25.6	24.5
8	Turb (NTU)	3.0	4.0	3.9	9.0	9.0	8.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	28.2	27.6	0.0	31.5	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	227	184	278	260	291	276
3	B (mg/L)	0.17	0.18	0.20	0.57	0.56	0.69
4	Ca (mg/L)	48	49	53	54	56	48
5	Cl (mg/L)	122.1	131.0	133.0	133.5	116.3	127.9
6	CO3 (mg/L)	34.0	33.2	0.0	38.0	0.0	0.0
7	F (mg/L)	1.30	1.20	1.03	1.09	1.03	1.08
8	Fe (mg/L)	0.4	0.3	0.4	0.6	0.3	1.0
9	HCO3 (mg/L)	208	157	339	240	355	337
10	K (mg/L)	3.9	4.1	3.2	4.4	4.8	4.9
11	Mg (mg/L)	23.2	23.1	33.0	34.0	35.5	21.6
12	Na (mg/L)	99.6	91.0	100.2	107.0	93.7	94.7
13	NH3-N (mg N/L)	0.00	0.01	0.01	0.00	0.00	0.00
14	NO2+NO3 (mg N/L)	8.45	10.81	11.76	13.61	2.09	2.06
15	NO2-N (mgN/L)	0.02	0.01	0.01	0.01	0.00	0.01
16	NO3-N (mgN/L)	8.43	10.80	11.75	13.60	2.09	2.05
17	o-PO4-P (mg P/L)	0.072	0.050	0.030	0.090	0.000	0.000
18	SiO2 (mg/L)	11.8	21.7	20.0	8.6	10.0	13.4
19	SO4 (mg/L)	78.2	82.0	82.0	82.0	82.0	92.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.6	1.0	0.8	1.1	1.7	2.5
2	COD (mg/L)				1.8	1.8	3.6
3	DO (mg/L)	7.8	6.0	6.0	6.0	6.1	6.8
4	DO_SAT% (%)	98	73	73	73	74	81
5	FCol-MPN (MPN/100mL)			790	790	1400	790
6	Tcol-MPN (MPN/100mL)			790	1400	2200	1700
	TRACE & TOXIC						
1	Cd (µg/L)	1.0	0.7	0.1	0.8	0.5	0.0
2	Cr (µg/L)	3.1	3.1	5.2	2.9	1.4	1.4
3	Cu (µg/L)	0.8	0.9	1.2	3.4	3.1	1.8
4	Hg (µg/L)						
5	Ni (µg/L)	6.7	2.7	2.4	13.7	9.3	8.4
6	Pb (µg/L)	30.0	0.0	5.0	35.0	20.0	9.0
7	Zn (µg/L)	8.9	3.2	21.5	10.9	48.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	119	123	133	135	140	120
2	HAR_Total (mgCaCO3/L)	215	219	270	277	288	210
3	Na% (%)	50	47	44	45	41	49
4	RSC (-)	0.3	0.0	0.2	0.0	0.1	1.3
5	SAR (-)	3.0	2.7	2.7	2.8	2.4	2.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	8.351	6.559	8.060	7.091	8.254	17.68
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1063	1019	1034	995	1525	1939
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.2	8.1	8.6	8.5	8.8
6	TDS (mg/L)	619	746	742	705	972	769
7	Temp (deg C)	25.0	25.3	25.8	25.3	25.3	25.8
8	Turb (NTU)	5.0	13.2	8.6	7.0	4.9	33.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	27.2	28.1	32.0
2	ALK-TOT (mgCaCO3/L)	202	282	230	236	239	272
3	B (mg/L)	0.33	0.37	0.38	0.38	0.35	0.34
4	Ca (mg/L)	46	50	51	47	63	47
5	Cl (mg/L)	120.0	132.0	123.0	189.0	216.2	382.0
6	CO3 (mg/L)	0.0	0.0	0.0	32.8	33.8	38.6
7	F (mg/L)	1.15	1.05	1.08	0.99	0.97	0.94
8	Fe (mg/L)	0.6	0.2	0.1	0.3	0.3	0.2
9	HCO3 (mg/L)	246	344	281	222	223	253
10	K (mg/L)	4.4	9.0	2.9	3.4	3.1	4.4
11	Mg (mg/L)	22.5	28.3	28.0	29.0	31.0	29.0
12	Na (mg/L)	92.0	98.5	87.5	107.8	108.0	236.0
13	NH3-N (mg N/L)	0.05	0.03	0.00	0.12	0.03	0.05
14	NO2+NO3 (mg N/L)	1.59	1.86	1.83	1.79	1.78	1.69
15	NO2-N (mgN/L)	0.01	0.01	0.00	0.00	0.06	0.01
16	NO3-N (mgN/L)	1.58	1.85	1.83	1.79	1.72	1.68
17	o-PO4-P (mg P/L)	0.000	0.100	0.100	0.500	0.300	0.400
18	SiO2 (mg/L)	6.9	5.1	14.3	6.2	7.3	25.3
19	SO4 (mg/L)	97.5	87.0	109.0	14.7	14.7	14.7
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	2.6	2.1	1.1	2.5	1.8
2	COD (mg/L)	3.7	3.8	5.7			
3	DO (mg/L)	4.4	4.9	5.1	6.8	6.4	8.0
4	DO_SAT% (%)	53	59	62	82	77	97
5	FCol-MPN (MPN/100mL)	2200	1400	3500	1400	490	790
6	Tcol-MPN (MPN/100mL)	2800	1700	5400	1700	790	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.9	0.3	0.0	0.0
2	Cr (µg/L)	1.4	1.1	1.3	1.1	2.7	3.6
3	Cu (µg/L)	5.8	2.1	1.1	1.8	2.0	1.4
4	Hg (µg/L)						
5	Ni (µg/L)	9.0	2.8	4.4	5.5	42.0	4.9
6	Pb (µg/L)	28.0	14.0	18.0	24.0	35.0	29.0
7	Zn (µg/L)	0.0	15.8	0.6	5.7	49.5	5.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	115	125	127	117	158	118
2	HAR_Total (mgCaCO3/L)	209	242	243	238	287	238
3	Na% (%)	48	46	44	49	45	68
4	RSC (-)	0.0	0.8	0.0	0.0	0.0	0.7
5	SAR (-)	2.8	2.8	2.4	3.1	2.8	6.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	9.620	4.531	3.360	4.080	4.294	2.914
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1067	998	1035	1032	898	991
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	9.0	8.5	8.6	8.6	8.2	8.3
6	TDS (mg/L)	851	794	767	801	692	648
7	Temp (deg C)	26.3	25.8	27.5	28.0	28.3	28.5
8	Turb (NTU)	38.0	10.4	2.4	1.2	2.5	1.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	33.2	33.7	32.4	26.0	0.0	14.4
2	ALK-TOT (mgCaCO3/L)	193	278	279	284	295	288
3	B (mg/L)	0.15	0.15	0.13	0.00	0.35	0.15
4	Ca (mg/L)	47	52	30	77	61	61
5	Cl (mg/L)	174.3	158.2	124.6	116.0	116.5	116.7
6	CO3 (mg/L)	40.0	40.6	39.0	31.3	0.0	17.4
7	F (mg/L)	1.08	1.05	1.15	1.04	1.07	1.05
8	Fe (mg/L)	0.7	0.2	0.3	0.2	0.2	0.0
9	HCO3 (mg/L)	154	256	261	283	360	316
10	K (mg/L)	3.6	4.0	5.3	4.0	6.1	6.3
11	Mg (mg/L)	26.5	40.0	41.0	38.3	36.0	46.0
12	Na (mg/L)	105.2	128.4	197.0	123.7	119.0	130.9
13	NH3-N (mg N/L)	0.04	0.06	0.06	0.04	0.08	0.06
14	NO2+NO3 (mg N/L)	0.08	2.69	2.97	2.50	2.59	2.56
15	NO2-N (mgN/L)	0.08	0.00	0.01	0.04	0.04	0.19
16	NO3-N (mgN/L)	0.00	2.69	2.96	2.46	2.55	2.37
17	o-PO4-P (mg P/L)	0.480	0.410	0.650	0.270	0.600	0.470
18	SiO2 (mg/L)	8.8	9.3	11.8	13.7	12.3	12.8
19	SO4 (mg/L)	97.8	135.6	267.5	117.7	104.6	104.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.5	1.0	1.7	0.8	1.8	1.9
2	COD (mg/L)				1.9	7.6	5.7
3	DO (mg/L)	4.7	4.2	5.9	6.2	4.6	4.2
4	DO_SAT% (%)	58	51	74	79	59	54
5	FCol-MPN (MPN/100mL)	1400	790	1400	490	1700	790
6	Tcol-MPN (MPN/100mL)	2200	1700	2200	790	2800	1100
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.0	0.6	0.0	2.4	0.3
2	Cr (µg/L)	7.0	7.6	5.0	8.9	2.7	2.2
3	Cu (µg/L)	1.2	0.2	0.5	0.7	3.2	0.0
4	Hg (µg/L)						
5	Ni (µg/L)	3.7	1.6	3.9	0.7	10.4	0.0
6	Pb (µg/L)	21.0	16.0	0.0	6.0	28.0	0.0
7	Zn (µg/L)	4.5	44.9	11.6	2.3	5.5	0.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	117	130	75	193	153	152
2	HAR_Total (mgCaCO3/L)	227	297	246	353	303	343
3	Na% (%)	50	48	63	43	46	45
4	RSC (-)	0.0	0.0	0.7	0.0	0.0	0.0
5	SAR (-)	3.0	3.3	5.5	2.9	3.0	3.1
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	274.4	0.000	12.76
2	EC_GEN (µmho/cm)	36	1939	124	1005
3	pH_GEN (pH units)	36	9.0	7.9	8.3
4	TDS (mg/L)	36	972	92	668
5	Temp (deg C)	36	29.3	24.5	27.1
6	Turb (NTU)	36	38.0	1.0	7.2
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	33.7	0.0	17.3
2	ALK-TOT (mgCaCO3/L)	36	295	155	243
3	B (mg/L)	35	0.75	0.00	0.33
4	Ca (mg/L)	36	77	27	46
5	Cl (mg/L)	36	382.0	46.2	124.3
6	CO3 (mg/L)	36	40.6	0.0	20.9
7	F (mg/L)	36	1.48	0.82	1.09
8	Fe (mg/L)	36	5.6	0.0	0.5
9	HCO3 (mg/L)	36	360	143	253
10	K (mg/L)	36	20.1	1.5	4.4
11	Mg (mg/L)	36	46.0	21.6	30.8
12	Na (mg/L)	36	236.0	57.0	108.3
13	NH3-N (mg N/L)	35	0.38	0.00	0.11
14	NO2+NO3 (mg N/L)	36	13.61	0.08	4.84
15	NO2-N (mgN/L)	36	5.90	0.00	0.19
16	NO3-N (mgN/L)	36	13.60	0.00	4.65
17	o-PO4-P (mg P/L)	36	0.650	0.000	0.233
18	SiO2 (mg/L)	36	98.0	3.9	15.5
19	SO4 (mg/L)	36	267.5	14.7	84.9
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	5.0	0.3	1.4
2	COD (mg/L)	24	19.1	1.8	6
3	DO (mg/L)	36	8.0	4.2	5.5
4	DO_SAT% (%)	36	98	51	68
5	FCol-MPN (MPN/100mL)	16	3500	490	1258
6	Tcol-MPN (MPN/100mL)	16	5400	790	1917
	TRACE & TOXIC				
1	Cd (µg/L)	36	3.3	0.0	0.7
2	Cr (µg/L)	36	19.0	0.0	2.8
3	Cu (µg/L)	36	9.4	0.0	2.3
4	Hg (µg/L)	10	4.3	0.0	0.7
5	Ni (µg/L)	36	42.0	0.0	5.9
6	Pb (µg/L)	36	46.0	0.0	18.9
7	Zn (µg/L)	36	91.0	0.0	12.2
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	193	69	114
2	HAR_Total (mgCaCO3/L)	36	353	188	243
3	Na% (%)	36	68	32	49
4	RSC (-)	36	1.5	0.0	0.4
5	SAR (-)	36	6.7	1.7	3.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	9.945	102.6	7.412	6.507	1.422	8.529	5.689
2	EC_GEN (µmho/cm)	846	661	968	958	893	992	981
3	pH_FLD (pH units)							
4	pH_GEN (pH units)	8.2	8.0	8.3	8.1	8.1	8.0	8.3
5	TDS (mg/L)				572	600	584	660
6	Temp (deg C)	25.0	26.5	26.7	26.2	23.5	26.0	26.3
7	Turb (NTU)				1.0	2.1	0.8	10.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	2.7	0.0	3.2	0.0	0.0	0.0	1.4
2	ALK-TOT (mgCaCO3/L)	264	212	279	311	285	270	251
3	B (mg/L)	0.00	0.00	0.00	0.00	0.23	0.08	0.19
4	Ca (mg/L)	43	40	38	36	45	45	40
5	Cl (mg/L)	56.0	54.7	81.1	96.0	125.0	90.8	99.6
6	CO3 (mg/L)	3.2	0.0	3.8	0.0	0.0	0.0	1.7
7	F (mg/L)	0.99	1.00	1.37	2.22	1.28	1.00	1.07
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	316	259	333	380	348	330	303
10	K (mg/L)	3.5	3.4	3.3	4.6	7.5	4.2	4.4
11	Mg (mg/L)	13.6	17.0	21.2	20.5	26.0	26.0	22.7
12	Na (mg/L)	116.9	66.3	130.5	120.6	148.0	130.1	123.1
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.00	0.06	0.00
14	NO2+NO3 (mg N/L)	0.01	0.80	0.00	0.28	1.18	1.92	0.92
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	0.80	0.00	0.28	1.18	1.92	0.92
17	o-PO4-P (mg P/L)				0.248	0.093	0.078	0.169
18	P-Tot (mgP/L)	0.001	0.000	0.159	0.248			0.170
19	SiO2 (mg/L)	34.3	18.9	22.4	22.0	28.3	16.2	27.8
20	SO4 (mg/L)	47.9	60.8	63.6	62.7	71.3	71.5	83.0
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	0.7	1.2	0.6	0.4	1.3	0.7	0.9
2	COD (mg/L)	24.1	15.3	25.9	14.5	10.5	5.8	21.5
3	DO (mg/L)	5.6	5.7	5.7	5.8	5.0	5.4	6.5
4	DO_SAT% (%)	68	69	71	72	59	67	80
5	FCol-MPN (MPN/100mL)			6560	10308	8250	83	6147
6	Tcol-MPN (MPN/100mL)			9400	12058	8650	863	8410
7	TOC (mg/L)				4.0	4.6	0.5	
	TRACE & TOXIC							
1	As (µg/L)					10.5		
2	Cd (µg/L)					0.1		
3	Cr (µg/L)					34.4		
4	Cu (µg/L)							
5	Hg (µg/L)							
6	Ni (µg/L)					15.1		
7	Pb (µg/L)					9.3		
8	Zn (µg/L)					32.8		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	107	100	94	90	112	112	99
2	HAR_Total (mgCaCO3/L)	163	171	183	175	221	221	194
3	Na% (%)	60	43	60	59	58	55	56
4	RSC (-)	2.0	1.0	2.0	2.7	1.3	1.0	1.2
5	SAR (-)	4.0	2.2	4.2	4.0	4.4	3.8	3.9
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	5.939	28.80	7.231	3.983	6.747	10.23	28.49	21.97
2	EC_GEN (µmho/cm)	908	781	862	936	1016	1039	961	944
3	pH_FLD (pH units)								
4	pH_GEN (pH units)	8.1	8.4	8.1	7.9	8.0	8.0	8.0	8.3
5	TDS (mg/L)	577	512	543	510	674	680	695	639
6	Temp (deg C)	27.7	26.0	25.3	27.5	26.9	29.5	28.7	28.2
7	Turb (NTU)	4.4	7.4	65.3	14.0	41.4	22.2	5.1	4.9
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	2.3	14.5	0.0	1.5	0.0	2.2	16.8
2	ALK-TOT (mgCaCO3/L)	256	219	224	222	305	291	248	234
3	B (mg/L)	0.09		0.09	0.07	0.30	0.21	0.22	0.38
4	Ca (mg/L)	39	40	39	49	47	30	44	40
5	Cl (mg/L)	96.9	89.1	120.9	114.1	137.4	125.3	115.5	93.3
6	CO3 (mg/L)	0.0	2.8	17.5	0.0	1.8	0.0	2.6	20.3
7	F (mg/L)	1.45	0.99	0.87	0.92	1.19	1.00	1.17	1.11
8	Fe (mg/L)	0.0	0.1	2.4	0.0	0.4	0.4	0.5	0.7
9	HCO3 (mg/L)	313	262	237	271	369	354	297	244
10	K (mg/L)	5.1	4.7	0.7	0.5	1.5	0.5	4.3	4.5
11	Mg (mg/L)	22.0	23.0	30.4	20.9	37.4	35.9	22.8	30.9
12	Na (mg/L)	139.2	102.4	115.1	103.7	129.9	142.9	111.6	98.6
13	NH3-N (mg N/L)	0.05	0.01	0.09	0.12	0.07	0.03		0.19
14	NO2+NO3 (mg N/L)	0.84	1.00	6.98	1.53	1.99	4.35		5.00
15	NO2-N (mgN/L)	0.04	0.00	0.08	0.21	0.05	0.04	0.02	0.42
16	NO3-N (mgN/L)	0.80	1.00	6.90	1.32	1.94	4.32	6.08	4.58
17	o-PO4-P (mg P/L)	0.128	0.156	0.538	0.140	0.150	0.240	0.970	0.219
18	P-Tot (mgP/L)							1.425	
19	SiO2 (mg/L)	22.8	20.7	15.2	29.3	33.0	27.6		19.0
20	SO4 (mg/L)	77.3	56.0	81.1	37.1	72.4	70.6	61.4	76.0
	BIOLOGICAL/BACTERIOLOGIC								
1	BOD3-27 (mg/L)	1.2	1.2	1.4	1.0	1.2	1.7	1.9	1.2
2	COD (mg/L)	12.7	14.4	15.4	17.3	19.1	16.0	20.6	7.2
3	DO (mg/L)	5.7	6.1	6.3	6.4	4.8	6.1	6.7	5.0
4	DO_SAT% (%)	73	74	77	81	61	80	87	64
5	FCol-MPN (MPN/100mL)	10900	3812	4054	57	798	1672	370	
6	Tcol-MPN (MPN/100mL)	16000	10800	4600	1050	2340	9100	989	
7	TOC (mg/L)	39.1							
	TRACE & TOXIC								
1	As (µg/L)					0.4	1.2	2.9	
2	Cd (µg/L)					0.7	6.7	0.5	0.8
3	Cr (µg/L)					4.8	7.5	2.0	2.3
4	Cu (µg/L)			4.2	7.3	15.8	0.0	4.0	3.0
5	Hg (µg/L)						0.5	0.3	0.7
6	Ni (µg/L)					7.1	20.3	6.0	4.3
7	Pb (µg/L)					1.2	24.0	12.9	18.8
8	Zn (µg/L)			54.5	10.2	28.5	0.0	17.9	12.7
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	97	100	98	122	118	74	110	100
2	HAR_Total (mgCaCO3/L)	188	196	224	209	274	224	205	229
3	Na% (%)	61	52	53	52	50	58	52	48
4	RSC (-)	1.4	0.6	0.2	0.3	0.9	1.6	1.0	0.5
5	SAR (-)	4.4	3.2	3.4	3.1	3.4	4.2	3.4	2.9
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	20.43	6.468	20.64	6.871	1.708	9.322
2	EC_GEN (µmho/cm)	773	759	858	909	1200	825
3	pH_FLD (pH units)						
4	pH_GEN (pH units)	8.2	8.1	8.2	8.0	8.1	8.2
5	TDS (mg/L)				575	661	502
6	Temp (deg C)	23.3	23.1	21.5	21.3	20.0	22.3
7	Turb (NTU)				1.0	1.0	6.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	4.0	0.0	0.0	0.0	0.0	1.0
2	ALK-TOT (mgCaCO3/L)	262	232	258	291	345	208
3	B (mg/L)	0.00	0.00	0.00	0.25	0.27	0.03
4	Ca (mg/L)	50	39	37	40	49	41
5	Cl (mg/L)	61.7	59.0	73.6	92.4	118.8	72.6
6	CO3 (mg/L)	4.8	0.0	0.0	0.0	0.0	1.3
7	F (mg/L)	1.05	1.47	1.19	1.47	1.50	0.96
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.5	0.0
9	HCO3 (mg/L)	310	283	315	354	422	252
10	K (mg/L)	3.6	2.9	3.6	4.3	4.8	3.7
11	Mg (mg/L)	10.9	19.9	20.2	23.3	28.7	22.8
12	Na (mg/L)	97.6	93.3	105.7	117.8	157.5	76.8
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.02	0.00	0.00
14	NO2+NO3 (mg N/L)	0.01	0.13	0.00	0.78	1.01	0.96
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	0.13	0.00	0.78	1.01	0.96
17	o-PO4-P (mg P/L)				0.099	0.056	0.148
18	P-Tot (mgP/L)	0.001	0.000	0.111	0.099		
19	SiO2 (mg/L)	18.3	15.8	21.2	24.7	27.8	17.2
20	SO4 (mg/L)	167.9	55.6	55.9	74.0	90.5	38.7
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.7	0.6	0.5	0.8	1.0	0.9
2	COD (mg/L)	9.5	13.9	16.0	18.3	19.5	6.3
3	DO (mg/L)	6.4	6.3	6.6	5.8	6.6	6.7
4	DO_SAT% (%)	75	73	74	65	73	76
5	FCol-MPN (MPN/100mL)		14250	14250	4708	125	740
6	Tcol-MPN (MPN/100mL)		16000	16000	5325	700	2600
7	TOC (mg/L)				3.2	4.0	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	124	97	92	100	121	102
2	HAR_Total (mgCaCO3/L)	170	180	176	197	241	197
3	Na% (%)	55	53	56	56	58	44
4	RSC (-)	1.9	1.1	1.7	1.9	2.1	0.6
5	SAR (-)	3.3	3.1	3.5	3.7	4.4	2.4
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
	PHYSICAL							
1	Q (cumec)	7.423	1.933	2.769	1.521	2.678	11.16	3.276
2	EC_GEN (µmho/cm)	736	2028	1132	1257	1380	862	827
3	pH_FLD (pH units)							
4	pH_GEN (pH units)	8.1	8.2	8.4	8.1	8.0	7.9	8.0
5	TDS (mg/L)	495	720	662	757	730	591	542
6	Temp (deg C)	21.3	26.0	25.9	23.8	23.6	26.4	25.9
7	Turb (NTU)	2.3	1.0	2.0	6.3	0.7	22.8	15.8
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	4.5	5.6	1.2	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	244	315	223	316	256	279	244
3	B (mg/L)	0.26	0.00		0.04	0.04	0.27	0.17
4	Ca (mg/L)	42	44	53	49	44	37	34
5	Cl (mg/L)	76.7	115.8	150.2	152.4	137.3	104.0	114.6
6	CO3 (mg/L)	0.0	0.0	5.4	6.7	1.5	0.0	0.0
7	F (mg/L)	1.13	1.16	0.87	1.36	0.67	1.01	0.93
8	Fe (mg/L)	0.1	0.0	0.1	0.1	0.1	0.5	0.2
9	HCO3 (mg/L)	297	385	261	371	309	340	297
10	K (mg/L)	3.5	5.7	6.9	0.8	0.5	0.4	0.5
11	Mg (mg/L)	23.9	25.6	25.8	32.0	32.8	31.3	38.7
12	Na (mg/L)	99.9	155.5	184.3	166.0	113.5	122.9	108.2
13	NH3-N (mg N/L)	0.04	0.00	0.00	0.88	0.10	0.02	0.08
14	NO2+NO3 (mg N/L)	0.82	0.55	0.47	6.76	1.13	5.11	2.80
15	NO2-N (mgN/L)	0.02	0.00	0.09	0.06	0.08	0.04	0.13
16	NO3-N (mgN/L)	0.80	0.55	0.38	6.69	1.06	5.07	2.70
17	o-PO4-P (mg P/L)	0.121	0.042	0.139	0.550	0.096	0.147	0.281
18	P-Tot (mgP/L)							
19	SiO2 (mg/L)	22.8	11.1	19.5	25.8	17.7	25.0	26.3
20	SO4 (mg/L)	67.7	76.3	153.0	132.9	113.3	82.7	83.4
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.5	0.8	1.3	0.9	1.0	2.3	16.8
2	COD (mg/L)	10.9	8.1	9.2	13.8	9.7	33.1	18.4
3	DO (mg/L)	6.9	6.3	6.9	6.7	6.0	6.5	6.8
4	DO_SAT% (%)	78	78	85	79	71	80	82
5	FCol-MPN (MPN/100mL)	4583	300	1153	420	118	733	1595
6	Tcol-MPN (MPN/100mL)	5625	16000	1925	650	593	3225	7940
7	TOC (mg/L)	33.3	40.2					
	TRACE & TOXIC							
1	As (µg/L)						8.4	1.8
2	Cd (µg/L)	1.7					0.0	2.5
3	Cr (µg/L)	1.9					3.3	4.4
4	Cu (µg/L)	1.8		0.0	3.5	10.5	2.5	2.9
5	Hg (µg/L)							0.5
6	Ni (µg/L)	4.9					8.0	4.9
7	Pb (µg/L)	8.0					4.4	45.0
8	Zn (µg/L)	4.8		0.0	41.0	26.6	71.8	2.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	105	110	134	122	110	91	85
2	HAR_Total (mgCaCO3/L)	205	217	241	255	247	221	246
3	Na% (%)	51	60	59	59	49	55	49
4	RSC (-)	0.9	2.0	0.2	1.2	0.6	1.2	0.3
5	SAR (-)	3.1	4.6	5.2	4.6	3.1	3.6	3.0
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter		Summer					
		Nov - Feb		Mar - May					
		2021-2022	2022-2023	2009	2010	2011	2012	2013	2014
	PHYSICAL								
1	Q (cumec)	15.98	8.227	5.438	11.22	7.981	2.535	0.378	2.973
2	EC_GEN (µmho/cm)	915	961	814	886	880	1026	1250	900
3	pH_FLD (pH units)								
4	pH_GEN (pH units)	8.1	8.2	8.2	8.4	8.0	7.8	8.2	8.2
5	TDS (mg/L)	739	623				582	690	569
6	Temp (deg C)	25.8	26.0	24.3	26.7	24.0	24.4	23.5	25.7
7	Turb (NTU)	6.2	6.8				1.0	0.9	9.7
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	5.3	12.1	2.7	5.3	0.0	0.0	0.0	1.4
2	ALK-TOT (mgCaCO3/L)	264	239	281	292	264	295	378	271
3	B (mg/L)	0.27	0.35	0.00	0.00	0.00	0.06	0.36	0.03
4	Ca (mg/L)	44	47	42	35	41	38	53	40
5	Cl (mg/L)	113.4	123.4	69.2	76.9	80.6	94.1	141.6	74.5
6	CO3 (mg/L)	6.4	14.5	3.2	6.4	0.0	0.0	0.0	1.7
7	F (mg/L)	1.23	1.11	1.21	2.17	1.23	1.22	1.03	0.81
8	Fe (mg/L)	0.4	0.4	0.0	0.0	0.0	0.2	0.2	0.8
9	HCO3 (mg/L)	309	262	337	343	322	360	461	327
10	K (mg/L)	3.6	4.3	3.9	4.0	3.5	4.1	3.5	3.9
11	Mg (mg/L)	30.8	27.4	13.3	15.2	23.6	19.6	31.1	23.0
12	Na (mg/L)	98.0	97.1	96.5	116.6	114.6	118.2	175.3	99.4
13	NH3-N (mg N/L)	0.05	0.05	0.05	0.00	0.00	0.03	0.04	0.03
14	NO2+NO3 (mg N/L)		6.72	0.01	0.00	0.00	0.69	1.25	0.79
15	NO2-N (mgN/L)	0.01	0.02	0.00	0.00	0.00	0.01	0.00	0.00
16	NO3-N (mgN/L)		6.70	0.01	0.00	0.00	0.67	1.25	0.79
17	o-PO4-P (mg P/L)	1.060	0.086				0.110	0.074	0.040
18	P-Tot (mgP/L)	1.621		0.001	0.000	0.123	0.110		
19	SiO2 (mg/L)	16.7	13.9	22.2	21.2	20.7	32.6	14.8	22.5
20	SO4 (mg/L)	79.6	87.0	47.9	53.7	55.6	68.0	85.0	59.3
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.3	1.5	1.4	0.7	0.2	1.7	0.7	0.7
2	COD (mg/L)		4.7	10.8	31.3	13.3	13.0	8.1	7.4
3	DO (mg/L)	5.8	5.9	6.3	5.7	6.1	6.5	5.1	6.3
4	DO_SAT% (%)	72	72	74	71	73	78	60	78
5	FCol-MPN (MPN/100mL)	714	1553		9133	7000	887	116	417
6	Tcol-MPN (MPN/100mL)	1233	2284		12333	12000	1817	402	843
7	TOC (mg/L)						3.9	6.9	
	TRACE & TOXIC								
1	As (µg/L)				4.1		2.2	3.3	2.1
2	Cd (µg/L)	1.1	0.7	2.3	0.0	1.3	0.2	0.1	0.0
3	Cr (µg/L)	2.8	2.1	2.0	0.0	0.0	0.0	0.5	0.1
4	Cu (µg/L)	1.2	2.2						
5	Hg (µg/L)	0.1					1.7	0.4	0.2
6	Ni (µg/L)	3.6	6.3	1.5	0.3	5.9	2.6	13.2	1.5
7	Pb (µg/L)	9.6	20.1	31.9	0.0	22.4	25.6	1.3	9.4
8	Zn (µg/L)	7.1	9.8	4.0	4.0	21.7	24.1	0.1	10.2
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	110	117	104	88	102	95	134	99
2	HAR_Total (mgCaCO3/L)	238	231	160	151	200	177	263	195
3	Na% (%)	47	48	56	62	55	58	59	51
4	RSC (-)	0.6	0.3	2.5	2.8	1.3	2.4	2.3	1.5
5	SAR (-)	2.8	2.8	3.3	4.2	3.6	3.9	4.7	3.2
	PESTICIDES								
1	Aldrin (µg/L)			0.0	0.0	0.0	0.0		
2	BHC (µg/L)			0.1	0.2	0.0	0.0		
3	DDT (µg/L)			0.1	0.0	0.0	0.0		
4	Dieldrin (µg/L)			0.0	0.0	0.0	0.0		
5	Endos (µg/L)			0.1	0.0	0.0	0.0		

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer								
		Mar - May								
		2015	2016	2017	2018	2019	2020	2021	2022	2023
	PHYSICAL									
1	Q (cumec)	2.158	2.716	0.692	0.836	1.033	4.371	0.000	2.908	6.869
2	EC_GEN (µmho/cm)	905	1473	794	1095	1194	996	1142	935	1164
3	pH_FLD (pH units)				7.9					
4	pH_GEN (pH units)	8.2	8.1	8.0	7.9	7.9	8.1	8.2	8.4	8.6
5	TDS (mg/L)	587	666	577	648	615	664	723	690	778
6	Temp (deg C)	23.7	25.8	26.5	25.3	27.0	26.7	26.0	28.1	26.8
7	Turb (NTU)	3.0	424.5	7.0	4.0	1.3	36.3	22.5	3.3	11.3
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	1.2	3.8	0.0	0.0	0.0	0.0	13.1	20.6	25.2
2	ALK-TOT (mgCaCO3/L)	244	227	238	315	358	235	312	230	263
3	B (mg/L)	0.19			0.05	0.05	0.34	0.71	0.41	0.22
4	Ca (mg/L)	38	36	63	63	38	31	39	39	54
5	Cl (mg/L)	83.2	105.0	96.1	124.1	131.8	136.0	146.8	118.4	177.1
6	CO3 (mg/L)	1.4	4.6	0.0	0.0	0.0	0.0	15.8	24.9	30.4
7	F (mg/L)	1.09	0.71	0.50	1.35	1.17	1.17	1.04	1.26	1.04
8	Fe (mg/L)	0.0	0.1	0.0	0.1	0.2	0.2	0.3	0.3	0.3
9	HCO3 (mg/L)	294	268	290	384	437	287	348	230	259
10	K (mg/L)	4.2	9.2	2.9	0.6	0.6	0.7	4.7	3.5	4.5
11	Mg (mg/L)	21.5	19.9	26.9	29.9	34.6	41.4	27.0	29.5	35.2
12	Na (mg/L)	115.4	137.2	108.1	150.8	185.6	152.2	199.3	93.0	139.6
13	NH3-N (mg N/L)	0.01	0.01	0.18	0.10	0.17	0.01	0.14	0.15	0.06
14	NO2+NO3 (mg N/L)	0.68	1.72	1.91	5.67	0.77	3.75	4.97		2.07
15	NO2-N (mgN/L)	0.11	0.10	0.12	0.03	0.05	0.03	0.87	0.04	0.05
16	NO3-N (mgN/L)	0.57	1.62	1.79	5.64	0.72	3.71	6.45		2.02
17	o-PO4-P (mg P/L)	0.147	0.211	0.540	0.670	0.171	0.260	1.060	0.149	0.453
18	P-Tot (mgP/L)									
19	SiO2 (mg/L)	27.7	12.6	16.9	21.0	25.2	21.1	25.7	23.8	11.9
20	SO4 (mg/L)	85.5	116.0	78.9	108.6	113.3	127.0	71.0	83.0	96.9
	BIOLOGICAL/BACTERIOLOGIC/									
1	BOD3-27 (mg/L)	1.0	1.5	1.5	1.0	2.3	2.5	4.4	0.9	1.6
2	COD (mg/L)	12.6	22.9	7.1	10.6	11.1	30.8	18.2	5.3	5.1
3	DO (mg/L)	5.7	4.7	6.6	5.3	7.8	6.6	5.0	4.8	5.7
4	DO_SAT% (%)	68	58	81	64	103	81	63	61	70
5	FCol-MPN (MPN/100mL)	8	5350	800	510	1013	220	647		1028
6	Tcol-MPN (MPN/100mL)	5417	9100	2800	3967	5507	9000	1887		1631
7	TOC (mg/L)	38.2								
	TRACE & TOXIC									
1	As (µg/L)	0.1	0.0		0.5	5.9		2.4		
2	Cd (µg/L)	3.0	0.0		1.4	1.7	0.0	0.9	1.0	0.5
3	Cr (µg/L)	0.0	0.0		0.0	3.0	5.6	1.0	1.9	4.5
4	Cu (µg/L)			0.0	2.9	15.0	6.1	7.0	1.6	1.2
5	Hg (µg/L)	0.1	0.0		0.2	2.3		0.5	0.7	
6	Ni (µg/L)	8.2	0.0		6.6	11.5	12.9	10.4	1.3	8.1
7	Pb (µg/L)	17.0	0.0		24.0	27.0	3.2	29.0	26.9	17.7
8	Zn (µg/L)	5.0	0.0	0.0	18.3	19.3	6.5	7.9	4.0	14.4
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	95	89	156	158	96	78	98	99	135
2	HAR_Total (mgCaCO3/L)	184	172	268	283	240	251	211	222	281
3	Na% (%)	57	62	47	53	61	57	66	47	51
4	RSC (-)	1.2	1.1	0.0	0.7	2.4	0.8	2.1	0.4	0.2
5	SAR (-)	3.7	4.5	2.9	3.9	5.3	4.2	6.1	2.8	3.7
	PESTICIDES									
1	Aldrin (µg/L)									
2	BHC (µg/L)									
3	DDT (µg/L)									
4	Dieldrin (µg/L)									
5	Endos (µg/L)									

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**DAMERCHERLA**	**Code**	:	**AKF00A7**
State	:	Andhra Pradesh	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	:	
Latitude	:	16°44'21"	Longitude	:	79°40'11"
		Opening Date	Closing Date		
Gauge	:	21-07-1968			
Discharge	:	27-07-1968			
Sediment	:	01-09-2013			
Water Quality	:	01-01-1980			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.332	2.045	2.647	232.8	428.0	77.33
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Brown	Clear
3	EC_FLD (µmho/cm)		2218	2112			1820
4	EC_GEN (µmho/cm)	1665	1657	1473	1505	1142	1261
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.5	8.7	8.5	8.7	8.5	8.4
7	TDS (mg/L)	994	1198	1007	1105	803	803
8	Temp (deg C)	31.0	32.0	32.0	29.0	26.0	28.0
9	Turb (NTU)	7.0	7.0	11.0	27.0	17.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	32.0	34.9	29.1	37.0	20.4	18.3
2	ALK-TOT (mgCaCO3/L)	293	311	283	372	263	194
3	B (mg/L)	0.06	0.29		0.75	0.73	0.77
4	Ca (mg/L)	52	37	52	73	73	52
5	Cl (mg/L)	320.5	312.7	309.1	273.3	190.0	108.0
6	CO3 (mg/L)	38.6	42.1	35.0	44.6	24.6	22.0
7	F (mg/L)	1.21	1.35	1.30	1.38	1.20	0.78
8	Fe (mg/L)	0.1	0.1	0.2	0.1	0.3	0.1
9	HCO3 (mg/L)	279	294	274	363	270	192
10	K (mg/L)	6.9	39.6	8.4	13.5	9.9	4.3
11	Mg (mg/L)	53.5	58.8	45.7	45.5	42.9	24.0
12	Na (mg/L)	168.1	238.7	193.2	191.4	136.5	113.0
13	NH3-N (mg N/L)	0.06	0.24		0.26	0.20	0.08
14	NO2+NO3 (mg N/L)	4.39	4.62	1.53	4.75	4.64	7.96
15	NO2-N (mgN/L)	0.01	0.01	0.06	0.03	0.04	0.03
16	NO3-N (mgN/L)	4.38	4.61	1.47	4.72	4.60	7.93
17	o-PO4-P (mg P/L)	0.150	0.260	0.320	0.890	0.730	0.560
18	SiO2 (mg/L)	15.6	32.0	10.4	11.6	10.2	9.3
19	SO4 (mg/L)	104.5	39.6	76.2	84.0	54.9	91.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	2.4	0.7	2.1	2.0	3.3	3.2
2	COD (mg/L)				17.2	15.7	11.1
3	DO (mg/L)	3.4	3.4	3.2	3.0	5.1	5.1
4	DO_SAT% (%)	46	47	44	39	63	65
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	3.9	0.0	0.7	0.0	1.1	0.9
2	Cr (µg/L)	0.5	4.1	5.0	0.4	0.0	3.6
3	Cu (µg/L)	9.6	3.0	2.6	6.4	4.2	2.0
4	Hg (µg/L)	0.0	0.1	0.0	0.0	0.0	0.0
5	Ni (µg/L)	4.3	0.0	0.0	7.7	9.0	5.9
6	Pb (µg/L)	6.0	0.0	0.0	9.0	0.0	31.0
7	Zn (µg/L)	11.4	3.9	6.1	6.0	32.6	3.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	131	93	130	182	184	130
2	HAR_Total (mgCaCO3/L)	354	338	321	371	362	230
3	Na% (%)	50	57	56	52	44	51
4	RSC (-)	0.0	0.0	0.0	0.1	0.0	0.0
5	SAR (-)	3.9	5.7	4.7	4.3	3.1	3.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	225.7	318.7	28.14	284.7	583.9	103.1
2	Colour_Cod (-)	Clear	Clear	Clear	Brown	Light Brown	Clear
3	EC_FLD (µmho/cm)	1248	1018	1012	981	968	886
4	EC_GEN (µmho/cm)	780	707	963	898	844	919
5	Odour_Code (-)	odour free	odour free	odour free	odour freeo	odour free	odour free
6	pH_GEN (pH units)	8.4	8.4	8.5	8.4	8.4	8.2
7	TDS (mg/L)	513	451	891	647	630	680
8	Temp (deg C)	28.0	27.5	29.0	29.0	28.0	27.0
9	Turb (NTU)	4.0	4.0	1.0	5.0	3.0	2.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	21.1	22.4	23.2	24.1	23.7	0.0
2	ALK-TOT (mgCaCO3/L)	196	204	226	220	236	168
3	B (mg/L)	0.16	0.33	0.18	0.12	0.17	0.18
4	Ca (mg/L)	50	51	61	62	61	63
5	Cl (mg/L)	110.1	64.0	62.1	119.0	104.3	102.0
6	CO3 (mg/L)	25.4	27.0	27.9	29.0	28.6	0.0
7	F (mg/L)	0.80	0.76	1.03	1.00	0.87	0.83
8	Fe (mg/L)	0.2	3.1	0.2	0.3	0.7	1.1
9	HCO3 (mg/L)	188	194	218	209	230	204
10	K (mg/L)	7.5	5.2	2.9	3.9	3.1	2.8
11	Mg (mg/L)	24.6	22.7	23.5	26.7	26.0	15.0
12	Na (mg/L)	98.2	60.5	69.6	62.0	59.5	57.5
13	NH3-N (mg N/L)	0.47	0.25	0.01	0.04	0.38	0.22
14	NO2+NO3 (mg N/L)	7.95	7.84	7.66	7.80	7.66	8.24
15	NO2-N (mgN/L)	0.11	0.02	0.06	0.10	0.02	0.07
16	NO3-N (mgN/L)	7.84	7.82	7.60	7.70	7.64	8.17
17	o-PO4-P (mg P/L)	0.551	0.250	0.280	0.550	0.270	0.440
18	SiO2 (mg/L)	10.0	7.8	80.0	17.3	6.4	20.5
19	SO4 (mg/L)	81.4	74.4	80.0	46.7	56.7	75.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.0	0.4	1.5	3.8	2.2	2.7
2	COD (mg/L)	5.9	1.8	8.1	36.3	18.0	22.5
3	DO (mg/L)	2.4	6.0	4.4	4.2	3.8	6.1
4	DO_SAT% (%)	31	75	57	55	49	77
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.9	0.0	2.5	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.9	0.1
3	Cu (µg/L)	3.4	4.3	4.4	4.4	5.8	3.2
4	Hg (µg/L)	0.1	0.4	0.2	0.0		
5	Ni (µg/L)	0.6	5.6	6.6	3.2	6.4	5.8
6	Pb (µg/L)	12.0	41.0	44.0	37.0	0.0	31.0
7	Zn (µg/L)	0.0	6.3	4.4	6.3	51.6	35.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	125	128	153	156	153	158
2	HAR_Total (mgCaCO3/L)	228	223	250	267	261	220
3	Na% (%)	48	37	37	33	33	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.8	1.8	1.9	1.7	1.6	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	295.5	334.8	352.8	135.4	92.66	58.98
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	920	862	961		974	
4	EC_GEN (µmho/cm)	863	898	853	923	947	1032
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.2	8.3	8.4	8.4	8.5	8.4
7	TDS (mg/L)	492	547	532	531	519	613
8	Temp (deg C)	28.0	27.0	28.0	25.0	26.0	25.5
9	Turb (NTU)	5.0	1.0	3.0	3.0	4.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	30.7	35.2	29.8	29.1	30.7
2	ALK-TOT (mgCaCO3/L)	143	208	204	225	231	277
3	B (mg/L)	0.21	0.58	1.03	0.28	0.28	0.17
4	Ca (mg/L)	45	55	56	60	61	74
5	Cl (mg/L)	117.6	117.3	112.7	116.4	119.5	114.2
6	CO3 (mg/L)	0.0	37.0	42.4	35.9	35.1	37.0
7	F (mg/L)	0.81	0.78	0.81	0.90	0.86	0.86
8	Fe (mg/L)	0.5	0.9	0.5	1.6	0.2	0.7
9	HCO3 (mg/L)	174	179	163	201	210	263
10	K (mg/L)	3.7	3.0	3.7	3.2	3.4	5.5
11	Mg (mg/L)	14.2	27.0	26.0	37.0	36.8	29.4
12	Na (mg/L)	86.0	82.3	75.2	67.2	83.3	105.0
13	NH3-N (mg N/L)	0.36	0.28	0.20	0.32	0.24	0.05
14	NO2+NO3 (mg N/L)	8.44	8.39	10.39	11.91	11.26	11.01
15	NO2-N (mgN/L)	0.04	0.05	0.11	0.01	0.15	0.05
16	NO3-N (mgN/L)	8.40	8.34	10.28	11.90	11.11	10.96
17	o-PO4-P (mg P/L)	0.399	0.389	0.351	0.280	0.130	0.270
18	SiO2 (mg/L)	17.0	9.8	13.5	20.4	16.4	18.5
19	SO4 (mg/L)	76.0	73.0	66.5	83.1	85.0	85.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.0	1.1	0.5	0.2	1.4	2.5
2	COD (mg/L)	3.8	1.9	1.9	2.0	16.2	16.2
3	DO (mg/L)	4.7	5.5	4.1	6.0	6.7	7.6
4	DO_SAT% (%)	60	69	52	73	83	92
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.0	0.0	1.0	0.4	0.4
2	Cr (µg/L)	0.0	0.0	0.0	0.5	0.0	3.8
3	Cu (µg/L)	3.6	2.1	2.0	3.2	2.7	1.7
4	Hg (µg/L)						
5	Ni (µg/L)	3.3	12.0	10.8	7.4	3.9	3.8
6	Pb (µg/L)	23.0	40.0	27.0	8.0	35.0	41.0
7	Zn (µg/L)	5.6	3.0	3.6	4.7	2.2	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	111	138	140	150	153	185
2	HAR_Total (mgCaCO3/L)	170	250	248	304	306	308
3	Na% (%)	52	42	39	32	37	42
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.9	2.3	2.1	1.7	2.1	2.6
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	31.50	17.22	24.89	25.79	25.88	15.25
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1052		922	1052		978
4	EC_GEN (µmho/cm)	1098	1139	1069	1104	1098	1052
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.5	8.5	8.4	8.4	8.4	8.0
7	TDS (mg/L)	645	845	800	663	842	798
8	Temp (deg C)	23.0	27.0	26.0	25.0	25.0	26.0
9	Turb (NTU)	2.0	5.0	3.4	4.0	3.0	3.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	35.0	32.4	25.9	32.4	30.5	0.0
2	ALK-TOT (mgCaCO3/L)	263	285	261	244	258	276
3	B (mg/L)	0.28	0.25	0.14	0.55	0.50	0.56
4	Ca (mg/L)	75	76	66	62	61	83
5	Cl (mg/L)	158.0	75.0	76.2	156.2	152.4	153.0
6	CO3 (mg/L)	42.2	39.0	31.2	39.0	36.8	0.0
7	F (mg/L)	1.10	1.07	0.91	1.03	1.01	1.05
8	Fe (mg/L)	1.0	0.3	0.2	0.6	0.4	0.4
9	HCO3 (mg/L)	235	269	255	218	240	337
10	K (mg/L)	5.5	4.6	2.9	4.5	4.9	5.1
11	Mg (mg/L)	28.6	28.7	38.0	40.3	37.8	23.4
12	Na (mg/L)	92.5	78.7	90.9	109.0	120.2	119.0
13	NH3-N (mg N/L)	0.00	0.04	0.02	0.00	0.13	0.00
14	NO2+NO3 (mg N/L)	12.32	11.42	11.39	11.87	1.21	1.30
15	NO2-N (mgN/L)	0.03	0.01	0.01	0.01	0.06	0.01
16	NO3-N (mgN/L)	12.29	11.41	11.38	11.86	1.15	1.29
17	o-PO4-P (mg P/L)	0.434	0.350	0.090	0.200	0.000	0.000
18	SiO2 (mg/L)	18.3	18.4	18.5	10.2	8.0	10.7
19	SO4 (mg/L)	73.5	82.0	78.6	73.8	73.8	90.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.6	1.4	0.9	3.4	2.8	1.8
2	COD (mg/L)				5.5	5.5	1.8
3	DO (mg/L)	3.9	5.4	5.7	3.4	6.1	6.9
4	DO_SAT% (%)	45	68	70	41	74	85
5	FCol-MPN (MPN/100mL)			1700	790	1400	2800
6	Tcol-MPN (MPN/100mL)			2800	1400	1700	9200
	TRACE & TOXIC						
1	Cd (µg/L)	0.8	0.5	0.3	0.1	0.0	0.0
2	Cr (µg/L)	3.5	3.2	0.3	2.7	1.5	1.3
3	Cu (µg/L)	1.9	2.2	1.3	4.6	2.8	1.5
4	Hg (µg/L)						
5	Ni (µg/L)	6.8	2.8	0.9	14.1	11.1	7.0
6	Pb (µg/L)	34.0	5.0	6.0	41.0	22.0	10.0
7	Zn (µg/L)	13.5	4.9	31.1	4.5	5.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	188	190	164	155	154	208
2	HAR_Total (mgCaCO3/L)	307	309	323	323	311	305
3	Na% (%)	39	35	38	42	45	46
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.3	2.0	2.2	2.6	3.0	3.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	22.84	26.14	22.95	29.27	29.27	28.37
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	986	976	962	1012	1032	1041
4	EC_GEN (µmho/cm)	1032	995	1002	1029	1281	1051
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.3	8.2	8.1	8.5	8.9	8.7
7	TDS (mg/L)	565	764	652	908	820	832
8	Temp (deg C)	23.0	26.0	27.0	23.0	27.0	25.0
9	Turb (NTU)	6.0	12.1	8.9	9.0	36.4	17.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	24.1	25.6	29.9
2	ALK-TOT (mgCaCO3/L)	270	279	276	220	242	261
3	B (mg/L)	0.40	0.39	0.45	0.43	0.41	0.40
4	Ca (mg/L)	84	64	66	80	111	65
5	Cl (mg/L)	151.5	131.0	121.0	263.6	293.8	145.4
6	CO3 (mg/L)	0.0	0.0	0.0	29.0	30.9	36.0
7	F (mg/L)	1.08	1.06	1.08	1.15	1.11	1.05
8	Fe (mg/L)	0.8	0.4	0.2	0.8	0.3	0.4
9	HCO3 (mg/L)	330	340	337	209	232	246
10	K (mg/L)	3.8	3.2	1.7	2.8	4.6	4.3
11	Mg (mg/L)	21.0	40.0	39.4	38.0	42.7	19.0
12	Na (mg/L)	100.0	90.0	82.1	91.0	115.6	126.3
13	NH3-N (mg N/L)	0.04	0.06	0.12	0.06	0.03	0.04
14	NO2+NO3 (mg N/L)	2.47	1.84	1.85	1.58	1.52	1.56
15	NO2-N (mgN/L)	0.01	0.01	0.06	0.01	0.02	0.03
16	NO3-N (mgN/L)	2.46	1.83	1.79	1.57	1.50	1.53
17	o-PO4-P (mg P/L)	0.000	0.200	0.200	0.500	0.600	0.700
18	SiO2 (mg/L)	11.7	6.7	11.0	8.6	25.5	9.7
19	SO4 (mg/L)	109.0	78.5	82.0	70.8	70.8	70.8
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.9	2.1	1.3	2.8	1.3	1.8
2	COD (mg/L)	3.7	5.7	3.8			
3	DO (mg/L)	5.1	4.6	4.5	4.2	5.2	6.7
4	DO_SAT% (%)	59	57	56	49	65	81
5	FCol-MPN (MPN/100mL)	2200	1400	790	790	1300	1400
6	Tcol-MPN (MPN/100mL)	2800	1700	790	1700	2200	1700
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.9	0.7	0.2	0.0
2	Cr (µg/L)	2.0	1.7	1.6	2.0	2.4	4.3
3	Cu (µg/L)	2.8	4.1	2.8	4.4	1.4	1.5
4	Hg (µg/L)						
5	Ni (µg/L)	7.2	4.1	4.7	4.9	6.0	4.9
6	Pb (µg/L)	27.0	26.0	24.0	31.0	39.0	33.0
7	Zn (µg/L)	0.0	45.6	5.7	9.1	37.6	3.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	209	160	165	200	278	162
2	HAR_Total (mgCaCO3/L)	296	327	329	358	456	241
3	Na% (%)	42	37	35	35	35	53
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.4
5	SAR (-)	2.5	2.2	2.0	2.1	2.4	3.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	16.25	12.29	5.624	6.055	7.144	3.444
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1257		1193	1257	1685	1178
4	EC_GEN (µmho/cm)	1224	1150	1152	867	1256	1487
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.9	8.8	8.7	8.7	8.6	8.4
7	TDS (mg/L)	901	836	846	506	789	1114
8	Temp (deg C)	28.3	31.0	30.0	21.0	33.6	31.0
9	Turb (NTU)	9.0	31.6	2.5	8.3	3.2	2.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	32.4	32.9	34.1	22.8	22.0	30.0
2	ALK-TOT (mgCaCO3/L)	267	271	273	266	270	318
3	B (mg/L)	0.01	0.05	0.04	0.01	0.31	0.13
4	Ca (mg/L)	80	61	27	51	96	95
5	Cl (mg/L)	178.0	201.9	159.0	97.3	223.7	255.2
6	CO3 (mg/L)	39.0	39.6	41.1	27.5	26.5	36.2
7	F (mg/L)	1.02	0.99	1.06	0.52	0.49	0.53
8	Fe (mg/L)	0.6	0.2	0.2	0.4	0.1	0.2
9	HCO3 (mg/L)	247	251	250	269	276	314
10	K (mg/L)	2.9	4.4	4.7	3.7	5.4	6.7
11	Mg (mg/L)	20.8	45.6	55.6	43.0	48.0	60.7
12	Na (mg/L)	114.3	144.9	153.0	97.5	175.0	203.0
13	NH3-N (mg N/L)	0.04	0.06	0.05	0.07	0.07	0.06
14	NO2+NO3 (mg N/L)	2.86	2.97	2.91	1.61	1.68	1.75
15	NO2-N (mgN/L)	0.06	0.01	0.02	0.02	0.04	0.01
16	NO3-N (mgN/L)	2.80	2.96	2.89	1.59	1.64	1.74
17	o-PO4-P (mg P/L)	0.500	0.600	0.400	0.500	0.500	0.600
18	SiO2 (mg/L)	9.6	27.2	12.3	15.0	14.7	14.1
19	SO4 (mg/L)	106.0	83.0	121.0	181.7	124.0	174.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.3	1.3	0.9	1.1	0.8	1.2
2	COD (mg/L)				1.9	1.9	7.6
3	DO (mg/L)	5.2	4.9	2.5	6.7	2.0	2.3
4	DO_SAT% (%)	66	66	33	75	28	31
5	FCol-MPN (MPN/100mL)	1400	1700	1400	490	1100	790
6	Tcol-MPN (MPN/100mL)	1700	2200	2800	1100	1400	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.2	1.4	0.1	0.0	2.4	0.3
2	Cr (µg/L)	7.2	6.3	6.8	6.5	2.9	2.6
3	Cu (µg/L)	2.1	0.7	1.9	0.3	2.7	1.9
4	Hg (µg/L)						
5	Ni (µg/L)	6.6	2.5	2.2	1.2	11.3	0.6
6	Pb (µg/L)	22.0	19.0	0.0	0.0	31.0	11.1
7	Zn (µg/L)	5.9	18.2	5.9	8.8	7.3	24.4
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	200	153	68	128	240	239
2	HAR_Total (mgCaCO3/L)	287	343	299	307	440	491
3	Na% (%)	46	48	52	41	46	47
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.9	3.4	3.9	2.4	3.6	4.0
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1040	0.000	104.8
2	EC_FLD (µmho/cm)	28	2218	862	1163
3	EC_GEN (µmho/cm)	36	1665	707	1095
4	pH_GEN (pH units)	36	8.9	8.0	8.5
5	TDS (mg/L)	36	1198	451	752
6	Temp (deg C)	36	33.6	21.0	27.3
7	Turb (NTU)	36	36.4	1.0	7.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	37.0	0.0	23.7
2	ALK-TOT (mgCaCO3/L)	36	372	143	252
3	B (mg/L)	35	1.03	0.01	0.33
4	Ca (mg/L)	36	111	27	65
5	Cl (mg/L)	36	320.5	62.1	160.1
6	CO3 (mg/L)	36	44.6	0.0	28.5
7	F (mg/L)	36	1.38	0.49	0.97
8	Fe (mg/L)	36	3.1	0.1	0.5
9	HCO3 (mg/L)	36	363	163	249
10	K (mg/L)	36	39.6	1.7	5.7
11	Mg (mg/L)	36	60.7	14.2	34.7
12	Na (mg/L)	36	238.7	57.5	112.5
13	NH3-N (mg N/L)	35	0.47	0.00	0.13
14	NO2+NO3 (mg N/L)	36	12.32	1.21	5.85
15	NO2-N (mgN/L)	36	0.15	0.01	0.04
16	NO3-N (mgN/L)	36	12.29	1.15	5.81
17	o-PO4-P (mg P/L)	36	0.890	0.000	0.373
18	SiO2 (mg/L)	36	80.0	6.4	16
19	SO4 (mg/L)	36	181.7	39.6	85.5
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	3.8	0.2	1.8
2	COD (mg/L)	24	36.3	1.8	9
3	DO (mg/L)	36	7.6	2.0	4.7
4	DO_SAT% (%)	36	92	28	59
5	FCol-MPN (MPN/100mL)	16	2800	490	1341
6	Tcol-MPN (MPN/100mL)	16	9200	790	2287
	TRACE & TOXIC				
1	Cd (µg/L)	36	3.9	0.0	0.6
2	Cr (µg/L)	36	7.2	0.0	2.2
3	Cu (µg/L)	36	9.6	0.3	3
4	Hg (µg/L)	10	0.4	0.0	0.1
5	Ni (µg/L)	36	14.1	0.0	5.4
6	Pb (µg/L)	36	44.0	0.0	21.3
7	Zn (µg/L)	36	51.6	0.0	11.6
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	278	68	163
2	HAR_Total (mgCaCO3/L)	36	491	170	307
3	Na% (%)	36	57	32	43
4	RSC (-)	36	0.4	0.0	0
5	SAR (-)	36	5.7	1.6	2.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	37.62	34.04	41.65	30.52	3.476	50.47	9.006
2	EC_FLD (µmho/cm)			874			1730	
3	EC_GEN (µmho/cm)	1185	1062	1150	1140	1112	1258	1263
4	pH_FLD (pH units)			6.9			7.4	
5	pH_GEN (pH units)	8.1	8.4	8.0	8.0	7.9	7.9	8.2
6	TDS (mg/L)				898	638	762	760
7	Temp (deg C)	24.6	27.3	28.6	27.1	27.0	27.6	27.9
8	Turb (NTU)				1.0	0.6	1.2	4.4
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	3.2	5.3	0.0	0.0	0.0	0.0	0.8
2	ALK-TOT (mgCaCO3/L)	280	228	293	251	185	190	241
3	B (mg/L)	0.00	0.00	0.00	0.00	0.24	0.53	0.31
4	Ca (mg/L)	62	46	51	52	60	48	55
5	Cl (mg/L)	157.2	128.2	125.0	149.8	132.3	183.9	182.6
6	CO3 (mg/L)	3.8	6.4	0.0	0.0	0.0	0.0	1.0
7	F (mg/L)	1.16	1.14	1.33	2.29	1.18	1.31	1.26
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.1
9	HCO3 (mg/L)	334	265	357	307	226	232	292
10	K (mg/L)	5.3	6.1	4.3	4.3	3.4	4.2	7.6
11	Mg (mg/L)	26.3	23.0	28.8	30.4	35.0	28.1	32.1
12	Na (mg/L)	123.7	114.0	129.6	109.7	101.1	139.6	149.8
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.27	0.00
14	NO2+NO3 (mg N/L)	0.01	0.42	0.00	0.31	0.98	3.00	1.06
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.01	0.42	0.00	0.31	0.98	3.00	1.04
17	o-PO4-P (mg P/L)				0.400	0.086	0.158	0.176
18	P-Tot (mgP/L)	0.001	0.000	0.343	0.400			0.167
19	SiO2 (mg/L)	26.7	31.9	24.2	28.6	23.6	15.8	25.8
20	SO4 (mg/L)	65.3	91.9	93.2	77.0	108.0	96.8	102.1
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.3	1.2	0.7	0.8	1.1	1.3	1.1
2	COD (mg/L)	40.0	18.7	24.3	23.1	29.3	10.1	27.0
3	DO (mg/L)	5.1	6.2	5.1	5.6	5.8	5.5	6.0
4	DO_SAT% (%)	61	78	65	70	72	70	77
5	FCol-MPN (MPN/100mL)			6160	12846	8115	123	3293
6	Tcol-MPN (MPN/100mL)			7460	12846	8150	195	4164
7	TOC (mg/L)				4.1	3.4	0.4	
	TRACE & TOXIC							
1	As (µg/L)					7.9	0.6	
2	Cd (µg/L)					0.0	0.4	
3	Cr (µg/L)					52.3	5.5	
4	Cu (µg/L)							
5	Hg (µg/L)						0.6	
6	Ni (µg/L)					5.8	12.3	
7	Pb (µg/L)					5.5	0.9	
8	Zn (µg/L)					56.2	0.1	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	155	116	127	130	149	120	137
2	HAR_Total (mgCaCO3/L)	264	212	247	257	295	237	271
3	Na% (%)	49	50	53	48	43	57	52
4	RSC (-)	0.5	0.7	1.1	0.3	0.0	0.0	0.1
5	SAR (-)	3.3	3.5	3.7	3.0	2.6	4.8	3.9
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	9.376	83.27	100.0	18.21	66.43	43.10	185.3	218.3
2	EC_FLD (µmho/cm)		1740	1633	498		427		1251
3	EC_GEN (µmho/cm)	1120	554	1007	1510	910	1358	1046	1095
4	pH_FLD (pH units)		7.4	7.5	7.6		8.2		
5	pH_GEN (pH units)	8.0	8.3	8.0	8.0	7.8	8.0	8.2	8.4
6	TDS (mg/L)	701	354	569	940	645	907	747	753
7	Temp (deg C)	28.0	26.5	27.5	27.6	27.2	28.9	27.9	28.6
8	Turb (NTU)	3.0	58.3	14.0	2.0	62.3	13.4	5.5	6.6
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	1.2	1.5	6.1	0.0	0.0	0.0	7.4	23.5
2	ALK-TOT (mgCaCO3/L)	251	117	197	180	247	271	235	235
3	B (mg/L)	0.51		0.07	0.04	0.22	0.20	0.16	0.40
4	Ca (mg/L)	54	31	56	64	72	46	61	56
5	Cl (mg/L)	139.1	51.5	174.1	213.0	181.7	222.8	158.3	161.5
6	CO3 (mg/L)	1.4	1.8	7.3	0.0	0.0	0.0	9.0	28.3
7	F (mg/L)	1.26	0.28	0.92	1.11	0.91	0.86	1.18	0.99
8	Fe (mg/L)	0.0	0.1	0.4	0.1	0.5	0.0	0.5	0.5
9	HCO3 (mg/L)	304	139	225	220	301	331	268	229
10	K (mg/L)	5.9	3.3	0.5	0.6	2.0	1.0	6.1	7.9
11	Mg (mg/L)	31.2	17.4	40.8	47.1	43.7	51.8	30.4	31.7
12	Na (mg/L)	135.9	62.5	94.5	116.3	122.6	150.5	106.0	112.8
13	NH3-N (mg N/L)	0.08	0.00	0.14	0.17	0.02	0.01		0.22
14	NO2+NO3 (mg N/L)	1.08	1.57	7.62	1.33	2.42	4.10		6.82
15	NO2-N (mgN/L)	0.03	0.13	0.08	0.55	0.04	0.03	0.27	0.05
16	NO3-N (mgN/L)	1.04	1.44	7.53	0.78	2.38	4.07	4.74	6.77
17	o-PO4-P (mg P/L)	0.128	0.181	0.519	0.163	0.167	0.112	1.099	0.426
18	P-Tot (mgP/L)							1.575	
19	SiO2 (mg/L)	32.6	10.7	9.3	30.3	22.6	21.6		18.1
20	SO4 (mg/L)	108.0	66.8	68.3	114.2	111.5	80.8	78.1	72.0
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	2.0	1.7	0.8	1.5	0.7	2.0	3.1	1.9
2	COD (mg/L)	14.1	9.7	14.6	33.7	32.0	17.4	29.5	12.0
3	DO (mg/L)	6.3	6.6	6.7	5.7	4.9	5.3	6.4	4.3
4	DO_SAT% (%)	80	82	84	72	62	69	82	55
5	FCol-MPN (MPN/100mL)	5360	10673	2950	95	503	1200	502	
6	Tcol-MPN (MPN/100mL)	6800	16000	2950	1028	2157	5460	1068	
7	TOC (mg/L)	21.9							
	TRACE & TOXIC								
1	As (µg/L)					0.3	1.9	2.7	
2	Cd (µg/L)					0.3	7.6	0.5	0.7
3	Cr (µg/L)					2.3	3.7	2.1	1.0
4	Cu (µg/L)			5.5	7.5	8.0	0.0	4.2	4.1
5	Hg (µg/L)						0.9	0.2	0.1
6	Ni (µg/L)					0.7	26.7	6.4	5.4
7	Pb (µg/L)					0.6	28.0	12.7	20.1
8	Zn (µg/L)			64.1	17.9	39.0	0.0	17.5	12.0
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	136	78	139	159	180	116	152	141
2	HAR_Total (mgCaCO3/L)	266	151	309	355	362	332	278	273
3	Na% (%)	52	39	39	38	42	49	43	45
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
5	SAR (-)	3.6	2.0	2.3	2.7	2.8	3.5	2.8	2.9
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
	PHYSICAL							
1	Q (cumec)	51.70	35.73	65.53	25.31	4.074	65.53	27.70
2	EC_FLD (µmho/cm)			1496			1735	
3	EC_GEN (µmho/cm)	807	802	968	926	1273	891	781
4	pH_FLD (pH units)			7.2			7.5	
5	pH_GEN (pH units)	8.2	8.1	8.2	7.9	7.8	8.2	8.2
6	TDS (mg/L)				589	745	513	503
7	Temp (deg C)	21.5	25.8	24.9	25.9	24.3	25.3	25.9
8	Turb (NTU)				1.0	0.7	7.0	2.6
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	4.0	2.0	0.0	0.0	0.0	1.0	0.0
2	ALK-TOT (mgCaCO3/L)	230	227	250	260	267	222	229
3	B (mg/L)	0.00	0.00	0.00	0.26	0.18	0.51	0.21
4	Ca (mg/L)	64	55	50	50	63	50	53
5	Cl (mg/L)	72.6	66.5	107.6	106.8	184.6	94.7	80.7
6	CO3 (mg/L)	4.8	2.4	0.0	0.0	0.0	1.3	0.0
7	F (mg/L)	0.90	1.48	1.03	1.12	1.75	0.91	0.89
8	Fe (mg/L)	0.0	0.0	0.0	0.1	0.0	0.1	0.1
9	HCO3 (mg/L)	271	272	305	317	326	268	279
10	K (mg/L)	2.7	2.1	4.2	3.1	1.8	4.1	2.1
11	Mg (mg/L)	13.4	22.9	28.9	29.6	36.8	28.8	29.8
12	Na (mg/L)	71.0	69.5	95.3	93.8	126.3	85.2	80.0
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.01	0.02	0.00	0.07
14	NO2+NO3 (mg N/L)	0.01	0.74	0.00	0.83	0.77	1.09	0.83
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.05
16	NO3-N (mgN/L)	0.01	0.74	0.00	0.83	0.77	1.09	0.78
17	o-PO4-P (mg P/L)				0.119	0.058	0.245	0.075
18	P-Tot (mgP/L)	0.001	0.000	0.102	0.119			
19	SiO2 (mg/L)	17.6	21.6	22.9	25.2	29.4	13.9	21.1
20	SO4 (mg/L)	51.6	82.9	220.9	80.0	98.0	79.1	66.3
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	1.0	1.1	1.3	0.7	0.8	1.4	1.7
2	COD (mg/L)	11.6	22.4	19.2	12.9	18.3	5.3	13.9
3	DO (mg/L)	7.0	6.7	6.3	5.8	5.4	6.6	7.4
4	DO_SAT% (%)	79	83	76	71	65	78	90
5	FCol-MPN (MPN/100mL)		10575	9675	4725	801	4098	4945
6	Tcol-MPN (MPN/100mL)		12600	12700	5800	5647	4190	8113
7	TOC (mg/L)				3.4	3.7		31.5
	TRACE & TOXIC							
1	As (µg/L)							
2	Cd (µg/L)							2.0
3	Cr (µg/L)							2.4
4	Cu (µg/L)							1.8
5	Hg (µg/L)							
6	Ni (µg/L)							5.4
7	Pb (µg/L)							10.4
8	Zn (µg/L)							4.8
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	160	136	126	126	158	124	132
2	HAR_Total (mgCaCO3/L)	216	231	246	250	311	244	256
3	Na% (%)	42	39	45	45	47	42	41
4	RSC (-)	0.5	0.2	0.3	0.4	0.0	0.0	0.1
5	SAR (-)	2.1	2.0	2.7	2.6	3.1	2.4	2.2
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	PHYSICAL							
1	Q (cumec)	3.912	8.418	26.55	17.96	33.85	42.51	58.07
2	EC_FLD (µmho/cm)		1640	1620	660		443	
3	EC_GEN (µmho/cm)	1296	906	1310	1628	1063	851	928
4	pH_FLD (pH units)		7.6	7.5			8.2	
5	pH_GEN (pH units)	8.1	8.4	8.0	8.0	7.9	8.2	8.2
6	TDS (mg/L)	487	575	761	819	704	546	752
7	Temp (deg C)	26.0	22.4	24.3	22.5	26.1	25.4	21.5
8	Turb (NTU)	1.0	0.5	3.3	0.7	20.8	17.0	4.4
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	3.4	0.0	11.2	0.0	7.2	7.8
2	ALK-TOT (mgCaCO3/L)	222	177	275	238	276	267	241
3	B (mg/L)	0.00		0.05	0.02	0.38	0.33	0.31
4	Ca (mg/L)	51	54	72	47	49	50	60
5	Cl (mg/L)	105.9	115.0	211.9	197.3	159.3	138.2	139.3
6	CO3 (mg/L)	0.0	4.0	0.0	13.6	0.0	8.6	9.4
7	F (mg/L)	0.93	0.99	1.08	0.84	0.90	1.01	1.08
8	Fe (mg/L)	0.0	0.0	0.1	0.1	0.3	0.3	0.2
9	HCO3 (mg/L)	271	208	336	262	337	309	275
10	K (mg/L)	2.7	4.7	1.0	0.5	0.5	0.7	6.0
11	Mg (mg/L)	29.0	25.4	35.5	39.3	48.0	41.6	31.2
12	Na (mg/L)	99.0	122.4	139.4	141.2	118.2	101.3	98.6
13	NH3-N (mg N/L)	0.00	0.24	1.34	0.29	0.02	0.07	0.08
14	NO2+NO3 (mg N/L)	0.64	0.54	5.27	1.80	5.04	2.30	
15	NO2-N (mgN/L)	0.00	0.03	0.03	0.11	0.05	0.32	0.03
16	NO3-N (mgN/L)	0.63	0.51	5.24	1.69	4.99	2.15	
17	o-PO4-P (mg P/L)	0.094	0.108	1.270	0.197	0.168	0.259	0.930
18	P-Tot (mgP/L)							1.576
19	SiO2 (mg/L)	9.9	12.9	14.8	15.7	25.0	24.6	16.9
20	SO4 (mg/L)	151.9	152.8	129.9	164.6	114.6	109.0	85.7
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	0.8	2.4	1.1	1.7	1.7	2.0	1.9
2	COD (mg/L)	18.0	11.2	21.7	9.8	71.4	22.5	
3	DO (mg/L)	6.4	6.6	7.4	5.2	5.8	6.5	5.0
4	DO_SAT% (%)	79	76	89	60	72	79	56
5	FCol-MPN (MPN/100mL)	170	478	947	798	1035	1357	780
6	Tcol-MPN (MPN/100mL)	1750	1100	5377	4465	5550	11273	1280
7	TOC (mg/L)	20.7						
	TRACE & TOXIC							
1	As (µg/L)					8.8	1.1	
2	Cd (µg/L)					0.0	4.4	1.1
3	Cr (µg/L)					3.7	5.4	2.0
4	Cu (µg/L)		0.0	4.3	6.8	3.8	1.8	1.2
5	Hg (µg/L)						1.0	0.2
6	Ni (µg/L)					9.8	8.1	4.2
7	Pb (µg/L)					0.7	50.8	13.1
8	Zn (µg/L)		0.0	42.1	31.4	97.5	9.1	10.9
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	127	136	181	119	122	125	150
2	HAR_Total (mgCaCO3/L)	248	242	329	283	322	299	280
3	Na% (%)	46	49	48	52	44	42	43
4	RSC (-)	0.0	0.0	0.5	0.4	0.0	0.2	0.0
5	SAR (-)	2.7	3.4	3.4	3.7	2.9	2.6	2.6
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter	Summer						
		Nov - Feb	Mar - May						
		2022-2023	2009	2010	2011	2012	2013	2014	2015
	PHYSICAL								
1	Q (cumec)	41.63	39.87	29.13	49.80	6.854	3.697	14.52	22.37
2	EC_FLD (µmho/cm)	988							
3	EC_GEN (µmho/cm)	1041	944	847	926	1273	1580	975	953
4	pH_FLD (pH units)								
5	pH_GEN (pH units)	8.3	8.2	8.4	7.9	7.9	7.8	8.1	8.2
6	TDS (mg/L)	686				839	871	632	584
7	Temp (deg C)	25.4	23.0	28.0	25.0	27.8	25.8	30.3	27.3
8	Turb (NTU)	4.8				1.0	0.5	3.3	2.0
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	20.5	2.7	5.3	0.0	0.0	0.0	0.0	1.2
2	ALK-TOT (mgCaCO3/L)	262	229	232	240	315	311	250	210
3	B (mg/L)	0.35	0.00	0.00	0.00	0.07	0.38	0.50	0.23
4	Ca (mg/L)	69	54	39	52	44	77	48	45
5	Cl (mg/L)	127.0	96.0	80.5	107.8	114.8	253.4	113.7	92.1
6	CO3 (mg/L)	24.7	3.2	6.4	0.0	0.0	0.0	0.0	1.4
7	F (mg/L)	1.00	0.94	2.01	0.93	1.35	1.24	1.02	0.84
8	Fe (mg/L)	0.6	0.0	0.0	0.0	0.1	0.2	0.5	0.0
9	HCO3 (mg/L)	270	273	270	293	385	379	305	253
10	K (mg/L)	4.0	2.4	3.0	2.3	1.5	1.8	4.1	3.0
11	Mg (mg/L)	33.4	12.3	23.0	30.2	26.1	40.8	28.2	25.9
12	Na (mg/L)	94.8	81.9	74.6	93.3	121.1	150.3	116.2	87.6
13	NH3-N (mg N/L)	0.09	0.05	0.00	0.00	0.05	0.00	0.03	0.06
14	NO2+NO3 (mg N/L)	7.49	0.01	0.00	0.00	0.76	1.29	0.74	0.42
15	NO2-N (mgN/L)	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.03
16	NO3-N (mgN/L)	7.45	0.01	0.00	0.00	0.74	1.29	0.74	0.39
17	o-PO4-P (mg P/L)	0.179				0.118	0.087	0.060	0.213
18	P-Tot (mgP/L)		0.001	0.000	0.070	0.118			
19	SiO2 (mg/L)	14.1	22.9	22.8	18.4	28.4	23.8	17.5	33.6
20	SO4 (mg/L)	82.9	51.4	55.0	99.8	74.8	109.5	58.0	92.1
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)	1.9	1.0	0.6	0.3	1.2	0.6	1.1	0.5
2	COD (mg/L)	6.7	12.1	26.6	19.9	10.0	10.9	6.6	9.6
3	DO (mg/L)	5.5	7.3	6.5	5.8	5.1	6.4	5.9	5.9
4	DO_SAT% (%)	67	85	83	70	65	78	79	74
5	FCol-MPN (MPN/100mL)	1583		11467	10500	1867	175	70	3
6	Tcol-MPN (MPN/100mL)	2913		11667	16000	5233	1650	133	5523
7	TOC (mg/L)					2.7	3.4		36.6
	TRACE & TOXIC								
1	As (µg/L)			2.3		2.4	4.9	1.0	3.5
2	Cd (µg/L)	0.5	2.4	0.0	1.1	0.8	2.1	0.0	3.0
3	Cr (µg/L)	1.8	2.0	0.0	0.4	0.0	2.6	0.1	0.0
4	Cu (µg/L)	2.6							
5	Hg (µg/L)					0.7	1.7	0.0	0.1
6	Ni (µg/L)	6.2	2.0	0.0	7.6	4.4	8.8	1.3	9.0
7	Pb (µg/L)	23.3	36.3	0.0	31.0	32.5	1.7	0.3	20.0
8	Zn (µg/L)	9.8	22.1	5.8	38.1	21.9	0.2	3.0	11.0
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	173	136	97	130	111	192	120	112
2	HAR_Total (mgCaCO3/L)	312	188	193	256	220	362	237	220
3	Na% (%)	39	49	45	44	55	47	50	46
4	RSC (-)	0.0	0.9	0.8	0.0	1.9	0.0	0.5	0.0
5	SAR (-)	2.3	2.8	2.4	2.5	3.6	3.5	3.3	2.6
	PESTICIDES								
1	Aldrin (µg/L)		0.0	0.0	0.0	0.0			
2	BHC (µg/L)		0.2	0.1	0.0	0.0			
3	DDT (µg/L)		0.1	0.0	0.0	0.0			
4	Dieldrin (µg/L)		0.0	0.0	0.0	0.0			
5	Endos (µg/L)		0.1	0.1	0.0	0.0			

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer							
		Mar - May							
		2016	2017	2018	2019	2020	2021	2022	2023
	PHYSICAL								
1	Q (cumec)	Dry bed	11.83	12.49	8.816	8.874	14.56	16.60	15.30
2	EC_FLD (µmho/cm)	No Flow	1630	1339	426		441		1207
3	EC_GEN (µmho/cm)		1058	1516	1053	1307	1284	1011	1166
4	pH_FLD (pH units)		7.4	7.7			8.1		
5	pH_GEN (pH units)		8.2	7.9	7.8	7.8	8.2	8.5	8.7
6	TDS (mg/L)		647	905	577	743	778	713	839
7	Temp (deg C)		26.0	26.2	26.3	27.5	26.5	25.8	27.8
8	Turb (NTU)		2.5	2.3	0.7	17.0	13.8	4.4	13.4
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)		1.9	0.0	0.0	0.0	0.0	21.6	28.2
2	ALK-TOT (mgCaCO3/L)		213	288	297	285	247	268	265
3	B (mg/L)			0.04	0.04	0.27	1.13	0.44	0.20
4	Ca (mg/L)		74	87	51	28	53	54	74
5	Cl (mg/L)		158.0	242.8	152.2	171.7	205.0	151.3	202.0
6	CO3 (mg/L)		2.3	0.0	0.0	0.0	0.0	26.0	34.0
7	F (mg/L)		0.61	0.95	0.97	1.05	1.11	1.19	0.88
8	Fe (mg/L)		0.0	0.0	0.1	0.1	0.7	0.2	0.3
9	HCO3 (mg/L)		255	352	363	347	302	274	255
10	K (mg/L)		9.8	0.7	0.4	0.5	4.8	5.2	4.4
11	Mg (mg/L)		37.0	42.2	43.9	63.9	35.3	40.3	41.5
12	Na (mg/L)		136.7	198.5	129.7	123.5	150.1	108.4	135.6
13	NH3-N (mg N/L)		0.09	0.11	0.06	0.01	0.09	0.24	0.05
14	NO2+NO3 (mg N/L)		1.85	6.38	0.67	2.53	2.87		2.05
15	NO2-N (mgN/L)		0.00	0.02	0.01	0.02	0.37	0.03	0.02
16	NO3-N (mgN/L)		1.84	6.36	0.66	2.51	4.76		2.02
17	o-PO4-P (mg P/L)		0.720	0.583	0.133	0.103	0.446	0.160	0.544
18	P-Tot (mgP/L)								
19	SiO2 (mg/L)		18.8	13.7	22.0	31.8	32.9	18.1	15.2
20	SO4 (mg/L)		200.9	127.5	116.1	137.3	67.3	81.6	111.3
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)		1.4	0.8	0.6	2.9	3.2	1.6	1.4
2	COD (mg/L)		9.7	13.6	10.7	22.8	21.4	4.9	3.8
3	DO (mg/L)		6.3	6.3	5.1	6.5	7.8	3.8	4.4
4	DO_SAT% (%)		78	78	64	79	100	46	55
5	FCol-MPN (MPN/100mL)		20	1347	393	210	1467		1152
6	Tcol-MPN (MPN/100mL)		20	1847	1423	3500	2000		1800
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)		4.9	2.2	2.8		4.2		
2	Cd (µg/L)		2.0	2.2	1.7	0.0	1.3	1.0	0.6
3	Cr (µg/L)		0.0	0.0	3.4	29.4	1.7	2.4	4.6
4	Cu (µg/L)		0.0	2.5	11.3	1.8	7.7	1.8	1.9
5	Hg (µg/L)		0.4	0.3	0.2		0.8	0.8	
6	Ni (µg/L)		5.1	7.5	11.2	24.1	10.8	1.6	4.5
7	Pb (µg/L)		1.0	26.0	27.0	2.8	29.7	21.8	20.7
8	Zn (µg/L)		0.0	26.9	26.7	11.0	11.5	2.8	13.4
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)		184	218	128	70	132	135	185
2	HAR_Total (mgCaCO3/L)		338	394	310	337	279	303	358
3	Na% (%)		45	53	48	44	53	43	45
4	RSC (-)		0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)		3.2	4.4	3.2	2.9	3.9	2.7	3.1
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**VALIGONDA**	**Code**	:	**040-LKDHYD**
State	:	Telangana	District		Nalgonda
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	-	Sub Tributary	:	-
Sub-Sub Tributary	:	-	Local River	:	Musi
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD 1, N.S.Dam
Drainage Area	:	5830 Sq. Km.	Bank	:	
Latitude	:	17°21'56"	Longitude	:	79°01'56"
		Opening Date	Closing Date		
Gauge	:	01-06-2019			
Discharge	:	01-06-2019			
Sediment	:				
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.791	0.000	4.651	11.42	124.3	32.20
2	Colour_Cod (-)	Clear	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	1480	1579	1336	1356	994	1137
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.8	7.9	7.9	8.0	7.7	8.0
6	TDS (mg/L)	881	1080	974	1000	701	701
7	Temp (deg C)	29.0	29.0	27.0	24.0	22.3	23.5
8	Turb (NTU)	14.0	19.0	4.0	7.0	7.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	343	447	285	241	230	146
3	B (mg/L)	0.41	0.27		0.55	0.53	0.47
4	Ca (mg/L)	85	88	80	82	88	65
5	Cl (mg/L)	217.8	246.8	207.8	211.7	102.8	168.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.85	1.12	0.88	1.18	1.05	0.67
8	Fe (mg/L)	0.2	0.1	0.1	0.2	0.8	0.2
9	HCO3 (mg/L)	418	545	348	294	280	178
10	K (mg/L)	15.5	15.5	16.4	15.0	11.3	4.7
11	Mg (mg/L)	37.0	41.0	44.1	39.0	33.3	25.0
12	Na (mg/L)	133.0	164.4	180.2	165.0	112.3	100.0
13	NH3-N (mg N/L)	9.75	0.57		0.22	1.39	0.09
14	NO2+NO3 (mg N/L)	10.15	11.28	10.22	22.17	19.85	7.08
15	NO2-N (mgN/L)	0.93	0.98	0.08	0.71	0.65	0.51
16	NO3-N (mgN/L)	9.22	10.30	10.14	21.46	19.20	6.57
17	o-PO4-P (mg P/L)	0.930	1.640	2.080	1.640	0.920	1.250
18	SiO2 (mg/L)	9.8	30.2	12.2	15.2	13.5	12.3
19	SO4 (mg/L)	74.0	67.0	64.6	138.0	66.7	88.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	30.5	35.1	18.6	35.2	30.8	27.0
2	COD (mg/L)				95.3	58.9	83.4
3	DO (mg/L)	0.3	0.0	4.2	4.1	7.5	1.3
4	DO_SAT% (%)	4	0	53	49	86	15
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.00	0.00	2.80	0.00	4.00	1.50
2	Cr (µg/L)	4.20	4.50	6.40	1.10	0.00	3.20
3	Cu (µg/L)	5.30	3.30	2.90	2.60	11.00	0.60
4	Hg (µg/L)	0.00	0.02	0.03	0.08	0.24	0.00
5	Ni (µg/L)	7.10	2.80	0.10	10.20	11.20	7.20
6	Pb (µg/L)	12.00	8.00	0.00	13.00	0.00	36.00
7	Zn (µg/L)	7.79	12.70	3.92	12.12	26.88	9.75
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	213	220	199	205	220	163
2	HAR_Total (mgCaCO3/L)	367	391	383	368	359	267
3	Na% (%)	43	47	49	48	40	45
4	RSC (-)	0.0	1.2	0.0	0.0	0.0	0.0
5	SAR (-)	3.0	3.6	4.0	3.8	2.6	2.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	136.1	139.6	51.00	71.34	194.9	47.96
2	Colour_Cod (-)	Clear	Clear	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	969	716	1018	1073	758	1200
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour freeo
5	pH_GEN (pH units)	8.0	7.9	7.8	7.9	7.7	7.4
6	TDS (mg/L)	590	468	800	900	596	890
7	Temp (deg C)	23.8	24.3	25.8	25.8	24.3	25.0
8	Turb (NTU)	3.0	4.0	3.0	4.0	3.2	4.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	134	216	171	272	266	98
3	B (mg/L)	0.28	0.60	0.34	0.15	0.24	0.13
4	Ca (mg/L)	64	64	73	74	73	64
5	Cl (mg/L)	129.0	100.2	133.0	118.7	64.9	128.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.80	0.81	1.45	1.53	1.42	0.59
8	Fe (mg/L)	0.4	1.3	0.2	0.4	0.9	1.7
9	HCO3 (mg/L)	164	263	209	332	325	120
10	K (mg/L)	8.0	5.2	6.9	4.2	3.9	4.6
11	Mg (mg/L)	26.0	25.0	26.0	26.0	26.0	35.0
12	Na (mg/L)	85.4	60.0	69.0	77.0	45.5	70.6
13	NH3-N (mg N/L)	0.36	0.15	0.01	0.00	0.18	0.06
14	NO2+NO3 (mg N/L)	7.64	6.50	14.36	15.08	15.10	17.54
15	NO2-N (mgN/L)	1.25	0.06	0.06	0.08	1.23	0.44
16	NO3-N (mgN/L)	6.39	6.44	14.30	15.00	13.87	17.10
17	o-PO4-P (mg P/L)	1.475	0.230	0.370	0.470	0.630	0.950
18	SiO2 (mg/L)	21.3	11.9	75.0	23.4	17.0	24.5
19	SO4 (mg/L)	56.0	65.0	75.0	68.2	57.4	82.7
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	12.8	19.0	13.0	9.0	10.9	10.4
2	COD (mg/L)	39.2	91.2	76.8	57.4	57.6	71.0
3	DO (mg/L)	4.4	3.0	1.8	2.1	2.1	2.1
4	DO_SAT% (%)	51	36	22	25	25	25
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.40	0.00	0.00	4.90	0.80	0.00
2	Cr (µg/L)	3.30	14.00	0.00	0.00	1.70	0.40
3	Cu (µg/L)	2.40	4.10	4.40	5.10	10.70	3.70
4	Hg (µg/L)	0.05	0.17	0.00	0.01		
5	Ni (µg/L)	4.50	15.80	6.60	7.40	7.00	6.00
6	Pb (µg/L)	24.00	43.00	41.00	46.00	6.00	37.00
7	Zn (µg/L)	10.09	8.33	5.47	4.16	56.70	19.13
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	160	160	183	185	183	160
2	HAR_Total (mgCaCO3/L)	268	264	291	293	291	306
3	Na% (%)	40	33	33	36	25	33
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.3	1.6	1.8	2.0	1.2	1.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	76.17	153.2	130.9	51.74	45.38	18.23
2	Colour_Cod (-)	Dark Brown	Light Brown	Light Brown	Light Brown	Clear	Light Brown
3	EC_GEN (µmho/cm)	1057	946	950	1194	1242	1312
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.7	7.9	7.8	7.9	7.8	7.9
6	TDS (mg/L)	608	533	561	691	709	779
7	Temp (deg C)	25.3	24.0	24.3	22.0	22.8	20.3
8	Turb (NTU)	8.0	3.0	6.0	6.0	6.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	274	98	173	275	202	307
3	B (mg/L)	0.08	0.07	0.24	0.34	0.32	0.31
4	Ca (mg/L)	64	63	54	78	79	87
5	Cl (mg/L)	137.3	108.2	107.6	100.7	153.4	143.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.70	0.58	0.74	1.01	0.92	0.87
8	Fe (mg/L)	0.2	0.5	1.0	0.3	0.3	2.3
9	HCO3 (mg/L)	334	119	211	336	246	375
10	K (mg/L)	7.4	4.3	4.8	7.5	4.6	9.6
11	Mg (mg/L)	33.3	24.0	30.0	26.6	25.5	29.4
12	Na (mg/L)	123.0	77.6	88.0	96.6	105.3	160.0
13	NH3-N (mg N/L)	0.31	0.16	0.27	1.82	0.13	0.13
14	NO2+NO3 (mg N/L)	18.03	17.58	21.63	30.94	30.90	16.71
15	NO2-N (mgN/L)	0.03	0.97	0.03	0.90	0.90	0.04
16	NO3-N (mgN/L)	18.00	16.61	21.60	30.04	30.00	16.67
17	o-PO4-P (mg P/L)	0.910	0.907	0.764	1.090	1.090	0.301
18	SiO2 (mg/L)	21.8	6.9	17.1	15.9	21.5	21.5
19	SO4 (mg/L)	86.0	87.6	84.9	107.5	122.4	122.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	12.5	16.5	20.9	13.0	13.0	11.5
2	COD (mg/L)	47.3	60.5	56.7	38.5	121.4	40.5
3	DO (mg/L)	2.1	1.6	2.1	0.8	0.7	1.9
4	DO_SAT% (%)	25	19	25	9	8	21
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	1.10	0.10	0.00	2.00	0.90	0.00
2	Cr (µg/L)	0.10	0.20	0.00	3.00	0.10	5.20
3	Cu (µg/L)	2.00	4.40	4.10	4.70	0.45	2.60
4	Hg (µg/L)						
5	Ni (µg/L)	3.80	12.20	13.30	9.60	10.10	7.60
6	Pb (µg/L)	24.00	38.00	35.00	16.00	38.00	47.00
7	Zn (µg/L)	8.21	12.78	9.58	6.42	6.26	1.96
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	159	158	135	195	197	218
2	HAR_Total (mgCaCO3/L)	298	258	260	306	303	340
3	Na% (%)	47	39	42	40	43	50
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	3.1	2.1	2.4	2.4	2.6	3.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	10.33	0.000	6.386	7.191	5.158	6.047
2	Colour_Cod (-)	Light Brown	Clear	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	1368	1450	1480	1556	1567	1474
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.8	7.9	7.8	8.1	7.9	8.0
6	TDS (mg/L)	861	1111	1058	897	1157	1016
7	Temp (deg C)	23.0	21.3	23.0	21.3	19.3	20.8
8	Turb (NTU)	5.0	4.0	4.5	8.0	8.0	6.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	208	298	181	258	388	387
3	B (mg/L)	0.23	0.25	0.16	0.30	0.27	0.33
4	Ca (mg/L)	87	88	74	75	74	95
5	Cl (mg/L)	191.0	137.4	179.0	246.9	237.5	234.2
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	1.19	1.08	1.12	1.14	1.12	1.32
8	Fe (mg/L)	2.1	0.7	0.2	0.6	0.6	0.2
9	HCO3 (mg/L)	254	364	221	315	474	472
10	K (mg/L)	8.1	6.4	6.1	14.1	16.2	14.7
11	Mg (mg/L)	29.0	29.6	33.0	32.0	35.2	31.3
12	Na (mg/L)	113.0	94.1	114.2	168.0	186.0	182.4
13	NH3-N (mg N/L)	0.00	0.04	0.30	0.00	0.00	0.00
14	NO2+NO3 (mg N/L)	34.48	27.14	26.01	28.32	8.66	8.04
15	NO2-N (mgN/L)	0.14	0.03	0.03	0.08	0.17	0.00
16	NO3-N (mgN/L)	34.34	27.11	25.98	28.24	8.49	8.04
17	o-PO4-P (mg P/L)	1.740	1.370	0.090	1.660	0.140	0.080
18	SiO2 (mg/L)	19.1	21.4	24.8	9.4	8.0	12.1
19	SO4 (mg/L)	115.3	82.0	116.2	117.0	117.0	102.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	15.9	22.3	28.5	26.0	20.0	20.4
2	COD (mg/L)				93.0	29.1	27.3
3	DO (mg/L)	0.5	0.0	2.0	2.6	2.6	2.5
4	DO_SAT% (%)	6	0	23	29	28	28
5	FCol-MPN (MPN/100mL)			1400	790	1700	1400
6	Tcol-MPN (MPN/100mL)			2200	1400	2800	3500
	TRACE & TOXIC						
1	Cd (µg/L)	0.70	1.40	0.50	1.60	0.40	0.00
2	Cr (µg/L)	3.40	2.60	5.40	2.90	1.70	2.40
3	Cu (µg/L)	1.50	2.10	2.20	5.10	3.60	3.00
4	Hg (µg/L)						
5	Ni (µg/L)	7.70	6.50	6.00	15.80	12.70	13.40
6	Pb (µg/L)	35.00	15.00	6.00	44.00	33.00	34.00
7	Zn (µg/L)	121.29	8.42	46.16	14.69	9.32	2.60
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	216	220	185	188	185	238
2	HAR_Total (mgCaCO3/L)	337	343	323	321	331	368
3	Na% (%)	42	37	43	52	54	51
4	RSC (-)	0.0	0.0	0.0	0.0	1.2	0.4
5	SAR (-)	2.7	2.2	2.8	4.1	4.5	4.1
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023		20-03-2023	05-04-2023
		A	A	A		A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000		25.58	3.449
2	Colour_Cod (-)	Clear	Clear	Light Brown		Light Brown	Light Brown
3	EC_GEN (µmho/cm)	1614	1720	1833		1379	1550
4	Odour_Code (-)	odour free	odour free	odour free		odour free	odour free
5	pH_GEN (pH units)	7.9	8.1	8.2		8.4	8.9
6	TDS (mg/L)	961	1153	1183		145	1136
7	Temp (deg C)	22.3	23.3	21.5		20.3	24.3
8	Turb (NTU)	6.0	14.8	9.4		15.4	7.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0		38.5	46.5
2	ALK-TOT (mgCaCO3/L)	394	437	425		374	368
3	B (mg/L)	0.31	0.44	0.42		0.39	0.00
4	Ca (mg/L)	100	85	87		84	65
5	Cl (mg/L)	199.6	239.6	295.0		214.8	178.0
6	CO3 (mg/L)	0.0	0.0	0.0		46.4	56.0
7	F (mg/L)	1.37	1.25	1.20		1.18	1.24
8	Fe (mg/L)	0.2	1.1	0.3		0.8	0.2
9	HCO3 (mg/L)	481	533	518		362	335
10	K (mg/L)	6.1	7.3	8.2		12.0	8.3
11	Mg (mg/L)	32.6	51.0	48.3		42.0	48.0
12	Na (mg/L)	145.6	172.4	203.7		141.4	138.0
13	NH3-N (mg N/L)	0.04	0.14	0.00		0.04	0.03
14	NO2+NO3 (mg N/L)	9.67	4.50	3.96		4.31	11.99
15	NO2-N (mgN/L)	0.02	0.00	0.01		0.04	0.04
16	NO3-N (mgN/L)	9.65	4.50	3.95		4.27	11.95
17	o-PO4-P (mg P/L)	0.010	0.150	0.260		1.400	0.570
18	SiO2 (mg/L)	9.2	5.0	10.8		11.0	15.4
19	SO4 (mg/L)	148.0	133.9	19.6		11.4	77.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	18.1	15.7	15.9		7.7	11.2
2	COD (mg/L)	39.0	30.4	34.0			
3	DO (mg/L)	2.7	4.4	5.5		2.4	3.8
4	DO_SAT% (%)	31	51	62		26	45
5	FCol-MPN (MPN/100mL)	9200	9200	9200		2200	1400
6	Tcol-MPN (MPN/100mL)	16000	16000	16000		5400	1700
	TRACE & TOXIC						
1	Cd (µg/L)	2.00	0.00	5.30		1.00	0.00
2	Cr (µg/L)	2.50	2.10	1.90		4.30	3.10
3	Cu (µg/L)	5.70	3.60	3.50		4.90	1.50
4	Hg (µg/L)						
5	Ni (µg/L)	15.70	4.90	10.00		12.10	4.80
6	Pb (µg/L)	41.00	31.00	37.00		50.00	25.00
7	Zn (µg/L)	6.78	7.00	2.93		9.00	3.55
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	250	213	217		210	163
2	HAR_Total (mgCaCO3/L)	386	426	418		385	363
3	Na% (%)	45	46	51		44	45
4	RSC (-)	0.2	0.3	0.2		0.0	0.2
5	SAR (-)	3.2	3.6	4.3		3.1	3.2
	PESTICIDES						

Sample not submitted for analysis in 01-03-2023 and 21-03-2023 due to NO FLOW condition of the River

Water Quality Datasheet for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	6.822	9.164	72.56	22.50	25.70
2	Colour_Cod (-)	Light Brown	Light Brown	Light Brown	Light Brown	Light Brown
3	EC_GEN (µmho/cm)	1401	1406	1040	1386	1350
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.2	7.9	7.9	7.9
6	TDS (mg/L)	1022	1085	782	1010	954
7	Temp (deg C)	24.8	24.8	23.3	23.5	24.8
8	Turb (NTU)	9.7	4.2	4.7	16.7	26.8
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	355	361	276	302	193
3	B (mg/L)	0.02	0.02	0.00	0.10	0.02
4	Ca (mg/L)	80	72	68	80	95
5	Cl (mg/L)	213.7	210.6	132.0	208.0	184.9
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	1.20	1.27	0.77	0.71	0.75
8	Fe (mg/L)	0.2	0.7	0.3	1.0	0.5
9	HCO3 (mg/L)	433	440	337	368	236
10	K (mg/L)	8.0	16.5	12.8	16.2	18.3
11	Mg (mg/L)	48.6	54.5	46.0	48.6	56.6
12	Na (mg/L)	130.5	140.0	100.0	140.0	148.0
13	NH3-N (mg N/L)	0.05	3.97	4.80	0.08	0.07
14	NO2+NO3 (mg N/L)	11.76	13.34	5.45	5.82	6.06
15	NO2-N (mgN/L)	0.06	0.06	0.14	0.15	0.01
16	NO3-N (mgN/L)	11.70	13.28	5.31	5.67	6.05
17	o-PO4-P (mg P/L)	0.690	1.400	0.650	0.690	0.360
18	SiO2 (mg/L)	15.9	8.4	17.5	15.2	15.0
19	SO4 (mg/L)	73.8	73.8	107.0	90.0	154.0
	BIOLOGICAL/BACTERIOLOGIC					
1	BOD3-27 (mg/L)	10.7	9.7	15.3	19.5	24.5
2	COD (mg/L)			26.5	34.0	45.4
3	DO (mg/L)	4.2	2.0	0.8	0.0	0.0
4	DO_SAT% (%)	50	24	9	0	0
5	FCol-MPN (MPN/100mL)	2200	1300	2200	2200	1700
6	Tcol-MPN (MPN/100mL)	2200	2200	2800	2800	2800
	TRACE & TOXIC					
1	Cd (µg/L)	2.20	1.90	0.00	4.40	2.70
2	Cr (µg/L)	7.50	12.30	8.40	4.00	1.10
3	Cu (µg/L)	2.70	4.10	1.90	8.70	5.50
4	Hg (µg/L)					
5	Ni (µg/L)	8.50	10.70	2.20	16.80	9.40
6	Pb (µg/L)	36.00	18.00	14.00	33.00	30.00
7	Zn (µg/L)	19.24	6.47	5.72	23.83	25.02
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	200	180	170	200	236
2	HAR_Total (mgCaCO3/L)	402	407	362	403	472
3	Na% (%)	41	42	37	42	40
4	RSC (-)	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.8	3.0	2.3	3.0	3.0
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

River Water Summary

S.No	Parameters	Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	642.3	0.000	42.61
2	EC_GEN (µmho/cm)	34	1833	716	1291
3	pH_GEN (pH units)	34	8.9	7.4	7.9
4	TDS (mg/L)	34	1183	145	853
5	Temp (deg C)	34	29.0	19.3	23.6
6	Turb (NTU)	34	26.8	3.0	7.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	34	46.5	0.0	2.5
2	ALK-TOT (mgCaCO3/L)	34	447	98	276
3	B (mg/L)	33	0.60	0.00	0.26
4	Ca (mg/L)	34	100	54	77
5	Cl (mg/L)	34	295.0	64.9	173
6	CO3 (mg/L)	34	56.0	0.0	3
7	F (mg/L)	34	1.53	0.58	1.03
8	Fe (mg/L)	34	2.3	0.1	0.6
9	HCO3 (mg/L)	34	545	119	331
10	K (mg/L)	34	18.3	3.9	9.7
11	Mg (mg/L)	34	56.6	24.0	35.8
12	Na (mg/L)	34	203.7	45.5	124.4
13	NH3-N (mg N/L)	33	9.75	0.00	0.76
14	NO2+NO3 (mg N/L)	34	34.48	3.96	14.77
15	NO2-N (mgN/L)	34	1.25	0.00	0.32
16	NO3-N (mgN/L)	34	34.34	3.95	14.45
17	o-PO4-P (mg P/L)	34	2.080	0.010	0.85
18	SiO2 (mg/L)	34	75.0	5.0	17.3
19	SO4 (mg/L)	34	154.0	11.4	89.7
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	34	35.2	7.7	18.3
2	COD (mg/L)	24	121.4	26.5	56.4
3	DO (mg/L)	34	7.5	0.0	2.3
4	DO_SAT% (%)	34	86	0	27
5	FCol-MPN (MPN/100mL)	14	9200	790	3292
6	Tcol-MPN (MPN/100mL)	14	16000	1400	5557
	TRACE & TOXIC				
1	Cd (µg/L)	34	5.30	0.00	1.25
2	Cr (µg/L)	34	14.00	0.00	3.32
3	Cu (µg/L)	34	11.00	0.45	3.94
4	Hg (µg/L)	10	0.24	0.00	0.06
5	Ni (µg/L)	34	16.80	0.10	8.81
6	Pb (µg/L)	34	50.00	0.00	27.82
7	Zn (µg/L)	34	121.29	1.96	15.71
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	34	250	135	194
2	HAR_Total (mgCaCO3/L)	34	472	258	343
3	Na% (%)	34	54	25	42
4	RSC (-)	34	1.2	0.0	0.1
5	SAR (-)	34	4.5	1.2	2.9
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	Flood				Winter	
		Jun - Oct				Nov - Feb	
		2019	2020	2021	2022	2019-2020	2020-2021
	PHYSICAL						
1	Q (cumec)	28.86	10.68	43.99	78.57	12.05	16.49
2	EC_GEN (µmho/cm)	1690	1339	1146	1105	1824	1365
3	pH_GEN (pH units)	7.7	7.6	7.6	7.8	7.8	7.7
4	TDS (mg/L)	950	967	880	752	1057	891
5	Temp (deg C)	27.5	27.1	27.2	25.2	25.0	24.8
6	Turb (NTU)	56.0	21.2	5.1	6.2	21.8	20.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	374	316	272	226	384	309
3	B (mg/L)	0.29	0.17	0.15	0.31	0.63	0.46
4	Ca (mg/L)	88	63	71	72	70	70
5	Cl (mg/L)	299.3	197.1	163.3	145.5	293.3	211.3
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	1.33	0.83	1.14	0.96	0.94	1.10
8	Fe (mg/L)	0.9	0.9	0.5	0.5	0.9	0.4
9	HCO3 (mg/L)	457	385	332	276	468	377
10	K (mg/L)	3.8	1.5	10.7	8.5	1.8	1.3
11	Mg (mg/L)	51.5	45.9	29.4	31.4	65.5	46.7
12	Na (mg/L)	234.4	151.3	118.9	103.4	221.5	153.2
13	NH3-N (mg N/L)	0.72	0.09		0.97	1.44	0.44
14	NO2+NO3 (mg N/L)	6.57	5.72		14.28	14.53	9.00
15	NO2-N (mgN/L)	0.77	0.88	0.24	0.53	1.12	1.34
16	NO3-N (mgN/L)	5.80	4.81	12.00	13.75	13.40	8.85
17	o-PO4-P (mg P/L)	0.753	0.706	1.058	1.011	0.800	0.430
18	P-Tot (mgP/L)		0.335	1.530			
19	SiO2 (mg/L)	18.5	29.9		20.8	21.5	26.9
20	SO4 (mg/L)	111.9	106.1	62.7	77.4	144.4	132.2
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.9	2.2	4.9	20.1	1.0	10.4
2	COD (mg/L)	31.5	36.4	23.3	66.3	48.4	30.9
3	DO (mg/L)	4.2	5.8	4.4	2.6	5.2	5.9
4	DO_SAT% (%)	53	72	54	31	63	71
5	FCol-MPN (MPN/100mL)	2225	2920	705		1010	2288
6	Tcol-MPN (MPN/100mL)	6875	16000	1573		7350	11717
	TRACE & TOXIC						
1	As (µg/L)	6.25	2.86	3.35		9.77	1.08
2	Cd (µg/L)	0.26		0.97	1.04	0.09	2.78
3	Cr (µg/L)	6.50		2.57	2.61	23.23	3.77
4	Cu (µg/L)	13.25	0.01	5.40	4.44	14.75	2.90
5	Hg (µg/L)			0.42	0.06		0.88
6	Ni (µg/L)	9.25		7.44	7.68	8.86	10.20
7	Pb (µg/L)	0.92		15.93	24.20	0.09	56.50
8	Zn (µg/L)	41.25	0.02	14.73	13.84	62.75	15.20
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	220	158	178	180	176	176
2	HAR_Total (mgCaCO3/L)	435	349	300	311	449	371
3	Na% (%)	52	48	43	40	51	45
4	RSC (-)	0.2	0.0	0.1	0.1	0.4	0.2
5	SAR (-)	4.9	3.5	3.0	2.5	4.6	3.5
	PESTICIDES						

Water Quality Seasonal Average for the period: 2019-2023

Station Name : VALIGONDA (040-LKDHYD) **Division : Lower Krishna Divn., Hyderabad**

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

S.No	Parameters	Winter		Summer			
		Nov - Feb		Mar - May			
		2021-2022	2022-2023	2020	2021	2022	2023
	PHYSICAL						
1	Q (cumec)	18.62	12.54	2.166	6.612	9.701	23.68
2	EC_GEN (µmho/cm)	1259	1484	1759	1546	1246	1359
3	pH_GEN (pH units)	7.8	7.9	7.8	7.8	8.1	8.2
4	TDS (mg/L)	992	965	791	931	882	876
5	Temp (deg C)	24.4	21.7	23.5	27.4	26.9	23.7
6	Turb (NTU)	7.8	6.9	31.3	25.0	10.0	12.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.6	0.0	0.0	7.2	9.4	12.1
2	ALK-TOT (mgCaCO3/L)	339	313	411	415	336	318
3	B (mg/L)	0.32	0.31	0.34	0.11	0.44	0.08
4	Ca (mg/L)	79	84	41	83	81	78
5	Cl (mg/L)	175.9	196.4	309.3	244.8	206.5	191.7
6	CO3 (mg/L)	0.7	0.0	0.0	8.6	11.3	14.6
7	F (mg/L)	1.26	1.13	1.10	0.54	1.22	1.02
8	Fe (mg/L)	0.2	0.7	0.4	0.2	0.2	0.5
9	HCO3 (mg/L)	412	382	501	489	386	359
10	K (mg/L)	12.4	9.1	1.9	9.7	7.9	13.1
11	Mg (mg/L)	36.0	33.6	75.7	42.4	41.6	49.2
12	Na (mg/L)	132.4	145.1	236.6	213.6	123.3	134.0
13	NH3-N (mg N/L)	0.43	0.22	0.01	0.21	1.72	1.29
14	NO2+NO3 (mg N/L)		19.11	4.88	11.53		8.39
15	NO2-N (mgN/L)	0.20	0.19	0.04	0.33	0.29	0.07
16	NO3-N (mgN/L)		18.92	4.84	14.19		8.32
17	o-PO4-P (mg P/L)	1.933	0.665	0.993	0.400	0.382	0.823
18	P-Tot (mgP/L)	2.975					
19	SiO2 (mg/L)	22.4	14.9	29.5	28.2	45.0	14.0
20	SO4 (mg/L)	111.0	108.6	153.3	114.9	90.9	83.9
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	10.3	18.4	1.5	4.5	23.0	14.1
2	COD (mg/L)		50.4	27.9	31.9	43.8	35.3
3	DO (mg/L)	3.3	2.2	4.6	2.8	1.8	1.9
4	DO_SAT% (%)	39	25	54	35	22	22
5	FCol-MPN (MPN/100mL)	721	4699	90	790		1886
6	Tcol-MPN (MPN/100mL)	1203	8271	340	2000		2843
	TRACE & TOXIC						
1	As (µg/L)				1.56		
2	Cd (µg/L)	2.21	1.23	6.53	1.80	1.82	1.74
3	Cr (µg/L)	2.63	2.77	48.73	1.47	2.54	5.81
4	Cu (µg/L)	2.88	3.17	9.84	8.77	2.79	4.19
5	Hg (µg/L)	0.15			0.16	1.31	
6	Ni (µg/L)	8.84	10.00	3.72	13.50	5.52	9.21
7	Pb (µg/L)	16.92	31.42	6.53	32.00	25.49	29.43
8	Zn (µg/L)	10.85	19.49	10.51	3.79	4.17	13.26
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	198	210	104	207	203	194
2	HAR_Total (mgCaCO3/L)	348	350	419	384	376	399
3	Na% (%)	44	46	53	54	41	41
4	RSC (-)	0.1	0.2	0.1	0.7	0.0	0.0
5	SAR (-)	3.1	3.4	4.9	4.8	2.8	2.9
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Wadenapally**	**Code**	:	**AK000D5**
State	:	Andhra Pradesh	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 SD2, Vijayawada
Drainage Area	:	235544 Sq. Km.	Bank	:	Left
Latitude	:	16°47'39"	Longitude	:	80°04'23"
		Opening Date	Closing Date		
Gauge	:	27-05-1964			
Discharge	:	10-12-1964			
Sediment	:	01-12-1966			
Water Quality	:	01-01-1972			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	13.53	64.55	79.17	95.60	95.00	25.14
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	811	739	737	740	765	816
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.4	8.7	8.4	8.4	8.2	8.4
7	TDS (mg/L)	484	481	518	565	501	665
8	Temp (deg C)	27.0	24.0	24.0	28.0	23.0	27.0
9	Turb (NTU)	7.0	4.0	2.0	11.0	7.0	1.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	21.6	20.8	10.5	20.6	0.0	18.7
2	ALK-TOT (mgCaCO3/L)	186	165	193	186	144	191
3	B (mg/L)	0.32	0.09		0.64	0.66	0.68
4	Ca (mg/L)	43	32	33	33	35	43
5	Cl (mg/L)	106.0	107.0	116.1	113.4	113.0	99.0
6	CO3 (mg/L)	26.0	25.0	12.7	24.8	0.0	22.5
7	F (mg/L)	0.61	0.71	0.70	0.89	0.89	0.82
8	Fe (mg/L)	0.1	0.0	0.0	0.2	0.1	0.1
9	HCO3 (mg/L)	174	150	209	177	176	187
10	K (mg/L)	3.4	20.0	3.3	2.7	3.7	2.2
11	Mg (mg/L)	21.5	27.0	25.9	26.0	24.6	26.0
12	Na (mg/L)	73.0	128.4	96.5	104.5	85.5	77.0
13	NH3-N (mg N/L)	0.05	0.51		0.27	0.23	0.07
14	NO2+NO3 (mg N/L)	3.73	2.20	4.10	2.06	2.90	4.54
15	NO2-N (mgN/L)	0.16	0.00	0.42	0.01	0.80	0.00
16	NO3-N (mgN/L)	3.57	2.20	3.68	2.05	2.10	4.54
17	o-PO4-P (mg P/L)	0.150	0.190	0.310	0.200	0.200	0.310
18	SiO2 (mg/L)	3.4	14.4	8.4	7.8	13.4	8.2
19	SO4 (mg/L)	70.0	86.0	54.2	81.2	53.0	59.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.1	1.3	0.9	1.3	1.0	1.0
2	COD (mg/L)				9.5	5.9	5.6
3	DO (mg/L)	3.3	5.2	4.6	5.5	4.3	4.3
4	DO_SAT% (%)	41	62	55	70	50	54
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	2.1	1.3	3.1	0.0	1.2	0.0
2	Cr (µg/L)	0.7	2.5	7.0	0.0	0.0	3.1
3	Cu (µg/L)	9.6	2.1	0.2	3.4	0.0	0.0
4	Hg (µg/L)	0.1	0.2	0.0	0.0	0.0	0.0
5	Ni (µg/L)	3.6	0.0	0.0	2.1	3.8	2.9
6	Pb (µg/L)	5.0	0.0	0.0	1.0	0.0	29.0
7	Zn (µg/L)	6.2	0.9	51.1	3.4	5.0	5.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	107	80	84	83	87	108
2	HAR_Total (mgCaCO3/L)	196	193	191	191	189	216
3	Na% (%)	44	56	52	54	49	44
4	RSC (-)	0.0	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	2.3	4.0	3.0	3.3	2.7	2.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	294.0	3111	3470	1604	4147	8041
2	Colour_Cod (-)	Clear	Brown	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						535
4	EC_GEN (µmho/cm)	882	931	560	550	527	538
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.4	8.3	8.4	8.4	7.8	7.7
7	TDS (mg/L)	546	598	471	431	380	410
8	Temp (deg C)	28.0	28.0	29.0	27.0	28.0	28.0
9	Turb (NTU)	3.0	17.0	7.0	4.0	1.8	5.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	18.3	20.2	14.3	13.3	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	186	191	121	117	130	130
3	B (mg/L)	0.16	0.26	0.19	0.12	0.20	0.20
4	Ca (mg/L)	41	43	43	44	43	42
5	Cl (mg/L)	93.7	110.0	100.2	62.0	55.3	65.0
6	CO3 (mg/L)	22.0	24.4	17.2	16.0	0.0	0.0
7	F (mg/L)	0.86	0.83	0.36	0.38	0.35	0.35
8	Fe (mg/L)	0.1	1.3	0.5	1.5	1.3	0.3
9	HCO3 (mg/L)	182	184	113	111	159	159
10	K (mg/L)	3.0	8.3	1.7	2.0	1.9	1.3
11	Mg (mg/L)	25.6	24.0	18.0	18.9	20.5	25.0
12	Na (mg/L)	67.9	90.0	37.3	41.0	34.7	32.0
13	NH3-N (mg N/L)	0.45	0.18	0.08	0.02	0.13	0.20
14	NO2+NO3 (mg N/L)	4.44	4.54	3.92	3.82	3.87	12.36
15	NO2-N (mgN/L)	0.03	0.04	0.06	0.02	0.01	0.06
16	NO3-N (mgN/L)	4.41	4.50	3.86	3.80	3.86	12.30
17	o-PO4-P (mg P/L)	0.489	0.180	0.240	0.240	0.510	0.190
18	SiO2 (mg/L)	14.3	8.1	46.0	16.6	13.0	9.2
19	SO4 (mg/L)	84.3	72.0	46.0	72.9	57.0	45.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.3	1.4	0.2	0.9	1.6	0.9
2	COD (mg/L)	7.8	7.3	2.0	7.6	10.8	5.6
3	DO (mg/L)	4.8	4.8	5.6	6.8	6.2	6.7
4	DO_SAT% (%)	61	61	73	85	79	86
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	1.8	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	1.4	0.0
3	Cu (µg/L)	0.0	1.9	3.2	22.0	5.6	2.1
4	Hg (µg/L)	0.0	0.3	0.1	0.0		
5	Ni (µg/L)	0.9	6.2	3.3	4.3	4.3	0.0
6	Pb (µg/L)	14.0	43.0	24.0	46.0	0.0	23.0
7	Zn (µg/L)	0.0	2.0	2.3	1.2	50.4	11.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	103	108	108	109	108	105
2	HAR_Total (mgCaCO3/L)	209	208	183	188	194	209
3	Na% (%)	41	47	31	32	28	25
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	2.7	1.2	1.3	1.1	1.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	2712	2712	3361	836.5	833.2	267.8
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	607	567	554	615	633	661
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	7.4	8.4	8.4	8.5	8.3	8.4
7	TDS (mg/L)	350	424	378	346	542	384
8	Temp (deg C)	28.0	29.0	29.0	27.0	27.0	27.0
9	Turb (NTU)	4.0	1.0	2.0	2.0	4.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	17.8	20.3	14.1	12.9	17.4
2	ALK-TOT (mgCaCO3/L)	157	133	124	141	147	224
3	B (mg/L)	0.25	0.28	0.49	0.08	0.11	0.12
4	Ca (mg/L)	39	38	39	40	41	51
5	Cl (mg/L)	74.3	55.0	57.9	69.1	68.1	66.0
6	CO3 (mg/L)	0.0	21.5	24.4	17.0	15.6	21.0
7	F (mg/L)	0.36	0.41	0.38	0.37	0.37	0.38
8	Fe (mg/L)	0.2	0.4	2.0	0.8	0.3	0.2
9	HCO3 (mg/L)	191	119	102	137	148	231
10	K (mg/L)	2.5	2.2	5.5	2.6	3.0	3.2
11	Mg (mg/L)	27.4	18.3	18.7	22.9	22.0	21.0
12	Na (mg/L)	56.0	49.0	44.5	44.8	60.2	58.0
13	NH3-N (mg N/L)	0.34	0.33	0.15	0.70	0.31	0.25
14	NO2+NO3 (mg N/L)	12.82	12.26	10.56	7.35	7.28	7.00
15	NO2-N (mgN/L)	0.02	0.01	0.12	0.01	0.12	0.06
16	NO3-N (mgN/L)	12.80	12.25	10.44	7.34	7.16	6.94
17	o-PO4-P (mg P/L)	0.181	0.590	0.114	0.165	0.100	0.350
18	SiO2 (mg/L)	14.4	7.4	11.1	16.8	13.6	18.0
19	SO4 (mg/L)	50.5	52.0	40.0	55.4	67.0	66.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	0.6	0.8	0.8	1.4	1.3
2	COD (mg/L)	9.5	1.9	1.9	8.1	20.2	8.1
3	DO (mg/L)	3.4	7.1	7.5	7.2	7.3	5.8
4	DO_SAT% (%)	43	92	98	90	92	73
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.1	0.0	0.0	0.6	0.0	0.3
2	Cr (µg/L)	0.0	0.0	0.0	0.4	0.0	3.9
3	Cu (µg/L)	1.7	1.2	4.7	3.1	3.7	1.9
4	Hg (µg/L)						
5	Ni (µg/L)	0.1	10.6	10.1	2.8	0.9	3.1
6	Pb (µg/L)	18.0	33.0	26.0	5.0	30.0	43.0
7	Zn (µg/L)	8.8	1.6	2.1	6.1	1.6	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	97	95	97	100	103	128
2	HAR_Total (mgCaCO3/L)	211	171	174	195	194	215
3	Na% (%)	36	38	35	33	40	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.2
5	SAR (-)	1.7	1.6	1.5	1.4	1.9	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	193.0	90.53	186.1	91.54	151.0	81.18
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	730	685	688	685	719	659
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.0	8.3	7.9	7.5	7.7	8.0
7	TDS (mg/L)	472	571	561	385	593	449
8	Temp (deg C)	25.0	25.0	24.0	23.0	25.0	25.0
9	Turb (NTU)	5.0	6.0	3.5	5.0	5.0	4.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	18.3	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	210	187	166	163	162	168
3	B (mg/L)	0.13	0.14	0.14	0.27	0.15	0.24
4	Ca (mg/L)	49	50	47	42	45	61
5	Cl (mg/L)	77.3	63.4	94.2	77.5	73.8	83.1
6	CO3 (mg/L)	0.0	22.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.49	0.50	0.42	0.47	0.42	0.45
8	Fe (mg/L)	1.0	0.7	0.5	0.3	0.3	0.3
9	HCO3 (mg/L)	256	184	202	199	198	205
10	K (mg/L)	3.3	2.7	4.1	1.9	2.3	2.1
11	Mg (mg/L)	20.8	21.1	28.4	30.3	27.8	16.0
12	Na (mg/L)	57.2	41.8	65.3	53.1	57.5	43.1
13	NH3-N (mg N/L)	0.00	0.01	0.00	0.00	0.12	0.00
14	NO2+NO3 (mg N/L)	7.98	6.97	8.10	8.33	0.76	0.75
15	NO2-N (mgN/L)	0.01	0.01	0.01	0.04	0.01	0.01
16	NO3-N (mgN/L)	7.97	6.96	8.09	8.29	0.75	0.74
17	o-PO4-P (mg P/L)	0.150	0.060	0.090	0.080	0.020	0.000
18	SiO2 (mg/L)	19.5	16.9	19.0	6.0	7.0	8.9
19	SO4 (mg/L)	61.0	62.4	58.0	49.0	49.2	56.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.4	0.1	6.8	6.2	1.7	1.9
2	COD (mg/L)				10.9	3.6	3.6
3	DO (mg/L)	4.6	5.0	2.3	1.3	5.1	5.0
4	DO_SAT% (%)	56	61	27	15	62	61
5	FCol-MPN (MPN/100mL)			790	1400	790	1700
6	Tcol-MPN (MPN/100mL)			1100	1400	1400	2800
	TRACE & TOXIC						
1	Cd (µg/L)	0.7	0.9	0.0	0.0	0.0	0.0
2	Cr (µg/L)	2.8	3.2	3.9	1.4	1.0	0.7
3	Cu (µg/L)	1.3	1.2	1.3	2.0	1.7	0.9
4	Hg (µg/L)						
5	Ni (µg/L)	8.1	0.0	0.0	10.1	6.7	6.1
6	Pb (µg/L)	33.0	0.0	3.0	21.0	10.0	3.0
7	Zn (µg/L)	6.6	0.4	10.1	3.3	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	123	126	117	105	113	153
2	HAR_Total (mgCaCO3/L)	210	214	235	231	228	219
3	Na% (%)	37	30	37	33	35	30
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.7	1.2	1.9	1.5	1.7	1.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	77.37	81.10	76.87	104.4	17.93	20.80
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	713	700	706	680	886	720
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	7.8	8.1	8.2	7.9	7.0	8.5
7	TDS (mg/L)	465	552	529	701	536	504
8	Temp (deg C)	25.0	25.0	26.0	26.0	25.0	25.0
9	Turb (NTU)	2.0	22.8	9.2	20.0	11.7	2.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	12.0
2	ALK-TOT (mgCaCO3/L)	222	184	186	152	190	166
3	B (mg/L)	0.16	0.16	0.18	0.19	0.18	0.20
4	Ca (mg/L)	60	46	47	63	63	63
5	Cl (mg/L)	83.4	77.1	80.7	144.5	222.0	108.0
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	14.5
7	F (mg/L)	0.56	0.56	0.58	0.60	0.57	0.54
8	Fe (mg/L)	0.4	0.3	0.1	0.2	9.7	0.2
9	HCO3 (mg/L)	271	225	227	185	232	173
10	K (mg/L)	2.8	3.7	2.9	3.3	3.7	4.6
11	Mg (mg/L)	15.7	21.6	21.7	14.0	24.0	14.0
12	Na (mg/L)	62.0	55.0	60.7	66.5	96.0	82.8
13	NH3-N (mg N/L)	0.12	0.00	0.00	0.06	0.03	0.04
14	NO2+NO3 (mg N/L)	2.00	1.25	1.25	0.78	0.80	0.91
15	NO2-N (mgN/L)	0.03	0.02	0.01	0.03	0.01	0.03
16	NO3-N (mgN/L)	1.97	1.23	1.24	0.75	0.79	0.88
17	o-PO4-P (mg P/L)	0.000	0.140	0.170	0.510	0.460	0.640
18	SiO2 (mg/L)	9.5	5.0	8.4	10.8	7.2	8.9
19	SO4 (mg/L)	70.0	58.0	94.0	14.9	14.9	14.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.1	1.2	1.4	1.8	2.0	3.1
2	COD (mg/L)	3.7	1.9	5.7			
3	DO (mg/L)	4.5	2.9	2.9	3.3	2.3	1.2
4	DO_SAT% (%)	54	35	36	41	28	15
5	FCol-MPN (MPN/100mL)	1700	1400	3500	940	790	490
6	Tcol-MPN (MPN/100mL)	2200	1700	5400	1400	1400	790
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	3.3	0.3	0.0	0.0
2	Cr (µg/L)	2.4	0.8	0.9	1.1	13.8	4.0
3	Cu (µg/L)	2.5	1.0	0.7	0.9	4.5	1.8
4	Hg (µg/L)						
5	Ni (µg/L)	2.2	2.0	2.6	3.0	6.0	4.4
6	Pb (µg/L)	10.0	16.0	13.0	21.0	32.0	27.0
7	Zn (µg/L)	0.0	30.1	0.4	3.2	33.6	4.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	151	115	116	158	158	158
2	HAR_Total (mgCaCO3/L)	216	205	207	216	257	216
3	Na% (%)	38	36	39	40	44	45
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	1.7	1.8	2.0	2.6	2.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	73.19	150.9	47.78	16.23	13.80	12.49
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	1121	741	762	846	1024	922
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.9	8.3	8.2	7.6	7.2	6.6
7	TDS (mg/L)	843	565	527	512	728	698
8	Temp (deg C)	27.0	26.0	25.0	24.0	25.0	26.0
9	Turb (NTU)	15.0	17.0	5.8	1.0	9.6	10.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	11.2	12.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	160	158	164	234	255	136
3	B (mg/L)	0.10	0.15	0.13	0.00	0.10	0.02
4	Ca (mg/L)	48	47	46	60	68	66
5	Cl (mg/L)	56.3	141.0	184.0	97.3	176.6	104.3
6	CO3 (mg/L)	13.5	14.5	0.0	0.0	0.0	0.0
7	F (mg/L)	0.60	0.61	0.63	0.64	0.63	0.62
8	Fe (mg/L)	0.0	0.2	0.1	0.2	0.2	0.3
9	HCO3 (mg/L)	168	163	200	285	311	166
10	K (mg/L)	3.2	3.7	4.2	4.2	3.9	4.0
11	Mg (mg/L)	22.8	32.7	20.4	31.7	46.9	42.3
12	Na (mg/L)	71.5	128.5	133.6	83.0	148.0	99.1
13	NH3-N (mg N/L)	0.04	0.06	0.04	0.04	0.08	0.18
14	NO2+NO3 (mg N/L)	2.77	2.83	2.81	2.85	2.97	2.90
15	NO2-N (mgN/L)	0.06	0.01	0.01	0.05	0.08	0.01
16	NO3-N (mgN/L)	2.71	2.82	2.80	2.80	2.89	2.89
17	o-PO4-P (mg P/L)	0.510	0.590	0.420	0.410	0.730	0.730
18	SiO2 (mg/L)	14.0	10.0	11.5	13.7	24.3	26.1
19	SO4 (mg/L)	97.8	76.8	83.1	104.6	89.0	116.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.1	2.3	1.4	3.7	0.9	0.4
2	COD (mg/L)				7.6	1.9	1.9
3	DO (mg/L)	1.5	1.5	1.9	2.1	1.7	1.1
4	DO_SAT% (%)	19	18	23	25	21	14
5	FCol-MPN (MPN/100mL)	790	1100	790	1100	1100	1100
6	Tcol-MPN (MPN/100mL)	1400	1700	1100	2200	1700	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.2	0.3	0.0	2.8	0.5
2	Cr (µg/L)	6.4	5.7	6.5	6.6	3.2	2.4
3	Cu (µg/L)	4.3	0.1	0.5	1.0	0.7	4.1
4	Hg (µg/L)						
5	Ni (µg/L)	0.0	0.8	2.9	1.9	9.3	0.0
6	Pb (µg/L)	9.0	17.0	0.0	14.0	27.0	3.0
7	Zn (µg/L)	3.9	15.3	2.7	3.1	0.9	29.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	119	118	115	151	170	166
2	HAR_Total (mgCaCO3/L)	214	255	200	283	365	342
3	Na% (%)	42	52	59	39	47	38
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.1	3.5	4.1	2.2	3.4	2.3
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	13101	0.000	1229
2	EC_FLD (µmho/cm)	1	535	535	535
3	EC_GEN (µmho/cm)	36	1121	527	728
4	pH_GEN (pH units)	36	8.9	6.6	8.1
5	TDS (mg/L)	36	843	346	518
6	Temp (deg C)	36	29.0	23.0	26.1
7	Turb (NTU)	36	22.8	1.0	6.8
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	21.6	0.0	8.2
2	ALK-TOT (mgCaCO3/L)	36	255	117	170
3	B (mg/L)	35	0.68	0.00	0.21
4	Ca (mg/L)	36	68	32	47
5	Cl (mg/L)	36	222.0	55.0	96.5
6	CO3 (mg/L)	36	26.0	0.0	9.8
7	F (mg/L)	36	0.89	0.35	0.55
8	Fe (mg/L)	36	9.7	0.0	0.7
9	HCO3 (mg/L)	36	311	102	188
10	K (mg/L)	36	20.0	1.3	3.7
11	Mg (mg/L)	36	46.9	14.0	24
12	Na (mg/L)	36	148.0	32.0	71.8
13	NH3-N (mg N/L)	35	0.70	0.00	0.15
14	NO2+NO3 (mg N/L)	36	12.82	0.75	4.63
15	NO2-N (mgN/L)	36	0.80	0.00	0.07
16	NO3-N (mgN/L)	36	12.80	0.74	4.57
17	o-PO4-P (mg P/L)	36	0.730	0.000	0.289
18	SiO2 (mg/L)	36	46.0	3.4	13.1
19	SO4 (mg/L)	36	116.3	14.9	63.4
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	6.8	0.1	1.6
2	COD (mg/L)	24	20.2	1.9	6.4
3	DO (mg/L)	36	7.5	1.1	4.2
4	DO_SAT% (%)	36	98	14	52
5	FCol-MPN (MPN/100mL)	16	3500	490	1218
6	Tcol-MPN (MPN/100mL)	16	5400	790	1818
	TRACE & TOXIC				
1	Cd (µg/L)	36	3.3	0.0	0.6
2	Cr (µg/L)	36	13.8	0.0	2.4
3	Cu (µg/L)	36	22.0	0.0	2.7
4	Hg (µg/L)	10	0.3	0.0	0.1
5	Ni (µg/L)	36	10.6	0.0	3.5
6	Pb (µg/L)	36	46.0	0.0	16.6
7	Zn (µg/L)	36	51.1	0.0	8.5
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	170	80	118
2	HAR_Total (mgCaCO3/L)	36	365	171	218
3	Na% (%)	36	59	25	40
4	RSC (-)	36	0.2	0.0	0
5	SAR (-)	36	4.1	1.0	2.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)	301.8	413.0	526.4	250.9	30.10	227.0	135.4
2	EC_FLD (µmho/cm)			664			542	
3	EC_GEN (µmho/cm)	647	625	757	703	633	611	649
4	pH_FLD (pH units)			8.3				
5	pH_GEN (pH units)	8.0	7.5	8.0	8.0	7.9	8.1	8.3
6	TDS (mg/L)				473	429	381	416
7	Temp (deg C)	28.0	27.1	28.4	26.8	27.7	27.0	26.8
8	Turb (NTU)				1.0	0.8	1.0	5.0
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	1.6	1.6	1.6	1.2	0.0	0.0	0.8
2	ALK-TOT (mgCaCO3/L)	162	167	179	172	132	116	145
3	B (mg/L)	0.00	0.00	0.00	0.00	0.20	0.13	0.20
4	Ca (mg/L)	42	37	43	34	31	29	36
5	Cl (mg/L)	61.7	58.0	75.5	73.0	60.0	60.6	63.8
6	CO3 (mg/L)	1.9	1.9	1.9	1.4	0.0	0.0	1.0
7	F (mg/L)	0.31	0.78	0.83	1.04	0.61	0.65	0.66
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
9	HCO3 (mg/L)	193	200	214	207	161	141	175
10	K (mg/L)	3.2	2.9	4.0	3.5	3.5	2.9	3.8
11	Mg (mg/L)	13.0	15.3	21.0	19.2	17.6	15.8	21.1
12	Na (mg/L)	58.7	59.4	73.5	69.3	64.4	66.5	71.4
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.02	0.07	0.00
14	NO2+NO3 (mg N/L)	0.01	0.56	0.00	0.32	0.95	0.66	1.27
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.01	0.56	0.00	0.32	0.95	0.66	1.26
17	o-PO4-P (mg P/L)				0.375	0.059	0.085	0.125
18	P-Tot (mgP/L)	0.001	0.000	0.135	0.376			0.131
19	SiO2 (mg/L)	17.0	17.0	17.7	15.7	13.6	12.4	15.2
20	SO4 (mg/L)	53.4	62.6	101.6	63.9	56.0	67.1	93.2
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.0	0.9	0.7	0.8	0.5	0.9	0.8
2	COD (mg/L)	26.7	18.6	34.3	32.9	8.5	8.7	10.0
3	DO (mg/L)	5.9	6.5	6.9	6.0	5.5	6.1	6.1
4	DO_SAT% (%)	76	82	89	75	70	76	77
5	FCol-MPN (MPN/100mL)		6000	9712	14600	1146	131	6492
6	Tcol-MPN (MPN/100mL)		10500	12940	16000	3540	2340	6984
7	TOC (mg/L)				3.3	2.7	0.4	
	TRACE & TOXIC							
1	As (µg/L)					0.0	6.1	
2	Cd (µg/L)					0.0	2.5	
3	Cr (µg/L)					0.0	1.3	
4	Cu (µg/L)							
5	Hg (µg/L)						0.7	
6	Ni (µg/L)					3.3	13.5	
7	Pb (µg/L)					2.2	0.3	
8	Zn (µg/L)					24.2	0.0	
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	106	92	108	85	76	72	91
2	HAR_Total (mgCaCO3/L)	160	156	196	165	150	138	179
3	Na% (%)	44	45	45	47	49	50	46
4	RSC (-)	0.1	0.4	0.0	0.2	0.2	0.0	0.0
5	SAR (-)	2.0	2.1	2.3	2.4	2.4	2.5	2.3
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	25.19	155.7	23.81	107.8	329.8	3459	1439	1988
2	EC_FLD (µmho/cm)		28	120	822		1002		535
3	EC_GEN (µmho/cm)	746	608	645	804	446	534	709	688
4	pH_FLD (pH units)				6.7		6.6		
5	pH_GEN (pH units)	8.0	8.5	8.1	8.0	7.8	7.9	7.9	8.2
6	TDS (mg/L)	479	394	408	479	421	308	505	480
7	Temp (deg C)	25.8	26.5	28.0	28.0	27.2	24.5	26.3	27.1
8	Turb (NTU)	2.2	2.5	6.3	3.8	16.4	19.5	3.0	5.1
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	1.3	4.7	3.0	0.0	0.0	2.1	13.1
2	ALK-TOT (mgCaCO3/L)	164	140	150	148	154	157	172	157
3	B (mg/L)	0.21		0.00	0.04	0.30	0.22	0.14	0.32
4	Ca (mg/L)	41	34	35	34	41	35	43	39
5	Cl (mg/L)	84.5	67.4	87.6	111.1	69.5	61.6	85.0	88.5
6	CO3 (mg/L)	0.0	1.6	5.7	3.7	0.0	0.0	2.5	15.8
7	F (mg/L)	0.81	0.64	0.57	0.62	0.46	0.23	0.71	0.59
8	Fe (mg/L)	0.0	0.1	0.2	0.1	0.6	0.0	0.3	0.5
9	HCO3 (mg/L)	200	167	171	173	188	191	204	160
10	K (mg/L)	4.0	3.4	0.4	0.5	0.8	0.3	3.8	4.2
11	Mg (mg/L)	23.3	19.4	28.8	26.0	18.4	18.7	18.1	23.2
12	Na (mg/L)	87.0	65.5	77.9	69.4	69.0	50.9	67.7	67.8
13	NH3-N (mg N/L)	0.05	0.04	0.09	0.10	0.02	0.05		0.21
14	NO2+NO3 (mg N/L)	0.72	1.14	5.21	0.70	1.65			5.87
15	NO2-N (mgN/L)	0.02	0.05	0.04	0.07	0.04	0.04	0.05	0.12
16	NO3-N (mgN/L)	0.70	1.09	5.18	0.64	1.61		5.42	5.76
17	o-PO4-P (mg P/L)	0.151	0.123	0.180	0.160	0.166	0.140	0.912	0.273
18	P-Tot (mgP/L)							1.355	
19	SiO2 (mg/L)	18.0	14.1	14.0	37.4	18.0	14.4		13.0
20	SO4 (mg/L)	94.4	58.2	75.4	77.8	68.8	65.0	50.8	61.5
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	0.7	1.2	1.4	2.0	0.5	2.2	1.7	1.0
2	COD (mg/L)	8.8	14.9	13.9	13.8	9.9	13.1	19.6	6.3
3	DO (mg/L)	5.6	6.1	6.7	5.2	6.4	7.3	5.8	5.3
4	DO_SAT% (%)	69	76	85	67	80	87	72	67
5	FCol-MPN (MPN/100mL)	2440	6260	598	120	1054	1510	293	
6	Tcol-MPN (MPN/100mL)	7424	8045	1196	594	4992	8700	717	
7	TOC (mg/L)	14.2							
	TRACE & TOXIC								
1	As (µg/L)					2.0		2.4	
2	Cd (µg/L)					0.1		0.6	0.6
3	Cr (µg/L)					1.1		2.2	1.0
4	Cu (µg/L)			2.6	7.8	9.8	0.0	3.3	3.8
5	Hg (µg/L)							0.3	0.1
6	Ni (µg/L)					55.3		2.6	3.5
7	Pb (µg/L)					0.3		11.2	17.5
8	Zn (µg/L)			40.1	19.6	28.2	0.0	9.3	10.1
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	102	86	88	85	102	87	108	98
2	HAR_Total (mgCaCO3/L)	199	167	208	193	178	165	183	195
3	Na% (%)	48	46	45	42	43	40	43	41
4	RSC (-)	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0
5	SAR (-)	2.7	2.3	2.4	2.2	2.2	1.7	2.2	2.1
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)	409.8	366.8	269.9	227.4	219.0	211.4
2	EC_FLD (µmho/cm)			646			
3	EC_GEN (µmho/cm)	586	591	715	611	558	583
4	pH_FLD (pH units)			8.2			
5	pH_GEN (pH units)	8.1	8.3	8.1	8.3	8.0	8.1
6	TDS (mg/L)				423	360	336
7	Temp (deg C)	27.0	24.9	26.5	26.0	25.3	25.3
8	Turb (NTU)				1.0	0.8	3.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	2.0	2.0	2.0	3.0	35.7	0.0
2	ALK-TOT (mgCaCO3/L)	177	181	207	186	212	155
3	B (mg/L)	0.00	0.00	0.00	0.20	0.16	0.03
4	Ca (mg/L)	48	46	43	37	30	35
5	Cl (mg/L)	49.9	46.2	71.4	63.3	52.4	47.3
6	CO3 (mg/L)	2.4	2.4	2.4	3.7	43.0	0.0
7	F (mg/L)	0.32	0.84	0.78	0.67	0.85	0.47
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.0	0.1
9	HCO3 (mg/L)	211	216	248	220	172	189
10	K (mg/L)	3.1	2.5	3.5	2.8	1.8	2.7
11	Mg (mg/L)	10.1	14.6	24.6	20.7	17.0	19.7
12	Na (mg/L)	57.3	57.5	72.1	60.5	58.0	51.0
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.10	0.03	0.01
14	NO2+NO3 (mg N/L)	0.01	1.34	0.00	0.89	0.61	1.22
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.01	0.00	0.00
16	NO3-N (mgN/L)	0.01	1.34	0.00	0.89	0.61	1.22
17	o-PO4-P (mg P/L)				0.243	0.048	0.160
18	P-Tot (mgP/L)	0.001	0.000	0.162	0.243		
19	SiO2 (mg/L)	16.0	16.8	17.6	15.3	15.7	15.2
20	SO4 (mg/L)	51.6	58.2	77.3	65.8	51.2	54.4
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.8	1.1	0.6	1.0	1.1	1.0
2	COD (mg/L)	12.6	17.1	25.5	60.8	16.3	4.1
3	DO (mg/L)	6.9	7.0	7.1	6.5	6.8	7.0
4	DO_SAT% (%)	87	85	88	80	82	85
5	FCol-MPN (MPN/100mL)		14250	5315	5400	946	858
6	Tcol-MPN (MPN/100mL)		16000	12225	9200	4808	2930
7	TOC (mg/L)				2.6	2.1	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	121	116	108	93	75	87
2	HAR_Total (mgCaCO3/L)	163	177	210	179	145	169
3	Na% (%)	43	41	43	42	46	39
4	RSC (-)	0.3	0.1	0.2	0.3	1.5	0.0
5	SAR (-)	2.0	1.9	2.2	2.0	2.1	1.7
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	167.0	9.261	139.2	83.82	84.97	567.7
2	EC_FLD (µmho/cm)			28	40	1003	
3	EC_GEN (µmho/cm)	474	969	702	812	1016	401
4	pH_FLD (pH units)					6.7	
5	pH_GEN (pH units)	8.1	8.0	8.3	8.0	8.0	7.9
6	TDS (mg/L)	366	337	386	522	579	259
7	Temp (deg C)	26.8	25.5	27.0	27.3	26.3	26.0
8	Turb (NTU)	2.8	2.8	2.8	4.7	0.7	24.8
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	1.3	1.5	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	159	158	154	224	212	136
3	B (mg/L)	0.16	0.00		0.05	0.03	0.23
4	Ca (mg/L)	37	33	43	60	42	37
5	Cl (mg/L)	48.6	64.3	76.0	127.3	101.3	43.8
6	CO3 (mg/L)	0.0	1.6	1.8	0.0	0.0	0.0
7	F (mg/L)	0.59	0.52	0.80	0.73	0.64	0.23
8	Fe (mg/L)	0.1	0.0	0.1	0.1	0.2	0.9
9	HCO3 (mg/L)	194	189	185	274	258	166
10	K (mg/L)	2.9	3.4	5.9	0.5	0.4	0.3
11	Mg (mg/L)	19.7	18.7	21.2	35.0	29.8	13.9
12	Na (mg/L)	56.5	71.8	79.0	96.4	79.7	40.9
13	NH3-N (mg N/L)	0.04	0.01	0.09	0.85	0.16	0.07
14	NO2+NO3 (mg N/L)	1.01	1.15	0.45	4.86	0.78	3.80
15	NO2-N (mgN/L)	0.06	0.06	0.02	0.03	0.26	0.07
16	NO3-N (mgN/L)	0.95	1.09	0.43	4.83	0.52	3.59
17	o-PO4-P (mg P/L)	0.156	0.141	0.124	0.848	0.386	0.133
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	14.1	8.7	8.6	26.7	25.0	17.6
20	SO4 (mg/L)	53.5	81.4	117.7	113.9	70.0	49.9
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.1	1.3	2.7	1.2	2.1	1.7
2	COD (mg/L)	10.6	11.4	10.9	19.9	10.5	47.7
3	DO (mg/L)	7.3	5.7	6.6	6.6	6.8	6.2
4	DO_SAT% (%)	92	70	82	84	85	77
5	FCol-MPN (MPN/100mL)	1458	6313	2295	105	370	1533
6	Tcol-MPN (MPN/100mL)	6800	10950	4585	185	1575	7550
7	TOC (mg/L)	20.8	11.7				
	TRACE & TOXIC						
1	As (µg/L)						3.2
2	Cd (µg/L)	1.2					0.0
3	Cr (µg/L)	7.1					4.6
4	Cu (µg/L)	1.5		0.0	0.8	8.0	6.5
5	Hg (µg/L)						
6	Ni (µg/L)	4.1					16.3
7	Pb (µg/L)	5.7					0.4
8	Zn (µg/L)	5.0		0.0	29.3	25.7	66.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	91	83	108	149	106	91
2	HAR_Total (mgCaCO3/L)	174	161	196	295	230	149
3	Na% (%)	41	48	43	42	43	37
4	RSC (-)	0.0	0.0	0.1	0.0	0.1	0.0
5	SAR (-)	1.9	2.5	2.6	2.5	2.3	1.5
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter			Summer		
		Nov - Feb			Mar - May		
		2020-2021	2021-2022	2022-2023	2009	2010	2011
	PHYSICAL						
1	Q (cumec)	238.9	257.9	247.2	171.5	211.5	173.6
2	EC_FLD (µmho/cm)	1004				638	
3	EC_GEN (µmho/cm)	612	582	683	682	625	858
4	pH_FLD (pH units)	6.7				8.4	
5	pH_GEN (pH units)	8.0	8.0	8.1	8.1	8.5	7.6
6	TDS (mg/L)	400	457	487			
7	Temp (deg C)	23.8	25.7	25.3	27.0	27.5	25.5
8	Turb (NTU)	15.5	5.1	6.1			
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	3.3	3.5	5.2	2.7	8.0	0.0
2	ALK-TOT (mgCaCO3/L)	202	153	180	228	175	208
3	B (mg/L)	0.23	0.23	0.16	0.00	0.00	0.00
4	Ca (mg/L)	39	41	48	50	45	45
5	Cl (mg/L)	83.3	69.5	76.1	59.0	51.8	83.9
6	CO3 (mg/L)	3.9	4.2	6.3	3.2	9.6	0.0
7	F (mg/L)	0.91	0.53	0.46	0.79	1.00	1.06
8	Fe (mg/L)	0.4	0.2	0.4	0.0	0.0	0.0
9	HCO3 (mg/L)	238	178	207	272	194	254
10	K (mg/L)	0.5	3.3	2.9	2.2	2.6	3.6
11	Mg (mg/L)	23.4	19.8	22.4	13.6	16.5	25.8
12	Na (mg/L)	80.9	59.3	54.9	61.7	58.6	83.3
13	NH3-N (mg N/L)	0.18	0.04	0.13	0.05	0.00	0.00
14	NO2+NO3 (mg N/L)	2.37		4.92	0.01	0.00	0.00
15	NO2-N (mgN/L)	0.10	0.01	0.03	0.00	0.00	0.00
16	NO3-N (mgN/L)	2.20		4.89	0.01	0.00	0.00
17	o-PO4-P (mg P/L)	0.410	0.787	0.110			
18	P-Tot (mgP/L)		1.224		0.001	0.000	0.272
19	SiO2 (mg/L)	19.5	16.9	12.4	17.1	13.9	16.0
20	SO4 (mg/L)	77.3	53.7	62.3	52.5	48.8	83.6
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	3.3	1.7	2.1	0.7	0.3	0.3
2	COD (mg/L)	15.9		7.3	6.7	21.6	26.2
3	DO (mg/L)	8.2	5.6	4.5	6.0	6.4	6.3
4	DO_SAT% (%)	97	69	55	76	81	76
5	FCol-MPN (MPN/100mL)	2678	966	1611		10833	9000
6	Tcol-MPN (MPN/100mL)	9533	1461	2286		10900	16000
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)	0.8				2.8	
2	Cd (µg/L)	3.3	0.5	0.5	2.6	0.0	
3	Cr (µg/L)	3.6	1.8	1.8	2.0	0.0	
4	Cu (µg/L)	2.4	0.8	1.8			
5	Hg (µg/L)	0.6	0.1				
6	Ni (µg/L)	7.5	1.5	3.7	3.3	0.0	
7	Pb (µg/L)	39.3	6.5	15.6	36.0	0.0	
8	Zn (µg/L)	10.2	4.5	4.9	6.6	4.2	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	98	103	121	124	112	112
2	HAR_Total (mgCaCO3/L)	195	185	214	181	181	220
3	Na% (%)	46	41	35	42	41	45
4	RSC (-)	0.4	0.0	0.0	1.0	0.0	0.0
5	SAR (-)	2.5	1.9	1.6	2.0	1.9	2.5
	PESTICIDES						
1	Aldrin (µg/L)				0.0	0.0	
2	BHC (µg/L)				0.1	0.0	
3	DDT (µg/L)				0.1	0.0	
4	Dieldrin (µg/L)				0.0	0.0	
5	Endos (µg/L)				0.1	0.1	

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer					
		Mar - May					
		2012	2013	2014	2015	2016	2017
	PHYSICAL						
1	Q (cumec)	76.14	24.02	150.9	70.53	6.178	26.62
2	EC_FLD (µmho/cm)						179
3	EC_GEN (µmho/cm)	900	723	627	740	741	776
4	pH_FLD (pH units)						
5	pH_GEN (pH units)	8.2	8.2	8.3	8.3	8.4	8.0
6	TDS (mg/L)	375	404	381	427	368	467
7	Temp (deg C)	26.3	27.3	28.0	26.0	26.0	26.7
8	Turb (NTU)	1.0	0.9	4.3	3.0	8.7	30.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	1.4	0.0	1.4	1.7	3.3	2.8
2	ALK-TOT (mgCaCO3/L)	159	155	163	197	120	171
3	B (mg/L)	0.08	0.28	0.15	0.12		
4	Ca (mg/L)	29	37	36	45	28	54
5	Cl (mg/L)	59.7	80.5	52.5	63.1	63.8	93.1
6	CO3 (mg/L)	1.7	0.0	1.7	2.1	4.0	3.4
7	F (mg/L)	0.45	0.85	0.60	0.91	0.37	0.60
8	Fe (mg/L)	0.2	0.2	0.7	0.0	0.0	0.0
9	HCO3 (mg/L)	191	189	195	236	139	201
10	K (mg/L)	2.7	2.4	2.4	2.7	3.1	3.7
11	Mg (mg/L)	16.7	21.6	20.0	25.9	15.2	26.6
12	Na (mg/L)	58.0	75.6	58.0	74.1	73.3	89.7
13	NH3-N (mg N/L)	0.12	0.01	0.03	0.00	0.02	1.10
14	NO2+NO3 (mg N/L)	0.68	0.94	1.30	0.78	1.05	1.68
15	NO2-N (mgN/L)	0.01	0.00	0.00	0.00	0.07	0.10
16	NO3-N (mgN/L)	0.67	0.94	1.30	0.78	0.98	1.58
17	o-PO4-P (mg P/L)	0.093	0.080	0.097	0.195	0.119	0.173
18	P-Tot (mgP/L)	0.093					
19	SiO2 (mg/L)	16.2	10.8	16.3	18.4	11.0	18.0
20	SO4 (mg/L)	57.5	32.2	57.8	120.6	65.9	146.4
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.9	0.6	1.2	0.8	1.0	1.9
2	COD (mg/L)	10.1	8.6	6.6	7.4	9.4	13.4
3	DO (mg/L)	6.3	6.1	6.6	5.3	6.3	6.2
4	DO_SAT% (%)	78	78	85	65	77	77
5	FCol-MPN (MPN/100mL)	5607	801	34	45	4100	850
6	Tcol-MPN (MPN/100mL)	6140	3734	77	8085	16000	1100
7	TOC (mg/L)	2.9	2.9		32.6		
	TRACE & TOXIC						
1	As (µg/L)	1.5	4.3	1.6	3.4	0.0	3.7
2	Cd (µg/L)	0.0	1.2	0.0	2.0	0.0	1.3
3	Cr (µg/L)	0.0	2.9	0.0	0.0	0.0	0.0
4	Cu (µg/L)						0.0
5	Hg (µg/L)	1.2	0.3	0.3	0.1	0.0	0.5
6	Ni (µg/L)	1.6	2.9	1.7	7.4	0.0	1.3
7	Pb (µg/L)	19.0	5.0	0.7	14.0	0.0	0.0
8	Zn (µg/L)	18.2	10.8	2.0	15.0	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	73	94	89	112	69	135
2	HAR_Total (mgCaCO3/L)	143	184	173	220	132	246
3	Na% (%)	47	47	41	42	54	44
4	RSC (-)	0.3	0.0	0.1	0.0	0.0	0.0
5	SAR (-)	2.1	2.4	1.9	2.2	2.8	2.5
	PESTICIDES						
1	Aldrin (µg/L)	0.0					
2	BHC (µg/L)	0.0					
3	DDT (µg/L)	0.0					
4	Dieldrin (µg/L)	0.0					
5	Endos (µg/L)	0.0					

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer					
		Mar - May					
		2018	2019	2020	2021	2022	2023
	PHYSICAL						
1	Q (cumec)	109.2	21.50	80.66	82.78	74.35	50.84
2	EC_FLD (µmho/cm)	1009	1003		1003		
3	EC_GEN (µmho/cm)	1139	513	445	852	732	856
4	pH_FLD (pH units)	6.6	6.6		6.8		
5	pH_GEN (pH units)	7.9	7.6	8.2	7.8	8.2	7.8
6	TDS (mg/L)	607	341	364	513	527	624
7	Temp (deg C)	27.3	27.3	26.0	25.3	25.3	25.4
8	Turb (NTU)	4.3	1.0	4.0	13.5	5.1	10.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	10.5	3.9
2	ALK-TOT (mgCaCO3/L)	211	183	177	261	189	179
3	B (mg/L)	0.01	0.03	0.49	0.71	0.30	0.12
4	Ca (mg/L)	55	40	28	53	41	58
5	Cl (mg/L)	108.7	78.6	85.0	104.7	94.1	137.1
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	12.7	4.7
7	F (mg/L)	0.78	0.51	0.48	0.61	0.83	0.60
8	Fe (mg/L)	0.0	0.2	0.3	0.9	0.2	1.2
9	HCO3 (mg/L)	258	223	216	318	205	209
10	K (mg/L)	0.5	0.4	0.4	3.7	3.7	3.9
11	Mg (mg/L)	27.9	21.0	31.0	24.1	24.9	27.6
12	Na (mg/L)	98.6	76.7	61.5	106.1	78.9	101.0
13	NH3-N (mg N/L)	0.18	0.16	0.00	0.17	0.21	0.06
14	NO2+NO3 (mg N/L)	4.41	0.57	2.31	2.55		2.18
15	NO2-N (mgN/L)	0.27	0.03	0.01	0.55	0.05	0.03
16	NO3-N (mgN/L)	4.14	0.55	2.30	4.52		2.15
17	o-PO4-P (mg P/L)	0.509	0.177	0.120	0.668	0.164	0.556
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	13.2	15.0	18.2	20.0	26.7	14.0
20	SO4 (mg/L)	98.7	98.8	93.0	51.7	72.3	68.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.4	0.7	2.3	2.4	4.2	2.0
2	COD (mg/L)	20.3	10.4	11.1	19.2	10.8	3.8
3	DO (mg/L)	5.0	7.1	6.3	4.6	3.1	1.8
4	DO_SAT% (%)	63	90	78	56	37	22
5	FCol-MPN (MPN/100mL)	123	340	3500	583		911
6	Tcol-MPN (MPN/100mL)	623	1810	16000	843		1454
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)	2.6	4.5		1.2		
2	Cd (µg/L)	2.0	1.7		1.4	0.6	0.6
3	Cr (µg/L)	0.0	1.3		0.3	4.3	5.5
4	Cu (µg/L)	2.7	12.7	0.0	6.1	1.1	2.0
5	Hg (µg/L)	0.3	0.3		0.5	0.6	
6	Ni (µg/L)	8.4	7.2		10.2	0.7	3.1
7	Pb (µg/L)	24.0	19.0		36.5	18.0	16.7
8	Zn (µg/L)	94.9	26.4	19.0	8.3	2.1	10.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	138	101	70	132	102	146
2	HAR_Total (mgCaCO3/L)	254	188	199	232	205	261
3	Na% (%)	46	47	40	50	44	45
4	RSC (-)	0.1	0.1	0.0	0.6	0.1	0.0
5	SAR (-)	2.7	2.4	1.9	3.1	2.4	2.7
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**paleru Bridge**	**Code**	:	**AKC00D3**
State	:	Andhra Pradesh	District		
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"
		Opening Date	Closing Date		
Gauge	:	18-05-1964			
Discharge	:	01-07-1964			
Sediment	:	01-03-2014			
Water Quality	:	01-06-1992			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	2.055	1.860	3.584	3.082	60.24	26.29
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Brown	Light Brown
3	EC_GEN (µmho/cm)	1038	973	918	809	892	1001
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.8	8.2	8.3	8.0	8.0	8.5
6	TDS (mg/L)	592	608	724	600	559	601
7	Temp (deg C)	24.0	24.0	24.0	23.5	23.0	23.5
8	Turb (NTU)	6.0	5.0	11.0	4.0	11.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	21.9	0.0	0.0	21.6
2	ALK-TOT (mgCaCO3/L)	264	281	246	177	166	135
3	B (mg/L)	0.08	0.00		1.36	1.22	1.21
4	Ca (mg/L)	62	29	46	32	34	51
5	Cl (mg/L)	129.1	142.9	136.2	107.6	138.6	163.0
6	CO3 (mg/L)	0.0	0.0	26.4	0.0	0.0	26.0
7	F (mg/L)	1.04	1.06	0.93	1.12	1.10	1.02
8	Fe (mg/L)	0.2	0.1	0.0	0.1	0.3	0.1
9	HCO3 (mg/L)	323	342	247	216	203	112
10	K (mg/L)	4.0	19.8	4.3	3.0	7.0	3.6
11	Mg (mg/L)	42.1	47.5	41.4	37.4	35.5	24.0
12	Na (mg/L)	81.5	135.0	112.4	101.4	84.2	76.0
13	NH3-N (mg N/L)	0.05	0.59		0.12	0.27	0.15
14	NO2+NO3 (mg N/L)	3.37	3.90	2.08	2.40	2.80	3.42
15	NO2-N (mgN/L)	0.03	0.01	0.06	0.01	0.40	0.21
16	NO3-N (mgN/L)	3.34	3.89	2.02	2.39	2.40	3.21
17	o-PO4-P (mg P/L)	0.120	0.210	0.330	0.160	0.520	0.420
18	SiO2 (mg/L)	10.3	28.6	8.5	13.8	11.5	23.2
19	SO4 (mg/L)	76.1	59.0	66.4	51.7	74.5	79.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.4	0.3	0.6	0.9	4.1	4.5
2	COD (mg/L)				5.7	7.8	24.1
3	DO (mg/L)	3.8	4.4	4.2	3.6	0.6	0.6
4	DO_SAT% (%)	45	52	50	42	7	7
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.6	0.0	0.7	0.4	2.3	0.3
2	Cr (µg/L)	1.2	3.1	7.0	0.0	0.0	5.2
3	Cu (µg/L)	1.1	8.5	1.0	3.8	3.9	0.7
4	Hg (µg/L)	0.0	0.2	0.0	0.1	0.0	0.0
5	Ni (µg/L)	4.7	0.0	0.0	2.4	5.5	4.6
6	Pb (µg/L)	11.0	0.0	0.0	0.0	0.0	33.0
7	Zn (µg/L)	13.9	17.6	47.4	3.8	0.0	10.2
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	154	73	115	79	85	128
2	HAR_Total (mgCaCO3/L)	329	271	288	235	233	228
3	Na% (%)	35	50	46	48	43	42
4	RSC (-)	0.0	0.3	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	3.6	2.9	2.9	2.4	2.2
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	22.35	149.6	19.67	145.4	42.93	7.404
2	Colour_Cod (-)	Light Brown	Light Brown	Brown	Clear	Light Brown	Clear
3	EC_GEN (µmho/cm)	705	530	742	642	722	878
4	Odour_Code (-)	odour freeO	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.5	8.3	8.3	8.0	7.8
6	TDS (mg/L)	455	335	530	428	524	605
7	Temp (deg C)	23.0	23.5	22.5	22.5	23.5	23.5
8	Turb (NTU)	4.0	4.0	4.0	4.0	0.7	1.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	24.1	25.7	13.4	14.1	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	202	209	122	84	91	173
3	B (mg/L)	0.13	0.14	0.22	0.11	0.19	0.25
4	Ca (mg/L)	49	48	44	46	46	45
5	Cl (mg/L)	75.9	84.0	68.0	62.6	73.2	74.7
6	CO3 (mg/L)	29.0	31.0	16.2	17.0	0.0	0.0
7	F (mg/L)	0.98	1.01	0.70	0.77	0.73	0.71
8	Fe (mg/L)	0.1	0.4	0.3	4.8	0.5	1.2
9	HCO3 (mg/L)	188	192	116	69	111	211
10	K (mg/L)	5.6	3.5	1.5	2.1	1.8	1.3
11	Mg (mg/L)	24.8	25.3	12.1	10.4	10.1	27.4
12	Na (mg/L)	67.2	43.0	46.0	41.5	41.7	47.6
13	NH3-N (mg N/L)	0.42	0.14	1.46	0.02	0.17	0.06
14	NO2+NO3 (mg N/L)	3.15	3.23	4.61	5.14	4.72	5.07
15	NO2-N (mgN/L)	0.01	0.04	0.05	0.54	0.02	0.02
16	NO3-N (mgN/L)	3.14	3.19	4.56	4.60	4.70	5.05
17	o-PO4-P (mg P/L)	0.427	0.180	0.250	0.570	0.350	0.170
18	SiO2 (mg/L)	9.0	6.7	67.0	15.7	20.9	21.5
19	SO4 (mg/L)	67.0	47.0	67.0	61.3	55.0	52.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	3.8	1.7	1.6	2.1	1.2	1.6
2	COD (mg/L)	19.6	9.1	10.1	19.1	7.2	13.1
3	DO (mg/L)	5.1	6.1	4.2	5.1	5.6	2.9
4	DO_SAT% (%)	59	71	48	58	65	34
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.0	0.0	2.5	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.8	0.5
3	Cu (µg/L)	0.0	2.3	3.3	4.9	3.9	3.4
4	Hg (µg/L)	0.0	0.3	0.3	0.1		
5	Ni (µg/L)	1.0	3.7	4.0	4.2	5.2	3.7
6	Pb (µg/L)	16.0	39.0	34.0	47.0	0.0	31.0
7	Zn (µg/L)	7.1	2.0	5.4	2.1	0.0	14.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	123	120	110	115	115	113
2	HAR_Total (mgCaCO3/L)	226	225	160	158	157	227
3	Na% (%)	39	29	38	36	36	31
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.9	1.3	1.6	1.4	1.5	1.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	259.9	143.1	43.05	12.05	24.27	11.97
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	673	684	795	865	781	806
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	7.4	8.4	8.1	8.2	7.9	8.0
6	TDS (mg/L)	388	396	441	533	529	460
7	Temp (deg C)	23.0	23.0	22.0	21.5	23.0	22.0
8	Turb (NTU)	5.0	4.0	1.0	1.0	4.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	34.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	205	192	240	163	170	230
3	B (mg/L)	0.30	0.25	0.50	0.14	0.17	0.12
4	Ca (mg/L)	43	46	43	35	36	56
5	Cl (mg/L)	75.3	71.3	83.0	98.2	101.0	96.3
6	CO3 (mg/L)	0.0	41.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.68	0.65	0.86	1.04	0.88	0.81
8	Fe (mg/L)	1.4	0.5	0.5	0.5	0.5	0.4
9	HCO3 (mg/L)	250	151	293	199	208	281
10	K (mg/L)	2.5	2.3	2.8	2.3	2.8	2.9
11	Mg (mg/L)	28.6	27.3	29.6	36.1	35.3	25.0
12	Na (mg/L)	60.0	57.2	62.0	57.9	53.2	64.0
13	NH3-N (mg N/L)	0.22	0.22	0.12	0.46	0.20	0.20
14	NO2+NO3 (mg N/L)	5.53	5.55	7.89	8.99	8.12	7.31
15	NO2-N (mgN/L)	0.03	0.02	0.03	0.02	0.03	0.08
16	NO3-N (mgN/L)	5.50	5.53	7.86	8.97	8.09	7.23
17	o-PO4-P (mg P/L)	0.130	0.551	0.152	0.134	0.340	0.207
18	SiO2 (mg/L)	13.3	9.5	12.3	17.1	14.8	19.9
19	SO4 (mg/L)	57.0	58.0	66.5	77.9	60.5	60.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	3.2	1.9	1.2	1.0	1.5	1.7
2	COD (mg/L)	7.6	3.8	3.8	12.1	16.2	10.1
3	DO (mg/L)	6.0	5.5	5.8	5.1	4.3	5.4
4	DO_SAT% (%)	70	64	66	57	50	62
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	0.8	0.3	0.8
2	Cr (µg/L)	0.1	0.0	0.0	0.0	0.0	3.9
3	Cu (µg/L)	6.9	1.2	1.6	2.1	2.1	2.8
4	Hg (µg/L)						
5	Ni (µg/L)	1.5	7.6	10.3	5.4	2.8	4.0
6	Pb (µg/L)	21.0	26.0	30.0	1.0	33.0	47.0
7	Zn (µg/L)	11.8	5.0	0.1	4.0	2.4	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	108	115	108	88	90	139
2	HAR_Total (mgCaCO3/L)	227	229	231	238	237	243
3	Na% (%)	36	35	37	35	33	36
4	RSC (-)	0.0	0.0	0.2	0.0	0.0	0.0
5	SAR (-)	1.7	1.7	1.8	1.6	1.5	1.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	7.223	2.023	3.201	3.743	5.971	3.655
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	777	1189	1073	886	872	867
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.0	7.8	8.3	8.0	8.0
6	TDS (mg/L)	472	819	808	518	645	605
7	Temp (deg C)	23.0	23.0	24.0	22.0	23.5	22.5
8	Turb (NTU)	2.0	8.0	3.5	6.0	6.0	6.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	24.2	0.0	0.0	26.1	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	205	207	284	245	240	237
3	B (mg/L)	0.10	0.10	0.17	0.53	0.40	0.43
4	Ca (mg/L)	54	55	61	60	59	66
5	Cl (mg/L)	88.6	99.9	101.9	99.8	92.1	99.8
6	CO3 (mg/L)	29.1	0.0	0.0	31.5	0.0	0.0
7	F (mg/L)	0.78	0.76	0.79	0.83	0.76	0.73
8	Fe (mg/L)	0.6	0.5	0.5	0.8	0.5	0.8
9	HCO3 (mg/L)	191	253	346	235	293	290
10	K (mg/L)	3.5	5.8	2.5	3.7	3.9	3.3
11	Mg (mg/L)	25.1	25.0	30.0	29.0	30.0	24.8
12	Na (mg/L)	63.0	107.3	84.7	77.6	70.1	72.6
13	NH3-N (mg N/L)	0.00	0.01	0.05	0.00	0.12	0.00
14	NO2+NO3 (mg N/L)	8.73	18.80	8.10	9.66	1.47	1.51
15	NO2-N (mgN/L)	1.16	0.05	0.01	0.01	0.02	0.02
16	NO3-N (mgN/L)	7.57	18.75	8.09	9.65	1.45	1.49
17	o-PO4-P (mg P/L)	0.104	0.050	0.100	0.090	0.000	0.000
18	SiO2 (mg/L)	18.3	44.1	36.1	8.5	7.0	8.2
19	SO4 (mg/L)	55.0	83.1	92.0	65.6	65.6	80.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.9	2.1	1.2	0.5	1.0	1.2
2	COD (mg/L)				1.8	1.8	5.5
3	DO (mg/L)	6.9	6.4	4.1	5.5	5.7	5.9
4	DO_SAT% (%)	80	75	49	63	67	68
5	FCol-MPN (MPN/100mL)			1700	390	490	2200
6	Tcol-MPN (MPN/100mL)			3500	470	1700	2800
	TRACE & TOXIC						
1	Cd (µg/L)	0.6	0.0	0.0	1.2	0.0	0.0
2	Cr (µg/L)	3.6	2.7	5.3	1.5	1.3	1.1
3	Cu (µg/L)	0.7	2.4	1.9	3.7	2.7	2.2
4	Hg (µg/L)						
5	Ni (µg/L)	4.9	3.1	1.8	11.4	9.9	5.7
6	Pb (µg/L)	31.0	12.0	6.0	34.0	24.0	12.0
7	Zn (µg/L)	7.3	6.0	16.3	2.8	0.9	0.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	135	138	153	150	146	164
2	HAR_Total (mgCaCO3/L)	240	242	278	271	271	267
3	Na% (%)	36	49	40	38	36	37
4	RSC (-)	0.0	0.0	0.2	0.0	0.0	0.0
5	SAR (-)	1.8	3.0	2.2	2.1	1.9	1.9
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.137	4.655	4.813	2.694	2.629	27.51
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Brown
3	EC_GEN (µmho/cm)	921	839	940	1082	1170	1075
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.1	8.1	8.1	8.4	8.7	7.7
6	TDS (mg/L)	642	692	601	915	715	801
7	Temp (deg C)	23.5	23.0	23.5	22.5	22.5	21.5
8	Turb (NTU)	2.0	16.0	8.1	1.0	19.8	9.4
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	22.8	16.8	0.0
2	ALK-TOT (mgCaCO3/L)	290	263	263	220	155	261
3	B (mg/L)	0.31	0.24	0.25	0.24	0.26	0.27
4	Ca (mg/L)	64	66	67	88	72	56
5	Cl (mg/L)	132.0	99.4	118.8	179.0	295.0	225.7
6	CO3 (mg/L)	0.0	0.0	0.0	27.5	20.3	0.0
7	F (mg/L)	1.06	1.04	1.07	1.35	1.20	1.18
8	Fe (mg/L)	0.2	0.2	0.1	0.4	0.5	0.3
9	HCO3 (mg/L)	354	321	320	213	148	318
10	K (mg/L)	2.5	2.8	1.8	3.5	3.5	2.3
11	Mg (mg/L)	25.7	32.7	32.3	37.0	47.7	18.9
12	Na (mg/L)	98.4	69.0	68.6	84.5	76.5	130.0
13	NH3-N (mg N/L)	0.04	0.00	0.00	0.05	0.03	0.05
14	NO2+NO3 (mg N/L)	2.68	1.65	1.63	2.26	2.19	2.11
15	NO2-N (mgN/L)	0.13	0.01	0.03	0.03	0.03	0.02
16	NO3-N (mgN/L)	2.55	1.64	1.60	2.23	2.16	2.09
17	o-PO4-P (mg P/L)	0.600	0.100	0.100	0.900	0.700	0.700
18	SiO2 (mg/L)	4.1	3.3	8.5	20.8	10.1	17.6
19	SO4 (mg/L)	84.2	62.8	73.8	8.4	8.4	8.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.3	0.9	0.6	2.5	2.1	2.6
2	COD (mg/L)	1.9	3.8	1.9			
3	DO (mg/L)	6.1	4.8	5.1	5.4	4.4	4.6
4	DO_SAT% (%)	71	56	60	62	50	52
5	FCol-MPN (MPN/100mL)	790	790	2200	790	790	1400
6	Tcol-MPN (MPN/100mL)	790	1400	2800	1400	1300	1700
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	3.6	0.7	0.2	0.0
2	Cr (µg/L)	2.5	2.3	1.2	1.8	2.6	5.5
3	Cu (µg/L)	3.6	2.2	0.7	1.9	1.2	4.8
4	Hg (µg/L)						
5	Ni (µg/L)	6.4	2.3	3.0	7.4	4.9	6.6
6	Pb (µg/L)	28.0	22.0	14.0	31.0	34.0	46.0
7	Zn (µg/L)	0.0	9.3	0.0	4.4	32.3	13.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	160	164	167	220	179	140
2	HAR_Total (mgCaCO3/L)	267	300	301	374	378	219
3	Na% (%)	44	33	33	33	30	56
4	RSC (-)	0.5	0.0	0.0	0.0	0.0	0.9
5	SAR (-)	2.6	1.7	1.7	1.9	1.7	3.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	4.659	4.409	8.670	5.266	3.787	3.760
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	924	896	834	782	996	936
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.9	8.4	8.4	8.5	8.2	8.1
6	TDS (mg/L)	701	627	601	458	760	701
7	Temp (deg C)	23.0	25.0	25.5	22.0	22.0	23.0
8	Turb (NTU)	8.0	23.1	1.4	1.0	3.9	3.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	28.9	28.1	28.1	18.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	246	251	256	219	252	228
3	B (mg/L)	0.09	0.12	0.10	0.00	0.11	0.03
4	Ca (mg/L)	55	49	37	49	58	64
5	Cl (mg/L)	100.7	143.0	93.4	92.0	131.1	109.4
6	CO3 (mg/L)	34.8	33.8	33.8	21.7	0.0	0.0
7	F (mg/L)	0.84	0.80	0.76	0.67	0.65	0.65
8	Fe (mg/L)	0.4	0.2	0.3	0.2	0.1	0.3
9	HCO3 (mg/L)	229	238	243	223	308	278
10	K (mg/L)	2.6	3.4	3.7	3.2	3.7	4.1
11	Mg (mg/L)	21.6	42.0	41.3	34.0	42.7	41.5
12	Na (mg/L)	77.0	76.9	116.0	70.0	92.3	102.1
13	NH3-N (mg N/L)	0.04	0.05	0.06	0.03	0.08	0.20
14	NO2+NO3 (mg N/L)	2.28	2.38	2.53	2.85	1.70	1.68
15	NO2-N (mgN/L)	0.00	0.01	0.02	0.05	0.04	0.02
16	NO3-N (mgN/L)	2.28	2.37	2.51	2.80	1.66	1.66
17	o-PO4-P (mg P/L)	0.900	0.500	0.500	0.500	0.700	0.500
18	SiO2 (mg/L)	11.3	13.6	14.7	16.7	23.9	22.2
19	SO4 (mg/L)	81.1	89.0	77.0	149.0	93.7	120.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.0	1.3	1.6	1.1	0.7	2.7
2	COD (mg/L)				3.8	1.9	5.7
3	DO (mg/L)	3.7	4.3	4.3	5.6	2.1	5.4
4	DO_SAT% (%)	43	52	52	64	24	63
5	FCol-MPN (MPN/100mL)	1100	1700	1400	1100	1700	1400
6	Tcol-MPN (MPN/100mL)	1400	2800	1700	1700	2800	1700
	TRACE & TOXIC						
1	Cd (µg/L)	0.2	1.4	0.3	0.0	2.7	2.0
2	Cr (µg/L)	6.7	7.3	5.9	6.6	2.6	1.7
3	Cu (µg/L)	1.6	1.0	2.2	1.3	3.5	3.1
4	Hg (µg/L)						
5	Ni (µg/L)	4.3	3.0	3.2	1.9	6.8	0.0
6	Pb (µg/L)	14.0	19.0	0.0	14.0	18.0	4.0
7	Zn (µg/L)	4.3	20.9	3.5	3.3	11.6	32.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	137	123	94	123	145	161
2	HAR_Total (mgCaCO3/L)	227	298	266	264	323	334
3	Na% (%)	42	36	48	36	38	40
4	RSC (-)	0.4	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.2	1.9	3.1	1.9	2.2	2.4
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	533.5	1.010	30.42
2	EC_GEN (µmho/cm)	36	1189	530	875
3	pH_GEN (pH units)	36	8.9	7.4	8.2
4	TDS (mg/L)	36	915	335	594
5	Temp (deg C)	36	25.5	21.5	23.1
6	Turb (NTU)	36	23.1	0.7	5.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	34.0	0.0	9.7
2	ALK-TOT (mgCaCO3/L)	36	290	84	213
3	B (mg/L)	35	1.36	0.00	0.29
4	Ca (mg/L)	36	88	29	52
5	Cl (mg/L)	36	295.0	62.6	113.4
6	CO3 (mg/L)	36	41.0	0.0	11.6
7	F (mg/L)	36	1.35	0.65	0.89
8	Fe (mg/L)	36	4.8	0.0	0.5
9	HCO3 (mg/L)	36	354	69	236
10	K (mg/L)	36	19.8	1.3	3.7
11	Mg (mg/L)	36	47.7	10.1	30.6
12	Na (mg/L)	36	135.0	41.5	76.9
13	NH3-N (mg N/L)	35	1.46	0.00	0.16
14	NO2+NO3 (mg N/L)	36	18.80	1.47	4.48
15	NO2-N (mgN/L)	36	1.16	0.00	0.09
16	NO3-N (mgN/L)	36	18.75	1.45	4.4
17	o-PO4-P (mg P/L)	36	0.900	0.000	0.341
18	SiO2 (mg/L)	36	67.0	3.3	17
19	SO4 (mg/L)	36	149.0	8.4	67.6
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	4.5	0.3	1.7
2	COD (mg/L)	24	24.1	1.8	8.2
3	DO (mg/L)	36	6.9	0.6	4.7
4	DO_SAT% (%)	36	80	7	54
5	FCol-MPN (MPN/100mL)	16	2200	390	1246
6	Tcol-MPN (MPN/100mL)	16	3500	470	1873
	TRACE & TOXIC				
1	Cd (µg/L)	36	3.6	0.0	0.6
2	Cr (µg/L)	36	7.3	0.0	2.3
3	Cu (µg/L)	36	8.5	0.0	2.6
4	Hg (µg/L)	10	0.3	0.0	0.1
5	Ni (µg/L)	36	11.4	0.0	4.4
6	Pb (µg/L)	36	47.0	0.0	20.3
7	Zn (µg/L)	36	47.4	0.0	8.8
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	220	73	130
2	HAR_Total (mgCaCO3/L)	36	378	157	257
3	Na% (%)	36	56	29	39
4	RSC (-)	36	0.9	0.0	0.1
5	SAR (-)	36	3.8	1.3	2.1
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						
		Jun - Oct						
		2008	2009	2010	2011	2012	2013	2014
	PHYSICAL							
1	Q (cumec)							4.926
2	EC_FLD (µmho/cm)			958				
3	EC_GEN (µmho/cm)	775	821	793	750	969	797	910
4	pH_FLD (pH units)			7.7				
5	pH_GEN (pH units)	7.8	7.5	7.8	7.7	7.6	7.9	8.0
6	TDS (mg/L)				493	643	438	565
7	Temp (deg C)	27.2	27.7	31.5	28.5	29.7	30.0	27.3
8	Turb (NTU)				1.0	0.8	1.4	3.3
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	1.6	0.0	0.0	0.0	1.0
2	ALK-TOT (mgCaCO3/L)	255	250	241	224	254	234	254
3	B (mg/L)	0.00	0.00	0.00	0.00	0.21	0.41	0.21
4	Ca (mg/L)	60	54	54	45	53	53	51
5	Cl (mg/L)	65.8	71.2	72.6	72.6	106.8	72.1	85.8
6	CO3 (mg/L)	0.0	0.0	1.9	0.0	0.0	0.0	1.3
7	F (mg/L)	1.03	1.79	1.12	1.41	1.22	0.92	1.12
8	Fe (mg/L)	0.0	0.0	0.0		0.1	0.0	0.1
9	HCO3 (mg/L)	312	306	290	273	310	286	307
10	K (mg/L)	3.5	4.5	3.7	3.2	4.7	3.2	4.8
11	Mg (mg/L)	22.3	25.3	29.7	25.3	30.3	30.6	29.5
12	Na (mg/L)	62.7	68.5	64.3	64.0	82.6	69.0	88.9
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.01	0.09	0.00
14	NO2+NO3 (mg N/L)	0.01	0.87	0.00	0.33	0.82	1.20	1.15
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.01	0.87	0.00	0.33	0.82	1.20	1.14
17	o-PO4-P (mg P/L)				0.411	0.099	0.210	0.164
18	P-Tot (mgP/L)	0.001	0.000	0.353	0.411			0.155
19	SiO2 (mg/L)	32.9	35.0	22.4	19.3	28.3	13.1	24.4
20	SO4 (mg/L)	45.4	65.9	62.7	53.9	61.1	59.5	84.5
	BIOLOGICAL/BACTERIOLOGICAL							
1	BOD3-27 (mg/L)	1.1	1.6	1.4	1.0	1.1	1.6	0.9
2	COD (mg/L)	22.9	30.0	31.2	26.0	14.3	6.2	18.1
3	DO (mg/L)	5.0	3.7	4.7	4.5	4.4	5.4	4.4
4	DO_SAT% (%)	63	37	46	54	58	72	55
5	FCol-MPN (MPN/100mL)		11467	11660	10646	3552	2150	4658
6	Tcol-MPN (MPN/100mL)		13667	13140	11446	4020	9500	6335
7	TOC (mg/L)				3.2	3.3		
	TRACE & TOXIC							
1	As (µg/L)					8.3		
2	Cd (µg/L)					0.9		
3	Cr (µg/L)					59.2		
4	Cu (µg/L)							
5	Hg (µg/L)							
6	Ni (µg/L)					9.5		
7	Pb (µg/L)					5.8		
8	Zn (µg/L)					12.4		
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	151	134	135	112	131	131	127
2	HAR_Total (mgCaCO3/L)	244	239	259	217	258	259	250
3	Na% (%)	36	38	35	39	41	36	43
4	RSC (-)	0.3	0.5	0.1	0.4	0.8	0.0	0.3
5	SAR (-)	1.8	1.9	1.7	1.9	2.4	1.9	2.5
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood							
		Jun - Oct							
		2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL								
1	Q (cumec)	3.011	2.542	4.205	4.111	9.604	40.67	43.56	62.04
2	EC_FLD (µmho/cm)			1755	748		375		
3	EC_GEN (µmho/cm)	880	1038	1023	1420	986	645	822	800
4	pH_FLD (pH units)		7.6	7.3	7.4		6.9		
5	pH_GEN (pH units)	7.8	7.9	7.9	7.7	7.5	7.7	8.0	8.1
6	TDS (mg/L)	566	896	694	798	676	409	591	519
7	Temp (deg C)	29.3	26.8	24.1	24.4	22.9	22.5	20.3	23.2
8	Turb (NTU)	1.4	0.0	8.8	5.0	20.8	13.5	4.4	4.5
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	8.8	0.0	0.0	0.0	1.1	10.3
2	ALK-TOT (mgCaCO3/L)	236	196	238	259	258	210	221	186
3	B (mg/L)	0.27		0.00	0.06	0.15	0.23	0.13	0.42
4	Ca (mg/L)	51	67	62	61	70	33	54	44
5	Cl (mg/L)	100.6	165.2	140.8	181.3	135.1	70.9	103.8	99.0
6	CO3 (mg/L)	0.0	0.0	10.6	0.0	0.0	0.0	1.3	12.4
7	F (mg/L)	1.09	0.71	1.06	1.02	1.16	0.42	1.12	0.89
8	Fe (mg/L)	0.0	0.1	0.4	0.1	0.5	0.0	0.3	0.7
9	HCO3 (mg/L)	288	239	269	316	315	256	267	201
10	K (mg/L)	4.4	4.6	0.5	0.5	0.9	0.4	4.7	4.3
11	Mg (mg/L)	29.7	36.8	45.4	49.9	42.7	52.1	26.1	28.2
12	Na (mg/L)	93.0	82.1	99.6	106.8	88.7	52.1	76.4	70.4
13	NH3-N (mg N/L)	0.00	0.00	0.06	0.43	0.13	0.06		0.29
14	NO2+NO3 (mg N/L)	0.84	1.77	6.29	1.26	3.18			4.19
15	NO2-N (mgN/L)	0.00	0.00	0.07	0.07	0.27	0.07	0.03	0.10
16	NO3-N (mgN/L)	0.84	1.77	6.22	1.19	2.91		4.12	4.09
17	o-PO4-P (mg P/L)	0.102	0.207	0.770	0.562	0.390	0.080	0.340	0.303
18	P-Tot (mgP/L)							0.475	
19	SiO2 (mg/L)	24.5	14.8	18.8	37.0	29.0	16.3		18.1
20	SO4 (mg/L)	81.3	78.9	95.4	78.4	97.3	60.4	53.6	62.5
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	0.6	1.4	1.0	1.2	1.4	1.1	1.6	2.0
2	COD (mg/L)	12.6	16.2	17.9	24.4	16.8	15.6	20.1	10.9
3	DO (mg/L)	2.7	5.4	5.2	4.5	4.9	5.6	5.8	4.2
4	DO_SAT% (%)	36	67	62	54	52	64	65	49
5	FCol-MPN (MPN/100mL)	591	2615	6860	350	956	900	221	
6	Tcol-MPN (MPN/100mL)	6340	3150	6804	4028	7232	9400	596	
7	TOC (mg/L)	32.3							
	TRACE & TOXIC								
1	As (µg/L)					2.3		2.4	
2	Cd (µg/L)					0.4		0.7	0.5
3	Cr (µg/L)					4.1		2.6	1.2
4	Cu (µg/L)			0.4	7.6	8.8	0.0	2.7	3.1
5	Hg (µg/L)							0.3	0.1
6	Ni (µg/L)					4.6		4.2	3.9
7	Pb (µg/L)					0.4		11.1	19.2
8	Zn (µg/L)			55.1	12.6	32.2	0.0	11.6	9.4
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	129	168	155	152	174	83	136	111
2	HAR_Total (mgCaCO3/L)	253	322	345	360	352	300	245	228
3	Na% (%)	44	35	39	34	34	29	39	39
4	RSC (-)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
5	SAR (-)	2.6	2.0	2.3	2.4	2.1	1.4	2.1	2.0
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
	PHYSICAL						
1	Q (cumec)						
2	EC_FLD (µmho/cm)			904			
3	EC_GEN (µmho/cm)	920	771	751	749	979	752
4	pH_FLD (pH units)			7.9			
5	pH_GEN (pH units)	7.8	7.8	7.9	7.7	7.5	7.9
6	TDS (mg/L)				473	557	434
7	Temp (deg C)	24.8	27.0	26.5	29.4	25.1	26.0
8	Turb (NTU)				1.0	1.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	283	237	227	253	283	237
3	B (mg/L)	0.00	0.00	0.00	0.19	0.19	0.12
4	Ca (mg/L)	80	57	49	53	63	54
5	Cl (mg/L)	80.7	66.2	62.0	71.0	105.0	68.7
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.96	1.18	0.84	1.10	1.38	0.92
8	Fe (mg/L)	0.0	0.0	0.0	0.2	0.0	0.1
9	HCO3 (mg/L)	345	289	278	308	345	289
10	K (mg/L)	3.2	2.8	3.0	2.6	2.4	3.0
11	Mg (mg/L)	24.6	27.4	27.9	30.6	36.8	31.2
12	Na (mg/L)	81.7	68.1	62.4	65.3	90.8	61.4
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.02	0.17	0.03
14	NO2+NO3 (mg N/L)	0.01	1.02	0.00	0.92	1.39	1.21
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00
16	NO3-N (mgN/L)	0.01	1.02	0.00	0.92	1.39	1.21
17	o-PO4-P (mg P/L)				0.211	0.159	0.143
18	P-Tot (mgP/L)	0.001	0.000	0.128	0.211		
19	SiO2 (mg/L)	18.2	29.6	19.8	30.9	26.3	16.6
20	SO4 (mg/L)	101.7	63.9	59.3	64.1	54.4	47.0
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.9	1.2	0.8	0.8	0.9	1.7
2	COD (mg/L)	12.6	20.4	21.3	9.7	15.2	6.6
3	DO (mg/L)	6.0	5.3	6.5	5.1	3.5	5.6
4	DO_SAT% (%)	72	67	81	67	42	68
5	FCol-MPN (MPN/100mL)		7825	3815	5000	403	840
6	Tcol-MPN (MPN/100mL)		10675	10333	6050	4283	3000
7	TOC (mg/L)				2.5	2.7	
	TRACE & TOXIC						
1	As (µg/L)						
2	Cd (µg/L)						
3	Cr (µg/L)						
4	Cu (µg/L)						
5	Hg (µg/L)						
6	Ni (µg/L)						
7	Pb (µg/L)						
8	Zn (µg/L)						
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	200	142	122	133	157	134
2	HAR_Total (mgCaCO3/L)	302	257	239	260	310	264
3	Na% (%)	36	37	36	35	39	33
4	RSC (-)	0.2	0.1	0.0	0.2	0.0	0.0
5	SAR (-)	2.0	1.9	1.8	1.8	2.2	1.7
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
	PHYSICAL						
1	Q (cumec)	6.613		0.780	1.316	2.342	6.751
2	EC_FLD (µmho/cm)			1720	1363	668	
3	EC_GEN (µmho/cm)	590		1770	1051	1470	1020
4	pH_FLD (pH units)			7.5	7.3	7.3	
5	pH_GEN (pH units)	8.0		7.5	7.6	7.8	7.5
6	TDS (mg/L)	442		1185	645	813	677
7	Temp (deg C)	25.8		25.2	24.9	23.5	22.3
8	Turb (NTU)	1.1		0.0	3.0	0.7	36.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0		0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	231		293	254	294	314
3	B (mg/L)	0.22			0.05	0.09	0.69
4	Ca (mg/L)	51		94	62	56	51
5	Cl (mg/L)	59.8		253.3	140.7	166.3	130.8
6	CO3 (mg/L)	0.0		0.0	0.0	0.0	0.0
7	F (mg/L)	0.81		1.15	1.13	0.66	1.02
8	Fe (mg/L)	0.1		0.1	0.1	0.1	0.4
9	HCO3 (mg/L)	282		358	310	359	383
10	K (mg/L)	2.5		4.7	0.5	0.4	0.3
11	Mg (mg/L)	31.3		51.4	32.0	49.4	58.8
12	Na (mg/L)	62.5		185.0	100.7	117.6	98.2
13	NH3-N (mg N/L)	0.04		0.11	1.14	0.20	0.02
14	NO2+NO3 (mg N/L)	0.76		0.21	4.31	1.51	6.51
15	NO2-N (mgN/L)	0.02		0.12	0.02	0.07	0.04
16	NO3-N (mgN/L)	0.74		0.08	4.29	1.44	6.47
17	o-PO4-P (mg P/L)	0.119		0.134	0.375	0.295	0.133
18	P-Tot (mgP/L)						
19	SiO2 (mg/L)	19.2		24.1	26.2	17.8	29.1
20	SO4 (mg/L)	59.7		223.9	101.2	130.1	73.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	0.8		11.0	1.1	1.5	1.1
2	COD (mg/L)	7.9		37.2	11.1	12.6	29.5
3	DO (mg/L)	6.0		1.6	5.6	5.6	4.1
4	DO_SAT% (%)	74		19	67	66	47
5	FCol-MPN (MPN/100mL)	713		8000	6918	1280	1500
6	Tcol-MPN (MPN/100mL)	1510		8000	6900	8123	4875
7	TOC (mg/L)	35.5					
	TRACE & TOXIC						
1	As (µg/L)						7.2
2	Cd (µg/L)	1.3					0.1
3	Cr (µg/L)	1.4					6.9
4	Cu (µg/L)	1.6		0.0	3.5	7.5	4.3
5	Hg (µg/L)						
6	Ni (µg/L)	3.7					19.4
7	Pb (µg/L)	6.9					1.3
8	Zn (µg/L)	4.8		0.0	52.4	24.6	117.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	126		235	154	139	128
2	HAR_Total (mgCaCO3/L)	257		450	287	345	372
3	Na% (%)	34		48	43	42	36
4	RSC (-)	0.1		0.1	0.1	0.0	0.0
5	SAR (-)	1.7		3.9	2.6	2.8	2.2
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter			Summer				
		Nov - Feb			Mar - May				
		2020-2021	2021-2022	2022-2023	2009	2010	2011	2012	2013
	PHYSICAL								
1	Q (cumec)	6.083	8.373	7.309					
2	EC_FLD (µmho/cm)	723				937			
3	EC_GEN (µmho/cm)	713	759	901	901	757	787	925	1140
4	pH_FLD (pH units)	6.9				7.6			
5	pH_GEN (pH units)	7.8	8.0	8.1	7.4	7.9	7.7	7.4	7.8
6	TDS (mg/L)	450	600	610				588	638
7	Temp (deg C)	21.9	22.7	22.9	26.3	24.0		29.5	26.0
8	Turb (NTU)	11.2	5.9	5.5				1.0	0.5
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.8	4.2	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	251	247	233	296	267	232	272	293
3	B (mg/L)	0.38	0.27	0.25	0.00	0.00	0.00	0.05	0.32
4	Ca (mg/L)	49	60	56	64	50	47	44	78
5	Cl (mg/L)	103.6	93.5	102.3	66.2	62.7	71.1	70.3	149.5
6	CO3 (mg/L)	0.0	1.0	5.1	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.82	1.00	0.88	0.83	1.98	1.05	0.87	0.82
8	Fe (mg/L)	0.4	0.2	0.4	0.0	0.0	0.0	0.1	0.2
9	HCO3 (mg/L)	306	300	274	361	325	283	331	357
10	K (mg/L)	0.5	3.7	3.1	2.4	2.5	2.1	4.8	1.4
11	Mg (mg/L)	33.4	29.8	29.2	21.4	25.9	26.5	25.3	45.7
12	Na (mg/L)	96.1	77.4	73.9	71.5	64.6	71.1	75.0	102.8
13	NH3-N (mg N/L)	0.15	0.10	0.09	0.05	0.00	0.00	0.04	0.00
14	NO2+NO3 (mg N/L)	5.67		6.55	0.01	0.00	0.00	1.12	1.18
15	NO2-N (mgN/L)	0.22	0.01	0.13	0.00	0.00	0.00	0.01	0.00
16	NO3-N (mgN/L)	5.25		6.42	0.01	0.00	0.00	1.11	1.18
17	o-PO4-P (mg P/L)	0.305	0.722	0.152				0.192	0.158
18	P-Tot (mgP/L)		1.207		0.001	0.000	0.178	0.192	
19	SiO2 (mg/L)	23.3	22.8	15.8	30.2	23.0	17.2	33.2	22.0
20	SO4 (mg/L)	85.6	70.3	71.7	54.9	54.1	53.8	69.2	48.0
	BIOLOGICAL/BACTERIOLOGICA								
1	BOD3-27 (mg/L)	11.1	1.3	1.2	0.7	2.1	0.8	0.7	1.0
2	COD (mg/L)	17.1		6.1	8.0	17.5	24.3	7.2	13.0
3	DO (mg/L)	4.5	6.1	5.4	3.0	5.9	5.2	4.7	4.9
4	DO_SAT% (%)	51	70	63	37	63		62	60
5	FCol-MPN (MPN/100mL)	3463	747	1223		11467	12500	1940	800
6	Tcol-MPN (MPN/100mL)	8000	1094	1923		11467	16000	6140	1700
7	TOC (mg/L)							2.6	3.3
	TRACE & TOXIC								
1	As (µg/L)	1.5				1.7		0.9	6.3
2	Cd (µg/L)	1.9	1.0	0.6	2.1	0.0	1.0	0.2	0.1
3	Cr (µg/L)	5.2	1.8	2.1	2.1	0.0	0.0	0.0	1.4
4	Cu (µg/L)	1.7	1.5	2.3					
5	Hg (µg/L)	0.4	0.1					0.6	2.3
6	Ni (µg/L)	6.1	2.8	5.1	1.2	0.0	4.4	3.2	7.2
7	Pb (µg/L)	42.8	10.4	22.0	29.0	0.0	34.7	14.1	0.4
8	Zn (µg/L)	9.9	5.8	4.2	34.4	8.0	49.0	22.8	0.3
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	122	149	141	159	124	116	110	194
2	HAR_Total (mgCaCO3/L)	261	273	263	248	232	227	215	385
3	Na% (%)	44	38	37	39	38	41	43	37
4	RSC (-)	0.1	0.0	0.1	1.0	0.8	0.3	1.2	0.0
5	SAR (-)	2.7	2.0	2.0	2.0	1.9	2.1	2.3	2.3
	PESTICIDES								
1	Aldrin (µg/L)				0.0	0.0	0.0	0.0	
2	BHC (µg/L)				0.1	0.3	0.0	0.0	
3	DDT (µg/L)				0.1	0.0	0.0	0.0	
4	Dieldrin (µg/L)				0.0	0.0	0.0	0.0	
5	Endos (µg/L)				0.1	0.1	0.0	0.1	

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer								
		Mar - May								
		2014	2015		2018	2019	2020	2021	2022	2023
	PHYSICAL									
1	Q (cumec)	2.626	3.652		2.418	1.216	5.059	6.163	4.779	7.043
2	EC_FLD (µmho/cm)					732		723		
3	EC_GEN (µmho/cm)	811	760		1026	996	1226	997	718	966
4	pH_FLD (pH units)				7.8	7.4		6.9		
5	pH_GEN (pH units)	7.7	7.9		7.7	7.5	7.6	8.0	8.3	8.4
6	TDS (mg/L)	557	475		726	544	714	630	520	698
7	Temp (deg C)	28.3	25.7		23.7	23.5	21.0	20.3	23.2	23.0
8	Turb (NTU)	3.7	1.7		6.0	1.0	14.0	13.5	3.8	7.9
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	0.0	0.0		0.0	0.0	0.0	0.0	14.7	15.9
2	ALK-TOT (mgCaCO3/L)	248	208		317	294	339	240	229	232
3	B (mg/L)	0.17	0.16		0.06	0.06	0.57	0.61	0.24	0.14
4	Ca (mg/L)	47	43		72	45	35	48	50	59
5	Cl (mg/L)	70.3	63.7		136.5	95.1	157.0	133.1	109.3	152.1
6	CO3 (mg/L)	0.0	0.0		0.0	0.0	0.0	0.0	17.7	19.1
7	F (mg/L)	0.96	0.85		1.25	0.96	1.34	1.31	1.10	0.90
8	Fe (mg/L)	0.8	0.0		0.1	0.1	0.1	0.7	0.4	0.3
9	HCO3 (mg/L)	302	254		387	359	413	293	243	244
10	K (mg/L)	2.7	2.8		0.6	0.4	0.2	5.1	3.5	3.4
11	Mg (mg/L)	27.4	24.7		45.9	44.9	71.0	31.4	37.3	36.3
12	Na (mg/L)	65.5	69.5		132.6	103.4	119.5	105.8	78.8	91.7
13	NH3-N (mg N/L)	0.03	0.00		0.14	0.17	0.00	0.16	0.16	0.06
14	NO2+NO3 (mg N/L)	2.25	0.57		4.86	0.86	5.05	3.86		2.22
15	NO2-N (mgN/L)	0.00	0.03		0.02	0.03	0.05	0.36	0.07	0.02
16	NO3-N (mgN/L)	2.25	0.54		4.84	0.83	5.00	4.12		2.20
17	o-PO4-P (mg P/L)	0.053	0.100		0.464	0.203	0.150	0.434	0.178	0.656
18	P-Tot (mgP/L)									
19	SiO2 (mg/L)	19.7	30.0		10.8	28.0	33.9	17.7	28.3	16.8
20	SO4 (mg/L)	60.7	67.8		100.1	105.8	151.0	52.1	68.9	70.7
	BIOLOGICAL/BACTERIOLOGICA									
1	BOD3-27 (mg/L)	0.9	0.7		1.2	1.3	3.0	2.2	1.2	1.7
2	COD (mg/L)	6.1	7.7		23.0	8.1	18.2	16.5	5.7	3.8
3	DO (mg/L)	4.6	3.6		5.0	6.7	8.1	6.0	4.6	4.4
4	DO_SAT% (%)	60	45		59	78	91	66	53	51
5	FCol-MPN (MPN/100mL)	270	21		223	1377	260	280		1264
6	Tcol-MPN (MPN/100mL)	503	953		697	5910	3500	920		1833
7	TOC (mg/L)		26.5							
	TRACE & TOXIC									
1	As (µg/L)	0.6	0.0			2.3		3.8		
2	Cd (µg/L)	0.0	2.0			2.3		1.7	0.9	0.8
3	Cr (µg/L)	0.1	0.0			2.4		7.5	1.8	4.5
4	Cu (µg/L)				1.0	13.7	0.0	7.2	1.7	2.3
5	Hg (µg/L)	0.2	0.1			0.3		2.8	0.8	
6	Ni (µg/L)	1.2	9.9			11.4		11.0	0.5	4.2
7	Pb (µg/L)	0.1	15.0			32.0		28.5	11.6	20.0
8	Zn (µg/L)	40.0	11.0		10.1	18.9	12.0	8.4	1.9	14.1
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	118	107		181	112	88	121	125	147
2	HAR_Total (mgCaCO3/L)	232	210		372	300	383	252	280	298
3	Na% (%)	38	42		43	43	41	47	38	40
4	RSC (-)	0.4	0.1		0.0	0.3	0.0	0.0	0.0	0.1
5	SAR (-)	1.9	2.1		3.0	2.6	2.7	2.9	2.1	2.4
	PESTICIDES									
1	Aldrin (µg/L)									
2	BHC (µg/L)									
3	DDT (µg/L)									
4	Dieldrin (µg/L)									
5	Endos (µg/L)									

Sample not submitted for analysis in summer 2016 and 2017 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**MUNUGODU**	**Code**	:	**033-LKDHYD**
State	:	Andhra Pradesh	District		Guntur
Basin	:	Krishna	Independent River	:	Krishna
Tributary	:	Lower Krishna	Sub Tributary	:	
Sub-Sub Tributary	:		Local River	:	YEDDUVAGU
Division	:	Lower Krishna Divn., Hyderabad	Sub-Division	:	Lower Krishna SD2, Vijayawada
Drainage Area	:	647.8 Sq. Km.	Bank	:	Left
Latitude	:	16°54'26"	Longitude	:	80°12'23"
		Opening Date	Closing Date		
Gauge	:	24-10-2016			
Discharge	:	24-10-2016			
Water Quality	:	01-06-2019			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1.152	0.512	0.486	4.524	6.858	2.424
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1629	1097	1147	824	928	1226
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.3	8.3	8.5	8.1	8.0	8.1
6	TDS (mg/L)	1005	701	837	600	782	818
7	Temp (deg C)	27.0	24.0	24.0	24.0	26.0	26.0
8	Turb (NTU)	7.0	7.0	10.0	6.0	11.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	22.1	27.4	36.2	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	314	247	287	193	170	204
3	B (mg/L)	0.13	0.00		1.07	1.10	1.25
4	Ca (mg/L)	63	47	48	47	49	46
5	Cl (mg/L)	232.2	142.9	158.6	102.3	135.5	251.0
6	CO3 (mg/L)	26.6	33.0	43.6	0.0	0.0	0.0
7	F (mg/L)	1.29	0.96	1.04	0.91	0.89	1.34
8	Fe (mg/L)	0.1	0.1	0.5	0.7	0.0	0.1
9	HCO3 (mg/L)	330	235	261	236	207	249
10	K (mg/L)	12.5	40.0	13.9	6.9	7.4	5.0
11	Mg (mg/L)	33.0	30.0	29.5	20.0	19.3	34.0
12	Na (mg/L)	164.0	175.1	170.8	124.0	110.0	101.8
13	NH3-N (mg N/L)	0.08	0.15		0.20	2.89	0.08
14	NO2+NO3 (mg N/L)	8.35	3.58	8.31	3.80	3.71	11.79
15	NO2-N (mgN/L)	0.10	0.01	0.02	0.03	0.01	0.02
16	NO3-N (mgN/L)	8.25	3.57	8.29	3.77	3.70	11.77
17	o-PO4-P (mg P/L)	0.240	0.280	0.610	0.470	0.390	0.390
18	SiO2 (mg/L)	4.0	31.5	13.3	9.4	8.7	8.1
19	SO4 (mg/L)	120.6	95.8	86.0	8.7	80.4	80.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	0.7	2.5	1.2	0.7	0.6	0.6
2	COD (mg/L)				3.8	3.9	3.9
3	DO (mg/L)	3.5	2.7	3.4	4.4	5.3	5.3
4	DO_SAT% (%)	44	32	40	52	65	65
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.1	1.6	0.0	1.2	0.0
2	Cr (µg/L)	0.3	3.8	9.5	0.4	4.8	3.0
3	Cu (µg/L)	13.2	4.3	0.6	4.7	0.0	0.0
4	Hg (µg/L)	0.0	0.2	0.0	0.0	0.0	0.0
5	Ni (µg/L)	7.2	0.0	0.0	5.2	3.5	5.6
6	Pb (µg/L)	13.0	0.0	0.0	1.0	0.0	37.0
7	Zn (µg/L)	13.5	2.3	19.4	7.9	0.0	22.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	158	118	120	118	123	115
2	HAR_Total (mgCaCO3/L)	295	243	243	201	203	257
3	Na% (%)	54	57	59	56	53	46
4	RSC (-)	0.4	0.1	0.9	0.0	0.0	0.0
5	SAR (-)	4.2	4.9	4.8	3.8	3.4	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	1.776	5.139	7.839	23.50	101.2	15.91
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	1455	1172	916	845	726	898
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.4	8.1	8.0	7.7	8.0	8.1
6	TDS (mg/L)	989	886	650	605	501	619
7	Temp (deg C)	24.0	26.0	26.0	26.0	26.0	25.0
8	Turb (NTU)	4.0	2.0	12.0	3.0	2.0	2.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	39.8	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	214	216	227	74	146	142
3	B (mg/L)	0.24	0.32	0.31	0.18	0.29	0.15
4	Ca (mg/L)	44	46	56	57	52	46
5	Cl (mg/L)	194.5	94.0	100.2	81.0	80.2	89.2
6	CO3 (mg/L)	48.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	1.48	1.44	0.83	0.84	0.81	0.64
8	Fe (mg/L)	0.2	3.1	0.8	0.5	0.8	0.5
9	HCO3 (mg/L)	164	263	277	90	178	173
10	K (mg/L)	5.6	8.3	2.9	2.8	2.7	2.0
11	Mg (mg/L)	32.8	31.0	16.0	16.0	21.0	23.2
12	Na (mg/L)	108.8	95.0	77.0	63.0	53.9	58.5
13	NH3-N (mg N/L)	0.42	0.25	0.01	0.04	0.51	0.06
14	NO2+NO3 (mg N/L)	11.60	12.03	6.03	6.11	6.01	7.90
15	NO2-N (mgN/L)	0.03	0.03	0.03	0.01	0.01	0.03
16	NO3-N (mgN/L)	11.57	12.00	6.00	6.10	6.00	7.87
17	o-PO4-P (mg P/L)	0.531	0.210	0.280	0.400	0.400	0.400
18	SiO2 (mg/L)	8.5	11.6	14.0	20.1	8.0	18.0
19	SO4 (mg/L)	39.0	130.0	14.0	94.0	70.0	71.4
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.0	0.6	1.1	0.5	2.2	1.1
2	COD (mg/L)	5.9	3.6	6.1	3.8	18.0	9.4
3	DO (mg/L)	4.8	5.0	5.3	4.7	5.1	5.6
4	DO_SAT% (%)	57	62	65	58	63	68
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.4	0.0	0.0	2.5	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.7	0.3
3	Cu (µg/L)	0.0	4.7	3.7	4.1	4.9	2.8
4	Hg (µg/L)	0.0	0.3	0.2	0.0		
5	Ni (µg/L)	4.6	8.5	6.2	4.5	5.4	4.7
6	Pb (µg/L)	18.0	47.0	36.0	50.0	0.0	30.0
7	Zn (µg/L)	7.9	2.9	3.6	4.8	58.8	9.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	109	115	140	143	130	115
2	HAR_Total (mgCaCO3/L)	245	244	207	209	218	212
3	Na% (%)	49	45	44	39	35	37
4	RSC (-)	0.0	0.0	0.4	0.0	0.0	0.0
5	SAR (-)	3.0	2.7	2.3	1.9	1.6	1.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	79.94	46.50	21.29	16.42	16.78	14.54
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	770	807	1262	942	946	931
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.0	8.2	7.8	8.4	8.1	8.2
6	TDS (mg/L)	437	488	762	526	819	538
7	Temp (deg C)	27.0	26.0	26.0	25.0	26.0	24.0
8	Turb (NTU)	9.0	1.0	5.0	5.0	10.0	6.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	25.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	212	276	116	214	180	235
3	B (mg/L)	0.27	0.46	1.01	0.17	0.14	0.11
4	Ca (mg/L)	46	50	51	53	53	54
5	Cl (mg/L)	83.0	82.0	164.0	97.1	98.2	98.8
6	CO3 (mg/L)	0.0	0.0	0.0	30.1	0.0	0.0
7	F (mg/L)	0.65	0.60	0.62	0.77	0.75	0.74
8	Fe (mg/L)	1.2	0.7	0.5	4.7	1.2	2.2
9	HCO3 (mg/L)	259	336	141	200	220	287
10	K (mg/L)	3.6	3.0	9.5	3.0	3.0	3.9
11	Mg (mg/L)	23.0	23.5	23.7	22.6	22.0	21.0
12	Na (mg/L)	74.8	81.4	107.6	79.3	100.1	79.6
13	NH3-N (mg N/L)	0.38	0.17	0.15	0.46	0.09	0.15
14	NO2+NO3 (mg N/L)	8.13	8.28	10.76	12.69	11.45	10.17
15	NO2-N (mgN/L)	0.03	0.21	0.07	0.02	0.06	0.05
16	NO3-N (mgN/L)	8.10	8.07	10.69	12.67	11.39	10.12
17	o-PO4-P (mg P/L)	0.709	0.517	0.378	0.353	0.080	0.202
18	SiO2 (mg/L)	14.8	7.9	14.4	16.7	16.6	14.0
19	SO4 (mg/L)	62.0	68.0	113.0	85.0	71.2	71.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.9	0.9	1.2	0.7	1.3	1.0
2	COD (mg/L)	3.8	1.9	3.8	6.1	12.1	4.0
3	DO (mg/L)	5.5	5.7	2.4	6.3	6.7	6.9
4	DO_SAT% (%)	69	70	30	76	83	82
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.3	0.0	2.4	0.7	0.3	0.7
2	Cr (µg/L)	0.7	0.0	0.0	1.3	0.5	5.8
3	Cu (µg/L)	3.7	1.7	6.7	3.2	2.7	3.0
4	Hg (µg/L)						
5	Ni (µg/L)	2.6	12.6	14.0	6.0	3.2	6.3
6	Pb (µg/L)	23.0	33.0	30.0	13.0	32.0	43.0
7	Zn (µg/L)	8.3	4.6	1.1	7.4	3.6	1.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	115	125	128	132	133	135
2	HAR_Total (mgCaCO3/L)	211	223	226	226	224	223
3	Na% (%)	43	44	50	43	49	43
4	RSC (-)	0.1	1.1	0.0	0.0	0.0	0.3
5	SAR (-)	2.2	2.4	3.1	2.3	2.9	2.3
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	16.78	72.21	14.22	9.405	10.68	11.05
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	889	836	854	861	861	920
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.2	8.2	8.3	8.3	8.0
6	TDS (mg/L)	536	672	604	492	664	609
7	Temp (deg C)	25.0	24.0	23.0	24.0	22.0	23.0
8	Turb (NTU)	5.0	8.0	2.7	21.0	18.0	19.1
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	22.4	29.1	0.0
2	ALK-TOT (mgCaCO3/L)	234	262	230	203	308	220
3	B (mg/L)	0.24	0.22	0.10	0.43	0.30	0.39
4	Ca (mg/L)	53	54	49	47	52	76
5	Cl (mg/L)	97.4	85.7	80.2	133.5	98.8	100.2
6	CO3 (mg/L)	0.0	0.0	0.0	27.0	35.0	0.0
7	F (mg/L)	0.79	0.77	0.62	0.63	0.58	0.61
8	Fe (mg/L)	0.6	2.3	0.5	1.1	0.9	0.2
9	HCO3 (mg/L)	286	320	280	193	305	269
10	K (mg/L)	3.8	1.5	2.5	5.1	5.8	3.4
11	Mg (mg/L)	20.9	21.0	30.6	32.5	31.3	20.0
12	Na (mg/L)	81.6	81.9	80.0	95.6	74.9	74.0
13	NH3-N (mg N/L)	0.00	0.08	0.00	0.00	0.00	0.00
14	NO2+NO3 (mg N/L)	10.92	9.62	12.13	12.81	2.21	2.40
15	NO2-N (mgN/L)	0.03	0.00	0.00	0.01	0.01	0.01
16	NO3-N (mgN/L)	10.89	9.62	12.13	12.80	2.20	2.39
17	o-PO4-P (mg P/L)	0.245	0.330	0.150	0.170	0.000	0.000
18	SiO2 (mg/L)	12.7	14.4	16.8	5.7	7.0	6.1
19	SO4 (mg/L)	75.0	70.0	70.0	55.6	55.6	85.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.7	1.7	0.6	0.5	0.4	0.7
2	COD (mg/L)				1.8	1.8	1.8
3	DO (mg/L)	6.4	6.2	6.9	6.3	6.6	6.7
4	DO_SAT% (%)	77	74	80	75	75	78
5	FCol-MPN (MPN/100mL)			1100	1400	1400	1400
6	Tcol-MPN (MPN/100mL)			1400	1700	2200	1700
	TRACE & TOXIC						
1	Cd (µg/L)	0.3	0.0	0.0	0.0	0.0	0.0
2	Cr (µg/L)	2.4	2.6	5.7	2.7	2.3	2.3
3	Cu (µg/L)	1.5	3.4	1.6	4.0	3.2	2.2
4	Hg (µg/L)						
5	Ni (µg/L)	7.8	2.3	0.0	12.9	12.0	7.6
6	Pb (µg/L)	29.0	0.0	1.0	18.0	21.0	12.0
7	Zn (µg/L)	16.6	9.9	156.4	5.6	0.8	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	133	136	123	118	129	190
2	HAR_Total (mgCaCO3/L)	220	223	250	253	259	273
3	Na% (%)	44	44	41	45	38	37
4	RSC (-)	0.3	0.8	0.0	0.0	1.0	0.0
5	SAR (-)	2.4	2.4	2.2	2.6	2.0	2.0
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	13.54	12.79	10.75	10.14	10.76	19.34
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_GEN (µmho/cm)	897	895	938	830	918	820
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	8.2	8.3	8.5	8.5	8.4	8.4
6	TDS (mg/L)	664	617	617	690	612	646
7	Temp (deg C)	22.0	23.0	24.0	24.0	23.0	24.0
8	Turb (NTU)	5.0	19.0	13.8	7.0	8.7	12.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	41.8	40.7	29.6	28.1	36.1
2	ALK-TOT (mgCaCO3/L)	256	205	207	233	237	355
3	B (mg/L)	0.35	0.33	0.36	0.34	0.32	0.32
4	Ca (mg/L)	77	68	68	68	73	68
5	Cl (mg/L)	107.1	109.4	103.7	132.2	104.5	148.6
6	CO3 (mg/L)	0.0	50.4	49.0	35.7	33.8	43.5
7	F (mg/L)	0.73	0.72	0.74	0.81	0.78	0.75
8	Fe (mg/L)	0.1	1.5	0.1	0.2	0.2	0.6
9	HCO3 (mg/L)	312	147	153	212	221	345
10	K (mg/L)	3.1	4.8	4.9	4.1	3.7	7.1
11	Mg (mg/L)	20.2	20.0	20.4	20.6	26.9	21.0
12	Na (mg/L)	82.0	85.0	78.4	80.9	98.0	200.0
13	NH3-N (mg N/L)	0.04	0.02	0.00	0.04	0.03	0.04
14	NO2+NO3 (mg N/L)	3.74	2.64	2.61	2.51	2.44	2.58
15	NO2-N (mgN/L)	0.01	0.02	0.01	0.00	0.02	0.07
16	NO3-N (mgN/L)	3.73	2.62	2.60	2.51	2.42	2.51
17	o-PO4-P (mg P/L)	0.180	0.110	0.180	0.410	0.380	0.550
18	SiO2 (mg/L)	2.5	11.8	11.2	13.2	20.3	10.9
19	SO4 (mg/L)	81.0	77.5	76.0	72.4	148.7	72.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	2.2	1.1	1.4	2.2	1.5
2	COD (mg/L)	1.9	5.7	3.8			
3	DO (mg/L)	7.1	5.9	6.2	6.8	5.4	6.2
4	DO_SAT% (%)	81	69	74	81	63	74
5	FCol-MPN (MPN/100mL)	2200	1400	1300	1100	790	790
6	Tcol-MPN (MPN/100mL)	2800	1400	3500	1400	790	1100
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.9	0.4	0.0	0.0
2	Cr (µg/L)	2.1	3.1	1.4	2.1	2.7	5.8
3	Cu (µg/L)	2.1	3.7	1.0	1.4	2.4	2.3
4	Hg (µg/L)						
5	Ni (µg/L)	1.3	5.9	3.1	4.0	6.1	7.2
6	Pb (µg/L)	15.0	23.0	15.0	22.0	36.0	37.0
7	Zn (µg/L)	0.0	3.7	0.3	3.7	31.7	6.6
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	194	170	171	169	182	170
2	HAR_Total (mgCaCO3/L)	278	253	256	255	294	258
3	Na% (%)	39	42	40	40	42	62
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	2.0
5	SAR (-)	2.1	2.3	2.1	2.2	2.5	5.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	9.038	2.226	2.265	2.473	2.506	1.589
2	Colour_Cod (-)	Clear	Clear	Clear	Light Brown	Clear	Clear
3	EC_GEN (µmho/cm)	1105	1186	1220	1069	1493	1605
4	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
5	pH_GEN (pH units)	9.0	8.6	8.5	8.5	8.2	8.7
6	TDS (mg/L)	892	809	823	801	1125	1142
7	Temp (deg C)	26.0	27.0	25.0	23.0	26.0	25.0
8	Turb (NTU)	16.0	21.0	2.9	3.6	6.0	5.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	37.4	36.5	35.7	22.8	0.0	45.7
2	ALK-TOT (mgCaCO3/L)	286	358	278	289	288	415
3	B (mg/L)	0.00	0.00	0.00	0.17	0.24	0.14
4	Ca (mg/L)	52	66	62	82	96	102
5	Cl (mg/L)	107.9	179.0	137.8	132.0	177.0	196.8
6	CO3 (mg/L)	45.0	44.0	43.0	27.5	0.0	55.0
7	F (mg/L)	0.83	0.85	0.85	0.99	0.92	0.98
8	Fe (mg/L)	0.1	0.2	1.8	1.8	0.1	0.6
9	HCO3 (mg/L)	257	347	252	297	351	394
10	K (mg/L)	3.9	3.3	3.5	7.3	8.4	16.0
11	Mg (mg/L)	25.7	44.0	33.0	36.0	48.0	82.0
12	Na (mg/L)	88.2	119.0	98.3	118.5	161.0	237.0
13	NH3-N (mg N/L)	0.04	0.06	0.04	0.02	0.09	0.11
14	NO2+NO3 (mg N/L)	4.10	4.03	3.97	4.59	4.50	4.52
15	NO2-N (mgN/L)	0.03	0.01	0.02	0.03	0.03	0.13
16	NO3-N (mgN/L)	4.07	4.02	3.95	4.56	4.47	4.39
17	o-PO4-P (mg P/L)	0.410	0.380	0.730	0.530	1.370	3.470
18	SiO2 (mg/L)	9.2	10.9	12.2	14.5	19.0	15.9
19	SO4 (mg/L)	81.0	98.3	105.7	121.0	178.0	187.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.9	1.2	1.4	1.3	0.9	1.6
2	COD (mg/L)				7.6	3.8	7.6
3	DO (mg/L)	5.3	5.2	5.4	5.6	4.5	4.1
4	DO_SAT% (%)	65	65	65	65	55	50
5	FCol-MPN (MPN/100mL)	1300	1700	1700	790	1400	1100
6	Tcol-MPN (MPN/100mL)	2200	2200	2800	1100	1700	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.5	0.6	0.0	1.6	1.3
2	Cr (µg/L)	7.5	8.4	7.3	10.1	5.1	2.7
3	Cu (µg/L)	1.9	2.4	2.9	3.6	3.7	2.7
4	Hg (µg/L)						
5	Ni (µg/L)	3.2	3.9	8.0	0.7	8.6	0.3
6	Pb (µg/L)	20.0	21.0	7.0	17.0	23.0	0.0
7	Zn (µg/L)	31.8	29.7	3.0	6.2	1.7	30.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	130	165	156	205	240	255
2	HAR_Total (mgCaCO3/L)	237	348	294	355	440	597
3	Na% (%)	44	43	42	42	44	46
4	RSC (-)	1.0	0.2	0.0	0.0	0.0	0.0
5	SAR (-)	2.5	2.8	2.5	2.7	3.3	4.2
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	366	423.0	0.410	19.19
2	EC_GEN (µmho/cm)	36	1629	726	1020
3	pH_GEN (pH units)	36	9.0	7.7	8.3
4	TDS (mg/L)	36	1142	437	711
5	Temp (deg C)	36	27.0	22.0	24.8
6	Turb (NTU)	36	21.0	1.0	8.3
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	45.7	0.0	15.5
2	ALK-TOT (mgCaCO3/L)	36	415	74	237
3	B (mg/L)	35	1.25	0.00	0.33
4	Ca (mg/L)	36	102	44	59
5	Cl (mg/L)	36	251.0	80.2	125.5
6	CO3 (mg/L)	36	55.0	0.0	18.6
7	F (mg/L)	36	1.48	0.58	0.85
8	Fe (mg/L)	36	4.7	0.0	0.8
9	HCO3 (mg/L)	36	394	90	251
10	K (mg/L)	36	40.0	1.5	6.3
11	Mg (mg/L)	36	82.0	16.0	27.7
12	Na (mg/L)	36	237.0	53.9	104.4
13	NH3-N (mg N/L)	35	2.89	0.00	0.19
14	NO2+NO3 (mg N/L)	36	12.81	2.21	6.75
15	NO2-N (mgN/L)	36	0.21	0.00	0.03
16	NO3-N (mgN/L)	36	12.80	2.20	6.72
17	o-PO4-P (mg P/L)	36	3.470	0.000	0.457
18	SiO2 (mg/L)	36	31.5	2.5	12.6
19	SO4 (mg/L)	36	187.0	8.7	85.3
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	2.5	0.4	1.2
2	COD (mg/L)	24	18.0	1.8	5.2
3	DO (mg/L)	36	7.1	2.4	5.4
4	DO_SAT% (%)	36	83	30	65
5	FCol-MPN (MPN/100mL)	16	2200	790	1304
6	Tcol-MPN (MPN/100mL)	16	3500	790	1837
	TRACE & TOXIC				
1	Cd (µg/L)	36	2.9	0.0	0.5
2	Cr (µg/L)	36	10.1	0.0	3
3	Cu (µg/L)	36	13.2	0.0	3.1
4	Hg (µg/L)	10	0.3	0.0	0.1
5	Ni (µg/L)	36	14.0	0.0	5.4
6	Pb (µg/L)	36	50.0	0.0	20.1
7	Zn (µg/L)	36	156.4	0.0	14.4
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	255	109	147
2	HAR_Total (mgCaCO3/L)	36	597	201	262
3	Na% (%)	36	62	35	45
4	RSC (-)	36	2.0	0.0	0.2
5	SAR (-)	36	5.4	1.6	2.8
	PESTICIDES				

Water Quality Seasonal Average for the period: 2019-2023

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

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

S.No	Parameters	Flood				Winter	
		Jun - Oct				Nov - Feb	
		2019	2020	2021	2022	2019-2020	2020-2021
	PHYSICAL						
1	Q (cumec)	3.363	25.13	12.75	21.27	14.74	12.93
2	EC_GEN (µmho/cm)	1003	728	1129	1047	775	731
3	pH_GEN (pH units)	7.8	7.6	7.9	8.1	7.9	8.1
4	TDS (mg/L)	622	534	807	712	677	497
5	Temp (deg C)	26.6	27.5	28.1	25.5	24.3	24.2
6	Turb (NTU)	85.6	46.5	6.7	5.6	21.0	38.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	8.4	0.0	3.4
2	ALK-TOT (mgCaCO3/L)	292	269	225	202	228	249
3	B (mg/L)	0.23	0.85	0.25	0.48	0.97	0.36
4	Ca (mg/L)	67	42	57	50	44	49
5	Cl (mg/L)	147.8	95.9	128.4	132.7	77.0	90.9
6	CO3 (mg/L)	0.0	0.0	0.0	10.1	0.0	4.1
7	F (mg/L)	0.97	0.46	1.27	0.96	0.57	0.83
8	Fe (mg/L)	1.5	0.7	1.3	0.6	2.7	0.5
9	HCO3 (mg/L)	356	328	275	227	278	295
10	K (mg/L)	4.1	0.6	9.1	8.4	0.7	0.7
11	Mg (mg/L)	23.2	21.1	24.3	25.1	25.0	25.9
12	Na (mg/L)	155.4	65.2	122.4	104.4	89.9	100.3
13	NH3-N (mg N/L)	0.07	0.05		0.38	0.02	0.26
14	NO2+NO3 (mg N/L)	3.37			7.76	8.37	4.23
15	NO2-N (mgN/L)	0.06	0.11	0.04	0.04	0.08	0.08
16	NO3-N (mgN/L)	3.31		6.72	7.72	8.28	4.15
17	o-PO4-P (mg P/L)	0.286	0.245	0.444	0.414	0.328	0.366
18	P-Tot (mgP/L)			0.655			
19	SiO2 (mg/L)	20.5	17.5		12.8	16.2	19.3
20	SO4 (mg/L)	47.9	79.2	77.0	75.5	116.8	72.9
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.5	0.5	0.9	1.1	1.2	1.5
2	COD (mg/L)	19.3	21.4	22.1	5.7	26.6	19.9
3	DO (mg/L)	4.3	3.8	5.2	4.6	5.5	5.7
4	DO_SAT% (%)	54	48	66	56	66	67
5	FCol-MPN (MPN/100mL)	1136	2600	389		1133	2175
6	Tcol-MPN (MPN/100mL)	7094	16000	590		3650	12205
	TRACE & TOXIC						
1	As (µg/L)	0.7		4.9		6.1	1.4
2	Cd (µg/L)	0.1		0.9	0.6	0.0	1.5
3	Cr (µg/L)	5.4		4.0	1.6	0.9	4.4
4	Cu (µg/L)	15.2	0.0	4.9	3.7	7.3	2.2
5	Hg (µg/L)			0.3	0.1		0.7
6	Ni (µg/L)	6.2		6.8	5.6	9.0	3.7
7	Pb (µg/L)	0.2		14.4	21.2	0.4	38.5
8	Zn (µg/L)	23.7	0.0	16.6	11.2	54.0	9.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	169	104	142	125	110	123
2	HAR_Total (mgCaCO3/L)	265	192	243	229	214	231
3	Na% (%)	54	38	49	47	48	49
4	RSC (-)	1.3	1.6	0.3	0.2	0.4	0.4
5	SAR (-)	4.2	2.1	3.4	3.0	2.7	2.9
	PESTICIDES						

Water Quality Seasonal Average for the period: 2019-2023

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

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

S.No	Parameters	Winter		Summer			
		Nov - Feb		Mar - May			
		2021-2022	2022-2023	2020	2021	2022	2023
	PHYSICAL						
1	Q (cumec)	18.86	18.26	1.972	4.527	3.675	6.704
2	EC_GEN (µmho/cm)	890	898	725	1169	960	1138
3	pH_GEN (pH units)	8.1	8.2	8.1	8.1	8.4	8.5
4	TDS (mg/L)	630	613	1369	729	709	838
5	Temp (deg C)	22.8	23.8	23.0	27.0	24.6	24.8
6	Turb (NTU)	13.9	11.1	10.0	18.8	3.3	9.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	1.9	13.2	0.0	0.0	22.1	30.2
2	ALK-TOT (mgCaCO3/L)	225	230	301	307	273	304
3	B (mg/L)	0.37	0.26	0.94	0.73	0.43	0.17
4	Ca (mg/L)	51	59	20	58	63	74
5	Cl (mg/L)	86.5	100.8	118.0	127.6	135.2	146.2
6	CO3 (mg/L)	2.3	16.0	0.0	0.0	26.7	36.4
7	F (mg/L)	0.80	0.70	1.04	1.31	1.16	0.86
8	Fe (mg/L)	0.6	1.3	0.4	0.6	0.4	0.6
9	HCO3 (mg/L)	270	248	367	375	279	297
10	K (mg/L)	4.3	3.7	1.4	8.0	5.3	6.4
11	Mg (mg/L)	24.3	23.5	48.0	24.0	29.5	37.5
12	Na (mg/L)	89.1	82.7	131.5	147.5	100.2	133.4
13	NH3-N (mg N/L)	0.15	0.07	0.00	0.25	0.26	0.05
14	NO2+NO3 (mg N/L)		7.78	8.15	6.86		3.69
15	NO2-N (mgN/L)	0.01	0.02	0.05	0.36	0.03	0.04
16	NO3-N (mgN/L)		7.76	8.10	7.85		3.66
17	o-PO4-P (mg P/L)	0.909	0.167	0.740	0.435	0.179	0.914
18	P-Tot (mgP/L)	1.536					
19	SiO2 (mg/L)	11.7	11.3	19.8	29.0	25.2	14.0
20	SO4 (mg/L)	71.8	72.8	393.0	56.3	87.2	118.2
	BIOLOGICAL/BACTERIOLOGIC/						
1	BOD3-27 (mg/L)	1.0	1.0	2.3	1.0	0.9	1.5
2	COD (mg/L)		4.3	28.5	15.4	4.3	6.3
3	DO (mg/L)	5.8	6.5	6.0	4.8	5.2	5.4
4	DO_SAT% (%)	67	77	70	59	62	65
5	FCol-MPN (MPN/100mL)	814	1457	330	167		1186
6	Tcol-MPN (MPN/100mL)	1254	2100	5000	280		1632
	TRACE & TOXIC						
1	As (µg/L)				8.0		
2	Cd (µg/L)	0.9	0.4		1.3	0.8	0.6
3	Cr (µg/L)	2.7	2.7		0.9	3.7	5.7
4	Cu (µg/L)	1.7	2.6	3.0	11.3	2.4	2.6
5	Hg (µg/L)	0.3			0.5	0.6	
6	Ni (µg/L)	4.4	5.7		14.9	2.7	4.7
7	Pb (µg/L)	9.3	18.5		45.0	18.8	20.3
8	Zn (µg/L)	6.2	17.2	18.0	8.6	4.0	16.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	128	147	50	146	157	186
2	HAR_Total (mgCaCO3/L)	229	245	250	246	280	342
3	Na% (%)	45	42	53	55	43	45
4	RSC (-)	0.2	0.2	1.1	1.3	0.3	0.4
5	SAR (-)	2.6	2.3	3.6	4.1	2.6	3.1
	PESTICIDES						

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	23-02-1984			
Discharge	:	07-06-1984			
Sediment	:	01-03-2014			
Water Quality	:	01-06-1992			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022		01-07-2022	11-07-2022	21-07-2022	01-08-2022
		A		A	A	A	A
	PHYSICAL						
1	Q (cumec)	1.377		0.914	161.5	22.76	14.53
2	Colour_Cod (-)	Clear		Clear	Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)			1480		1490	
4	EC_GEN (µmho/cm)	1076		1052	567	932	825
5	Odour_Code (-)	odour free		odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.3		8.5	7.9	8.0	8.4
7	TDS (mg/L)	686		745	401	625	558
8	Temp (deg C)	27.0		24.0	25.0	25.0	24.0
9	Turb (NTU)	7.0		8.0	41.0	4.0	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	19.5		24.4	0.0	0.0	24.4
2	ALK-TOT (mgCaCO3/L)	291		283	143	178	224
3	B (mg/L)	0.16		0.98	0.97	0.95	0.22
4	Ca (mg/L)	41		23	26	41	39
5	Cl (mg/L)	136.5		164.6	108.3	74.2	93.7
6	CO3 (mg/L)	23.5		29.4	0.0	0.0	29.4
7	F (mg/L)	1.03		1.15	1.07	0.95	0.97
8	Fe (mg/L)	0.2		0.1	0.6	0.0	0.1
9	HCO3 (mg/L)	308		285	175	218	214
10	K (mg/L)	5.0		4.0	3.9	4.0	4.3
11	Mg (mg/L)	33.0		35.4	34.1	22.0	21.5
12	Na (mg/L)	110.2		160.4	63.3	74.4	68.9
13	NH3-N (mg N/L)	0.05		0.02	0.34	0.08	0.37
14	NO2+NO3 (mg N/L)	3.32		2.94	2.94	4.28	4.25
15	NO2-N (mgN/L)	0.04		0.00	0.04	0.12	0.03
16	NO3-N (mgN/L)	3.28		2.94	2.90	4.16	4.22
17	o-PO4-P (mg P/L)	0.140		0.220	0.400	0.350	0.293
18	SiO2 (mg/L)	0.4		11.4	5.9	17.8	23.3
19	SO4 (mg/L)	82.2		60.0	53.0	69.0	43.5
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.5		2.0	3.1	3.4	1.5
2	COD (mg/L)			15.2	5.9	18.5	11.8
3	DO (mg/L)	3.9		4.5	3.8	3.8	4.0
4	DO_SAT% (%)	49		53	46	46	48
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.3		0.0	1.2	0.0	0.1
2	Cr (µg/L)	0.9		0.0	5.2	2.9	0.0
3	Cu (µg/L)	10.7		3.7	1.7	0.0	0.0
4	Hg (µg/L)	0.0		0.1	0.0	0.0	0.0
5	Ni (µg/L)	4.2		3.2	5.4	2.9	2.2
6	Pb (µg/L)	5.0		0.0	0.0	27.0	16.0
7	Zn (µg/L)	10.5		5.1	19.7	7.9	3.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	103		59	65	103	98
2	HAR_Total (mgCaCO3/L)	240		206	207	194	188
3	Na% (%)	49		63	40	45	44
4	RSC (-)	1.1		1.6	0.0	0.0	0.8
5	SAR (-)	3.1		4.9	1.9	2.3	2.2
	PESTICIDES						

Sample not submitted for analysis in 11-06-2022 and 21-06-2022 due to NO FLOW condition of the River

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022	03-10-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	62.80	19.59	19.97	100.2	79.64	60.28
2	Colour_Cod (-)	Light Brown	Light Brown	Clear	Light Brown	Light Brown	Light Brown
3	EC_FLD (µmho/cm)			1490			
4	EC_GEN (µmho/cm)	728	848	874	616	697	800
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.0	7.6	8.4	8.0	8.0	7.3
7	TDS (mg/L)	471	517	665	426	523	433
8	Temp (deg C)	25.0	25.0	25.0	25.0	25.0	24.0
9	Turb (NTU)	3.0	4.0	4.0	0.8	3.2	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	29.1	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	221	167	179	103	176	243
3	B (mg/L)	0.22	0.29	0.15	0.21	0.14	0.14
4	Ca (mg/L)	42	53	52	48	42	41
5	Cl (mg/L)	76.5	78.5	112.2	57.1	73.0	72.0
6	CO3 (mg/L)	0.0	0.0	35.0	0.0	0.0	0.0
7	F (mg/L)	0.99	1.10	1.13	1.08	0.65	0.63
8	Fe (mg/L)	0.4	0.1	0.5	3.7	0.7	3.7
9	HCO3 (mg/L)	270	204	147	126	214	297
10	K (mg/L)	5.2	2.4	2.2	1.9	1.5	3.0
11	Mg (mg/L)	20.4	14.8	14.7	16.2	26.4	26.0
12	Na (mg/L)	62.0	71.1	77.2	42.7	46.6	79.0
13	NH3-N (mg N/L)	1.73	0.01	0.04	0.08	0.05	0.24
14	NO2+NO3 (mg N/L)	4.22	7.49	7.63	7.33	7.68	7.92
15	NO2-N (mgN/L)	0.04	0.06	0.03	0.02	0.04	0.02
16	NO3-N (mgN/L)	4.18	7.43	7.60	7.31	7.64	7.90
17	o-PO4-P (mg P/L)	0.270	0.400	0.310	0.500	0.260	0.149
18	SiO2 (mg/L)	5.4	67.6	17.4	11.8	15.0	14.0
19	SO4 (mg/L)	60.0	67.6	65.9	43.0	49.4	76.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.1	3.9	3.2	3.6	2.7	1.8
2	COD (mg/L)	5.5	20.2	30.6	36.0	26.0	3.8
3	DO (mg/L)	0.0	4.6	3.6	4.1	4.7	3.6
4	DO_SAT% (%)	0	56	44	50	57	43
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	1.8	0.0	0.0	0.4
2	Cr (µg/L)	0.0	0.0	0.0	5.7	0.0	0.8
3	Cu (µg/L)	3.1	3.6	5.7	7.0	1.9	5.4
4	Hg (µg/L)	0.5	0.3	0.0			
5	Ni (µg/L)	4.9	5.6	6.4	8.5	2.4	3.3
6	Pb (µg/L)	46.0	35.0	37.0	0.0	28.0	22.0
7	Zn (µg/L)	2.6	3.2	5.2	81.0	7.5	21.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	105	133	130	120	104	101
2	HAR_Total (mgCaCO3/L)	190	194	191	188	214	210
3	Na% (%)	41	44	47	33	32	45
4	RSC (-)	0.6	0.0	0.0	0.0	0.0	0.7
5	SAR (-)	2.0	2.2	2.4	1.4	1.4	2.4
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022	01-12-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	61.98	26.87	14.00	18.34	20.31	13.17
2	Colour_Cod (-)	Light Brown	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)			1470			
4	EC_GEN (µmho/cm)	705	776	849	876	877	904
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.3	7.5	8.3	8.2	8.4	8.4
7	TDS (mg/L)	495	450	529	637	533	535
8	Temp (deg C)	24.0	25.0	24.0	24.0	22.0	21.0
9	Turb (NTU)	2.0	2.0	2.0	11.0	6.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	36.5	0.0	24.6	0.0	21.1	23.4
2	ALK-TOT (mgCaCO3/L)	224	176	155	175	243	227
3	B (mg/L)	0.40	0.77	0.18	0.21	0.17	0.11
4	Ca (mg/L)	43	44	25	26	37	36
5	Cl (mg/L)	62.2	74.0	88.0	89.0	89.4	99.6
6	CO3 (mg/L)	44.0	0.0	29.6	0.0	25.4	28.2
7	F (mg/L)	0.62	0.67	0.76	0.75	0.79	0.88
8	Fe (mg/L)	1.2	0.3	0.3	0.4	1.2	1.0
9	HCO3 (mg/L)	184	215	129	213	245	219
10	K (mg/L)	2.0	2.5	2.4	2.8	3.0	3.3
11	Mg (mg/L)	24.0	24.0	31.3	31.6	24.2	24.0
12	Na (mg/L)	67.7	71.0	72.9	68.3	92.7	88.9
13	NH3-N (mg N/L)	0.63	0.18	0.29	0.14	0.22	0.00
14	NO2+NO3 (mg N/L)	7.65	7.71	7.74	7.91	8.10	8.08
15	NO2-N (mgN/L)	0.01	0.03	0.01	0.05	0.06	0.04
16	NO3-N (mgN/L)	7.64	7.68	7.73	7.86	8.04	8.04
17	o-PO4-P (mg P/L)	0.508	0.076	0.091	0.240	0.128	0.070
18	SiO2 (mg/L)	0.4	10.1	8.7	13.4	15.9	10.6
19	SO4 (mg/L)	67.0	69.3	76.4	51.0	50.9	68.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.8	1.1	0.9	0.7	1.1	1.1
2	COD (mg/L)	1.9	1.9	10.1	8.1	8.1	
3	DO (mg/L)	6.0	4.6	6.1	6.8	6.4	7.0
4	DO_SAT% (%)	71	56	72	81	73	79
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	1.2	0.0	0.7	0.5
2	Cr (µg/L)	0.0	0.0	0.0	0.0	4.3	3.2
3	Cu (µg/L)	1.5	1.5	2.2	1.9	2.1	0.7
4	Hg (µg/L)						
5	Ni (µg/L)	9.6	9.9	5.1	2.7	5.7	6.1
6	Pb (µg/L)	25.0	26.0	6.0	32.0	45.0	30.0
7	Zn (µg/L)	7.6	0.0	3.1	1.8	0.7	9.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	108	110	63	64	93	90
2	HAR_Total (mgCaCO3/L)	208	210	193	196	193	190
3	Na% (%)	41	42	45	43	51	50
4	RSC (-)	0.4	0.0	0.0	0.0	1.0	0.8
5	SAR (-)	2.1	2.1	2.3	2.1	2.9	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023	01-02-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	13.13	9.186	13.73	7.437	15.05	10.62
2	Colour_Cod (-)	Clear	Clear	Clear	Brown	Light Brown	Clear
3	EC_FLD (µmho/cm)	1470		1480		1490	
4	EC_GEN (µmho/cm)	931	892	958	907	942	1051
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour o	odour free
6	pH_GEN (pH units)	8.4	8.3	8.1	8.2	8.0	8.4
7	TDS (mg/L)	689	696	505	608	701	737
8	Temp (deg C)	22.0	18.0	22.0	20.0	18.0	21.0
9	Turb (NTU)	6.0	5.8	11.0	9.0	9.2	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	22.7	21.1	0.0	0.0	0.0	27.4
2	ALK-TOT (mgCaCO3/L)	156	265	280	293	205	277
3	B (mg/L)	0.09	0.01	0.39	0.29	0.39	0.36
4	Ca (mg/L)	37	57	56	56	36	64
5	Cl (mg/L)	110.1	99.9	107.4	97.0	121.0	134.0
6	CO3 (mg/L)	27.3	25.4	0.0	0.0	0.0	33.0
7	F (mg/L)	0.86	0.75	0.73	0.68	0.65	0.89
8	Fe (mg/L)	0.8	0.3	0.4	0.3	1.1	0.3
9	HCO3 (mg/L)	135	272	342	357	250	271
10	K (mg/L)	2.2	2.7	4.2	4.7	4.6	3.6
11	Mg (mg/L)	22.4	36.0	35.9	36.7	21.8	25.7
12	Na (mg/L)	82.9	69.0	80.5	72.0	88.4	104.0
13	NH3-N (mg N/L)	0.00	0.09	0.00	0.13	0.00	0.03
14	NO2+NO3 (mg N/L)	9.59	11.12	12.05	1.17	1.21	1.58
15	NO2-N (mgN/L)	0.01	0.05	0.01	0.01	0.01	0.03
16	NO3-N (mgN/L)	9.58	11.07	12.04	1.16	1.20	1.55
17	o-PO4-P (mg P/L)	0.080	0.050	0.038	0.000	0.000	0.000
18	SiO2 (mg/L)	16.5	14.0	7.2	6.0	7.5	1.6
19	SO4 (mg/L)	75.2	75.2	69.0	69.0	77.4	96.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.2	1.0	1.6	0.9	1.2	1.4
2	COD (mg/L)			3.6	3.6	5.5	1.9
3	DO (mg/L)	6.4	8.0	6.2	5.5	6.0	7.1
4	DO_SAT% (%)	73	85	71	60	63	80
5	FCol-MPN (MPN/100mL)		1300	490	390	1700	1300
6	Tcol-MPN (MPN/100mL)		2200	790	1400	2800	2200
	TRACE & TOXIC						
1	Cd (µg/L)	0.8	0.1	0.0	0.0	0.0	0.0
2	Cr (µg/L)	3.5	5.0	1.6	1.0	1.3	2.3
3	Cu (µg/L)	1.4	1.1	3.5	4.7	2.3	2.4
4	Hg (µg/L)						
5	Ni (µg/L)	1.7	0.0	11.9	11.3	8.5	4.2
6	Pb (µg/L)	0.0	0.0	27.0	17.0	8.0	20.0
7	Zn (µg/L)	0.8	7.9	6.9	3.1	0.9	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	93	143	139	140	90	160
2	HAR_Total (mgCaCO3/L)	186	293	289	293	181	267
3	Na% (%)	49	34	37	35	51	46
4	RSC (-)	0.0	0.0	0.0	0.0	0.5	0.2
5	SAR (-)	2.7	1.8	2.1	1.8	2.9	2.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023	05-04-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	9.881	10.59	4.148	1.407	38.54	9.547
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)		1480	1490	1480		
4	EC_GEN (µmho/cm)	927	1173	1018	1036	880	1023
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.5	8.2	8.2	8.8	7.9	9.0
7	TDS (mg/L)	659	842	752	770	820	722
8	Temp (deg C)	24.0	19.0	25.0	24.0	20.0	21.0
9	Turb (NTU)	15.0	9.8	8.0	1.3	11.8	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	34.9	0.0	0.0	15.3	0.0	30.0
2	ALK-TOT (mgCaCO3/L)	231	170	201	226	307	221
3	B (mg/L)	0.28	0.31	0.32	0.30	0.29	0.06
4	Ca (mg/L)	49	50	82	92	46	51
5	Cl (mg/L)	124.9	136.9	187.9	229.6	137.5	123.5
6	CO3 (mg/L)	42.0	0.0	0.0	18.4	0.0	36.2
7	F (mg/L)	0.88	0.85	0.91	0.86	0.79	0.92
8	Fe (mg/L)	0.6	0.3	0.2	0.5	1.4	0.3
9	HCO3 (mg/L)	197	208	245	238	375	196
10	K (mg/L)	2.4	2.5	3.4	2.8	3.7	3.0
11	Mg (mg/L)	27.5	27.0	40.0	30.0	24.0	26.8
12	Na (mg/L)	74.4	96.0	92.0	92.6	109.0	94.0
13	NH3-N (mg N/L)	0.05	0.00	0.05	0.03	0.05	0.05
14	NO2+NO3 (mg N/L)	1.29	1.30	4.91	4.29	4.50	2.80
15	NO2-N (mgN/L)	0.01	0.01	0.01	0.05	0.03	0.00
16	NO3-N (mgN/L)	1.28	1.29	4.90	4.24	4.47	2.80
17	o-PO4-P (mg P/L)	0.100	0.100	0.500	0.700	0.500	0.500
18	SiO2 (mg/L)	3.3	9.4	7.0	9.2	6.9	25.2
19	SO4 (mg/L)	70.5	92.9	38.6	38.6	38.6	93.7
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.7	1.4	2.3	2.3	1.8	2.3
2	COD (mg/L)	3.8	3.8				
3	DO (mg/L)	6.5	6.6	4.1	6.6	5.5	6.2
4	DO_SAT% (%)	77	71	50	78	60	70
5	FCol-MPN (MPN/100mL)	1400	790	1400	790	1400	1300
6	Tcol-MPN (MPN/100mL)	1700	1700	1700	1400	2200	2200
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	3.1	0.0	0.0	0.0	0.0
2	Cr (µg/L)	2.8	1.3	1.6	1.8	6.5	6.5
3	Cu (µg/L)	2.9	2.0	13.2	1.1	4.2	1.7
4	Hg (µg/L)						
5	Ni (µg/L)	6.6	3.8	7.5	5.1	7.8	3.1
6	Pb (µg/L)	18.0	18.0	29.0	30.0	33.0	18.0
7	Zn (µg/L)	4.0	0.6	52.1	33.8	6.1	4.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	123	125	205	230	114	127
2	HAR_Total (mgCaCO3/L)	237	237	372	355	214	238
3	Na% (%)	40	47	35	36	52	46
4	RSC (-)	0.0	0.0	0.0	0.0	1.9	0.0
5	SAR (-)	2.1	2.7	2.1	2.1	3.3	2.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A
	PHYSICAL					
1	Q (cumec)	1.010	4.079	15.62	5.268	4.232
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1470	1490			
4	EC_GEN (µmho/cm)	1082	1023	871	1037	1106
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.6	8.7	8.5	8.4	8.2
7	TDS (mg/L)	821	733	580	706	747
8	Temp (deg C)	23.0	25.0	22.0	24.0	25.0
9	Turb (NTU)	12.6	6.4	2.6	4.7	4.5
	CHEMICAL					
1	Alk-Phen (mgCaCO3/L)	32.9	29.1	23.2	22.8	0.0
2	ALK-TOT (mgCaCO3/L)	261	228	257	255	182
3	B (mg/L)	0.11	0.10	0.01	0.11	0.05
4	Ca (mg/L)	68	44	48	66	65
5	Cl (mg/L)	140.0	131.0	102.0	139.0	139.0
6	CO3 (mg/L)	39.6	35.0	28.0	27.5	0.0
7	F (mg/L)	0.82	0.94	0.66	0.64	0.63
8	Fe (mg/L)	0.6	0.9	0.8	0.4	0.1
9	HCO3 (mg/L)	238	207	256	255	222
10	K (mg/L)	3.0	3.4	3.8	5.6	6.0
11	Mg (mg/L)	37.0	32.5	32.3	44.0	52.5
12	Na (mg/L)	80.4	105.0	94.0	130.6	143.6
13	NH3-N (mg N/L)	0.05	0.07	0.04	0.09	0.17
14	NO2+NO3 (mg N/L)	2.73	2.86	3.33	3.40	3.10
15	NO2-N (mgN/L)	0.00	0.01	0.05	0.06	0.01
16	NO3-N (mgN/L)	2.73	2.85	3.28	3.34	3.09
17	o-PO4-P (mg P/L)	0.700	0.700	0.500	0.400	1.500
18	SiO2 (mg/L)	11.5	24.0	33.8	14.6	13.0
19	SO4 (mg/L)	76.0	96.0	138.0	105.0	105.1
	BIOLOGICAL/BACTERIOLOGIC/					
1	BOD3-27 (mg/L)	3.3	3.0	1.8	1.9	1.8
2	COD (mg/L)			1.9	7.6	5.7
3	DO (mg/L)	6.5	6.1	5.1	4.9	3.0
4	DO_SAT% (%)	76	74	58	58	36
5	FCol-MPN (MPN/100mL)	2800	490	700	1100	1100
6	Tcol-MPN (MPN/100mL)	9200	790	1400	1400	1400
	TRACE & TOXIC					
1	Cd (µg/L)	0.8	0.3	0.0	2.5	1.7
2	Cr (µg/L)	7.6	7.0	8.0	3.3	1.8
3	Cu (µg/L)	3.4	2.0	2.2	6.0	3.2
4	Hg (µg/L)					
5	Ni (µg/L)	3.1	5.7	3.0	7.6	0.0
6	Pb (µg/L)	21.0	1.0	7.0	31.0	5.0
7	Zn (µg/L)	24.0	55.0	6.9	5.4	8.2
	CHEMICAL INDICES					
1	HAR_Ca (mgCaCO3/L)	170	110	120	165	163
2	HAR_Total (mgCaCO3/L)	324	245	255	348	381
3	Na% (%)	35	48	44	45	45
4	RSC (-)	0.0	0.0	0.1	0.0	0.0
5	SAR (-)	1.9	2.9	2.6	3.1	3.2
	PESTICIDES					

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	260.6	0.000	23.51
2	EC_FLD (µmho/cm)	12	1490	1470	1482
3	EC_GEN (µmho/cm)	34	1173	567	908
4	pH_GEN (pH units)	34	9.0	7.3	8.2
5	TDS (mg/L)	34	842	401	627
6	Temp (deg C)	34	27.0	18.0	23.1
7	Turb (NTU)	34	41.0	0.8	6.9
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	34	36.5	0.0	13.6
2	ALK-TOT (mgCaCO3/L)	34	307	103	218
3	B (mg/L)	34	0.98	0.01	0.29
4	Ca (mg/L)	34	92	23	48
5	Cl (mg/L)	34	229.6	57.1	112
6	CO3 (mg/L)	34	44.0	0.0	16.4
7	F (mg/L)	34	1.15	0.62	0.84
8	Fe (mg/L)	34	3.7	0.0	0.7
9	HCO3 (mg/L)	34	375	126	233
10	K (mg/L)	34	6.0	1.5	3.4
11	Mg (mg/L)	34	52.5	14.7	28.7
12	Na (mg/L)	34	160.4	42.7	86
13	NH3-N (mg N/L)	34	1.73	0.00	0.16
14	NO2+NO3 (mg N/L)	34	12.05	1.17	5.25
15	NO2-N (mgN/L)	34	0.12	0.00	0.03
16	NO3-N (mgN/L)	34	12.04	1.16	5.22
17	o-PO4-P (mg P/L)	34	1.500	0.000	0.317
18	SiO2 (mg/L)	34	67.6	0.4	13.5
19	SO4 (mg/L)	34	138.0	38.6	70.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	34	3.9	0.1	1.8
2	COD (mg/L)	24	36.0	1.9	10
3	DO (mg/L)	34	8.0	0.0	5.2
4	DO_SAT% (%)	34	85	0	61
5	FCol-MPN (MPN/100mL)	16	2800	390	1153
6	Tcol-MPN (MPN/100mL)	16	9200	790	2155
	TRACE & TOXIC				
1	Cd (µg/L)	34	3.1	0.0	0.5
2	Cr (µg/L)	34	8.0	0.0	2.5
3	Cu (µg/L)	34	13.2	0.0	3.2
4	Hg (µg/L)	8	0.5	0.0	0.1
5	Ni (µg/L)	34	11.9	0.0	5.3
6	Pb (µg/L)	34	46.0	0.0	19.5
7	Zn (µg/L)	34	81.0	0.0	12.1
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	34	230	59	119
2	HAR_Total (mgCaCO3/L)	34	381	181	239
3	Na% (%)	34	63	32	43
4	RSC (-)	34	1.9	0.0	0.3
5	SAR (-)	34	4.9	1.4	2.4
	PESTICIDES				

Water Quality Seasonal Average for the period: 2014-2023

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

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

S.No	Parameters	Flood								
		Jun - Oct								
		2014	2015	2016	2017	2018	2019	2020	2021	2022
	PHYSICAL									
1	Q (cumec)	11.90	13.28	19.49	13.92	3.782	49.66	229.9	23.43	48.65
2	EC_FLD (µmho/cm)			824	825	232		146		1487
3	EC_GEN (µmho/cm)	838	648	504	871	871	694	551	813	807
4	pH_FLD (pH units)			7.6	7.4	7.3		7.7		
5	pH_GEN (pH units)	8.2	7.9	8.1	8.1	8.1	7.8	7.8	7.9	8.0
6	TDS (mg/L)	505	425	379	542	705	410	404	624	538
7	Temp (deg C)	27.3	30.2	28.3	28.8	25.2	27.0	24.5	23.7	24.8
8	Turb (NTU)	5.3	129.5	166.3	39.0	7.4	67.0	18.0	3.9	6.6
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	1.4	0.0	0.0	10.4	1.0	0.0	0.0	1.6	10.3
2	ALK-TOT (mgCaCO3/L)	233	232	203	224	182	214	241	212	201
3	B (mg/L)	0.46	0.18		0.03	0.05	0.20	0.32	0.15	0.43
4	Ca (mg/L)	39	37	30	38	35	45	27	45	41
5	Cl (mg/L)	79.2	63.9	48.5	103.8	117.6	132.7	53.2	92.0	91.0
6	CO3 (mg/L)	1.7	0.0	0.0	12.5	1.2	0.0	0.0	1.9	12.4
7	F (mg/L)	0.88	0.87	0.65	0.75	0.82	0.82	0.41	1.09	0.93
8	Fe (mg/L)	0.1	0.0	0.1	1.4	0.3	2.5	0.3	0.3	0.9
9	HCO3 (mg/L)	280	283	248	248	220	262	294	254	220
10	K (mg/L)	4.2	3.5	3.7	0.5	0.5	0.4	0.3	4.2	3.2
11	Mg (mg/L)	21.5	21.2	16.2	26.8	35.0	27.0	24.8	19.9	24.0
12	Na (mg/L)	99.4	89.9	75.5	109.8	85.1	104.4	54.1	82.8	76.5
13	NH3-N (mg N/L)	0.00	0.02	0.00	0.32	0.12	0.07	0.06		0.29
14	NO2+NO3 (mg N/L)	1.87	0.97	1.62	5.63	1.26	2.27			5.80
15	NO2-N (mgN/L)	0.00	0.01	0.00	0.10	0.10	0.13	0.05	0.03	0.04
16	NO3-N (mgN/L)	1.86	0.96	1.62	5.53	1.16	2.14		5.62	5.76
17	o-PO4-P (mg P/L)	0.174	0.297	0.188	0.523	0.144	0.223	0.085	0.724	0.298
18	P-Tot (mgP/L)	0.149							1.055	
19	SiO2 (mg/L)	15.1	15.1	12.0	14.4	31.9	11.3	15.0		15.4
20	SO4 (mg/L)	64.7	52.6	38.7	62.3	66.7	59.0	26.9	54.8	62.0
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	1.4	1.3	1.0	1.3	1.4	1.2	1.4	1.7	2.2
2	COD (mg/L)	17.3	13.6	20.2	13.1	19.0	16.9	19.9	17.8	14.8
3	DO (mg/L)	5.4	4.8	5.0	6.2	4.6	5.3	4.9	5.0	3.9
4	DO_SAT% (%)	69	64	65	80	56	67	58	58	47
5	FCol-MPN (MPN/100mL)	16000	5143	16000	13240	80	820	900	263	
6	Tcol-MPN (MPN/100mL)	16000	12875	16000	13240	634	4300	12500	498	
7	TOC (mg/L)		28.2							
	TRACE & TOXIC									
1	As (µg/L)						1.1		2.6	
2	Cd (µg/L)						0.3		0.6	0.3
3	Cr (µg/L)						7.1		2.1	1.2
4	Cu (µg/L)				4.4	7.0	13.3	0.0	3.5	3.5
5	Hg (µg/L)								0.3	0.1
6	Ni (µg/L)						71.7		3.4	5.3
7	Pb (µg/L)						0.9		9.7	20.5
8	Zn (µg/L)				57.0	17.6	643.0	0.0	12.5	13.5
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	97	94	74	96	88	113	66	114	103
2	HAR_Total (mgCaCO3/L)	186	182	141	208	234	226	170	197	203
3	Na% (%)	53	51	53	53	42	49	41	46	43
4	RSC (-)	0.9	1.0	1.3	0.4	0.3	0.5	1.5	0.5	0.4
5	SAR (-)	3.2	2.9	2.7	3.4	2.5	3.0	1.8	2.6	2.3
	PESTICIDES									

Water Quality Seasonal Average for the period: 2014-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
	PHYSICAL							
1	Q (cumec)	11.74	3.403	2.726	2.644	4.073	5.623	9.548
2	EC_FLD (µmho/cm)			827	830	447		147
3	EC_GEN (µmho/cm)	744	1184	946	1232	1213	840	765
4	pH_FLD (pH units)			7.2	7.3	7.3		7.7
5	pH_GEN (pH units)	8.2	8.0	8.0	8.0	8.1	7.9	8.0
6	TDS (mg/L)	505	494	562	691	697	570	488
7	Temp (deg C)	23.8	28.0	25.5	26.0	26.0	25.3	22.0
8	Turb (NTU)	1.6	2.5	0.0	8.0	1.0	22.5	28.5
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	1.0	0.0	3.2	0.0	1.6	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	280	263	245	336	275	305	277
3	B (mg/L)	0.24	0.08		0.02	0.04	0.30	0.47
4	Ca (mg/L)	43	42	51	53	32	36	37
5	Cl (mg/L)	79.1	81.0	94.3	113.1	123.3	100.3	101.3
6	CO3 (mg/L)	1.3	0.0	3.9	0.0	2.0	0.0	0.0
7	F (mg/L)	0.96	0.89	0.89	1.05	0.37	0.91	0.89
8	Fe (mg/L)	0.1	0.0	0.0	0.0	0.1	0.6	0.5
9	HCO3 (mg/L)	339	321	291	410	331	372	338
10	K (mg/L)	3.0	3.2	12.8	0.6	0.4	0.4	0.7
11	Mg (mg/L)	24.6	23.7	27.8	35.5	32.7	35.3	31.2
12	Na (mg/L)	103.0	120.5	91.1	153.9	108.4	111.1	103.6
13	NH3-N (mg N/L)	0.04	0.03	0.01	0.01	0.24	0.03	0.21
14	NO2+NO3 (mg N/L)	0.82	1.09	0.98	7.36	1.01	5.46	2.46
15	NO2-N (mgN/L)	0.05	0.04	0.47	0.02	0.04	0.23	0.41
16	NO3-N (mgN/L)	0.77	1.06	0.50	7.34	0.97	5.23	2.35
17	o-PO4-P (mg P/L)	0.110	0.104	0.073	1.332	0.372	0.210	0.306
18	P-Tot (mgP/L)							
19	SiO2 (mg/L)	12.9	8.2	10.8	20.1	16.8	14.6	17.9
20	SO4 (mg/L)	43.3	55.0	116.9	82.1	66.2	59.1	75.2
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	0.8	0.5	2.0	0.4	0.9	0.8	5.2
2	COD (mg/L)	9.1	6.3	17.0	2.6	9.7	53.4	15.1
3	DO (mg/L)	7.2	5.5	5.8	6.2	5.4	4.4	3.5
4	DO_SAT% (%)	85	70	71	77	66	53	40
5	FCol-MPN (MPN/100mL)	5220	7000	6000	285	157	2253	1805
6	Tcol-MPN (MPN/100mL)	6558	12500	6000	790	940	7675	10067
7	TOC (mg/L)	41.0	40.6					
	TRACE & TOXIC							
1	As (µg/L)						6.5	1.3
2	Cd (µg/L)	1.4					0.0	2.2
3	Cr (µg/L)	11.5					2.7	4.4
4	Cu (µg/L)	2.9		0.0	5.0	8.3	3.8	3.5
5	Hg (µg/L)							0.2
6	Ni (µg/L)	1.8					6.7	4.0
7	Pb (µg/L)	10.9					0.5	48.0
8	Zn (µg/L)	4.5		0.0	35.1	19.2	59.5	7.2
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	109	106	127	133	81	90	91
2	HAR_Total (mgCaCO3/L)	211	205	243	281	217	237	221
3	Na% (%)	51	56	43	55	52	51	51
4	RSC (-)	1.4	1.2	0.2	1.2	1.2	1.4	1.3
5	SAR (-)	3.1	3.7	2.5	4.1	3.2	3.2	3.1
	PESTICIDES							

Water Quality Seasonal Average for the period: 2014-2023

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

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

S.No	Parameters	Winter		Summer					
		Nov - Feb		Mar - May					
		2021-2022	2022-2023	2015	2018	2020	2021	2022	2023
	PHYSICAL								
1	Q (cumec)	11.48	12.95	1.067	11.72	5.404	6.888	3.681	9.316
2	EC_FLD (µmho/cm)		1478				447		1483
3	EC_GEN (µmho/cm)	768	941	994	1404	830	998	816	1008
4	pH_FLD (pH units)						7.6		
5	pH_GEN (pH units)	8.0	8.3	8.3	8.2	7.9	8.1	8.3	8.5
6	TDS (mg/L)	585	639	642	834	601	617	567	739
7	Temp (deg C)	23.8	21.3	27.0	28.0	26.0	24.3	25.2	23.2
8	Turb (NTU)	6.0	7.7	3.0	27.0	45.0	19.0	4.3	6.3
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	1.0	14.6	1.2	0.0	0.0	0.0	15.9	17.0
2	ALK-TOT (mgCaCO3/L)	242	223	258	302	340	325	245	237
3	B (mg/L)	0.26	0.23	0.31	0.04	0.95	0.81	0.31	0.15
4	Ca (mg/L)	48	44	41	48	29	51	40	62
5	Cl (mg/L)	96.0	108.1	109.7	119.1	149.0	119.3	113.7	147.7
6	CO3 (mg/L)	1.2	17.6	1.4	0.0	0.0	0.0	19.2	20.5
7	F (mg/L)	0.91	0.79	0.91	0.69	1.07	0.97	1.03	0.80
8	Fe (mg/L)	0.2	0.6	0.0	0.1	0.2	0.3	0.3	0.6
9	HCO3 (mg/L)	293	236	311	368	415	396	259	248
10	K (mg/L)	3.8	3.2	4.3	0.7	0.6	4.6	4.1	3.9
11	Mg (mg/L)	25.9	28.7	23.7	39.1	46.0	24.1	30.1	35.5
12	Na (mg/L)	90.1	82.5	138.7	40.4	154.5	138.8	88.7	104.6
13	NH3-N (mg N/L)	0.11	0.08	0.09	0.07	0.00	0.50	0.24	0.07
14	NO2+NO3 (mg N/L)		5.93	1.03	5.54	4.95	4.31		3.55
15	NO2-N (mgN/L)	0.02	0.02	0.02	0.02	0.05	0.81	0.04	0.02
16	NO3-N (mgN/L)		5.90	1.01	5.51	4.90	5.85		3.52
17	o-PO4-P (mg P/L)	0.655	0.075	0.133	0.605	0.160	0.984	0.171	0.667
18	P-Tot (mgP/L)	0.955							
19	SiO2 (mg/L)	15.9	9.5	15.2	13.0	13.5	30.5	23.5	16.1
20	SO4 (mg/L)	66.6	72.7	81.1	78.2	122.0	52.2	62.2	81.1
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.8	1.1	0.4	1.3	0.6	6.6	1.7	2.3
2	COD (mg/L)		5.4	9.3	19.0	38.7	15.3	6.0	5.1
3	DO (mg/L)	5.3	6.5	4.9	5.4	4.7	1.5	3.7	5.3
4	DO_SAT% (%)	62	74	62	69	58	17	45	62
5	FCol-MPN (MPN/100mL)	1266	1053	2	750	500	1797		1231
6	Tcol-MPN (MPN/100mL)	2239	1827	517	1200	2800	3210		2410
7	TOC (mg/L)			42.8					
	TRACE & TOXIC								
1	As (µg/L)			3.0	0.3		2.3		
2	Cd (µg/L)	0.7	0.5	3.0	0.3		1.3	0.7	0.6
3	Cr (µg/L)	2.5	2.2	0.0	0.0		0.1	2.2	4.9
4	Cu (µg/L)	1.7	2.3		4.3	1.0	9.0	1.9	4.1
5	Hg (µg/L)	0.2		0.2	0.1		1.1	1.1	
6	Ni (µg/L)	3.5	5.6	9.1	2.2		11.7	1.3	4.8
7	Pb (µg/L)	8.3	18.4	18.0	0.0		28.0	17.0	19.4
8	Zn (µg/L)	4.2	3.3	11.0	36.2	20.0	11.6	5.0	21.7
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	120	110	101	119	73	127	101	156
2	HAR_Total (mgCaCO3/L)	228	229	200	282	264	227	226	304
3	Na% (%)	45	44	60	24	56	56	45	43
4	RSC (-)	0.3	0.2	1.2	0.4	1.6	2.0	0.7	0.2
5	SAR (-)	2.6	2.4	4.3	1.1	4.2	4.0	2.6	2.7
	PESTICIDES								

Sample not submitted for analysis in Summer 2016 to 2017 and 2019 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
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"
		Opening Date	Closing Date		
Gauge	:	23-09-1963			
Discharge	:	01-06-1965			
Sediment	:	02-07-1965			
Water Quality	:	01-01-1972			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022		01-07-2022	11-07-2022	21-07-2022
		A	A		A	A	A
	PHYSICAL						
1	Q (cumec)	1.097	0.605		2.852	1090	183.5
2	Colour_Cod (-)	Clear	Clear		Clear	Brown	Brown
3	EC_FLD (µmho/cm)	1420	1380			1420	
4	EC_GEN (µmho/cm)	1029	1738		1036	555	714
5	Odour_Code (-)	odour free	odour free		odour free	odour free	odour free
6	pH_FLD (pH units)	6.5	6.5			6.5	
7	pH_GEN (pH units)	8.3	8.2		8.3	6.7	8.4
8	TDS (mg/L)	656	1324		802	368	532
9	Temp (deg C)	26.0	25.0		26.0	23.0	24.0
10	Turb (NTU)	11.0	4.0		7.0	17.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	20.3	0.0		16.8	0.0	22.4
2	ALK-TOT (mgCaCO3/L)	187	350		229	97	202
3	B (mg/L)	0.44	0.16		0.60	0.58	0.62
4	Ca (mg/L)	33	23		33	35	39
5	Cl (mg/L)	146.5	290.7		133.5	113.0	100.0
6	CO3 (mg/L)	24.5	0.0		20.3	0.0	27.0
7	F (mg/L)	0.94	0.71		1.18	1.00	0.92
8	Fe (mg/L)	0.2	0.1		0.1	8.4	0.4
9	HCO3 (mg/L)	178	427		238	118	191
10	K (mg/L)	5.8	37.2		5.0	3.4	3.3
11	Mg (mg/L)	31.3	50.5		29.4	28.3	22.0
12	Na (mg/L)	104.3	286.4		131.3	43.3	60.2
13	NH3-N (mg N/L)	0.07	0.15		0.05	0.31	0.07
14	NO2+NO3 (mg N/L)	2.56	19.90		3.42	3.44	3.39
15	NO2-N (mgN/L)	0.01	0.09		0.10	0.04	0.02
16	NO3-N (mgN/L)	2.55	19.81		3.32	3.40	3.37
17	o-PO4-P (mg P/L)	0.130	0.210		0.220	0.260	0.450
18	SiO2 (mg/L)	6.3	23.8		7.9	4.0	15.7
19	SO4 (mg/L)	80.2	54.3		145.9	72.5	50.1
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.4	0.2		2.2	1.2	1.2
2	COD (mg/L)				15.2	3.9	5.6
3	DO (mg/L)	5.8	5.4		3.9	5.5	5.5
4	DO_SAT% (%)	71	65		48	64	65
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.9	1.3		0.0	2.1	0.5
2	Cr (µg/L)	1.2	4.6		0.0	78.0	4.3
3	Cu (µg/L)	11.0	3.5		4.3	14.4	0.3
4	Hg (µg/L)	0.0	0.0		0.0	0.0	0.0
5	Ni (µg/L)	6.6	0.0		3.7	24.0	3.7
6	Pb (µg/L)	6.0	2.0		0.0	0.0	30.0
7	Zn (µg/L)	5.3	0.8		3.0	0.0	3.5
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	83	57		83	88	98
2	HAR_Total (mgCaCO3/L)	213	267		205	206	189
3	Na% (%)	51	67		58	31	41
4	RSC (-)	0.0	1.7		0.5	0.0	0.3
5	SAR (-)	3.1	7.7		4.0	1.3	1.9
	PESTICIDES						

Sample not submitted for analysis in 21-06-2022 due to NO FLOW condition of the River

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	88.06	553.7	96.84	246.0	677.8	275.9
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Brown	Light Brown
3	EC_FLD (µmho/cm)				1520		
4	EC_GEN (µmho/cm)	791	500	900	926	583	794
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)		6.5				
7	pH_GEN (pH units)	8.2	8.1	7.3	8.1	8.0	8.0
8	TDS (mg/L)	521	318	502	659	473	589
9	Temp (deg C)		25.0	25.0	26.0	25.0	25.0
10	Turb (NTU)	4.0	11.0	6.0	3.0	0.9	6.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	69	136	95	57	70	186
3	B (mg/L)	0.18	0.18	0.29	0.17	0.24	0.13
4	Ca (mg/L)	28	31	18	18	20	45
5	Cl (mg/L)	90.0	73.0	101.2	78.3	61.0	73.5
6	CO3 (mg/L)	0.0	0.0	0.0	0.0	0.0	0.0
7	F (mg/L)	0.94	0.88	1.03	1.05	1.02	0.62
8	Fe (mg/L)	0.4	0.3	3.3	0.5	0.8	1.1
9	HCO3 (mg/L)	84	166	116	70	86	227
10	K (mg/L)	2.7	3.3	2.0	2.0	1.4	1.4
11	Mg (mg/L)	21.2	18.3	3.8	3.1	5.3	20.5
12	Na (mg/L)	65.8	43.0	75.0	74.8	51.3	54.5
13	NH3-N (mg N/L)	0.47	0.27	0.05	0.04	0.10	0.05
14	NO2+NO3 (mg N/L)	3.31	3.44	5.00	5.18	5.35	6.43
15	NO2-N (mgN/L)	0.01	0.05	0.02	0.08	0.01	0.06
16	NO3-N (mgN/L)	3.30	3.39	4.98	5.10	5.34	6.37
17	o-PO4-P (mg P/L)	0.284	0.210	0.190	0.240	0.640	0.270
18	SiO2 (mg/L)	6.5	4.9	15.7	15.3	7.0	8.6
19	SO4 (mg/L)	81.4	50.0	15.7	63.6	36.3	40.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.5	0.8	3.8	3.4	1.8	1.4
2	COD (mg/L)	15.7	5.5	24.3	32.5	12.6	11.2
3	DO (mg/L)	2.8	4.8	4.7	4.6	2.8	3.3
4	DO_SAT% (%)		58	57	57	34	40
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.5	0.0	0.0	1.5	0.0	0.0
2	Cr (µg/L)	0.0	0.0	0.1	0.0	1.5	1.5
3	Cu (µg/L)	2.3	6.3	6.8	4.1	5.0	3.3
4	Hg (µg/L)	0.0	0.4	0.0	0.1		
5	Ni (µg/L)	2.5	7.7	8.9	5.0	5.8	6.9
6	Pb (µg/L)	16.0	43.0	38.0	38.0	0.0	32.0
7	Zn (µg/L)	4.8	8.0	12.9	7.6	10.1	19.7
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	70	76	45	46	51	111
2	HAR_Total (mgCaCO3/L)	158	153	60	58	73	197
3	Na% (%)	47	38	72	73	60	38
4	RSC (-)	0.0	0.0	0.7	0.0	0.0	0.0
5	SAR (-)	2.3	1.5	4.2	4.3	2.6	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	293.0	196.9	157.9	60.74	62.95	44.94
2	Colour_Cod (-)	Light Brown	Brown	Brown	Clear	Clear	Clear
3	EC_FLD (µmho/cm)				1480	1490	
4	EC_GEN (µmho/cm)	710	958	764	1265	1202	910
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)					6.5	
7	pH_GEN (pH units)	8.1	8.0	8.4	8.1	7.3	8.0
8	TDS (mg/L)	368	555	491	721	826	552
9	Temp (deg C)	26.0	25.0	26.0	26.0	24.0	28.5
10	Turb (NTU)	6.0	3.0	13.0	13.0	15.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	41.7	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	227	259	219	142	164	246
3	B (mg/L)	0.27	0.40	0.81	0.20	0.17	0.25
4	Ca (mg/L)	40	45	46	22	23	53
5	Cl (mg/L)	66.3	109.1	75.8	182.5	150.6	123.1
6	CO3 (mg/L)	0.0	0.0	50.2	0.0	0.0	0.0
7	F (mg/L)	0.65	0.63	0.67	0.79	0.81	0.87
8	Fe (mg/L)	2.2	0.3	0.4	0.4	0.5	0.3
9	HCO3 (mg/L)	277	316	165	173	201	301
10	K (mg/L)	2.7	2.4	2.8	2.7	2.7	2.9
11	Mg (mg/L)	22.5	32.0	31.6	39.8	39.3	21.8
12	Na (mg/L)	70.0	104.1	71.3	113.4	76.7	87.2
13	NH3-N (mg N/L)	0.37	0.25	0.14	0.22	0.16	0.21
14	NO2+NO3 (mg N/L)	6.62	7.10	9.22	11.53	10.06	7.63
15	NO2-N (mgN/L)	0.02	0.09	0.07	0.05	0.05	0.06
16	NO3-N (mgN/L)	6.60	7.01	9.15	11.48	10.01	7.57
17	o-PO4-P (mg P/L)	1.570	0.421	0.078	0.106	0.040	0.422
18	SiO2 (mg/L)	11.7	5.6	8.3	8.3	14.8	11.5
19	SO4 (mg/L)	70.0	82.0	72.6	113.9	57.3	57.3
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.3	0.4	0.4	1.5	1.6	1.2
2	COD (mg/L)	5.7	1.9	1.9	16.2	16.2	6.1
3	DO (mg/L)	3.8	2.6	4.6	5.3	3.7	4.6
4	DO_SAT% (%)	47	31	57	65	44	59
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	0.0	0.8	0.0	0.8
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.0	3.5
3	Cu (µg/L)	2.8	1.6	1.1	2.5	2.8	2.1
4	Hg (µg/L)						
5	Ni (µg/L)	0.1	10.2	9.0	6.4	5.0	3.5
6	Pb (µg/L)	18.0	27.0	20.0	13.0	39.0	44.0
7	Zn (µg/L)	4.7	6.8	0.0	4.3	2.2	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	100	113	116	55	57	133
2	HAR_Total (mgCaCO3/L)	194	246	247	221	220	223
3	Na% (%)	44	48	38	53	43	46
4	RSC (-)	0.7	0.3	0.0	0.0	0.0	0.5
5	SAR (-)	2.2	2.9	2.0	3.3	2.3	2.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	30.34	24.90	23.76	29.45	16.87	14.95
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)	1480	1430				1480
4	EC_GEN (µmho/cm)	915	952	870	858	963	1324
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)	6.4	6.5				6.5
7	pH_GEN (pH units)	8.3	8.4	8.6	8.6	9.0	8.0
8	TDS (mg/L)	506	741	625	485	701	939
9	Temp (deg C)	27.5	24.5	23.5	26.5	24.5	25.0
10	Turb (NTU)	5.0	3.0	4.6	7.0	7.0	6.9
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	26.2	25.2	21.1	21.6	30.5	0.0
2	ALK-TOT (mgCaCO3/L)	224	194	210	202	192	214
3	B (mg/L)	0.16	0.13	0.00	0.39	0.23	0.32
4	Ca (mg/L)	52	53	45	35	46	43
5	Cl (mg/L)	110.9	95.6	95.9	156.2	152.5	170.2
6	CO3 (mg/L)	31.6	30.4	25.4	26.0	36.8	0.0
7	F (mg/L)	0.85	0.83	0.74	0.80	0.72	0.75
8	Fe (mg/L)	0.4	0.2	0.3	0.5	0.3	0.2
9	HCO3 (mg/L)	209	175	205	193	160	262
10	K (mg/L)	3.4	2.1	2.5	4.3	4.4	4.6
11	Mg (mg/L)	21.0	20.5	32.8	39.6	34.0	24.0
12	Na (mg/L)	92.8	85.0	78.0	108.3	117.3	116.3
13	NH3-N (mg N/L)	0.00	0.03	0.00	0.00	0.21	0.00
14	NO2+NO3 (mg N/L)	7.28	8.88	9.09	9.37	2.04	2.12
15	NO2-N (mgN/L)	0.01	0.00	0.01	0.00	0.00	0.01
16	NO3-N (mgN/L)	7.27	8.88	9.08	9.37	2.04	2.11
17	o-PO4-P (mg P/L)	0.041	0.070	0.050	0.030	0.180	0.640
18	SiO2 (mg/L)	13.2	7.8	14.0	5.1	6.0	11.7
19	SO4 (mg/L)	84.0	67.2	67.0	63.0	62.9	92.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.4	1.1	1.4	1.0	1.2	0.8
2	COD (mg/L)				1.8	5.5	1.8
3	DO (mg/L)	5.0	5.8	7.6	7.5	4.1	4.7
4	DO_SAT% (%)	63	69	89	93	49	57
5	FCol-MPN (MPN/100mL)			790	1400	270	1700
6	Tcol-MPN (MPN/100mL)			1400	1700	1400	2800
	TRACE & TOXIC						
1	Cd (µg/L)	0.7	0.8	0.1	0.0	0.0	0.0
2	Cr (µg/L)	0.0	2.6	4.8	3.5	0.3	2.3
3	Cu (µg/L)	1.8	1.5	1.6	3.5	2.3	3.1
4	Hg (µg/L)						
5	Ni (µg/L)	6.1	0.0	0.0	10.4	8.1	10.6
6	Pb (µg/L)	32.0	0.0	0.0	28.0	13.0	19.0
7	Zn (µg/L)	10.6	2.1	1.7	7.8	4.1	1.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	130	133	112	89	114	108
2	HAR_Total (mgCaCO3/L)	218	218	248	254	256	208
3	Na% (%)	48	46	40	48	50	54
4	RSC (-)	0.2	0.0	0.0	0.0	0.0	0.2
5	SAR (-)	2.7	2.5	2.2	3.0	3.2	3.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	20-03-2023	
		A	A	A	A	A	
	PHYSICAL						
1	Q (cumec)	13.48	11.67	11.74	4.992	46.09	
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	
3	EC_FLD (µmho/cm)		1450	1480			
4	EC_GEN (µmho/cm)	1020	1318	1375	1406	932	
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	
6	pH_FLD (pH units)		6.5	6.4			
7	pH_GEN (pH units)	8.4	7.8	8.3	8.3	8.5	
8	TDS (mg/L)	709	920	936	634	1215	
9	Temp (deg C)	24.0	23.0	23.0	24.0	25.0	
10	Turb (NTU)	3.0	12.0	6.7	10.0	5.6	
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	21.6	0.0	0.0	0.0	33.7	
2	ALK-TOT (mgCaCO3/L)	250	320	335	286	204	
3	B (mg/L)	0.39	0.31	0.33	0.32	0.31	
4	Ca (mg/L)	62	72	73	119	42	
5	Cl (mg/L)	141.0	177.4	136.9	218.0	160.5	
6	CO3 (mg/L)	26.0	0.0	0.0	0.0	40.6	
7	F (mg/L)	0.86	0.85	0.84	0.98	0.94	
8	Fe (mg/L)	0.4	0.4	0.5	0.4	0.3	
9	HCO3 (mg/L)	252	390	409	349	166	
10	K (mg/L)	3.6	3.9	3.5	3.9	5.0	
11	Mg (mg/L)	35.3	40.0	39.5	46.0	22.4	
12	Na (mg/L)	95.0	124.0	98.8	171.6	136.0	
13	NH3-N (mg N/L)	0.16	0.03	0.00	0.06	0.05	
14	NO2+NO3 (mg N/L)	1.49	2.04	1.98	2.26	2.28	
15	NO2-N (mgN/L)	0.02	0.02	0.01	0.01	0.12	
16	NO3-N (mgN/L)	1.47	2.02	1.97	2.25	2.16	
17	o-PO4-P (mg P/L)	0.200	0.700	0.700	0.900	0.800	
18	SiO2 (mg/L)	3.4	6.5	9.4	7.1	6.2	
19	SO4 (mg/L)	89.0	110.0	119.4	148.7	148.7	
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.2	0.8	0.3	1.6	2.3	
2	COD (mg/L)	5.6	1.9	1.9			
3	DO (mg/L)	7.3	5.3	4.4	5.7	5.7	
4	DO_SAT% (%)	87	62	51	68	69	
5	FCol-MPN (MPN/100mL)	790	1400	2400	1300	1400	
6	Tcol-MPN (MPN/100mL)	1400	1700	5400	2400	1700	
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	3.2	0.8	0.2	
2	Cr (µg/L)	1.6	1.9	2.1	2.1	6.7	
3	Cu (µg/L)	2.9	2.8	3.5	2.6	3.4	
4	Hg (µg/L)						
5	Ni (µg/L)	1.0	5.2	8.1	8.7	6.7	
6	Pb (µg/L)	11.0	28.0	23.0	39.0	28.0	
7	Zn (µg/L)	0.0	8.9	2.2	6.3	10.1	
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	155	180	183	298	105	
2	HAR_Total (mgCaCO3/L)	302	346	347	489	198	
3	Na% (%)	40	44	38	43	59	
4	RSC (-)	0.0	0.0	0.0	0.0	0.1	
5	SAR (-)	2.4	2.9	2.3	3.4	4.2	
	PESTICIDES						

Sample not submitted for analysis in 11-03-2023 due to NO FLOW condition of the River

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	21.51	4.598	13.96	27.62	21.88	12.60
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	1326	1442	1297	984	1082	1042
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_FLD (pH units)						
7	pH_GEN (pH units)	8.8	8.1	7.7	8.4	8.4	8.4
8	TDS (mg/L)	959	1028	937	666	775	792
9	Temp (deg C)	24.0	23.0	25.0	25.0	25.0	24.5
10	Turb (NTU)	8.0	5.9	2.0	2.7	2.8	2.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	35.7	0.0	0.0	21.6	20.8	26.8
2	ALK-TOT (mgCaCO3/L)	282	306	280	279	275	236
3	B (mg/L)	0.00	0.00	0.00	0.03	0.14	0.08
4	Ca (mg/L)	46	74	41	55	60	67
5	Cl (mg/L)	178.0	203.6	181.5	134.3	136.0	145.0
6	CO3 (mg/L)	43.0	0.0	0.0	26.0	25.0	32.3
7	F (mg/L)	0.88	0.78	0.84	0.82	0.78	0.84
8	Fe (mg/L)	0.6	0.3	0.5	0.2	0.1	0.2
9	HCO3 (mg/L)	257	373	342	287	285	222
10	K (mg/L)	3.1	3.5	3.8	3.8	5.5	5.7
11	Mg (mg/L)	28.3	52.0	37.0	34.5	49.0	48.9
12	Na (mg/L)	138.0	106.5	139.0	115.6	136.0	87.3
13	NH3-N (mg N/L)	0.03	0.05	0.07	0.04	0.09	0.12
14	NO2+NO3 (mg N/L)	2.86	2.80	2.74	1.82	1.84	2.08
15	NO2-N (mgN/L)	0.01	0.00	0.01	0.04	0.04	0.26
16	NO3-N (mgN/L)	2.85	2.80	2.73	1.78	1.80	1.82
17	o-PO4-P (mg P/L)	0.900	0.700	0.600	0.900	0.600	2.400
18	SiO2 (mg/L)	9.4	24.8	14.6	26.4	12.2	11.7
19	SO4 (mg/L)	101.0	93.7	106.0	116.0	85.0	85.2
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.9	0.9	2.5	3.3	1.3	2.3
2	COD (mg/L)				5.7	5.7	9.5
3	DO (mg/L)	4.0	4.4	4.2	5.6	4.3	4.9
4	DO_SAT% (%)	48	51	51	68	52	58
5	FCol-MPN (MPN/100mL)	1300	1100	1400	790	1100	790
6	Tcol-MPN (MPN/100mL)	2200	1400	1700	1400	1400	1400
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.5	0.3	0.0	2.4	1.1
2	Cr (µg/L)	8.3	7.9	5.8	12.3	3.5	2.7
3	Cu (µg/L)	6.5	2.1	4.1	1.9	3.9	0.0
4	Hg (µg/L)						
5	Ni (µg/L)	6.2	6.2	6.8	2.7	9.8	0.0
6	Pb (µg/L)	24.0	25.0	2.0	9.0	22.0	6.0
7	Zn (µg/L)	0.0	13.4	8.1	28.0	0.0	15.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	115	184	101	137	150	167
2	HAR_Total (mgCaCO3/L)	233	401	255	280	354	370
3	Na% (%)	56	37	54	47	45	34
4	RSC (-)	1.0	0.0	0.5	0.0	0.0	0.0
5	SAR (-)	3.9	2.3	3.8	3.0	3.2	2.0
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	1518	0.000	106.8
2	EC_FLD (µmho/cm)	11	1520	1380	1457
3	EC_GEN (µmho/cm)	34	1738	500	1014
4	pH_FLD (pH units)	10	6.5	6.4	6.5
5	pH_GEN (pH units)	34	9.0	6.7	8.2
6	TDS (mg/L)	34	1324	318	701
7	Temp (deg C)	33	28.5	23.0	24.9
8	Turb (NTU)	34	17.0	0.9	6.6
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	34	41.7	0.0	11.4
2	ALK-TOT (mgCaCO3/L)	34	350	57	212
3	B (mg/L)	34	0.81	0.00	0.26
4	Ca (mg/L)	34	119	18	45
5	Cl (mg/L)	34	290.7	61.0	134.2
6	CO3 (mg/L)	34	50.2	0.0	13.7
7	F (mg/L)	34	1.18	0.62	0.85
8	Fe (mg/L)	34	8.4	0.1	0.7
9	HCO3 (mg/L)	34	427	70	231
10	K (mg/L)	34	37.2	1.4	4.4
11	Mg (mg/L)	34	52.0	3.1	30.2
12	Na (mg/L)	34	286.4	43.0	101.7
13	NH3-N (mg N/L)	34	0.47	0.00	0.11
14	NO2+NO3 (mg N/L)	34	19.90	1.49	5.19
15	NO2-N (mgN/L)	34	0.26	0.00	0.04
16	NO3-N (mgN/L)	34	19.81	1.47	5.15
17	o-PO4-P (mg P/L)	34	2.400	0.030	0.475
18	SiO2 (mg/L)	34	26.4	3.4	10.7
19	SO4 (mg/L)	34	148.7	15.7	81.8
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	34	3.8	0.2	1.5
2	COD (mg/L)	24	32.5	1.8	8.9
3	DO (mg/L)	34	7.6	2.6	4.8
4	DO_SAT% (%)	33	93	31	59
5	FCol-MPN (MPN/100mL)	15	2400	270	1195
6	Tcol-MPN (MPN/100mL)	15	5400	1400	1960
	TRACE & TOXIC				
1	Cd (µg/L)	34	3.2	0.0	0.6
2	Cr (µg/L)	34	78.0	0.0	4.8
3	Cu (µg/L)	34	14.4	0.0	3.6
4	Hg (µg/L)	9	0.4	0.0	0.1
5	Ni (µg/L)	34	24.0	0.0	6
6	Pb (µg/L)	34	44.0	0.0	19.9
7	Zn (µg/L)	34	28.0	0.0	6.3
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	34	298	45	113
2	HAR_Total (mgCaCO3/L)	34	489	58	238
3	Na% (%)	34	73	31	48
4	RSC (-)	34	1.7	0.0	0.2
5	SAR (-)	34	7.7	1.3	3
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood								
		Jun - Oct								
		2008	2009	2010	2011	2012	2013	2014	2015	2016
	PHYSICAL									
1	Q (cumec)	72.83	56.37	147.2	36.29	63.22	201.0	16.87	67.46	101.4
2	EC_FLD (µmho/cm)			890			1000			1730
3	EC_GEN (µmho/cm)	649	641	613	805	631	657	923	611	449
4	pH_FLD (pH units)			8.2			7.0			7.8
5	pH_GEN (pH units)	8.2	8.4	8.4	8.2	8.3	8.2	8.1	8.0	8.1
6	TDS (mg/L)				454	476	478	522	388	314
7	Temp (deg C)	27.7	28.8	29.7	29.0	30.0	29.1	29.0	25.8	25.0
8	Turb (NTU)				1.0	0.6	2.6	8.3	65.8	325.8
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	2.7	4.0	2.7	1.3	2.0	2.2	0.0	0.0	0.4
2	ALK-TOT (mgCaCO3/L)	189	176	183	229	200	252	208	190	147
3	B (mg/L)	0.00	0.00	0.00	0.00	0.19	0.72	0.32	0.18	
4	Ca (mg/L)	44	27	31	31	36	59	33	31	23
5	Cl (mg/L)	52.6	74.0	52.4	89.9	77.0	49.5	93.4	60.4	41.5
6	CO3 (mg/L)	3.2	4.8	3.2	1.6	2.4	2.6	0.0	0.0	0.5
7	F (mg/L)	0.79	0.95	1.11	1.39	0.78	0.74	0.93	0.83	0.68
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1
9	HCO3 (mg/L)	225	205	216	276	239	303	254	232	178
10	K (mg/L)	3.4	5.0	3.4	4.2	4.1	2.3	5.1	4.0	3.5
11	Mg (mg/L)	6.8	10.2	73.0	16.4	20.7	11.0	19.1	17.6	12.5
12	Na (mg/L)	60.7	76.6	59.5	100.8	89.7	63.9	110.4	79.9	57.8
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.00	0.02	0.00	0.03	0.00
14	NO2+NO3 (mg N/L)	0.01	0.60	0.00	0.42	0.93	0.67	1.04	1.02	0.92
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00
16	NO3-N (mgN/L)	0.01	0.60	0.00	0.42	0.93	0.67	1.02	1.00	0.92
17	o-PO4-P (mg P/L)				0.257	0.124	0.125	0.146	0.215	0.250
18	P-Tot (mgP/L)	0.001	0.000	0.150	0.257			0.166		
19	SiO2 (mg/L)	10.4	13.2	12.4	14.4	11.6	11.3	15.0	10.6	10.8
20	SO4 (mg/L)	37.7	45.8	40.9	46.6	47.0	32.7	58.4	33.1	20.8
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	0.9	2.0	1.0	0.2	1.2	0.6	1.0	2.1	1.6
2	COD (mg/L)	17.9	17.5	13.1	15.1	21.1	10.1	6.9	14.0	14.0
3	DO (mg/L)	5.7	5.0	6.6	5.1	6.4	6.5	5.9	5.2	5.5
4	DO_SAT% (%)	72	65	87	75	84	85	77	64	67
5	FCol-MPN (MPN/100mL)		16000	7433	12333	8150	8800	6210	7475	10720
6	Tcol-MPN (MPN/100mL)		16000	8900	13667	8400	16000	8000	12700	13360
7	TOC (mg/L)				3.1	3.6	0.8		23.9	
	TRACE & TOXIC									
1	As (µg/L)					8.3	4.4			
2	Cd (µg/L)					0.9	2.2			
3	Cr (µg/L)					15.3	0.7			
4	Cu (µg/L)									
5	Hg (µg/L)						0.6			
6	Ni (µg/L)					5.4	18.4			
7	Pb (µg/L)					3.5	2.4			
8	Zn (µg/L)					62.5	0.0			
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	109	68	79	78	90	148	84	78	56
2	HAR_Total (mgCaCO3/L)	138	111	383	146	176	194	163	151	108
3	Na% (%)	48	56	30	58	52	42	58	52	52
4	RSC (-)	1.1	1.3	0.3	1.7	0.5	1.2	0.9	0.8	0.8
5	SAR (-)	2.3	3.0	1.4	3.6	3.0	2.0	3.7	2.8	2.4
	PESTICIDES									
1	Aldrin (µg/L)									
2	BHC (µg/L)									
3	DDT (µg/L)									
4	Dieldrin (µg/L)									
5	Endos (µg/L)									

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood						Winter	
		Jun - Oct						Nov - Feb	
		2017	2018	2019	2020	2021	2022	2008-2009	2009-2010
	PHYSICAL								
1	Q (cumec)	50.20	20.47	225.9	792.8	118.0	276.0	47.12	18.98
2	EC_FLD (µmho/cm)	1758	938		155		1435		
3	EC_GEN (µmho/cm)	707	942	612	516	742	857	782	874
4	pH_FLD (pH units)	7.7	7.7		7.2		6.5		
5	pH_GEN (pH units)	8.2	8.3	7.9	7.7	7.9	8.0	8.3	8.3
6	TDS (mg/L)	446	593	332	316	548	583		
7	Temp (deg C)	24.0	21.6	15.3	26.0	24.8	25.2	22.0	25.5
8	Turb (NTU)	27.8	7.6	52.3	43.0	4.6	6.8		
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	8.0	4.8	0.0	0.0	3.6	7.2	8.0	4.0
2	ALK-TOT (mgCaCO3/L)	200	174	215	190	218	170	276	188
3	B (mg/L)	0.12	0.08	0.18	0.22	0.12	0.36	0.00	0.00
4	Ca (mg/L)	40	30	51	30	46	32	46	32
5	Cl (mg/L)	91.9	113.3	112.0	48.1	104.1	108.0	75.9	81.2
6	CO3 (mg/L)	9.6	5.8	0.0	0.0	4.3	8.7	9.6	4.8
7	F (mg/L)	0.78	0.78	0.84	0.08	1.05	0.87	0.85	1.44
8	Fe (mg/L)	0.7	0.3	0.4	0.4	0.5	1.3	0.0	0.0
9	HCO3 (mg/L)	225	200	262	232	257	190	318	219
10	K (mg/L)	0.6	0.5	1.2	0.3	4.9	5.4	4.0	2.8
11	Mg (mg/L)	27.9	29.1	18.3	22.4	20.5	22.8	11.7	17.9
12	Na (mg/L)	87.9	80.3	84.9	45.9	80.0	88.2	104.2	109.4
13	NH3-N (mg N/L)	0.08	0.07	0.03	0.04		0.17	0.05	0.00
14	NO2+NO3 (mg N/L)	7.29	0.63	2.01			6.03	0.01	0.18
15	NO2-N (mgN/L)	0.14	0.08	0.06	0.05	0.03	0.05	0.00	0.00
16	NO3-N (mgN/L)	7.15	0.56	1.94		5.32	5.98	0.01	0.18
17	o-PO4-P (mg P/L)	0.325	0.126	0.090	0.040	0.540	0.370		
18	P-Tot (mgP/L)					0.805		0.001	0.000
19	SiO2 (mg/L)	13.0	18.8	11.2	17.7		10.1	12.2	10.4
20	SO4 (mg/L)	68.2	49.5	39.5	26.3	48.0	65.3	47.4	69.2
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.3	1.6	2.6	0.9	2.5	1.6	1.0	0.7
2	COD (mg/L)	13.1	26.0	29.5	14.2	20.9	11.3	12.5	13.0
3	DO (mg/L)	5.9	5.0	5.1	3.4	4.9	4.3	7.1	6.0
4	DO_SAT% (%)	70	57	51	43	58	53	81	73
5	FCol-MPN (MPN/100mL)	8780	214	623	1250	386			12500
6	Tcol-MPN (MPN/100mL)	8780	714	11133	9750	759			16000
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)			0.7		2.5			
2	Cd (µg/L)			5.2		0.7	0.5		
3	Cr (µg/L)			8.6		2.0	6.5		
4	Cu (µg/L)	1.2	8.4	8.3	0.0	3.9	4.8		
5	Hg (µg/L)					0.4	0.1		
6	Ni (µg/L)			33.8		3.4	6.7		
7	Pb (µg/L)			1.9		15.2	19.3		
8	Zn (µg/L)	54.7	14.3	13.0	0.0	19.5	6.2		
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	100	74	128	75	116	81	116	80
2	HAR_Total (mgCaCO3/L)	216	195	205	169	201	176	165	155
3	Na% (%)	47	44	47	38	45	50	57	61
4	RSC (-)	0.1	0.2	0.5	0.4	0.4	0.3	2.2	1.0
5	SAR (-)	2.6	2.5	2.6	1.6	2.4	3.0	3.6	3.9
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
	PHYSICAL							
1	Q (cumec)	38.91	14.17	10.83	23.46	15.50	0.810	27.53
2	EC_FLD (µmho/cm)	780						1738
3	EC_GEN (µmho/cm)	770	873	812	840	779	1262	677
4	pH_FLD (pH units)	8.1						7.7
5	pH_GEN (pH units)	8.3	8.0	7.8	8.2	8.3	8.0	8.4
6	TDS (mg/L)		555	483	535	553	476	496
7	Temp (deg C)	25.0	25.5	27.0	26.0	25.1	25.0	22.3
8	Turb (NTU)		1.0	1.5	2.5	0.1	2.0	0.3
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	8.0	0.0	0.0	0.0	2.1	0.0	5.0
2	ALK-TOT (mgCaCO3/L)	233	251	252	245	259	260	200
3	B (mg/L)	0.00	0.18	0.28	0.78	0.24	0.01	
4	Ca (mg/L)	36	41	39	45	44	39	42
5	Cl (mg/L)	67.7	97.3	72.0	74.8	91.0	112.5	66.3
6	CO3 (mg/L)	9.6	0.0	0.0	0.0	2.5	0.0	6.1
7	F (mg/L)	0.78	0.96	1.03	0.83	0.89	0.81	0.71
8	Fe (mg/L)	0.0	0.1	0.0	0.0	0.1	0.0	0.1
9	HCO3 (mg/L)	265	306	307	300	311	317	231
10	K (mg/L)	3.6	3.4	4.9	3.3	2.6	4.5	4.1
11	Mg (mg/L)	20.4	23.6	22.3	26.0	24.4	22.1	22.8
12	Na (mg/L)	83.3	110.2	90.9	96.6	86.9	121.8	72.0
13	NH3-N (mg N/L)	0.00	0.02	0.04	0.05	0.00	0.00	0.13
14	NO2+NO3 (mg N/L)	0.00	0.81	0.82	1.07	0.51	0.66	0.22
15	NO2-N (mgN/L)	0.00	0.01	0.00	0.00	0.00	0.00	0.01
16	NO3-N (mgN/L)	0.00	0.80	0.82	1.07	0.50	0.66	0.21
17	o-PO4-P (mg P/L)		0.134	0.053	0.100	0.100	0.092	0.078
18	P-Tot (mgP/L)	0.060	0.134					
19	SiO2 (mg/L)	15.2	17.2	16.6	13.7	11.2	5.2	13.7
20	SO4 (mg/L)	45.5	63.8	37.0	44.5	57.0	38.9	83.5
	BIOLOGICAL/BACTERIOLOGICA							
1	BOD3-27 (mg/L)	1.1	1.3	1.5	1.4	0.3	1.0	1.7
2	COD (mg/L)	19.8	23.8	17.8	6.1	8.1	11.5	8.0
3	DO (mg/L)	6.8	6.9	5.0	6.8	6.3	4.5	5.9
4	DO_SAT% (%)	82	84	64	83	77	54	68
5	FCol-MPN (MPN/100mL)	10500	515	180	180	1315	1650	6370
6	Tcol-MPN (MPN/100mL)	12500	1450	850	365	8250	12500	8600
7	TOC (mg/L)		3.3	2.4		39.4	28.1	
	TRACE & TOXIC							
1	As (µg/L)							
2	Cd (µg/L)					2.9		
3	Cr (µg/L)					0.2		
4	Cu (µg/L)							0.0
5	Hg (µg/L)							
6	Ni (µg/L)					12.1		
7	Pb (µg/L)					19.8		
8	Zn (µg/L)					8.5		0.0
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	90	102	97	111	109	97	104
2	HAR_Total (mgCaCO3/L)	175	200	190	220	211	189	199
3	Na% (%)	50	54	50	49	47	58	43
4	RSC (-)	1.2	1.0	1.3	0.5	1.0	1.4	0.1
5	SAR (-)	2.7	3.4	2.9	2.8	2.6	3.9	2.2
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter					
		Nov - Feb					
		2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
	PHYSICAL						
1	Q (cumec)	6.494	16.97	38.17	24.97	40.13	28.82
2	EC_FLD (µmho/cm)	1793	504		151		1470
3	EC_GEN (µmho/cm)	827	1345	825	713	765	1081
4	pH_FLD (pH units)	7.7	7.7		7.2		6.5
5	pH_GEN (pH units)	7.8	8.1	8.1	8.1	8.1	8.2
6	TDS (mg/L)	479	708	555	447	609	722
7	Temp (deg C)	21.0	21.5	25.5	23.4	25.2	25.0
8	Turb (NTU)	12.5	6.7	15.5	22.0	7.4	7.3
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	1.2	0.0	1.9	5.3	12.2
2	ALK-TOT (mgCaCO3/L)	245	227	288	254	235	224
3	B (mg/L)	0.03	0.17	0.49	0.31	0.36	0.24
4	Ca (mg/L)	45	37	35	34	45	48
5	Cl (mg/L)	99.8	154.5	98.5	99.6	99.8	141.1
6	CO3 (mg/L)	0.0	1.5	0.0	2.3	6.4	14.7
7	F (mg/L)	0.91	0.47	0.82	0.81	0.84	0.81
8	Fe (mg/L)	0.3	0.4	1.0	0.5	0.3	0.3
9	HCO3 (mg/L)	299	274	351	306	273	244
10	K (mg/L)	0.4	0.5	0.4	0.6	3.7	3.4
11	Mg (mg/L)	30.5	30.6	36.3	32.6	25.0	32.3
12	Na (mg/L)	87.5	107.0	113.3	100.4	87.9	99.4
13	NH3-N (mg N/L)	1.45	0.05	0.02	0.11	0.13	0.08
14	NO2+NO3 (mg N/L)	5.97	1.56	4.21	2.37		6.13
15	NO2-N (mgN/L)	0.02	0.05	0.18	0.11	0.02	0.02
16	NO3-N (mgN/L)	5.94	1.51	4.03	2.20		6.11
17	o-PO4-P (mg P/L)	0.425	0.217	0.180	0.548	0.939	0.265
18	P-Tot (mgP/L)					1.315	
19	SiO2 (mg/L)	8.6	13.7	12.7	18.7	16.4	9.3
20	SO4 (mg/L)	55.4	68.3	64.4	87.9	70.2	81.9
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	0.4	0.8	1.9	1.5	1.6	1.1
2	COD (mg/L)	16.0	12.5	43.2	18.3		6.3
3	DO (mg/L)	5.5	6.8	4.8	5.3	5.9	5.4
4	DO_SAT% (%)	62	76	58	63	72	66
5	FCol-MPN (MPN/100mL)	1450	150	248	1507	1206	1250
6	Tcol-MPN (MPN/100mL)	10500	703	2675	5843	1869	2257
7	TOC (mg/L)						
	TRACE & TOXIC						
1	As (µg/L)				1.4		
2	Cd (µg/L)				2.8	0.8	0.5
3	Cr (µg/L)				3.7	2.1	1.9
4	Cu (µg/L)	3.0	11.3	3.8	2.6	1.9	2.5
5	Hg (µg/L)				0.7	0.2	
6	Ni (µg/L)				5.0	4.6	5.4
7	Pb (µg/L)				43.0	7.9	20.8
8	Zn (µg/L)	56.5	46.8	67.3	9.8	10.0	3.8
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	111	92	88	85	113	120
2	HAR_Total (mgCaCO3/L)	238	220	239	221	217	255
3	Na% (%)	45	52	51	50	46	46
4	RSC (-)	0.2	0.5	1.0	0.8	0.4	0.1
5	SAR (-)	2.5	3.2	3.2	2.9	2.6	2.7
	PESTICIDES						
1	Aldrin (µg/L)						
2	BHC (µg/L)						
3	DDT (µg/L)						
4	Dieldrin (µg/L)						
5	Endos (µg/L)						

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Summer								
		Mar - May								
		2009	2010	2015	2018		2020	2021	2022	2023
	PHYSICAL									
1	Q (cumec)	0.446	0.798	0.131	8.305		8.300	9.591	6.101	19.16
2	EC_FLD (µmho/cm)				1710			450		
3	EC_GEN (µmho/cm)	805	846	1048	1427		809	993	799	1189
4	pH_FLD (pH units)				7.6			7.1		
5	pH_GEN (pH units)	8.4	8.4	8.1	8.1		8.2	8.1	8.5	8.3
6	TDS (mg/L)			615	703		579	628	577	876
7	Temp (deg C)	28.0	28.5	25.5	21.0		25.0	24.5	25.8	24.4
8	Turb (NTU)			4.0	34.5		21.0	20.0	5.0	4.9
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	8.0	8.0	1.7	0.0		0.0	0.0	27.3	17.3
2	ALK-TOT (mgCaCO3/L)	216	196	247	339		309	257	227	268
3	B (mg/L)	0.00	0.00	0.26	0.53		0.55	0.87	0.38	0.11
4	Ca (mg/L)	30	35	39	49		29	35	33	63
5	Cl (mg/L)	209.7	187.4	123.4	138.6		164.0	122.8	118.9	169.6
6	CO3 (mg/L)	9.6	9.6	2.1	0.0		0.0	0.0	32.9	20.9
7	F (mg/L)	1.07	2.36	0.97	0.76		1.12	1.22	1.06	0.86
8	Fe (mg/L)	0.0	0.0	0.0	0.1		0.7	0.4	0.3	0.3
9	HCO3 (mg/L)	244	220	298	413		377	314	210	285
10	K (mg/L)	4.6	5.2	5.8	0.8		0.4	4.3	4.2	4.3
11	Mg (mg/L)	13.0	19.4	21.5	35.3		37.0	25.5	28.4	39.8
12	Na (mg/L)	94.3	113.0	138.8	145.0		160.0	128.1	96.1	128.8
13	NH3-N (mg N/L)	0.05	0.00	0.01	0.01		0.00	0.12	0.23	0.06
14	NO2+NO3 (mg N/L)	0.01	0.00	0.52	6.88		4.69	2.82		2.33
15	NO2-N (mgN/L)	0.00	0.00	0.28	0.02		0.09	0.52	0.03	0.06
16	NO3-N (mgN/L)	0.01	0.00	0.24	6.86		4.60	4.69		2.27
17	o-PO4-P (mg P/L)			0.120	0.800		0.130	0.638	0.242	0.975
18	P-Tot (mgP/L)	0.001	0.000							
19	SiO2 (mg/L)	16.9	13.9	16.4	9.2		14.5	31.8	28.8	14.0
20	SO4 (mg/L)	48.0	39.2	85.4	86.7		168.0	61.7	66.2	110.5
	BIOLOGICAL/BACTERIOLOGICA									
1	BOD3-27 (mg/L)	0.3	0.7	1.7	2.2		0.6	5.9	1.3	2.0
2	COD (mg/L)	8.1	31.0	16.6	23.1		18.6	15.3	5.8	6.9
3	DO (mg/L)	5.0	6.6	4.5	5.1		4.7	3.9	5.0	4.8
4	DO_SAT% (%)	64	84	55	57		57	46	61	58
5	FCol-MPN (MPN/100mL)		1300	11	1510		170	1540		1148
6	Tcol-MPN (MPN/100mL)		1700	8115	1565		1700	3977		1700
7	TOC (mg/L)			34.6						
	TRACE & TOXIC									
1	As (µg/L)		4.7		2.5			2.3		
2	Cd (µg/L)	2.2	0.0		2.6			1.4	0.4	0.8
3	Cr (µg/L)	2.0	0.0		0.0			1.3	3.0	6.2
4	Cu (µg/L)				6.0		2.0	9.3	1.8	3.1
5	Hg (µg/L)				0.3			0.6	0.8	
6	Ni (µg/L)	1.0	0.9		10.5			13.0	1.4	5.9
7	Pb (µg/L)	24.4	0.0		29.0			30.5	17.8	19.4
8	Zn (µg/L)	17.8	111.2		43.1		11.0	13.5	7.5	10.2
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	76	88	97	123		73	88	83	157
2	HAR_Total (mgCaCO3/L)	130	169	186	270		227	194	202	323
3	Na% (%)	60	59	61	54		61	58	50	47
4	RSC (-)	1.7	0.6	1.3	1.4		1.7	1.3	0.5	0.2
5	SAR (-)	3.6	3.8	4.5	3.9		4.6	4.0	3.0	3.2
	PESTICIDES									
1	Aldrin (µg/L)	0.0	0.0							
2	BHC (µg/L)	0.1	0.1							
3	DDT (µg/L)	0.1	0.0							
4	Dieldrin (µg/L)	0.0	0.0							
5	Endos (µg/L)	0.1	0.0							

Sample not submitted for analysis in Summer 2011 to 2014 and 2016 to 2017 and 2019 due to NO FLOW condition of the River

HISTORY SHEET

			Water Year	:	**2022-2023**
Site	:	**Vijayawada**	**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"
		Opening Date	Closing Date		
Gauge	:	21-03-1964			
Discharge	:	24-03-1964			
Sediment	:	01-02-1965			
Water Quality	:	01-01-1972			

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-06-2022	13-06-2022	21-06-2022	01-07-2022	11-07-2022	21-07-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000	0.000	1149	118.3
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Light Brown	Clear
3	EC_FLD (µmho/cm)					654	
4	EC_GEN (µmho/cm)	1507	1492	1399	1372	588	566
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.8	9.1	8.7	8.9	8.0	8.2
7	TDS (mg/L)	895	1055	920	1081	401	423
8	Temp (deg C)	29.0	28.0	27.0		26.0	
9	Turb (NTU)	8.0	4.0	4.0	5.0	36.0	3.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	25.8	32.4	21.5	30.3	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	187	179	182	189	108	129
3	B (mg/L)	0.17	0.00		0.74	0.76	0.75
4	Ca (mg/L)	30	26	26	22	39	35
5	Cl (mg/L)	270.7	350.7	286.7	270.7	137.1	150.0
6	CO3 (mg/L)	31.1	39.0	25.9	36.5	0.0	0.0
7	F (mg/L)	0.45	0.50	0.46	0.55	0.46	0.81
8	Fe (mg/L)	0.1	0.1	0.0	0.4	0.9	0.3
9	HCO3 (mg/L)	165	139	169	156	132	157
10	K (mg/L)	7.7	40.4	9.1	9.7	4.2	2.3
11	Mg (mg/L)	43.5	47.0	43.6	39.0	28.4	24.0
12	Na (mg/L)	145.1	280.0	226.5	206.0	61.8	56.4
13	NH3-N (mg N/L)	0.08	0.15		0.00	0.44	0.14
14	NO2+NO3 (mg N/L)	2.57	3.58	3.65	3.08	3.28	3.65
15	NO2-N (mgN/L)	0.02	0.01	0.04	0.01	0.08	0.01
16	NO3-N (mgN/L)	2.55	3.57	3.61	3.07	3.20	3.64
17	o-PO4-P (mg P/L)	0.120	0.220	0.220	0.300	0.380	0.390
18	SiO2 (mg/L)	9.1	16.0	4.4	6.6	8.0	5.4
19	SO4 (mg/L)	120.8	109.0	95.8	124.8	45.1	32.0
	BIOLOGICAL/BACTERIOLOGICAL						
1	BOD3-27 (mg/L)	1.3	1.0	0.4	0.4	2.1	2.0
2	COD (mg/L)				1.9	5.9	5.6
3	DO (mg/L)	6.0	4.7	5.6	5.4	5.5	
4	DO_SAT% (%)	78	60	70		68	
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	4.8	0.1	1.8	0.0	1.8	0.5
2	Cr (µg/L)	3.7	3.8	6.2	0.0	5.3	2.5
3	Cu (µg/L)	9.3	4.3	1.9	4.3	0.9	0.0
4	Hg (µg/L)	0.2	0.2	0.0	0.1	0.0	0.2
5	Ni (µg/L)	6.7	0.0	0.0	4.2	3.4	2.2
6	Pb (µg/L)	8.0	0.0	0.0	3.0	0.0	29.0
7	Zn (µg/L)	10.2	2.3	5.1	4.3	2.5	21.9
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	75	64	65	55	99	88
2	HAR_Total (mgCaCO3/L)	256	260	246	218	217	188
3	Na% (%)	54	66	66	66	38	39
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	4.0	7.6	6.3	6.1	1.8	1.8
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-08-2022	11-08-2022	22-08-2022	01-09-2022	12-09-2022	21-09-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	109.5	2050	3341	864.1	5633	7788
2	Colour_Cod (-)	Clear	Light Brown	Clear	Clear	Clear	Light Brown
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	709	751	572	575	524	559
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.6	8.4	8.3	8.2	8.2	8.2
7	TDS (mg/L)	442	451	364	413	355	402
8	Temp (deg C)	31.0	29.0	31.0	30.0	30.0	30.0
9	Turb (NTU)	2.0	5.0	5.0	2.0	3.9	4.2
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	19.1	20.8	11.4	0.0	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	163	138	127	53	55	141
3	B (mg/L)	0.19	0.15	0.19	0.11	0.18	0.13
4	Ca (mg/L)	33	35	35	37	37	40
5	Cl (mg/L)	75.9	110.1	62.0	69.1	68.4	61.8
6	CO3 (mg/L)	23.0	25.0	13.7	0.0	0.0	0.0
7	F (mg/L)	0.82	0.80	0.45	0.46	0.43	0.67
8	Fe (mg/L)	0.2	0.3	1.3	0.3	1.1	1.1
9	HCO3 (mg/L)	152	118	127	64	67	172
10	K (mg/L)	3.2	5.2	1.6	1.8	1.4	1.2
11	Mg (mg/L)	23.6	21.6	15.0	14.6	14.0	21.0
12	Na (mg/L)	52.8	62.3	38.0	39.2	33.0	35.2
13	NH3-N (mg N/L)	0.47	0.20	0.03	0.03	0.43	0.04
14	NO2+NO3 (mg N/L)	3.54	3.48	3.22	4.12	4.23	5.50
15	NO2-N (mgN/L)	0.02	0.00	0.03	0.02	0.07	0.08
16	NO3-N (mgN/L)	3.52	3.48	3.19	4.10	4.16	5.42
17	o-PO4-P (mg P/L)	0.362	0.000	0.210	0.210	0.840	0.240
18	SiO2 (mg/L)	11.7	10.0	36.5	15.5	12.9	17.0
19	SO4 (mg/L)	71.6	75.0	36.5	59.0	59.0	55.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.0	1.3	0.5	1.2	1.6	1.3
2	COD (mg/L)	15.7	7.3	4.0	9.6	10.8	11.2
3	DO (mg/L)	5.9	5.6	5.8	7.0	7.0	7.0
4	DO_SAT% (%)	79	73	78	93	93	93
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	1.4	0.0	0.2	1.4	0.0	1.6
2	Cr (µg/L)	0.0	0.0	0.0	0.0	0.6	0.0
3	Cu (µg/L)	0.0	4.2	3.5	3.4	4.4	2.3
4	Hg (µg/L)	0.0	0.1	0.0	0.1		
5	Ni (µg/L)	0.0	3.5	3.1	2.0	3.0	1.5
6	Pb (µg/L)	11.0	40.0	26.0	43.0	0.0	36.0
7	Zn (µg/L)	13.3	3.0	3.7	1.2	9.4	30.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	82	88	88	93	93	101
2	HAR_Total (mgCaCO3/L)	180	177	150	153	151	188
3	Na% (%)	39	43	35	35	32	29
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.7	2.0	1.4	1.4	1.2	1.1
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	03-10-2022	11-10-2022	21-10-2022	01-11-2022	10-11-2022	21-11-2022
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	3530	4175	2398	575.5	565.4	0.000
2	Colour_Cod (-)	Light Brown	Light Brown	Brown	Light Green	Clear	Clear
3	EC_FLD (µmho/cm)		1262				
4	EC_GEN (µmho/cm)	577	951	600	620	651	677
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.3	8.0	8.4	8.0	8.6	8.4
7	TDS (mg/L)	312	559	393	353	358	379
8	Temp (deg C)	29.0	29.0	30.0	29.0	30.0	30.0
9	Turb (NTU)	6.0	3.0	3.0	3.0	3.0	5.0
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	15.8	0.0	21.1	0.0	17.9	19.1
2	ALK-TOT (mgCaCO3/L)	154	157	137	142	132	147
3	B (mg/L)	0.19	0.54	1.37	0.10	0.10	0.23
4	Ca (mg/L)	39	47	48	39	40	47
5	Cl (mg/L)	59.4	117.3	60.4	78.3	76.8	73.8
6	CO3 (mg/L)	19.0	0.0	25.4	0.0	21.6	23.0
7	F (mg/L)	0.66	0.67	0.42	0.39	0.42	0.45
8	Fe (mg/L)	1.1	1.0	0.6	0.6	0.2	0.5
9	HCO3 (mg/L)	149	191	116	173	118	133
10	K (mg/L)	2.3	2.4	2.7	2.6	2.9	2.9
11	Mg (mg/L)	21.0	33.8	34.4	23.6	23.0	17.0
12	Na (mg/L)	53.7	103.0	45.5	45.1	55.3	52.0
13	NH3-N (mg N/L)	0.20	0.26	0.16	1.29	0.12	0.13
14	NO2+NO3 (mg N/L)	5.76	5.76	7.87	8.88	8.88	5.31
15	NO2-N (mgN/L)	0.06	0.10	0.05	0.02	0.02	0.07
16	NO3-N (mgN/L)	5.70	5.67	7.82	8.86	8.86	5.24
17	o-PO4-P (mg P/L)	0.218	0.913	0.098	0.077	0.077	0.124
18	SiO2 (mg/L)	13.9	6.7	9.2	10.9	15.0	16.6
19	SO4 (mg/L)	44.1	90.0	49.4	55.8	60.5	61.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	2.2	1.3	0.9	0.8	2.1	2.4
2	COD (mg/L)	7.6	3.8	1.9	6.1	20.2	6.1
3	DO (mg/L)	5.9	5.6	6.7	7.2	7.7	4.9
4	DO_SAT% (%)	77	73	89	94	102	65
5	FCol-MPN (MPN/100mL)						
6	Tcol-MPN (MPN/100mL)						
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	1.7	1.1	1.0	0.3
2	Cr (µg/L)	0.0	0.0	0.0	0.8	0.0	3.3
3	Cu (µg/L)	5.7	2.2	1.3	2.5	2.4	1.5
4	Hg (µg/L)						
5	Ni (µg/L)	1.9	9.1	7.0	5.2	0.0	3.1
6	Pb (µg/L)	22.0	29.0	25.0	9.0	31.0	42.0
7	Zn (µg/L)	4.8	2.9	0.0	34.5	0.9	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	98	118	120	97	100	118
2	HAR_Total (mgCaCO3/L)	186	259	263	195	196	188
3	Na% (%)	38	46	27	33	38	37
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.7	2.8	1.2	1.4	1.7	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-12-2022	12-12-2022	21-12-2022	02-01-2023	11-01-2023	20-01-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	192.1	94.68	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	694	696	711	698	791	739
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.6	8.6	8.5	8.4	8.4	8.0
7	TDS (mg/L)	432	502	563	399	449	545
8	Temp (deg C)	27.5	30.0	30.0	30.0	30.0	29.0
9	Turb (NTU)	3.0	22.0	7.2	6.0	5.0	5.7
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	18.9	19.4	12.1	10.8	19.7	0.0
2	ALK-TOT (mgCaCO3/L)	170	169	171	161	186	205
3	B (mg/L)	0.13	0.14	0.01	0.31	0.19	0.37
4	Ca (mg/L)	46	47	42	40	40	67
5	Cl (mg/L)	86.4	93.4	119.0	90.2	99.8	86.8
6	CO3 (mg/L)	22.8	23.4	14.6	13.0	23.7	0.0
7	F (mg/L)	0.56	0.56	0.48	0.50	0.45	0.46
8	Fe (mg/L)	1.5	0.4	0.4	0.7	0.1	0.2
9	HCO3 (mg/L)	161	158	179	170	179	250
10	K (mg/L)	3.4	1.0	2.9	3.6	3.9	3.9
11	Mg (mg/L)	17.0	17.4	23.3	23.9	21.5	14.2
12	Na (mg/L)	57.0	65.8	68.6	69.6	79.5	59.3
13	NH3-N (mg N/L)	0.00	0.16	0.00	0.00	0.13	0.00
14	NO2+NO3 (mg N/L)	7.59	6.63	8.68	6.68	0.82	0.85
15	NO2-N (mgN/L)	0.02	0.01	0.01	0.04	0.03	0.01
16	NO3-N (mgN/L)	7.57	6.62	8.67	6.64	0.79	0.84
17	o-PO4-P (mg P/L)	0.083	0.050	0.050	0.040	0.000	0.030
18	SiO2 (mg/L)	8.0	18.0	15.9	6.3	7.0	6.0
19	SO4 (mg/L)	55.0	74.0	55.8	55.6	55.6	63.0
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	3.3	3.3	1.9	1.3	1.0	1.1
2	COD (mg/L)				3.6	3.6	1.8
3	DO (mg/L)	6.5	6.9	6.0	4.7	5.7	5.0
4	DO_SAT% (%)	82	91	79	62	75	65
5	FCol-MPN (MPN/100mL)			490	790	1700	1300
6	Tcol-MPN (MPN/100mL)			790	1400	2800	1700
	TRACE & TOXIC						
1	Cd (µg/L)	1.5	0.1	0.0	0.0	0.0	0.0
2	Cr (µg/L)	3.4	3.7	4.8	0.8	1.2	0.1
3	Cu (µg/L)	1.0	1.6	1.3	3.1	1.7	0.6
4	Hg (µg/L)						
5	Ni (µg/L)	6.2	0.0	0.0	8.2	6.8	4.0
6	Pb (µg/L)	31.0	0.0	1.0	36.0	11.0	0.0
7	Zn (µg/L)	10.2	3.3	0.0	1.3	0.0	0.0
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	115	117	105	99	100	168
2	HAR_Total (mgCaCO3/L)	186	189	202	199	190	227
3	Na% (%)	40	43	42	43	47	36
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	1.8	2.1	2.1	2.2	2.5	1.7
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	01-02-2023	13-02-2023	21-02-2023	01-03-2023	13-03-2023	20-03-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	824	798	826	842	920	802
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	8.3	8.6	8.7	9.0	9.2	8.7
7	TDS (mg/L)	664	602	525	760	699	647
8	Temp (deg C)	29.0	23.0	24.0	22.0	22.0	21.0
9	Turb (NTU)	3.0	15.2	7.1	5.0	11.2	6.5
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	0.0	29.0	29.8	24.9	18.0	22.1
2	ALK-TOT (mgCaCO3/L)	187	197	198	168	212	144
3	B (mg/L)	0.44	0.34	0.42	0.38	0.37	0.36
4	Ca (mg/L)	66	33	33	64	68	41
5	Cl (mg/L)	117.0	123.0	115.0	148.6	111.0	132.2
6	CO3 (mg/L)	0.0	34.9	35.9	30.0	21.7	26.6
7	F (mg/L)	0.54	0.53	0.54	0.60	0.58	0.55
8	Fe (mg/L)	0.4	0.6	0.3	0.3	0.5	0.1
9	HCO3 (mg/L)	228	169	169	144	214	121
10	K (mg/L)	4.7	5.7	5.3	5.2	2.2	4.5
11	Mg (mg/L)	12.9	32.0	32.2	8.2	20.9	21.8
12	Na (mg/L)	81.0	88.6	76.2	100.0	80.2	78.8
13	NH3-N (mg N/L)	0.07	0.05	0.19	0.05	0.03	0.04
14	NO2+NO3 (mg N/L)	1.66	0.89	0.77	1.04	1.09	1.13
15	NO2-N (mgN/L)	0.02	0.02	0.02	0.01	0.03	0.02
16	NO3-N (mgN/L)	1.64	0.87	0.75	1.03	1.06	1.11
17	o-PO4-P (mg P/L)	0.160	0.340	0.340	0.390	0.560	0.320
18	SiO2 (mg/L)	3.3	5.0	5.5	9.2	7.1	8.7
19	SO4 (mg/L)	70.0	66.3	69.0	51.7	72.0	74.6
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.7	2.0	1.6	1.6	2.7	1.9
2	COD (mg/L)	3.7	3.8	5.7			
3	DO (mg/L)	5.6	4.6	5.7	6.7	6.8	7.3
4	DO_SAT% (%)	73	54	68	77	78	82
5	FCol-MPN (MPN/100mL)	2200	490	1400	1400	1100	790
6	Tcol-MPN (MPN/100mL)	2800	940	2800	1700	1400	2200
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	0.0	2.2	0.9	0.0	0.0
2	Cr (µg/L)	2.5	0.9	1.0	1.3	3.1	6.2
3	Cu (µg/L)	2.8	2.1	1.0	0.8	3.8	0.0
4	Hg (µg/L)						
5	Ni (µg/L)	5.5	3.4	4.1	3.4	6.3	2.1
6	Pb (µg/L)	25.0	13.0	12.0	23.0	32.0	18.0
7	Zn (µg/L)	0.2	4.8	1.0	3.5	27.3	2.3
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	164	82	83	160	169	104
2	HAR_Total (mgCaCO3/L)	218	215	217	194	256	194
3	Na% (%)	44	47	43	52	40	46
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.4	2.6	2.3	3.1	2.2	2.5
	PESTICIDES						

Water Quality Datasheet for the period : 2022-2023

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

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

S.No	Parameters	05-04-2023	11-04-2023	24-04-2023	01-05-2023	11-05-2023	22-05-2023
		A	A	A	A	A	A
	PHYSICAL						
1	Q (cumec)	0.000	0.000	0.000	0.000	0.000	0.000
2	Colour_Cod (-)	Clear	Clear	Clear	Clear	Clear	Clear
3	EC_FLD (µmho/cm)						
4	EC_GEN (µmho/cm)	936	887	939	923	984	912
5	Odour_Code (-)	odour free	odour free	odour free	odour free	odour free	odour free
6	pH_GEN (pH units)	9.0	9.2	9.2	9.1	8.2	8.2
7	TDS (mg/L)	725	656	744	636	723	683
8	Temp (deg C)	22.0	22.0	22.0	19.0	22.0	24.0
9	Turb (NTU)	5.0	19.3	3.7	1.8	5.3	4.6
	CHEMICAL						
1	Alk-Phen (mgCaCO3/L)	20.4	19.1	20.1	19.9	0.0	0.0
2	ALK-TOT (mgCaCO3/L)	220	225	144	173	288	168
3	B (mg/L)	0.00	0.00	0.00	0.00	0.24	0.00
4	Ca (mg/L)	48	56	33	62	96	66
5	Cl (mg/L)	132.6	140.7	150.0	133.2	176.0	135.5
6	CO3 (mg/L)	24.6	23.0	24.2	24.0	0.0	0.0
7	F (mg/L)	0.64	0.67	0.70	0.59	0.92	0.53
8	Fe (mg/L)	0.0	0.3	0.2	0.3	0.1	0.8
9	HCO3 (mg/L)	218	228	126	162	351	205
10	K (mg/L)	4.7	4.2	5.6	5.1	8.4	5.6
11	Mg (mg/L)	24.8	34.5	30.0	37.7	48.0	39.6
12	Na (mg/L)	95.0	96.0	77.0	103.5	161.0	114.0
13	NH3-N (mg N/L)	0.04	0.05	0.03	0.04	0.08	0.09
14	NO2+NO3 (mg N/L)	1.92	1.95	1.88	1.81	1.90	1.79
15	NO2-N (mgN/L)	0.05	0.01	0.05	0.02	0.02	0.04
16	NO3-N (mgN/L)	1.87	1.94	1.83	1.79	1.88	1.75
17	o-PO4-P (mg P/L)	0.390	0.560	0.470	0.890	2.370	4.470
18	SiO2 (mg/L)	14.1	9.8	19.0	13.4	16.4	15.5
19	SO4 (mg/L)	105.7	95.0	98.3	105.0	178.0	79.5
	BIOLOGICAL/BACTERIOLOGICA						
1	BOD3-27 (mg/L)	1.2	1.1	1.7	2.4	0.9	2.4
2	COD (mg/L)				9.5	3.8	11.3
3	DO (mg/L)	3.9	5.1	6.0	6.6	5.0	6.1
4	DO_SAT% (%)	45	58	69	71	57	72
5	FCol-MPN (MPN/100mL)	2200	1300	790	1100	1400	1700
6	Tcol-MPN (MPN/100mL)	2800	1700	1400	2200	1700	2800
	TRACE & TOXIC						
1	Cd (µg/L)	0.0	1.6	0.7	0.0	2.2	0.6
2	Cr (µg/L)	6.8	4.5	7.3	7.1	5.0	2.3
3	Cu (µg/L)	0.9	3.6	0.3	3.7	3.8	1.3
4	Hg (µg/L)						
5	Ni (µg/L)	1.5	2.7	1.9	22.0	2.6	0.0
6	Pb (µg/L)	15.0	20.0	0.0	3.0	0.0	0.0
7	Zn (µg/L)	21.1	28.8	11.5	2.4	0.0	3.1
	CHEMICAL INDICES						
1	HAR_Ca (mgCaCO3/L)	121	139	83	154	240	165
2	HAR_Total (mgCaCO3/L)	224	283	208	311	440	330
3	Na% (%)	47	42	44	42	44	43
4	RSC (-)	0.0	0.0	0.0	0.0	0.0	0.0
5	SAR (-)	2.8	2.5	2.3	2.6	3.4	2.7
	PESTICIDES						

Water Quality Summary for the period : 2022-2023

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

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

River Water Summary

S.No	Parameters	Number of Observations	Maximum	Minimum	Mean
	PHYSICAL				
1	Q (cumec)	365	12627	0.000	1172
2	EC_FLD (µmho/cm)	2	1262	654	958
3	EC_GEN (µmho/cm)	36	1507	524	823
4	pH_GEN (pH units)	36	9.2	8.0	8.5
5	TDS (mg/L)	36	1081	312	570
6	Temp (deg C)	34	31.0	19.0	27
7	Turb (NTU)	36	36.0	1.8	6.7
	CHEMICAL				
1	Alk-Phen (mgCaCO3/L)	36	32.4	0.0	14.4
2	ALK-TOT (mgCaCO3/L)	36	288	53	164
3	B (mg/L)	35	1.37	0.00	0.27
4	Ca (mg/L)	36	96	22	44
5	Cl (mg/L)	36	350.7	59.4	126.9
6	CO3 (mg/L)	36	39.0	0.0	17.4
7	F (mg/L)	36	0.92	0.39	0.56
8	Fe (mg/L)	36	1.5	0.0	0.5
9	HCO3 (mg/L)	36	351	64	165
10	K (mg/L)	36	40.4	1.0	5.1
11	Mg (mg/L)	36	48.0	8.2	26.3
12	Na (mg/L)	36	280.0	33.0	87.3
13	NH3-N (mg N/L)	35	1.29	0.00	0.15
14	NO2+NO3 (mg N/L)	36	8.88	0.77	3.76
15	NO2-N (mgN/L)	36	0.10	0.00	0.03
16	NO3-N (mgN/L)	36	8.86	0.75	3.73
17	o-PO4-P (mg P/L)	36	4.470	0.000	0.459
18	SiO2 (mg/L)	36	36.5	3.3	11.5
19	SO4 (mg/L)	36	178.0	32.0	74.1
	BIOLOGICAL/BACTERIOLOGICAL				
1	BOD3-27 (mg/L)	36	3.3	0.4	1.6
2	COD (mg/L)	24	20.2	1.8	6.9
3	DO (mg/L)	35	7.7	3.9	5.9
4	DO_SAT% (%)	34	102	45	75
5	FCol-MPN (MPN/100mL)	16	2200	490	1259
6	Tcol-MPN (MPN/100mL)	16	2800	790	1946
	TRACE & TOXIC				
1	Cd (µg/L)	36	4.8	0.0	0.8
2	Cr (µg/L)	36	7.3	0.0	2.4
3	Cu (µg/L)	36	9.3	0.0	2.4
4	Hg (µg/L)	10	0.2	0.0	0.1
5	Ni (µg/L)	36	22.0	0.0	3.8
6	Pb (µg/L)	36	43.0	0.0	16.5
7	Zn (µg/L)	36	34.5	0.0	7.5
	CHEMICAL INDICES				
1	HAR_Ca (mgCaCO3/L)	36	240	55	111
2	HAR_Total (mgCaCO3/L)	36	440	150	221
3	Na% (%)	36	66	27	43
4	RSC (-)	36	0.0	0.0	0
5	SAR (-)	36	7.6	1.1	2.5
	PESTICIDES				

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood								
		Jun - Oct								
		2008	2009	2010	2011	2013	2014		2016	2017
	PHYSICAL									
1	Q (cumec)	100.1	354.0	629.0	165.6	454.2	125.8		365.2	134.0
2	EC_FLD (µmho/cm)			537						
3	EC_GEN (µmho/cm)	597	576	572	622	507	497		512	520
4	pH_FLD (pH units)			7.6						6.5
5	pH_GEN (pH units)	8.3	8.2	8.2	8.1	8.4	8.6		8.3	7.6
6	TDS (mg/L)				421	272			461	302
7	Temp (deg C)	26.3	26.0	30.6	28.0	31.0	32.0		22.5	23.0
8	Turb (NTU)				1.0	1.4	13.0		4.0	37.0
	CHEMICAL									
1	Alk-Phen (mgCaCO3/L)	4.0	0.0	1.6	1.3	2.2	4.2		1.0	4.0
2	ALK-TOT (mgCaCO3/L)	182	150	163	171	130	141		138	158
3	B (mg/L)	0.00	0.00	0.00	0.00	0.05	0.19			
4	Ca (mg/L)	42	31	37	34	27	27		29	35
5	Cl (mg/L)	51.1	52.8	56.9	60.6	39.8	67.2		39.9	72.8
6	CO3 (mg/L)	4.8	0.0	1.9	1.6	2.6	5.0		1.2	4.8
7	F (mg/L)	0.65	0.56	0.65	1.15	0.61	0.47		0.38	0.45
8	Fe (mg/L)	0.0	0.0	0.0	0.0	0.1	0.1		0.1	1.7
9	HCO3 (mg/L)	212	183	195	206	153	162		165	183
10	K (mg/L)	3.1	3.2	3.5	3.3	2.6	3.2		3.1	0.4
11	Mg (mg/L)	11.2	15.5	14.9	20.6	15.6	15.1		15.9	23.0
12	Na (mg/L)	53.8	52.8	55.3	57.6	44.8	50.8		42.7	53.9
13	NH3-N (mg N/L)	0.05	0.00	0.00	0.00	0.09	0.00		0.00	0.10
14	NO2+NO3 (mg N/L)	0.01	1.50	0.00	0.38	0.60	1.22		0.79	14.03
15	NO2-N (mgN/L)	0.00	0.00	0.00	0.00	0.00	0.03		0.00	0.03
16	NO3-N (mgN/L)	0.01	1.50	0.00	0.38	0.60	1.19		0.79	14.01
17	o-PO4-P (mg P/L)				0.267	0.115	0.110		0.073	0.160
18	P-Tot (mgP/L)	0.001	0.000	0.162	0.371					
19	SiO2 (mg/L)	16.4	14.1	13.5	13.0	12.2	12.8		9.7	0.0
20	SO4 (mg/L)	46.2	61.6	51.8	55.3	40.3	48.7		24.5	28.3
	BIOLOGICAL/BACTERIOLOGICAL									
1	BOD3-27 (mg/L)	1.2	1.5	1.2	0.9	1.3	1.6		0.9	0.6
2	COD (mg/L)	17.9	29.5	39.3	11.2	6.6	3.5		7.0	3.3
3	DO (mg/L)	6.5	6.1	7.1	6.5	6.7	6.7		6.4	6.0
4	DO_SAT% (%)	80	84	94	84	90	92		74	70
5	FCol-MPN (MPN/100mL)		16000	13800	13667	401	16000		12500	16000
6	Tcol-MPN (MPN/100mL)		16000	14600	16000	1201	16000		12500	16000
7	TOC (mg/L)				3.5					
	TRACE & TOXIC									
1	As (µg/L)									
2	Cd (µg/L)									
3	Cr (µg/L)									
4	Cu (µg/L)									4.0
5	Hg (µg/L)									
6	Ni (µg/L)									
7	Pb (µg/L)									
8	Zn (µg/L)									79.6
	CHEMICAL INDICES									
1	HAR_Ca (mgCaCO3/L)	106	78	91	86	68	68		73	88
2	HAR_Total (mgCaCO3/L)	152	143	153	172	133	131		139	184
3	Na% (%)	43	44	43	42	42	45		40	39
4	RSC (-)	0.6	0.2	0.2	0.2	0.0	0.2		0.0	0.0
5	SAR (-)	1.9	1.9	2.0	1.9	1.7	1.9		1.6	1.7
	PESTICIDES									
1	Aldrin (µg/L)									
2	BHC (µg/L)									
3	DDT (µg/L)									
4	Dieldrin (µg/L)									
5	Endos (µg/L)									

Sample not submitted for analysis in Flood 2012 and 2015 due to NO FLOW condition of the River

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Flood					Winter		
		Jun - Oct					Nov - Feb		
		2018	2019	2020	2021	2022	2008-2009	2009-2010	2010-2011
	PHYSICAL								
1	Q (cumec)	157.6	252.5	2583	766.2	2077	198.1	176.2	230.9
2	EC_FLD (µmho/cm)	840		565	577	958			675
3	EC_GEN (µmho/cm)	525	408	565	651	849	666	650	724
4	pH_FLD (pH units)	7.3		7.9	7.4				7.4
5	pH_GEN (pH units)	8.1	7.9	7.7	8.1	8.4	8.5	8.2	8.3
6	TDS (mg/L)	292	237	360	453	564			
7	Temp (deg C)	23.6	23.4	25.0	26.2	29.2	24.8	25.0	26.0
8	Turb (NTU)	20.4	17.6	17.5	5.2	6.3			
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	0.0	0.0	0.0	6.8	13.2	8.0	0.0	5.3
2	ALK-TOT (mgCaCO3/L)	105	147	150	184	140	195	196	197
3	B (mg/L)	0.06	0.20	0.39	0.16	0.39	0.00	0.00	0.00
4	Ca (mg/L)	30	38	36	40	35	53	38	40
5	Cl (mg/L)	55.5	57.1	67.0	79.5	143.4	55.0	58.1	70.8
6	CO3 (mg/L)	0.0	0.0	0.0	8.2	15.9	9.6	0.0	6.4
7	F (mg/L)	0.44	0.45	0.23	0.79	0.57	0.76	0.55	0.77
8	Fe (mg/L)	0.6	3.5	0.0	0.4	0.6	0.0	0.0	0.0
9	HCO3 (mg/L)	128	180	183	208	138	218	239	228
10	K (mg/L)	0.4	0.7	0.3	4.0	6.3	3.1	3.1	3.7
11	Mg (mg/L)	15.6	16.8	17.6	19.3	28.3	9.7	19.4	22.2
12	Na (mg/L)	44.4	58.4	54.7	68.2	95.9	63.3	64.8	71.1
13	NH3-N (mg N/L)	0.08	0.04	0.04		0.19	0.05	0.00	0.00
14	NO2+NO3 (mg N/L)	1.15	1.66			4.22	0.01	1.64	0.00
15	NO2-N (mgN/L)	0.15	0.10	0.04	0.04	0.04	0.00	0.00	0.00
16	NO3-N (mgN/L)	1.00	1.56		6.42	4.18	0.01	1.64	0.00
17	o-PO4-P (mg P/L)	0.156	0.140	0.175	1.215	0.315			
18	P-Tot (mgP/L)				1.520		0.001	0.000	0.153
19	SiO2 (mg/L)	21.8	17.9	13.0		12.2	16.3	16.5	15.6
20	SO4 (mg/L)	47.7	52.4	48.6	51.8	71.1	49.0	53.0	57.7
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.9	1.0	1.6	1.5	1.3	1.1	1.6	0.7
2	COD (mg/L)	19.1	17.6	16.3	33.1	7.1	9.4	15.3	19.4
3	DO (mg/L)	5.4	6.1	4.4	6.5	6.0	7.1	7.2	7.2
4	DO_SAT% (%)	64	71	53	81	79	86	87	89
5	FCol-MPN (MPN/100mL)	188	1530	1800	566			16000	16000
6	Tcol-MPN (MPN/100mL)	8800	4720	12500	1112			16000	16000
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)		1.4		2.0				
2	Cd (µg/L)		0.1		0.5	1.0			
3	Cr (µg/L)		7.9		1.7	1.5			
4	Cu (µg/L)	10.0	7.8	0.0	3.0	3.2			
5	Hg (µg/L)				0.4	0.1			
6	Ni (µg/L)		2.0		2.3	3.2			
7	Pb (µg/L)		0.5		9.8	18.1			
8	Zn (µg/L)	32.9	39.5	0.0	9.9	7.6			
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	75	94	89	100	88	133	94	99
2	HAR_Total (mgCaCO3/L)	140	164	163	181	206	174	175	191
3	Na% (%)	40	38	42	43	44	44	44	44
4	RSC (-)	0.0	0.0	0.1	0.2	0.0	0.4	0.8	0.2
5	SAR (-)	1.6	1.9	1.9	2.2	2.8	2.1	2.2	2.3
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter						
		Nov - Feb						
		2011-2012	2013-2014		2018-2019	2019-2020	2020-2021	2021-2022
	PHYSICAL							
1	Q (cumec)	146.3	189.7		0.000	182.5	118.1	195.6
2	EC_FLD (µmho/cm)				614		545	798
3	EC_GEN (µmho/cm)	524	562		747	578	613	756
4	pH_FLD (pH units)				7.8		7.2	
5	pH_GEN (pH units)	8.5	8.3		7.9	8.1	8.0	8.2
6	TDS (mg/L)	328	485		438	368	403	610
7	Temp (deg C)	28.0	27.5		18.8	20.5	17.8	25.9
8	Turb (NTU)	1.0	4.0		0.7	37.3	10.2	4.6
	CHEMICAL							
1	Alk-Phen (mgCaCO3/L)	12.2	2.1		1.2	2.8	0.0	5.3
2	ALK-TOT (mgCaCO3/L)	155	160		178	159	174	206
3	B (mg/L)	0.17	0.02		0.04	0.32	0.35	0.27
4	Ca (mg/L)	28	33		39	36	34	44
5	Cl (mg/L)	50.5	44.5		51.0	76.3	93.8	90.6
6	CO3 (mg/L)	14.7	2.5		1.5	3.3	0.0	6.4
7	F (mg/L)	0.57	0.55		0.42	0.33	0.52	0.57
8	Fe (mg/L)	0.0	0.0		0.1	0.5	0.3	0.4
9	HCO3 (mg/L)	159	191		214	187	212	238
10	K (mg/L)	2.5	3.2		0.4	0.5	0.5	6.7
11	Mg (mg/L)	16.0	19.1		23.7	20.5	26.8	27.4
12	Na (mg/L)	52.4	50.6		52.9	63.5	78.7	77.4
13	NH3-N (mg N/L)	0.00	0.00		0.16	0.02	0.10	0.11
14	NO2+NO3 (mg N/L)	2.75	1.13		1.37	3.23	2.05	
15	NO2-N (mgN/L)	0.00	0.00		0.12	0.02	0.14	0.02
16	NO3-N (mgN/L)	2.75	1.13		1.25	3.20	2.00	
17	o-PO4-P (mg P/L)	0.230	0.175		0.221	0.105	0.142	0.687
18	P-Tot (mgP/L)	0.230						1.103
19	SiO2 (mg/L)	15.1	12.6		11.1	18.0	28.4	13.8
20	SO4 (mg/L)	49.8	17.3		67.1	59.0	71.8	68.5
	BIOLOGICAL/BACTERIOLOGIC/							
1	BOD3-27 (mg/L)	0.3	1.1		1.4	1.7	14.8	1.3
2	COD (mg/L)	4.3	3.7		9.2	38.8	28.3	
3	DO (mg/L)	6.2	6.8		6.4	6.0	5.9	6.3
4	DO_SAT% (%)	79	86		68	67	63	77
5	FCol-MPN (MPN/100mL)	16000	515		595	4750	1510	1223
6	Tcol-MPN (MPN/100mL)	16000	1450		1725	12400	11367	1797
7	TOC (mg/L)	2.4						
	TRACE & TOXIC							
1	As (µg/L)					4.3	1.7	
2	Cd (µg/L)					0.1	2.8	0.6
3	Cr (µg/L)					6.9	5.0	2.4
4	Cu (µg/L)				6.8	2.8	2.7	2.0
5	Hg (µg/L)						0.5	0.3
6	Ni (µg/L)					19.4	6.4	2.7
7	Pb (µg/L)					1.3	38.8	6.8
8	Zn (µg/L)				21.7	46.0	7.5	11.3
	CHEMICAL INDICES							
1	HAR_Ca (mgCaCO3/L)	70	83		97	89	84	110
2	HAR_Total (mgCaCO3/L)	137	163		196	174	196	224
3	Na% (%)	45	40		37	42	46	42
4	RSC (-)	0.4	0.0		0.0	0.2	0.0	0.2
5	SAR (-)	2.0	1.7		1.7	2.1	2.5	2.3
	PESTICIDES							
1	Aldrin (µg/L)							
2	BHC (µg/L)							
3	DDT (µg/L)							
4	Dieldrin (µg/L)							
5	Endos (µg/L)							

Sample not submitted for analysis in Winter 2014-2015 to 2017-2018 due to NO FLOW condition of the River

Water Quality Seasonal Average for the period: 2008-2023

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

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

S.No	Parameters	Winter	Summer						
		Nov - Feb	Mar - May						
		2022-2023	2009		2019	2020	2021	2022	2023
	PHYSICAL								
1	Q (cumec)	119.0	30.76		0.000	0.000	0.000	0.000	0.000
2	EC_FLD (µmho/cm)				639		547	1282	
3	EC_GEN (µmho/cm)	727	620		719	740	1073	1003	905
4	pH_FLD (pH units)				8.1		7.3		
5	pH_GEN (pH units)	8.4	8.5		7.6	8.6	8.3	8.5	8.9
6	TDS (mg/L)	481			432	563	675	707	697
7	Temp (deg C)	28.5	28.0		20.0	18.0	23.8	26.7	21.8
8	Turb (NTU)	7.1			1.3	16.0	11.3	3.1	6.9
	CHEMICAL								
1	Alk-Phen (mgCaCO3/L)	14.7	8.0		0.0	1.7	9.9	23.9	16.1
2	ALK-TOT (mgCaCO3/L)	172	176		198	134	210	200	193
3	B (mg/L)	0.23	0.00		0.05	0.11	0.40	0.43	0.15
4	Ca (mg/L)	45	47		37	32	53	39	59
5	Cl (mg/L)	96.6	53.9		94.6	117.0	173.2	160.6	140.0
6	CO3 (mg/L)	17.7	9.6		0.0	2.0	12.0	28.8	19.3
7	F (mg/L)	0.49	0.72		0.63	0.48	0.50	0.68	0.64
8	Fe (mg/L)	0.5	0.0		0.3	0.1	0.6	0.2	0.3
9	HCO3 (mg/L)	174	195		241	159	232	185	197
10	K (mg/L)	3.6	3.2		0.6	0.6	6.4	5.4	5.1
11	Mg (mg/L)	21.5	7.8		25.7	26.0	27.1	34.8	29.5
12	Na (mg/L)	66.5	60.6		87.3	59.4	150.5	113.1	100.6
13	NH3-N (mg N/L)	0.18	0.05		0.31	0.00	0.10	0.23	0.05
14	NO2+NO3 (mg N/L)	4.80	0.01		1.19	2.76	3.69		1.61
15	NO2-N (mgN/L)	0.02	0.00		0.04	0.06	0.09	0.07	0.03
16	NO3-N (mgN/L)	4.78	0.01		1.15	2.70	6.04		1.58
17	o-PO4-P (mg P/L)	0.114			0.457	0.120	0.111	0.166	1.158
18	P-Tot (mgP/L)		0.001						
19	SiO2 (mg/L)	9.8	11.8		15.1	21.3	19.4	29.0	12.6
20	SO4 (mg/L)	61.8	50.0		99.2	93.0	82.6	75.6	95.5
	BIOLOGICAL/BACTERIOLOGIC/								
1	BOD3-27 (mg/L)	1.9	1.1		1.5	3.0	2.1	0.8	1.8
2	COD (mg/L)	6.1	12.0		21.2	17.0	27.7	3.9	8.2
3	DO (mg/L)	5.9	7.3		7.8	7.4	4.8	5.3	5.9
4	DO_SAT% (%)	76	93		86	78	58	66	68
5	FCol-MPN (MPN/100mL)	1196			693	220	580		1309
6	Tcol-MPN (MPN/100mL)	1890			1890	2800	1180		1989
7	TOC (mg/L)								
	TRACE & TOXIC								
1	As (µg/L)				2.4		2.6		
2	Cd (µg/L)	0.5			1.3		1.9	0.5	0.7
3	Cr (µg/L)	1.9			2.0		0.4	2.7	4.8
4	Cu (µg/L)	1.8			9.0	0.0	9.8	1.9	2.0
5	Hg (µg/L)				0.0		0.6	1.2	
6	Ni (µg/L)	3.9			5.3		16.7	1.7	4.7
7	Pb (µg/L)	17.6			17.0		39.0	20.8	12.3
8	Zn (µg/L)	4.7			16.6	19.0	10.4	3.5	11.1
	CHEMICAL INDICES								
1	HAR_Ca (mgCaCO3/L)	112	116		93	80	132	96	148
2	HAR_Total (mgCaCO3/L)	202	149		200	188	245	242	271
3	Na% (%)	41	46		49	41	56	49	45
4	RSC (-)	0.0	0.6		0.2	0.0	0.0	0.0	0.0
5	SAR (-)	2.0	2.2		2.7	1.9	4.2	3.2	2.7
	PESTICIDES								
1	Aldrin (µg/L)								
2	BHC (µg/L)								
3	DDT (µg/L)								
4	Dieldrin (µg/L)								
5	Endos (µg/L)								

Sample not submitted for analysis in Summer 2010 to 2018 due to NO FLOW condition of the River

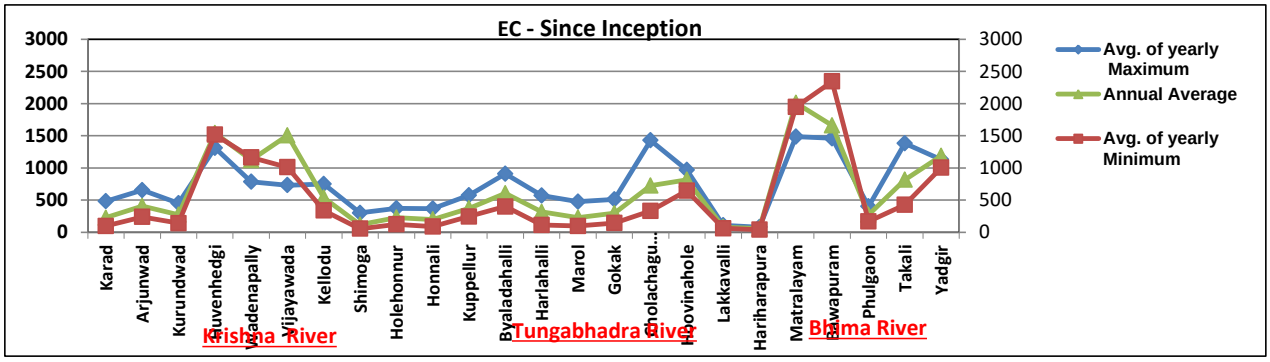
WATER QUALITY NET WORK IN KRISHNA BASIN

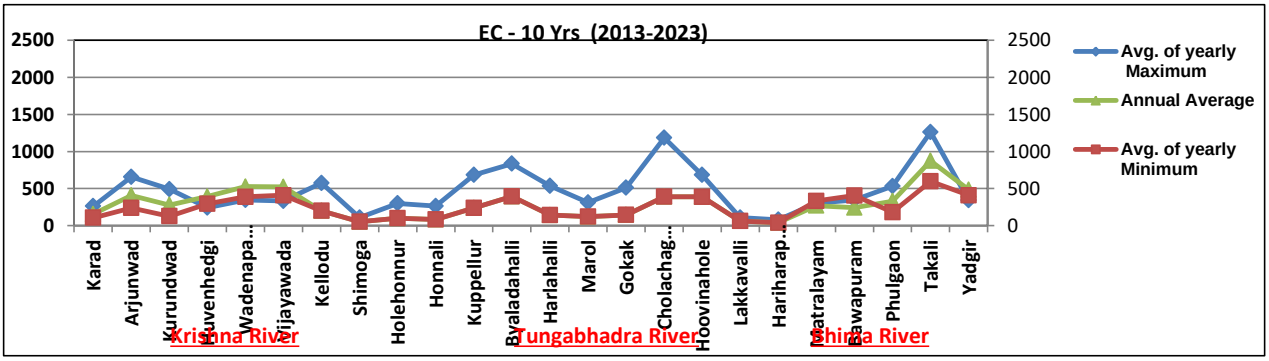
Water Quality Trend Analysis done for the following Sites in Level II Laboratory of Upper Krishna Division, CWC, Pune, Level II Laboratory of Cauvery Division, CWC, Bengaluru and Lower Krishna Division, CWC, Hyderabad in Level III Laboratory of Upper Godavari Division, CWC, Hyderabad.

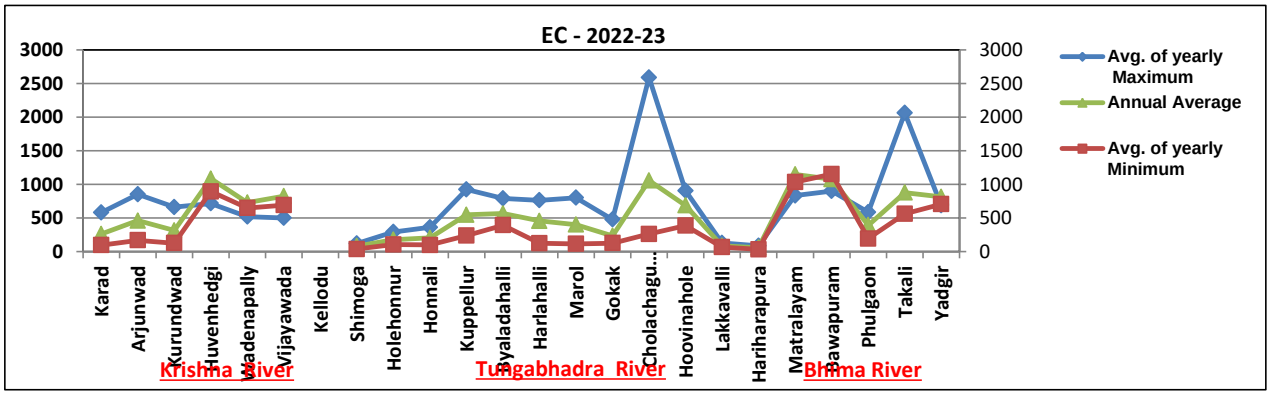
S.NO.	WATER QUALITY STATIONS	TRIBUTARY / STREAM	RIVER BASIN
1	Karad	Krishna	Krishna
2	Arjunwad	Krishna	Krishna
3	Kurundwad	Krishna	Krishna
4	Huvinhedgi	Krishna	Krishna
5	Wadenapally	Krishna	Krishna
6	Vijayawada	Krishna	Krishna
7	Deosugur	Krishna	Krishna
8	Holehonnur	Bhadra	Krishna
9	Shimoga	Tunga	Krishna
10	Honnali	Tungabhadra	Krishna
11	Harlahalli	Tungabhadra	Krishna
12	Mantralayam	Tungabhadra	Krishna
13	Bawapuram	Tungabhadra	Krishna
14	Lakkavalli	Tungabhadra	Krishna
15	Hariharapura	Tungabhadra	Krishna
16	Phulgaon	Bhima	Krishna
17	Takli	Bhima	Krishna
18	Yadgir	Bhima	Krishna
19	Paragaon	Bhima	Krishna
20	Dhond	Bhima	Krishna
21	Wadakbal	Bhima	Krishna

1. Electric conductivity(EC)

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	483	262	582	98	107	96	226	158	263
Arjunwad	656	656	851	239	239	169	409	409	461
Kurundwad	451	492	661	142	129	126	273	280	313
Huvenhedgi	1312	241	717	1518	296	895	**1540**	392	1085
Wadenapally	785	345	520	1162	388	650	1121	527	728
Vijayawada	732	332	500	1011	410	691	1507	524	823
Kellodu	750	574		339	201		539	201	
Shimoga	301	107	119	56	54	38	116	54	82
Holehonnur	373	300	293	125	100	105	230	100	179
Honnali	369	263	362	89	82	99	200	82	204
Kuppellur	576	683	923	246	240	237	373	240	548
Byaladahalli	909	836	792	401	395	393	605	395	567
Harlahalli	572	536	763	115	143	123	316	143	457
Marol	476	313	802	97	121	115	227	121	401
Gokak	512	512	478	145	145	126	298	145	235
Cholachagudda	1428	1186	2590	332	390	262	724	390	1058
Hoovinahole	967	685	904	646	389	387	817	389	687
Lakkavalli	108	108	128	62	62	67	81	62	85
Hariharapura	81	81	86	40	40	34	59	40	59
Matralayam	1484	305	832	1948	334	1035	2010	271	1147
Bawapuram	1459	348	**901**	2343	406	**1152**	1659	**241**	1077
Phulgaon	404	533	585	170	181	194	272	331	393
Takali	1383	1261	2061	428	598	560	816	874	879
Yadgir	1130	341	687	1005	410	705	1186	483	813

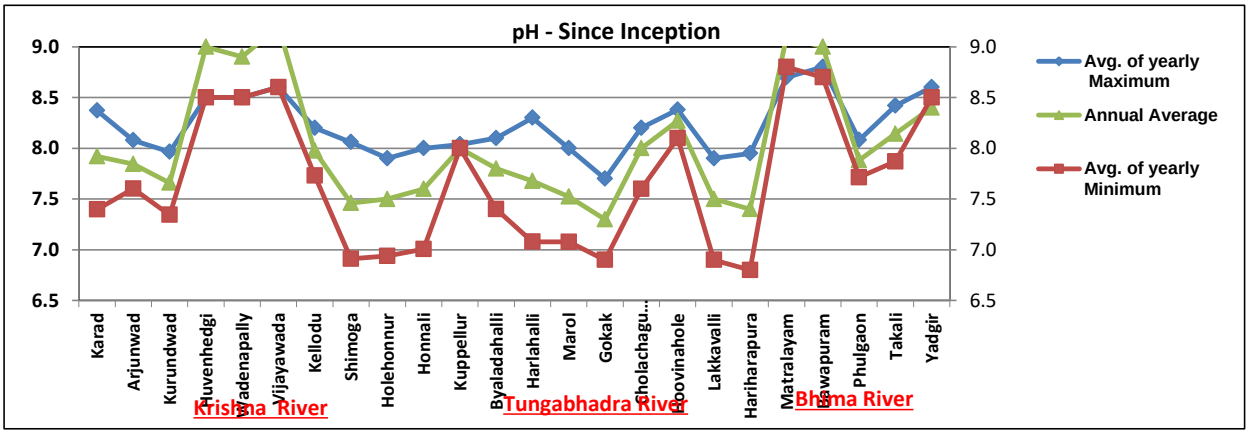


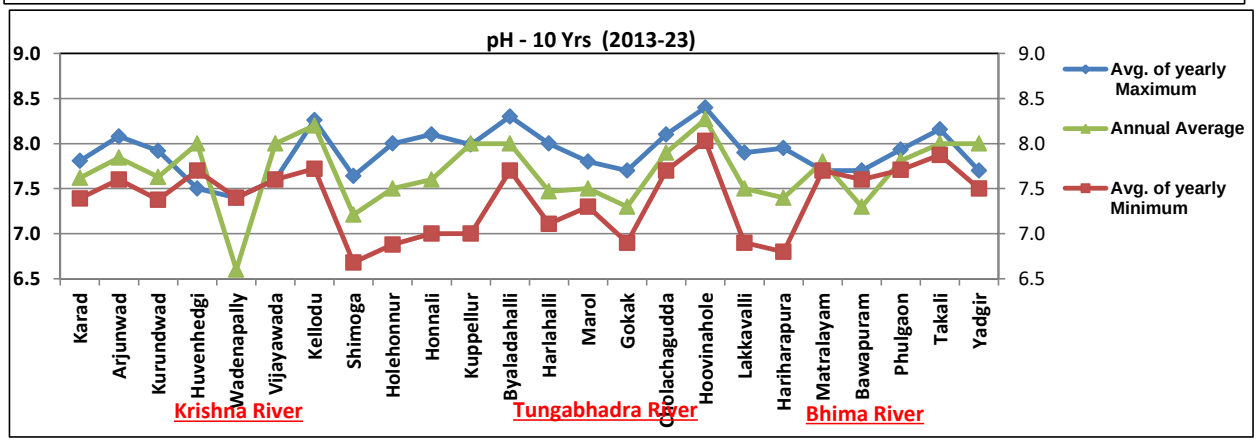


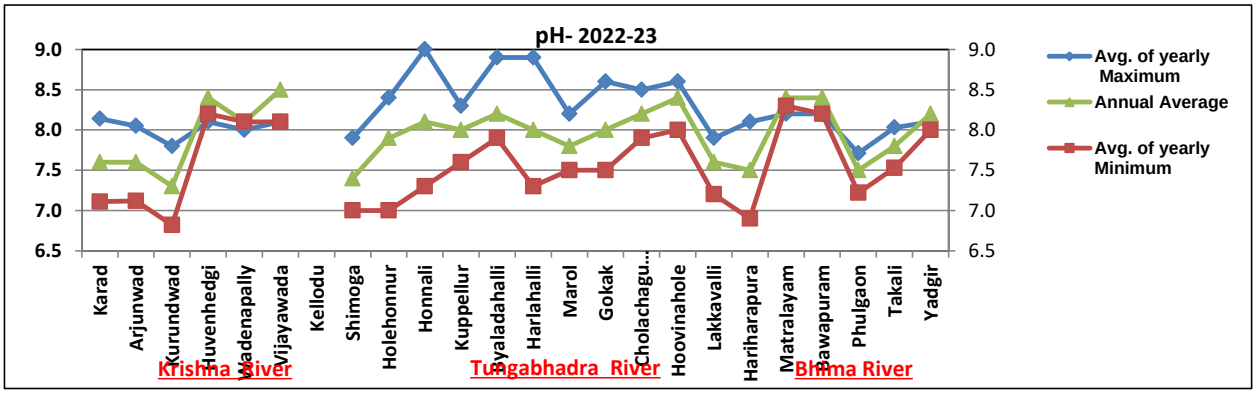


2. pH

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	8.4	7.8	8.1	7.4	7.4	7.1	7.9	7.6	7.6
Arjunwad	8.1	8.1	8.1	7.6	7.6	7.1	7.8	7.8	7.6
Kurundwad	8.0	7.9	7.8	7.3	7.4	6.8	7.7	7.6	7.3
Huvenhedgi	8.5	7.5	8.1	8.5	7.7	8.2	9.0	8.0	8.4
Wadenapally	8.5	7.4	8.0	8.5	7.4	8.1	8.9	6.6	8.1
Vijayawada	8.6	7.6	8.1	8.6	7.6	8.1	9.2	8.0	8.5
Kellodu	8.2	8.3		7.7	7.7		8.0	8.2	
Shimoga	8.1	7.6	7.9	6.9	6.7	7.0	7.5	7.2	7.4
Holehonnur	7.9	8.0	8.4	6.9	6.9	7.0	7.5	7.5	7.9
Honnali	8.0	8.1	9.0	7.0	7.0	7.3	7.6	7.6	8.1
Kuppellur	8.0	8.0	8.3	8.0	7.0	7.6	8.0	8.0	8.0
Byaladahalli	8.1	8.3	8.9	7.4	7.7	7.9	7.8	8.0	8.2
Harlahalli	8.3	8.0	8.9	7.1	7.1	7.3	7.7	7.5	8.0
Marol	8.0	7.8	8.2	7.1	7.3	7.5	7.5	7.5	7.8
Gokak	7.7	7.7	8.6	6.9	6.9	7.5	7.3	7.3	8
Cholachagudda	8.2	8.1	8.5	7.6	7.7	7.9	8.0	7.9	8.2
Hoovinahole	8.4	8.4	8.6	8.1	8.0	8.0	8.3	8.3	8.4
Lakkavalli	7.9	7.9	7.9	6.9	6.9	7.2	7.5	7.5	7.6
Hariharapura	8.0	7.95	8.1	6.8	6.8	6.9	7.4	7.4	7.5
Matralayam	8.7	7.7	8.2	8.8	7.7	8.3	9.1	7.8	8.4
Bawapuram	8.8	7.7	8.2	8.7	7.6	8.2	9.0	7.3	8.4
Phulgaon	8.1	7.9	7.7	7.7	7.7	7.2	7.9	7.8	7.5
Takali	8.4	8.2	8.0	7.9	7.9	7.5	8.1	8.0	7.8
Yadgir	8.6	7.7	8.1	8.5	7.5	8.0	8.4	8.0	8.2

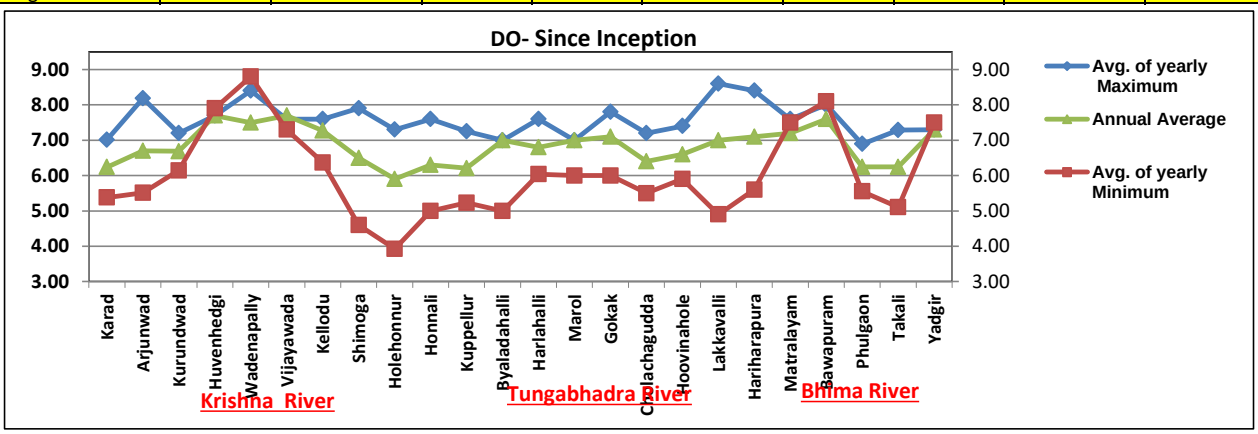


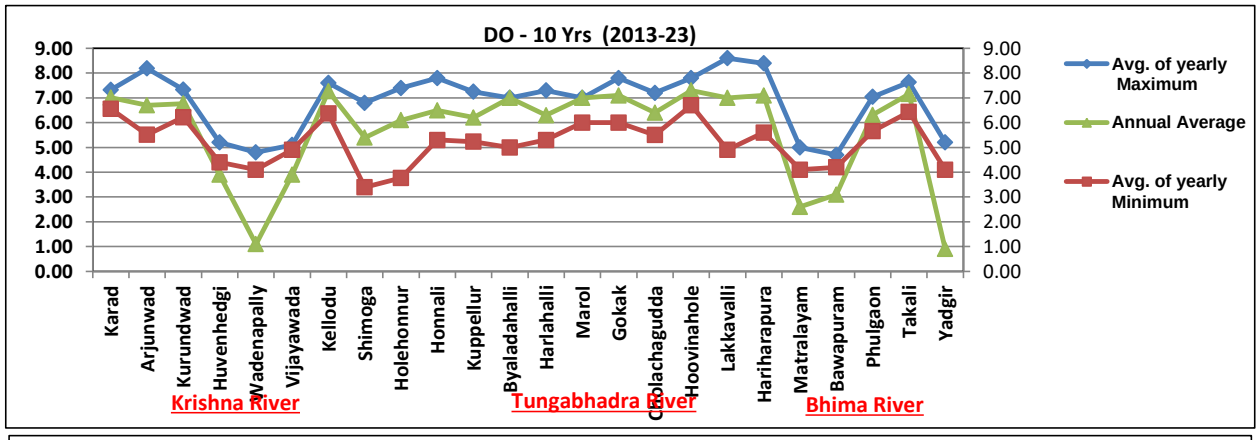


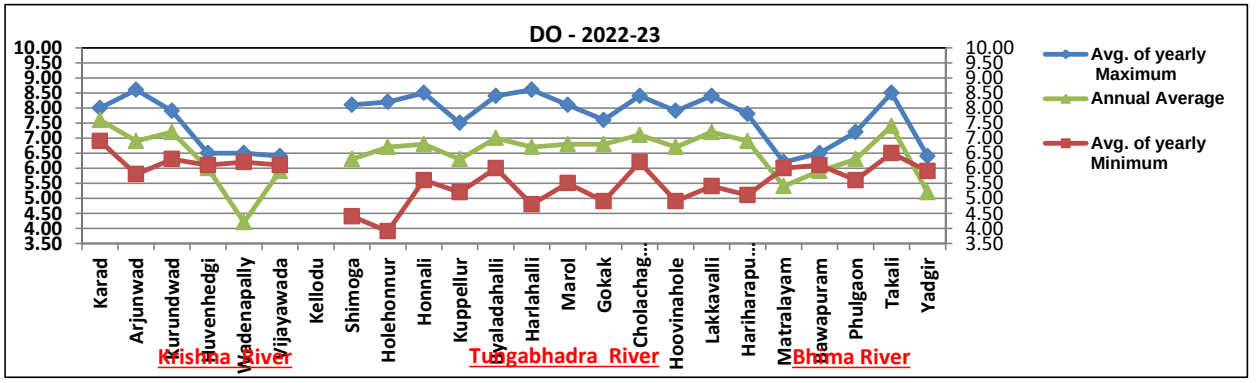


3. Dissolved Oxygen

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	7.02	7.32	8.00	5.38	6.56	6.90	6.24	7.01	7.60
Arjunwad	8.19	8.19	8.60	5.51	5.51	5.80	6.70	6.70	6.90
Kurundwad	7.20	7.34	7.90	6.14	6.22	6.30	6.69	6.77	7.20
Huvenhedgi	7.7	5.2	6.5	7.9	4.4	6.1	**7.7**	3.9	6.0
Wadenapally	8.4	4.8	6.5	8.8	4.1	6.2	7.5	1.1	4.2
Vijayawada	7.6	5.1	6.4	7.3	4.9	6.1	7.7	3.9	5.9
Kellodu	7.6	7.6		6.4	6.4		7.3	7.3	
Shimoga	7.9	6.8	8.1	4.6	3.4	4.4	6.5	5.4	6.3
Holehonnur	7.3	7.4	8.2	3.9	3.8	3.9	5.9	6.1	6.7
Honnali	7.6	7.8	8.5	5.0	5.3	5.6	6.3	6.5	6.8
Kuppellur	7.3	7.3	7.5	5.2	5.2	5.2	6.2	6.2	6.3
Byaladahalli	7.0	7.0	8.4	5.0	5.0	6.0	7.0	7.0	7.0
Harlahalli	7.6	7.3	8.6	6.0	5.3	4.8	6.8	6.3	6.7
Marol	7.0	7.0	8.1	6.0	6.0	5.5	7.0	7.0	6.8
Gokak	7.8	7.8	7.6	6.0	6.0	4.9	7.1	7.1	6.8
Cholachagudda	7.2	7.2	8.4	5.5	5.5	6.2	6.4	6.4	7.1
Hoovinahole	7.4	7.8	7.9	5.9	6.7	4.9	6.6	7.3	6.7
Lakkavalli	8.6	8.6	8.4	4.9	4.9	5.4	7.0	7.0	7.2
Hariharapura	8.4	8.4	7.8	5.6	5.6	5.1	7.1	7.1	6.9
Matralayam	7.6	5	6.2	7.5	4.1	6.0	7.2	2.6	5.4
Bawapuram	8.0	4.7	**6.5**	8.1	4.2	**6.1**	7.6	**3.1**	**5.9**
Phulgaon	6.89	7.04	7.20	5.55	5.66	5.60	6.25	6.31	6.30
Takali	7.29	7.63	8.50	5.11	6.43	6.50	6.24	7.16	7.40
Yadgir	7.3	5.2	6.4	7.5	4.1	5.9	7.3	0.90	5.2

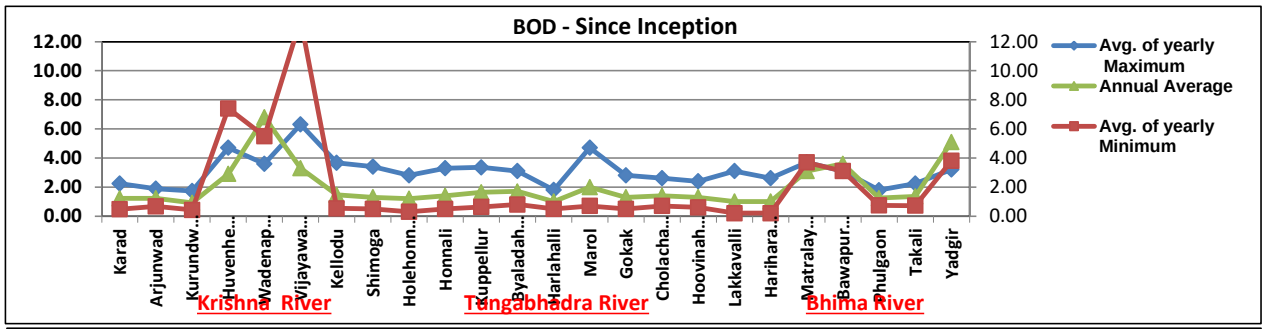


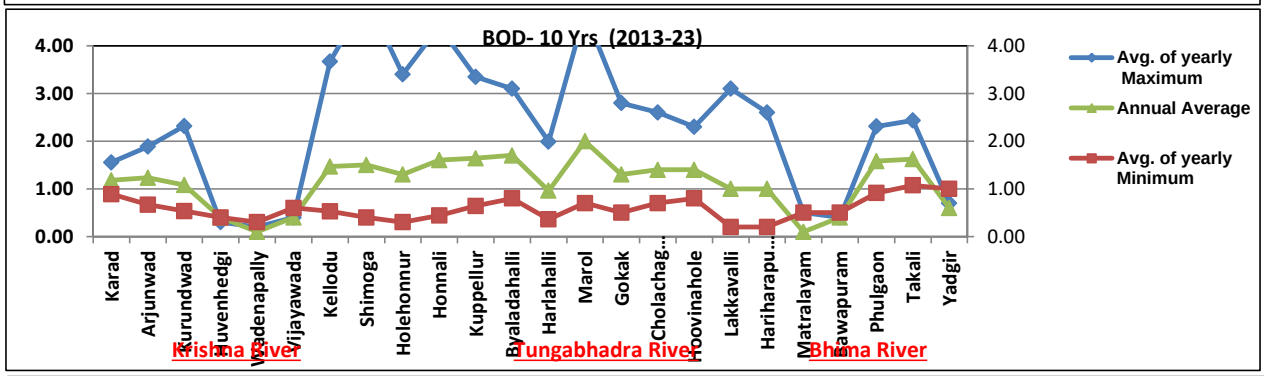


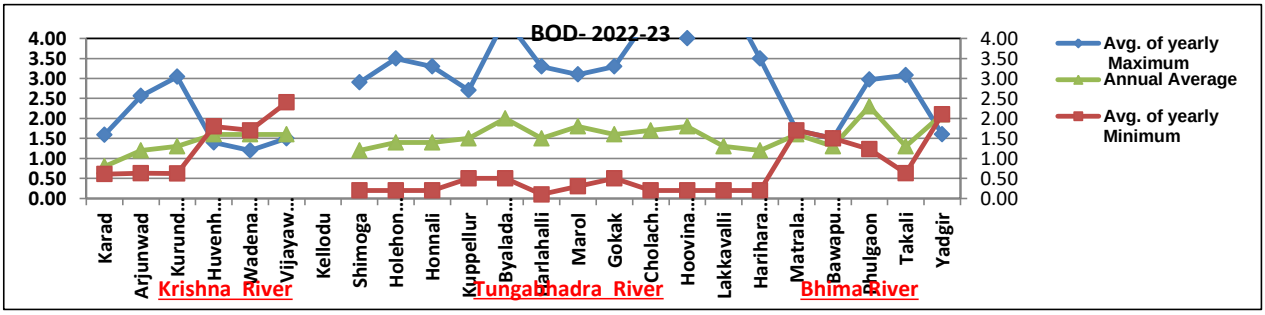


4. Bio-Chemical Oxygen Demand

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	2.25	1.56	1.59	0.48	0.89	0.61	1.22	1.18	0.80
Arjunwad	1.88	1.88	2.56	0.67	0.67	0.63	1.23	1.23	1.20
Kurundwad	1.72	2.32	3.04	0.42	0.54	0.62	0.91	1.08	1.30
Huvenhedgi	4.7	0.3	1.4	7.4	0.4	1.8	2.9	0.4	1.6
Wadenapally	3.6	0.2	1.2	5.5	0.3	1.7	6.8	0.1	1.6
Vijayawada	6.3	0.4	1.5	13.5	0.6	2.4	3.3	0.4	1.6
Kellodu	3.67	3.7		0.53	0.5		1.47	1.5	
Shimoga	3.40	5.0	2.9	0.50	0.4	0.2	1.30	1.5	1.2
Holehonnur	2.80	3.4	3.5	0.30	0.3	0.2	1.20	1.3	1.4
Honnali	3.30	4.4	3.3	0.50	0.4	0.2	1.40	1.6	1.4
Kuppellur	3.35	3.4	2.7	0.64	0.6	0.5	1.64	1.6	1.5
Byaladahalli	3.10	3.1	4.5	0.80	0.8	0.5	1.70	1.7	2.0
Harlahalli	1.80	2.0	3.3	0.50	0.4	0.1	1.00	1.0	1.5
Marol	4.70	4.7	3.1	0.70	0.7	0.3	2.00	2.0	1.8
Gokak	2.80	2.8	3.3	0.50	0.5	0.5	1.30	1.3	1.6
Cholachagudda	2.60	2.6	4.6	0.70	0.7	0.2	1.40	1.4	1.7
Hoovinahole	2.40	2.3	4.0	0.60	0.8	0.2	1.30	1.4	1.8
Lakkavalli	3.10	3.1	5.2	0.20	0.2	0.2	1.00	1.0	1.3
Hariharapura	2.60	2.6	3.5	0.20	0.2	0.2	1.00	1.0	1.2
Matralayam	3.7	0.5	1.7	3.7	0.5	1.7	3.1	0.1	1.6
Bawapuram	3.1	0.4	1.5	3.1	0.5	1.5	3.6	0.4	**1.3**
Phulgaon	1.79	2.31	2.97	0.73	0.91	1.23	1.24	1.58	2.30
Takali	2.24	2.43	3.08	0.72	1.07	0.63	1.36	1.62	1.30
Yadgir	3.2	0.7	1.6	3.8	1.0	2.1	5.1	0.60	2.1

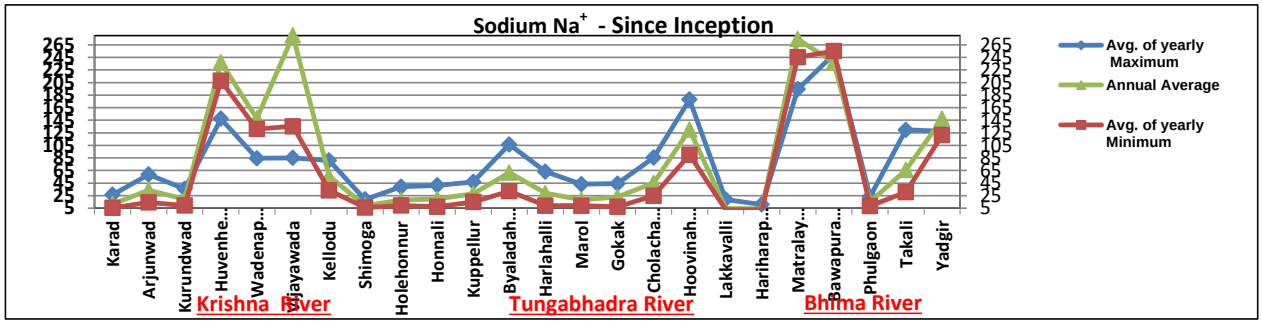


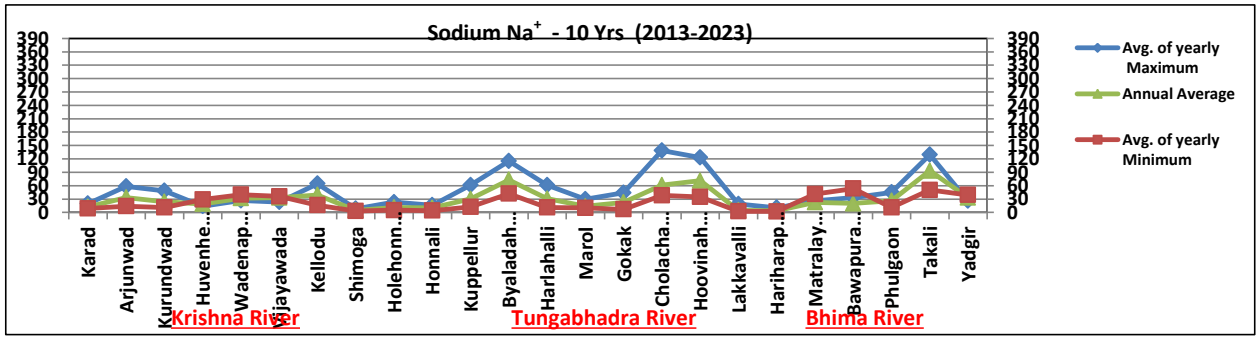


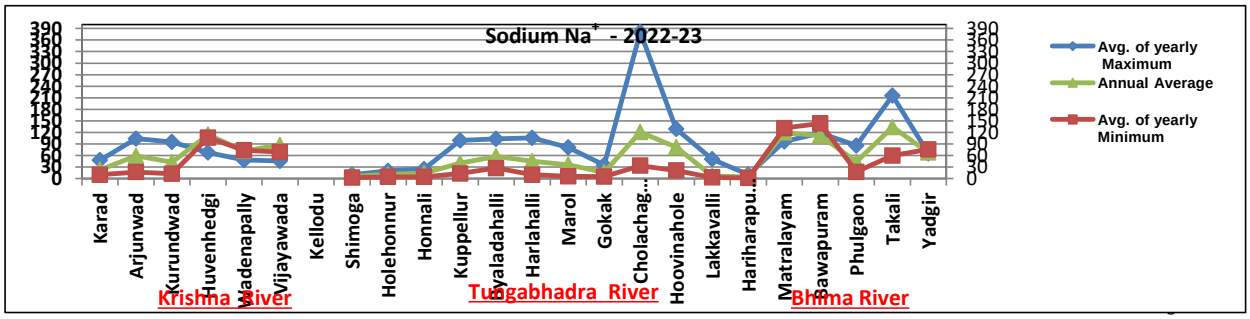


5.Sodium

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	26.33	19.94	48.00	5.37	8.78	10.30	11.57	12.65	23.20
Arjunwad	58.53	58.53	104.00	14.08	14.08	17.10	33.51	33.51	59.40
Kurundwad	35.81	48.56	95.00	9.15	11.36	12.70	19.51	23.75	42.70
Huvenhedgi	147.4	14.1	67.7	207.7	29.2	106.6	237.4	19.2	114.2
Wadenapally	84.3	26.6	48.3	131.0	39.8	73.8	148.0	32.0	71.8
Vijayawada	84.9	23.3	46.2	135.3	36.2	69.1	280.0	33.0	87.3
Kellodu	81	64		33	16		56	39	
Shimoga	19	8	10	6	3	3	9	5	6
Holehonnur	39	23	20	9	5	5	18	11	11
Honnali	41	16	25	7	4	5	20	10	15
Kuppellur	47	61	99	15	12	13	28	30	41
Byaladahalli	107	115	103	32	42	28	62	73	58
Harlahalli	63	61	106	9	11	10	29	31	46
Marol	43	30	81	9	10	6	18	14	36
Gokak	44	44	35	7	7	6	23	23	17
Cholachagudda	86	139	380	25	38	34	45	61	121
Hoovinahole	178	123	129	90	35	21	130	71	82
Lakkavalli	19	19	51	3	3	3	5	5	7
Hariharapura	11	11	10	2	2	2	4	4	5
Matralayam	194.4	25.8	96.6	245.2	41.3	131.4	274.3	22.6	119.6
Bawapuram	250.1	33.4	118.5	255.1	53.6	143.5	236.8	20.1	112.0
Phulgaon	23.12	44.93	86.00	8.54	11.26	17.40	15.37	26.42	43.30
Takali	129.69	129.23	215.70	30.30	50.58	60.20	65.79	93.30	134.00
Yadgir	127.4	26.4	65.5	121.2	39.2	75.7	147.5	33.00	68.0

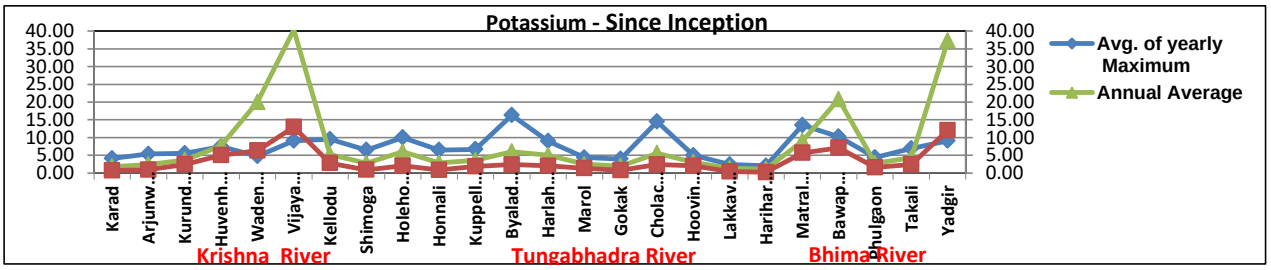


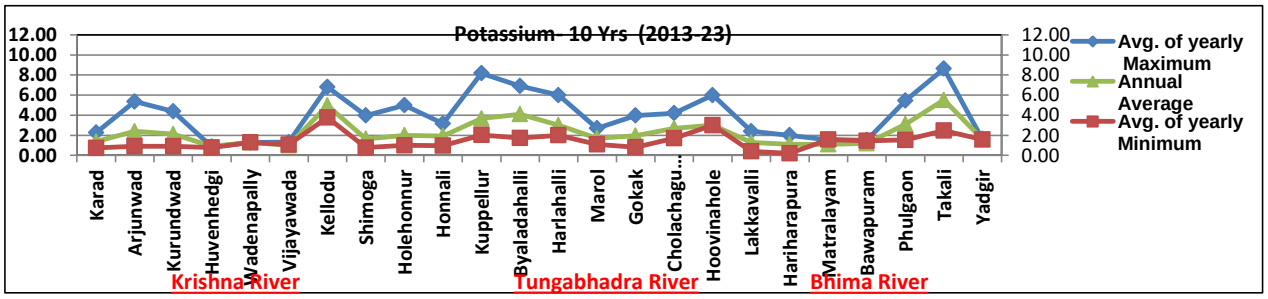


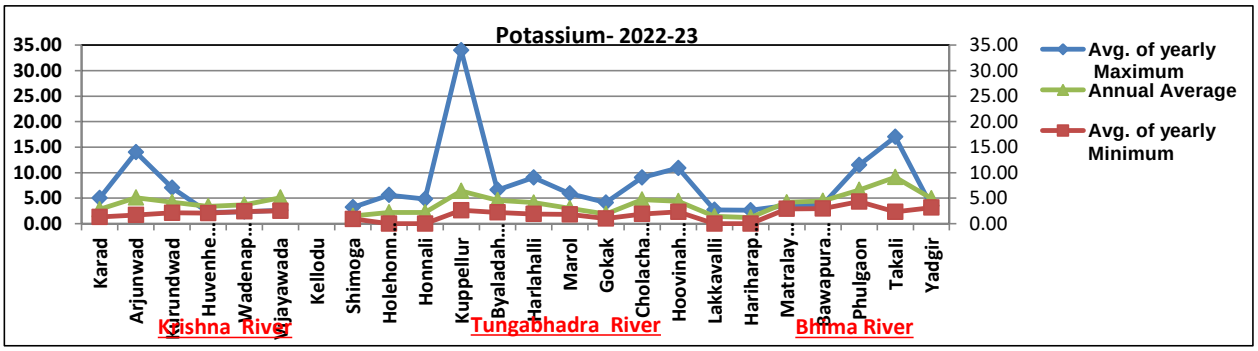


6.Potassium

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	4.12	2.27	5.00	0.70	0.75	1.30	1.77	1.38	2.80
Arjunwad	5.36	5.36	14.00	0.92	0.92	1.70	2.40	2.40	5.10
Kurundwad	5.58	4.37	7.00	2.42	0.92	2.10	3.67	2.12	4.20
Huvenhedgi	7.50	0.84	2.18	5.04	0.79	2.06	7.70	0.90	3.37
Wadenapally	4.73	1.28	2.33	6.32	1.29	2.39	20.00	1.30	3.70
Vijayawada	9.12	1.31	2.60	13.00	1.06	2.49	40.40	1.00	5.10
Kellodu	9.5	6.8		2.8	3.8		5.2	5.0	
Shimoga	6.5	4.0	3.2	0.9	0.8	0.9	2.7	1.7	1.5
Holehonnur	10.0	5.0	5.6	2.0	1.0	0.0	6.0	2.0	2.2
Honnali	6.5	3.2	4.8	0.9	1.0	0.0	2.8	1.9	2.2
Kuppellur	6.7	8.2	34.0	1.9	2.0	2.6	3.6	3.7	6.4
Byaladahalli	16.3	6.9	6.6	2.4	1.7	2.2	6.0	4.1	4.6
Harlahalli	9.0	6.0	9.0	2.0	2.0	1.9	5.0	3.0	4.1
Marol	4.4	2.7	5.9	1.3	1.1	1.8	2.5	1.7	3.0
Gokak	4.0	4.0	4.1	0.8	0.8	1.0	2.0	2.0	1.9
Cholachagudda	14.5	4.2	9.0	2.4	1.7	1.9	5.6	2.7	4.7
Hoovinahole	5.0	6.0	10.9	2.0	3.0	2.3	3.0	3.0	4.4
Lakkavalli	2.4	2.4	2.7	0.4	0.4	0.0	1.3	1.3	1.4
Hariharapura	2.0	2.0	2.6	0.2	0.2	0.0	1.1	1.1	1.2
Matralayam	13.50	1.56	3.55	5.68	1.58	2.88	9.00	1.10	4.17
Bawapuram	10.24	1.52	3.76	7.13	1.44	2.93	20.80	1.20	4.44
Phulgaon	4.37	5.46	11.50	1.60	1.53	4.30	2.77	3.11	6.60
Takali	6.89	8.63	17.00	2.42	2.47	2.30	4.28	5.51	9.10
Yadgir	9.12	1.62	3.45	12.07	1.57	3.14	37.30	1.60	4.94

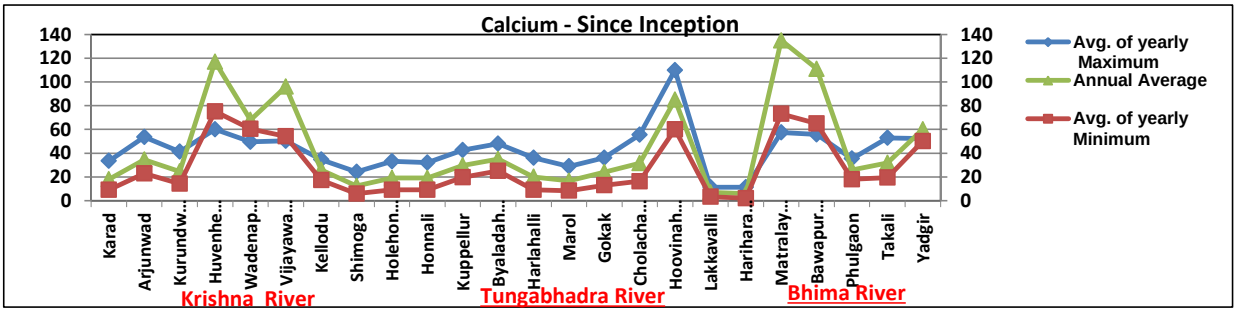


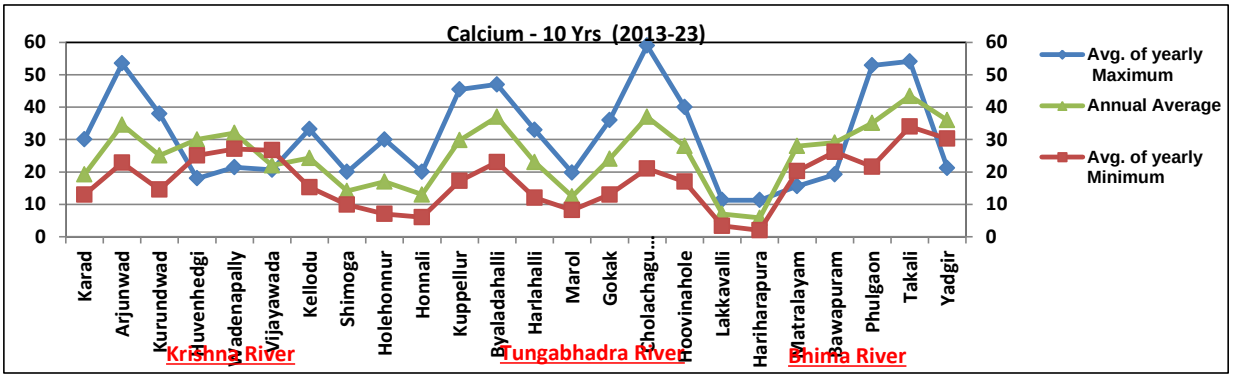


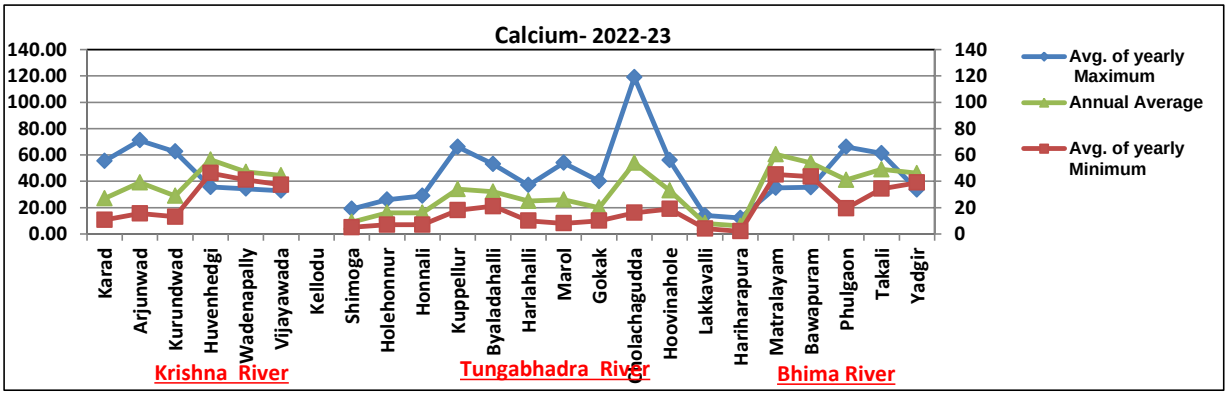


7. Calcium

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	33.46	30.03	55.37	9.08	12.96	10.68	17.97	19.20	27.00
Arjunwad	53.51	53.51	71.06	22.82	22.82	15.53	34.56	34.56	39.00
Kurundwad	41.22	37.95	62.56	14.24	14.53	13.03	24.56	25.10	29.00
Huvenhedgi	60.1	18.0	35.6	75.2	25.1	46.2	117.0	30.0	56.4
Wadenapally	49.5	21.4	34.3	60.4	27.1	41.1	68.0	32.0	47.1
Vijayawada	50.3	20.6	32.8	54.1	26.7	37.3	96.0	22.0	44.5
Kellodu	34.6	33.2		17.3	15.3		25.8	24.3	
Shimoga	24.2	20.0	19.0	5.8	9.9	5.0	12.4	14.1	9.0
Holehonnur	33.0	30.0	26.0	9.0	7.0	7.0	19.0	17.0	16.0
Honnali	32.0	20.0	29.0	9.0	6.0	7.0	19.0	13.0	16.0
Kuppellur	42.4	45.4	66.0	19.6	17.2	18.0	29.6	29.8	34.0
Byaladahalli	48.0	47.0	53.0	25.0	23.0	21.0	35.0	37.0	32.0
Harlahalli	36.0	33.0	37.0	9.0	12.0	10.0	20.0	23.0	25.0
Marol	28.9	19.8	54.0	8.4	8.2	8.0	16.6	12.4	26.0
Gokak	36.0	36.0	40.0	13.0	13.0	10.0	24.0	24.0	20.0
Cholachagudda	55.6	59.0	119.0	16.3	21.0	16.0	31.5	37.0	54.0
Hoovinahole	110.0	40.0	56.0	60.0	17.0	19.0	85.0	28.0	33.0
Lakkavalli	11.3	11.3	14.0	3.3	3.3	4.0	7.0	7.0	8.0
Hariharapura	11.3	11.3	12.0	2.0	2.0	2.0	5.8	5.8	6.0
Matralayam	57.5	15.6	35.0	73.1	20.2	45.1	135.0	28.0	60.5
Bawapuram	55.8	19.2	35.4	65.0	26.2	43.5	111.0	29.0	54.0
Phulgaon	35.35	52.87	66.15	17.96	21.61	19.46	25.82	35.10	41.00
Takali	52.88	54.12	61.21	19.34	33.99	34.29	31.75	43.44	49.00
Yadgir	52.36	21.21	33.50	50.06	30.27	38.94	60.00	36.00	46.10

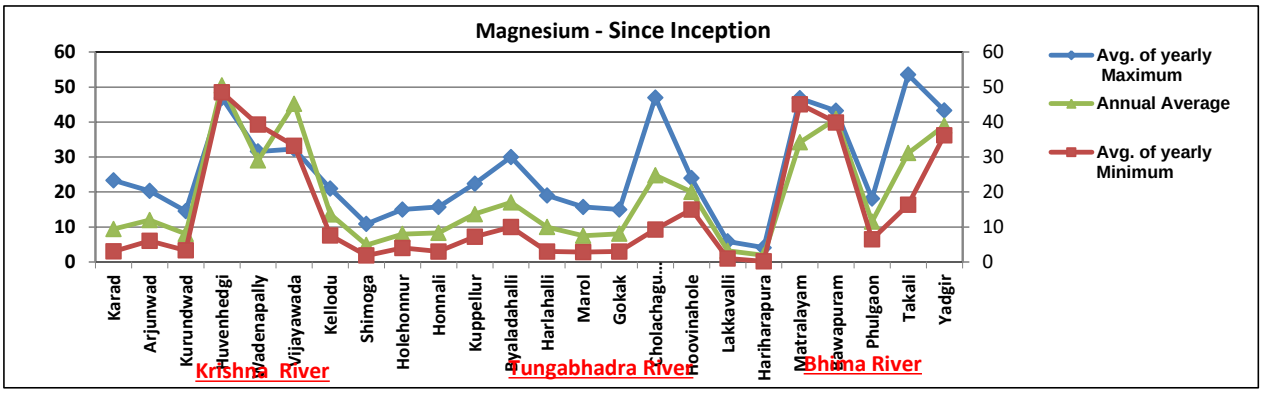


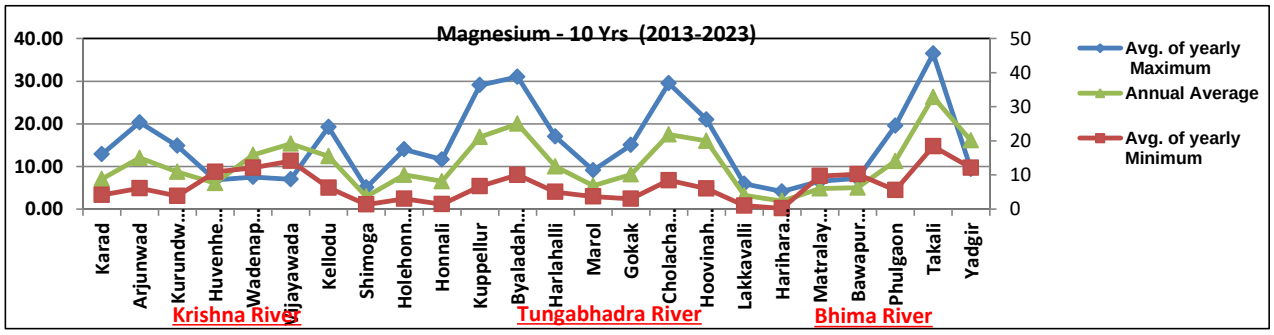


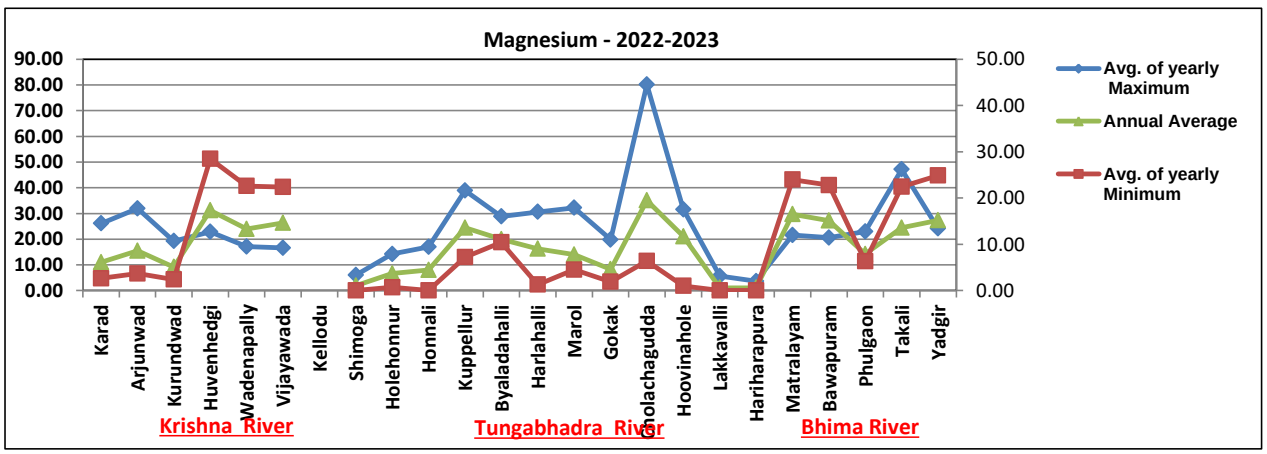


8. Magnesium

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	23.34	12.84	26.10	3.06	4.12	2.63	9.43	7.06	11.00
Arjunwad	20.33	20.33	31.95	6.05	6.05	3.67	11.99	11.99	15.50
Kurundwad	14.57	14.83	19.26	3.31	3.80	2.38	8.04	8.71	9.20
Huvenhedgi	46.9	6.8	22.9	48.5	10.9	28.5	50.5	6.1	31.2
Wadenapally	31.6	7.5	17.1	39.3	12.1	22.6	29.0	12.7	24.0
Vijayawada	32.3	7.0	16.6	33.2	14.1	22.4	45.2	15.3	26.3
Kellodu	21.0	19.3		7.6	6.3		13.6	12.4	
Shimoga	10.9	5.1	6.0	1.9	1.3	0.0	4.9	3.0	1.9
Holehonnur	15.0	14.0	14.2	4.0	3.0	0.7	8.0	8.0	6.6
Honnali	15.7	11.6	17.0	3.0	1.4	0.0	8.3	6.5	8.0
Kuppellur	22.4	29.1	38.9	7.2	6.7	7.2	13.7	16.9	24.4
Byaladahalli	30.0	31.0	28.8	10.0	10.0	10.4	17.0	20.0	20.0
Harlahalli	19.0	17.0	30.6	3.0	5.0	1.3	10.0	10.0	16.3
Marol	15.7	9.1	32.2	2.8	3.7	4.5	7.5	5.5	14.0
Gokak	15.0	15.0	19.8	3.0	3.0	1.9	8.1	8.1	8.3
Cholachagudda	47.0	29.5	80.2	9.3	8.4	6.4	24.8	17.5	35.1
Hoovinahole	24.0	21.0	32	15.0	6.0	1	20.0	16.0	21
Lakkavalli	5.9	5.9	5.6	1.0	1.0	0.0	3.2	3.2	1.1
Hariharapura	4.1	4.1	3.6	0.2	0.2	0.0	1.9	1.9	1.1
Matralayam	46.8	6.5	21.6	45.1	9.7	24.0	34.2	4.8	29.7
Bawapuram	43.2	7.2	20.6	39.9	10.2	22.8	40.9	5.0	27.2
Phulgaon	18.17	19.55	22.99	6.46	5.53	6.35	11.58	11.23	14.20
Takali	53.53	36.45	47.14	16.37	18.41	22.45	31.16	26.28	24.40
Yadgir	43.3	9.4	24.1	36.2	12.1	24.9	39.0	16.1	27.3

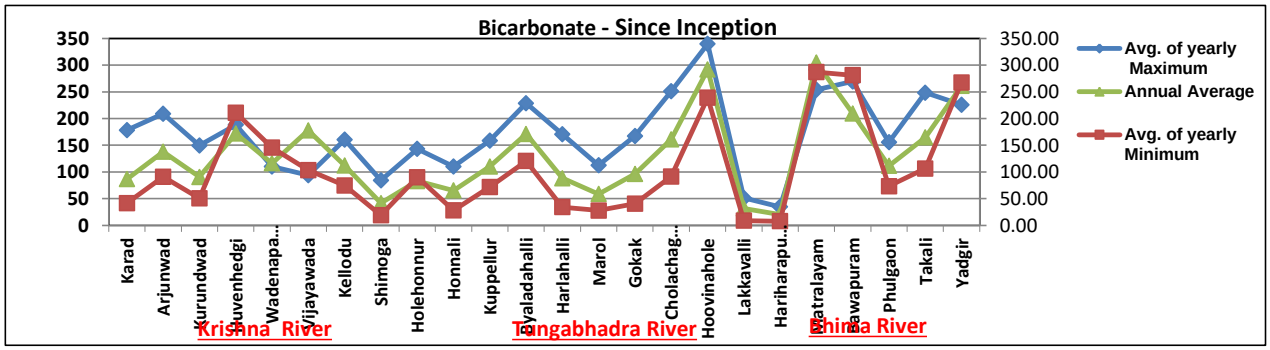


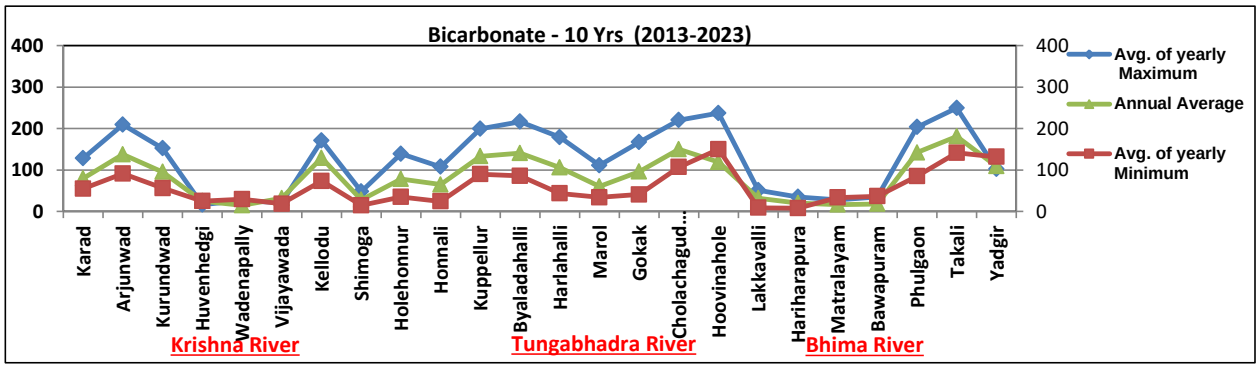


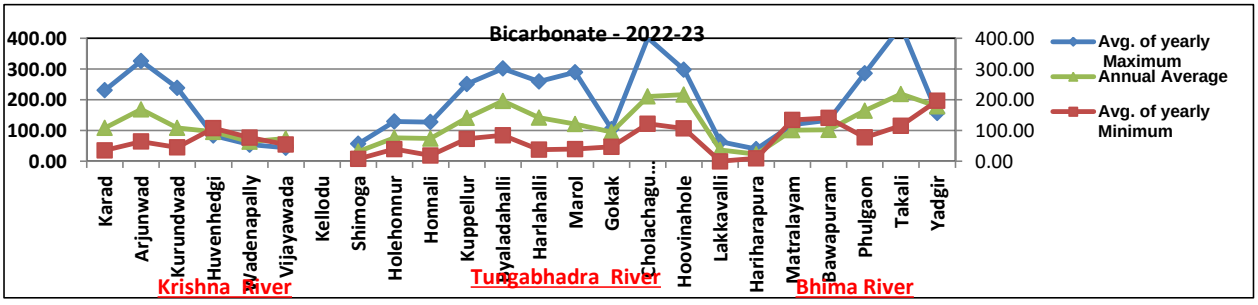


9. Bi-Carbonate

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	178.45	128.47	231.40	41.72	54.87	35.70	86.66	79.80	109.00
Arjunwad	209.10	209.10	326.50	91.11	91.11	64.30	137.78	137.78	169.00
Kurundwad	149.40	152.08	239.00	50.59	56.27	45.20	90.68	95.40	109.00
Huvenhedgi	188.1	16.7	83.6	211.0	25.0	107.6	172.0	25.0	95.8
Wadenapally	110.0	26.4	54.1	145.6	29.4	77.1	116.3	14.9	63.4
Vijayawada	94.0	21.3	43.8	103.2	18.4	54.9	178.0	32.0	74.1
Kellodu	160	171		75	74		112	129	
Shimoga	84	48	57	19	15	8	42	28	32
Holehonnur	143	139	130	90	35	40	83	78	76
Honnali	110	108	128	28	24	19	65	65	74
Kuppellur	159	199	251	72	90	73	110	133	141
Byaladahalli	229	217	302	120	86	85	171	140	196
Harlahalli	171	179	260	34	44	38	88	106	142
Marol	113	111	290	28	34	40	59	60	121
Gokak	167	167	105	41	41	47	96	96	95
Cholachagudda	251	220	402	91	107	122	161	150	211
Hoovinahole	340	237	298	239	150	107	292	119	217
Lakkavalli	51	51	64	9	9	0	32	32	37
Hariharapura	35	35	40	8	8	10	20	20	23
Matralayam	254.0	28.0	118.7	287.1	33.8	134.3	304.9	16.6	101.6
Bawapuram	269.4	35.3	134.1	281.2	36.7	141.0	209.5	18.2	102.1
Phulgaon	155.82	203.56	286.60	73.18	85.25	77.60	111.50	142.10	165.00
Takali	248.39	249.25	440.40	106.30	141.35	115.60	164.73	180.78	219.00
Yadgir	225.6	102.2	157.0	267.7	131.8	196.8	261.0	109.0	178.8

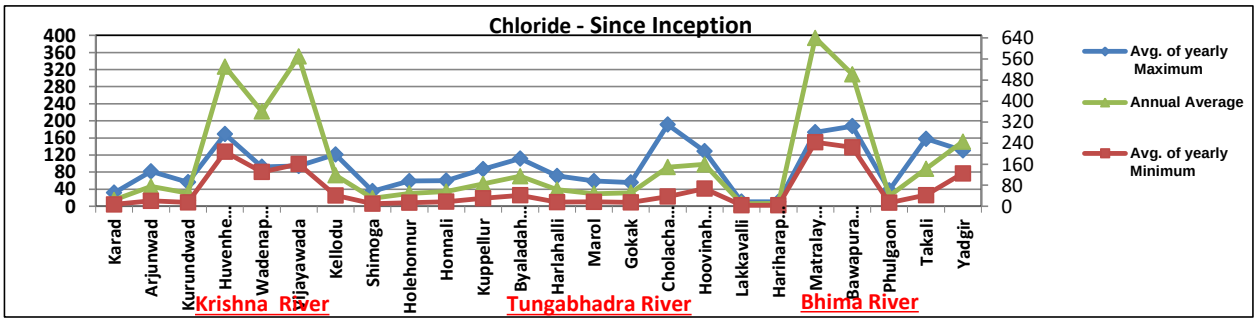


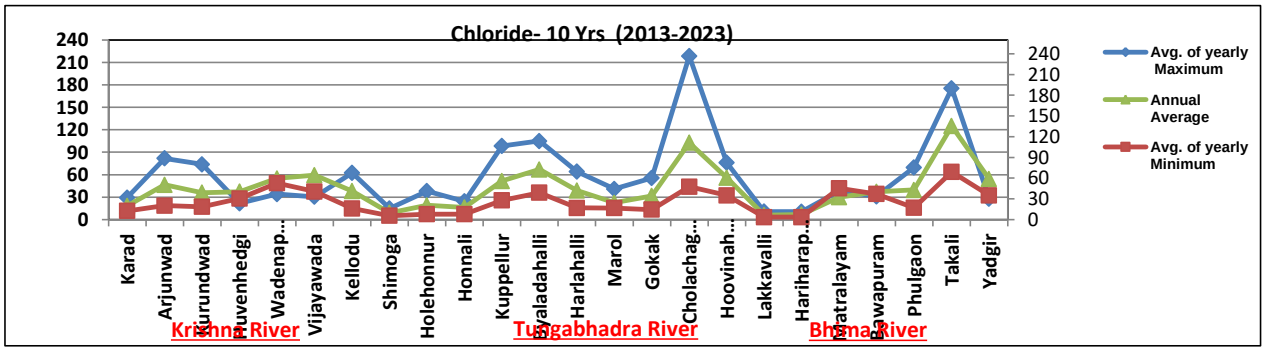


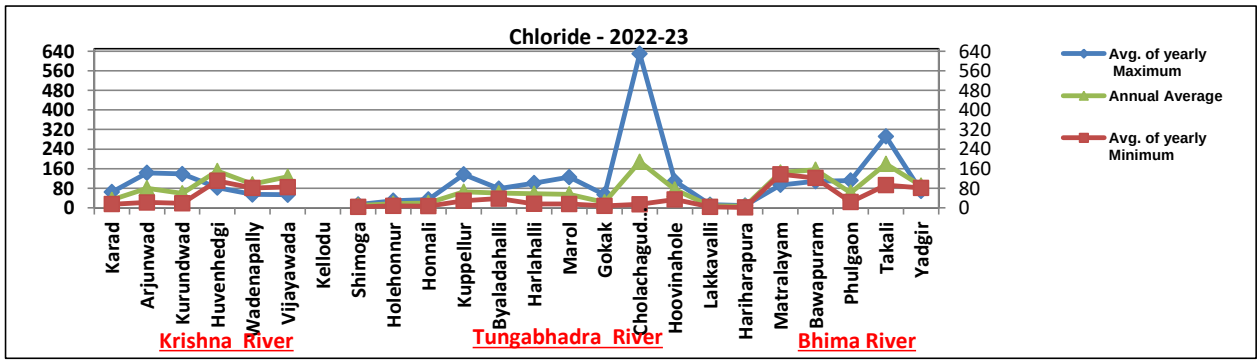


10. Chloride

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	31.65	29.34	64.89	6.97	12.69	15.30	14.69	18.47	32.60
Arjunwad	81.81	81.81	143.17	20.29	20.29	22.13	46.44	46.44	80.10
Kurundwad	56.57	73.83	138.34	14.45	18.63	18.53	30.42	35.94	59.30
Huvenhedgi	168.9	21.8	82.3	207.3	30.4	110.4	326.8	37.3	150.0
Wadenapally	92.4	34.0	54.7	130.8	52.7	81.5	222.0	55.0	96.5
Vijayawada	94.4	30.5	53.5	161.3	40.6	84.9	350.7	59.4	126.9
Kellodu	121	62		41	16		72	38	
Shimoga	35	15	14	10	6	5	19	9	9
Holehonnur	59	38	30	14	8	8	30	19	17
Honnali	60	25	34	18	8	7	34	16	20
Kuppellur	87	98	137	31	28	29	52	52	66
Byaladahalli	112	105	79	42	39	38	71	67	60
Harlahalli	71	64	102	16	17	16	39	39	57
Marol	59	41	125	17	17	16	30	23	56
Gokak	56	56	54	15	15	9	32	32	23
Cholachagudda	191	218	629	37	48	15	92	103	188
Hoovinahole	129	76	109	67	35	34	98	56	75
Lakkavalli	11	11	13	4	4	4	6	6	8
Hariharapura	11	11	10	4	4	2	7	7	7
Matralayam	173.2	38.2	93.6	243.7	45.3	137.1	394.0	30.1	144.6
Bawapuram	187.7	31.0	108.6	223.9	37.1	122.2	309.0	37.0	156.1
Phulgaon	37.41	69.51	111.97	13.39	17.25	24.00	23.82	39.62	61.20
Takali	157.81	175.47	291.24	42.32	68.99	92.78	87.41	124.91	180.00
Yadgir	130.7	28.0	68.7	125.3	35.0	81.0	151.3	54.4	90.6

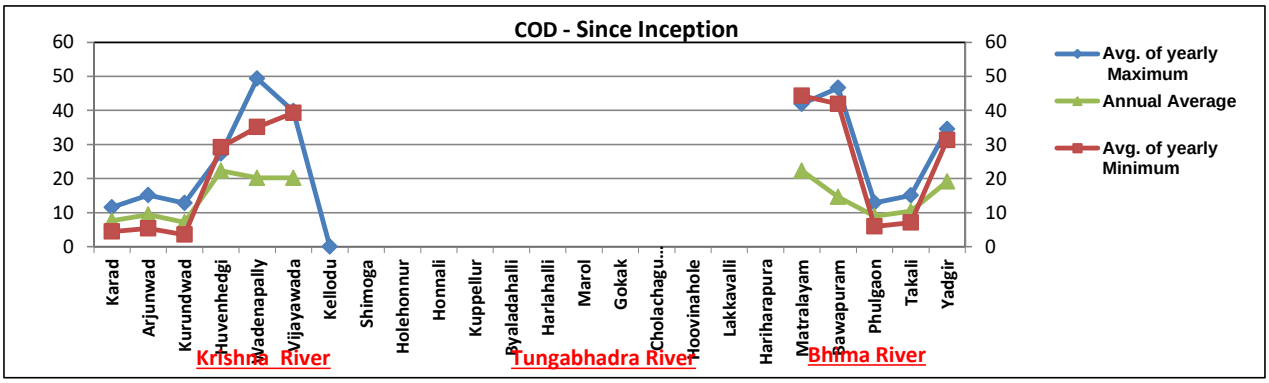


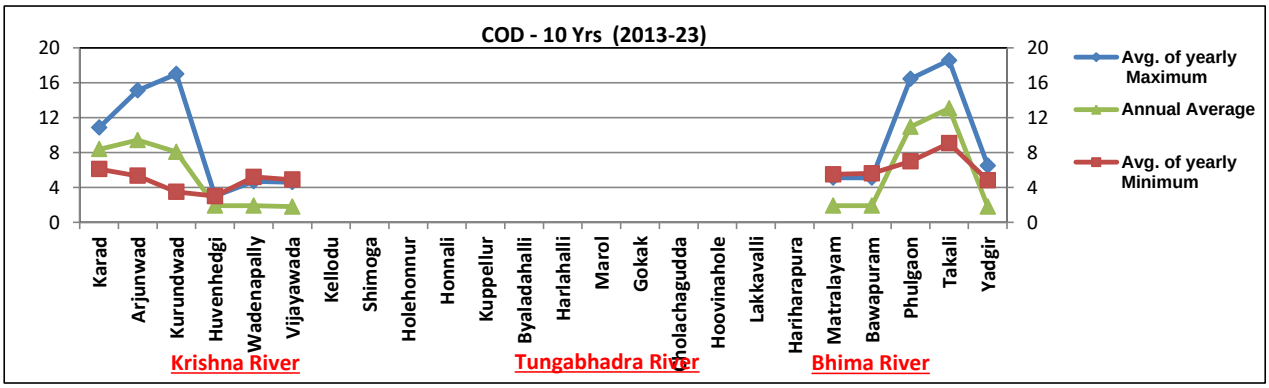


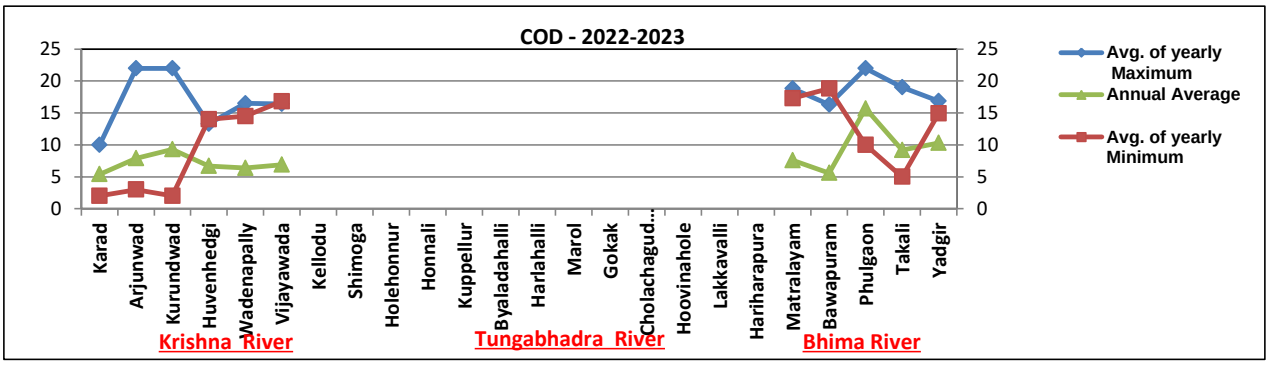


11. Chemical Oxygen Demand

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	*10 years (2013 - 2023)*	*2022-23*	*Since inception*	*10 years (2013 -2023)*	*2022-23*	*Since inception*	*10 years (2013 -2023)*	*2022-23*
Karad	11.56	10.87	10.00	4.43	6.10	2.00	7.61	8.38	5.40
Arjunwad	15.12	15.12	22.00	5.33	5.33	3.00	9.43	9.43	7.90
Kurundwad	12.82	17.00	22.00	3.53	3.48	2.00	7.14	8.07	9.30
Huvenhedgi	27.3	3.0	13.3	29.2	3.0	14.0	22.3	1.9	6.7
Wadenapally	49.3	4.7	16.5	35.1	5.2	14.5	20.2	1.9	6.4
Vijayawada	39.8	4.6	16.4	39.3	4.9	16.8	20.2	1.8	6.9
Kellodu	COD Test not Conducting In UTSD Dhavangire and MKSD Bhagalkot								
Shimoga									
Holehonnur									
Honnali									
Kuppellur									
Byaladahalli									
Harlahalli									
Marol									
Gokak									
Cholachagudda									
Hoovinahole									
Lakkavalli									
Hariharapura									
Matralayam	41.9	5.1	18.8	44.3	5.5	17.3	22.3	1.9	7.6
Bawapuram	46.6	5.1	16.3	41.9	5.6	18.8	14.6	1.9	5.6
Phulgaon	12.87	16.42	22.00	5.94	6.99	10.00	8.94	10.95	15.70
Takali	15.04	18.56	19.00	7.08	9.07	5.00	10.42	13.07	9.20
Yadgir	34.52	6.49	16.85	31.31	4.82	14.93	19.10	1.80	10.31

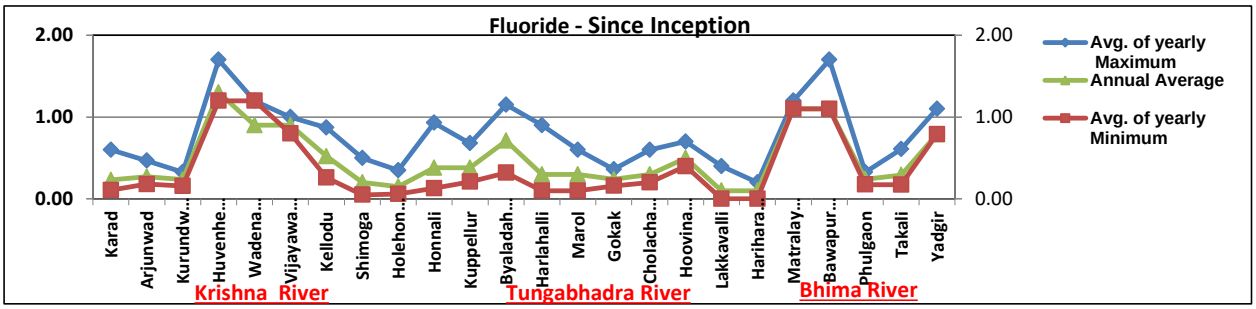


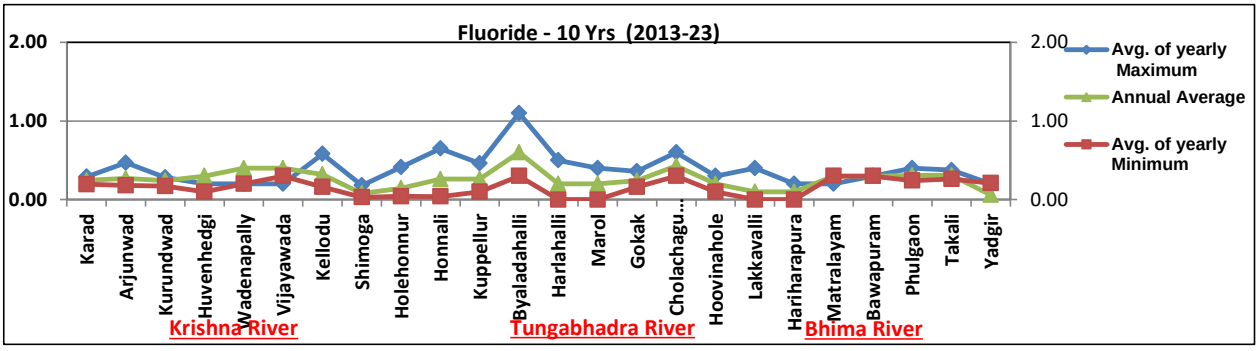


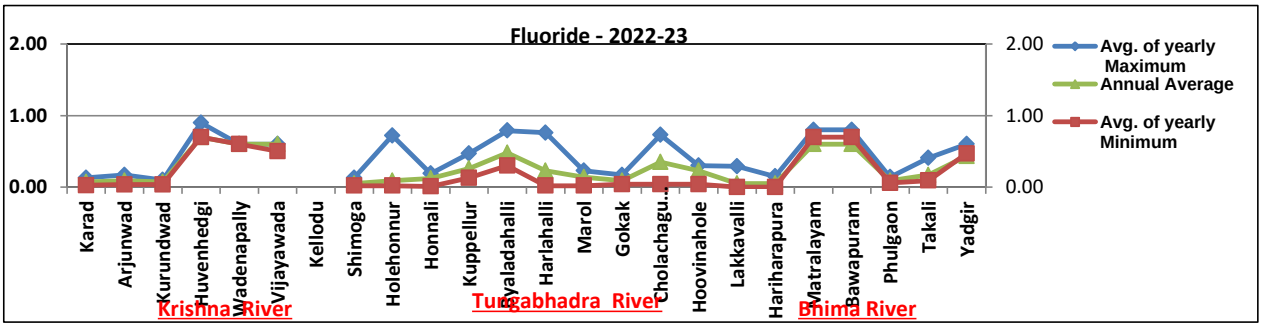


12. Fluoride

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	*10 years (2013 - 2023)*	*2022-23*	*Since inception*	*10 years (2013 -2023)*	*2022-23*	*Since inception*	*10 years (2013 -2023)*	*2022-23*
Karad	0.60	0.29	0.13	0.11	0.20	0.03	0.23	0.24	0.07
Arjunwad	0.47	0.47	0.17	0.18	0.18	0.04	0.27	0.27	0.09
Kurundwad	0.33	0.28	0.10	0.16	0.17	0.04	0.24	0.24	0.07
Huvenhedgi	1.7	0.2	0.9	1.2	0.1	0.7	1.3	0.3	0.7
Wadenapally	1.2	0.2	0.6	1.2	0.2	0.6	0.9	0.4	0.6
Vijayawada	1.0	0.2	0.6	0.8	0.3	0.5	0.9	0.4	0.6
Kellodu	0.870	0.580		0.260	0.160		0.520	0.320	
Shimoga	0.500	0.180	0.130	0.050	0.030	0.020	0.200	0.080	0.050
Holehonnur	0.349	0.411	0.720	0.060	0.042	0.020	0.152	0.144	0.090
Honnali	0.930	0.650	0.190	0.130	0.040	0.010	0.380	0.260	0.120
Kuppellur	0.680	0.460	0.470	0.210	0.100	0.130	0.380	0.260	0.260
Byaladahalli	1.150	1.100	0.790	0.320	0.300	0.300	0.710	0.600	0.480
Harlahalli	0.900	0.500	0.760	0.100	0.000	0.020	0.300	0.200	0.230
Marol	0.600	0.400	0.230	0.100	0.000	0.020	0.300	0.200	0.140
Gokak	0.360	0.360	0.170	0.160	0.160	0.040	0.240	0.240	0.090
Cholachagudda	0.600	0.600	0.730	0.200	0.300	0.040	0.300	0.430	0.350
Hoovinahole	0.700	0.300	0.300	0.400	0.100	0.040	0.500	0.200	0.230
Lakkavalli	0.400	0.400	0.290	0.000	0.000	0.000	0.100	0.100	0.050
Hariharapura	0.200	0.200	0.150	0.000	0.000	0.000	0.100	0.100	0.050
Matralayam	1.20	0.2	0.8	1.1	0.3	0.7	1.1	0.3	0.6
Bawapuram	1.7	0.3	0.8	1.1	0.3	0.7	1.1	0.3	0.6
Phulgaon	0.33	0.40	0.14	0.18	0.24	0.06	0.24	0.31	0.09
Takali	0.61	0.37	0.41	0.17	0.26	0.09	0.29	0.31	0.17
Yadgir	1.1	0.2	0.6	0.79	0.21	0.47	0.79	0.06	0.43

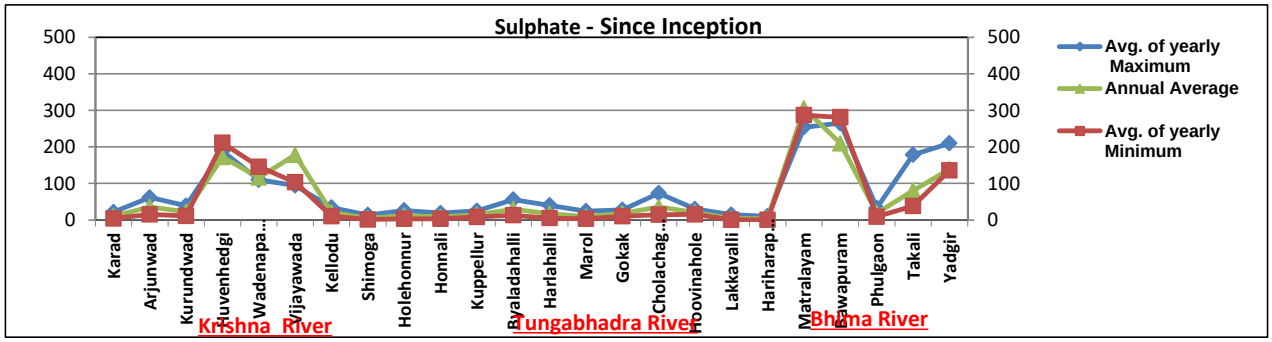


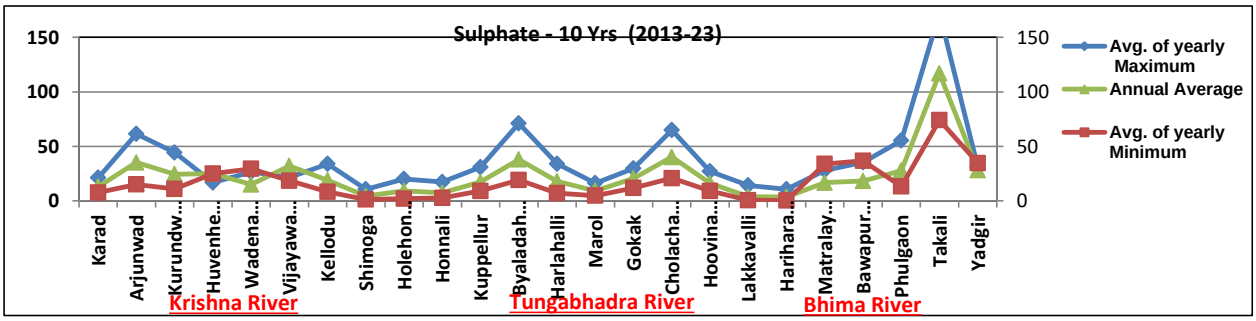


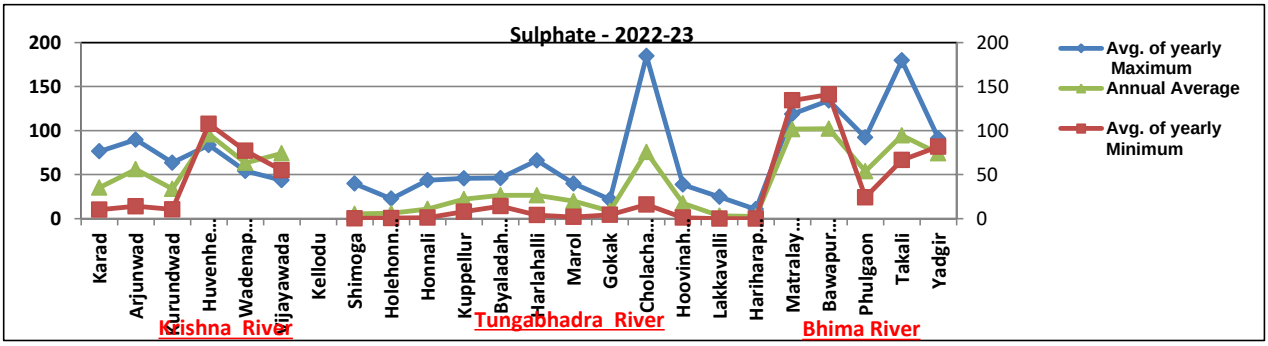


13. Sulphate

Site Name (From U/s to D/s)	Avg. of yearly Maximum			Avg. of yearly Minimum			Annual Average		
	Since inception	10 years (2013 - 2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23	Since inception	10 years (2013 -2023)	2022-23
Karad	21.7	21.1	76.5	4.0	7.6	10.1	10.0	13.0	35.1
Arjunwad	61.4	61.4	89.7	15.0	15.0	14.1	35.2	35.2	56.1
Kurundwad	38.6	44.2	63.5	10.6	10.9	10.4	22.3	24.5	33.9
Huvenhedgi	188.1	16.7	83.6	211.0	25.0	107.6	172.0	25.0	95.8
Wadenapally	110.0	26.4	54.1	145.6	29.4	77.1	116.3	14.9	63.4
Vijayawada	94.0	21.3	43.8	103.2	18.4	54.9	178.0	32.0	74.1
Kellodu	33.8	33.8		10.4	8.3		21.0	18.7	
Shimoga	13.5	10.6	39.8	1.1	1.2	0.3	4.5	4.2	5.4
Holehonnur	26.0	20.0	22.6	3.0	2.0	0.7	12.0	9.0	6.2
Honnali	18.9	17.2	43.7	3.2	2.7	1.3	8.7	7.3	11.0
Kuppellur	24.9	30.7	45.7	8.2	9.0	7.9	14.5	17.2	22.1
Byaladahalli	56.0	71.0	46.0	13.0	19.0	14.3	29.5	38.0	26.5
Harlahalli	40.0	34.0	66.1	5.0	7.0	4.0	17.0	18.0	26.4
Marol	24.0	16.2	39.9	3.5	4.7	2.0	9.4	9.1	19.9
Gokak	27.9	29.7	21.7	10.0	11.7	4.3	18.2	20.6	8.8
Cholachagudda	73.1	64.9	184.8	14.2	20.7	16.1	35.5	40.1	75.7
Hoovinahole	30.0	27.0	38.6	15.0	9.0	1.2	21.0	16.0	17.6
Lakkavalli	14.1	14.1	24.7	0.6	0.6	0.2	3.9	3.9	3.2
Hariharapura	10.5	10.5	10.7	0.3	0.3	0.2	3.6	3.6	2.5
Matralayam	254.0	28.0	118.7	287.1	33.8	134.3	304.9	16.6	101.6
Bawapuram	264.9	35.3	134.1	281.2	36.7	141.0	209.5	18.2	102.1
Phulgaon	32.9	55.2	92.1	8.9	13.2	24.2	18.5	27.7	53.8
Takali	178.2	172.5	179.6	38.5	74.0	66.5	80.4	116.9	94.6
Yadgir	210.0	30.4	91.2	135.5	34.5	81.9	138.9	28.0	74.1







National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

KRISHNA & GODAVARI RIVER WATER QUALITY LABORATORY, CENTRAL WATER COMMISSION, MINISTRY OF WATER RESOURCES, RD & GR

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

KRISHNA GODAVARI BHAVAN, 3RD FLOOR, 11-4-648 AC GUARDS, HYDERABAD, TELANGANA, INDIA

in the field of

TESTING

Certificate Number: TC-6055

Issue Date: 23/08/2019 **Valid Until:** 22/08/2021

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

N. Venkateswaran
Chief Executive Officer

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory Name	KRISHNA & GODAVARI RIVER WATER QUALITY LABORATORY, CENTRAL WATER COMMISSION, MINISTRY OF WATER RESOURCES, RD & GR, KRISHNA GODAVARI BHAVAN, 3RD FLOOR, 11-4-648 AC GUARDS, HYDERABAD, TELANGANA , INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6055	Page No. :	1 / 2
Validity	23/08/2019 to 22/08/2021	Last Amended on	-

S.No	Discipline / Group	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed
Permanent Facility				
1	CHEMICAL- WATER	River Water	Biological Oxygen Demand	APHA 23rd Edition : 2017
2	CHEMICAL- WATER	River Water	Calcium as Ca	APHA 23rd Edition : 2017
3	CHEMICAL- WATER	River Water	Chloride	APHA 23rd Edition : 2017
4	CHEMICAL- WATER	River Water	Conductivity	APHA 23rd Edition : 2017
5	CHEMICAL- WATER	River water	Copper	APHA 23rd Edition : 2017
6	CHEMICAL- WATER	River Water	Dissolved Oxygen	APHA 23rd Edition : 2017
7	CHEMICAL- WATER	river water	fluoride	APHA 23rd Edition : 2017
8	CHEMICAL- WATER	river water	iron	APHA 23rd Edition : 2017
9	CHEMICAL- WATER	River Water	Magnesium as Mg	APHA 23rd Edition : 2017
10	CHEMICAL- WATER	River Water	Nitrate	APHA 23rd Edition : 2017
11	CHEMICAL- WATER	river water	Nitrite	APHA 23rd Edition : 2017
12	CHEMICAL- WATER	river water	ortho phosphate	APHA 23rd Edition : 2017
13	CHEMICAL- WATER	River Water	pH	APHA 23rd Edition : 2017

SCOPE OF ACCREDITATION

Laboratory Name	KRISHNA & GODAVARI RIVER WATER QUALITY LABORATORY, CENTRAL WATER COMMISSION, MINISTRY OF WATER RESOURCES, RD & GR, KRISHNA GODAVARI BHAVAN, 3RD FLOOR, 11-4-648 AC GUARDS, HYDERABAD, TELANGANA , INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	TC-6055	Page No. :	2 / 2
Validity	23/08/2019 to 22/08/2021	Last Amended on	-

S.No	Discipline / Group	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed
14	CHEMICAL- WATER	river water	potassium	APHA 23rd Edition : 2017
15	CHEMICAL- WATER	river water	sodium	APHA 23rd Edition : 2017
16	CHEMICAL- WATER	river water	sulphate	APHA 23rd Edition : 2017
17	CHEMICAL- WATER	River Water	Total Alkalinity as CaCO3	APHA 23rd Edition : 2017
18	CHEMICAL- WATER	River Water	Total Dissolved Solids	APHA 23rd Edition : 2017
19	CHEMICAL- WATER	River Water	Total Hardness as CaCO3	APHA 23rd Edition : 2017
20	CHEMICAL- WATER	river water	zinc	APHA 23rd Edition : 2017

National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

UPPER CAUVERY WATER QUALITY LABORATORY, CENTRAL WATER COMMISSION

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

Cauvery Division, Jalasouda, Jalahalli, Bengaluru, Karnataka

in the field of

TESTING

Certificate Number TC-7793

Issue Date 30/08/2018 **Valid Until** 29/08/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

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Anil Relia
Chief Executive Officer

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National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory	**Upper Cauvery Water Quality Laboratory, Central Water Commission, Cauvery Division, Jalasouda, Jalahalli, Bengaluru, Karnataka**
Accreditation Standard	**ISO/IEC 17025: 2005**
Certificate Number	**TC-7793** **Page 1 of 2**
Validity	**30.08.2018 to 29.08.2020** **Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		CHEMICAL TESTING		
I.	**WATER**			
1.	**Surface Water (River Water)**	pH	APHA23rd Edn.2017 -- 4500H^+ B (Electrometric Method)	2 to 12
		Conductivity	APHA23rd Edn.2017 -- 2510 B (Laboratory Method)	1 µS/cm to 5000 µS/cm
		Total Hardness as $CaCO_3$	APHA23rd Edn.2017 -- 2340 C (EDTA Titrimetric Method)	5 mg/L to 1500 mg/L
		Calcium as Ca^{+2}	APHA23rd Edn.2017 -- 3500Ca - B (EDTA Titrimetric Method)	2 mg/L to 500 mg/L
		Magnesium as Mg^{+2}	APHA23rd Edn.2017 -- 3500Mg - B (Calculation Method)	2 mg/L to 500 mg/L
		Total alkalinity as $CaCO_3$	APHA23rd Edn.2017 -- 2320 B (Titration Method)	10 mg/L to 1000 mg/L
		Chloride as Cl^-	APHA23rd Edn.2017 -- 4500Cl^- B (Argentometric Method)	5 mg/L to 2000 mg/L
		Biological Oxygen Demand	APHA23rd Edn.2017 -- 5210 B (@20^{0}C; 5 day BOD Test Method)	1 mg/L to 500 mg/L
		Dissolved Oxygen	APHA23rd Edn.2017 -- 4500, O-C (Azide Modification Method)	1 mg/L to 10 mg/L
		Nitrate as NO_3^-	APHA23rd Edn.2017 -- 4500 NO_3^- D (Nitrate Electrode Method)	0.5 mg/L to 250 mg/L

Amit Kumar
Convenor

Anuja Anand
Program Manager

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National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

SCOPE OF ACCREDITATION

Laboratory Upper Cauvery Water Quality Laboratory, Central Water Commission, Cauvery Division, Jalasouda, Jalahalli, Bengaluru, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7793

Validity 30.08.2018 to 29.08.2020 Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Fluoride as F^-	APHA23rd Edn.2017 -- 4500 F^- C (ISE method)	0.1 mg/L to 20 mg/L
		Sodium as Na^+	APHA23rd Edn.2017 -- 3500 Na-B (Flame Emission Photometric Method)	5 mg/L to 500 mg/L
		Potassium as K^+	APHA23rd Edn.2017 -- 3500 K-B (Flame Emission Photometric Method)	1 mg/L to 200 mg/L
		Chemical Oxygen Demand	APHA23rd Edn.2017 – 5220 -D (Closed Reflux Colorimetric Method)	2 mg/L to 300 mg/L

Amit Kumar
Convenor

Anuja Anand
Program Manager

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National Accreditation Board for Testing and Calibration Laboratories

(A Constituent Board of Quality Council of India)

CERTIFICATE OF ACCREDITATION

UPPER KRISHNA DIVISION WATER QUALITY LABORATORY, CENTRAL WATER COMMISSION

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

2nd Floor, National Water Academy Complex, Khadakwasla,
R. S. Pune, Maharashtra

in the field of

TESTING

Certificate Number TC-8138

Issue Date 26/11/2018 **Valid Until** 25/11/2020

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Signed for and on behalf of NABL

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Anil Relia
Chief Executive Officer

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Publication Reg.No. CWC/2024/26



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हैदराबाद / HYDERABAD

फ़रवरी-2024
February-2024