सत्यमेव जयते

Government of India
Ministry of Water Resources
Central Water Commission

Status of Trace and Toxic Metals in Indian Rivers

River Data Directorate
Planning & Development Organisation
New Delhi 110066

May 2014

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Chairman
Central Water Commission &
Ex-Officio Secretary to the Government of India
Room No. 315(S), Sewa Bhawan
R. K. Puram, New Delhi-110066

FOREWORD

Central Water Commission, an apex engineering organization of the Ministry of Water Resources, Government of India, is playing an active role in this endeavour. The Central Water Commission is monitoring water quality at 396 key locations, at present, covering all the major river basins of India. The Water Quality Monitoring Network of Central Water Commission comprises of a three tier Laboratory system for analysis of the parameters viz, Level-I, Level-II and Level-III/II+ laboratories. The Level-I laboratories are located at 370 field water quality monitoring stations on various rivers in India for measurement of in-situ physical and biological parameters. There are 18 Level-II Laboratories located at selected division offices to analyse 25 physico-chemical and bacteriological parameters. Five Level-III/II+ laboratories are functioning at Varanasi, New Delhi, Hyderabad, Coimbatore, and Guwahati where 41 parameters including heavy metals/ toxic parameters and pesticides are being analysed.

Water Quality monitoring issues in Indian Rivers are assuming great importance in the present day context with increase in urbanization and rapid industrialization. The Government of India has constituted Water Quality Assessment Authority (WQAA) to address these issues. A uniform protocol along with standardization of parameters has been made by WQAA to bring uniformity in analysis. Trace and toxic metals in the river water has large bearing on the health of human being, aquatic life and ecology. This publication is brought about to establish the spots that have been identified as having serious issues related to the presence of Trace and Toxic metals.

I appreciate the hard work done and efforts put in by Shri M. P. Singh, Chief Engineer, P&D and Shri N. K. Manglik, Director, RDD under the overall guidance of Shri K. N. Keshri, Member (RM) in bringing out the first edition of this publication titled “Status of Trace & Toxic Metals in Indian Rivers”. I also appreciate the data compilation and report preparation work done by Dr. Rajni Kant Sharma, Research Officer (RDD) and Dr. Jakir Hussain, Research Officer (NRWQL).

I hope this publication would prove to be useful to all the stakeholders and agencies that are responsible for taking necessary remedial measures for conservation of river water quality.

(A. B. Pandya)
Chairman

30th May 2014
New Delhi

Member (River Management)
Central Water Commission &
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ACKNOWLEDGMENTS

Water is not only one of the most important and basic natural resources on earth but also one of the most essential commodities of our day-to-day life. This natural resource forms the lifeline of all the living organisms. Rain and snow are the two natural sources of pure water on earth. The initial phase of the journey of water on earth comprises surface run-off in the form of streams, rivers and lakes. The total amount of water available in the world is constant. The quantity of water available on earth is generally said to be adequate to meet all the demands of mankind. But its quality and distribution over different geographical regions on the earth is uneven and causes problems of scarcity and suitability. Hence, the monitoring of the quality of water so as to conserve its healthy nature is very important as this natural resource plays a crucial role in the economic and social development processes of the nation.

Central Water Commission has been monitoring river water quality in all major river basins since a very long time and has generated a lot of data over the period. Besides many Physico-chemical and Biological Parameters which are being monitored since long, monitoring of 'Trace & Toxic' elements has also been started since November-2011 so as to track their presence and variance over a period of time in the rivers of India. In order to share the data with various stakeholders, it has been decided to bring out various status reports utilizing the vast data collected by CWC over the years.

I appreciate the commendable efforts put in by the committee that was constituted on 31st October, 2013 for publication of various water quality reports in bringing out this publication in such a short span of time. Efforts put in by the officers of River Data Directorate, Shri Ramjeet Verma, Dy. Director, Shri Rajesh Kumar, Dy. Director, Dr. Rajni Kant Sharma, Research Officer, Dr. Jakir Hussain, Research Officer (NRWQL) Shri Raj Singh, Assistant Research Officer (NRWQL) and Shri S. K. Kulshrestha, Assistant Research Officer in the preparation of the report are also appreciated. Efforts put in by Dr. Jakir Hussain, Research Officer and Shri Rajesh Kumar, Senior Research Assistant, NRQWL, YBO in analyzing the river water samples and providing the results are also appreciated. I also express sincere thanks to all field Chief Engineers of CWC for making arrangements for collection and submission of river water samples to the National River Water Quality Laboratory, CWC, New Delhi.

(K. N. Keshri)
Member (RM)

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PREFACE

Water pollution, which is one of the major environmental concerns in India, is the introduction of contaminants into the natural waters that cause adverse change. Water Pollution is caused by the discharge of commercial and industrial wastewater, intentionally or through spills, into surface waters; discharges of untreated domestic sewage and chemical contaminants such as chlorine from treated sewage; release of waste and contaminants into surface runoff flowing to surface water sources including urban runoff and agricultural runoff which may contain chemical fertilizers and pesticides; eutrophication and littering; discharges of untreated or semi-treated industrial effluents; mining activities, etc. Many water resources have been rendered polluted and hazardous to man and other living systems.

The toxic substances discharged into water bodies are not only accumulated through the food chain but may also either limit the number of species or produce dense populations of microorganisms. Aquatic ecosystems are affected by several stresses that significantly weaken biodiversity. River pollution is an environmental problem in the world. Because of unprecedented development, human beings are responsible for choking several aquatic ecosystems to death. Storm water runoff and carry out of sewage into rivers are two common ways that various nutrients and other pollutants enter the aquatic ecosystems resulting in pollution. Heavy metal contamination particularly the non-essential elements may have distressing effects on the ecological balance of the recipient aquatic environment with a diverse of organisms including fish. It has particular significance in eco-toxicology, since the heavy metals are highly persistent and have the potential to bio-accumulate and bio-magnify in food chain and become toxic to living organisms at higher tropic levels in nature.

This publication "Status of Trace & Toxic Metals in Indian Rivers" has been initiated by Central Water Commission with a vision to come out with a Revised Edition after regular intervals. It is hoped that this document would be beneficial to various stakeholders and agencies that are responsible for taking necessary remedial measures. Results of analysis of samples collected from 396 stations covering 16 River Basins in India during Sept.-2011, Feb.-2012, June-2012, Oct.-2012, March-2013 and Aug.-2013 have been utilized in the preparation of the present report.

Keeping this in view, a committee was constituted on 31st October, 2013 for publication of various water quality reports under the Chairmanship of Shri N. K. Manglik, Director, RDD and comprising Dr. Rajni Kant Sharma, Research Officer, RDD and Shri Raj Singh, Assistant Research Officer, NRWQL as members. The present publication is the first one that has been brought out by the committee.

(M. P. Singh)
Chief Engineer (P&D)

EXECUTIVE SUMMARY

In the developing countries like India, facilities of drinking water treatment before supply are not always available or possible. In many parts of the country people take water directly from the source for their domestic use. Because of the unplanned urbanization and industrialization, availability of good quality and quantity of water is a threat.

To observe the current status of toxic metal content of Indian Rivers, river water samples from the water quality (WQ) monitoring stations spread over 16 river basins of Central Water Commission were collected in the months of September 2011, February 2012, June 2012, October, 2012, March 2013 and August 2013. These samples were analyzed for selected nine trace and toxic metals at National River Water Quality Laboratory, Central Water Commission, New Delhi. Toxic metal wise summary of the results are as under:

Arsenic (As) Total 1921 numbers of water samples from 387 water quality monitoring stations were collected and analyzed for Arsenic content in Indian Rivers. Arsenic concentration was well within the acceptable limit of Bureau of Indian Standard (BIS) and no toxicity of As in the Indian rivers is observed during the study period. The arsenic concentration varies from 0.00 to 9.47µg/L. Maximum arsenic concentration (9.47µg/L) was observed at Sundergarh Water Quality monitoring station on Ib River during October 2012.

Cadmium (Cd) Out of 1934 water samples, 7 samples were found to have cadmium content more than the acceptable limits. BIS (Bureau of Indian Standard), 10500:2012 have recommended an acceptable limit of 3 µg/L of cadmium in drinking water. Total four Indian Rivers viz. Cauvery, Pennar, Yamuna and Hindon are contaminated through cadmium at 7 water quality monitoring stations. The highest cadmium concentration (4.0µg/L) was observed in the Delhi Rly Bridge and Mathura water quality monitoring station at Yamuna River during June, 2012.

Chromium (Cr) Chromium concentration was 366.91µg/L at Khanpur water quality monitoring station on Ganga River in October, 2012, which is the maximum concentration during the study period. Out of 1917 water samples, total 21 samples from 14 WQ monitoring stations located on 11 major Indian Rivers were found to have chromium concentration exceeding the tolerance limit of 50µg/L. Some Indian Rivers viz. Ganga, Mahanadi, Tel etc. have two or more chromium polluted WQ monitoring stations.

Copper (Cu) 1924 water samples from 387 water quality stations were collected and analyzed for copper content from September 2011 to August 2013. Out of 1924 water samples, 68 were found to contain copper concentrations above the acceptable limits of 50µg/L throughout the study period, the maximum Copper concentration 180.70 µg/L was observed at Regauli water quality station on Rapti river in March, 2013. Among these Rivers Ganga, Gomti, Kwano, Ramganga, Rapti, Sarju etc. are among the ones where two or more WQ monitoring stations are contaminated with copper.

Iron (Fe) Barak, Brahamputra, Ganga, Mahi, Narmada, Ramganga, Rapti, Seonath, Subarnarekha, Teesta and Yamuna are the Rivers where more than two water quality monitoring stations (on each river) have been found to exceed the limits throughout the study period. Iron concentration is reported to be maximum (6.65 mg/L) at Srikakulam water quality station on Nagavali River during September, 2011. Out of 1918 water samples analysed during the study period, the Iron concentration was above the acceptable limit in 492 samples.

Lead (Pb) Lead concentration was maximum (48.92 µg/L) in the water sample from Moradabad water quality station on Ramganga River during June, 2012. Total 67 water samples from 47 water quality monitoring stations of 30 Indian Rivers are observed to be exceeding the acceptable limits of lead concentration. Brahamani, Ganga, Ghaghra, Gomti, Mahanadi, Ramganga, Rapti and Yamuna are the rivers where many water quality monitoring stations are contaminated with lead.

Mercury (Hg) Total 872 numbers of water samples from 387 water quality monitoring stations were collected and analyzed for mercury content in Indian Rivers. Mercury concentration was well within the acceptable limit of Bureau of Indian Standard (BIS) and no toxicity of Hg in the Indian rivers is observed during the study period.

Nickel (Ni) It is observed that Nickel concentrations in 107 water samples out of 1637 samples, are more than the prescribed limits of BIS. Nickel concentration at Fatehgarh water quality station on Ganga River in March 2013 is reported to be the maximum (80.51 µg/L) during the entire study period. Baitarni, Ganga, Gomti, Hasdeo, Mahanadi, Narmada, Purna, Seonath, Subarnarekha, Tel,

Wainganga and Wardha are the rivers where 2 or more Water Quality monitoring stations are observed to be contaminated with Nickel.

Zinc (Zn)

1913 water samples of 387 water quality monitoring stations were analysed during the reporting period. In all the water samples, zinc concentration was well within the acceptable limit of Bureau of Indian Standard (BIS) and no toxicity of Zn in the Indian rivers is observed during the study period.

CONTRIBUTIONS

Guidance

- **Shri A. B. Pandya**, Chairman, CWC, New Delhi
- **Shri K. N. Keshri**, Member (River Management), CWC, New Delhi
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Abbreviations

WQ	Water Quality
Hg	Mercury
Pb	Lead
As	Arsenic
Cd	Cadmium
Cr	Chromium
Cu	Copper
Zn	Zinc
Fe	Iron
Ni	Nickel
µg/dL	Microgram per Deciliter
PPM	Parts Per Million
AAS	Atomic Absorption Spectrophotometer
BIS	Bureau of Indian Standard
US EPA	Environmental Protection Agency, US
WHO	World Health Organisation
FNB	Food and Nutrition Board
IUPAC	International Union of Pure and Applied Chemistry
APHA	American Public Health Association

1. INTRODUCTION

The environmental pollution is caused by a variety of pollutants in water, air and soil. One of the major concerned pollutants of living environment is “Hazardous Metals” also termed as “Trace Elements”. This term is used in geochemical and biochemical literature to refer to a group of otherwise unrelated chemical elements which are found in nature at very low concentrations. Their concentrations in different natural environments vary widely.

1.1. SOURCES OF POLLUTION

Mining processes, discharge of industrial effluents containing metallic solutions, dumping of solid wastes which contain metal salts and some agricultural practices such as the use of mercury based biocides introduce toxic metals to water. Battery manufacturing industries, paint manufacturing industries, electroplating industries, viscous-rayon manufacturing industries, copper picking industries and galvanizing & rubber processing industries are some of the important industries the effluents of which contain considerable amounts of heavy metals. The primary metals considered to be toxic are lead, arsenic, copper, cadmium, mercury and nickel.

Contamination of River water with toxic metals prevents the further use of water for industrial and drinking purposes. Arsenic and Lead particularly make the water dangerous to drink. These toxic metals are reported to cause chromosome damage and thus interfere with the process of heredity. 80 µg/dL arsenic concentrations in human blood cause poisoning in adults. It is also reported that lead concentrations above 40µg/dL of blood cause brain damage in children. Small increases in mercury levels are reported to cause damage to the growth of aquatic algae. Copper in about 2 parts per hundred million parts of water is fatal to sticklebacks, the lethal concentration of nickel, lead and zinc is about 1 ppm.

Because of geochemical origin, many fresh water bodies, such as lakes, ponds or Rivers and groundwater resources may have higher metals concentrations. This arises from the gradual solublization of the heavy metals from the soil, which could be rich in these metals and this process is aided by active pH value. Air pollutants such as particles setting on water, acid rain, dissolving metallic dusts and run off from polluted soil could also contribute to heavy metal load in water. The bulk of the heavy metals reach water through domestic and industrial effluents.

Mining and minerals processing industries including foundries, electroplating, chemical laboratories, chemical industry using metal casting, solid waste dumps, chemical accidents, transport of ore, meal catalyst in industry, corrosion of pipes and joints, metal salts used in pest control are the sources for heavy metals reaching water bodies, depending on the pH and quality of water and soil. The metal can be bound to soil or humus in the sediment, they can be precipitated as hydroxides, they may exist as colloidal suspensions or suspended

particles or may get absorbed on or absorbed by biota. Valency changes also take place and equilibrium may exist between sediment and water regarding partition of metallic species.

A wide variety of pollutants-physical, chemical, biological and radiological have been identified in the environment consequent to urbanization, industrialization and new technological developments. Heavy metals, though naturally occurring, can be present in some areas in sufficient concentrations and in physico-chemical forms that might create pollution problems. Major sources of aquatic pollution by trace metals viz. Hg, Pb, Cd, As, Cr, Zn, Cu, Mn and Fe are industrial operations, fossil fuel burning, domestic sewage discharges and land run-off. These elements exhibit varying environmental behavior and toxicity to aquatic organism and man. The background levels of some of the trace metals vary widely depending upon the location. Several fold increase in the concentration of Zn, Cd, Hg etc., have been observed in some Rivers and ground waters in the country. For evaluation of impact of heavy metal in aquatic environment, further investigations are needed.

In addition to the wastes discharge into the waterways, pollution of the aquatic environments originates from atmospheric inputs, land drainage and run off and seepage through land as in the case of ground water.

1.2. TOXICITY OF SOME METALS

Among the metals present in higher concentration, the most problematic are Mercury (Hg), Lead (Pb), Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Zinc (Zn), Iron (Fe) and Nickel (Ni). Sometimes a very small concentration of a minor constituent may be of great hazard / benefit to human health and to plant nutrition. After it was discovered in the 1930s that fluoride in drinking water could be useful in preventing tooth decay, fluoride determination became routine in analyses of water for public supply. It is interesting that although trace elements are essential, just a little more than the required amount of some elements is toxic, inhibiting growth or in extreme cases even causing death. Zinc in trace amounts stimulates growth in many plants, but in large amounts it poisons the soil to such an extent that plants won't grow at all. Boron is an essential trace element for all plants, but its presence as little as 1 ppm in irrigation water; inhibits the formation of fruits such as orange and lemon. Similar example could be cited for other essential elements.

Lithium is an element seldom determined in routine irrigation water analyses, but as per a research study conducted in California, as little as 0.05-0.10 ppm of lithium in irrigation water can be toxic to citrus & avocado trees and to red kidney beans.

High concentration of inorganic trace elements in irrigated soils and shallow ground water poses a threat to agricultural productions and human & animal health. The modes of action are three, as follows:

- Trace elements can accumulate in plants to levels that cause phyto-toxicity

- Trace elements in plants can adversely affect humans and animals who consume these plants; and

- Trace elements can migrate with seepage through the root zone and into groundwater, possibly re-emerging with subsurface drainage in surface waters, thereby affecting wildlife, or with ground water pumped for domestic use, thereby threatening the health of humans.

Many trace elements are biologically beneficial at very low concentrations, but become toxic or otherwise detrimental to the health of organisms and plants at low to moderate concentrations. Long term exposure at sub-lethal concentrations to certain trace elements may result in chronic biological effects. Some trace elements can accumulate to potentially harmful levels in soils and sediment through chemical immobilization, in plants through bio-concentration, or via a food chain through biomagnifications.

2. INDIAN WATER RESOURCES SCENARIO

2.1. WATER RESOURCES:

India lies in the south-central peninsula of the Asian continent. Besides the main land, there are two groups of islands, namely Lakshadweep in the Arabian Sea and Andaman & Nicobar Islands in the Bay of Bengal. The mainland of India lies between $8^0$4'N and $37^0$6' N latitude and $68^0$7' E and $97^0$25'E longitude. India occupies 3.29 million km^2 geographical areas, which forms 2.4% of world's land area. It however supports over 15% of world's population.

The length of its Coastline is about 7500 kms. The climate of India varies from tropical monsoon in south to temperate in north. Its terrain have upland plain (Deccan Plateau) in south, flat to rolling plain along the Ganges, deserts in west, Himalayas in north. India is enviably endowed in respect of water resources. The country is literally cress-crossed with Rivers and blessed with high precipitation mainly due to the southwest monsoon, which accounts for 75% of the annual rainfall.

Out of the total annual precipitation, including snowfall, of 4000 BCM on the entire Indian land mass, the rainfall during monsoon months (June-September) is of the order of 3000 BCM. It has also been estimated that 700 BCM is immediately lost to the atmosphere, 2150 BCM soaks into the ground and 1869 BCM flows as natural runoff. There are also very large temporal and spatial variations of rainfall during monsoon period. While the average annual rainfall of the country is about 1170 mm, the rainfall varies 100 mm in the western parts of Rajasthan to 10, 000 mm at Cherrapunji in Meghalaya.

2.2. RIVER BASIN OF INDIA

India is blessed with many rivers. A river basin is the natural context in which water occurs and is perhaps the most appropriate unit for planning, development and management of

water resources. The drainage area of a system of rivers normally flowing into a common terminus constitutes a drainage basin.

Table 1: Classification of River Basin in India.

River Basin	Catchment Area
Major	Basin catchment area is more than 20,000
Medium	Basin catchment area is between 2000-20,000
Minor	Basin catchment area is below than 2,000

On the basis of size, the river basins of India could be divided into three groups, major, medium and minor river basin. According to the above classification, the numbers of major and medium river basins are 12 and 46 respectively and these contribute nearly 92% of the total runoff in the country. Minor rivers account for about 8% of the total runoff. Of the major rivers, the Ganga-Brahmaputra – Meghana system is the biggest with a catchment area of about 1.10 million km^2, which is more than 43% of the catchment area of all the major rivers in the country. The other major rivers with a catchment area more than 0.10 million km2 are Indus, Godavari, Krishna and Mahanadi. The catchment area of medium rivers is about 0.25 million km2 and Subarnarekha with 19,300 km2 catchment area is the largest river among the medium rivers in the country. The classification of River basin based on catchment area is presented in Table-1.

There are few desert Rivers, which flows till some distance and get lost in deserts. There are complete arid areas where evaporation equals to rainfall and hence there is no surface-flow. The medium and minor River basins are mainly in coastal area. On the east coast and part of Kerala State, the width of land between mountain and sea is about 100 kms, and hence the Riverine length is also about 100 kms whereas, the Rivers in the west coast are much shorter as the width of the land between sea and mountains is less than 10 to 40 kms Yet, in-spite of the nature's bounty, paucity of water is an issue of national concern resulting in deterioration of water quality in aquatic resources (Bhardwaj, 2005).

3. INDIAN RIVER SYSTEM

The Indian River Systems can be divided into four categories– the Himalayan, the Rivers traversing the Deccan Plateau, the Coastal and those in the inland drainage basin (Fig. 1). The Himalayan Rivers are perennial as they are fed by melting glaciers every summer. During the monsoon, these Rivers assume alarming proportions. Swollen with rainwater, they often inundate villages and towns in their path. The Gangetic basin is the largest River system in India, draining almost a quarter of the country.

The Rivers of the Indian peninsular plateau are mainly fed by rain. During summer, their flow is greatly reduced, and some of the tributaries even dry up, only to be revived in the monsoon. The Godavari basin in the peninsula is the largest in the country, spanning an area of almost one-tenth of the country. The Rivers Narmada (India's holiest River) and Tapti flow almost parallel to each other but empty themselves in opposite directions. The two Rivers make the valley rich in alluvial soil and teak forests cover much of the land. While coastal Rivers gush down the peaks of the Western Ghats into the Arabian Sea in torrents during the rains, their flow slow down after the monsoon. Streams like the Sambhar in western Rajasthan are mainly seasonal in character, draining into the inland basins and salt lakes. In the Rann of Kutch, the only River that flows through the salt desert is the Luni. The major River systems of India are discussed below.

Figure 1: Indian River basin System.

3.1. INDUS RIVER BASIN

The Indus basin lies in four countries viz. Afghanistan, Pakistan, India and China. The basin is bounded on the north by the Karakoram and the Haramosh ranges, on the east by the Himalayas, on the south east by the Arabian Sea and on the west by the Sulaiman and Kirthar ranges. In India, the basin lies in the States of Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana and Rajasthan. The upper portion of the basin in J&K and Himachal Pradesh is mountainous and the lower portion in Punjab, Haryana and Rajasthan consist of fertile plains. Total drainage area of the basin is 11, 65,000 km^2, out of which 3, 21,289 km^2 lies in India.

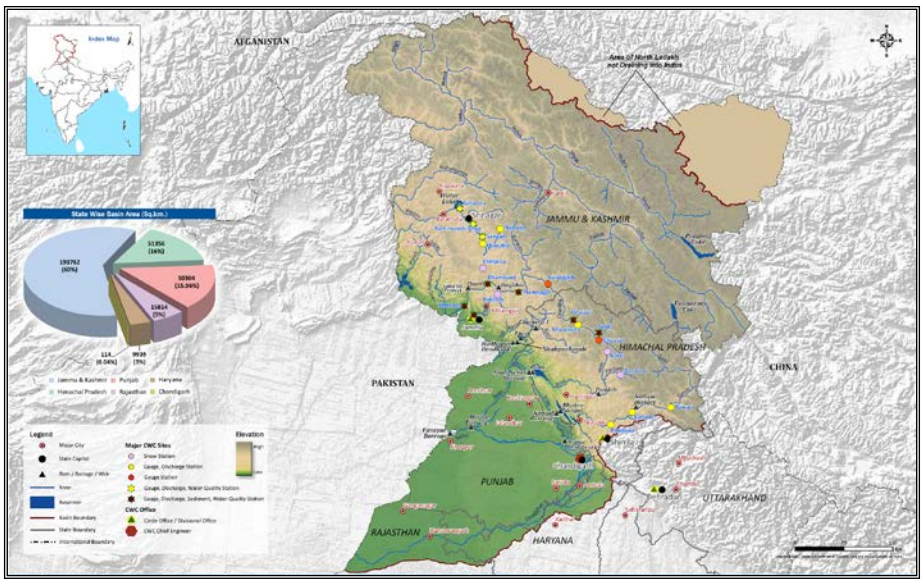


Figure 2: Indus River Basin.

The Indus River rises from Mansarovar in Tibet at an elevation of about 5,182 m and flows for about 1,100 kms in India before entering into kistan. Main tributaries of the River are the Sutlej, the Beas, the Ravi, the Chenab and the Jhelum.

3.2. BRAHMAPUTRA RIVER BASIN

As per the Hindu belief, Brahmaputra means 'son of the creator, Lord Brahma'. The Brahmaputra rises in Tibet where it is known as the Tsangpo. In India, it emerges from the foothills in Arunachal, it is known as the Siang and the Dihang and it becomes the Brahmaputra after being joined by the Dibang and the Lohit Rivers in its flow through the Assam valley.

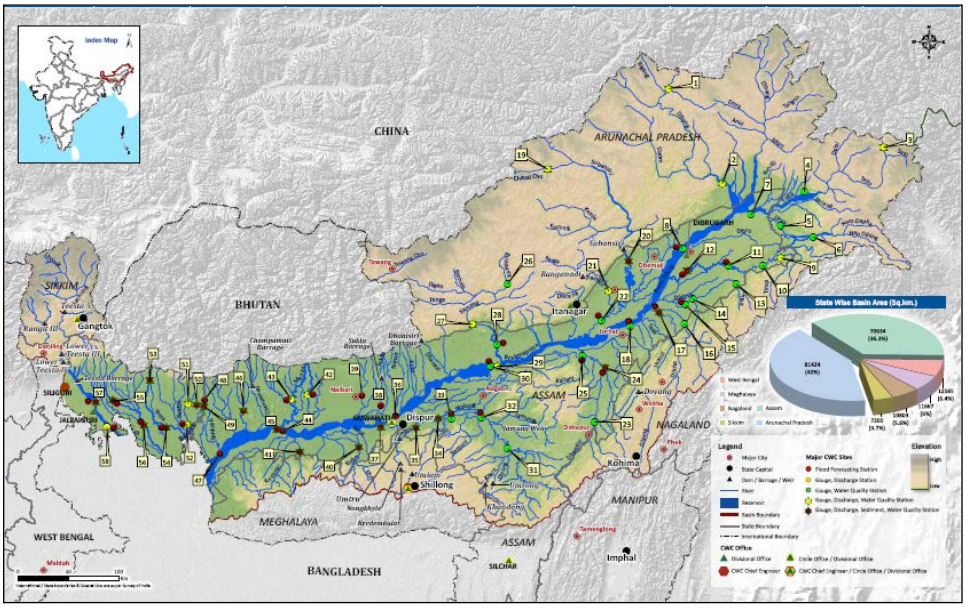


Figure 3: Brahmaputra River Basin.

The Brahmaputra River travels a distance of 2880 kms before joining the Bay of Bengal through three countries, viz. China, India and Bangladesh. It has a catchment area of 580,000 km^2. The basin lies between 23^{0}N to 32^{0}N latitude and 82^{0}E to 97^{0}50' E longitude. The River has a smaller catchment than either the Ganga or the Indus and gathers in its long course through Tibet, India and Bangladesh, waters of the Raka, Tsangpo, the Ngang Chu, the Giamdachu, the Dibang, the Lohit, the Subansiri, the Kameng, the Manas, the Tista, the

Burhi Dihing, the Disang, the Kopili and the Dhansiri. After entering in Bangladesh near Dhubri, it flows southward to join the Ganga at Goalundo.

3.3. GANGA RIVER BASIN

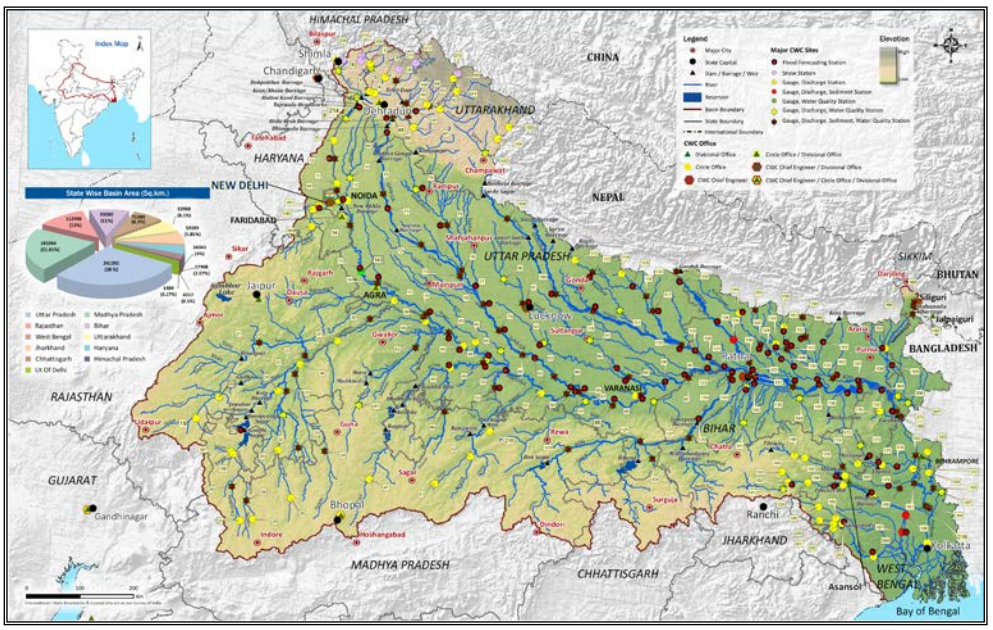


Figure 4: Ganga River Basin.

Undoubtedly, the Ganga is the most sacred River of India. The catchment areas of the River Ganga are in four countries viz. India, Nepal, Tibet (China) & Bangladesh. The major part of the geographical area of the Ganga basin lies in India. After merging of the two rivers the Alaknanda & Bhagirathi at Deoprayag, it is named as "Ganga". Many important tributaries of Ganga originate in the Himalayas in India and Nepal; Bangladesh lies in the deltaic region of the basin. Ganga flows towards south and then south-east through the great plains of India in Uttar Pradesh, Bihar, Madhya Pradesh and Bengal, which is the apex of the Ganga delta. The total length of the Ganga River is 2,525 kms which makes it the 20th longest River in Asia. The index map of the basin is given in figure 4. The Ganga basin lies between east longitudes 73^{0}30' to 89^{0}0' and north latitudes 22^{0}30' to 31^{0}30'. The drainage area lying in India is 862,769 km^2 which is nearly 26.2% of the total geographical area of the country. In its long course through the foot hills and plains, it gathers the waters of the Ram Ganga, the Yamuna, the Tons, the Gomati, the Ghaghara, the Sone, the Gandak, the Burhi Gandak, the Bhagirathi, the Kosi and the Mahananda.

The Chambal and the Betwa are the two important sub-tributaries of Yamuna. Some channels which flow in north south direction run into Bay of Bengal. Most important of these are the Bhagirathi-Hooghly, the Jalangi, the Bhairab, the Mathabhanga and the Gorai. The Damodar which rises in the hills of Chhota Nagpur flows into the Hooghly which is a branch of the Ganga.

3.4. BARAK RIVER BASIN

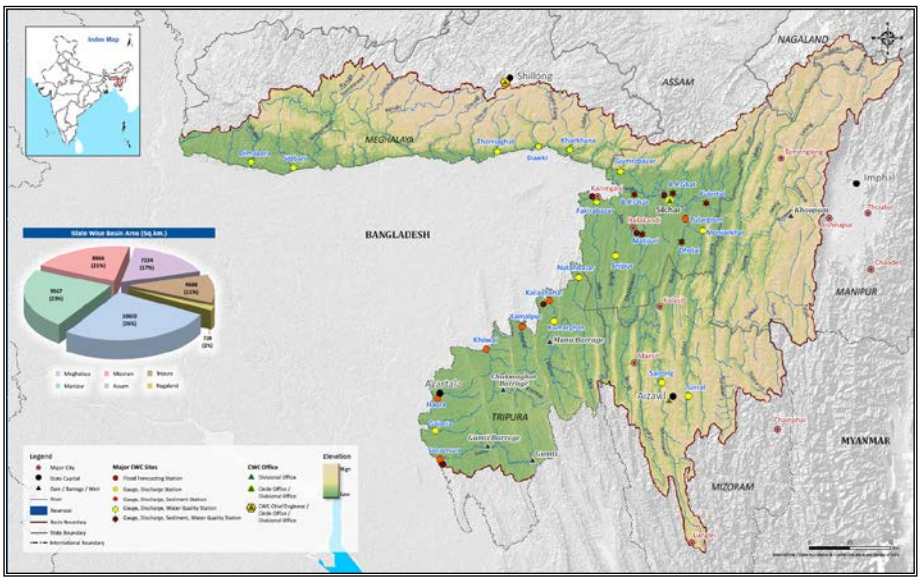


Figure 5: Barak River Basin.

The Barak sub-basin drains areas in India, Bangladesh and Burma. The drainage area of the sub-basin lying in India is 41723 km^2, which is nearly 1.38% of the total geographical area of the country. It is be on the north by the Barail range separating it from the Brahmaputra sub-basin, on the east by the Na Lushai hills and on the south and west by Bangladesh. The sub-basin lies in the States of Meghalaya, Manipur, Mizoram, Assam, Tripura and Nagaland. Barak raises in the Manipur hills and enters the plains near Lakhimpur. The River enters Bangladesh as Surma and Kushiyara. Later, the River is called the Meghna and receives the combined flow of the Ganga and Brahmaputra. The principal tributaries of Barak are the Jiri, the Dhaleswari, the Singla, the Longai, the Sonai and the Katakhal.

3.5. NARMADA RIVER BASIN

Narmada is the largest West flowing River in India. It drains a large area in Madhya Pradesh besides some area in the states of Maharashtra and Gujarat. It flows through the Decan trap in between the Vindhyachal and the Satpura Range of hills before falling into the Gulf of Khambhat in the Arabian Sea. The total drainage area of the basin is 98,796 km^2 Out of which nearly 87% lies in Madhya Pradesh. In general, the hilly regions are forested. The soils are red, yellow, shallow black in

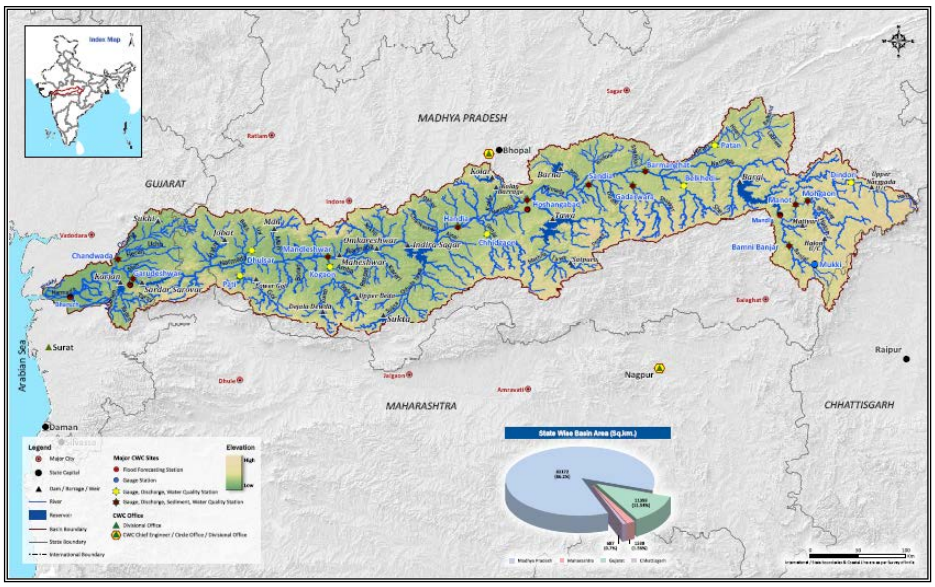


Figure 6: Narmada River Basin.

upper reaches, medium black in middle reaches and medium & deep black in the lower reaches of the basin.

The Narmada River originates from a Kund (spring) at an elevation of 1,057 m at Amarkantak in the Maikal hill in Shahdol district of Madhya Pradesh and flows through Gujarat, Madhya Pradesh and Maharashtra states between Vindhya and Satpura hill ranges before falling into the Gulf of Khambhat in the Arabian Sea about 10 kms north of Bharuch. The total length of this west flowing River is 1,312 kms. For the first 1,079 kms, it runs in Madhya Pradesh and thereafter forms the common boundary between Madhya Pradesh and Maharashtra, and Maharashtra and Gujarat for 74 kms In Gujarat State, it stretches for 159 kms.

The major tributaries joining the river from the left bank are the Burhner, the Banjar, the Sher, the Shakkar, the Dudhi, the Tawa, the Ganjal, the Chhota Tawa, the Kundi and the Karjan. From the right bank some other tributaries joins the river viz. the Hiran, the Barna, the Tendoni, the Kolar, the Kanar, the Man, the Uri and the Orsang.

3.6. TAPI RIVER BASIN

Tapi is the second largest west flowing River. It originates from Multai (Betul district) in Madhya Pradesh and flows through the states of Madhya Pradesh, Maharashtra and Gujarat and joins the Arabian Sea about 15 kms west of Surat. The Tapi River has a length of about 724 kms and its basin extends over an area of 65,145 sq. km, which is situated in Deccan plateau between East longitude 72°-38' to 78°-17' and North latitude 20°-05' to 22°-03'. The Tapi basin is bounded on the north by the Satpura Range, on the east by the Mahadeo Hills, on the south by the Ajanta Range and the Satmala Hills and on the west by the Arabian Sea. The Gawilgarh Hills form the dividing line between the upper Tapi and the Purna sub basins. The basin has elongated shape with a maximum length of 587 kms from east to west and a maximum width of 210 kms from north to south. This basin has two well defined physical region viz. the hilly regions and the plains. The hilly regions cover the Satpura, the Satmala the Mahadeo, the Ajanta and the Gawilgarh Hills and are well forested.

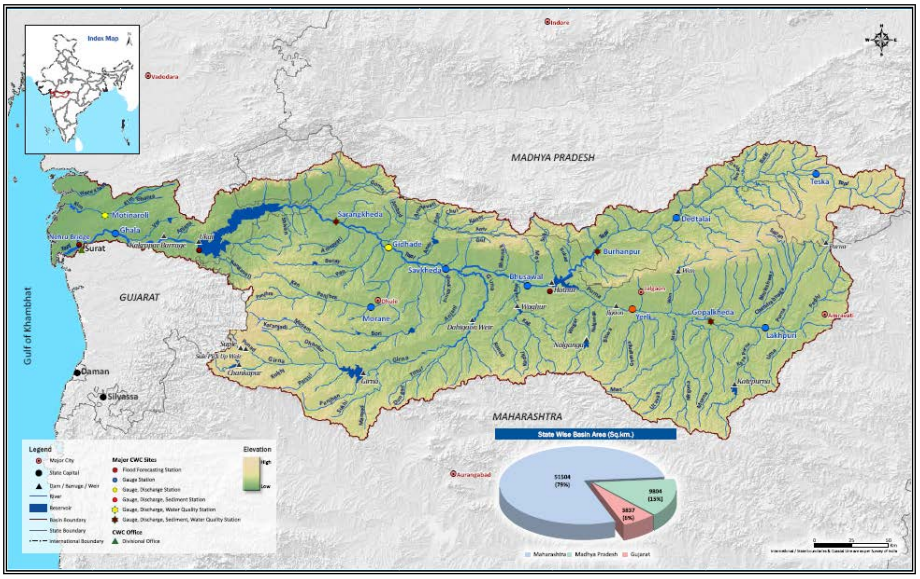


Figure 7: Tapi River Basin.

The plains cover the Khandesh and the Gujarat plains which are broad and fertile areas suitable for cultivation. The major tributaries which join Tapi are the Aner, the Purna, the Waghur, the Girna, the Bori, the Panjhra and the Burdy.

3.7. GODAVARI RIVER BASIN

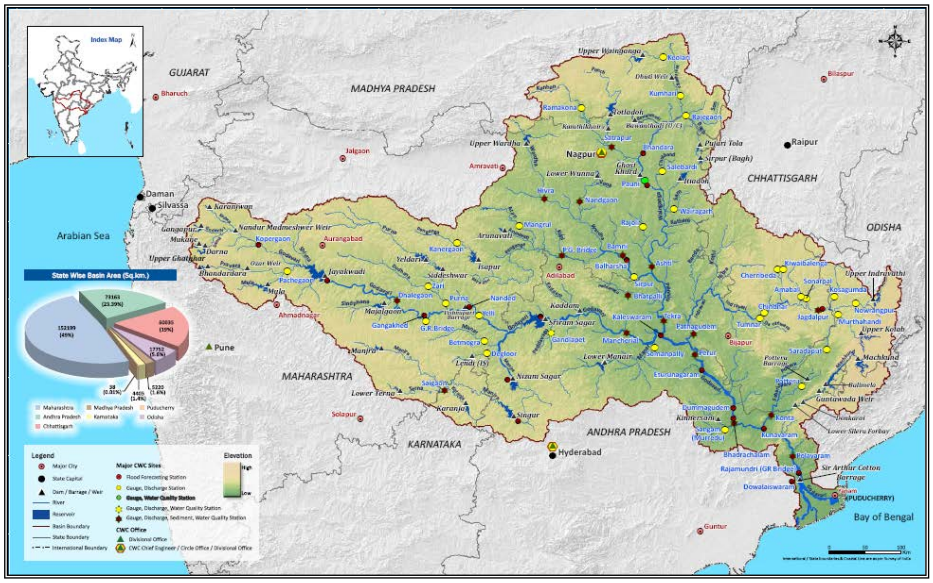


Figure 8: Godavari River Basin.

Godavari river basin extends over an area of 3,12,812 km^2 which is nearly 9.5% of the total geographical area of the country. It is bounded on the north by the Satmala Hills, the Ajanta Range and the Mahadeo Hills, on the east and south by the Eastern Ghats and on the west by the Western Ghats. The basin lies in the States of Madhya Pradesh, Orissa, Maharashtra, Karnataka and Andhra Pradesh.

Except the hills along the boundary of the basin including the Sahyadri range of the Western Ghats, the entire drainage area comprises rolling and undulating country. It consists of large undulating plains divided by low flat-topped hill ranges. A wide belt of River borne alluvium forms the delta of the basin. The important soil types found in the basin are black cotton soils, red soils, laterites and lateritic soils, alluvium, mixed soils and saline and alkaline soils. The cultivable area in the basin is about 18.93 M ha, which is 9.7% of the total cultivable area of the country.

The River Godavari rises in the Nashik district of Maharashtra, about 80 kms from the Arabian Sea, at an elevation of 1067 m and after flowing for about 1465 kms in a generally south-east direction, through Maharashtra and Andhra Pradesh it outfalls into the Bay of Bengal. River Pravara, Manjira and Maner are notable right bank tributaries and the Purna, the Pranhita, the Indravathi and the Sabari are important left bank tributaries of Godavari.

3.8. KRISHNA RIVER BASIN

Krishna basin extends over an area of 2,58,948 km^2, which is nearly 8% of the total geographical area of the country. It is bounded on the north by the range separating it from the Godavari basin, on the south and east by the Eastern Ghats and on the west by the Western Ghats. The basin lies in the States of Maharashtra, Karnataka and Andhra Pradesh.

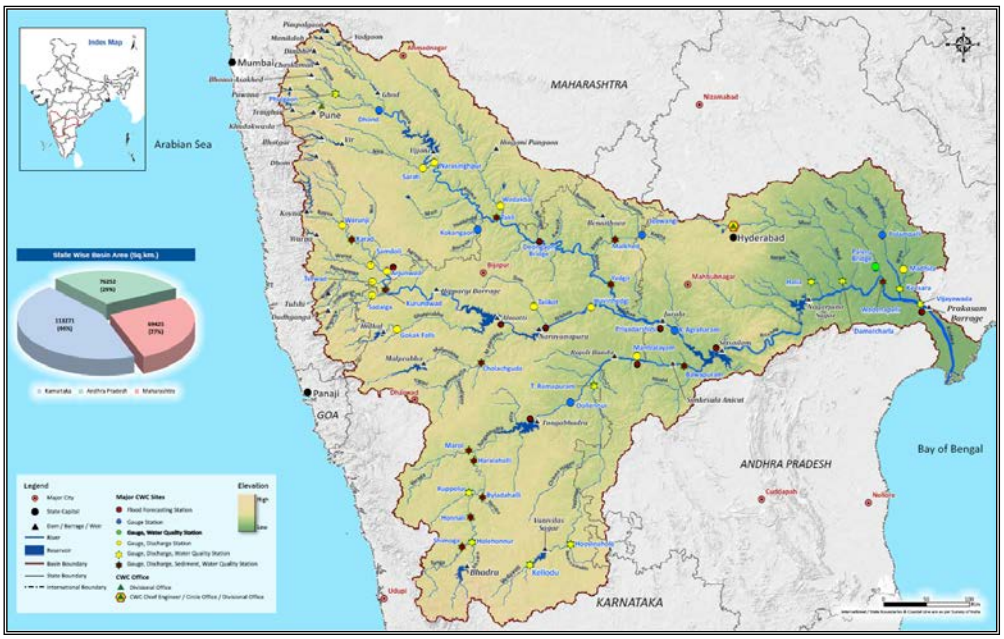


Figure 9: Krishna River Basin.

Most part of this basin comprises rolling and undulating country except the western border which is formed by an unbroken line of ranges of the Western Ghats. The important soil types found in the basin are black soils, red soils, laterite and lateritic soils, alluvium, mixed soil, red and black cotton soil and saline and alkaline soils. The cultivable area in the basin is about 20.59 M ha, which is 10.4% of the total cultivable area of the country.

Second only in size and importance is the Krishna River rises in the Western Ghats at an elevation of about 1337 m. just north of Mahabaleswar in Maharashtra, about 64 kms from the Arabian Sea and flows for about 1,400 kms before out falling into the Bay of Bengal. The principal tributaries joining Krishna are the Ghataprabha, the Malaprabha, the Bhima, the Tungabhadra, the Musi and the Munneru.

3.9. CAUVERY RIVER BASIN

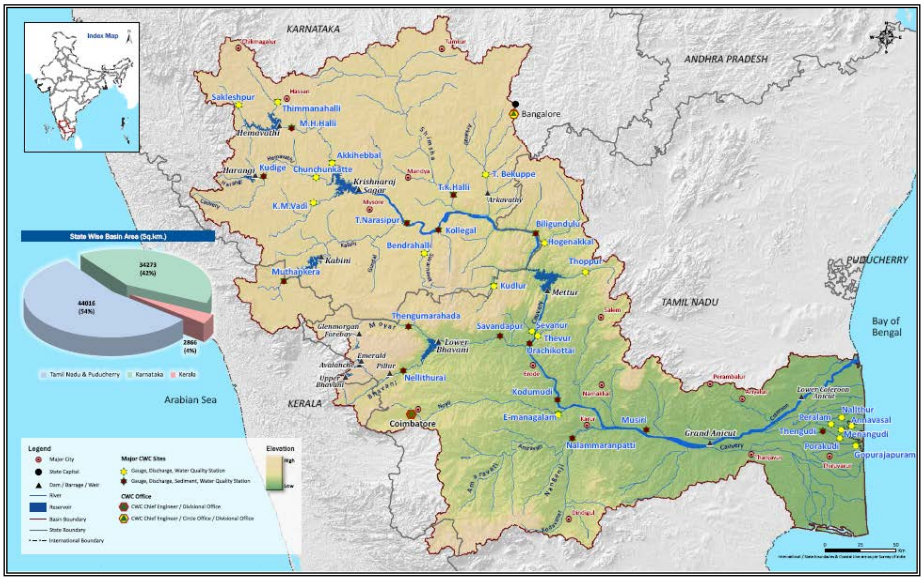


Figure 10: Cauvery River Basin.

Cauvery Basin extends over an area of 87,900 km^2 which is nearly 2.7% of the total geographical area of the country. It is bounded on the west by the Western Ghats, on the east and south by the Eastern Ghats and on the north by the ridges

separating it from Tungabhadra and Pennar basins.

The basin lies in the states of Tamil Nadu, Karnataka and Kerala. Physio-graphically, the basin can be divided into three parts - The Western Ghats, the Plateau of Mysore and the Delta. The delta area is the most fertile tract in the basin. The principal soil types found in the basin are black soils, red soils, laterites, alluvial soils, forest soils and mixed soils. Red soils occupy large areas in the basin. Alluvial soils are found in the delta areas. The cultivable area of the basin is about 5.8 M ha, which is about 3% of the cultivable area of the country.

The Cauvery, which is the 4th largest of the east flowing Rivers, is one River whose potential has been almost completely utilized. Cauvery River rises at Talakaveri on the Brahmagiri Range in the Western Ghats in Karnataka at an elevation of about 1,841 m and flows for about 800 kms before it outfalls into the Bay of Bengal. It is joined in its course through Karnataka and Tamil Nadu by a large number of Rivers such as the Harangi, the Hemavathi, the Arkavathi, the Lakshmantirtha, the Kabini and the Bhavani. Near Srirangam, in Tamilnadu it divides into branches, the northern arm taking the name Coteroon which remains the main River, and the southern arm which retains the name of Cauvery.

3.10. MAHANADI RIVER BASIN

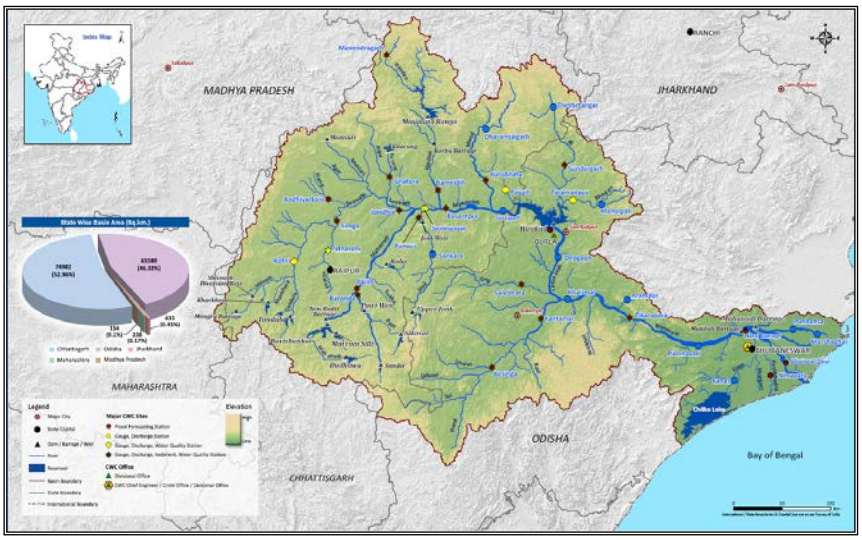


Figure 11: Mahanadi River Basin.

The River Mahanadi is one of the major inter-state east flowing Rivers in peninsular India. In the course of its traverse, it drains fairly large areas of Madhya Pradesh & Orissa and comparatively small areas in the States of Bihar & Maharashtra.

The basin is physically bounded in the north by the Central India hills, in the south and east by the Eastern Ghats and in the West by Maikala Hill Range. The total catchment area of the basin is 1,41,600 km^2. The River Mahanadi originates at an elevation of about 442 m above MSL near Pharsiya village in Raipur district of Madhya Pradesh. The total length of the River from its origin to its out fall into the Bay of Bengal is about 851 kms, of which, 357 kms is in Madhya Pradesh and the remaining 494 kms is in Orissa.

During its traverse, a number of tributaries join the River on both the banks. The important tributaries are the Seonath, the Hasdeo, the Mand, the Ib, the Bhadar, the Jonk, the Ong and the Tel.

3.11. SUBERNAREKHA AND BURHABALANG RIVER BASIN

The Subernarekha & Burhabalang basin extends in an area of 23,751 km^2. The Subernarekha River drains large areas of Bihar and some parts of West Bengal and Orissa and the Burhabalang covers parts of the areas in Mayurbhanj and Balasore districts of Orissa. The basins lie between latitude 21°-22' N to 23°-32' N and longitude 85°-09 E to 87°-27 E and is situated in the north-east corner of the peninsular India. It is bounded on the north-west by the Chhotanagpur Plateau, in the south-west by Brahmani basin, in the south by the Baitarni basin and in the south-east by the Bay of Bengal.

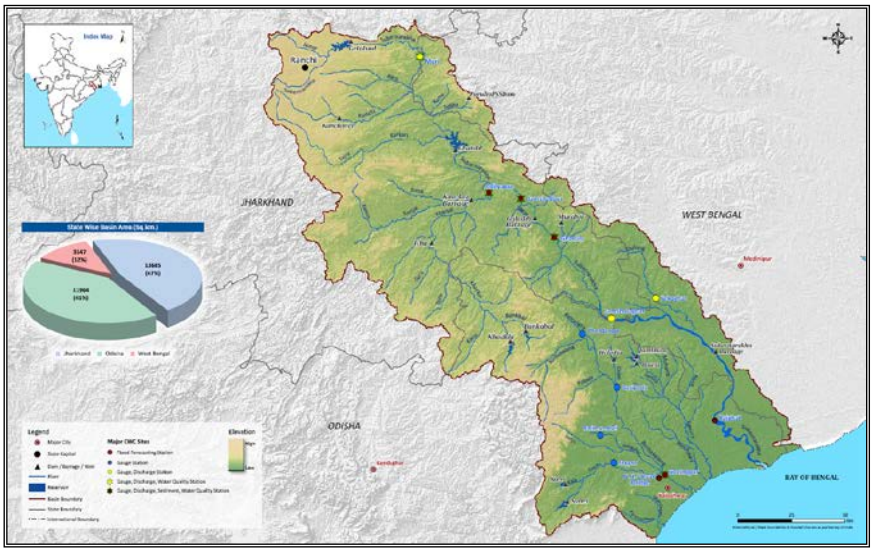


Figure 12: Subernrekha and Burhabalang River Basin.

The Subernarekha River originates near Nagri village in Ranchi district of Bihar at an elevation of 600 m. The total length of the River is about 395 kms. The principal tributaries of the River are the Kanchi, the Kharkai and the Karkari. The Burhabalang is a flashy River which originates at an elevation of 800 m and after traversing a distance of 125 kms drops into the Bay of Bengal. The River drains parts of areas in Mayurbhanj and Balasore districts of Orissa.

3.12. BRAHMANI AND BAITARNI BASIN

The Brahmani and the Baitarni Rivers are the major inter-state east flowing Rivers amongst the peninsular Rivers in India. The basin is bounded in the north by the Chhotanagpur Plateau, in the north-east by Subernarekha and Burhabalang basin, in the west and south by Mahanadi basin and in the east by the Bay of Bengal. The basin lies in the states of Madhya Pradesh, Bihar and Orissa and drains an area of about 50,000 km^2. The Brahmani, known as the South Koel in the upper reaches, originates near Nagri village in Ranchi district of Bihar at an elevation of about 600m. The total length of its run is about 799 kms. The principal tributaries of this River are the Sankh, the Tikra and the Karo.

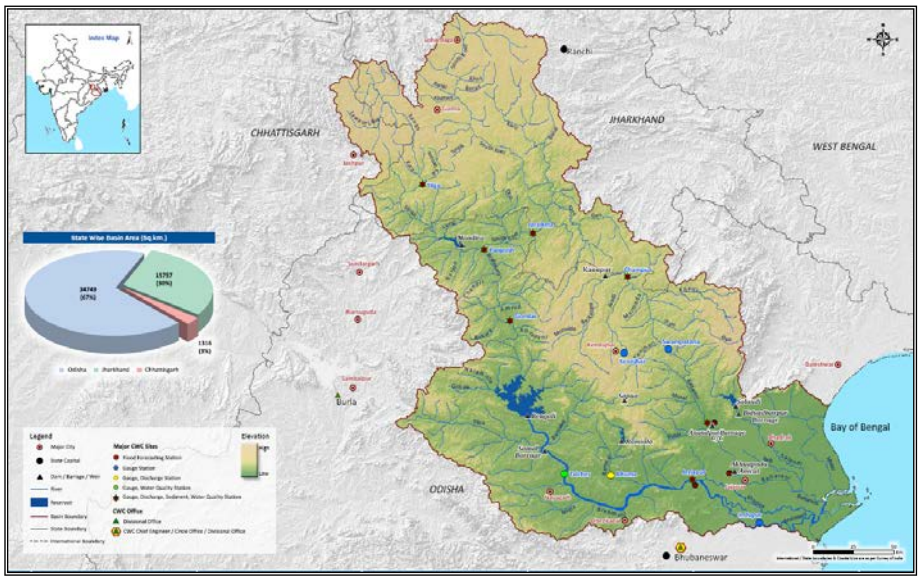


Figure 13: Brahmani and Baitarni River Basin.

The Baitarani River rises in the hill ranges of Keonjhar District of Orissa near Mankarancho village at an elevation of about 900 m above MSL. On its way, many tributaries join the River from both the banks. Salandi River is the main tributary of the River. The River is flashy in nature having a total length of 355 kms, with the upper reach up to Anandpur in the hilly region.

3.13. PENNAR BASIN

Pennar Basin extends over an area of 55,213 km^2 which is nearly 1.7% of the total geographical area of the country. It is bounded on the north by the Erramala Range, on the east by the Nallamala and Velikonda Ranges of the Eastern Ghats, on the south by the Nadidurg Hills and on the west by the narrow ridge separating it from the Vedavati Valley of the Krishna basin. The basin lies in the states of the Andhra Pradesh and the Karanataka.

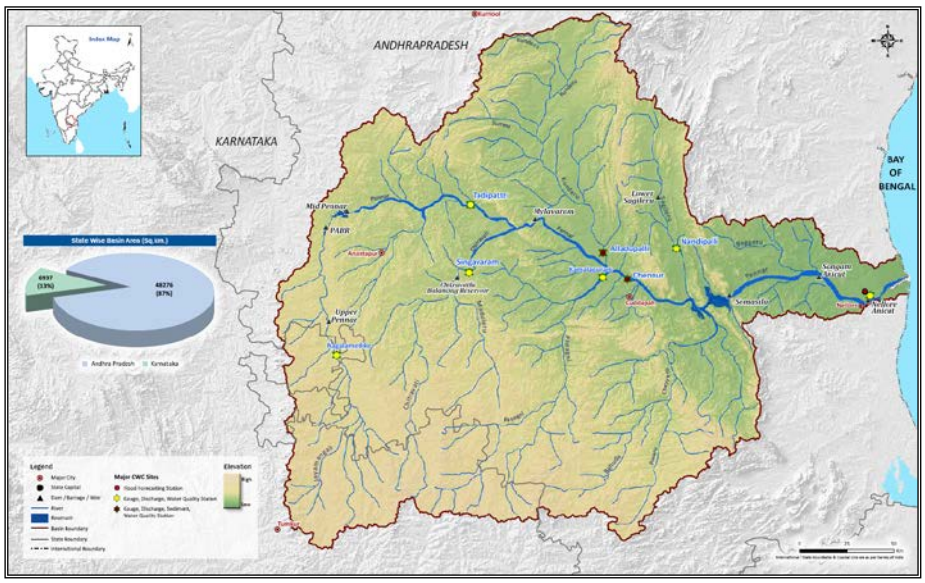


Figure 14: Pennar River Basin.

Pennar River rises from the Chenna Kesava hills of the Nandi Ranges of Karnataka and flows for about 597 Kms before out-falling into the Bay of Bengal. The principal tributaries of the River are the Kunderu, the Sagileru, the Chitravathi, the Papagni and the Cheyyeru.

3.14. MAHI BASIN

The River Mahi is one of the major interstate Rivers of India, draining into the Gulf of Khambhat. The basin is bounded on the north and the north-west by the Aravalli Hills, on the east by the ridge separating it from the Chambal basin, on the south by the Vindhyas and on the west by the Gulf of Khambhat. The basin has a maximum width of about 250 kms Mahi River originates on the northern slope of Vindhyas at latitude 22°-35 N and longitude 74°-58 E near the village of Sardarpur in the Dhar district of Madhya Pradesh at an elevation of 500 m above MSL.

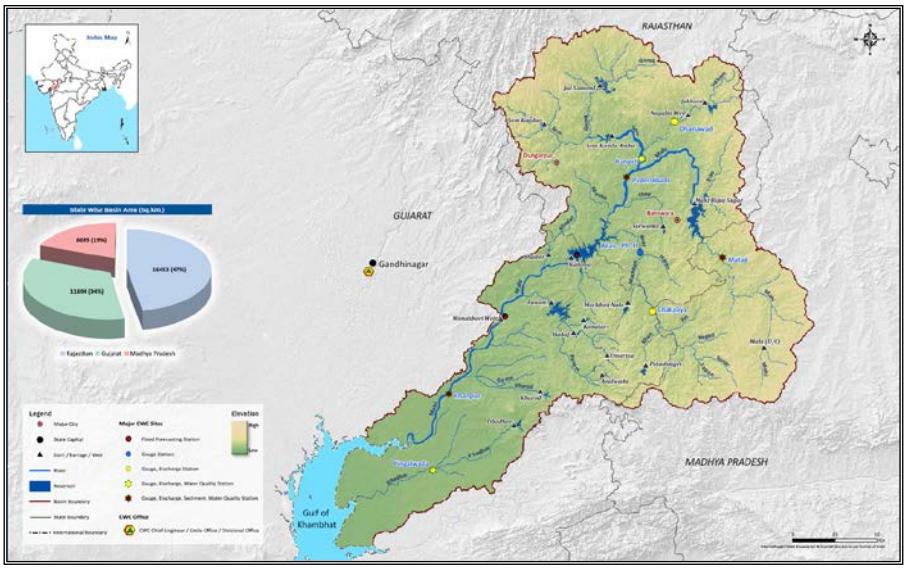


Figure 15: Mahi River Basin.

Its length is 583 kms and traverses through the states of Madhya Pradesh, Rajasthan and Gujarat. The Mahi River drains an area of 34,842 km^2. Initially the River flows towards north passing through Dhar and Jhabua districts of Madhya Pradesh State, and then turns left and passes through the Ratlam district of Madhya Pradesh State. There after the river turns to north-west and enters in the Banswara district of Rajasthan and flows in south-western direction and finally enters in the Panchmahal district of the Gujarat State. The River continuously flows in the same direction through Kheda district of Gujarat and finally falls into the Mahi Sagar in the Gulf of Khambhat in the Arabian Sea. The River receives several tributaries on both the banks; some of them are the Som, the Anas and the Panam.

3.15. SABARMATI BASIN

The Sabarmati is one of the major interstate Rivers in India, which is draining into the Gulf of Khambhat. The basin is bounded by the Aravali Hills in the north and the north-east, by ridge separating it from basins of minor streams and draining into the Rann of Kutch in the west and by Gulf of Khambhat in the south. The basin has a maximum length of 300 kms and maximum width of 105 kms. It is triangular in shape with the main River as the base and the source of the Watrak as the apex point. It originates in the Aravalli Hills at latitude 24°-40' N and longitude 73°-20' E in the Rajasthan State at an elevation of 762 m above MSL. The Sabarmati drains with an area of 21, 674 km^2.

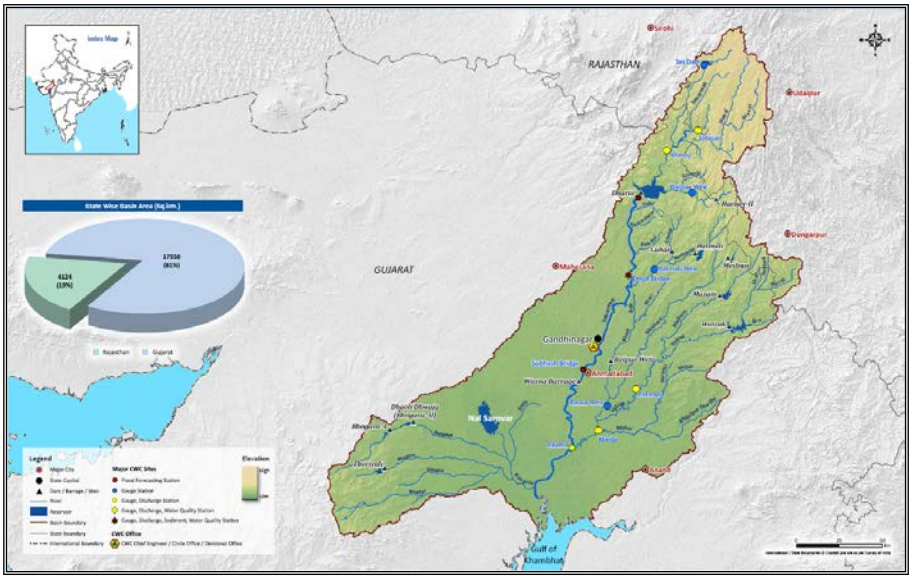


Figure 16: Sabarmati River Basin.

The Sabarmati River with its origin in Rajasthan flows generally in south-west direction and after entering in the Gujarat state, it passes through the Dharoi Gorge. Emerging from the gorge it flows through the plains in the same direction and joins the Gulf of Khambhat in the Arabian Sea.

The River is joined by the Wakal, the Harnav and the Hathmathi Rivers from the left bank and the Sei on the right bank, the Hathmathi River is its major tributary. River Sabarmati continuing to flow in south-west direction, the River passes through Ahmedabad. The River is further joined by another major tributary, the Watrak on the left bank before it out-falls in the Gulf of Khambhat.

3.16. WEST FLOWING RIVERS BASIN FROM TAPI TO TADRI

The West Flowing Rivers Basin between Tapi to Tadri is a composite basin lying in Gujarat and Maharashtra states. The basin consists of a number of small independent River systems of peninsular India. The basin is bounded on the north by Tapi basin, on the east by Western Ghat and on the west by the Arabian Sea.

All the Rivers in the basin originate from Western Ghat and exhibit similar character. The Rivers have steep high banks. Important Rivers in the basin are the Purna, the Ambica, the Damanganga, the Vaitarna, the Ulhas, the Kal, the Gad the Mandovi etc. Brief description of the Rivers is as follows:-

- The River Purna is one of the important western flowing Rivers in Gujarat state. It originates from the Satpura Hill Ranges and after flowing for a length of 142 kms falls in the Arabian Sea. The catchment area of the Purna basin is 2,431 sq. km.

- The Damanganga is one of the main westward draining interstate River basins. The River originates at an elevation of 930.5 m in Sahyadri Hills in Nashik district. Majority of its catchment area lies in the state of Maharashtra besides some catchment area lying in the state of Gujarat and the Union Territory of Dadra & Nagar Haveli and Daman. The Damanganga drains an area of 2,318 sq. km.

- The River Vaitarna originates from the hilly terrain of Maharashtra at Trimbak, in district Nashik. After running for 120 kms in Maharashtra towards west, it falls in the Arabian Sea. The catchment area of the basin is 3,637 sq. km.

- The Ulhas River raises from the Sahyadri hill Ranges in the Raigad district of Maharashtra at an elevation of 600 m above MSL. The total length of this west flowing River from its origin to its out fall into the Arabian Sea is 122 kms The River drains an area of 4,637 sq. km which lies completely in Maharashtra state.

- The Kal River is one of the western flowing Rivers in Maharashtra state. This is a major tributary of the River Savitri. The River rises from the Sahyadri Hill Ranges in the Raigad district of Maharashtra at an elevation of 652 m above MSL. The total length of the River from its origin to its confluence with the Savitri River is 40 Kms. The River drains an area of 670 sq. km which lies completely in the Raigad district.

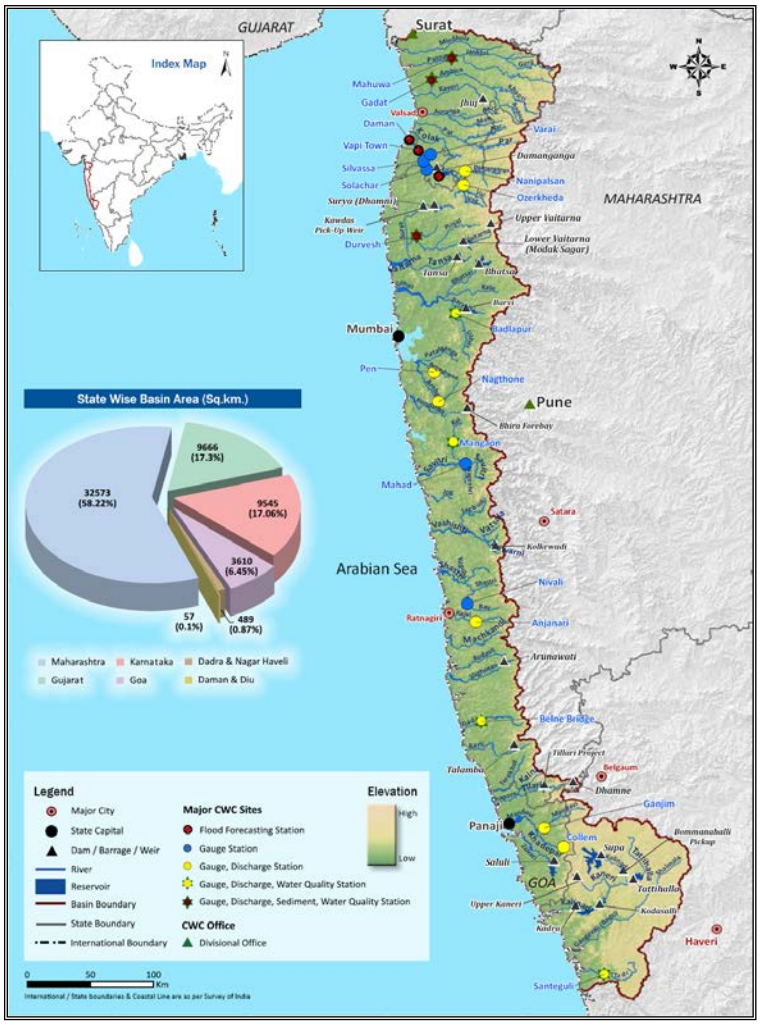


Figure 17: West Flowing Rivers Basin from Tapi to Tadri.

- The Gad River rises from the Sahyadri Hill Ranges in the Sindhudurg district of Maharashtra at an elevation of 600 m above MSL. The total length of the west flowing River from its origin to its out fall into the Arabian Sea is 66 kms The River drains an area of 890 sq. km which lies completely in Sindhudurg district of Maharashtra state.

3.17. WEST FLOWING RIVERS BASIN FROM TADRI TO KANYAKUMARI

The basin extends over states of Kerala, Karnataka, Tamil Nadu and Union Territory of Puducherry having an area of 56,177 Sq.km which is 1.73 % of total geographical area of the country with a maximum length and width of 777 km and 135 km. It spreads between 74°25’ to 77°36’ east longitudes and 8°3’ to 14°24’ north latitudes. The basin is bounded by Sahyadri hills on the north, by the Western Ghats on the east, by Indian Ocean on the south

and by the Arabian Sea on the west. The major independent rivers (directly draining into Arabian Sea) in the basin are the Varahi, the Netravati, the Payaswani, the Valapattanam, the Chaliyar, the Kadalundi, the Bharathapuzha, the Periyar, the Muvattupula, the Minachil, the Pamba, the Achankovil, the Kallada and the Vamanapuram.

3.18. EAST FLOWING RIVERS BETWEEN MAHANADI AND PENNAR

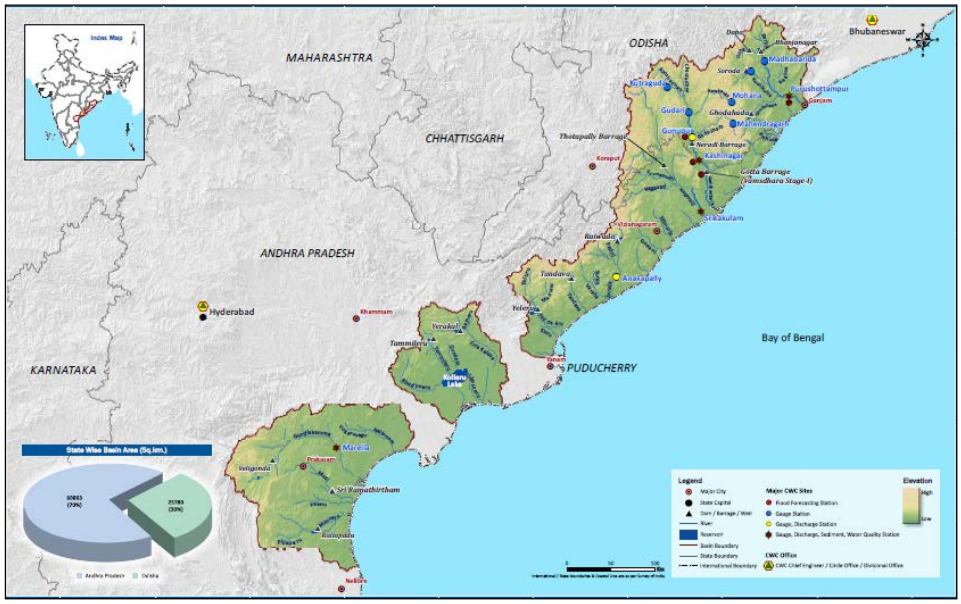


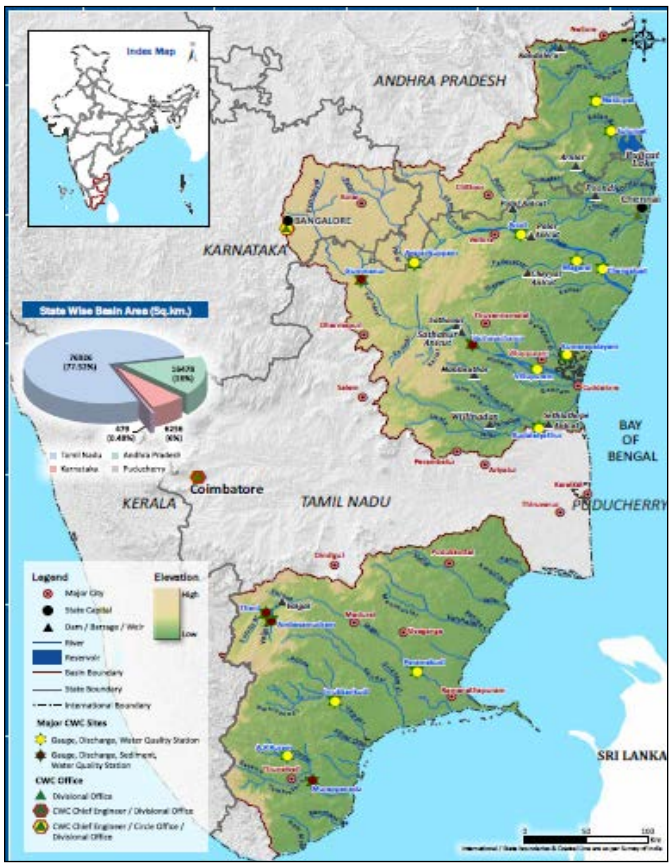
Figure 18: East flowing rivers between Mahanadi and Pennar.

The basin spreads over states of Andhra Pradesh and Odisha having an area of 86,643 Sq.km and stretches between 78°40' to 85°1' east longitudes and 14°34' to 20°22' north latitudes. It is bounded by the Eastern Ghats on the north and west, by Nallamala Range and Andra plains on the south and by the Bay of Bengal on the east. This composite basin comprises of three river systems. The river systems between Mahanadi and Godavari covers an area of 49,685 Sq.km and the river systems between Krishna and Pennar extends over an area of 24,669 Sq.km. In addition, there is also a small area between Godavari and Krishna drained mainly by the small stream of Palleru. This minor portion of the basin has an area of about 12,289 Sq.km.

The independent rivers (directly draining into Bay of Bengal) in the basin from north to south are the Rushikulya, the Bahuda, the Vamsadhara, the Nagavali, the Sarada, the Varaha, the Tandava, the Eluru, the Gundlakamma, the Musi, the Paleru and the Manneru.

3.19. EAST FLOWING RIVERS BETWEEN PENNAR AND KANYAKUMARI

The basin extends over states of Tamil Nadu, Andhra Pradesh, Karnataka and Union Territory of Puducherry having a total area of 1,00,139 Sq.km and accounts for 3.08% of the total geographical area of the country. The basin extends between 77°1' to 80°17' east longitudes and 8°11' to 14°27' north latitudes. It is bounded by the Eastern Ghats on the north, by Tamil Nadu uplands on the west, by the Indian Ocean on the south and by the Bay of Bengal on the east.



The composite basin comprises of the river systems between Pennar and Cauvery having an area of 65,049 Sq.km and the river systems between Cauvery and Kanyakumari with an area of 35,090 Sq.km The independent rivers (directly draining into Bay of Bengal) are the Kandleru, the Swarnamukhi, the Arani, the Korttalaiyar, the Cooum, the Adyar, the Palar, the Gingee, the Ponnaiyar, the Vellar, the Varshalei, the Vaigai, the Gundar, the Vaippar and the Tambraparni.

Figure 19: East flowing rivers between Pennar and Kanyakumari.

3.20. WEST FLOWING RIVERS OF KUTCH AND SAURASHTRA

The basin extends over large areas in Rajasthan and Gujarat and covers whole of Diu having an area of 321,851 Sq.km with maximum length and width of 865 km and 445 km. It lies between 67°52’ to 75°19’ east longitudes and 20°53’ to 26°57’ north latitudes. The basin is bounded by Aravalli range and Gujarat plains on the east, by Rajasthan desert on north, and by the Arabian Sea on the south and the west.

Luni is the major river system of the basin and it originates from western slopes of the Aravalli ranges at an elevation of 772 m in Ajmer district of Rajasthan. The total length of the river is 511 km and it drains a total area of 32,879 Sq.km. The river flows up to Rann of Kutch forming a delta where the water spreads out and does not contribute any runoff. The main tributaries of Luni joining from left are the Lilri, the Guhiya, the Bandi (Hemawas), the Sukri, the Jawai, the Khari Bandi, the Sukri Bandi and the Sagi whereas the Jojri joins it from right. Other independent rivers of the basin are the Shetrunji, the Bhadar, the Machhu, the Rupen, the Saraswati and the Banas. The Shetrunji drains into the Gulf of Khambhat, the Bhadar outfalls into Arabian Sea, and the Machhu, the Rupen, the Saraswati and the Banas drains into Little Rann of Kutch.

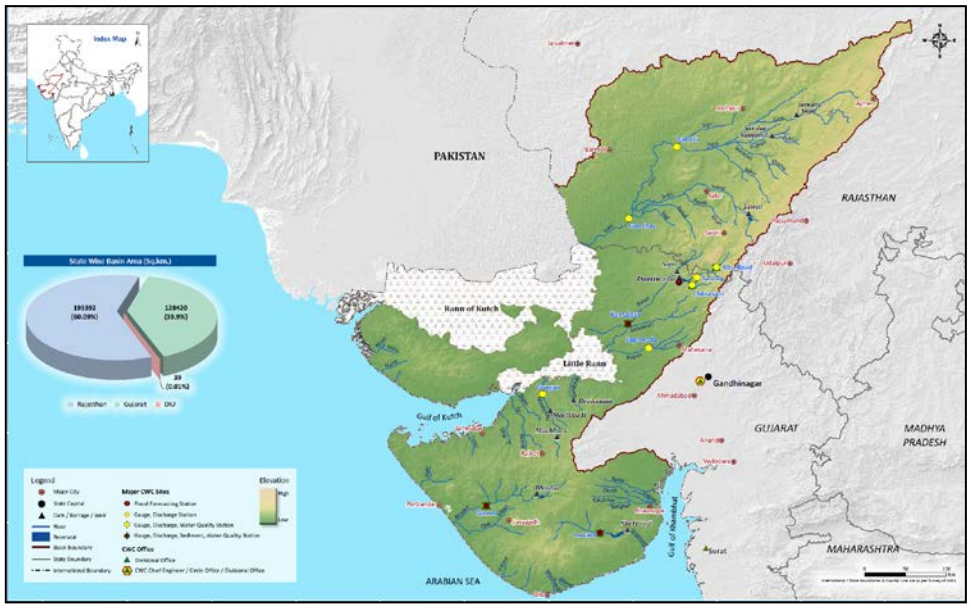


Figure 20: West Flowing Rivers of Kutch & Saurashtra.

4. RIVER WATER MONITORING BY CWC

Central Water Commission is monitoring River water quality at 396 key locations covering all the major River basins of India. The details of basin wise water quality stations are given below.

- The Cauvery lies between latitude $10^0$05'N and $13^0$30'N and longitudes $75^0$30' E and $79^0$45'E. It is bounded on the Western Ghats, on the east and south by the Eastern Ghats and on the north by the ridges separating it from the Tungabhadra (Krishna) and Pennar basin. A total number of 34 water quality stations covering Karnataka, Kerala, Pondicherry & Tamilnadu states are under Cauvery Basin.

- A total number of 8 water quality stations covering Jharkhand and Odisha states are under Bhahmani-Baitarni Basin. A total number of 4 water quality stations covering Andhra Pradesh & Odisha states are under East Flowing Rivers Basin between Mahanadi and Pennar. A total number of 19 water quality stations covering Andhra Pradesh, Pondicherry and Tamilnadu states are under East Flowing Rivers Basin between Pennar & Kanyakumari.

- A total number of 174 water quality stations covering Arunachal Pradesh, Assam, Bihar, Delhi, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal states are under Ganga-Brahmaputra-Meghna-Barak Basin.

- The Godavari basin lies between latitude $16^0$16' N and $23^0$43'N and longitudes $73^0$26' to $83^0$07'E. The basin extends over an area of 312,812 km^2, which is nearly 10% of the total geographical area of the country. A total number of 25 water quality stations covering Andhra Pradesh, Chhattisgarh, Karnataka, Madhya Pradesh, Maharashtra & Odisha states are under Godavari Basin. The Krishna basin lies between north latitude

$13^0$07' to $19^0$20' and east longitudes $73^0$22' to $81^0$10'. The basin extends over an area of 258,948 km^2, which is nearly 8% of the total geographical area of the country. 24 water quality stations covering Andhra Pradesh, Karnataka and Maharashtra states are under Krishna Basin.

- In India, the Indus basin lies in the State of Jammu and Kashmir, Himachal Pradesh, Punjab, Rajasthan, Haryana and Chandigarh. It is situated between north latitudes $28^0$52' to $37^0$20' and east longitudes $72^0$35' to $79^0$50'. A total number of 9 water quality stations covering Himachal Pradesh, Jammu & Kashmir states are under Indus Basin.

- The Mahanadi basin extends over an area of 141,600 km^2, which is nearly 4.3% of the total geographical area of the country. It lies between latitude $19^0$21'N and $23^0$35'N and longitudes $80^0$30' E and $86^0$50'E. The basin lies in the States of Orissa, Bihar, Chhattisgarh and Maharashtra. 18 water quality stations covering Chhattisgarh and Orissa states are under Mahanadi Basin.

- Tapi basin is situated in the northern part of the Deccan Plateau. The basin lies between east longitudes $72^0$38' to $78^0$17' and north latitude $20^0$5' to $22^0$3'. 04 water quality stations covering Gujrat, Madhya Pradesh and Maharashtra states are under Tapi Basin. The Mahi basin extends over an area of 34,842kms which is nearly 1.1% of the total geographical area of the country. The basin lies in the states of Rajasthan, Gujarat and Madhya Pradesh. 04 water quality stations covering Gujrat, Madhya Pradesh and Rajasthan states are under Mahi Basin. The Sabarmati basin lies between north latitude of $22^0$15' to $24^0$53 and east longitudes of $72^0$15' to $73^0$49'. Three (03) water quality stations covering Gujrat and Rajasthan states are under Sabarmati Basin.

- The Narmada basin lies between longitudes $72^0$32' E and $81^0$45'E latitude $21^0$20'N and $23^0$45N. The basin is bounded on the north by the Vindhyas, on the east by the Maikala range on the south by the Satpuras and on the west by the Arabian sea.18 water quality stations covering Gujrat and Madhya Pradesh states are under Narmada Basin.

- The Pennar basin lies between east longitudes of $77^0$04' and $80^0$10' and north latitudes $13^0$16' and $15^0$52'. The basin lies in the States of Andhra Pradesh and Karnataka. 8 water quality stations covering Andhra Pradesh states are under Pennar Basin. 05 water quality stations covering Jjarkhand, Odisha and West Bengal states are under Subernarekha Basin.

- 7 water quality stations covering Goa, Gujrat and Maharashtra states are under WFR Basin from Tapi to Tadri. 27 water quality stations covering Karnataka, Kerala and Tamilnadu states are under WER Basin from Tadri to Kanyakumari. 05 water quality stations covering Gujrat and Rajasthan states are under WFR Basin from Kutch to Saurashtra. The basin wise WQ stations monitored by Central Water Commission are depicted in Table 2.

Table 2 : Basin- wise hydrological observation Stations of Central Water Commission.

Sr.	Name of the Basin	Type of Stations			Total
		GDQ	GDSQ	GQ	
1	Brahmani-Baitarni Basin	0	8	0	8
2	Cauvery Basin	19	15	0	34
3	East Flowing Rivers between Mahanadi and Pennar	0	4	0	4
4	East Flowing Rivers between Pennar and Kanyakumari	14	5	0	19
5	Ganga/Brahmaputra/Meghna/Barak Basin	49	101	24	174
6	Godavari Basin	2	22	1	25
7	Indus Basin	3	6	0	9
8	Krishna Basin	10	13	1	24
9	Mahanadi Basin	1	17	0	18
10	Mahi Basin	1	3	0	4
11	Narmada Basin	7	11	0	18
12	Pennar Basin	6	2	0	8
13	Sabarmati Basin	2	1	0	3
14	Subernarekha Basin	1	4	0	5
15	Tapi Basin	1	3	0	4
16	WFR from Tapi to Tadri	4	3	0	7
17	WFR from Tadri to Kanyakumari	9	18	0	27
18	WFR of Kutchh & Saurashtra	2	3	0	5
		131	239	26	396

Note: GQ = Gauge & Water Quality; GDQ= Gauge, discharge & Water Quality; GDSQ= Gauge, Discharge, Sediment & Water Quality

5. REVIEW OF TRACE & TOXIC METALS

Heavy metals are one of the most widespread causes of pollution, both in water and in the soil, and the presence of increasing levels of these metals in the environment is causing serious concern in public opinion owing to the toxicity shown by most of them. Heavy metals are usually defined as metals with high atomic number, atomic weight and a density greater than 5.0 gcm^{-3}, but in the literature it is possible to find so many different definitions. Recently, International Union of Pure and Applied Chemistry (IUPAC) defined the term “heavy metal” as a confusing and misleading one. Generally speaking, metals are natural components of the Earth’s crust and some of them (e.g., copper, selenium, and zinc) are essential as trace elements to maintain the metabolism of the human body even if, at higher concentrations, they may have toxic effects. Many other metals (e.g., mercury, cadmium, lead, etc.) have direct toxic effects on human health. Owing to their chemical characteristics, metals remain in the environment, in many cases only changing from one chemical state to another one and eventually accumulating in the food chain. These pollutants enter the environment through a variety of human activities, such as mining, refining, and electroplating industries. The effluents produced by these industries contain a variety of heavy metals, such as cadmium, copper, chromium, nickel, lead, and zinc, and their release in water bodies may significantly contribute to the increased presence of toxic

heavy metals in aquatic environments. Owing to their high water solubility, heavy metals can be easily absorbed by living organisms and, due to their mobility in natural water ecosystems and their toxicity to living forms, have been ranked as major inorganic contaminants in surface and ground waters. Even if they may be present in dilute, almost undetectable quantities, their recalcitrance to degradation and consequent persistence in water bodies imply that, through natural processes such as bio-magnification, their concentration may become elevated to such an extent that they begin exhibiting toxic effects. Of the 35 metals considered dangerous for human health, 23 have been defined as heavy metals: antimony, arsenic, bismuth, cadmium, cerium, chromium, cobalt, copper, gallium, gold, iron, lead, manganese, mercury, nickel, platinum, silver, tellurium, thallium, tin, uranium, vanadium, and zinc. However, the main threats to human health from heavy metals are associated with exposure to lead, cadmium, mercury, and arsenic (this element is a metalloid but it is usually defined as a heavy metal). Large amounts of any of these metals may cause acute or chronic toxicity (poisoning), resulting in damaged or reduced mental and central nervous functions, modify blood composition, and damage the lung, kidney, liver, and other vital organs.

Long-term exposure to the above-mentioned heavy metals may result in slowly progressing physical, muscular, and neurological degenerative processes that mimic Alzheimer's disease, Parkinson's disease, muscular dystrophy, and multiple sclerosis. Allergies are not uncommon and repeated long term contact with some metals or their compounds may even cause cancer. Heavy metals may enter the human body through food, water, and air, or may be absorbed through the skin when they enter into contact with humans in agriculture and in manufacturing, pharmaceutical, industrial, or residential settings. Although several adverse health effects of heavy metals have been known since a long time, exposure to these metals is continuing and even increasing in some parts of the world. Thus, the control of heavy metal dumplings and the removal of toxic heavy metals from waters has become a challenge for the twenty-first century.

6. METAL TOXICITY:

Important issues related to selected toxic metals like occurrences in nature, sources of water pollution, toxic effects etc. are described here under:

6.1. TOXICITY OF ARSENIC

Arsenic is ubiquitous and ranks 20th in natural abundance, comprising about 0.00005% of the earth's crust, 14th in the seawater, and 12th in the human body (Mandal and Suzuki, 2002). Arsenic occurs in the environment in rocks, soil, water, air, and in biota.

The element occurs in the environment in different oxidation states e.g., As as As(V), As(III), As(0) and As (-III). The chemical forms and oxidation states of arsenic are more important as regards to toxicity. Generally, inorganic forms are more toxic and mobile than organo-arsenic species, while arsenite is considered to be more toxic than arsenate. It has been

reported that As(III) is 4 to 10 times more soluble in water than As(V) (Squibb and Fowler 1983; Xu et al. 1988; Lambe and Hill 1996; US EPA, 2002). Moreover, it has been found that As (III) is 10 times more toxic than As(V) and 70 times more toxic then Mono Methyl Arsonate {MMA(V)} and Di Methyl Arsinate {DMA(V)}. However, the trivalent methylated arsenic species, i.e., MMA(III) and DMA(III) have been found to be more toxic than inorganic arsenic because they are more efficient at causing DNA breakdown (Styblo et al. 2000; Dopp et al. 2004). Arsenic enters the human body through ingestion, inhalation, or skin absorption. Most ingested and inhalated arsenic is well absorbed through the gastrointestinal tract and lung into the bloodstream.

People drinking arsenic contaminated water generally show arsenical skin lesions, which are a late manifestation of arsenic toxicity. Long term exposure to arsenic contaminated water may lead to various diseases such as conjunctivitis, hyperkeratosis, hyperpigmentation, cardiovascular diseases, disturbance in the peripheral vascular and nervous systems, skin cancer, gangrene, leucomelonisis, non pitting swelling, hepatomegaly and splenomegaly (Kiping, 1977; WHO, 2001; Pershagen, 1983). Chronic symptoms caused by a long exposure to As are unspecific (weight loss, chronic weakness) but a long exposure provokes arsenicosis, cardiovascular diseases, skin lesions among other organ function disorders (Bissen and Frimmel 2003). Arsenicosis is a chronic illness resulting from drinking water with high As level over a long period of time (Kapaj et al. 2006). The effects on the lungs, uterus, genitourinary tract and other parts of the body have been detected in the advance stages of arsenic toxicity. Besides, high concentrations of arsenic in drinking water also result in an increase in stillbirths and spontaneous abortions (Csanady and Straub, 1995).

6.2. TOXICITY OF CADMIUM

Cadmium is an element that occurs naturally in the earth's crust. It is uniformly distributed in the Earth's crust, where it is generally estimated to be present at an average concentration of between 0.10 and 0.50 µg/g. Cadmium occurs in nature in the form of various inorganic compounds and as complexes with naturally occurring chelating agents; organo-cadmium compounds are extremely unstable and have not been detected in the natural environment. Cadmium is produced during extraction of zinc and is used in plating industry, pigments, in manufacture of plastic material, batteries and alloys. The water is contaminated with cadmium by industrial discharge, leaches from land filled area. Drinking water is generally contaminated with galvanized iron pipe, plated plumbing fitting of the water distribution pipes.

Cadmium ranks next to mercury in its toxicity. Exposure at low levels usually does not produce immediate health effects, but may cause severe health problems over long periods. The gastrointestinal tract is the major route of Cd uptake in both humans and animals. Cadmium is toxic to humans, animals, micro-organisms and plants, however only a small amount of cadmium intake is absorbed by the body and will be stored mainly in bones, liver and, in case of chronic exposure, in kidneys. In the last few years there have been some

evidences that relatively low cadmium exposure may give rise to skeletal damage due to low bone mineral density (osteoporosis) and fractures. The toxicity of the metal lies in that, after absorption, it accumulates in soft tissues. Animal tests have shown that cadmium may be a risk factor for cardiovascular disease (Jarup, 2003). For acute exposure, absorbed cadmium can cause symptoms such as salivation, difficulty in breathing, nausea, vomiting, a pain, anemia, kidney failure, and diarrohea. Inhalation of cadmium dust or smoke may cause dryness of the throat, headache, chest pain, coughing, increased uneasiness and bronchial complications (Lu et al., 2007). The adverse health effects caused by ingestion or inhalation of Cd include renal tubular dysfunction due to high urinary Cd excretion, high blood pressure, lung damage, and lung cancer.

Furthermore, cadmium accumulation in animals and humans occurs throughout their life spans. The sites of greatest cadmium accumulation are the liver and kidney. After inhalation or absorption from the gastrointestinal, cadmium is concentrated in the kidney, where its half-life may exceed 10 to 20 years. One of the most widely known toxic effects manifested by Cd poisoning is nephrotoxicity. Adverse renal effects are more commonly seen with exposure to low levels of Cd. The effects are manifested by excretion of low-molecular-weight plasma proteins, such as *β*2-microglobulin and retinol-binding protein (RBP). The widely reported Cd poisoning itai-itai-byo episode occurred in Japan after World War II. In Japan cadmium from mining and refinery factories polluted Jinzo River water which was used for irrigation to raise the paddy crop. The rice grown on such irrigated fields absorbed cadmium which the humans consumed through water and food chain and caused ostomolacia and skeletal deformation. There was sever pain in body and joints and the people cried *ITAI –ITAI* (Ouch-Ouch).

6.3. TOXICITY OF CHROMIUM

Chromium can exist in valencies from -2 to 6 but is present in the environment mainly in the trivalent or hexavalent state. Trivalent chromium (Cr [III]) is the most common naturally occurring state; most soils and rocks contain small amounts of chromic oxide (Cr_2O_3). Hexavalent chromium (Cr[VI]) occurs infrequently in nature, and chromates (CrO_4^{2-}) and dichromates ($Cr_2O_7^{2-}$) present in the environment are generally the result of industrial and domestic emissions. Chromium is considered an essential nutrient and a health hazard because Cr exists in more than one oxidation state. Specifically, Cr in oxidation state +6, written as Cr(VI), is considered harmful even in small intake quantity (dose) whereas Cr in oxidation state +3, written as Cr(III), is considered essential for good health in moderate intake. Chromium (III) is an essential nutrient for humans and shortages may cause heart conditions, disruptions of metabolisms and diabetes. Trivalent chromium is necessary for the synthesis of fat from glucose and also for the oxidation of fat to carbon dioxide. But the uptake of too much chromium (III) can cause health effects as well, for instance skin rashes.

Chromium (VI) is a danger to human health, mainly for people who work in the steel and textile industry. People who smoke tobacco also have a higher chance of exposure to

chromium. Chromium (VI) is known to cause various health effects. When it is a compound in leather products, it can cause allergic reactions, such as skin rash. After breathing in, chromium (VI) can cause nose irritations and nosebleeds. Other health problems that are caused by chromium (VI) are:

- Skin rashes
- Upset stomachs and ulcers
- Respiratory problems
- Weakened immune systems
- Kidney and liver damage
- Alteration of genetic material
- Lung cancer
- Death

The health hazards associated with exposure to chromium are dependent on its oxidation state. The metal form (chromium as it exists in this product) is of low toxicity. The hexavalent form is toxic. Adverse effects of the hexavalent form on the skin may include ulcerations, dermatitis, and allergic skin reactions. Inhalation of hexavalent chromium compounds can result in ulceration and perforation of the mucous membranes of the nasal septum, irritation of the pharynx and larynx, asthmatic bronchitis, bronchospasms and edema. Respiratory symptoms may include coughing and wheezing, shortness of breath, and nasal itch.

Hexavalent chromium is toxic to plants and animals. It causes yellowing of leaves of wheat and paddy. Maximum permissible limit of chromium in drinking water as recommended by WHO is 0.05 mg/l.

6.4. TOXICITY OF COPPER

Copper is an essential micronutrient (Underwood 1977; Goyer 1991). The Food and Nutrition Board (FNB) recommends dietary copper intake for adults of 1.53 mg/day (NRC 1989). Three major valence states: copper metal (Cuº), Cu(I) and Cu(II). Copper is commonly found in ores. Copper occurs in nature as the metal and in minerals, most commonly cuprite (Cu_2O) and malachite ($Cu_2CO_3(OH)_2$). The principal copper ores are sulphides, oxides, and carbonates.

Copper is both essential and toxic to living systems. As an essential metal, copper is required for adequate growth, cardiovascular integrity, lung elasticity, neovascularization, neuroendocrine functions, and iron metabolism. An average adult human ingests about 1 mg of copper per day in the diet; about half of which is absorbed (Harris 1997). Copper is obligatory for enzymes involved in aerobic metabolism, such as cytochrome oxidase in the mitochondria, lysyl oxidase in connective tissue, dopamine monooxygenase in brain, and ceruloplasmin. As a cofactor for apo-copper-zinc superoxide dismutase (apoCuZnSOD),

copper protects against free-radical damage to proteins, membrane lipids, and nucleic acids in a wide range of cells and organs. Severe copper deficiencies, either gene defects due to mutations or low dietary copper intakes, although relatively rare in humans, have been linked to mental retardation, anemia, hypothermia, neutropenia, diarrhea, cardiac hypertrophy, bone fragility, impaired immune function, weak connective tissue, impaired central-nervous-system (CNS) functions, peripheral neuropathy, and loss of skin, fur (in animals), or hair color (Linder and Goode 1991; Uauy et al. 1998; Cordano 1998; Percival 1998).

Long-term exposure to copper can cause irritation of the nose, mouth and eyes and it causes headaches, stomachaches, dizziness, vomiting and diarrhea. Intentionally high uptakes of copper may cause liver and kidney damage and even death. Whether copper is carcinogenic has not been determined yet. There are scientific articles that indicate a link between long-term exposure to high concentrations of copper and a decline in intelligence with young adolescents. Whether this should be of concern is a topic for further investigation. Industrial exposure to copper fumes, dusts, or mists may result in metal fume fever with atrophic changes in nasal mucous membranes. Chronic copper poisoning results in *Wilson's Disease*, characterized by a hepatic cirrhosis, brain damage, demyelination, renal disease, and copper deposition in the cornea.

Excess amount of copper sulphate also shows detrimental effect on botanical environment. Copper in ionic form is very toxic to the photosynthesis of the green algae, Chlorella pyrenoidosa and the diatom, Nitzchiz palea in concentrations of copper normally found in natural waters. Copper accumulates progressively in soils where copper fungicides are used, particularly in vineyards and orchards, which are spread repeatedly. Thus, it is seen that though copper is essential of life and health, its deficiency or excesses both cause adverse effects.

6.5. TOXICITY OF IRON

Iron is essential to almost all living things, from micro-organisms to humans. Iron is the fourth most abundant element in the earth's crust and the most abundant heavy metal; it is present in the environment mainly as Fe (II) or Fe(III). Iron is generally present in surface waters as salts containing Fe(III) when the pH is above 7. Most of those salts are insoluble and settle out or are adsorbed onto surfaces; therefore, the concentration of iron in well-aerated waters is seldom high. Under reducing conditions, which may exist in groundwater, some lakes or reservoirs, and in the absence of sulphide and carbonate, high concentrations of soluble Fe(II) may be found. The presence of iron in natural waters can be attributed to the weathering of rocks and minerals, acidic mine water drainage, landfill leachates, sewage effluents and iron-related industries.

Iron, an essential element in human nutrition, is an integral component of cytochromes, porphyrins and metalloenzymes. Dietary iron requirements vary according to sex and age; older infants, children and women of menstrual age are most vulnerable to iron deficiency.

Iron is an essential constituent in plant metabolism. It is indispensable for the synthesis of chlorophyll in green plants, although it does not enter in the constituent of the chlorophyll molecules. Most of the iron in plants is present as a constituent of organic molecules, enzymes and carries catalase, peroxide and cyto-chromes which play important role in cellular metabolism. Iron is indispensable for the synthesis of chlorophyll molecules. Deficiency of iron in plants causes chlorosis. It is one of the most immobile elements in plants.

Iron is also widely distributed in human body where it exists in the ionic (loosely bound, inorganic iron) and nonionic (tightly bound organic form) state. It is also a constituent of hemoglobin molecule. It is more often suggested that iron deficiency predispose children to lead poisoning. Deficiency of iron with other trace elements is the cause of pica (a morbid appetite for unusual or unfit food, as clay, chalk, ashes, bricks etc., showing itself especially in hysteria, pregnancy and chlorosis). Iron deficiency also affects the transport of lead to the tissue. According to Dr. Ronald Hoffman, depending upon the age, sex and body weight, minimum daily requirement of iron varies from 6 mg/day to 30 mg/day. Following are the recommendations for intakes of iron, according to Dr. Hoffman:

- Infants upto 6 months require 6 mg/day.
- From 6 months to 1 year, 10 mg/day is required.
- Children age 1 to 10 years, require 10 mg/day.
- Males age 11 to 18 years, require 12 mg/day.
- Males age 19 to 51+ years, require 10 mg/day.
- Females age 11 to 50 years, require 15 mg/day.
- Females over 51 years, require 10 mg/day.
- Pregnant women require 30 mg/day.
- Lactating women require 15 mg/day.

Thus while normal amount of iron is essential, the normally large amount adversely affects the human system, which may result in haemochromatosis. Iron absorption is enhanced by heame, ascorbic acid, amino acids and inhibited by tannins, calcium, phosphate, phytic acid and fibers. Although the human body contains only about 0.004% iron, this element plays a central role in the life processes. As a constituent of the respiratory pigment haemoglobin, iron is essential for the functioning of every organ and tissue of the human body. Over half of the iron is present in the form of haemoglobin; the remaining iron is stored mainly in the liver. Nutritional anaemia is one of the most prevalent deficiency diseases throughout the world. Although anaemia may result from many different causes, the form most frequently encountered is iron deficiency anaemia (Tsai, 1975). Anaemia is a major health problem in India, with over half of ever-married woman having the condition. The problem clearly requires immediate attention and intervention.

Iron usually exists in natural water both in ferric and ferrous form. The form of iron however may be altered as a result of oxidation or reduction due to the growth of bacteria in the

water during storage, usually the ferric form is predominant in the most of the natural waters. Iron in water may be either in true solution or in a colloidal state or in the form of relatively coarse suspended particles. The iron determination is helpful in assessing the extent of corrosion and aiding in the solution of these problems. Research on corrosion and methods of corrosion control requires the use of many types of tests to evaluate the extent of metal loss. The most important one of them is the iron determination (Sawyer, 1978). In drinking water 0.3 mg/l is the highest desirable limit and 1mg/l the maximum permissible limit of iron in absence of alternative sources.

6.6. TOXICITY OF LEAD

Lead is the most common of the heavy elements. Several stable isotopes exist in nature, 208Pb being the most abundant. Lead is used principally in the production of lead-acid batteries, solder and alloys. The organo-lead compounds tetraethyl and tetramethyl lead have also been used extensively as antiknock and lubricating agents in petrol, although their use for these purposes in many countries is being phased out. Owing to the decreasing use of lead containing additives in petrol and of lead-containing solder in the food processing industry, concentrations in air and food are declining, and intake from drinking-water constitutes a greater proportion of total intake.

Lead toxicity has been known for over two thousand years. The early Greeks used Pb as a glazing for ceramic pottery and became aware of its harmful effects when it was used in the presence of acidic foods. Researchers suggest that some Roman emperors became ill, and even died, as a result of Pb poisoning from drinking wines contaminated with high levels of Pb.

Lead is found in all human tissues and organs, though it is not needed nutritionally. It is known as one of the systemic poisons because, once absorbed into the circulation, Pb is distributed throughout the body, where it affects various organs and tissues. It inhibits haematopoiesis (formation of blood or blood cells) because it interferes with haeme synthesis, and Pb poisoning may cause anaemia. Pb also affects the kidneys by inducing renal tubular dysfunction. This, in turn, may lead to secondary effects. Effects of Pb on the gastrointestinal tract include nausea, anorexia, and severe abdominal cramps (lead colic) associated with constipation. Pb poisoning is also manifested by muscle aches and joint pain, lung damage, difficulty in breathing, and diseases such as asthma, bronchitis, and pneumonia. Pb poisoning can also damage the immune system, interfering with cell maturation and skeletal growth. Pb can pass the placental barrier and may reach the fetus, causing miscarriage, abortions and stillbirths.

According to the CDC, lead poisoning is the most common and serious environmental disease affecting young children. Children are much more vulnerable to Pb exposure than adults because of their more rapid growth rate and metabolism. Pb absorption from the gastrointestinal tract in children is also higher than in adults (25% vs. 8%), and ingested Pb is distributed to a smaller tissue mass. Children also tend to play and breathe closer to the

ground, where Pb dust concentrates. One particular problem has been the Pb poisoning of children who ingest flakes of lead-based paint. This type of exposure accounts for as much as 90% of childhood Pb poisoning. The main health concern in children is retardation and brain damage. High exposure may be fatal.

Plants grown in lead mining area are known to accumulate high levels of lead. Plants near highways accumulate atmospheric dust containing Pb as foliar deposits, from the combustion of petrol as well as absorb if from soil.

6.7. TOXICITY OF MERCURY

Mercury (Hg) is the only common metal that is liquid at room temperature. Mercury occurs naturally in the earth's crust. Although it may be found in air, water and soil, mercury is mostly present in the atmosphere as a gaseous element. Mercury's major natural source results from the degassing of the earth's crust, emissions from volcanoes and evaporation from natural bodies of water. Mining of metals also causes indirect mercury discharges to the atmosphere. Due to its long lifetime of approximately of 1 year in the atmosphere, mercury's dispersion, transport and deposition in the environment will cause harmful effects on ecosystems and human health. Mercury may be present in the environment in several forms: elemental or metallic mercury, inorganic mercury compounds and organic mercury compounds. Pure mercury is a volatile liquid metal. It has traditionally been used in products like thermometers, switches, barometers and instruments for measuring blood pressure. Mercury is naturally present in many rocks including coal. When coal is burned, mercury is released into the environment. For this reason, coal-burning power plants are one of the largest anthropogenic sources of mercury emissions to the air, in addition to all domestic human-caused mercury emissions. Burning hazardous wastes, producing chlorine, breaking mercury products, and spilling mercury, as well as the improper treatment and disposal of products or wastes containing mercury, can also contribute to its release into the environment (EPA, 2009).

Mercury compounds are produced in small quantities for chemical and pharmaceutical applications. In ancient Greece mercury was used as a cosmetic to lighten the skin (Jarup, 2003): in some sub-Saharan African countries the use of cosmetic products to bleach or to lighten the skin is still frequent. The long term use of some pharmacologic compounds (hydroquinone, glucocorticoids and mercury) can cause severe health adverse effects (Jarup, 2003). Large quantities of mercury compounds are still used for amalgamation in illegal gold mining, in some developing countries. Anthropogenic sources of mercury and its compounds may result basically from the same sources as enunciated for Cadmium. In addition, underground mining, mining quarrying, opencast and, production of phytopharmaceutical products and biocides, pharmaceutical industry, landfills, urban waste treatment plants, industrial waste-water treatment plants, etc. (E-PRTR, 2010) also add to the list of sources of mercury.

Exposure to mercury may mainly occur as a consequence of the deposition from air into water or into soil. By natural biological processes certain microorganisms can change mercury into methyl mercury, a highly toxic and stable form that builds up in fish, shellfish and animals that eat fish, accumulating in the food chain. General population is exposed to methyl mercury through the food chain; fish and shellfish are the main source of exposure through the ingestion pathway (EPA, 2009). Breathing mercury vapor is another possible exposure pathway. This can occur when elemental mercury or products that contain elemental mercury break and release mercury into air, in especial in indoor spaces without enough ventilation. Nevertheless, the main exposure pathway is through food chain and not by inhalation (EPA, 2009).

High level of mercury can cause harmful effects, such as nerve, brain and kidney damage, lung irritation, eye irritation, skin rashes, vomiting and diarrhea. Mercury has a number of effects on humans that can be simplified into the following main effects:

- Disruption of the nervous system
- Damage to brain functions
- DNA damage and chromosomal damage
- Allergic reactions, resulting in skin rashes, tiredness and headaches
- Negative reproductive effects, such as sperm damage, birth defects and miscarriages

Damaged brain functions can cause degradation of learning abilities, personality changes, tremors, vision changes, deafness, muscle in coordination and memory loss. High levels of methylmercury in the bloodstream of little children may affect nervous system, affecting the normal thinking and learning (EPA, 2009). Chromosomal damage is known to cause mongolism.

In Japan, human illness and death occurred in the 1950's among fisherman who ingested fish, crabs and shellfish contaminated with a simple alkali mercury compound from Japanese coastal industries. This mercury poisoning produced a crippling and often fatal disease known as "Minamata" disease. In minamata episode, crabs contained as much as 24 ppm, while kidney's from human victims contained 144 ppm. Chloro-alkali plants and primary mercury processing plants are known to emit mercury into the atmosphere in sufficient quantities to create a public health problem. Poisoning of mercury may cause anxiety, insomnia, muscular tremor and other psychological disturbances.

Research work with plants has shown that mercury can produce genetic and chromosomal changes (Liptak, 1974).

6.8. TOXICITY OF NICKEL

Nickel is the 24th most abundant element (twice as Cu) and comprises approximately 0.008% of the content of the earth's crust; hence, it is a natural component of soil (parent material) and water (Alloway 1995; Hostynek and Maibach 2002; Hedfi et al. 2007). It is the 5th most

abundant element in the biosphere, Ni was only discovered through the mining of other metals. Its principal ores are nickelite (NiAs), millerite (NiS), and pentlandite ([Ni, Fe]S).

Nickel is released into the environment from a variety of natural and anthropogenic sources. Among industrial sources, a considerable amount of environmental Ni derives from the combustion of coal, oil, and other fossil fuels. Other industrial sources that contribute to nickel emissions are mining and refining processes, nickel alloy manufacturing (steel), electroplating, and incineration of municipal wastes (Sharma 2005; Ensink et al. 2007). Wastewater from municipal sewage treatment plants also contributes to environmental metal accumulation (van der Hoek et al. 2002).

In small quantities nickel is essential, but when the uptake is too high it can be a danger to human health. Humans may be exposed to nickel by breathing air, drinking water, eating food or smoking cigarettes. Skin contact with nickel-contaminated soil or water may also result in nickel exposure. The most common type of Ni exposure for the public is through direct skin contact with Ni plating. $Ni(CO)_4$ gas, the most toxic of the Ni compounds, was the first to cause deaths in refineries. The immediate symptoms included headaches, nausea, weakness, dizziness, vomiting, and epigastric pain. There was a latency period of 1 to 5 days, followed by secondary symptoms, which included chest constriction, chills and sweating, shortness of breath, coughing, muscle pains, fatigue, gastrointestinal discomfort, and, in severe cases, convulsions and delirium.

Nickel fumes are respiratory irritants and may cause pneumonitis. Exposure to nickel and its compounds may result in the development of a dermatitis known as “nickel itch” in sensitized individuals. The first symptom is usually itching, which occurs up to 7 days before skin eruption occurs. The primary skin eruption is erythematous, or follicular, which may be followed by skin ulceration. Nickel sensitivity, once acquired, appears to persist indefinitely. High level occupational exposure has been associated with renal problems, vertigo and dyspnoea (Commission of European Communities, 1976). Nickel and certain nickel compounds have been listed by the National Toxicology Program (NTP) as being reasonably anticipated to be carcinogens. The International Agency for Research on Cancer (IARC) has listed nickel compounds within group 1 (there is sufficient evidence for carcinogenicity in humans) and nickel within group 2B (agents which are possibly carcinogenic to humans).

6.9. TOXICITY OF ZINC

Zinc is the twenty-fifth most abundant element. It is widely found in nature and makes up 0.02% by weight of the earth’s crust (Budavari, 1989). Zinc normally appears dull grey owing to coating with an oxide or basic carbonate. It is extremely rare to find zinc metal free in nature (Beliles, 1994). The major source of zinc is sphalerite, smithsonite, hemimorphite and franklinite. The largest natural emission of zinc to water results from erosion. Natural inputs to air are mainly due to igneous emissions and forest fires. Anthropogenic and natural sources are of a similar magnitude. The main anthropogenic sources of zinc are mining, zinc production facilities, iron and steel production, corrosion of galvanized structures, coal and

fuel combustion, waste disposal and incineration, and the use of zinc-containing fertilizers and pesticide

Zinc is an essential element for both animals and man and is necessary for the functioning of various enzyme systems. Nutritional zinc deficiency in humans has been reported in a number of countries. In Egypt endemic zinc deficiency syndrome among young men has been reported (Prasad, et al., 1961; Halsted et al., 1972). This syndrome having characters of retarded growth, signs of immaturity and anemia is probably caused by low intestinal absorption of zinc. Its complete cure was observed by administration of large doses of zinc sulfate.

Acute toxicity arises from the ingestion of excessive amounts of zinc salts, either accidentally or deliberately as an emetic or dietary supplement. Vomiting usually occurs after the consumption of more than 500 mg of zinc sulfate. Mass poisoning has been reported following the drinking of acidic beverages kept in galvanized containers; fever, nausea, vomiting, stomach cramps, and diarrhea occurred 3–12 h after ingestion. Food poisoning attributable to the use of galvanized zinc containers in food preparation has also been reported; symptoms occurred within 24 h and included nausea, vomiting, and diarrhea, sometimes accompanied by bleeding and abdominal cramps.

Symptoms of zinc toxicity in humans include vomiting dehydration, electrolyte imbalance, abdominal pain, nausea lethargyness, dizziness and lack of muscular co-ordination (Prasad and Oberleas, 1976). Acute renal failure caused by zinc chloride has also been reported (Csata, 1968). Zinc unlike Hg, Pb or Cd is an essential trace element for organism and plays a vital role in the physiological and metabolic processes of many organisms. However, in high concentration, zinc can be toxic to the organisms.

Zinc is an essential trace element for plants and animals including human begins and it plays vital role in metabolic processes. The most common effect of zinc poisoning in human are non fatal ‘metal fume’ fever, caused by inhalation of zinc oxide fumes and illness arising from the ingestion of acidic foods prepared in zinc galvanized containers. Zinc salts, particularly zinc chloride produce dermatitis upon contact with the skin.

7. WATER QUALITY CRITERIA

As it is a well-known fact that the sources of usable water on the earth are limited, any kind of pollution in such sources will further reduce its availability. Polluted water cannot be utilized for drinking because of its inherent health risk. Water with high salt contents is not suitable for agriculture and most industries. The quality of water also interferes with the aesthetic and economic pursuits of water bodies by affecting marine and fresh water life. However, the water, which is not suitable for irrigation, may be quite suitable for industrial cooling. Every use of water requires a certain minimum quality standards with regards to the presence of dissolved and suspended materials of both chemical and biological nature. The desirable quality of water ensures no harm to the user.

To maintain the minimum quality standard for diverse user has led to the formulation of water quality criteria, and water quality standards. Water quality criteria can be considered as specific requirements on which a decision or judgment to support a particular use will be based. The criteria for the various uses are developed based on the experimental data and our current knowledge of the health, ecology and other issues and assessing its overall economical effect these are not a set of fixed values, but subject to modification as the scientific data get updated and more and more knowledge is gathered. The term standard applies to any definite principle or measure established by an authority by limiting concentration of different constituents in water to ensure the safe use of water and safeguard the environment.

7.1. DRINKING WATER STANDARDS

In view of the direct consumption of water by human beings, the domestic water supply is considered to be most important use of water and drinking use has been given first priority on utilization of water resource in the National Water Policy. In India, agencies like the Bureau of Indian Standards (BIS) and Indian Council of Medical Research (ICMR) have formulated drinking water standards. The World Health Organization (WHO) has also laid down drinking water standards, which are considered as international standards. Drinking water standards for trace and toxic metals according to BIS's manual no. 10500-2012 are given below in table 3.

Table 3: Drinking Water Standards for Trace & Toxic metals (BIS-10500-2012)

Sr.	Toxic metal	Requirement (Acceptable Limit)		Permissible Limit in the Absence of Alternative Source	
		(mg/L)	(µg/L)	(mg/L)	(µg/L)
1	**Total arsenic as As**	0.01	10	0.05	50
2	**Cadmium as Cd**	0.003	3	No relaxation	
3	**Total Chromium as Cr**	0.05	50	No relaxation	
4	**Copper as Cu**	0.05	50	1.5	1500
5	**Iron as Fe**	0.3	300	No relaxation	
6	**Lead as Pb**	0.01	10	No relaxation	
7	**Mercury as Hg**	0.001	1	No relaxation	
8	**Nickel as Ni**	0.02	20	No relaxation	
9	**Zinc as Zn**	5	5000	15	15000

7.2. QUALITY CRITERIA FOR LIVESTOCK

A safe water supply is essential for healthy livestock. Contaminated water can affect growth, reproduction and productivity of animals as well as safety of animal products for human consumption. Contaminated water supplies for livestock and poultry can also contaminate human drinking water. For these reasons, farm water supplies should be protected against contamination from bacteria, nitrates, sulfates, and pesticides. The Environmental Protection Agency has set drinking water standards for human consumption, but no set of

standards exists for drinking water for livestock or poultry. The National Academy of Science, however, has recommended maximum levels for some contaminants.

The permissible daily intake of substances is greatly dependent on the concentration of the substances and the quality of water ingested. The daily water requirement of animals vary with a number of factors such as temperature and humidity, the water content in the food, the degree of exertion of the animal and the salinity of the water supply. Therefore, the recommended concentrations of specific substance are based on typical usage.

Excessive salinity in livestock drinking water can upset the animals' water balance and cause even death. High levels of specific ions in water can cause animal health problems and death. The National Academy of Sciences offers upper limits for toxic substances in water (Table 4).

Table 4: Recommendations for levels of toxic substances in drinking water for livestock

Sr.	Toxic metal	Upper Limit in mg/l	Sr.	Toxic metal	Upper Limit in mg/l
1.	Arsenic	0.2	5.	Iron as Fe	-
2.	Cadmium as Cd	0.05	6.	Mercury as Hg	0.01
3.	Chromium as Cr	1.0	7.	Zinc as Zn	24
4.	Copper as Cu	0.5			

Sources: Environmental Studies Board, Nat. Acad. Of Sci., Nat Acad of Eng., Water Quality Criteria, 1972
Ayers, R.S. and D.W. Wescot, Water Quality for Agriculture, Food and Agriculture Organization of the United Nations, Rome, 1976

7.3. WATER QUALITY FOR IRRIGATION

Nearly all waters contain dissolved salts and trace elements, many of which result from the natural weathering of the earth's surface. In addition, drainage waters from irrigated lands and effluent from city sewage and industrial waste water can impact water quality. In most irrigation situations, the primary water quality concern is salinity levels, since salts can affect both the soil structure and crop yield. However, a number of trace elements are found in water which can also limit its use for irrigation.

The required quality of Irrigation water varies substantially, depending upon the salinity, soil permeability, toxicity and some miscellaneous concerns such as excessive nitrogen loading or unusual pH of water. Some elements in irrigation water may be directly toxic to crops. Establishing toxicity limits in water is complicated by reactions which take place once the water is applied to the soil. When an element is added to the soil from irrigation, it may be inactivated by chemical reactions or it may build up in the soil until it reaches a toxic level. An element at a given concentration in water may be immediately toxic to a crop because of foliar effects if sprinkler irrigation is used. If furrow irrigation is used, it may require a number of years for the element to accumulate to toxic levels, or it may be immobilized in

the soil and never reach toxic levels. The recommended water quality for irrigation is shown in Table -5.

Table 5: Recommended limits for constituents in reclaimed water for irrigation.

Constituent	Long-term use (mg/L)	Short-term use (mg/L)	Remarks
Aluminum (Al)	5.0	20	Can cause nonproductivity in acid soils, but soils at pH 5.5 to 8.0 will precipitate the ion and eliminate toxicity.
Arsenic (As)	0.10	2.0	Toxicity to plants varies widely, ranging from 12 mg/L for Sudan grass to less than 0.05 mg/L for rice.
Beryllium (Be)	0.10	0.5	Toxicity to plants varies widely, ranging from 5 mg/L for kale to 0.5 mg/L for bush beans.
Boron (B)	0.75	2.0	Essential to plant growth, with optimum yields for many obtained at a few-tenths mg/L in nutrient solutions. Toxic to many sensitive plants (e.g., citrus) at 1 mg/L. Most grasses relatively tolerant at 2.0 to 10 mg/L.
Cadmium (Cd)	0.01	0.05	Toxic to beans, beets, and turnips at concentrations as low as 0.1 mg/L in nutrient solution. Conservative limits recommended.
Chromium (Cr)	0.1	1.0	Not generally recognized as essential growth element. Conservative limits recommended due to lack of knowledge on toxicity to plants.
Cobalt (Co)	0.05	5.0	Toxic to tomato plants at 0.1 mg/L in nutrient solution. Tends to be inactivated by neutral and alkaline soils.
Copper (Cu)	0.2	5.0	Toxic to a number of plants at 0.1 to 1.0 mg/L in nutrient solution.
Fluoride (F^-)	1.0	15.0	Inactivated by neutral and alkaline soils.
Iron (Fe)	5.0	20.0	Not toxic to plants in aerated soils, but can contribute to soil acidification and loss of essential phosphorus and molybdenum.
Lead (Pb)	5.0	10.0	Can inhibit plant cell growth at very high concentrations.
Lithium (Li)	2.5	2.5	Tolerated by most crops at up to 5 mg/L; mobile in soil. Toxic to citrus at low doses recommended limit is 0.075 mg/L.
Manganese (Mg)	0.2	10.0	Toxic to a number of crops at a few-tenths to a few mg/L in acid soils.
Molybdenum (Mo)	0.01	0.05	Nontoxic to plants at normal concentrations in soil and water. Can be toxic to livestock if forage is grown in soils with high levels of available molybdenum.
Nickel (Ni)	0.2	2.0	Toxic to a number of plants at 0.5 to 1.0 mg/L; reduced toxicity at neutral or alkaline pH.
Selenium (Se)	0.02	0.02	Toxic to plants at low concentrations and to livestock if forage is grown in soils with low levels of added selenium.
Vanadium (V)	0.1	1.0	Toxic to many plants at relatively low concentrations.
Zinc (Zn)	2.0	10.0	Toxic to many plants at widely varying concentrations; reduced toxicity at increased pH (6 or above) and in fine-textured or organic soils.

Source: Rowe and Abdel-Magid, 1995

8. STUDY AREA

A total number of 355 water quality stations and 32 gauage stations covering all the River Basins of CWC right from East to West and North to South were studied for assessing the status of Trace and Toxic metals during September 2011, February 2012, June 2012, October, 2012, March 2013 and August 2013. The details of the 387 monitoring stations on the Indian Rivers with their latitude, longitude, catchment area, district and states are

annexed in **Annexure-1**, River water samples were collected by Punjab type sampler. The water samples were stored in acid leached polyethylene bottles and preserved by adding ultra pure nitric acid as recommended (APHA, 1991).

9. METHODOLOGY

Living organisms require trace amounts of some metals including cobalt, copper, iron, manganese, molybdenum, vanadium, strontium and zinc. Excessive levels of these essential metals are detrimental to the organisms. Non- essential metals like cadmium, chromium, mercury, lead, arsenic and antimony are of more concern to surface water system because these metals produce undesirable effects on human and animal life. Once these metals enter in a system, they remain for relatively longer periods. Once absorbed, inorganic metals are capable of reacting with a variety of binding sites in the human body and have strong attraction to biological tissues. Natural water contains toxic metals in traces. Industrial wastes containing metals have aggravated the problem of metal pollution. Electroplating, metallurgical industry, galvanising plants, tanneries and thermal power stations are few of the major contributors of metal pollution in surface water. All metals exist in surface water in colloidal, particulate and dissolved forms, although dissolved concentrations are generally low. The soluble forms are generally ions or unionized, organo-metallic chelates or complexes. The solubility of trace metals in surface water is predominately controlled by pH, the type and concentration of legends on which the metal can absorb and the oxidation state of the mineral components.

9.1. METAL DETECTION TECHNIQUES

The analytical methods commonly used in estimation of heavy metals in water and waste waters are:

- Inductively coupled plasma analyser (ICP)
- Atomic absorption spectrophotometry (AAS)
- Colorimetric methods
- Polarographic estimation
- Ion Selective Electrodes (ISE)

Inductively coupled plasma (ICP) techniques and atomic absorption spectrophotometry are applicable over a broad linear range and are especially sensitive for refractory elements. In general, detection limits for ICP methods are higher than AAS. Colorimetric methods are applicable when interferences are known to be within the limit of the particular method. Extreme care should be taken in sampling and analysis to prevent contamination.

In the present study, samples were collected in polyethylene containers. These water samples were prepared for the determination of nine selected heavy metals, viz., arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel and zinc by atomic absorption spectrophotometer. This instrumental technique was developed by Asian Walsh in 1955 by

means of Atomic Absorption Spectrophotometer (AAS) and since then AAS techniques have been considered as most reliable and have become more common in recent times although the colorimetric/ spectrophotometric techniques have also been in use because of the exorbitant cost of the AAS. AAS techniques are usually favored due to its rapidity, accuracy and controllability while other methods do not respond if the metals are present in traces. It is generally employed when exact quantity of interfering radicals or ions is known. The study was carried out on Agilent 240FS atomic absorption spectrophotometer by graphite tube analyzer (GTA) using argon gas and Iron analyzed by flame operation using air and acetylene gas.

9.2. CHEMICALS AND REAGENTS

All chemicals and reagents used in the chemical analysis during the study were of analytical reagent grade (Merck). Standard solutions of metals ions were procured from Merck, Germany. De-ionized water was used throughout the study. All glassware and containers used were thoroughly cleaned by soaking in detergent followed by soaking in 10% nitric acid for 48hrs and finally rinsed with de-ionized water several times prior to use.

9.3. METHOD

Trace and toxic metals were analysed by using Agilent 240FS atomic absorption spectrophotometer. The wave length, current, slit and method employed using atomic absorption spectrophotometer is given in Table-6.

Table 6: The wavelength, current, slit and method used for chemical analysis by AAS

Sr.	Parameter	Wave length (nm)	Current (mA)		Slit (nm)	Method used for analysis
			Recommended	Maximum		
1	Arsenic	193.7	10	12	0.5	By AAS with VGA
2	Cadmium	228.8	4	10	0.5	By AAS with Graphite Tube Analyzer (GTA)
3	Chromium	357.9	7	15	0.2	
4	Copper	324.8	4	10	0.5	
5	Mercury	253.7	4	8	0.5	By AAS with VGA
6	Iron	248.3	7	10	0.2	By AAS with Flame
7	Lead	217	10	12	1.0	By AAS with Graphite Tube Analyzer (GTA)
8	Nickel	232	4	10	0.2	
9	Zinc	213.9	5	10	1.0	

10. RESULTS AND DISCUSSION

Surface/ground water contamination through toxic metals is a problem since long. Many countries in the world have experienced menace of metal pollution in water and large number of people has been affected. Causes of this pollution have been well documented.

However, the main sources of metal toxicity in surface water have been thought to be natural occurrence and subsequent degradation of the environment.

The analytical results obtained from the trace and toxic metal analysis in the water samples of Indian Rivers are expressed in µg/L (Microgram per Litre) throughout the report. During the entire period of study, maximum concentration of all nine metals in the Indian Rivers observed are as: Arsenic (9.47µg/L), Cadmium (4.0 µg/L), Chromium (366.91 µg/L), Copper (180.70 µg/L), Lead (48.92 µg/L), Mercury (0.89 µg/L), Nickel (80.81µg/L), Zinc (4.86 mg/L) and Iron (6.65 mg/L). Results were statistically analysed and minimum, maximum, average and standard deivation were calculated using MS Excel (Table-7).

Details of the Indian rivers and their water quality monitoring sites where the water was found fit for use in terms of toxic metal contamination in the study period is presented in **Annexure-2**. Details of WQ monitoring stations where the water was found unfit for use due to excess presence of only one parameter (Fe/Cu/Cd/Pb/Ni) above the acceptable limits during the study period is presented in **Annexure-3**. Details of WQ monitoring stations where the water was found unfit for use due to presence of more than two toxic metals above acceptable limits during the study period is presented in **Annexure-4**. Toxic metals-wise detail of water quality monitoring stations and rivers where the respective metal concentration was found above the acceptable limits as prescribed by BIS is presented in **Annexure-5**. Total and seasonal average values of each toxic metal, minimum-maximum concentrations and number of occasions when the concentration of the toxic metal in river water exceeded the BIS limits during the entire study period is presented in **Annexure-6.**

Table 7 : Summary and statistical analysis of analytical results of river water samples (Sept. 2011 to Aug. 2013).

Period	Particulars	As	Cd	Cr	Cu	Ni	Pb	Hg	Zn	Fe
September, 2011	Minimum	0.00	0.00	0.00	0.02	0.25	0.00	0.01	0.00	0.01
	Maximum	7.81	3.90	191.75	61.03	8.69	15.32	0.78	0.38	6.65
	Average	1.15	0.10	9.44	8.08	2.49	2.34	0.39	0.04	0.75
	Standard Deviation	0.79	0.29	15.90	8.78	2.45	3.07	0.23	0.04	0.98
February, 2012	Minimum	0.01	0.00	0.00	0.01	0.11	0.02	-	0.00	0.00
	Maximum	7.55	2.08	66.05	164.85	75.25	22.75	-	4.86	3.68
	Average	1.37	0.27	6.04	23.48	8.63	2.37	-	0.16	0.44
	Standard Deviation	1.51	0.34	8.23	24.04	10.20	3.51	-	0.54	0.56
June, 2012	Minimum	0.01	0.00	0.00	0.02	0.12	0.11	-	0.00	0.00
	Maximum	8.87	4.00	105.41	99.10	74.26	48.92	-	1.42	2.37
	Average	1.51	0.31	9.32	12.48	7.20	5.36	-	0.10	0.16
	Standard Deviation	1.65	0.61	14.91	13.04	9.97	4.52	-	0.16	0.26
October, 2012	Minimum	0.00	0.00	0.01	0.19	0.02	0.09	-	0.00	0.01
	Maximum	9.47	2.80	366.91	87.10	37.68	24.90	-	0.33	3.30
	Average	4.07	0.39	9.10	16.93	6.54	3.50	-	0.02	0.23
	Standard Deviation	2.80	0.44	22.76	16.89	6.73	3.38	-	0.03	0.38
March, 2013	Minimum	0.00	0.00	0.01	0.01	0.24	0.00	0.00	0.00	0.00
	Maximum	9.43	1.87	26.40	180.70	80.51	21.69	0.88	0.40	1.11
	Average	4.08	0.15	2.36	9.66	11.87	2.47	0.40	0.02	0.13
	Standard Deviation	2.71	0.25	3.35	20.61	9.30	2.54	0.22	0.05	0.14
August, 2013	Minimum	0.01	0.00	0.02	0.06	0.02	0.00	0.01	0.00	0.01
	Maximum	9.12	3.13	108.77	69.62	35.83	15.48	0.89	0.45	3.18
	Average	3.03	0.32	6.36	10.35	9.68	1.91	0.32	0.02	0.27
	Standard Deviation	2.25	0.43	9.83	13.69	5.13	2.31	0.24	0.04	0.40

(-) Indicates the water samples were not analyzed for the metal during the period. (As, Cd, Cr, Cu, Hg, Pb and Ni Concentrations in µg/l and Zn & Fe conc. In mg/l)

The obtained analytical results were also compared with the Indian Standards, prescribed as acceptable toxic metal content in the drinking water by the Bureau of Indian Standards ("Drinking Water – Specification", 10500:2012). Total number of water samples found below/ above the BIS acceptable limits of each toxic metal is summarized here under in Table-8.

Table 8 : Number of water samples reported below/ above the BIS acceptable limits of toxic metals.

Toxic Metals	Sept. 2011		Feb. 2012		June 2012		Oct. 2012		Mar. 2013		Aug. 2013		Total 'A'	Total 'B'	Total (A + B)
	A	B	A	B	A	B	A	B	A	B	A	B			
As	301	0	299	0	311	0	357	0	301	0	352	0	1921	0	1921
Cd	300	1	312	0	306	5	357	0	301	0	351	1	1927	7	1934
Cr	295	5	310	1	306	5	349	8	301	0	350	2	1911	21	1932
Cu	289	2	279	33	308	3	346	11	289	12	345	7	1856	68	1924
Ni	30	0	291	20	291	20	321	19	253	40	344	8	1530	107	1637
Pb	277	10	300	12	285	26	343	14	296	4	351	1	1852	67	1919
Hg	225	0	0	0	0	0	0	0	295	0	352	0	872	0	872
Zn	298	0	294	0	313	0	357	0	300	0	351	0	1913	0	1913
Fe	129	158	198	113	268	43	291	66	281	20	259	92	1426	492	1918
Total	**2144**	**176**	**2283**	**179**	**2388**	**102**	**2721**	**118**	**2617**	**76**	**3055**	**111**	**15208**	**762**	**15970**

A – Number of samples below the limits. B – Number of samples exceeded the BIS acceptable limits.

From the above table, it is evident that Iron ranks first among the metals that exceeded their respective acceptable limits on maximum occasions followed by Nickel, Copper, Lead, Chromium and Cadmium. Exceeding the BIS acceptable limits in Indian River waters by Copper and Lead is more common in non-monsoon periods while Chromium and Iron are the metals whose concentrations have exceeded their tolerance limits in monsoon periods most of the time. This kind of tendency to exceed the tolerance limits is not seen in case of other metals like Cadmium and Nickel.

During the study period, the samples were collected in three different seasons viz, pre-monsoon (June 2012), monsoon (September 2011, October 2012 and August 2013) and post-monsoon (February 2012 and March 2013). For these six occasions of analysis, season wise average values (in µg/l) of each toxic metal concentration were evaluated and 2D-pie charts were prepared using MS Excel (Figures 18-20). Metal symbol, average values in µg/l and percentage as a total, are presented in the charts. From these figures, it is observed that out of nine metals analysed, Iron is the metal whose concentration is always found maximum in all the three seasons.

In all the three seasons, the pattern of occurrence in higher concentration of these toxic metals is different. The order of higher occurrence of these toxic metals in Indian Rivers during pre-monsoon period is Fe > Zn > Cu > Ni > Cr > Pb > As > Hg > Cd (Figure-18).

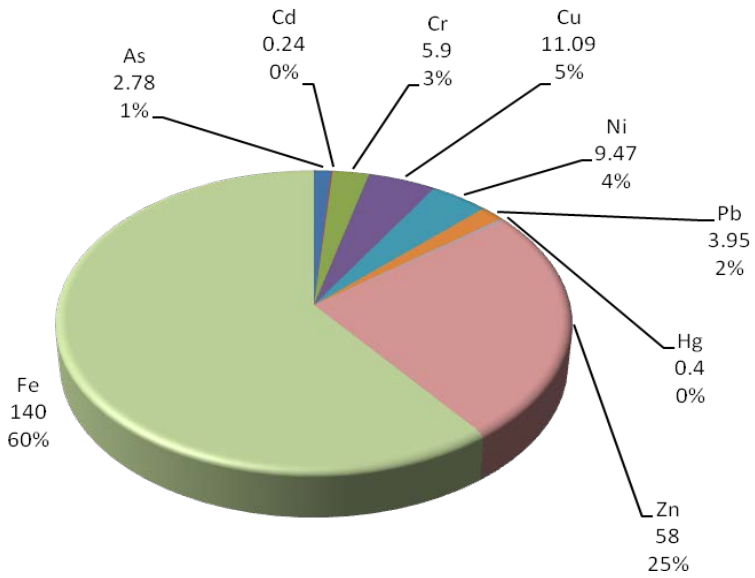


Figure 21: Order of higher occurrences in pre-monsoon period.

Order of higher occurrence of these nine metals is different in different seasons. In monsoon periods, the levels of many toxic metals like Zn, Ni and Cu falls down significantly in the river water. The order of higher occurrence in monsoon period is Fe > Zn > Cu > Ni > Cr > As > Pb > Cd > Hg (Figure-19).

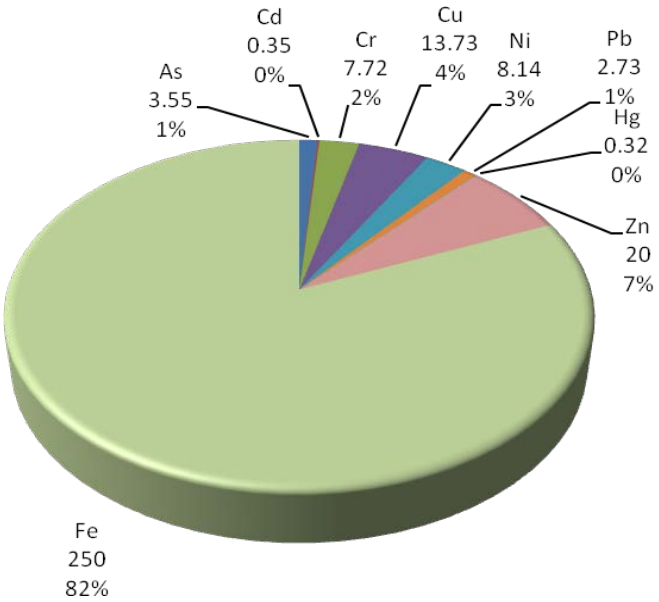


Figure 22: Order of higher occurrences of toxic metal in monsoon period.

The order of higher occurrence in the post-monsoon season studied is Fe > Zn > Cu > Ni > Cr > Pb > As > Hg > Cd (Figure 20).

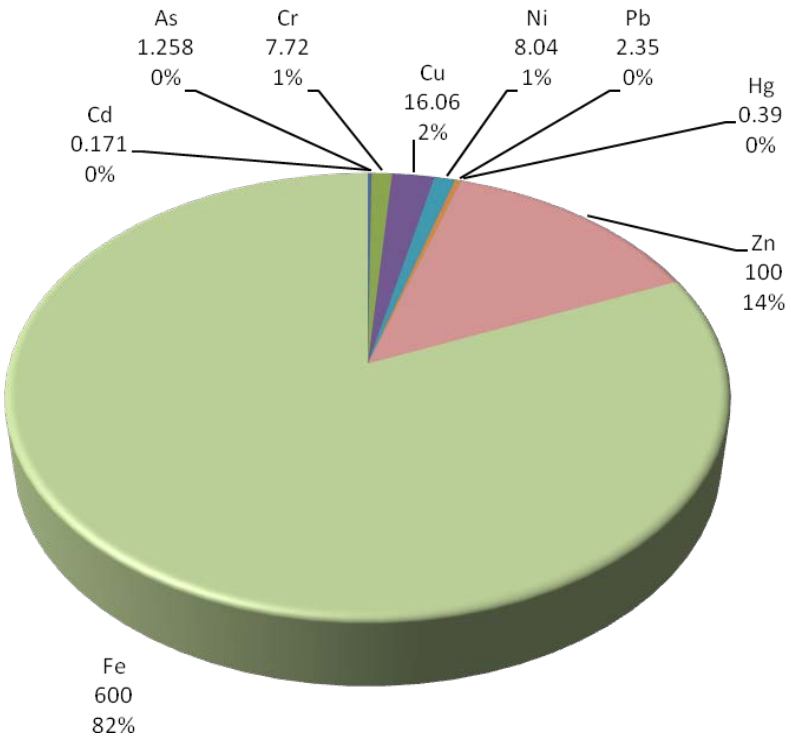


Figure 23: Order of higher occurrences in post-monsoon period.

The parameter wise discussion on the results obtained from the trace and toxic metal analysis in the water samples collected from the 387 water quality monitoring stations functioning under Central Water Commission are given in subsequent paragraphs.

10.1. SUMMARY OF ARSENIC CONTENT IN INDIAN RIVERS

Arsenic (As) is a ubiquitous element that is comparatively rare, but widely distributed in the atmosphere, soils and rocks, natural waters and organisms. It is mobilised in the environment through a combination of natural processes such as weathering reactions, biological activity and volcanic emissions as well as through a range of anthropogenic activities. Most environmental arsenic problems are the result of mobilisation under natural conditions, but man has had an important impact through mining activity, combustion of fossil fuels, the use of arsenical pesticides, herbicides and crop desiccants and the use of arsenic as an additive to livestock feed, particularly for poultry. Although the use of arsenical products such as pesticides and herbicides has decreased significantly in the last few decades, their use for wood preservation is still common. The impact on the environment of the use of arsenical compounds, at least locally, will remain for some years.

BIS has recommended 0.01 mg/l (10µg/L) as acceptable concentration of arsenic in drinking water. Total 1921 numbers of water samples from 387 water quality monitoring stations were

collected and analyzed for arsenic content in Indian Rivers in the period September 2011 to August 2013. The arsenic concentration varies from 0.00 to 9.47 µg/L. Maximum arsenic concentration (9.47µg/L) was observed at Sundergarh water quality monitoring station on Ib River during October 2012. In the study area, all the River water quality stations are reported to have arsenic concentration well within the acceptable limits of Bureau of Indian Standards (BIS) and no toxicity of arsenic in the River waters is observed during the study period.

10.2. SUMMARY OF CADMIUM CONTENT IN INDIAN RIVERS

Cadmium is a rare natural element which is widely distributed in the earth's crust in very small amount. It is uniformly distributed in the Earth's crust, where it is generally estimated to be present at an average concentration of between 0.15 and 0.2 mg/kg. Cadmium may be present in the aquatic environment at relatively low levels as inorganic complexes such as carbonates, hydroxides, chlorides or sulphates, or as organic complexes with humic acids. Even in polluted rivers the cadmium levels in aqueous phase may be significantly low and even sometimes below detection limit.

A maximum acceptable concentration for cadmium in drinking water has been established on the basis of health considerations. BIS proposed the maximum desirable limit of cadmium is 0.003 mg/l or 3µg/l and no relaxation maximum permissible limit in absence of another source. The concentration of cadmium in unpolluted fresh waters is generally less than 0.001 mg/L. Surface waters containing in excess of a few micrograms of cadmium per litre have probably been contaminated by industrial wastes from metallurgical plants, plating works, plants manufacturing cadmium pigments, textile operations, cadmium-stabilized plastics, or nickel–cadmium batteries, or by effluents from sewage treatment plants.

1934 numbers of river water samples from 387 WQ monitoring stations were collected and analyzed for cadmium content during the study period from September 2011 to August 2013. Out of 1934 water samples, seven water quality stations from Yamuna, Hindon, Pennar and Cauvery rivers were found to have cadmium content more than the acceptable limits. The highest cadmium concentration (4.0µg/L) was observed in the water samples received from Delhi Rly Bridge and Mathura water quality monitoring stations at Yamuna River during June, 2012. Annexure-5 shows the names of the water quality monitoring stations and the Rivers affected by high cadmium content than the acceptable limits which are presented in Table-9.

Table 9 : Rivers and WQ monitoring stations where Cadmium exceeded the acceptable limits

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Cauvery	Musiri (Sept. 2011)	1	1
2	Hindon	Galeta (June 2012)	1	1

3	Pennar	Chennur (Aug. 2013)	1	1
4	Yamuna	Mohana (June, 2012), Delhi Rly Bridge (June, 2012), Gokul Barrage-Mathura (June, 2012), Agra (June, 2012)	4	4
		Total	**7**	**7**

10.3. SUMMARY OF CHROMIUM CONTENT IN INDIAN RIVERS

Chromium is used to call as metal with two faces, that it can be either beneficial or toxic to animals and humans depending on its oxidation state and concentrations (Zayed et al., 1998). It can exist in valences from -2 to 6 but is present in the environment mainly in the trivalent or hexavalent state.

Cr(III) is considered to be a trace element essential for the proper functioning of living organisms (Wang et al., 2009). Nutritionally, at lower concentrations, Cr(III) is an essential component of a balanced human and animal diet for preventing adverse effects in the metabolism of glucose and lipids, e.g., impaired glucose tolerance, increased fasting insulin, increased cholesterol and triglycerides, and hypoglycemic symptoms (Zayed and Terry, 2003). Cr(III) at increased concentrations can interfere with several metabolic processes because of its high capability to coordinate various organic compounds resulting in inhibition of some metalloenzyme systems (Zayed et al., 1998).

On a worldwide basis, the major chromium source in aquatic ecosystems is domestic waste water effluents (32.2% of the total) (Barceloux 1999). The other major sources are metal manufacturing (25.6%), ocean dumping of sewage (13.2%), chemical manufacturing (9.3%), smelting and refining of nonferrous metals (8.1%), and atmospheric fallout (6.4%) (Nriagu and Pacyna 1988). Annual anthropogenic input of chromium into water has been estimated to exceed anthropogenic input into the atmosphere (Nriagu and Pacyna 1988). However, land erosion, a natural source of chromium in water, was not included in the Nriagu and Pacyna (1988) estimation of chromium contributions to the aquatic environment.

BIS (Bureau of Indian Standard) 10500-2012) have recommended an acceptable limit of 50 µg/L of chromium in drinking water. Total 1932 numbers of water samples from 387 water quality stations were collected and analyzed for chromium content during the study period. Data reveals that 21 water samples have the Chromium concentrations above the acceptable limit of 50 µg/L. Chromium concentration was 366.91 µg/L at Khanpur water quality monitoring station on Ganga River in October 2012, which is reported as the maximum concentration during the entire study period. Annexure-5 shows the names of the WQ stations and the Rivers affected by high chromium concentration (>50 µg/L).

Total 21 numbers of water samples from 14 water quality monitoring stations located on 11major Indian Rivers were found to have chromium concentration exceeding the tolerance limit of 50µg/L. Some Indian Rivers viz. Ganga and Tel have two or more water quality monitoring stations which are polluted with chromium and presented in Table-10.

Table 10 : Rivers and WQ monitoring stations where Chromium exceeded the acceptable limits.

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Ganga	Khanpur (Oct.2012; Aug. 2013), Ankinghat (June, 2012; Oct. 2012), Bhitaura (Oct. 2012)	3	5
2	Hasdeo	Manendragarh (Sept. 2011)	1	1
3	Ib	Sundergarh (June. 2012; Oct, 2012)	1	2
4	Hamp	Andhiyar Kore (Sept. 2011)	1	1
5	Jonk	Rampur (Oct. 2012)	1	1
6	Kwano	Basti (Feb. 2012)	1	1
7	Mahanadi	Basantpur (Sept. 2011, June. 2012; Oct. 2012)	1	3
8	Mayurakshi	Maharo (Oct. 2012)	1	1
9	Ong	Salebhata (Oct. 2012)	1	1
10	Ramganga	Moradabad (Aug. 2013)	1	1
11	Tel	Kantamal (Sept. 2011, June. 2012), Kesinga (Sept. 2011, June. 2012)	2	4
		Total	**14**	**21**

10.4. SUMMARY OF COPPER CONTENT IN INDIAN RIVERS

Copper is a very common substance that occurs naturally in the environment and spreads through the environment through natural phenomena. Humans widely use copper. For instance it is applied in the industries and in agriculture. The production of copper has lifted over the last decades. Due to this, copper quantities in the environment have increased. It is an essential element in human metabolism, and it is well-known that deficiency results in a variety of clinical disorders, including nutritional anaemia in infants. BIS, 10500, 2012 has recommended a acceptable limit of 0.05 mg/l (50µg/l) of copper in drinking water; this concentration limit can be extended to 1.5 mg/l (1500 µg/l) of copper in case no alternative source of water with desirable concentration is available. The intake of large doses of copper has resulted in adverse health effects. Copper and its compounds are widely distributed in nature, and copper is found frequently in surface water and in some groundwater.

1924 water samples from 387 water quality stations were collected and analyzed for copper content from September 2011 to August 2013. Out of 1924 water samples, 68 samples were found to contain copper concentrations above the acceptable limits of 50µg/L throughout the study period, the maximum Copper concentration 180.70 µg/L was observed at Regauli water quality station on Rapti River in March, 2013. Annexure-5, shows the names of water quality stations and the Rivers affected by high copper concentration (>50 µg/L).

Total 68 numbers of water samples exceeded the BIS prescribed acceptable limit at 49 numbers of WQ monitoring stations situated on 39 Indian Rivers during the study period. Among these

Rivers Ganga, Gomti, Ramganga, Rapti, and Wainganga are among the ones where two or more water quality monitoring stations are contaminated with copper (Table-11).

Table 11 : Rivers and WQ monitoring stations where Copper exceeded the acceptable limit.

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Barak	Fulertal (Feb. 2012)	1	1
2	Brahmaputra	Pandu (Feb. 2012)	1	1
3	Bugi	Dimpara (Feb. 2012)	1	1
4	Chenab	Akhnoor (Feb. 2012)	1	1
5	Digaru	Sonapur (Feb. 2012)	1	1
6	Dareng	Sibbari (Feb. 2012)	1	1
7	Ganga	Bhitaura (Feb. 2012, March 2013, Aug. 2013), Ankinghat (Oct., 2012; March 2013, Aug. 2013), Kanpur (Oct, 2012), Fatehgarh (March, 2013), Kachlabridge (Oct., 2012; March 2013, Aug. 2013), Garhamukteshwar (Oct., 2012)	6	12
8	Ghaghra	Turtipar (Oct., 2012)	1	1
9	Gomti	Lucknow (Feb. 2012); Neemsar (Feb., 2012)	2	2
10	Gumra	Gumrabazar (Feb., 2012)	1	1
11	Jhelam	Sangam (June. 2012)	1	1
12	Jonk	Rampur (Feb. 2012)	1	1
13	Kalanadi	Matunga (Feb. 2012)	1	1
14	Katakhal	Matijuri (Feb., 2012)		
15	Kwano	Basti (Feb. 2012, March 2013, Aug. 2013)	1	3
16	Longai	Fakira Bazar (Feb. 2012)	1	1
17	Mahanadi	Basantpur (Sept. 2011)	1	1
18	Myntdu	Kharkhana (Feb. 2012)	1	1
19	Pagladiya	Pagladia NT Road (Feb. 2012)	1	1
20	Payaswni	Erinjipuzha (March,2013)	1	1
21	Periyar	Neeleswaram (Feb. 2012)	1	1
22	Ramganga	Bareilly (Feb. 2012, Oct., 2012, March 2013); Dabri (Oct., 2012); Moradabad (June, 2012, Oct., 2012)	3	6
23	Rapti	Balrampur (Feb. 2012; Oct., 2012; March 2013), Regauli (Feb. 2012, March 2013, Aug. 2013)	2	6
24	Rukni	Dholai (Feb. 2012)	1	1
25	Rushikulya	Purusotampur (Feb. 2012)	1	1
26	Sabarmati	Vautha (Feb. 2012, March 2013)	1	2
27	Sai	Raibareli (Feb. 2012)	1	1
28	Sakkar	Gadarwara (Aug. 2013)	1	1

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
29	Sarju	Ghat (Feb., 2012; Oct., 2012; March,2013, Aug. 2013)	1	4
30	Sone	Kuldah Bridge (Aug. 13)	1	1
31	Subarnarekha	Ghatsila (Sept. 2011)	1	1
32	Suklai	Suklai (Feb. 2012)	1	1
33	Tapi	Burhanpur (June, 2012)	1	1
34	Tel	Kantamal (Feb., 2012)	1	1
35	Umngot	Dawaki (Feb. 2012); Therriaghat (Feb., 2012);	1	1
36	Wainganga	Kumhari (Feb. 2012), Ashti (Feb. 2012); Pauni (Feb., 2012)	3	3
37	Wardha	Hivara (Feb. 2012)	1	1
38	Wunna	Nandgaon (Feb. 2012)	1	1
39	Yamuna	Etawah (Oct., 2012)	1	1
		Total	**49**	**68**

10.5. SUMMARY OF LEAD CONTENT IN INDIAN RIVERS

Lead is the one of the most common of the heavy elements. It has therefore been used extensively since Roman times and, as a result, has become widely distributed throughout the environment. The acceptable limit (AL) for lead in drinking water is 0.010 mg/L (10µg/L). Above the acceptable limit lead is a cumulative general poison, with foetuses, infants, children up to six years of age and pregnant women (because of their foetuses) being most susceptible to adverse health effects. Lead can severely affect the central nervous system. Overt signs of acute intoxication include dullness, restlessness, irritability, poor attention span, headaches, muscle tremor, hallucinations and loss of memory. Signs of chronic lead toxicity, including tiredness, sleeplessness, irritability, headaches, joint pain and gastrointestinal symptoms, may appear in adults. After one or two years of exposure, muscle weakness, gastrointestinal symptoms, lower scores on psychometric tests, disturbances in mood and symptoms of peripheral neuropathy were observed in occupationally exposed populations.

Bureau of Indian Standard (10500,2012) have recommended a acceptable limit of lead is 0.01 mg/l or 10µg/l in drinking water. Some Indian rivers have lead concentration above the acceptable limit as prescribed by Bureau of Indian Standards, 10500; 2012. 1919 numbers of water samples from 387 water quality monitoring stations across India were collected and analyzed for lead content using AAS. It is observed that the lead concentrations in 67 water samples are greater than the acceptable limits of lead in drinking water i.e. 10µg/L as set by BIS. Lead concentration was maximum (48.92 µg/L) at Moradabad water quality station on Ramganga River during June, 2012. Sixty seven water samples from 47 water quality monitoring stations are observed to have lead concentrations exceeding the acceptable limits in 30 Indian Rivers during the study period (Table-12). Brahamani, Ganga, Ghaghra, Gomti, Mahanadi,

Ramganga, Rapti and Yamuna are the rivers where two or more numbers of WQ monitoring stations are contaminated with lead.

Table 12 : Rivers and WQ monitoring stations where Lead exceeded the acceptable limit.

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Arkavathi	T. Bekuppe (Oct., 2012)	1	1
2	Ajoy	Nutanhet (June, 2012)	1	1
3	Bagmati	Hayaghat (June. 2012)	1	1
4	Baitarani	Anandpur (Sept. 2011)	1	1
5	Brahamani	Talcher (Sept. 2011, Feb. 2012), Janapur (Sept. 2011, Feb. 2012), Panposh (Sept. 2011, Feb. 2012), Gomlai (Sept. 2011)	4	7
6	Brahmaputra	Tezpur (Oct., 2012)	1	1
8	Chittar	A.P Puram (Feb. 2012, June. 2012)	1	2
9	Damodar	Hindegir (Oct., 2012)	1	1
10	Dudhnai	Dudhnai (March, 2013)	1	1
11	Ganga	Kanpur (Sept., 2011, June, 2012; Oct., 2012), Ankinghat (Feb.,2012, June, 2012; Oct., 2012), Garhamukteshwar (June,2012), Fatehgarh (June, 2012), Bhitaura (June,2012)	5	9
12	Ghaghra	Elginbridge (June. 2012, March 2013); Turtipar (Oct., 2012)	2	3
13	Gomati	Neemsar (June. 2012), Lucknow (June. 2012)	2	2
14	Gurupur	Addoor (Feb. 2012)	1	1
15	Hasdeo	Manendragarh (Oct., 2012; Aug. 2013)	1	2
16	Hamp	Andhiyar Kore(Oct., 2012)	1	1
17	Kwano	Basti (Feb. 2012, June. 2012)	1	2
18	Mahanadi	Tikarpara (Sept., 2011); Basantpur (Oct., 2012); Rajim (Oct., 2012)	3	3
19	Noyyal	E.Manglam (Feb. 2012, June. 2012)	1	2
20	Ramganga	Bareilly (Sept. 2011, June. 2012), Moradabad (June. 2012, March, 2013), Dabri (June. 2012)	3	5
21	Rapti	Birdghat (Feb. 2012, June. 2012), Balrampur (June. 2012; Oct., 2012), Reguali (June. 2012; Oct., 2012)	3	6
22	Rukni	Dholai (Sept. 2011, March 2013)	1	2
23	Rushikulya	Purusotampur (Feb. 2012)	1	1
24	Sabarmati	Vautha (Oct. 2012)	1	1
25	Sagaileru	Nandi Palli (June. 2012)	1	1
26	Sai	Raibareli (June. 2012)	1	1
27	Sarju	Ghat (June. 2012)	1	1
28	Sarda	Paliakalan (Oct., 2012)	1	1

29	Subarnrekha	Muri (Feb. 2012)	1	1
30	Yamuna	Agra (June. 2012), Delhi Rly Bridge (Sept., 2011; Feb., 2012; June, 2012), Mathura (June,2012), Mohana (June, 2012),	4	6
		Total	**47**	**67**

10.6. SUMMARY OF MERCURY CONTENT IN INDIAN RIVERS

Mercury is a heavy metal that has significant impacts on human health. Mercury comes in three forms- metallic, inorganic, and organic - each with its own degree of toxicity and particular exposure pathways. Mercury is a metal found naturally in the environment but human activities have greatly increased its atmospheric concentration, accounting for approximately 75 percent of worldwide emissions. Anthropogenic sources of mercury in the environment include incinerators (municipal waste), coal-burning facilities (electrical generation), industrial processes (older methods for producing chlorine and caustic soda), and some consumer products (e.g., batteries, fluorescent light, thermometers). The form of mercury of most concern from a water quality perspective is Hg^{2+} because it dissolves quickly in water and is consequently the form most often found in aquatic ecosystems.

BIS have recommended a maximum permissible desirable limit of 1 µg/L of mercury in drinking water. 672 numbers of water samples from 387 water quality monitoring stations were sampled and analyzed for mercury content in Indian Rivers. Analytical data reveals that in all the water samples, mercury concentrations is within the acceptable limit of 1 µg/L.

10.7. SUMMARY OF NICKEL CONTENT IN INDIAN RIVERS

Nickel is a nutritionally essential trace metal for at least several animal species, micro-organisms and plants, and therefore either deficiency or toxicity symptoms can occur when, respectively, too little or too much Ni is taken up. According to BIS-10500 (2012) the acceptable limit of nickel in drinking water is 20 µg/L.

Nickel and nickel compounds have many industrial and commercial uses, and the progress of industrialization has led to increased emission of pollutants into ecosystems. Nickel is easily accumulated in the biota, particularly in the phytoplankton or other aquatic plants, which are sensitive bio-indicators of water pollution. It can be deposited in the sediment by such processes as precipitation, complexation and adsorption on clay particles and via uptake by biota.

Total 1637 numbers of water samples from 387 WQ monitoring stations of Central Water Commission were collected and analyzed for Nickel content in Indian Rivers. From the results, it is observed that Nickel concentration in 107 water samples are more than the prescribed limits of BIS. Nickel concentration at Fatehgarh water quality station on Ganga river in March 2013 is reported to be the maximum (80.51µg/L) during the entire study period. Baitarni, Ganga, Gomti, Hasdeo, Mahanadi, Narmada, Purna, Seonath, Subarnarekha, Tel, Wainganga and

Wardha are the rivers where 2 or more WQ monitoring stations are observed to be contaminated with Nickel (Table-15).

107 water samples from 73 water quality monitoring stations over 50 Indian Rivers were observed to have nickel concentration that exceed the acceptable limit during the study period (Table-13). Water quality monitoring stations and Rivers affected by high nickel concentration (>20 µg/L) are presented in Annexure-5.

Table 13 : Rivers and WQ monitoring stations where Nickel exceeded the acceptable limits.

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Bagh	Raje Gaon (Feb. 2012, June. 2012)	1	2
2	Baitarni	Champua (Feb. 2012; March 2013,), Anandpur (June 2012)	2	3
3	Banjar	Bamni (March, 2013)	1	1
4	Bhagirathi	Berhampore (March, 2013)	1	1
5	Brahmani	Panposh (Feb. 2012)	1	1
6	Burhner	Mohgaoan (March, 2013)	1	1
7	Damanganga	Vapi (March, 2013)	1	1
8	Damodar	Hindegir (Feb. 2012, June. 2012)	1	2
9	Dikhow	Sivasagar (Aug. 2013)	1	1
10	Feeder Canal	Farakka/(HR) (March, 2013)	1	1
11	Ganga	Ankinghat (March 2013), Deoprayag (Aug. 2013), Fatehgarh (March 2013, Aug. 2013), Kanpur (March 2013), Rishikesh (March, 2013); Gandhighat (Patna) (June,2012)	6	7
12	Ganjal	Chhidgaon (March, 2013)	1	1
13	Ghaghra	Elginbridge (March, 2013)	1	1
14	Gomti	Sultanpur (Feb. 2012; June. 2012,), Neemsar(Aug. 2013)	2	3
15	Hamp	Andhiyar Kore (Oct., 2012; March, 2013)	1	2
16	Hasdeo	Bamnidhi (June. 2012), Manendragarh (Oct., 2012,Aug. 2013)	2	3
17	Ib	Sundergarh (June. 2012, Oct., 2012, March, 2013)	1	3
18	Indravati	Jagdalpur (March, 2013)	1	1
19	Jalangi	Chapra (March, 2013)	1	1
20	Jonk	Rampur (Feb. 2012; Oct., 2012)	1	2
21	Kabini	T. Narasipur (March, 2013)	1	1
22	Kharun	Pathardhi (Oct., 2012)	1	1
23	Kosi	Baltara (March 2013)	1	1
24	Koel	Jaraikela (February, 2013)	1	1
25	Kundi	Kogaon (March, 2013)	1	1

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
26	Mahanadi	Basantpur (Feb. 2012, June. 2012, March 2013), Rajim (Oct., 2012; Aug. 2013),	2	5
27	Mand	Kurubhata (Oct., 2012, March, 2013, Aug. 2013)	1	3
28	Nagavali	Srikakulam (Feb. 2012, March 2013)	1	2
29	Narmada	Dindori (June. 2012), Manot (March, 2013), Sandia (March, 2013), Hoshangabad (March, 2013), Mandleshwar (March, 2013)	5	5
30	Ong	Salebhata (Oct., 2012, March, 2013)	1	2
31	Pairi	Baronda (Oct., 2012)	1	1
32	Peddavagh	Bhatpalli (June. 2012, Feb. 2012)	1	2
33	Penganga	P.G.Bridge (Feb. 2012, June. 2012, March 2013)	1	3
34	Pranhita	Tekra (Feb., 2012; June. 2012)	1	2
35	Purna	Mahuwa (March, 2013); Gopalkheda (Oct., 2012)	2	2
36	Rapti	Balrampur (March, 13); Birdghat (March, 13); Regauli (March, 13)	3	3
37	Rushikulya	Purushottampur (Feb. 2012, June. 2012, March, 2013)	1	3
38	Sagaileru	Nandipalli (March, 2013)	1	1
39	Sakkar	Gadarwara (March, 2013)	1	1
40	Sankh	Tilga (Oct., 2012)	1	1
41	Seonath	Simga (Feb. 2012; Oct., 2012); Jondhra (Oct., 2012); Ghatora (Oct., 2012)	3	4
42	Shetruni	Lowara (Oct., 2012)	1	1
43	Subarnarekha	Ghatsila (Oct., 2012, March, 2013), Muri (Feb. 2012, June. 2012)	2	4
44	Suklai	Suklai (March, 2013)	1	1
45	Tapi	Burhanpur (Oct., 2012)	1	1
46	Tel	Kantamal (Oct., 2012, March, 2013); Kesinga (Oct., 2012)	2	3
47	Vamsadhara	Kashinagar (Feb. 2012)	1	1
48	Wainganga	Kumhari (Feb. 2012, June. 2012), Pauni (Feb. 2012, June. 2012), Aashti (June. 2012),	3	5
49	Wardha	Bamni (June. 2012, March 2013, Aug. 2013), Hivara (Feb. 2012, June. 2012)	2	5
50	Wunna	Nandgaon (Feb. 2012, June. 2012, March 2013)	1	3
		Total	**73**	**107**

10.8. SUMMARY OF ZINC CONTENT IN INDIAN RIVERS

Zinc is an essential element for all living things, including man. Zinc-containing proteins and enzymes are involved in every aspect of metabolism, including the replication and translation of genetic material. BIS has recommended 5mg/l (5000 µg/L) acceptable concentration of zinc in drinking water, which can be extended to 15 mg/l in case no alternative source of water is available, but the water with more than 5000 µg/L zinc content is not suitable for drinking purpose.

Total 1913 water samples from the 387 water quality monitoring stations were collected and analyzed for zinc content in Indian Rivers in the period between September 2011 and August 2013. Maximum Zinc concentration (4.86 mg/L) was observed at Kashinagar water quality monitoring station on Vanshodhara River during February 2012. In the study area, all the River water quality stations are reported to have zinc concentration well within the acceptable and permissible limits of Bureau of Indian Standards (BIS) and no toxicity of Zinc in the River waters is observed during the study period.

10.9. SUMMARY OF IRON CONTENT IN INDIAN RIVERS

According to BIS the acceptable limit of Iron is 0.3 mg/L (300µg/L). The occurrences of iron in River water above maximum acceptable limit (>300 µg/L) have been shown in the table 14. Total 1918 numbers of water samples from 387 WQ monitoring stations were collected and analyzed. Higher concentration of iron >300 µg/L has been observed in 492 water samples collected from 285 WQ stations of 168 Indian Rivers during the study period. The highest concentration of 6.65 mg/l is observed at Srikakulam on Nagavali River. Table 14 shows the names of the water quality stations and the Rivers affected by high iron concentration 300 µg/l (Annexure-5).

Ajoy, Baitrani, Barak, Bhagirathi, Brahamani, Brahamputra, Cauvery, Ganga, Hasdeo, Hemavathi, Mahananda, Mahi, Mahanadi, Nag, Narmada, Ramganga, Rapti, Seonath, Sone, Subarnarekha, Teesta and Yamuna are the Rivers where three or more water quality stations have been found to have Iron concentration that exceed the limits throughout the study period.

Table 14 : Rivers and WQ monitoring stations where Iron exceeded the acceptable limits.

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
1	Adhwara	Ekmighat (Sept. 2011, June. 2012, March 2013, Aug. 2013)	1	4
2	Aghanashini	Santeguli (Sept. 2011, Feb. 2012)	1	2
3	Aie	Aie NH Crossing (Sept. 2011, June. 2012)	1	2

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
4	Ajoy	Jamtara (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013), Nutanhat (Sept. 2011, Feb., 2012, June, 2012, Oct., 2012, Aug. 2013)	2	9
5	Alaknanda	Rudraprayag (Sept. 2011, Feb. 2012, Aug. 2013)	1	3
6	Ambika	Gadat (Sept. 2011, Aug. 2013)	1	2
7	Balason	Matigara (Sept. 2011, Feb. 2012)	1	2
8	Bagmati	Dheng Bridge (Sept. 2011, Aug. 2013), Hayaghat (Sept. 2011, March 2013)	2	4
9	Baitarani	Anandpur (Sept. 2011, Feb. 2012 Oct., 2012), Champua (Sept. 2011, Feb. 2012 Oct., 2012, Aug.2013)	2	7
10	Balaram	Chitrasani (Sept. 2011)	1	1
11	Banjar	Bamni (Oct., 2012, Aug. 2013)	1	2
12	Banas	Abu road (Sept. 2011), Kamalpur (Sept. 2011)	2	2
13	Barak	A.P.Ghat (Sept. 2011, June. 2012, Oct., 2012), Badarpurghat (Sept. 2011, June. 2012), Fulertal (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012)	3	9
14	Beki	Mathangnri Beki (Sept. 2011, June. 2012), Beki road bridge (Sept. 2011, June. 2012)	2	4
15	Bhadra	Holehonnur (Sept. 2011, Feb. 2012)	1	2
16	Bhadur	Garod (Sept. 2011)	1	1
17	Bhagirath	Tehri (Nov., 2011, Feb., 2012, Oct., 2012, Aug. 2013), Uttarkashi (Nov., 2011, Feb., 2012, Aug. 2013)	2	7
18	Bhagirathi	Barhampore (Sept. 2011, June. 2012), Kalna (EBB) (Sept. 2011, June. 2012, March, 2013),	2	5
19	Bharathapuzha	Mankara (Sept. 2011, Feb. 2012), Pulmanthole (Sept. 2011, Feb. 2012); Pudur (Sept. 2011, Feb. 2012)	3	6
20	Brahmani	Gomlai (Sept. 2011, Feb. 2012, Oct., 2012), Janapur (Sept. 2011, Feb. 2012, Oct., 2012), Panposh (Sept. 2011, Feb. 2012, Oct., 2012), Talchar (Feb. 2012, Oct., 2012)	4	11
21	Brahmaputra	Pancharatna (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013), Pandu (Sept. 2011, Feb. 2012)	2	6
22	Bugi	Dimapara (Sept. 2011, Feb. 2012, June. 2012)	1	3
23	Burhabalang	Govindpur (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013)	1	4
24	Burhner	Mohgaoan (Oct., 2012, Aug. 2013)	1	2
25	Cauvery	Kollegal (Sept. 2011, Feb. 2012), Kudige (Sept. 2011, Feb. 2012)	2	4
26	Churni	Hanskhali (Sept. 2011, June. 2012, Oct., 2012, Aug. 2013)	1	4
27	Damador	Hendegir (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013), Ramgarh (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013)	2	8

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
28	Damanganga	Vapi (Sept. 2011, Feb. 2012, Aug. 2013)	1	3
29	Dareng	Sibbari (Sept. 2011, Feb. 2012, June. 2012, March 2013)	1	4
30	Digaru	Sonapur (Sept. 2011, Feb. 2012, March 2013, Aug. 2013)	1	4
31	Dhadher	Pingalwada (Sept. 2011, Aug. 2013)	1	2
32	Dudhnai	Dudhnai (Sept. 2011, Feb. 2012, Aug. 2013)	1	3
33	Feeder Canal	H/R Farakka (Sept. 2011)	1	1
34	Ganga	Ankinghat (Sept. 2011, Feb. 2012, June, 2012), Azmabad (Sept. 2011, Aug., 2013), Bhitaura (Sept. 2011, Feb. 2012, Oct., 2012), Farakka (Sept. 2011), Fatehgarh (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013), Hathidah (Sept. 2011, Oct., 2012, Aug. 2013), Kachla bridge (Feb. 2012, Aug. 2013), Kanpur (Feb. 2012, Oct., 2012, Aug. 2013), Patna (Oct., 2012, Aug. 2013); Rishikesh (Sept, 2011, Feb., 2012, Oct., 2012, Aug. 2013), Deoprayag (Sept., 2011, Feb., 2012)	11	29
35	Ganjal	Chhidgaon (Aug. 2013)	1	1
	Gandak	Lalganj (Sept., 2011; Aug., 2013); Tribeni (Aug., 2013)	2	3
36	Ghaghra	Turtipar (Sept. 2011, Feb. 2012, Aug. 2013), Elginbridge (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012, March 2013, Aug. 2013)	2	9
37	Gomti	Lucknow (Sept. 2011, Feb. 2012, Aug. 2013), Neemsar (Feb. 2012)	2	4
38	Gumra	Gumrabazar (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012, March 2013)	1	5
39	Gurupur	Addoor (Feb. 2012)	1	1
40	Haladi	Haladi (Sept. 2011, Feb. 2012)	1	2
41	Hamp	Andhiyar Kore (Sept. 2011, Oct., 2012, Aug. 2013)	1	3
42	Hasdeo	Bamnidhi (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012, Aug. 2013,), Manendragarh (Sept. 2011, Oct., 2012, Aug. 2013)	2	8
43	Hemavathi	M.H. Halli (Sept. 2011, Feb. 2012); Sakalshpur (Sept. 2011, Feb. 2012)	2	4
44	Ib	Sundergarh (June. 2012, Oct., 2012, Aug. 2013)	1	3
45	Jalangi	Chapra (Sept. 2011 Oct., 2012)	1	2
46	Jonk	Rampur (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013)	1	4
47	Kabini	Muthankera (Sept. 2011, Feb., 2012)	1	2
48	Kalanadi	Matnnga (Sept. 2011, Feb. 2012, March 2013)	1	3
49	Katakhal	Matijuri (Sept. 2011, Feb. 2012, June, 2012, March, 2013)	1	4
50	Kallada	Pattazhy (Sept. 2011, Feb. 2012)	1	2
51	Kulsi	Kulsi (Sept. 2011, Feb. 2012, June. 2012, March 2013)	1	4

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
52	Kharkai	Adityapur (Sept. 2011, Feb.2012, Aug. 2013)	1	3
53	Kharun	Pathardhi (Sept. 2011, Oct., 2012, Aug. 2013)	1	3
54	Kim	Motinaroli (Sept. 2011, March 2013, Aug. 2013)	1	3
	Kamla-Balan	Jhanjharpur(Sept. 2011, Aug. 2013); Jai Nagar (Sept. 2011, Aug. 2013)	2	4
55	Koel	Jaraikela (Sept., 2011, Feb. 2012, Oct., 2012, Aug. 2013)	1	4
56	Kosi	Baltara (Sept. 2011, March 2013)	1	2
57	Kwano	Basti (Feb. 2012, June. 2012, Aug. 2013)	1	3
58	Longai	Fakirabazar (Sept. 2011, March 2013, June 2012, Oct., 2012, Feb. 2012)	1	5
59	Mahanadi	Basantpur (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012, Aug. 2013) Rajim (Sept. 2011, Oct., 2012); Tikarpara (Sept. 2011, Feb. 2012, Oct., 2012)	3	10
60	Mahananda	Sonapurhat (Sept. 2011, Feb. 2012); Champasari (Feb., 2012)	2	3
61	Mahi	Khanpur (Sept. 2011, Aug. 2013), Paderdibadi (Sept. 2011, June. 2012, Aug. 2013), Mataji (Sept. 2011, Aug. 2013,)	3	7
62	Manimala	Kallooppara (Sept. 2011, Feb. 2012)	1	2
63	Mand	Kurubhata (Sept. 2011, Oct., 2012, Aug. 2013)	1	3
64	Mayurakshi	Maharo (Sept. 2011, Feb. 2012, Oct., 2012, Aug., 2013), Tilpara (Sept. 2011, Feb. 2012, Oct., 2012)	2	7
65	Meenachil	Kidangoor (Sept. 2011, Feb. 2012)	1	2
66	Murti	Murti (Sept. 2011, Oct., 2012)	1	2
67	Myntdu	Kharkhana (Sept. 2011, Feb. 2012, June. 2012)	1	3
68	Muvattupuzha	Ramamangalam (Sept., 2011, Feb., 2012)	1	2
69	Nagavali	Srikakulam (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013)	1	4
70	Narmada	Barmanghat (Oct., 2012, Aug. 2013), Handia (Oct., 2012, Aug. 2013), Hoshangabad (Oct., 2012, Aug. 2013), Sandia (Oct., 2012, Aug. 2013); Garudeshwar (Sept. 2011, Feb. 2012, Aug., 2013)	5	11
71	Nethravathi	Bantwal (Sept. 2011, Feb. 2012)	1	2
72	Ong	Salebhata (Sept. 2011, Oct., 2012, Aug. 2013)	1	3
73	Orsang	Chanwada (Sept., 2011, Aug. 2013)	1	2
74	Pagladiya	Pagladiya N.T.Road Crossing (Sept. 2011, Feb. 2012, March 2013)	1	3
75	Pairi	Baronda (Oct.,2012 Aug. 2013)	1	2
76	Periyar	Neeleswaram (Sept. 2011, Feb. 2012)	1	2
77	Payaswni	Erinjipuzha (Sept. 2011, Feb. 2012)	1	2
78	Pamba	Malakkara (Sept., 2011, Feb. 2012); Thumpamon (Sept., 2011,	2	4

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
		Feb. 2012)		
79	Phalgu	Gaya (Sept. 2011, Aug. 2013)	1	2
80	Purna	Gopalkheda (Sept. 2011, Oct., 2012), Mahuwa (Sept. 2011, Feb. 2012, Aug. 2013)	2	5
81	Puthimari	Puthimari D.R.F (Sept. 2011, Feb. 2012, Aug, 2013), Puthimari NH road crossing (Sept. 2011, Feb. 2012, March 2013)	2	6
82	Punpun	Sripalpur (Sept. 2011, Aug. 2013)	1	2
83	Ramganga	Bareilly (Sept. 2011, Feb. 2012, June. 2012, Aug. 2013), Moradabad (Sept. 2011, Feb. 2012, June. 2012, Aug. 2013), Dabri (Sept. 2011, Feb. 2012, Aug. 2013)	3	11
84	Rangit	Majhitar (Sept. 2011, Feb. 2012), Singla Bazar (Sept. 2011, Feb. 2012)	2	4
85	Rapti	Balrampur (Sept. 2011, Feb. 2012, June. 2012, Aug. 2013), Birdghat (Feb. 2012, June. 2012, Aug. 2013), Regauli (Feb. 2012, June. 2012, Aug. 2013)	3	10
86	Rukni	Dholai (Sept. 2011, Feb. 2012, June. 2012, Oct., 2012, March 2013)	1	5
87	Rushikulya	Purushotampur (Sept. 2011, Feb. 2012, Oct., 2012)	1	3
88	Sabarmati	Derol Bridge (Sept. 2011, Aug. 2013), Vautha (Sept. 2011, Feb. 2012, March 2013, Aug. 2013)	2	6
90	Sakkar	Gadarwara (Oct., 2012, Aug. 2013)	1	2
91	Sankh	Tilga (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013)	1	4
92	Sankosh	Golokganj (Sept. 2011; June, 2012)	1	2
93	Sharda	Paliakalan (Feb. 2012, June. 2012, Aug. 2013)	1	3
94	Sarju	Ghat (Feb. 2012, Aug. 2013)	1	2
95	Saryu	Ayodhya (Sept. 2011, Feb., 2012, June, 2012, Oct., 2012, Aug. 2013)	1	5
96	Seonath	Ghatora (Sept. 2011, Oct. 2012, Aug. 2013), Jondhra ((Sept. 2011, Oct. 2012, Aug. 2013), Simga (Sept. 2011, Oct. 2012, Aug. 2013)	3	9
97	Shetrunji	Luwara (Sept. 2011)	1	1
98	Suklai	Suklai (Sept. 2011, Feb. 2012, March, 2013)	1	3
99	Som	Reangeli (Sept. 2011, Feb. 2012, Aug. 2013,)	1	3
100	Sone	Japla (Sept. 2011, Aug. 2013), Koelwar (Sept. 2011, Aug. 2013)	2	4
101	Subarnarekha	Jamshedpur (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013),), Muri (Sept. 2011, Feb. 2012 Oct., 2012), Ghatshila (Sept. 2011, Feb. 2012, Oct., 2012, Aug. 2013,)	3	11
102	Suvarnavathi	Bendrahalli (Sept. 201, Feb. 2012)	1	2

Sr.	River	WQ Sites (Period)	Total number of WQ sites	Total number of water samples
103	Tapi	Burhanpur(Sept. 2011, Oct., 2012), Sarangkheda (Sept. 2011, Aug. 2013)	2	4
104	Teesta	Cornation (Sept. 2011, Feb. 2012, June. 2012), Khaitar (Sept. 2011, Feb. 2012, June. 2012), Sevok (Sept. 2011, Feb. 2012), Domohari (Sept. 2011, June 2012), Sankalan (Sept. 2011), Gajaldoba (Sept. 2011, Feb. 2012, June. 2012), Teestabazar (Sept. 2011, Feb. 2012, June. 2012, Aug. 2013)	7	18
105	Tel	Kantamal (Sept. 2011, June. 2012, Oct., 2012, Aug. 2013), Kesinga (Sept. 2011, June. 2012, Oct., 2012, Aug. 2013)	2	8
106	Tunga	Shimoga (Feb. 2012)	1	1
107	Tungabhadra	Haralahalli (Sept. 2011, Feb. 2012), Honnali (Sept. 2011, Feb. 2012)	2	4
108	Umngot	Therriaghat (Feb. 2012, Oct., 2012)	1	2
109	Vaitarna	Durvesh (Sept. 2011, Aug. 2013)	1	2
110	Vamsadhara	Kashinagar (Sept. 2011, Feb. 2012, Oct., 2012)	1	3
111	Yagachi	Thimmanahalli (Sept. 2011, Feb. 2012)	1	2
112	Yamuna	Delhi Rly Bridge (Sept., 2011, Feb., 2012, June, 2012); Auraiya (March, 2013), Etawah (Sept., 2011, March, 2013, Aug. 2013), Hamirpur (Sept. 2011, Aug. 2013) ; Mohana (Sept., 2011, Feb., 2012, June, 2012)	4	12
113	Yennehole	Yennehole (Sept. 2011, Feb. 2012,)	1	2
		Total	**183**	**492**

11. CONCLUSION

A comprehensive study of the results reveals that out of 387 River water quality stations monitored, water samples collected at 171 water quality stations are found to be within the permissible limit for all purposes. While 100 stations were beyond the permissible limit due to presence of two or more toxic metals. There are 92 numbers of WQ monitoring stations where water was considered unfit for use as per BIS -10500-2012 due to presence of Iron beyond permissible limit. Similarly water is found to be unfit at three stations due to presence of cadmium, at four stations due to presence of copper, at thirteen stations due to presence of nickel and four stations due to presence of lead.

Iron is an essential element in human nutrition. In this regard, it may be mentioned that the presence of higher concentration of iron in drinking water makes its taste unpleasant; however, living organism can tolerate higher concentration of iron without any serious damage to their system. Estimates of the minimum daily requirement for iron depend on age, sex, physiological status, and iron bioavailability and range from about 10 to 50 mg/day (FAO/WHO, 1988).

12. RECOMMENDATIONS

Based on the evaluation of the results obtained from the analysis of River water samples of 387 water quality station spanning all over India, it is recommended that the trace and toxic metals in the river water samples may be monitored at least three times during the water year i.e. in the periods of pre-monsoon, monsoon and post monsoon for continuously 10 years at all the WQ monitoring stations identified as **CONTAMINATED** in this report. Long term monitoring will help in ascertaining the exact reason for pollution and in suggesting remedial measures.

Special studies for particular stretches of the rivers may also be undertaken suitably by the concerned basin organization. The number of parameters and frequencies of sampling can be increased for better observations, interpretation & modeling purposes, for other important parameters also such as biological parameters.

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Annexure-1

Details of Water Quality Monitoring Stations under Central Water Commission

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
1	Delhi Rly Bridge	Ganga/Yamuna	18552	28°39'45''	77°14'48''	North Delhi	Delhi
2	Palla	Ganga/Yamuna	17324	28°49'46''	77°13'27''	North West Delhi	Delhi
3	Paonta	Ganga/Yamuna	10769	30°25'31''	77°35'31''	Simaur	Himachal Pradesh
4	Yashwant nagar	Ganga/Yamuna/	1349	30°53'12''	77°12'22''	Simaur	Himachal Pradesh
5	Mohana	Ganga/Yamuna	27670	28°14'58''	77°28'12''	Faridabad	Haryana
6	Tuini (Tons)	Ganga/Yamuna/Tons	3362	30°56'23''	77°50'48'	Dehradun	UttaraKhand
7	Galeta	Ganga/Yamuna/Hindon	4841	29°04'32''	77°27'45''	Meerut	Uttar Pradesh
8	Gokul Barrage (Mathura)	Ganga/Yamuna	47463	27°26'30''	77°42'54''	Mathura	Uttar Pradesh
9	Kalanaur	Ganga/Yamuna	12639	30°04'10''	77°21'52''	Saharanpur	Uttar Pradesh
10	Mawi	Ganga/Yamuna	15622	29°23'07''	77°09'16''	Muzaffar Nagar	Uttar Pradesh
11	Garrauli	Ganga/Yamuna/Betwa/Dhasan	5000	25°04'00''	79°20'00''	Chhatarpur	Madhya Pradesh
12	Pachauli	Ganga/Yamuna/Sind	6706	25°10'44''	77°41'13''	Shivpuri	Madhya Pradesh
13	Seondha	Ganga/Yamuna/Sind	16701	26°09'49''	78°47'00''	Datia	Madhya Pradesh
14	Dholpur	Ganga/Yamuna/Chambal	138123	26°39'24''	77°54'00''	Dholpur	Rajasthan
15	Agra (P.G.)	Ganga/Yamuna	49052	27°15'15''	78°01'23''	Agra	Uttar Pradesh
16	Auraiya	Ganga/Yamuna	261331	26°25'34''	79°25'00''	Auraiya	Uttar Pradesh
17	Banda	Ganga/Yamuna/Ken	27616	25°29'00''	80°18'48''	Banda	Uttar Pradesh
18	Etawah	Ganga/Yamuna	98715	26°45'00''	78°59'00''	Etawah	Uttar Pradesh
19	Hamirpur	Ganga/Yamuna	276789	25°57'39''	80°09'16''	Hamirpur	Uttar Pradesh
20	Kora	Ganga/Yamuna/Rind	4245	26°07'58''	80°27'15''	Fatehpur	Uttar Pradesh
21	Pratappur	Ganga/Yamuna	366522	25°21'17''	81°40'02''	Allahabad	Uttar Pradesh
22	Rajghat	Ganga/Yamuna/Betwa	16540	26°49'23''	78°12'00''	Lalitpur	Uttar Pradesh
23	Shahjina	Ganga/Yamuna	44023	25°57'00''	80°08'52''	Hamirpur	Uttar Pradesh

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
24	Udi	Ganga/Yamuna/Chambal	139972	26°42'16''	80°10'23''	Etawah	Uttar Pradesh
25	Aklera	Ganga/Yamuna/Chambal/Kalisindh/Parwan	6050	24°25'47"	76°36'14"	Jhalawar	Rajasthan
26	Barod	Ganga/Yamuna/Chambal/Kalisindh	24713	25°23'00"	76°20'02"	Kota	Rajasthan
27	Khatoli	Ganga/Yamuna/Chambal/Parwati	15148	25°40'57"	76°28'58"	Kota	Rajasthan
28	Sangod	Ganga/Yamuna/ Chambal/Parwan	9288	24°58'09"	76°17'32"	Kota	Rajasthan
29	Tonk	Ganga/Yamuna/ Chambal/Banas	39614	26°12'32"	75°47'00"	Tonk	Rajasthan
30	A.B.Road Crossing	Ganga/Yamuna/Chambal/Parwati	5669	24°22'00"	77°05'56"	Guna	Madhya Pradesh
31	Mahidpur	Ganga/Yamuna/ Chambal/Shipra	4430	23°28'50"	75°38'11"	Ujjain	Madhya Pradesh
32	Tal	Ganga/Yamuna/ Chambal	4270	23°43'03"	75°21'14"	Ratlam	Madhya Pradesh
33	Ayodhya	Ganga/Ghaghra/Saryu	80889	26°48'49"	82°12'28''	Faizabad	Uttar Pradesh
34	Balrampur	Ganga/Ghaghra/Rapti	8219	27°27'00"	82°12'29''	Balrampur	Uttar Pradesh
35	Basti	Ganga/Ghaghra/Kwano	3005	26°47'02"	82°42'47''	Basti	Uttar Pradesh
36	Birdghat	Ganga/Ghaghra/Rapti	20093	26°44'40"	83°20'24''	Gorakhpur	Uttar Pradesh
37	Elginbridge	Ganga/Ghaghra	74713	27°05'44"	81°29'02''	Barabanki	Uttar Pradesh
38	Paliakalan	Ganga/Ghaghra/Sharda	17676	28°23'00"	80°33'09''	Lakhimpur Khiri	Uttar Pradesh
39	Reguali	Ganga/Ghaghra/Rapti	16387	26°45'33"	83°17'26''	Gorakhpur	Uttar Pradesh
40	Turtipar	Ganga/Ghaghra	113088	26°08'37"	83°52'49''	Ballia	Uttar Pradesh
41	Ghat	Ganga/Ghaghra/Sharda/Sarju	3900	29°30'00"	80°07'40''	Pithoragarh	Uttarakhand
42	Ankinghat	Ganga	82209	26°56'05"	80°02'10''	Kanpur Dehat	Uttar Pradesh
43	Bareilly	Ganga/Ramganga	18340	28°17'57"	79°22'00''	Bareilly	Uttar Pradesh
44	Bhitaura	Ganga	90444	26°02'35"	80°51'15''	Fatehpur	Uttar Pradesh
45	Dabri	Ganga/Ramganga	23919	27°29'40"	79°41'50''	Sahajahanpur	Uttar Pradesh
46	Fatehgarh	Ganga	40096	27°24'15"	79°37'30''	Farukhabad	Uttar Pradesh
47	Garhamukteshwar	Ganga	29709	28°48'00"	78°08'30''	Gaziabad	Uttar Pradesh
48	Kachlabridge	Ganga	33446	27°55'52"	78°51'20''	Badaun	Uttar Pradesh
49	Kanpur	Ganga	87650	26°28'10"	80°22'35''	Kanpur Nagar	Uttar Pradesh
50	Lucknow	Ganga/Gomti	10503	26°51'40"	80°56'47''	Lucknow	Uttar Pradesh

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
51	Moradabad	Ganga/Ramganga	6807	28°49'32"	78°47'54''	Moradabad	Uttar Pradesh
52	Neemsar	Ganga/Gomti	3590	27°20'46"	80°28'40''	Sitapur	Uttar Pradesh
53	Raibareli	Ganga/Gomti/Sai	7530	26°11'55"	81°15'04''	Raibareli	Uttar Pradesh
54	Chhatnag Allahabad	Ganga	463971	25°23'35"	81°54'40"	Allahabad	Uttar Pradesh
55	Duddhi	Ganga/Sone/Kanhar	5169	24°13'38"	83°16'14"	Sonbhadra	Uttar Pradesh
56	Maighat	Ganga/Gomti	30042	25°38'37"	82°50'48"	Jaunpur	Uttar Pradesh
57	Meja Road	Ganga/Tons	17388	25°14'00"	82°02'16"	Allahabad	Uttar Pradesh
58	Mirzapur	Ganga	485277	25°09'22"	82°31'49"	Mirzapur	Uttar Pradesh
59	Shahzadpur	Ganga	93604	25°40'00"	81°25'48"	Kaushambi	Uttar Pradesh
60	Sultanpur	Ganga/Gomti	15481	26°17'00"	82°07'21"	Sultanpur	Uttar Pradesh
61	Varanasi	Ganga	489087	25°19'25"	83°02'15"	Varanasi	Uttar Pradesh
62	Chopan	Ganga/Sone	46198	24°32'00"	83°01'26"	Sonbhadra	Madhya Pradesh
63	Kuldah Bridge	Ganga/Sone	23276	24°24'45"	81°42'01"	Sidhi	Madhya Pradesh
64	Deoprayag	Ganga	19600	30°08'00"	78°35'44"	Pauri	Uttarakhand
65	Rishikesh	Ganga	21794	30°04'57"	78°17'30"	Dehradun	Uttarakhand
66	Tehri	Ganga/Bhagirath	7208	30°21'24"	78°28'58"	Tehri	Uttarakhand
67	Uttarkashi	Ganga/Bhagirath	4555	30°44'20"	78°21'23"	Uttarkashi	Uttarakhand
68	Barmanghat	Narmada	26453	23°01’49”	79°00’35’’	Narsinghpur	Madhya Pradesh
69	Bamni	Narmada/Banjar	1864	22°29’03”	80°22’41’’	Mandla	Madhya Pradesh
70	Belkhedi	Narmada/Sher	1508	22°55’01”	79°20’32’’	Narsinghpur	Madhya Pradesh
71	Chhidgaon	Narmada/Ganjal	1729	22°24’16”	77°18’35’’	Harda	Madhya Pradesh
72	Dhulsar	Narmada/Uri	787	22°12’30”	74°52’09’’	Dhar	Madhya Pradesh
73	Dindori	Narmada	2292	22°56’51”	81°04’40’’	Dindori	Madhya Pradesh
74	Gadarwara	Narmada/Sakkar	2270	22°55’25”	78°47’27’’	Narsinghpur	Madhya Pradesh
75	Handia	Narmada	54027	22°29’26”	76°58’33’’	Harda	Madhya Pradesh
76	Hoshangabad	Narmada	44548	22°45’22”	77°43’58’’	Hoshangabad	Madhya Pradesh
77	Kogaon	Narmada/Kundi	3919	22°06’18”	75°40’42’’	Khargone	Madhya Pradesh

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
78	Mandleshwar	Narmada	72809	22°10’06”	75°39’36’’	Khargone	Madhya Pradesh
79	Manot	Narmada	4667	22°44’08”	80°30’47’’	Mandla	Madhya Pradesh
80	Mohgaoan	Narmada/Burhner	3919	22°45’42”	80°37’26’’	Mandla	Madhya Pradesh
81	Patan	Narmada/Hiran	3950	23°18’42”	79°39’46’’	Jabalpur	Madhya Pradesh
82	Pati	Narmada/Goi	2151	21°56’36”	74°44’41’’	Barwani	Madhya Pradesh
83	Sandia	Narmada	33953	22°54’57”	78°20’51’’	Hoshangabad	Madhya Pradesh
84	Khanpur	Mahi	32510	22°31’55”	73°08’27’’	Anand	Gujarat
85	Derol Bridge	Sabarmati	6724	23°34’24”	72°48’25’’	Sabarkantha	Gujarat
86	Vautha	Sabarmati	19636	22°38’50”	72°32’08’’	Kheda	Gujarat
87	Chitrasani	Banas/Balaram	320	24°17’20”	72°29’54’’	Banaskantha	Gujarat
88	Ganod	Bhadar	6266	21°39’52”	70°10’52’’	Rajkot	Gujarat
89	Kamalpur	Banas	6960	23°48’50”	71°45’00’’	Banaskantha	Gujarat
90	Lowara	shetruni	3953	21°26’36”	71°33’42’’	Bhavnagar	Gujarat
91	Paderdibadi	Mahi	16247	23°46’02”	74°08’12’’	Dungarpur	Rajasthan
92	Rangeli	Mahi/som	8329	23°52’22”	74°13’25’’	Dungarpur	Rajasthan
93	Abu Road	Banas	1600	24°29’38”	72°47’30’’	Sirohi	Rajasthan
94	Mataji	Mahi	3880	23°20’38”	74°43’29’’	Ratlam	Madhya Pradesh
95	Motinaroli	Kim (Indepent River)	804	21°24’16”	72°57’45’’	Surat	Gujarat
96	Gopalkheda	Tapi/Purna	9500	20°52’27”	76°59’23’’	Akola	Maharashtra
97	Sarangkheda	Tapi	58400	21°25’42”	74°31’38”	Nandurbar	Maharashtra
98	Burhanpur	Tapi	8487	21°17’58”	76°14’06’’	Khandwa	Madhya Pradesh
99	Chanwada	Narmada/Orsang	3846	22°03’00”	73°27’58’’	Vadodara	Gujarat
100	Garudeshwar	Narmada	87892	21°53’06”	73°39’16’’	Narmada	Gujarat
101	Gadat	Ambika	1510	20°51’29”	72°59’06’’	Navsari	Gujarat
102	Pingalwada	Dhadher	2400	22°06’39”	73°04’43’’	Vadodara	Gujarat
103	Bhatpalli	Godavari/Pranhita/Peddavagu	3100	19°19’49”	79°30’15”	Adilabad	Andhra Pradesh
104	Ashti	Godavari/Pranhita/Wainganga	50990	19°41’05”	79°47’08”	Gadchiroli	Maharastra

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
105	Bamni	Godavari/Pranhita/Wardha	46020	19°48”48”	79°22”58’	Chandrapur	Maharastra
106	Hivra	Godavari/Pranhita/Wardha	10240	20°32’50”	78°19’29”	Wardha	Maharastra
107	Nandgaon	Godavari/Pranhita/Wunna	4580	20°32’04”	78°48’04”	Wardha	Maharastra
108	P.G.Bridge	Godavari/Pranhita/Penganga	18441	19°49’02”	78°34’39”	Yeotmal	Maharastra
109	Pauni	Godavari/Pranhita/Wainganga	35520	20°47’41”	79°38’46”	Bhandara	Maharastra
110	Satrapur	Godavari/Pranhita/Kanhan	11100	21°13’05”	79°13’56”	Nagpur	Maharastra
111	Tekra	Godavari/Pranhita/Pranhita	108780	18°58’42”	79°56’49”	Gadchiroli	Maharastra
112	Adityapur	Subarnarekha/Kharkai	6309	22°47’29”	86°10’25”	Purba Singhbhum	Jharkhand
113	Ghatsila	Subarnarekha	14176	22°34’50”	86°28’06”	Purba Singhbhum	Jharkhand
114	Jamshedpur	Subarnarekha	12649	22°48’56”	86°12’58”	Purba Singhbhum	Jharkhand
115	Muri	Subarnarekha	1330	23°22’50”	85°52’40”	Ranchi	Jharkhand
116	Govindapur	Burhabalang	4495	21°32’44”	86°55’05”	Balasore	Odisha
117	Kashinagar	Vamsadhara	7820	18°50’54”	83°52’23”	Gajapati	Odisha
118	Purushottampur	Rushikulya	7112	19°30’53”	84°53’00”	Ganjam	Odisha
119	Srikakulam	Nagavali	9500	18°18’52	85°53’06”	Srikakulam	Andhra Pradesh
120	Anandpur	Baitarni	8570	21°12’40”	86°07’14”	Keonjhar	Odisha
121	Champua	Baitarni	1710	22°04’00”	85°40’20”	Keonjhar	Odisha
122	Gomlai	Brahmani	21950	21°50’16”	84°56’33”	Sundergarh	Odisha
123	Jaraikela	Brahmani/Koel	9160	22°19’18”	85°06’17”	Sundergarh	Odisha
124	Jenapur	Brahmani	33955	20°53’10”	86°00’50”	Jajpur	Odisha
125	Panposh	Brahmani	19448	22°13’33”	84°48’01”	Sundergarh	Odisha
126	Talcher	Brahmani	29750	20°57’07”	85°14’32”	Angual	Odisha
127	Tilga	Brahmani/Sankh	3160	22°37’07”	84°24’23”	Simdega	Jharkhand
128	Tikarpara	Mahanadi	124450	20°35’22”	84°47’00”	Angul	Odisha
129	Kantamal	Mahanadi/Tel	19600	20°39’00”	83°43’20”	Boudh	Odisha
130	Kesinga	Mahanadi/Tel	11960	20°12’14”	83°13’23”	Kalahandi	Odisha
131	Salebhata	Mahanadi/Ong	4650	20°59’00”	83°32’09”	Balangir	Odisha

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
132	Sundergarh	Mahanadi/Ib	5870	22°06’55”	84°00’40”	Sundergarh	Odisha
133	Andhiyar Kore	Mahanadi/Seonath/Hamp	2210	21°49’53”	81°36’21”	Durg	Chhatisgarh
134	Bamnidhi	Mahanadi/Hasdeo	9730	21°53’55”	82°42’53”	Janjgir-champa	Chhatisgarh
135	Baronda	Mahanadi/Pairi	3225	20°54’22”	81°53’10”	Raipur	Chhatisgarh
136	Basantpur	Mahanadi	57780	21°43’33”	82°47’17”	Janjgir-champa	Chhatisgarh
137	Ghatora	Mahanadi/Seonath	3035	22°03’25”	82°13’11”	Bilaspur	Chhatisgarh
138	Jondhra	Mahanadi/Seonath	29645	21°42’57”	82°20’50”	Bilaspur	Chhatisgarh
139	Kurubhata	Mahanadi/Mand	4625	21°59’11”	83°12’15”	Raigarh	Chhatisgarh
140	Manendragarh	Mahanadi/Hasdeo	1100	23°12’13”	82°13’02”	Koria	Chhatisgarh
141	Pathardihi	Mahanadi/Seonath/Kharun	2511	21°20’28”	81°35’38”	Raipur	Chhatisgarh
142	Rajim	Mahanadi	8760	20°58’25”	81°52’42”	Raipur	Chhatisgarh
143	Rampur	Mahanadi/Jonk	2920	21°39’06”	82°31’02”	Raipur	Chhatisgarh
144	Simga	Mahanadi/Seonath	30761	21°37’51”	81°41’16”	Raipur	Chhatisgarh
145	Baltara	Ganga/Kosi	88480	25°30’’02’’	86°45’00’’	Khagaria	Bihar
146	Dheng Bridge	Ganga/Kosi/Bagmati	3790	26°43’22’’	85°19’23’’	Sitamarhi	Bihar
147	Ekmighat	Ganga/Kosi/Bagmati/Adhwara	4197	26°07’03’’	85°52’35’’	Darbhanga	Bihar
148	Hayaghat	Ganga/Kosi/Bagmati	12973	26°01’30’’	85°51’57’’	Darbhanga	Bihar
149	Jai Nagar	Ganga/Kosi/Kamla-Balan	2131	26°35’00’’	86°08’53’’	Madhubani	Bihar
150	Jhanjharpur	Ganga/Kosi/Kamla-Balan	2945	26°14’00’’	86°15’34’’	Madhubani	Bihar
151	Sikandarpur	Ganga/Burhi Gandak	8510	26°08’22’’	85°24’05’’	Muzaffarpur	Bihar
152	Tribeni	Ganga/Gandak	37845	27°26’30’’	83°55’00’’	West Champaran	Bihar
153	Azmabad	Ganga	943460	25°22’00’’	87°17’00’’	Bhagalpur	Bihar
154	Buxar	Ganga	604630	25°34’00”	83°57’15’’	Bhojpur	Bihar
155	Gandhighat	Ganga	848000	25°37’25’’	85°10’21’’	Patna	Bihar
156	Gaya	Ganga/Kiul/Harohar/Phalgu	3171	24°42’18’’	85°00’48’’	Gaya	Bihar
157	Hathidah	Ganga	904130	25°23’06’’	85°59’35’’	Patna	Bihar
158	Koelwar	Ganga/Sone	71000	25°34’15’’	84°47’59’’	Arrah	Bihar

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
159	Lakhisarai	Ganga/Kiul	2619	25°10’33’’	86°05’58’’	Lakhisarai	Bihar
160	Lalganj	Ganga/Gandak	42520	25°50’05’’	85’09’47’’	Vaishali	Bihar
161	Sripalpur	Ganga/Punpun	11975	25°30’16’’	85’07’23’’	Patna	Bihar
162	Japla	Ganga/Sone	65466	24°34’05’’	83°58’30’’	Palamu	Jharkhand
163	Nutanhat	Bhagirathi/Ajoy	7020	23°32’44’’	87’54’25’’	Burdwan	Jharkhand
164	Jamtara	Bhagirathi/Ajoy	2912	23°58’40’’	86°51’18’’	Deoghar	West Bengal
165	Berhampore	Bhagirathi	3370	24°05’21’’	88°14’33’’	Murshidabad	West Bengal
166	Chapra	Bhagirathi/Jalangi	4500	23°30’15’’	88°33’05’’	Nadia	West Bengal
167	Englishbazar	Padma/Mahananda	12820	24°59’51’’	88°09’08’’	Malda	West Bengal
168	Hanskhali	Bhagirathi/Churni	980	23°21’28’’	88’36’31’’	Nadia	West Bengal
169	Kalna (EBB)*	Bhagirathi	25830	23°13’31’’	88°22’21’’	Burdwan	West Bengal
170	Katwa (Purbasthali)	Bhagirathi	15350	23°38’37’’	88°08’52’’	Burdwan	West Bengal
171	Farakka/(HR)	Bhagirathi/Feeder Canal	N.A.	24°48’08’’	87°55’18’’	Murshidabad	West Bengal
172	Labha	Ganga/Mahananda	12317	25°26’10’’	87°45’57’’	Katihar	Bihar
173	Bhadrachalam	Godavari	280505	17°40’34’’	80°52’58’’	Khammam	Andhra Pradesh
174	Perur	Godavari	268200	18°33’00’’	80°23’05’’	Khammam	Andhra Pradesh
175	Polavaram	Godavari	307800	17°14’45”	81°39’35’’	West Godavari	Andhra Pradesh
176	Jagdalpur	Godavari/Indravati	7380	19°05’53’’	82°02’26’’	Bastar	Chhattisgarh
177	Konta	Godavari/Sabari	19550	17°48’00”	81°23’34”	Dantewara	Chhattisgarh
178	Pathagudem	Godavari/Indravati	40000	18°49’39’’	80°20’21’’	Bijapur	Chhattisgarh
179	Mancherial	Godavari	102900	18°50’09’’	79°26’42’’	Adilabad	Andhra Pradesh
180	Bawapuram	Krishna/Tungabhadra	67180	15°53’00”	77°57’26”	Kurnool	Andhra Pradesh
181	Damarcherla	Krishna/Musi	11501	16°44’14”	79°40’08”	Nalgonda	Andhra Pradesh
182	Halia	Krishna/Halla	3100	16°47’24”	79°20’19”	Nalgonda	Andhra Pradesh
183	Keesara	Krishna/Munneru	9854	16°43’05”	80°19’05”	Krishna	Andhra Pradesh
184	Paleru Bridge	Krishna/Paleru	2928	16°57’08”	80°02’56”	Krishna	Andhra Pradesh
185	Wadenapally	Krishna	235544	16°47’39”	80°04’10”	Nalgonda	Andhra Pradesh

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
186	Malkhed	Krishna/Bhima/Kagna	7650	17°12’12”	77°09’25”	Gulbarga	Karnataka
187	T. Ramapuram (Seasonal)	Krishna/Tungabhadra/Hagari	23500	15°39’45”	76°57’50”	Bellary	Karnataka
188	Yadgir	Krishna/Bhima	69863	16°44’15”	77°07’20”	Gulbarga	Karnataka
189	Marella	Gundlakamma	7681	15°52’58”	79°54’37”	Praksam	Andhra Pradesh
190	Kurundwad	Krishna	15190	16°41’01”	74°36’11”	Kolhapur	Maharastra
191	Phulgaon (Seasonal)	Krishna/Bhima	2205	18°40’00”	74°00’07”	Pune	Maharastra
192	Cholachguda (Seasonal)	Krishna/Malaprabha	9373	15°52’33”	75°43’19”	Bijapur	Karnataka
193	Badlapur	Ulhas	785	19°09’50”	73°15’17”	Thane	Maharastra
194	Belne Bridge	Gad	605	16°13’16”	73°35’42”	Sindudurg	Maharastra
195	Mangaon (Seasonal)	Savitri/kal	259	18°13’58”	73°17’05”	Raigarh	Maharastra
196	Akhnoor	Chenab	21808	32°53’00”	74°49’00”	Jammu	Jammu and Kashmir
197	Dhamkund	Chenab	18750	30°14’00”	75°09’00”	Ramban	Jammu and Kashmir
198	Jammu Tawi	Chenab/Tawi	2168	32°44’00”	74°52’53”	Jammu	Jammu and Kashmir
199	Prem Nagar	Chenab	15490	33°08’00”	75°39’04”	Doda	Jammu and Kashmir
200	Tandi	Chenab/Bhaga	1530	32°33’00”	76°58’33”	Lahaul Spiti	Himachal Pradesh
201	Udaipur	Chenab/Chandra	5764	32°43’00”	76°40’03”	Lahaul Spiti	Himachal Pradesh
202	Rammunshi Bagh	Jhelum	3994	34°03’47”	74°50’04”	Sirnagar	Jammu and Kashmir
203	Safapora	Jhelum	-	34°17’44”	74°37’29”	Baramulla	Jammu and Kashmir
204	Sangam	Jhelum	3094	33°49’59”	75°03’58”	Anantnag	Jammu and Kashmir
205	Elunuthimangalam	Cauvery/Noyyal	3386	11°01’54”	77°53’15”	Erode	Tamilnadu
206	Kodumudi	Cauvery	53233	11°04’52”	77°53’25”	Erode	Tamilnadu
207	Musiri	Cauvery	F	10°56’36”	78°26’06”	Thiruchira Palli	Tamilnadu
208	Nallamaranpatty	Cauvery/Amaravathi	9080	10°52’51”	77°59’05”	Karur	Tamilnadu
209	Nellithurai	Cauvery/Bhavani	1475	11°17’16”	76°53’28”	Coimbatore	Tamilnadu
210	Savandapur	Cauvery/Bhavani	5776	11°31’17”	77°30’36”	Erode	Tamilnadu
211	Sevanur	Cauvery/Chittar	258	11°33’07”	77°43’55”	Erode	Tamilnadu
212	Thengumarahada	Cauvery/Bhavani/Moyar	1370	11°34’22”	76°55’09”	Nilgiris	Tamilnadu

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
213	Thevur	Cauvery/Sarabenga	1248	11°31’38”	77°45’03”	Salem	Tamilnadu
214	Thoppur	Cauvery/Thoppaiyar	362	11°56’18”	78°03’26”	Salem	Tamilnadu
215	Urachikottai	Cauvery	44100	11°28’40”	77°42’00”	Erode	Tamilnadu
216	Kudlur	Cauvery/Palar	709	11°50’26”	77°27’46”	Chamarajan-agara	Karnataka
217	Ambarampalayam	Bharathapuzha/Kannadipuzha/Aliyar	950	10°37’49”	76°56’46”	Coimbatore	Tamilnadu
218	A.P. Puram	Tambraparani/Chittar	1095	08°54’05”	77°38’55”	Tirunelveli	Tamilnadu
219	Ambasamudram	Vaigai	850	09°55’32”	77°30’42”	Theni	Tamilnadu
220	Gummanur	Ponnaiyar	4620	12°33’18”	78°08’18”	Krishnagiri	Tamilnadu
221	Murappanadu	Tambraparni	4380	08°42’52”	77°50’06”	Tuticorin	Tamilnadu
222	Theni	Vaigai/Suruliar	1200	10°00’04”	77°29’06”	Theni	Tamilnadu
223	Chengalpet	Palar	16230	12°39’00”	79°56’50”	Kancheepuram	Tamilnadu
224	Vazhavachanur	Ponnaiyar	10780	12°03’55”	78°58’15”	Thiruvannam-alai	Tamilnadu
225	Annavasal	Cauvery/Nattar	-	10°58’21”	79°45’20”	Karaikal	Pondicherry
226	Menangudi	Cauvery/Noolar	-	10°56’54”	79°42’20”	Thiruvarur	Tamilnadu
227	Peralam	Cauvery/Vanjiyar	-	10°58’00”	79°39’50”	Thiruvarur	Tamilnadu
228	Porakudi	Cauvery/Arasalar	-	10°54’10”	79°42’22”	Nagapattinam	Tamilnadu
229	Thengudi	Cauvery/Thirumalairajanar	-	10°55’00”	79°38’19”	Thiruvarur	Tamilnadu
230	Alladupalli	Pennar/Kunderu	8758	14°43’12”	78°40’08”	Kadapa	Andhra Pradesh
231	Chennur	Pennar	37981	14°34’20”	78°48’00”	Kadapa	Andhra Pradesh
232	Nandipalli	Pennar/Sagaileru	2486	14°42’51”	79°01’21”	Kadapa	Andhra Pradesh
233	Nellore	Pennar	50800	14°28’13”	79°59’20”	Nellore	Andhra Pradesh
234	Naidupet	Swarnamukhi	2650	13°56’54”	79°53’50”	Nellore	Andhra Pradesh
235	Sulurpet	Kalingi	5927	13°42’41”	80°00’30”	Nellore	Andhra Pradesh
236	Akkihebbal	Cauvery/ Hemavathi	5236	12°36’10”	76°24’03”	Mandya	Karnataka
237	Bendrahalli	Cauvery/Suvarnavathi	1900	12°09’13”	77°04’48”	Chamarajanagar	Karnataka
238	Chunchankatte	Cauvery	2995	12°30’30”	76°18’03”	Mysore	Karnataka
239	K.M. Vadi	Cauvery/Lakshmantirtha	1330	12°20’46”	76°17’16”	Mysore	Karnataka

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
240	Kollegal	Cauvery	21082	12°11'21"	77°06'00"	Chamarajanagar	Karnataka
241	Kudige	Cauvery	1934	12°30'09"	75°57'40"	Coorg	Karnataka
242	M.H. Halli	Cauvery/Hemavathi	3050	12°49'08"	76°08'00"	Hassan	Karnataka
243	Sakleshpur	Cauvery/Hemavathi	617	12°57'10"	75°47'04"	Hassan	Karnataka
244	T. Narasipur	Cauvery/Kabini	7000	12°13'02"	76°53'13"	Mysore	Karnataka
245	T.Bekuppe	Cauvery/Arkavathi	3500	12°31'00"	77°26'00"	Bangalore Rural	Karnataka
246	T.K. Halli	Cauvery/Shimsha	7890	12°25'00"	77°11'33"	Mandya	Karnataka
247	Thimmanahalli	Cauvery/Yagachi	1010	12°59'00"	76°02'18"	Hassan	Karnataka
248	Biligundulu	Cauvery	36682	12°10'48"	77°43'48"	Dharmapuri	Tamilnadu
249	Byaladahalli	Krishna/Tungabhadra/Haridra	2300	14°26'02"	75°46'45"	Davangere	Karnataka
250	Harlahalli	Krishna/Tungabhadra	14582	14°49'50"	75°40'28"	Haveri	Karnataka
251	Holehonnur	Krishna/Tungabhadra/Bhadra	2990	13°58'34"	75°41'07"	Shimoga	Karnataka
252	Honnali	Krishna/Tungabhadra	7075	14°14'18"	75°39'27"	Davangere	Karnataka
253	Kellodu	Krishna/Tungabhadra/Vedavathi	4320	13°45'00"	76°20'44"	Chitradurga	Karnataka
254	Kuppelur	Krishna/Tungabhadra/Kumudavathi	1850	14°30'00"	75°38'02"	Haveri	Karnataka
255	Marol	Krishna/Tungabhadra/Varada	4901	14°56'20"	75°37'05"	Haveri	Karnataka
256	Shimoga	Krishna/Tungabhadra/Tunga	2831	13°56'06"	75°34'37"	Shimoga	Karnataka
257	Addoor	Gurupur	688	12°55'49"	74°49'47"	South Kanara	Karnataka
258	Avershe	Sita	253	13°31'17"	74°52'48"	Udupi	Karnataka
259	Bantwal	Nethravathi	3184	12°52'49"	75°02'28"	South Kanara	Karnataka
260	Haladi	Haladi	583	13°34'52"	74°51'26"	Udupi	Karnataka
261	Santeguli	Aghanashini	1090	14°26'04"	74°35'10"	North Kanara	Karnataka
262	Yennehole	Swarna	327	13°17'39"	74°58'51"	Udupi	Karnataka
263	Arangaly	Periyar	1342	10°16'53"	76°18'55"	Trichur	Kerala
264	Ayilam	Vamanapuram	540	08°42°55"	76°51'01"	Thiruvananth	Kerala
265	Kalampur	Muvattupuzha	405	09°59'25"	76°37'56"	Emakulam	Kerala
266	Kallooppara	Pamba	731	09°24'10"	76°39'00"	pathanamthitt	Kerala

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
267	Karathodu	Kadalundi	750	11°03’25”	76°02’22”	Malappuram	Kerala
268	Kidangoor	Meenachil	615	09°40’30”	76°36’10”	kottayam	Kerala
269	Kumbidi	Bharathapuzha	5755	10°51’00”	76°01’18”	Palakkad	Kerala
270	Kuniyil	Chaliyar	1876	11°14’26”	76°01’26”	Malappuram	Kerala
271	Kuttyadi	Kuttyadi	238	11°37’30”	75°47’04”	Kozhikode	Kerala
272	Malakkara	Pamba	1713	09°19’57”	76°39’47”	pathanamthitt	Kerala
273	Mankara	Bharathapuzha	2775	10°45’40”	76°29’10”	Palakkad	Kerala
274	Neeleswaram	Periyar	4234	10°11’00”	76°29’46”	Emakulam	Kerala
275	Pattazhy	Kallada	1210	09°04’22”	76°45’40”	Quilon	Kerala
276	Perumannu	Valapatnam	1070	11°58’53”	75°35’15”	Cannanore	Kerala
277	Pudur	Bharathapuzha	1313	10°46’48”	76°34’30”	Palakkad	Kerala
278	Pulamanthole	Bharathapuzha	940	10°53’56”	76°11’50”	Palakkad	Kerala
279	Ramamangala	Muvattupuzha	1208	09°50’41”	76°28’00”	Emakulam	Kerala
280	Thumpamon	Pamba	810	09’13’37	76°42’00”	pathanamthitt	Kerala
281	Vandiperiyar	Periyar	712	09°34’30”	77°05’16”	Idukki	Kerala
282	Erinjipuzha	Payaswani	957	12°29’00”	75°09’14”	Kasargod	Kerala
283	Ashramam	Pazhayar	258	08°09’30”	77°27’40”	Knayakumari	Tamilnadu
284	Kuzhithurai	Thambraparni	841	08°18’08”	77°10’51”	Knayakumari	Tamilnadu
285	Muthankera	Cauvery/ Kabini	1260	11°50’00”	76°05’20”	Wynad	Kerala
286	A.P.Ghat	Barak	18721	24°49’58”	92°47’30”	Cachar	Assam
287	B.P.Ghat	Barak	24216	24°52’32”	92°35’00”	Karimganj	Assam
288	Dholai	Barak/Rukni	562	24°35’10”	92°50’32”	Cachar	Assam
289	Fakirabazar	Kushiyara/Longai	1108	24°51’06”	92°20’43”	Karimganj	Assam
290	Fulertal	Barak	14450	24°47’19”	93°01’08”	Cachar	Assam
291	Gumrabazar	Meghna/Surma/Gumra	2800	25°00’41”	92°30’35”	Cachar	Assam
292	Matijuri	Barak/Katakhal	7770	24°38’53”	92°36’29”	Hailakandi	Assam
293	Dawki	Meghna/Umngot	815	25°11’23”	92°01’07”	Jaintia Hills	Meghalaya

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
294	Dimapara	Meghna/Bugi	368	25°13'51"	90°15'00"	South Garo Hills	Meghalaya
295	Kharkhana	Meghna/Myntdu	548	25°09'30"	92°13'30"	Jaintia Hills	Meghalaya
296	Sibbari	Meghna/Dareng	340	25°10'50"	90°30'22"	South Garo Hills	Meghalaya
297	Therriaghat	Meghna/Umsohrynkiew	315	25°10'48"	91°45'41"	East Khasi Hills	Meghalaya
298	Bhalukpong	Brahmaputra/Jiabharali	10450	27°01'03"	92°38'59"	West Kameng	Mizoram
299	Miao	Brahmaputra/Noa-dehing	1950	27°29'57"	96°12'35"	Changlang	Mizoram
300	Namsai	Brahmaputra/Noa-dehing	2350	27°37'28"	95°53'44"	Lohit	Mizoram
301	Passighat	Brahmaputra/Siang	305000	28°04'23"	95°20'25"	East Siang	Mizoram
302	Seppa	Brahmaputra/Kameng	9950	27°21'21"	93°02'24"	East Kameng	Mizoram
303	Tezu	Brahmaputra/Lohit	19365	27°54'38"	96°10'15"	Lohit	Mizoram
304	Badatighat	Brahmaputra/Subansiri	31000	26°56'05"	93°57'44"	Lakhimpur	Assam
305	Bhomoraguri	Brahmaputra	385027	26°36'37"	92°51'52"	Sonitpur	Assam
306	Bihubar	Brahmaputra/Dikhow	3130	26°49'17"	94°48'18"	Sivasagar	Assam
307	Bokajan	Brahmaputra/Dhansari(South)	3023	26°01'03"	93°47'32"	Karbi Anglong	Assam
308	Chenimari	Brahmaputra/Buridehing	4923	27°18'56"	94°53'08"	Dibrugarh	Assam
309	Chouldhowaghat	Brahmaputra/Subansiri	24380	27°26'51"	94°15'10"	Lakhimpur	Assam
310	Desangpani	Brahmaputra/Desang	1943	27°02'47"	94 °54'56"	Sivasagar	Assam
311	Dharamtul	Brahmaputra/Kopili	14100	26°09'51"	92 °21'00"	Morigaon	Assam
312	Dholabazar	Brahmaputra/Lohit	25626	27°45'39"	95 °35'51"	Tinsukia	Assam
313	Dibrugarh	Brahmaputra	344000	27°29'56"	94 °54'21"	Dibrugarh	Assam
314	Dillighat	Brahmaputra/Desang	1330	27°08'24"	95 °22'00"	Dibrugarh	Assam
315	Golaghat	Brahmaputra/Dhansari(South)	8100	26°30'10"	93°57'07"	Golaghat	Assam
316	Jagibhakatgaon	Brahmaputra/ Kopili	15920	26°09'54"	92°21'07"	Morigaon	Assam
317	Jiabharali NT Road X-ing	Brahmaputra/ Jiabharali	12359	26°48'35"	92 °52'44"	Sonitpur	Assam
318	Kampur	Brahmaputra/ Kopili	11500	26°09'13"	92 °39'23"	Nagaon	Assam
319	Kheronighat	Brahmaputra/ Kopili	7000	25°50'54"	92 °53'12"	Karbi Anglong	Assam
320	Margherita	Brahmaputra/ Buridehing	2850	27°17'01"	95 °39'46"	Tinsukia	Assam

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
321	Naharkatia	Brahmaputra/ Buridehing	3750	27°19'15"	95 °18'38"	Dibrugarah	Assam
322	Nanglamoraghat	Brahmaputra/Desang	2616	27°00'00"	94 °49'05"	Sivasagar	Assam
323	Neamatighat	Brahmaputra	359500	26°52'12"	94 °15'08"	Jorhat	Assam
324	Numaligarh	Brahmaputra/Dhansiri(South)	9846	26°38'02"	93°43'48"	Golaghat	Assam
325	Ranganadi NT-Road Crossing	Brahmaputra/	2700	27°12'00"	94°03'46"	Lakhimpur	Assam
326	Sivasagar	Brahmaputra/ Dikhow	3425	26°58'21"	94°36'35"	Sivasagar	Assam
327	Tezpur	Brahmaputra	385072	26°36'56"	92 °47'48"	Sonitpur	Assam
328	Udaipur	Brahmaputra/Buridehing/Tirap	900	27°20'00"	95°51'18"	Tinsukia	Assam
329	Dudhnai	Brahmaputra/Dudhnai	478	25°58'45"	90°47'27"	Goalpara	Assam
330	Kulsi	Brahmaputra/Kulsi	2500	25°58'45"	91°23'09"	Kamrup	Assam
331	Pancharatna	Brahmaputra	468790	26°12'00"	90°34'38"	Goalpara	Assam
332	Pandu	Brahmaputra	417100	26°10'15"	91°40'18"	Kamrup	Assam
333	Sonapur	Brahmaputra/Digaru	1210	26°06'55"	91°58'27"	Kamrup	Assam
334	Barobisha	Brahmaputra / Sankosh / Raidak-II	4573	26°28'28"	89°47'07	Jalpaiguri	West Bengal
335	Chepan	Brahmaputra/ Torsa/Raidak-I	124	26°29'32"	89°42'02"	Jalpaiguri	West Bengal
336	Domohani	Brahmaputra/ Teesta	9432	26°33'46"	88°45'28"	Jalpaiguri	West Bengal
337	Ghugumari	Brahmaputra/ Torsa	4530	26°17'14"	89°27'39"	Cooch Behar	West Bengal
338	Hassimara	Brahmaputra/ Torsa	3920	26°43'52"	89°21'28"	Jalpaiguri	West Bengal
339	Mathabhanga	Brahmaputra/Jaldhaka	3039	26°19'31"	89°14'08"	Cooch Behar	West Bengal
340	Matigara	Ganga/Mahananda/Balson	260	26°43'13"	88°22'37"	Darjeeling	West Bengal
341	Jaldhaka NH-31	Brahmaputra/Jaldhaka	1590	26°34'11"	88°56'18"	Jalpaiguri	West Bengal
342	Sankosh LRP	Brahmaputra/Sankosh	8230	26°27'28"	89°51'29"	Cooch Behar	West Bengal
343	Champasari (Silliguri)	Ganga/Mahananda	250	26°44'21"	88°25'21"	Darjeeling	West Bengal
344	Sonapurhat	Ganga/Mahananda	750	26°27'25"	88°14'36"	North Dinajpur	West Bengal
345	Tufanganj	Brahmaputra/Torsa/Raidak-i	520	26°18'31"	89°40'28"	Cooch Behar	West Bengal
346	Beki Road bridge	Brahmaputra/Beki	7320	26°29'40"	90°54'59"E	Barpeta	Assam
347	Kokrajhar	Brahmaputra/Gaurang	770	26°23'49"	90°15'18"	Kokrajhar	Assam

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
348	Manas NH Crossing	Brahmaputra/Manas	34160	26°27'51"	90°44'59"	Barpeta	Assam
349	Maharo	Bhagirathi/Mayurakshi	1356	24°19'00''	87°12'23''	Jharkhand	Dumka
350	Ramgarh	Bhagirathi/Damodar	3393	23°38'28''	85'30'43''	Jharkhand	Hazaribag
351	Tilpara Barrage	Bhagirathi/Mayurakshi	5824	23°56'48''	87°31'30''	West Bengal	Birbhum
352	Hendegir	Hoogly/Damodar	1156	23°42'18''	85'10'23''	Jharkhand	Ranchi
353	Farakka	Ganga	1050950	24°48'14''	87'55'52''	West bengal	Murshidabad
354	Mahuwa	Purna	1753	21°00'57"	73°08'08''	Gujarat	Surat
355	Durvesh	Vaitarna	2019	19°42'47"	72°55'48''	Maharashtra	Thane
356	Aie NH Crossing	Brahmaputra / Aie	1876	26°29'52"	90°39'18"	Barpeta	Assam
357	Behalpur	Brahmaputra / Champamati	1220	26°19'10"	90°28'08"	Barpeta	Assam
358	Chel	Brahmaputra / Teesta / Chel	103	26°51'49"	88°38'06"	Jalpaiguri	Sikkim
359	Coronation	Brahmaputra / Teesta	8147	26°29'32"	89°42'02"	Darjeeling	West Bengal
360	Dhubri	Brahmaputra	476560	26°00'36"	89°59'43"	Barpeta	Assam
361	Diana	Brahmaputra / Teesta / Diana	160	26°51'41"	89°00'04"	Jalpaiguri	West Bengal
362	Gajaldoba	Brahmaputra / Teesta	8503	26°45'09"	88°35'14"	Jalpaiguri	West Bengal
363	Ghish	Brahmaputra / Teesta / Ghish	156	26°52'29"	88°36'34"	Jalpaiguri	West Bengal
364	Golokganj	Brahmaputra / Sonkosh	13094	26°00'36"	89°59'43"	Barpeta	Assam
365	Khanitar	Brahmaputra / Teesta	5100	27°08'02"	88°30'10''	East Sikkim	Sikkim
366	Kumhari	Godavari / Pranhita / Wainganga	8070	21°53'03"	80°10'30"	Balaghat	Madhya Pradesh
367	Majhitar	Brahmaputra / Teesta / Rangit	1397	27°06'28"	88°19'18"	South Sikkim	Sikkim
368	Mathanguri	Brahmaputra / Beki	25000	26°46'55"	90°57'22"	Barpeta	Assam
369	Matunga	Brahmaputra / Pagladiya / Kalanadi	45	26°47'30"	91°32'07"	Baksa (BTAD)	Assam
370	Mekhliganj	Brahmaputra / Teesta	10205	26°19'57"	88°51'49	Cooch Behar	West Bengal
371	Murti	Brahmaputra / Jaldhaka / Murti	180	26°50'26"	88°49'42"	Jalpaiguri	Assam
372	Nagrakata	Brahmaputra / Jaldhaka	804	26°52'22"	88°53'43"	Jalpaiguri	Assam
373	Neora	Brahmaputra / Teesta / Neora	158	26°52'43"	88°46'18"	Jalpaiguri	West Bengal
374	Pagladiya N.T. Road X-ING	Brahmaputra / PagladiYa	830	26°26'58"	91°27'36"	Nalbari	Assam

S. No.	Site Name	River Name/Tributory/ SubTributory	Catchment Area (km^2)	Latitude	Longitude	District	State
375	Panbari	Brahmaputra / Burisuti	120	26°35’30”	90°49’44”	Barpeta	Assam
376	Puthimari D.R.F.	Brahmaputra / Puthimari	-	26°48’01”	91°42’01”	Baksa (BTAD)	Assam
377	Puthimari NH X-ING	Brahmaputra / Puthimari	1300	26°20’48”	91°38’45”	Kamrup	Assam
378	Rajegaon	Godavari / Pranhita / Bagh	5380	21°37’32”	80°15’14”	Balaghat	Andhra Pradesh
379	Rangpo	Brahmaputra / Teesta / Rangpochu	531	27°10’20”	88°31’47”	Gangtok	Sikkim
380	Rudraprayag	Ganga/ Alaknanda	10337	30°17'03"	78°58'29"	Rudraprayag	Uttarakhand
381	Sankalan	Brahmaputra / Teesta	4200	27°30’30”	88°31’30”	North Sikkim	Sikkim
382	Sevoke	Brahmaputra / Teesta	8179	26°52’54”	88°28’37”	Darjeeling	West Bengal
383	SinglaBazar	Brahmaputra / Teesta / Rangit	1397	27°07’51”	88°16’45”	Darjeeling	West Bengal
384	Suklai	Brahmaputra / Puthimari / Suklai	25	26°38’16”	91°42’39”	Baksa (BTAD)	Assam
385	TeestaBazar	Brahmaputra / Teesta	7714	27°03’20”	88°25’35”	Darjeeling	West Bengal
386	Tuting	Brahmaputra / Siang	-	28°59’26”	94°54’26”	Upper Siang	Andhra Pradesh
387	Vapi	Damanganga	2227	20°20’20”	72°54’42’’	Valsad	Gujarat

Annexure-2

Details of Indian rivers and their sites where the water was found fit for use in terms of toxic metal contamination during the study period.

Sr.	River	Name of the WQ Site
1	Aldhaka	Jaldhaka NH-31
2	Aligiri	Ambarampalayam
3	Amaravathi	Nallammaranpatty
4	Arasalar	Porakudi
5	Banas	Tonk
6	Betwa	Rajghat, Shahijina
7	Bhaga	Tandi
8	Bhagirathi	Katwa
9	Bharathapuzha	Kumbidi
10	Bhavani	Nellithurai, Savandapur
11	Bhima	Phulgaon (Seasonal), Yadgir
12	Brahmaputra	Bhomoraguri, Dhubri, Dibrugarh, Neamtighat
13	Burhi Gandak	Sikandarpur
14	Buridehiny	Chenimari, Margherita, Naharkatia
15	Burisuti	Panbari
16	Cauvery	Biligundullu, Chuchankatte, Kodumudi, Urachikottai
17	Chaliyar	Kuniyil
18	Chambal	Dholpur, Tal, Udi
19	Champamati	Behalpur
20	Chandra	Udaipur
21	Chel	Chel
22	Chenb	Dhamkund, Prem Nagar
23	Chittar	A.P. Puram, Sevanur
24	Desang	Desangpani, Dillighat, Nanglamoraghat
25	Dhansari (south)	Bokajan, Golaghat, Numaligarh
26	Dhasan	Garrauli
27	Diana	Diana
28	Dikhow	Bihubar
29	Gad	Belne Bridge
30	Ganga	Buxar, Chhatnag Allahbad, Mirzapur, Shahzadpur, Varanasi
31	Gaurang	Kokrajhar
32	Ghish	Ghish
33	Giri	Yashwant nagar
34	Godavari	Bhadrachalam, Mancherial, Perur, Polavaram
35	Goi	Pati
36	Gomti	Maighat
37	Gundlakamma	Marella
38	Hagari	T. Ramapuram
39	Halla	Halia

Sr.	River	Name of the WQ Site
40	Haridra	Byaladahalli
41	Hemavathi	Akkihebbal
42	Hiran	Patan
43	Indrawati	Pathagudem
44	Jaldhaka	Mathabhanga, Nagrakata
45	Jhelum	Ram Munshi Bagh, Safapora
46	Jiabharali	Bhalukpong, Jiabharali NT Road Xing
47	Kadalundi	Karathodu
48	Kal	Mangaon (Seasonal)
49	Kalingi	Sulurpet
50	Kalisindh	Barod
51	Kameng	Seppa
52	Kanhan	Satrapur
53	Kanhar	Duddi
54	Kegna	Malkhed
55	Ken	Banda
56	Kiul	Lakhisarai
57	Kopili	Dharamtul, Jagibhakatgaon, Kampur, Kheronighat
58	Krishna	Kurundwad, Wadenapally
59	Kumudavathi	Kuppelur
60	Kunderu	Alladupalli
61	Kuttyadi	Kuttyadi
62	Lakshmantirtha	K.M. Vadi
63	Lohit	Dholabazar, Tezu
64	Mahananda	English Bazar, Labha
65	Malaprabha	Cholachguda (Seasonal)
66	Manas	Manas NH Crossing
67	Moyar	Thengumarahada
68	Munneru	Keesara
69	Musi	Damarcherla
70	Muvattupuzha	Kalampur
71	Nattar	Annavasal
72	Neora	Neora
73	Noa-dehing	Miao, Namsai
74	Noolar	Menangudi
75	Palar	Chengalpet, Kudlur
76	Paleru	Paleru Bridge
77	Parwan	Sangod
78	Parwati	A.B.Road Crossing, Aklera, Khatoli
79	Pazhayar	Ashramam
80	Pennar	Nellore
81	Periyar	Arangaly, Vandiperiyar
82	Ponnaiyar	Gummanur, Vazhavachanur
83	Raidak-1	Chepan, Tufanganj
84	Raidak-2	Barobisha

Sr.	River	Name of the WQ Site
85	Ranganadi	Ranganadi NT Road Crossing
86	Rangpochu	Rangpo
87	Rind	Kora
88	Sabari	Konta
89	Sankosh	Sankosh LRP
90	Sarabenga	Thevur
91	Sher	Belkhedi
92	Shimsha	T.K.Halli
93	Shipra	Mahidpur
94	Siang	Passighat, Tuting
95	Sind	Pachauli, Seondha
96	Sita	Avershe
97	Sone	Chopan
98	Subansiri	Badatighat, Chouldhowaghat
99	Suruliar	Theni
100	Swarnamukhi	Naidupet
101	Tambraparni	Murappanadu
102	Tawi	Jammu Tawi
103	Teesta	Mekhliganj
104	Thambraparni	Kuzhithurai
105	Thirumalairajanar	Thengudi
106	Thoppaiyar	Thoppur
107	Tirap	Udaypur
108	Tons (Ganga)	Meja Road
109	Tons (Yamuna)	Tuini
110	Torsa	Ghugumari, Hasimara
111	Tunga	Shimoga
112	Tungabhadra	Bawapuram
113	Ulhas	Badalapur
114	Uri	Dhulsar
115	Vaigai	Ambasamudram
116	Valapatnam	Perumannu
117	Vamanapuram	Ayilam
118	Vanjiyar	Peralam
119	Varada	Marol
120	Vedavathi	Kellodu
121	Yamuna	Kalanaur, Mawi, Palla, Paonta, Pratappur

Annexure-3

Details of WQ Monitoring stations where the water was found unfit for use due to the presence of only one parameter (Iron or Copper or Cadmium or Nickel or Lead) above the acceptable limits during the study period

IRON

S. No.	River	Name of the Water Quality Sites	S. No.	River	Name of the Water Quality Sites
1	Adhwara	Ekmighat	32	Kulsi	Kulsi
2	Aghanashini	Santeguli	33	Mahananda	Champasari, Sonapurhat
3	Agmati	Dheng Bridge	34	Mahi	Khanpur, Mataji, Paderdibadi
4	Aie	Aie NH Crossing	35	Manimala	Kallooppara
5	Ajoy	Jamtara	36	Mayurakshi	Tilpara Barrage
6	Alaknanda	Rudraprayag	37	Meenachil	Kidangoor
7	Ambika	Gadat	38	Murti	Murti
8	Balaram	Chitrasani	39	Muvattupuzha	Ramamangalam
9	Balson	Matigara	40	Narmada	Bamanghat, Garudeshwar, Handia
10	Banas	Abu Road, Kamalpur	41	Nethravathi	Bantwal
11	Barak	A.P.Ghat, B.P. Ghat	42	Orsang	Chanwada
12	Beki	Mathanguri, Beki Road Bridge	43	Pamba	Malakkara, Thumpamon
13	Bhadar	Ganod, Holehonnur	44	Periyar	Neeleswaram
14	Bhagirath	Tehri, Uttarkashi	45	Phalgu	Gaya
15	Bhagirathi	Kalna (EBB)	46	Punpun	Sripalpur
16	Bharathapuzha	Mankara, Pudur, Pulmanthole	47	Puthimari	Puthimari D.R.F., Puthimari NH X-ING
17	Brahmaputra	Pancharatna	48	Rangit	Majhitar, SinglaBazar
18	Burhabalang	Govindapur	49	Sabarmati	Derol Bridge
19	Cauvery	Kollegal, Kudige	50	Sarya	Ayodhya
20	Churni	Hanskhali	51	Som	Rangeli
21	Damodar	Ramgarh	52	Sone	Japla, Koelwar
22	Dhadher	Pingalwada	53	Sonkosh	Golokganj
23	Gandak	Lalganj, Tribeni	54	Subernarekha	Jamshedpur
24	Ganga	Azmabad, Farakka, Hathidah	55	Suvarnavathi	Bendrahalli
25	Haladi	Haladi	56	Tapi	Sarangkheda
26	Hemavathi	M.H.Halli, Sakleshpur	57	Teesta	Coronation, Domohani, Gajaldoba, Khanitar, Sankalan, Sevoke, TeestaBazar
27	Kabini	Muthankera	58	Tungabhadra	Harlahalli, Honnali
28	Kallada	Pattazhy	59	Vaitarna	Durvesh
29	Kamla-Balan	Jai Nagar, Jhanjharpur	60	Yagachi	Thimmanahalli
30	Kharkai	Adityapur	61	Yamuna	Auraiya, Hamirpur
31	Kim	Motinaroli	62	Yennehole	Yennehole

COPPER

S. No.	River	Name of the Water Quality Sites	S. No.	River	Name of the Water Quality Sites
1	Chenab	Akhnoor	3	Sone	Kuldah Bridge
2	Jhelum	Sangam	4	Umngot	Dawki

NICKEL

S. No.	River	Name of the Water Quality Sites	S. No.	River	Name of the Water Quality Sites
1	Bagh	Rajegaon	7	Narmada	Dindori, Mandleshwar, Manot,
2	Dikhow	Sivasagar	8	Peddavagh	Bhatpalli
3	Gomti	Sultanpur	9	Penganga	P.G.Bridge
4	Indrawati	Jagdalpur	10	Pranhita	Tekra
5	Kabini	T. Narasipur	11	Wardha	Bamini
6	Kundi	Kogaon			

CADMIUM

S. No.	River	Name of the Water Quality Sites	S. No.	River	Name of the Water Quality Sites
1	Cavery	Musiri	3	Hindon	Galeta
2	Pennar	Chennur	-		

LEAD

S. No.	River	Name of the Water Quality Sites	S. No.	River	Name of the Water Quality Sites
1	Brahmani	Talcher	3	Arkavathi	T. Bekuppe
2	Noyyal	Elunuthimanagalam	4	Brahmaputra	Tezpur

Annexure-4

Details of WQ Monitoring stations where the water was found unfit for use due to presence of more than two toxic metals above acceptable limits during the study period.

S. No.	River	Name of the Water Quality Sites	Toxic metals due to which Unfit
1	Ajoy	Nutanhat	Pb, Fe
2	Bagmati	Hayaghat	Pb,Fe
3	Baitarni	Anandpur	Ni, Pb, Fe
4	Baitarni	Champua	Ni, Fe
5	Banjar	Bamni	Ni, Fe
6	Barak	Fulertal	Cu, Fe
7	Bhagirathi	Berhampore	Ni, Fe
8	Brahmani	Jenapur	Pb, Fe
9	Brahmani	Panposh	Ni, Pb, Fe
10	Brahmani	Gomlai	Pb, Fe
11	Brahmaputra	Pandu	Cu, Fe
12	Bugi	Dimapara	Cu, Fe
13	Burner	Mohgaoan	Ni, Fe
14	Damanganga	Vapi	Ni, Fe
15	Damodar	Hendegir	Ni, Pb, Fe
16	Dareng	Sibbari	Cu, Fe
17	Digaru	Sonapur	Cu, Fe
18	Dudhnai	Dudhnai	Pb, Fe
19	Feeder Canal	Farakka / H/R	Ni, Fe
20	Ganga	Rishikesh	Ni, Fe
21	Ganga	Deoprayag	Ni, Fe
22	Ganga	Garhmukteshwar	Cu, Pb
23	Ganga	Kachlabridge	Cu, Fe
24	Ganga	Fatehgarh	Cu, Ni, Pb, Fe
25	Ganga	Kanpur	Cr, Cu, Ni, Pb, Fe
26	Ganga	Ankinghat	Cr, Cu, Ni, Pb, Fe
27	Ganga	Bhitaura	Cr, Cu, Pb, Fe
28	Ganga	Gandhighat (Patna)	Ni, Fe
29	Ganjal	Chhidgaon	Ni, Fe
30	Ghaghra	Elginbridge	Ni, Pb, Fe
31	Ghaghra	Turtipar	Cr, Pb, Fe
32	Gomti	Lucknow	Cu, Pb, Fe
33	Gomti	Neemsar	Cu, Ni, Pb, Fe
34	Gumra	Gumrabazar	Cu, Fe
35	Gurupur	Addoor	Pb, Fe
36	Hamp	Andhiyar Kore	Cr, Ni, Pb, Fe
37	Hasdeo	Bamnidih	Ni, Fe
38	Hasdeo	Manendragarh	Cr, Ni, Pb, Fe
39	Ib	Sundergarh	Cr, Ni, Fe

S. No.	River	Name of the Water Quality Sites	Toxic metals due to which Unfit
40	Jalangi	Chapra	Ni, Fe
41	Jonk	Rampur	Cr, Cu, Ni, Fe
42	Kalanadi	Matunga	Cu, Fe
43	Katakhal	Matijuri	Cu, Fe
44	Kharun	Pathardhi	Ni, Fe
45	Koel	Jaraikela	Ni, Fe
46	Kosi	Baltara	Ni, Fe
47	Kwano	Basti	Cr, Cu, Pb, Fe
48	Longai	Fakirabazar	Cu, Fe
49	Mahanadi	Tikarpara	Pb, Fe
50	Mahanadi	Basantpur	Cr, Cu, Ni, Pb, Fe
51	Mahanadi	Rajim	Ni, Pb, Fe
52	Mand	Kurubhata	Ni, Fe
53	Mayurakshi	Maharo	Cr, Fe
54	Myntdu	Kharkhana	Cu, Fe
55	Nagavali	Srikakulam	Ni, Fe
56	Narmada	Sandia	Ni, Fe
57	Narmada	Hoshangabad	Ni, Fe
58	Ong	Salebhata	Cr, Ni, Fe
59	PagladiYa	Pagladiya N.T. Road X-ING	Cu, Fe
60	Pairi	Baronda	Ni, Fe
61	Payaswani	Erinjipuzha	Cu, Fe
62	Purna	Mahuwa	Ni, Fe
63	Ramganga	Moradabad	Cr, Cu, Pb, Fe
64	Ramganga	Bareilly	Cu, Pb, Fe
65	Ramganga	Dabri	Cu, Pb, Fe
66	Rapti	Balrampur	Cu, Ni, Pb, Fe
67	Rapti	Regauli	Cu, Ni, Pb, Fe
68	Rapti	Birdghat	Cu, Ni, Pb, Fe
69	Rukni	Dholai	Cu, Pb, Fe
70	Rushikulya	Purushottampur	Ni, Pb, Fe
71	Sabarmati	Vautha	Cu, Pb, Fe
72	Sagaileru	Nandipalli	Ni, Pb
73	Sai	Raibareli	Cu, Pb, Fe
74	Sakkar	Gadarwara	Ni, Fe
75	Sankh	Tilga	Ni, Fe
76	Sarda	Paliakalan	Pb, Fe
77	Sarju	Ghat	Cu, Pb, Fe
78	Seonath	Simga	Ni, Fe
79	Seonath	Jondhra	Ni, Fe
80	Seonath	Ghatora	Ni, Fe
81	Shetruni	Lowara	Ni, Fe
82	Subernarekha	Muri	Ni, Pb, Fe
83	Subernarekha	Ghatsila	Cu, Ni, Fe

S. No.	River	Name of the Water Quality Sites	Toxic metals due to which Unfit
84	Suklai	Suklai	Cu, Ni, Fe
85	Tapi	Burhanpur	Cu, Ni, Fe
86	Tapi/Purna	Gopalkheda	Ni, Fe
87	Tel	Kantamal	Cr, Cu, Ni, Fe
88	Tel	Kesinga	Cr, Ni, Fe
89	Umngot	Therriaghat	Cu, Fe
90	Vamsadhara	Kashinagar	Ni, Fe
91	Wainganga	Kumhari	Cu, Ni
92	Wainganga	Pauni	Cu, Ni
93	Wainganga	Ashti	Cu, Ni
94	Wardha	Hivra	Cu, Ni
95	Wunna	Nandgaon	Cu, Ni
96	Yamuna	Delhi Rly Bridge	Cd, Pb, Fe
97	Yamuna	Mohana	Cd, Pb, Fe
98	Yamuna	Mathura	Cd, Pb
99	Yamuna	Agra (P.G.)	Cd, Pb
100	Yamuna	Etawah	Cu, Fe

Annexure-5

Details of WQ sites, Rivers and toxic metal concentrations found above the BIS acceptable limist during the study period.

1. CADMIUM (Cd in µg/L)

S. No.	WQ Site	River	Period	Cd' Conc.	S. No.	WQ Site	River	Period	Cd' Conc.
1	Musiri	Cavery	Sep/11	3.90	5	Mohana	Yamuna	Jun/12	3.15
2	Chennur	Pennar	Aug/13	3.13	6	Mathura	Yamuna	Jun/12	4.00
3	Delhi Rly Bridge	Yamuna	Jun/12	4.00	7	Agra (P.G.)	Yamuna	Jun/12	3.02
4	Galeta	Hindon	Jun/12	3.18	-	-	-	-	-

2. CHROMIUM (Cr in µg/L)

S. No.	WQ Site	River	Period	Cr' Conc.	S. No.	WQ Site	River	Period	Cr' Conc.
1	Maharo	Mayurakshi	Oct/12	64.19	12	Kesinga	Tel	Jun/12	73.75
2	Basantpur	Mahanadi	Nov/11	191.75	13	Sundergarh	Ib	Jun/12	94.16
3	Basantpur	Mahanadi	Jun/12	105.41	14	Sundergarh	Ib	Oct/12	57.10
4	Basantpur	Mahanadi	Oct/12	51.08	15	Basti	Kwano	Feb/12	66.05
5	Rampur	Jonk	Oct/12	58.52	16	Moradabad	Ramganga	Aug/13	108.77
6	Andhiyar Kore	Hamp	Nov/11	59.25	17	Kanpur	Ganga	Oct/12	366.91
7	Salebhata	Ong	Oct/12	53.67	18	Kanpur	Ganga	Aug/13	55.14
8	Kantamal	Tel	Nov/11	61.75	19	Ankinghat	Ganga	Jun/12	64.51
9	Kantamal	Tel	Jun/12	67.64	20	Ankinghat	Ganga	Oct/12	75.94
10	Manendragarh	Hasdeo	Nov/11	52.75	21	Bhitaura	Ganga	Oct/12	68.47
11	Kesinga	Tel	Nov/11	72.5	-	-	-	-	-

3. COPPER (Cu in µg/L)

S. No.	WQ Site	River	Period	'Cu' Conc.	S. No.	WQ Site	River	Period	'Cu' Conc.
1	Akhnoor	Chenab	Feb/12	50.09	26	Etawah	Yamuna	Oct/12	84.88
2	Ankinghat	Ganga	Oct/12	66.16	27	Fakirabazar	Longai	Feb/12	79.31
3	Ankinghat	Ganga	Mar/13	91.43	28	Fatehgarh	Ganga	Mar/13	95.61
4	Ankinghat	Ganga	Aug/13	62.26	29	Fulertal	Barak	Feb/12	73.02
5	Ashti	Wainganga	Feb/12	111.53	30	Garhmukteshwar	Ganga	Oct/12	83.26
6	Balrampur	Rapti	Feb/12	79.58	31	Ghat	Sarju	Feb/12	53.21
7	Balrampur	Rapti	Oct/12	84.57	32	Ghat	Sarju	Oct/12	85.65
8	Balrampur	Rapti	Mar/13	60.68	33	Ghat	Sarju	Mar/13	79.54
9	Bareilly	Ramganga	Feb/12	57.15	34	Ghat	Sarju	Aug/13	60.84
10	Bareilly	Ramganga	Oct/12	73.69	35	Ghatsila	Subernarekha	Nov/11	59.54
11	Bareilly	Ramganga	Mar/13	70.17	36	Gumrabazar	Gumra	Feb/12	134.25
12	Basantpur	Mahanadi	Nov/11	61.03	37	Hivra	Wardha	Feb/12	71.81
13	Basti	Kwano	Feb/12	88.63	38	Kachlabridge	Ganga	Oct/12	81.24
14	Basti	Kwano	Mar/13	71.52	39	Kachlabridge	Ganga	Mar/13	109.57
15	Basti	Kwano	Aug/13	69.62	40	Kachlabridge	Ganga	Aug/13	57.81
16	Bhitaura	Ganga	Feb/12	78.40	41	Kanpur	Ganga	Oct/12	87.10
17	Bhitaura	Ganga	Mar/13	140.64	42	Kantamal	Tel	Feb/12	55.27
18	Bhitaura	Ganga	Aug/13	63.24	43	Kharkhana	Myntdu	Feb/12	98.82
19	Birdghat	Rapti	Mar/13	79.64	44	Kuldah Bridge	Sone	Aug/13	50.24
20	Burhanpur	Tapi	Jun/12	60.23	45	Kumhari	Wainganga	Feb/12	78.94
21	Dabri	Ramganga	Oct/12	79.46	46	Lucknow	Gomti	Feb/12	78.22
22	Dawki	Umngot	Feb/12	164.85	47	Matijuri	Katakhal	Feb/12	55.39
23	Dholai	Rukni	Feb/12	67.97	48	Matunga	Kalanadi	Feb/12	66.89
24	Dimapara	Bugi	Feb/12	77.48	49	Moradabad	Ramganga	Jun/12	99.10
25	Erinjipuzha	Payaswani	Mar/13	53.16	50	Moradabad	Ramganga	Oct/12	86.88

S. No.	WQ Site	River	Period	'Cu' Conc.	S. No.	WQ Site	River	Period	'Cu' Conc.
51	Nandgaon	Wunna	Feb/12	54.58	60	Regauli	Rapti	Aug/13	67.79
52	Neemsar	Gomti	Feb/12	64.14	61	Sangam	Jhelum	Jun/12	53.48
53	Pagladiya N.T. Road X-ING	PagladiYa	Feb/12	97.11	62	Sibbari	Dareng	Feb/12	92.02
54	Pandu	Brahmaputra	Feb/12	61.89	63	Sonapur	Digaru	Feb/12	76.98
55	Pauni	Wainganga	Feb/12	114.84	64	Suklai	Suklai	Feb/12	85.00
56	Raibareli	Sai	Feb/12	52.25	65	Therriaghat	Umngot	Feb/12	60.02
57	Rampur	Jonk	Feb/12	53.45	66	Turtipar	Ghaghra	Oct/12	86.49
58	Regauli	Rapti	Feb/12	79.88	67	Vautha	Sabarmati	Feb/12	98.80
59	Regauli	Rapti	Mar/13	180.70	68	Vautha	Sabarmati	Mar/13	85.22

4. IRON (Fe in µg/L)

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
1	A.P.Ghat	Barak	Nov/11	3.600	27	Azmabad	Ganga	Aug/13	0.930
2	A.P.Ghat	Barak	Jun/12	0.780	28	B.P. Ghat	Barak	Nov/11	2.490
3	A.P.Ghat	Barak	Oct/12	0.909	29	B.P. Ghat	Barak	Jun/12	0.944
4	Abu Road	Banas	Nov/11	0.490	30	Balrampur	Rapti	Nov/11	0.326
5	Addoor	Gurupur	Feb/12	0.630	31	Balrampur	Rapti	Feb/12	0.418
6	Adityapur	Kharkai	Nov/11	1.190	32	Balrampur	Rapti	Jun/12	0.350
7	Adityapur	Kharkai	Feb/12	1.938	33	Balrampur	Rapti	Aug/13	0.310
8	Adityapur	Kharkai	Aug/13	0.492	34	Baltara	Kosi	Nov/11	0.439
9	Aie NH Crossing	Aie	Nov/11	0.397	35	Baltara	Kosi	Mar/13	0.560
10	Aie NH Crossing	Aie	Jun/12	0.321	36	Bamanghat	Narmada	Oct/12	1.107
11	Anandpur	Baitarni	Nov/11	1.967	37	Bamanghat	Narmada	Aug/13	0.331
12	Anandpur	Baitarni	Feb/12	1.474	38	Bamni	Banjar	Oct/12	0.528
13	Anandpur	Baitarni	Oct/12	1.236	39	Bamni	Banjar	Aug/13	0.436
14	Andhiyar Kore	Hamp	Nov/11	1.513	40	Bamnidih	Hasdeo	Nov/11	1.964
15	Andhiyar Kore	Hamp	Oct/12	0.541	41	Bamnidih	Hasdeo	Feb/12	0.508
16	Andhiyar Kore	Hamp	Aug/13	0.688	42	Bamnidih	Hasdeo	Jun/12	0.828
17	Ankinghat	Ganga	Nov/11	0.543	43	Bamnidih	Hasdeo	Oct/12	0.533
18	Ankinghat	Ganga	Feb/12	0.633	44	Bamnidih	Hasdeo	Aug/13	0.811
19	Ankinghat	Ganga	Jun/12	0.533	45	Bantwal	Nethravathi	Nov/11	0.318
20	Auraiya	Yamuna	Mar/13	0.960	46	Bantwal	Nethravathi	Feb/12	1.166
21	Ayodhya	Rapti	Nov/11	0.832	47	Bareilly	Ramganga	Nov/11	0.441
22	Ayodhya	Rapti	Feb/12	1.377	48	Bareilly	Ramganga	Feb/12	0.984
23	Ayodhya	Rapti	Jun/12	0.405	49	Bareilly	Ramganga	Jun/12	0.306
24	Ayodhya	Rapti	Oct/12	0.377	50	Bareilly	Ramganga	Aug/13	0.360
25	Ayodhya	Rapti	Aug/13	0.320	51	Baronda	Pairi	Oct/12	0.535
26	Azmabad	Ganga	Nov/11	1.011	52	Baronda	Pairi	Aug/13	0.330

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
53	Basantpur	Mahanadi	Nov/11	2.930	81	Chanwada	Orsang	Aug/13	0.662
54	Basantpur	Mahanadi	Feb/12	0.478	82	Chapra	Jalangi	Nov/11	2.560
55	Basantpur	Mahanadi	Jun/12	0.557	83	Chapra	Jalangi	Oct/12	0.314
56	Basantpur	Mahanadi	Oct/12	0.431	84	Chhidgaon	Ganjal	Aug/13	0.471
57	Basantpur	Mahanadi	Aug/13	0.691	85	Chitrasani	Balaram	Nov/11	0.792
58	Basti	Kwano	Feb/12	1.190	86	Coronation	Teesta	Nov/11	0.350
59	Basti	Kwano	Jun/12	0.420	87	Coronation	Teesta	Feb/12	0.423
60	Basti	Kwano	Aug/13	0.350	88	Coronation	Teesta	Jun/12	0.330
61	Beki Road Bridge	Beki	Nov/11	0.550	89	Dabri	Ramganga	Nov/11	0.396
62	Beki Road Bridge	Beki	Jun/12	0.371	90	Dabri	Ramganga	Feb/12	0.450
63	Bendrahalli	Suvarnavathi	Nov/11	0.570	91	Dabri	Ramganga	Aug/13	0.360
64	Bendrahalli	Suvarnavathi	Feb/12	1.146	92	Delhi Rly Bridge	Yamuna	Nov/11	1.200
65	Berhampore	Bhagirathi	Nov/11	2.310	93	Delhi Rly Bridge	Yamuna	Feb/12	1.300
66	Berhampore	Bhagirathi	Jun/12	0.529	94	Delhi Rly Bridge	Yamuna	Jun/12	1.100
67	Bhitaura	Ganga	Nov/11	0.364	95	Deoprayag	Ganga	Nov/11	0.810
68	Bhitaura	Ganga	Feb/12	0.807	96	Deoprayag	Ganga	Feb/12	0.485
69	Bhitaura	Ganga	Oct/12	0.470	97	Derol Bridge	Sabarmati	Nov/11	1.059
70	Birdghat	Rapti	Feb/12	3.352	98	Derol Bridge	Sabarmati	Aug/13	0.841
71	Birdghat	Rapti	Jun/12	0.528	99	Dheng Bridge	Bagmati	Nov/11	0.301
72	Birdghat	Rapti	Aug/13	0.544	100	Dheng Bridge	Bagmati	Aug/13	0.505
73	Burhanpur	Tapi	Nov/11	2.525	101	Dholai	Rukni	Nov/11	1.680
74	Burhanpur	Tapi	Oct/12	0.641	102	Dholai	Rukni	Feb/12	1.785
75	Champasari	Mahananda	Feb/12	1.870	103	Dholai	Rukni	Jun/12	1.130
76	Champua	Baitarni	Nov/11	1.079	104	Dholai	Rukni	Oct/12	0.310
77	Champua	Baitarni	Feb/12	3.323	105	Dholai	Rukni	Mar/13	0.469
78	Champua	Baitarni	Oct/12	1.231	106	Dimapara	Bugi	Nov/11	1.541
79	Champua	Baitarni	Aug/13	0.312	107	Dimapara	Bugi	Feb/12	1.373
80	Chanwada	Orsang	Nov/11	2.250	108	Dimapara	Bugi	Jun/12	1.026

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
109	Domohani	Teesta	Nov/11	0.555	137	Farakka / H/R	Feeder Canal	Nov/11	2.950
110	Domohani	Teesta	Jun/12	0.643	138	Fatehgarh	Ganga	Nov/11	0.382
111	Dudhnai	Dudhnai	Nov/11	0.662	139	Fatehgarh	Ganga	Feb/12	0.560
112	Dudhnai	Dudhnai	Feb/12	0.460	140	Fatehgarh	Ganga	Oct/12	0.917
113	Dudhnai	Dudhnai	Aug/13	0.759	141	Fatehgarh	Ganga	Aug/13	0.910
114	Durvesh	Vaitarna	Nov/11	1.217	142	Fulertal	Barak	Nov/11	2.430
115	Durvesh	Vaitarna	Aug/13	1.339	143	Fulertal	Barak	Feb/12	1.068
116	Ekmighat	Adhwara	Nov/11	0.394	144	Fulertal	Barak	Jun/12	1.274
117	Ekmighat	Adhwara	Jun/12	0.464	145	Fulertal	Barak	Oct/12	0.387
118	Ekmighat	Adhwara	Mar/13	1.106	146	Gadarwara	Sakkar	Oct/12	0.710
119	Ekmighat	Adhwara	Aug/13	0.500	147	Gadarwara	Sakkar	Aug/13	0.341
120	Elginbridge	Ghaghra	Nov/11	0.318	148	Gadat	Ambika	Nov/11	1.369
121	Elginbridge	Ghaghra	Feb/12	0.653	149	Gadat	Ambika	Aug/13	1.257
122	Elginbridge	Ghaghra	Jun/12	0.405	150	Gajaldoba	Teesta	Nov/11	0.660
123	Elginbridge	Ghaghra	Oct/12	0.326	151	Gajaldoba	Teesta	Feb/12	0.501
124	Elginbridge	Ghaghra	Mar/13	0.338	152	Gajaldoba	Teesta	Jun/12	0.360
125	Elginbridge	Ghaghra	Aug/13	0.769	153	Gandhighat (Patna)	Ganga	Oct/12	0.991
126	Erinjipuzha	Payaswani	Nov/11	0.339	154	Gandhighat (Patna)	Ganga	Aug/13	1.442
127	Erinjipuzha	Payaswani	Feb/12	0.530	155	Ganod	Bhadar	Nov/11	1.000
128	Etawah	Yamuna	Nov/11	0.930	156	Garudeshwar	Narmada	Nov/11	1.950
129	Etawah	Yamuna	Mar/13	0.598	157	Garudeshwar	Narmada	Feb/12	0.648
130	Etawah	Yamuna	Aug/13	0.507	158	Garudeshwar	Narmada	Aug/13	0.901
131	Fakirabazar	Longai	Nov/11	2.915	159	Gaya	Phalgu	Nov/11	0.388
132	Fakirabazar	Longai	Feb/12	1.508	160	Gaya	Phalgu	Aug/13	0.368
133	Fakirabazar	Longai	Jun/12	1.431	161	Ghat	Sarju	Feb/12	0.543
134	Fakirabazar	Longai	Oct/12	0.675	162	Ghat	Sarju	Aug/13	0.320
135	Fakirabazar	Longai	Mar/13	0.357	163	Ghatora	Seonath	Nov/11	2.605
136	Farakka	Ganga	Nov/11	4.035	164	Ghatora	Seonath	Oct/12	0.441

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
165	Ghatora	Seonath	Aug/13	0.625	193	Hanskhali	Churni	Jun/12	0.362
166	Ghatsila	Subernarekha	Nov/11	1.019	194	Hanskhali	Churni	Oct/12	0.457
167	Ghatsila	Subernarekha	Feb/12	1.431	195	Hanskhali	Churni	Aug/13	0.484
168	Ghatsila	Subernarekha	Oct/12	0.971	196	Harlahalli	Tungabhadra	Nov/11	0.562
169	Ghatsila	Subernarekha	Aug/13	0.415	197	Harlahalli	Tungabhadra	Feb/12	0.630
170	Golokganj	Sonkosh	Nov/11	0.490	198	Hathidah	Ganga	Nov/11	0.784
171	Golokganj	Sonkosh	Jun/12	0.598	199	Hathidah	Ganga	Oct/12	0.356
172	Gomlai	Brahmani	Nov/11	0.816	200	Hathidah	Ganga	Aug/13	2.318
173	Gomlai	Brahmani	Feb/12	1.164	201	Hayaghat	Bagmati	Nov/11	0.429
174	Gomlai	Brahmani	Oct/12	0.665	202	Hayaghat	Bagmati	Mar/13	0.454
175	Gopalkheda	Tapi/Purna	Nov/11	4.145	203	Hendegir	Damodar	Nov/11	0.352
176	Gopalkheda	Tapi/Purna	Oct/12	0.767	204	Hendegir	Damodar	Feb/12	0.505
177	Govindapur	Burhabalang	Nov/11	0.970	205	Hendegir	Damodar	Oct/12	1.472
178	Govindapur	Burhabalang	Feb/12	1.521	206	Hendegir	Damodar	Aug/13	0.776
179	Govindapur	Burhabalang	Oct/12	0.357	207	Holehonnur	Bhadra	Nov/11	0.704
180	Govindapur	Burhabalang	Aug/13	0.454	208	Holehonnur	Bhadra	Feb/12	0.430
181	Gumrabazar	Gumra	Nov/11	0.809	209	Honnali	Tungabhadra	Nov/11	0.404
182	Gumrabazar	Gumra	Feb/12	0.940	210	Honnali	Tungabhadra	Feb/12	0.540
183	Gumrabazar	Gumra	Jun/12	0.649	211	Hoshangabad	Narmada	Oct/12	0.970
184	Gumrabazar	Gumra	Oct/12	0.317	212	Hoshangabad	Narmada	Aug/13	0.384
185	Gumrabazar	Gumra	Mar/13	0.352	213	Jai Nagar	Kamla-Balan	Nov/11	0.610
186	Haladi	Haladi	Nov/11	0.336	214	Jai Nagar	Kamla-Balan	Aug/13	0.310
187	Haladi	Haladi	Feb/12	1.211	215	Jamshedpur	Subernarekha	Nov/11	0.459
188	Hamirpur	Yamuna	Nov/11	0.790	216	Jamshedpur	Subernarekha	Feb/12	2.500
189	Hamirpur	Yamuna	Aug/13	0.340	217	Jamshedpur	Subernarekha	Oct/12	0.912
190	Handia	Narmada	Oct/12	0.586	218	Jamshedpur	Subernarekha	Aug/13	0.395
191	Handia	Narmada	Aug/13	0.394	219	Jamtara	Ajay	Nov/11	0.693
192	Hanskhali	Churni	Nov/11	3.760	220	Jamtara	Ajay	Feb/12	0.544

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
221	Jamtara	Ajay	Oct/12	0.433	249	Kantamal	Tel	Jun/12	0.604
222	Jamtara	Ajay	Aug/13	1.082	250	Kantamal	Tel	Oct/12	0.727
223	Japla	Sone	Nov/11	0.512	251	Kantamal	Tel	Aug/13	0.420
224	Japla	Sone	Aug/13	0.390	252	Kashinagar	Vamsadhara	Nov/11	0.807
225	Jaraikela	Koel	Nov/11	0.727	253	Kashinagar	Vamsadhara	Feb/12	0.690
226	Jaraikela	Koel	Feb/12	1.269	254	Kashinagar	Vamsadhara	Oct/12	0.950
227	Jaraikela	Koel	Oct/12	0.952	255	Kesinga	Tel	Nov/11	2.545
228	Jaraikela	Koel	Aug/13	0.335	256	Kesinga	Tel	Jun/12	2.367
229	Jenapur	Brahmani	Nov/11	1.030	257	Kesinga	Tel	Oct/12	0.626
230	Jenapur	Brahmani	Feb/12	1.406	258	Kesinga	Tel	Aug/13	0.647
231	Jenapur	Brahmani	Oct/12	2.366	259	Khanitar	Teesta	Nov/11	0.700
232	Jhanjharpur	Kamla-Balan	Nov/11	1.572	260	Khanitar	Teesta	Feb/12	0.375
233	Jhanjharpur	Kamla-Balan	Aug/13	1.045	261	Khanitar	Teesta	Jun/12	0.577
234	Jondhra	Seonath	Nov/11	1.197	262	Khanpur	Mahi	Nov/11	1.743
235	Jondhra	Seonath	Oct/12	0.477	263	Khanpur	Mahi	Aug/13	1.016
236	Jondhra	Seonath	Aug/13	0.745	264	Kharkhana	Myntdu	Nov/11	1.932
237	Kachlabridge	Ganga	Feb/12	0.598	265	Kharkhana	Myntdu	Feb/12	1.559
238	Kachlabridge	Ganga	Aug/13	0.530	266	Kharkhana	Myntdu	Jun/12	0.546
239	Kallooppara	Manimala	Nov/11	0.346	267	Kidangoor	Meenachil	Nov/11	0.401
240	Kallooppara	Manimala	Feb/12	0.490	268	Kidangoor	Meenachil	Feb/12	0.540
241	Kalna (EBB)	Bhagirathi	Nov/11	3.890	269	Koelwar	Sone	Nov/11	0.765
242	Kalna (EBB)	Bhagirathi	Jun/12	0.357	270	Koelwar	Sone	Aug/13	3.059
243	Kalna (EBB)	Bhagirathi	Mar/13	0.350	271	Kollegal	Cauvery	Nov/11	0.381
244	Kamalpur	Banas	Nov/11	0.476	272	Kollegal	Cauvery	Feb/12	1.064
245	Kanpur	Ganga	Feb/12	0.506	273	Kudige	Cauvery	Nov/11	0.442
246	Kanpur	Ganga	Oct/12	1.114	274	Kudige	Cauvery	Feb/12	1.115
247	Kanpur	Ganga	Aug/13	2.258	275	Kulsi	Kulsi	Nov/11	0.659
248	Kantamal	Tel	Nov/11	3.880	276	Kulsi	Kulsi	Feb/12	0.610

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
277	Kulsi	Kulsi	Jun/12	0.466	305	Mankara	Bharathapuzha	Feb/12	0.540
278	Kulsi	Kulsi	Mar/13	0.468	306	Mataji	Mahi	Nov/11	0.829
279	Kurubhata	Mand	Nov/11	2.285	307	Mataji	Mahi	Aug/13	0.349
280	Kurubhata	Mand	Oct/12	0.547	308	Mathanguri	Beki	Nov/11	0.565
281	Kurubhata	Mand	Aug/13	0.920	309	Mathanguri	Beki	Jun/12	0.536
282	Lalganj	Gandak	Nov/11	0.582	310	Matigara	Balson	Nov/11	0.764
283	Lalganj	Gandak	Aug/13	0.390	311	Matigara	Balson	Feb/12	0.940
284	Lowara	Shetruni	Nov/11	1.268	312	Matijuri	Katakhal	Nov/11	3.085
285	Lucknow	Gomti	Nov/11	0.374	313	Matijuri	Katakhal	Feb/12	1.317
286	Lucknow	Gomti	Feb/12	0.593	314	Matijuri	Katakhal	Jun/12	0.938
287	Lucknow	Gomti	Aug/13	0.520	315	Matijuri	Katakhal	Mar/13	0.636
288	M.H.Halli	Hemavathi	Nov/11	0.591	316	Matunga	Kalanadi	Nov/11	0.397
289	M.H.Halli	Hemavathi	Feb/12	1.059	317	Matunga	Kalanadi	Feb/12	0.560
290	Maharo	Mayurakshi	Nov/11	0.324	318	Matunga	Kalanadi	Mar/13	0.459
291	Maharo	Mayurakshi	Feb/12	0.468	319	Mohana	Yamuna	Nov/11	1.200
292	Maharo	Mayurakshi	Oct/12	0.345	320	Mohana	Yamuna	Feb/12	0.950
293	Maharo	Mayurakshi	Aug/13	0.681	321	Mohana	Yamuna	Jun/12	0.800
294	Mahuwa	Purna	Nov/11	4.335	322	Mohgaoan	Burner	Oct/12	1.098
295	Mahuwa	Purna	Feb/12	0.764	323	Mohgaoan	Burner	Aug/13	0.659
296	Mahuwa	Purna	Aug/13	1.583	324	Moradabad	Ramganga	Nov/11	0.403
297	Majhitar	Rangit	Nov/11	0.839	325	Moradabad	Ramganga	Feb/12	1.399
298	Majhitar	Rangit	Feb/12	0.339	326	Moradabad	Ramganga	Jun/12	0.523
299	Malakkara	Pampa	Nov/11	0.454	327	Moradabad	Ramganga	Aug/13	0.480
300	Malakkara	Pampa	Feb/12	0.530	328	Motinaroli	Kim	Nov/11	2.235
301	Manendragarh	Hasdeo	Nov/11	1.937	329	Motinaroli	Kim	Mar/13	0.313
302	Manendragarh	Hasdeo	Oct/12	0.595	330	Motinaroli	Kim	Aug/13	1.100
303	Manendragarh	Hasdeo	Aug/13	0.370	331	Muri	Subernarekha	Nov/11	0.448
304	Mankara	Bharathapuzha	Nov/11	0.745	332	Muri	Subernarekha	Feb/12	1.846

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
333	Muri	Subernarekha	Oct/12	0.466	361	Panposh	Brahmani	Nov/11	1.466
334	Murti	Murti	Nov/11	0.957	362	Panposh	Brahmani	Feb/12	1.452
335	Murti	Murti	Oct/12	0.326	363	Panposh	Brahmani	Oct/12	3.299
336	Muthankera	Kabini	Nov/11	0.747	364	Pathardhi	Kharun	Nov/11	1.261
337	Muthankera	Kabini	Feb/12	0.520	365	Pathardhi	Kharun	Oct/12	0.635
338	Neeleswaram	Periyar	Nov/11	0.576	366	Pathardhi	Kharun	Aug/13	0.556
339	Neeleswaram	Periyar	Feb/12	0.490	367	Pattazhy	Kallada	Nov/11	0.484
340	Neemsar	Gomti	Feb/12	0.372	368	Pattazhy	Kallada	Feb/12	0.490
341	Nutanhat	Ajay	Nov/11	1.121	369	Pingalwada	Dhadher	Nov/11	1.864
342	Nutanhat	Ajay	Feb/12	1.121	370	Pingalwada	Dhadher	Aug/13	1.177
343	Nutanhat	Ajay	Jun/12	0.554	371	Pudur	Bharathapuzha	Nov/11	0.393
344	Nutanhat	Ajay	Oct/12	0.953	372	Pudur	Bharathapuzha	Feb/12	0.610
345	Nutanhat	Ajay	Aug/13	1.316	373	Pulmanthole	Bharathapuzha	Nov/11	0.724
346	Paderdibadi	Mahi	Nov/11	1.370	374	Pulmanthole	Bharathapuzha	Feb/12	0.600
347	Paderdibadi	Mahi	Jun/12	0.722	375	Purushottampur	Rushikulya	Nov/11	1.590
348	Paderdibadi	Mahi	Aug/13	0.499	376	Purushottampur	Rushikulya	Feb/12	1.535
349	Pagladiya N.T. Road X-ING	PagladiYa	Nov/11	0.652	377	Purushottampur	Rushikulya	Oct/12	0.607
350	Pagladiya N.T. Road X-ING	PagladiYa	Feb/12	0.710	378	Puthimari D.R.F.	Puthimari	Nov/11	0.558
351	Pagladiya N.T. Road X-ING	PagladiYa	Mar/13	0.404	379	Puthimari D.R.F.	Puthimari	Feb/12	0.540
352	Paliakalan	Sarda	Feb/12	0.658	380	Puthimari D.R.F.	Puthimari	Aug/13	0.383
353	Paliakalan	Sarda	Jun/12	0.640	381	Puthimari NH X-ING	Puthimari	Nov/11	0.951
354	Paliakalan	Sarda	Aug/13	0.350	382	Puthimari NH X-ING	Puthimari	Feb/12	0.760
355	Pancharatna	Brahmaputra	Nov/11	1.362	383	Puthimari NH X-ING	Puthimari	Mar/13	0.478
356	Pancharatna	Brahmaputra	Feb/12	1.026	384	Rajim	Mahanadi	Nov/11	2.300
357	Pancharatna	Brahmaputra	Oct/12	0.350	385	Rajim	Mahanadi	Oct/12	0.616
358	Pancharatna	Brahmaputra	Aug/13	0.520	386	Ramamangalam	Muvattupuzha	Nov/11	0.402
359	Pandu	Brahmaputra	Nov/11	0.340	387	Ramamangalam	Muvattupuzha	Feb/12	0.480
360	Pandu	Brahmaputra	Feb/12	0.390	388	Ramgarh	Damodar	Nov/11	0.645

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
389	Ramgarh	Damodar	Feb/12	0.588	417	Santeguli	Aghanashini	Nov/11	0.473
390	Ramgarh	Damodar	Oct/12	0.339	418	Santeguli	Aghanashini	Feb/12	1.185
391	Ramgarh	Damodar	Aug/13	1.090	419	Sarangkheda	Tapi	Nov/11	5.395
392	Rampur	Jonk	Nov/11	2.735	420	Sarangkheda	Tapi	Aug/13	3.184
393	Rampur	Jonk	Feb/12	0.611	421	Sevoke	Teesta	Nov/11	1.230
394	Rampur	Jonk	Oct/12	0.643	422	Sevoke	Teesta	Feb/12	0.399
395	Rampur	Jonk	Aug/13	0.750	423	Shimoga	Tunga	Feb/12	0.540
396	Rangeli	Som	Nov/11	0.460	424	Sibbari	Dareng	Nov/11	2.690
397	Rangeli	Som	Feb/12	0.978	425	Sibbari	Dareng	Feb/12	1.342
398	Rangeli	Som	Aug/13	0.405	426	Sibbari	Dareng	Jun/12	0.620
399	Regauli	Rapti	Feb/12	0.419	427	Sibbari	Dareng	Mar/13	0.325
400	Regauli	Rapti	Jun/12	0.486	428	Simga	Seonath	Nov/11	1.432
401	Regauli	Rapti	Aug/13	0.320	429	Simga	Seonath	Oct/12	0.704
402	Rishikesh	Ganga	Nov/11	1.651	430	Simga	Seonath	Aug/13	0.573
403	Rishikesh	Ganga	Feb/12	0.367	431	SinglaBazar	Rangit	Nov/11	0.537
404	Rishikesh	Ganga	Oct/12	0.315	432	SinglaBazar	Rangit	Feb/12	0.440
405	Rishikesh	Ganga	Aug/13	0.927	433	Sonapur	Digaru	Nov/11	0.845
406	Rudraprayag	Alaknanda	Nov/11	2.615	434	Sonapur	Digaru	Feb/12	0.790
407	Rudraprayag	Alaknanda	Feb/12	0.750	435	Sonapur	Digaru	Mar/13	0.520
408	Rudraprayag	Alaknanda	Aug/13	0.970	436	Sonapur	Digaru	Aug/13	0.310
409	Sakleshpur	Hemavathi	Nov/11	0.612	437	Sonapurhat	Mahananda	Nov/11	0.820
410	Sakleshpur	Hemavathi	Feb/12	1.193	438	Sonapurhat	Mahananda	Feb/12	0.920
411	Salebhata	Ong	Nov/11	2.850	439	Srikakulam	Nagavali	Nov/11	6.645
412	Salebhata	Ong	Oct/12	0.518	440	Srikakulam	Nagavali	Feb/12	3.675
413	Salebhata	Ong	Aug/13	1.167	441	Srikakulam	Nagavali	Oct/12	0.641
414	Sandia	Narmada	Oct/12	1.013	442	Srikakulam	Nagavali	Aug/13	0.331
415	Sandia	Narmada	Aug/13	0.719	443	Sripalpur	Punpun	Nov/11	0.421
416	Sankalan	Teesta	Nov/11	0.330	444	Sripalpur	Punpun	Aug/13	1.320

S. No.	WQ Site	River	Period	Fe' Conc.	S. No.	WQ Site	River	Period	Fe' Conc.
445	Suklai	Suklai	Nov/11	0.736	469	Tikarpara	Mahanadi	Oct/12	1.104
446	Suklai	Suklai	Feb/12	0.540	470	Tilga	Sankh	Nov/11	0.812
447	Suklai	Suklai	Mar/13	0.314	471	Tilga	Sankh	Feb/12	1.766
448	Sundergarh	Ib	Jun/12	0.673	472	Tilga	Sankh	Oct/12	2.503
449	Sundergarh	Ib	Oct/12	0.684	473	Tilga	Sankh	Aug/13	0.779
450	Sundergarh	Ib	Aug/13	0.420	474	Tilpara Barrage	Mayurakshi	Nov/11	0.524
451	Talcher	Brahmani	Feb/12	2.300	475	Tilpara Barrage	Mayurakshi	Feb/12	0.540
452	Talcher	Brahmani	Oct/12	1.831	476	Tilpara Barrage	Mayurakshi	Oct/12	0.361
453	TeestaBazar	Teesta	Nov/11	2.290	477	Tribeni	Gandak	Aug/13	0.435
454	TeestaBazar	Teesta	Feb/12	0.304	478	Turtipar	Ghaghra	Nov/11	0.334
455	TeestaBazar	Teesta	Jun/12	1.050	479	Turtipar	Ghaghra	Feb/12	0.578
456	TeestaBazar	Teesta	Aug/13	0.448	480	Turtipar	Ghaghra	Aug/13	0.535
457	Tehri	Bhagirath	Nov/11	0.537	481	Uttarkashi	Bhagirath	Nov/11	1.140
458	Tehri	Bhagirath	Feb/12	1.016	482	Uttarkashi	Bhagirath	Feb/12	0.599
459	Tehri	Bhagirath	Oct/12	0.313	483	Uttarkashi	Bhagirath	Aug/13	1.668
460	Tehri	Bhagirath	Aug/13	1.493	484	Vapi	Damanganga	Nov/11	2.805
461	Therriaghat	Umngot	Feb/12	1.006	485	Vapi	Damanganga	Feb/12	0.567
462	Therriaghat	Umngot	Oct/12	0.331	486	Vapi	Damanganga	Aug/13	0.382
463	Thimmanahalli	Yagachi	Nov/11	0.626	487	Vautha	Sabarmati	Nov/11	1.750
464	Thimmanahalli	Yagachi	Feb/12	1.143	488	Vautha	Sabarmati	Feb/12	0.611
465	Thumpamon	Pamba	Nov/11	0.440	489	Vautha	Sabarmati	Mar/13	0.895
466	Thumpamon	Pamba	Feb/12	0.510	490	Vautha	Sabarmati	Aug/13	0.701
467	Tikarpara	Mahanadi	Nov/11	1.168	491	Yennehole	Yennehole	Nov/11	0.414
468	Tikarpara	Mahanadi	Feb/12	1.335	492	Yennehole	Yennehole	Feb/12	1.401

5. LEAD (Pb in µg/L)

S. No.	WQ Site	River	Period	Pb' Conc.	S. No.	WQ Site	River	Period	Pb' Conc.
1	A.P. Puram	Chittar	Feb/12	11.77	27	Elginbridge	Ghaghra	Jun/12	11.10
2	A.P. Puram	Chittar	Jun/12	13.24	28	Elginbridge	Ghaghra	Mar/13	12.48
3	Addoor	Gurupur	Feb/12	12.63	29	Elunuthimanagalam	Noyyal	Feb/12	16.82
4	Agra (P.G.)	Yamuna	Jun/12	24.58	30	Elunuthimanagalam	Noyyal	Jun/12	15.17
5	Anandpur	Baitarni	Nov/11	14.3	31	Fatehgarh	Ganga	Jun/12	10.86
6	Andhiyar Kore	Hamp	Oct/12	15.35	32	Garhmukteshwar	Ganga	Jun/12	10.24
7	Ankinghat	Ganga	Feb/12	10.79	33	Ghat	Sarju	Jun/12	11.84
8	Ankinghat	Ganga	Jun/12	12.33	34	Mathura	Yamuna	Jun/12	34.17
9	Ankinghat	Ganga	Oct/12	10.11	35	Gomlai	Brahmani	Nov/11	13.69
10	Balrampur	Rapti	Jun/12	10.66	36	Hayaghat	Bagmati	Jun/12	10.40
11	Balrampur	Rapti	Oct/12	21.64	37	Hendegir	Damodar	Oct/12	10.26
12	Bareilly	Ramganga	Nov/11	10.1	38	Jenapur	Brahmani	Nov/11	15.32
13	Bareilly	Ramganga	Jun/12	22.29	39	Jenapur	Brahmani	Feb/12	17.24
14	Basantpur	Mahanadi	Oct/12	12.51	40	Kanpur	Ganga	Nov/11	13.77
15	Basti	Kwano	Feb/12	14.13	41	Kanpur	Ganga	Jun/12	14.03
16	Basti	Kwano	Jun/12	11.79	42	Kanpur	Ganga	Oct/12	15.03
17	Bhitaura	Ganga	Jun/12	11.34	43	Lucknow	Gomti	Jun/12	11.67
18	Birdghat	Rapti	Feb/12	22.75	44	Manendragarh	Hasdeo	Oct/12	24.90
19	Birdghat	Rapti	Jun/12	10.30	45	Manendragarh	Hasdeo	Aug/13	15.48
20	Dabri	Ramganga	Jun/12	12.72	46	Mohana	Yamuna	Jun/12	24.11
21	Delhi Rly Bridge	Yamuna	Nov/11	13.35	47	Moradabad	Ramganga	Jun/12	48.92
22	Delhi Rly Bridge	Yamuna	Feb/12	18.31	48	Moradabad	Ramganga	Mar/13	21.69
23	Delhi Rly Bridge	Yamuna	Jun/12	27.45	49	Muri	Subernarekha	Feb/12	18.15
24	Dholai	Rukni	Nov/11	13.59	50	Nandipalli	Sagaileru	Jun/12	14.77
25	Dholai	Rukni	Mar/13	11.85	51	Neemsar	Gomti	Jun/12	10.56
26	Dudhnai	Dndhnai	Mar/13	10.34	52	Nutanhat	Ajoy	Jun/12	12.6

S. No.	WQ Site	River	Period	Pb' Conc.	S. No.	WQ Site	River	Period	Pb' Conc.
53	Paliakalan	Sarda	Oct/12	12.09	61	T. Bekuppe	Arkavathi	Oct/12	11.23
54	Panposh	Brahmani	Nov/11	13.67	62	Talcher	Brahmani	Nov/11	15.06
55	Panposh	Brahmani	Feb/12	14.41	63	Talcher	Brahmani	Feb/12	17.49
56	Purushottampur	Rushikulya	Feb/12	11.32	64	Tezpur	Brahmaputra	Oct/12	11.08
57	Raibareli	Sai	Jun/12	10.66	65	Tikarpara	Mahanadi	Nov/11	12.44
58	Rajim	Mahanadi	Oct/12	10.45	66	Turtipar	Ghaghra	Oct/12	14.53
59	Regauli	Rapti	Jun/12	14.68	67	Vautha	Sabarmati	Oct/12	12.48
60	Regauli	Rapti	Oct/12	19.89	-	-	-	-	-

6. NICKEL (Ni in µg/L)

S. No.	WQ Site	River	Period	Ni' Conc.	S. No.	WQ Site	River	Period	Ni' Conc.
1	Anandpur	Baitarni	Jun/12	32.58	25	Chhidgaon	Ganjal	Mar/13	24.32
2	Andhiyar Kore	Hamp	Oct/12	26.10	26	Deoprayag	Ganga	Aug/13	35.75
3	Andhiyar Kore	Hamp	Mar/13	23.42	27	Dindori	Narmada	Jun/12	41.58
4	Ankinghat	Ganga	Mar/13	22.66	28	Elginbridge	Ghaghra	Mar/13	28.67
5	Ashti	Wainganga	Jun/12	64.66	29	Farakka / H/R	Feeder Canal	Mar/13	49.28
6	Balrampur	Rapti	Mar/13	27.61	30	Fatehgarh	Ganga	Mar/13	80.51
7	Baltara	Ganga / Kosi	Mar/13	21.86	31	Fatehgarh	Ganga	Aug/13	25.48
8	Bamini	Wardha	Jun/12	64.35	32	Gadarwara	Sakkar	Mar/13	22.49
9	Bamini	Wardha	Mar/13	61.02	33	Gandhighat (Patna)	Ganga	Jun/12	24.39
10	Bamini	Wardha	Aug/13	28.98	34	Ghatora	Seonath	Oct/12	27.38
11	Bamni	Banjar	Mar/13	21.80	35	Ghatsila	Subernarekha	Oct/12	23.37
12	Bamnidih	Hasdeo	Jun/12	41.00	36	Ghatsila	Subernarekha	Mar/13	45.21
13	Baronda	Pairi	Oct/12	24.75	37	Gopalkheda	Tapi/Purna	Oct/12	20.17
14	Basantpur	Mahanadi	Feb/12	27.30	38	Hendegir	Damodar	Feb/12	36.99
15	Basantpur	Mahanadi	Jun/12	34.58	39	Hendegir	Damodar	Jun/12	28.14
16	Basantpur	Mahanadi	Mar/13	38.42	40	Hivra	Wardha	Feb/12	54.00
17	Berhampore	Bhagirathi	Mar/13	27.78	41	Hivra	Wardha	Jun/12	45.26
18	Bhatpalli	Peddavagh	Feb/12	40.25	42	Hoshangabad	Narmada	Mar/13	21.93
19	Bhatpalli	Peddavagh	Jun/12	20.35	43	Jagdalpur	Indrawati	Mar/13	20.77
20	Birdghat	Rapti	Mar/13	50.79	44	Jaraikela	Koel	Feb/12	24.50
21	Burhanpur	Tapi	Oct/12	27.45	45	Jondhra	Seonath	Oct/12	23.47
22	Champua	Baitarni	Feb/12	29.98	46	Kanpur	Ganga	Mar/13	20.67
23	Champua	Baitarni	Mar/13	30.31	47	Kantamal	Tel	Oct/12	32.08
24	Chapra	Jalangi	Mar/13	22.95	48	Kantamal	Tel	Mar/13	25.80

S. No.	WQ Site	River	Period	Ni' Conc.	S. No.	WQ Site	River	Period	Ni' Conc.
49	Kashinagar	Vamsadhara	Feb/12	37.02	75	Pathardhi	Kharun	Oct/12	27.67
50	Kesinga	Tel	Oct/12	28.61	76	Pauni	Wainganga	Feb/12	75.25
51	Kogaon		Mar/13	21.62	77	Pauni	Wainganga	Jun/12	51.38
52	Kumhari	Wainganga	Feb/12	44.50	78	Purushottampur	Rushikulya	Feb/12	23.50
53	Kumhari	Wainganga	Jun/12	24.26	79	Purushottampur	Rushikulya	Jun/12	22.22
54	Kurubhata	Mand	Oct/12	31.85	80	Purushottampur	Rushikulya	Mar/13	30.83
55	Kurubhata	Mand	Mar/13	35.29	81	Rajegaon	Bagh	Feb/12	45.75
56	Kurubhata	Mand	Aug/13	23.37	82	Rajegaon	Bagh	Jun/12	48.37
57	Lowara	Shetruni	Oct/12	20.73	83	Rajim	Mahanadi	Oct/12	27.63
58	Mahuwa	Purna	Mar/13	25.68	84	Rajim	Mahanadi	Aug/13	22.12
59	Mandleshwar	Narmada	Mar/13	24.13	85	Rampur	Jonk	Feb/12	49.61
60	Manendragarh	Hasdeo	Oct/12	30.22	86	Rampur	Jonk	Oct/12	31.71
61	Manendragarh	Hasdeo	Aug/13	25.87	87	Regauli	Rapti	Mar/13	20.55
62	Manot	Narmada	Mar/13	23.62	88	Rishikesh	Ganga	Mar/13	25.63
63	Mohgaoan	Burner	Mar/13	22.49	89	Salebhata	Ong	Oct/12	30.53
64	Muri	Subernarekha	Feb/12	22.96	90	Salebhata	Ong	Mar/13	39.19
65	Muri	Subernarekha	Jun/12	24.56	91	Sandia	Narmada	Mar/13	20.08
66	Nandgaon	Wunna	Feb/12	58.00	92	Simga	Seonath	Feb/12	21.33
67	Nandgaon	Wunna	Jun/12	74.26	93	Simga	Seonath	Oct/12	26.17
68	Nandgaon	Wunna	Mar/13	26.12	94	Sivasagar	Dikhow	Aug/13	35.83
69	Nandipalli	Sagaileru	Mar/13	21.46	95	Srikakulam	Nagavali	Feb/12	28.85
70	Neemsar	Gomti	Aug/13	29.99	96	Srikakulam	Nagavali	Mar/13	25.37
71	P.G.Bridge	Penganga	Feb/12	35.00	97	Suklai	Suklai	Mar/13	20.35
72	P.G.Bridge	Penganga	Jun/12	32.69	98	Sultanpur	Gomti	Feb/12	37.28
73	P.G.Bridge	Penganga	Mar/13	29.45	99	Sultanpur	Gomti	Jun/12	28.24
74	Panposh	Brahmani	Feb/12	24.70	100	Sundergarh	Ib	Jun/12	29.00

S. No.	WQ Site	River	Period	Ni' Conc.	S. No.	WQ Site	River	Period	Ni' Conc.
101	Sundergarh	Ib	Oct/12	37.68	105	Tekra	Pranhita	Jun/12	50.25
102	Sundergarh	Ib	Mar/13	27.40	106	Tilga	Sankh	Oct/12	22.49
103	T. Narasipur	Kabini	Mar/13	24.30	107	Vapi	Damanganga	Mar/13	23.04
104	Tekra	Pranhita	Feb/12	71.50	-	-	-	-	-

Annexure-6

Seasonal average values of Trace and Toxic metals, minimum-maximum, with total no. of WQ samples found above / below the BIS acceptable limits.

ARSENIC

(-) denotes, samples not received in the laboratory.

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
1	Jammu Tawi	2.043	0.130	7.104	1.425	0.03	7.10	0	6
2	Akhnoor	1.253	0.425	1.504	1.830	0.05	3.30	0	6
3	Tandi	1.300	0.670	1.179	2.050	0.00	2.05	0	4
4	Udaipur	4.200	2.350	9.100	1.150	0.00	9.10	0	4
5	Sangam	1.092	0.480	1.022	1.775	0.11	3.00	0	6
6	Ram Munshi Bagh	0.885	0.260	0.559	1.835	0.02	3.12	0	6
7	Dhamkund	1.860	1.050	3.980	1.610	0.35	3.98	0	6
8	Prem Nagar	1.646	0.335	1.912	2.690	0.03	4.59	0	6
9	Safapora	1.588	0.725	1.888	2.300	0.39	3.15	0	6
10	Tehri	2.640	1.840	2.294	3.785	0.29	5.21	0	6
11	Rishikesh	3.748	3.555	4.449	3.240	0.98	7.92	0	6
12	Uttarkashi	4.002	3.560	5.876	2.570	1.42	7.52	0	6
13	Deoprayag	4.003	3.465	4.455	4.090	1.39	7.52	0	6
14	Rudraprayag	3.600	5.085	1.070	4.645	0.34	9.12	0	6
15	Mataji	2.413	0.110	4.646	0.250	0.00	9.05	0	4
16	Rangeli	3.080	3.135	3.469	2.635	0.96	5.98	0	6
17	Paderdibadi	2.116	2.235	2.272	1.840	0.67	3.86	0	6
18	Khanpur	2.523	2.515	3.514	1.540	0.43	4.65	0	6
19	Derol Bridge	2.573	-	3.484	0.750	0.00	5.28	0	3
20	Vautha	2.010	2.710	1.691	1.630	0.75	3.77	0	6
21	Lowara	1.781	-	2.451	0.440	0.00	4.80	0	3
22	Ganod	0.540	-	0.540	0.540	0.00	0.54	0	2
23	Abu Road	3.643	-	5.175	0.580	0.00	9.12	0	3
24	Chitrasani	3.983	-	5.715	0.520	0.00	9.30	0	3
25	Kamalpur	1.890	-	3.120	0.660	0.00	3.12	0	2
26	Burhanpur	2.881	4.525	2.133	1.090	0.00	8.71	0	5
27	Gopalkheda	1.436	0.800	1.926	1.090	0.00	2.22	0	4
28	Sarangkheda	3.050	-	5.010	1.090	0.00	5.01	0	2
29	Gadat	3.658	0.670	6.430	1.100	0.00	8.27	0	4
30	Mahuwa	3.705	1.010	8.150	1.955	0.81	9.18	0	6
31	Durvesh	3.140	1.090	5.199	1.070	0.00	9.10	0	4
32	Garudeshwar	3.350	1.960	6.115	1.975	0.95	9.22	0	6
33	Chanwada	2.979	-	3.859	1.220	0.00	4.97	0	3
34	Pingalwada	4.234	4.835	5.010	1.480	0.00	8.60	0	5

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
35	Motinaroli	3.516	4.545	3.641	1.210	0.00	8.63	0	5
36	Vapi	4.079	4.880	5.512	1.845	1.44	8.06	0	6
37	Hendegir	2.349	0.430	4.388	0.190	0.00	6.12	0	5
38	Ramgarh	0.914	0.020	1.731	0.545	0.00	2.08	0	5
39	Jamtara	1.367	0.160	2.512	0.825	0.00	4.33	0	5
40	Tilpara Barrage	1.780	0.090	4.190	0.215	0.00	4.25	0	5
41	Maharo	1.833	0.940	3.096	0.200	0.00	3.16	0	5
42	Nutanhat	2.242	0.150	4.021	1.510	0.00	7.07	0	5
43	Talcher	1.350	1.330	1.705	1.015	0.12	2.54	0	6
44	Jenapur	2.437	1.110	4.945	1.255	0.61	9.24	0	6
45	Anandpur	2.437	1.295	5.000	1.015	0.30	9.02	0	6
46	Tikarpara	2.631	3.375	3.607	0.910	0.18	6.20	0	6
47	Panposh	2.087	2.180	2.947	1.135	0.52	3.95	0	6
48	Gomlai	1.084	0.380	1.832	1.040	0.18	3.18	0	6
49	Muri	1.526	2.280	1.272	1.025	0.15	3.67	0	6
50	Jamshedpur	1.630	0.775	2.865	1.250	0.08	5.62	0	6
51	Adityapur	3.343	2.440	6.240	1.350	0.53	9.33	0	6
52	Ghatsila	4.741	3.580	7.177	2.190	0.68	8.68	0	6
53	Tilga	1.107	0.450	1.701	1.170	0.33	2.89	0	6
54	Jaraikela	0.853	0.058	1.038	1.065	0.06	1.96	0	6
55	Champua	1.844	0.015	4.291	1.225	0.01	8.57	0	6
56	Govindapur	0.843	0.371	0.887	1.270	0.01	2.05	0	6
57	Purushottampur	1.255	0.970	1.654	1.340	0.00	2.56	0	5
58	Srikakulam	0.873	0.500	0.679	1.440	0.02	2.47	0	6
59	Kashinagar	1.401	0.880	1.519	1.545	0.00	2.95	0	5
60	Basantpur	3.352	4.885	2.987	2.185	1.04	8.73	0	6
61	Rampur	3.007	-	4.689	1.325	0.00	8.09	0	4
62	Bamnidih	2.643	4.380	2.535	1.015	0.37	7.81	0	6
63	Rajim	2.233	-	2.640	1.420	0.00	4.01	0	3
64	Simga	3.190	-	4.961	1.420	0.00	7.38	0	4
65	Andhiyar Kore	3.088	3.970	4.590	1.145	0.00	5.97	0	5
66	Baronda	4.215	-	5.588	1.470	0.00	6.08	0	3
67	Jondhra	2.349	-	2.799	1.450	0.00	4.12	0	3
68	Ghatora	2.689	-	3.324	1.420	0.00	5.01	0	3
69	Pathardhi	4.788	-	6.042	2.280	0.00	9.00	0	3
70	Kurubhata	1.775	4.770	1.087	0.965	0.00	4.77	0	5
71	Salebhata	3.275	7.750	3.287	1.025	0.00	7.75	0	5
72	Kantamal	1.636	1.590	2.262	1.055	0.69	2.43	0	6
73	Manendragarh	1.504	-	1.546	1.420	0.00	1.69	0	3
74	Kesinga	2.028	1.410	3.470	0.895	0.00	4.98	0	5
75	Sundergarh	3.832	4.365	4.925	0.580	0.00	9.47	0	5
76	Farakka	2.774	4.670	2.121	2.480	0.00	4.67	0	5
77	Farakka / H/R	4.082	3.240	7.790	1.215	0.60	9.45	0	6
78	English Bazar	3.980	4.415	5.750	1.775	0.43	9.38	0	6

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
79	Labha	3.182	4.020	5.670	0.275	0.00	8.18	0	5
80	Berhampore	3.327	3.805	5.735	0.440	0.37	9.46	0	6
81	Katwa	3.773	4.155	5.988	1.175	0.55	8.82	0	6
82	Kalna (EBB)	2.555	3.910	1.561	2.195	1.19	4.94	0	6
83	Chapra	3.507	4.475	4.177	1.870	0.60	5.72	0	6
84	Hanskhali	3.698	5.580	3.300	2.215	0.97	8.87	0	6
85	Elginbridge	1.522	1.410	1.326	1.830	0.55	3.11	0	6
86	Ayodhya	2.465	2.205	1.861	3.330	0.44	6.22	0	6
87	Turtipar	1.993	1.975	1.584	2.420	0.38	4.46	0	6
88	Paliakalan	3.521	2.390	5.204	2.970	0.68	9.32	0	6
89	Balrampur	2.151	0.905	2.232	3.315	0.37	6.26	0	6
90	Regauli	2.587	1.785	4.785	2.290	0.08	4.79	0	6
91	Birdghat	2.651	3.680	1.823	2.450	0.34	5.35	0	6
92	Basti	4.614	5.925	4.651	3.265	0.63	6.91	0	6
93	Ghat	3.431	3.610	3.214	3.470	0.36	6.58	0	6
94	Garhmukteshwar	3.445	4.295	4.241	1.800	0.16	8.43	0	6
95	Moradabad	4.558	5.740	4.233	3.700	0.73	6.84	0	6
96	Kachlabridge	5.901	7.180	6.793	3.730	1.38	9.02	0	6
97	Fatehgarh	4.281	4.460	5.489	2.895	0.95	7.97	0	6
98	Bareilly	4.747	7.705	4.496	2.040	0.78	8.17	0	6
99	Dabri	4.142	4.880	5.376	2.170	0.69	8.22	0	6
100	Kanpur	5.617	8.625	5.761	2.465	1.81	8.75	0	6
101	Ankinghat	3.461	4.405	4.193	1.785	0.85	7.32	0	6
102	Bhitaura	4.651	5.020	5.649	3.285	1.08	9.08	0	6
103	Raibareli	4.526	7.395	3.992	2.190	0.87	8.73	0	6
104	Lucknow	3.525	7.035	1.694	1.845	0.21	8.37	0	6
105	Neemsar	4.747	6.060	4.060	4.120	0.00	6.06	0	3
106	Meja Road	3.856	4.185	5.099	0.710	0.00	8.19	0	5
107	Chopan	1.401	1.835	1.342	0.650	0.00	1.94	0	5
108	Maighat	2.384	2.755	2.124	2.160	0.00	3.88	0	5
109	Shahzadpur	4.013	5.265	3.497	2.540	0.00	8.48	0	5
110	Sultanpur	5.021	7.185	4.337	2.060	0.00	7.63	0	5
111	Varanasi	3.055	5.385	1.264	1.980	0.00	5.90	0	5
112	Mirzapur	5.256	6.065	6.535	1.080	0.00	8.10	0	5
113	Kuldah Bridge	2.445	0.920	4.674	1.040	0.00	8.86	0	5
114	Duddi	2.797	1.040	5.417	1.070	0.00	8.95	0	5
115	Chhatnag Allahbad	2.772	4.115	1.754	2.120	0.00	6.98	0	5
116	Buxar	2.070	2.795	2.199	0.360	0.00	4.94	0	5
117	Gandhighat (Patna)	3.240	2.550	5.371	0.360	0.00	6.63	0	5
118	Hathidah	3.155	3.830	3.827	0.460	0.00	5.36	0	5
119	Azmabad	2.989	3.380	3.817	0.550	0.00	6.12	0	5
120	Japla	3.488	2.950	5.576	0.390	0.00	8.76	0	5
121	Koelwar	2.583	3.400	2.837	0.440	0.00	6.62	0	5
122	Gaya	1.081	-	1.412	0.420	0.00	1.79	0	3

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
123	Lakhisarai	2.499	3.860	2.778	0.580	0.00	4.01	0	4
124	Sripalpur	3.879	3.330	5.948	0.840	0.00	9.21	0	5
125	Lalganj	3.046	2.515	4.581	1.040	0.00	5.69	0	5
126	Tribeni	3.903	3.985	5.347	0.850	0.00	8.52	0	5
127	Sikandarpur	4.156	4.820	5.121	0.900	0.00	9.06	0	5
128	Hayaghat	5.146	5.235	6.351	2.560	0.00	8.82	0	5
129	Dheng Bridge	2.643	4.555	1.452	1.200	0.00	5.60	0	5
130	Jhanjharpur	3.312	2.670	5.050	1.120	0.00	8.99	0	5
131	Jai Nagar	2.070	2.010	2.600	1.130	0.00	3.45	0	5
132	Ekmighat	2.566	3.205	2.525	1.370	0.00	5.33	0	5
133	Baltara	1.895	1.160	2.792	1.570	0.00	3.45	0	5
134	Dindori	1.375	1.870	1.556	0.790	0.10	3.45	0	6
135	Manot	1.367	2.000	1.326	0.775	0.05	3.37	0	6
136	Mohgaoan	2.002	2.785	2.425	0.795	0.38	4.65	0	6
137	Bamni	3.099	3.620	5.117	0.820	0.00	8.54	0	5
138	Patan	1.331	2.155	0.978	0.860	0.48	2.77	0	6
139	Belkhedi	1.394	1.770	1.562	0.850	0.09	3.03	0	6
140	Bamanghat	1.585	0.555	5.243	0.785	0.17	5.24	0	6
141	Gadarwara	1.511	2.180	1.894	0.795	0.00	3.17	0	5
142	Sandia	1.384	1.270	2.097	0.785	0.41	3.24	0	6
143	Hoshangabad	1.773	1.520	2.935	0.865	0.46	4.76	0	6
144	Chhidgaon	1.302	1.370	1.725	0.810	0.01	2.73	0	6
145	Handia	1.997	1.900	3.048	0.995	0.00	4.65	0	5
146	Mandleshwar	1.612	1.970	2.220	0.645	0.31	3.14	0	6
147	Polavaram	4.392	4.430	6.330	0.440	0.00	7.61	0	5
148	Konta	1.414	1.235	2.275	0.050	0.00	3.31	0	5
149	Bhadrachalam	3.226	3.900	3.990	0.350	0.00	7.29	0	5
150	Perur	1.157	1.720	1.136	0.050	0.00	2.33	0	4
151	Pathagudem	1.128	1.440	1.470	0.160	0.00	1.84	0	4
152	Jagdalpur	4.025	5.300	2.749	-	0.00	9.18	0	5
153	Mancherial	2.993	2.615	4.763	0.210	0.00	7.59	0	5
154	Marella	2.414	-	3.207	0.830	0.00	5.41	0	3
155	Wadenapally	4.339	3.045	6.984	1.640	0.00	7.88	0	5
156	Paleru Bridge	3.984	3.725	8.254	0.230	0.00	8.25	0	4
157	Bawapuram	5.940	4.705	8.635	3.020	0.00	9.08	0	5
158	Damarcherla	4.005	5.210	4.224	1.160	0.00	7.88	0	5
159	Halia	1.768	2.565	1.503	0.440	0.00	3.27	0	4
160	Keesara	4.580	-	6.345	1.050	0.00	8.30	0	3
161	Malkhed	5.772	-	8.573	0.170	0.00	9.08	0	3
162	Badalapur	3.793	2.575	6.867	0.080	0.00	9.22	0	5
163	Kumhari	3.008	2.310	3.706	-	0.00	4.48	0	5
164	Pauni	3.300	3.400	4.431	0.840	0.00	5.62	0	5
165	Ashti	2.945	3.365	3.717	0.560	0.00	4.90	0	5
166	Hivra	3.958	3.200	6.399	0.590	0.00	8.13	0	5

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
167	Bamini	3.178	3.615	3.891	0.880	0.00	5.59	0	5
168	Nandgaon	4.137	3.115	7.208	0.040	0.00	9.31	0	5
169	P.G.Bridge	2.325	2.465	3.268	0.160	0.00	4.51	0	5
170	Bhatpalli	1.964	1.900	2.889	0.240	0.00	3.69	0	5
171	Tekra	2.286	2.815	2.685	0.430	0.00	4.28	0	5
172	Rajegaon	2.665	3.730	2.763	0.340	0.00	6.06	0	5
173	Satrapur	3.219	3.245	3.908	1.790	0.00	5.19	0	5
174	Ambarampalayam	1.719	2.600	1.922	0.635	0.52	3.57	0	6
175	Gummanur	2.110	1.120	3.954	1.255	0.46	7.35	0	6
176	Theni	0.466	0.235	0.980	0.440	0.00	0.98	0	5
177	Ambasamudram	0.360	-	-	0.360	0.00	0.36	0	1
178	Musiri	0.966	0.755	1.434	0.710	0.26	2.61	0	6
179	Elunuthimanagalam	0.763	0.600	-	0.845	0.00	0.88	0	3
180	Kudlur	0.853	0.780	-	0.890	0.00	0.94	0	3
181	Sevanur	0.500	-	-	0.500	0.00	0.50	0	1
182	Thevur	0.895	-	-	0.895	0.00	1.09	0	2
183	Thoppur	0.970	-	-	0.970	0.00	1.08	0	2
184	Murappanadu	0.788	0.865	1.080	0.420	0.30	1.67	0	6
185	A.P. Puram	0.950	1.260	-	0.795	0.00	1.26	0	3
186	Nallammaranpatty	0.420	-	-	0.420	0.00	0.42	0	1
187	Nellithurai	2.586	3.670	3.073	1.015	0.61	6.62	0	6
188	Savandapur	4.151	4.625	7.008	0.820	0.04	9.21	0	6
189	Thengumarahada	2.213	2.310	2.948	0.550	0.00	4.50	0	5
190	Urachikottai	1.409	1.295	2.002	0.450	0.00	2.46	0	5
191	Kodumudi	1.182	1.175	1.787	0.585	0.34	2.78	0	6
192	M.H.Halli	0.588	0.605	0.040	0.845	0.04	1.34	0	6
193	T. Bekuppe	2.436	3.940	2.298	1.070	0.38	7.50	0	6
194	T.K.Halli	0.867	0.930	-	0.835	0.00	1.66	0	4
195	Kollegal	1.193	1.510	1.290	0.985	0.00	1.55	0	5
196	Biligundullu	2.141	2.510	2.948	0.965	0.48	4.07	0	6
197	Kudige	1.612	1.895	2.062	0.880	0.27	3.13	0	6
198	Akkihebbal	2.599	4.385	2.441	0.970	0.30	7.97	0	6
199	Bendrahalli	1.028	-	0.713	1.185	0.00	1.52	0	3
200	Thimmanahalli	2.040	3.110	2.131	0.880	0.23	4.08	0	6
201	Sakleshpur	1.840	3.050	0.819	1.460	0.65	5.27	0	6
202	Bantwal	2.562	4.245	2.480	0.920	0.31	8.18	0	6
203	Yennehole	2.277	-	3.664	0.890	0.00	6.35	0	4
204	Haladi	2.218	1.820	4.023	0.810	0.21	4.19	0	6
205	Santeguli	2.629	1.355	5.662	0.870	0.25	8.93	0	6
206	Addoor	3.379	-	4.929	0.280	0.00	6.85	0	3
207	Harlahalli	1.765	1.580	2.693	0.930	0.00	4.41	0	5
208	Honnali	1.972	2.360	2.656	0.900	0.20	4.69	0	6
209	Shimoga	0.324	-	0.331	0.310	0.00	0.56	0	3
210	T. Narasipur	3.193	2.495	6.180	1.600	0.00	6.18	0	5

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211	Byaladahalli	3.487	0.600	4.931	-	0.00	9.07	0	3
212	Holehonnur	1.271	0.475	2.377	0.960	0.34	2.67	0	6
213	Chennur	2.949	3.185	3.743	1.920	1.73	4.85	0	6
214	Alladupalli	1.308	1.675	0.678	1.570	0.07	2.04	0	6
215	Nandipalli	2.380	2.970	3.020	1.470	0.00	4.17	0	5
216	Nellore	2.349	2.165	3.093	1.790	1.15	3.18	0	6
217	Naidupet	0.535	0.720	-	0.350	0.00	0.72	0	2
218	Chengalpet	0.580	-	-	0.580	0.00	0.58	0	1
219	Vazhavachanur	1.632	1.200	2.748	1.290	0.00	2.75	0	4
220	Thengudi	1.634	-	2.196	0.510	0.00	3.95	0	3
221	Porakudi	0.500	-	-	0.500	0.00	0.50	0	1
222	Peralam	1.220	-	1.451	0.760	0.00	1.67	0	3
223	Annavasal	0.990	-	-	0.990	0.00	0.99	0	2
224	Kuniyil	2.173	2.890	2.269	0.550	0.00	5.33	0	5
225	Erinjipuzha	2.521	3.040	3.857	0.665	0.01	6.07	0	6
226	Perumannu	1.856	3.365	1.637	0.565	0.13	6.12	0	6
227	Kumbidi	2.407	3.125	3.317	0.780	0.30	5.95	0	6
228	Arangaly	2.950	3.035	4.095	0.490	0.00	6.06	0	5
229	Pudur	2.941	3.300	4.862	0.660	0.29	5.90	0	6
230	Ramamangalam	3.373	3.080	6.475	0.565	0.01	9.10	0	6
231	Thumpamon	2.429	2.805	2.963	1.520	0.01	5.60	0	6
232	Kidangoor	1.975	2.670	2.304	0.950	0.01	5.33	0	6
233	Pattazhy	2.631	3.225	3.922	0.745	0.13	6.32	0	6
234	Kallooppara	1.847	2.590	2.107	0.845	0.01	5.17	0	6
235	Malakkara	2.956	2.795	5.169	0.905	0.30	7.16	0	6
236	Pulmanthole	2.810	3.000	6.120	0.965	0.01	6.12	0	6
237	Karathodu	3.151	3.105	4.533	0.480	0.00	7.89	0	5
238	Kalampur	3.537	3.220	5.267	0.710	0.00	9.12	0	5
239	Mankara	2.311	6.450	1.798	0.755	0.32	6.45	0	6
240	Neeleswaram	2.810	3.085	3.979	1.365	0.01	6.11	0	6
241	Muthankera	3.283	6.460	5.130	0.770	0.33	6.46	0	6
242	Vandiperiyar	2.578	3.040	4.020	0.210	0.00	6.07	0	5
243	Kuzhithurai	1.842	0.010	2.759	-	0.00	5.23	0	4
244	Ashramam	2.668	3.085	4.160	0.340	0.00	5.55	0	4
245	Kuttyadi	3.758	6.070	3.842	1.280	0.00	6.07	0	4
246	Tezu	3.540	5.430	-	1.650	0.00	9.22	0	4
247	Dholabazar	1.198	0.990	1.895	0.710	0.58	2.12	0	6
248	Namsai	4.078	4.880	5.664	1.690	0.63	8.01	0	6
249	Margherita	2.065	0.520	4.835	0.840	0.29	9.18	0	6
250	Naharkatia	1.974	0.825	3.192	1.905	0.51	4.92	0	6
251	Chenimari	2.749	1.250	5.823	0.425	0.07	9.42	0	6
252	Dillighat	1.451	2.045	1.519	0.790	0.64	3.45	0	6
253	Desangpani	3.156	5.840	3.194	0.435	0.19	9.43	0	6
254	Nanglamoraghat	2.877	2.885	4.121	1.625	0.77	5.12	0	6

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255	Sivasagar	3.143	2.710	4.950	1.770	0.84	6.64	0	6
256	Bokajan	4.673	4.310	8.939	0.770	0.71	9.11	0	6
257	Numaligarh	3.539	3.790	4.666	2.160	0.61	6.97	0	6
258	Chouldhowaghat	2.474	3.030	3.716	0.675	0.43	5.46	0	6
259	Badatighat	4.255	4.830	6.996	0.940	0.71	7.61	0	6
260	Ranganadi NT Road Crossing	2.458	2.425	4.084	0.865	0.67	4.51	0	6
261	Kheronighat	2.515	1.535	7.686	0.910	0.00	7.69	0	5
262	Kampur	3.295	4.325	4.840	0.720	0.63	7.87	0	6
263	Dharamtul	3.657	5.540	4.846	0.585	0.35	9.33	0	6
264	Jagibhakatgaon	3.137	3.720	5.016	0.675	0.50	7.62	0	6
265	Bhomoraguri	3.298	5.455	4.160	0.710	0.36	9.04	0	6
266	Tezpur	3.268	3.530	4.395	1.880	1.36	6.48	0	6
267	Seppa	2.919	4.520	2.371	1.865	0.95	8.09	0	6
268	Bhalukpong	3.585	3.540	6.500	0.715	0.31	8.14	0	6
269	Jiabharali NT Road Xing	3.283	8.480	1.692	1.270	0.00	8.48	0	4
270	Bihubar	1.404	1.995	1.776	0.440	0.15	2.83	0	6
271	Dibrugarh	2.687	1.945	5.487	0.630	0.38	8.96	0	6
272	Golaghat	2.206	2.685	3.202	0.730	0.63	4.56	0	6
273	Miao	0.702	0.945	0.771	0.390	0.09	1.56	0	6
274	Neamtighat	2.994	3.900	3.613	1.470	0.52	7.22	0	6
275	Udaypur	1.489	0.160	2.294	1.350	0.16	4.13	0	6
276	Tuting	3.105	1.990	4.220	-	0.00	4.22	0	2
277	Passighat	3.669	5.425	3.162	1.170	0.00	9.23	0	5
278	Puthimari D.R.F.	3.192	4.060	5.420	0.095	0.00	7.14	0	6
279	Pancharatna	2.383	3.235	3.018	0.895	0.44	5.64	0	6
280	Suklai	3.315	3.590	5.796	0.560	0.40	7.48	0	6
281	Kulsi	1.557	1.845	2.755	0.070	0.00	3.39	0	6
282	Dudhnai	2.768	3.770	4.293	0.240	0.00	7.14	0	6
283	Pandu	2.327	0.595	5.496	0.890	0.00	5.80	0	6
284	Puthimari NH X-ING	4.276	5.015	7.462	0.350	0.00	8.92	0	6
285	Sonapur	2.792	0.940	7.196	0.240	0.00	9.20	0	6
286	Matunga	2.742	4.370	3.500	0.355	0.00	7.64	0	6
287	Pagladiya N.T. Road X-ING	3.675	3.700	6.751	0.575	0.09	8.48	0	6
288	A.P.Ghat	4.050	3.215	9.439	0.330	0.00	9.44	0	4
289	Therriaghat	3.358	3.320	9.130	0.510	0.00	9.13	0	5
290	Dholai	2.141	4.425	1.133	0.360	0.00	8.37	0	5
291	Dimapara	3.493	4.130	8.854	0.175	0.00	8.85	0	5
292	Kharkhana	2.126	2.210	5.438	0.385	0.00	5.44	0	5
293	Dawki	2.105	4.630	1.117	0.075	0.00	7.70	0	5
294	Badar Pur Ghat	2.308	3.555	2.002	0.120	0.00	5.79	0	4
295	Sibbari	1.472	0.780	5.150	0.325	0.00	5.15	0	5
296	Matijuri	3.524	3.985	7.920	0.865	0.00	7.92	0	5

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297	Fulertal	2.217	4.025	1.777	0.630	0.00	6.96	0	5
298	Fakirabazar	3.385	5.375	5.564	0.305	0.00	8.75	0	5
299	Gumrabazar	1.926	3.695	1.779	0.230	0.00	6.12	0	5
300	Sankalan	2.529	2.050	4.992	0.545	0.02	5.73	0	6
301	Behalpur	2.199	2.175	3.411	1.010	0.03	5.73	0	6
302	Gajaldoba	1.874	2.395	3.140	0.720	0.00	3.14	0	5
303	Aie NH Crossing	1.980	1.575	3.110	1.660	0.87	3.11	0	6
304	Domohani	3.862	3.255	8.132	0.200	0.05	8.59	0	6
305	Khanitar	3.007	3.515	3.710	1.795	0.73	6.02	0	6
306	Champasari	1.828	2.820	2.245	0.420	0.21	4.15	0	6
307	Dhubri	1.080	1.405	1.680	0.455	0.36	2.01	0	6
308	Majhitar	1.215	1.180	1.261	1.205	0.21	2.15	0	6
309	Sonapurhat	2.325	2.530	3.606	0.840	0.20	4.52	0	6
310	Mathanguri	1.378	1.595	2.080	0.810	0.00	2.42	0	5
311	Manas NH Crossing	1.070	0.685	1.639	0.700	0.24	2.66	0	6
312	Mathabhanga	1.557	0.780	3.587	0.305	0.05	6.58	0	6
313	Rangpo	1.575	1.570	0.969	2.185	0.31	3.83	0	6
314	Nagrakata	1.032	0.705	1.847	0.545	0.07	2.74	0	6
315	Jaldhaka NH-31	2.248	2.340	3.850	0.555	0.52	7.01	0	6
316	Matigara	2.633	1.320	5.684	0.895	0.80	5.69	0	6
317	Ghugumari	2.896	1.925	4.905	0.820	0.76	6.71	0	6
318	Sevoke	1.654	0.650	4.094	1.220	0.43	4.09	0	6
319	Beki Road Bridge	1.488	1.830	1.364	1.270	0.71	2.95	0	6
320	Chel	1.214	0.680	2.462	0.500	0.06	4.83	0	6
321	Golokganj	1.545	1.660	2.255	0.720	0.06	4.45	0	6
322	SinglaBazar	1.062	0.445	1.750	0.990	0.24	3.26	0	6
323	Kokrajhar	2.006	1.430	2.670	1.830	0.39	4.95	0	6
324	Sankosh LRP	0.991	1.100	0.953	0.920	0.35	1.85	0	6
325	Murti	1.609	1.435	2.416	0.975	0.47	3.94	0	6
326	Diana	1.727	1.680	2.445	1.055	0.21	3.33	0	6
327	Ghish	2.042	2.195	3.220	0.710	0.53	3.81	0	6
328	Hasimara	1.689	2.090	2.221	0.755	0.33	3.85	0	6
329	Coronation	1.504	1.810	1.703	1.000	0.81	2.81	0	6
330	Panbari	1.436	1.880	1.442	0.985	0.84	2.92	0	6
331	Chepan	2.239	2.405	3.303	1.010	0.34	4.50	0	6
332	Barobisha	1.881	2.175	2.117	1.350	0.39	3.45	0	6
333	TeestaBazar	0.944	0.355	0.760	1.625	0.17	1.86	0	6
334	Mekhliganj	2.589	1.555	4.442	0.950	0.00	7.77	0	5
335	Neora	1.774	0.455	3.616	0.730	0.00	6.98	0	5
336	Tufanganj	1.556	1.045	2.630	0.430	0.00	4.28	0	5
337	Tuini	1.490	2.430	0.490	2.020	0.00	2.76	0	5
338	Yashwant nagar	1.353	1.160	0.998	1.805	0.00	2.06	0	5
339	Paonta	1.692	1.600	1.045	2.385	0.00	2.73	0	5
340	Kalanaur	1.688	1.700	0.500	2.870	0.00	3.38	0	5

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341	Mawi	1.552	0.725	1.551	2.380	0.07	3.05	0	6
342	Palla	1.751	0.925	1.502	2.825	0.01	3.27	0	6
343	Delhi Rly Bridge	2.477	1.135	4.121	2.175	0.11	4.32	0	6
344	Galeta	2.090	1.365	1.099	3.805	0.15	4.21	0	6
345	Mohana	3.216	2.235	2.064	5.350	0.28	6.51	0	6
346	Gokul Barrage (Mathura)	4.136	2.130	2.597	7.680	0.00	7.81	0	6
347	Agra (P.G.)	4.571	6.525	3.647	2.510	0.00	7.37	0	5
348	Auraiya	4.573	4.105	6.018	2.620	0.00	9.02	0	5
349	Etawah	6.089	7.835	6.188	2.400	0.00	8.47	0	5
350	Hamirpur	5.203	4.975	6.718	2.630	0.00	8.33	0	5
351	Pratappur	2.288	2.715	1.856	2.300	0.00	3.09	0	5
352	Seondha	1.534	1.370	1.700	1.530	0.00	2.26	0	5
353	Rajghat	3.735	2.830	5.852	1.310	0.00	8.29	0	5
354	Shahijina	3.149	2.870	4.428	1.150	0.00	5.95	0	5
355	Garrauli	1.860	0.970	2.750	-	0.00	2.75	0	2
356	Kora	2.450	4.000	1.870	1.480	0.00	4.00	0	3
357	Banda	1.890	2.390	1.120	1.660	0.00	4.28	0	4
358	Dholpur	2.638	1.710	4.084	1.600	0.00	7.15	0	5
359	Udi	1.821	1.930	1.874	1.500	0.00	3.22	0	5
360	Tal	2.789	-	3.044	2.280	0.00	4.44	0	3
361	A.B.Road Crossing	0.449	-	0.518	0.310	0.00	0.55	0	3
362	Khatoli	2.210	2.140	3.040	1.415	0.00	3.69	0	5
363	Aklera	0.602	-	0.769	0.270	0.00	1.05	0	3
364	Sangod	0.995	-	0.330	1.660	0.00	1.66	0	2
365	Mahidpur	1.365	-	0.788	2.520	0.00	2.52	0	3
366	Barod	2.279	0.190	3.373	2.230	0.00	5.36	0	5
367	Tonk	3.843	-	5.575	0.380	0.00	6.05	0	3
368	Pati	2.584	-	2.584	-	0.00	4.13	0	2
369	Kogaon	0.592	0.510	0.633	-	0.00	1.19	0	3
370	Pachauli	4.008	-	4.008	-	0.00	6.10	0	2
371	Ayilam	4.453	6.060	3.650	-	0.00	6.06	0	3
372	T. Ramapuram	3.884	-	3.884	-	0.00	7.38	0	2
373	Menangudi	2.793	-	2.793	-	0.00	5.58	0	2
374	Kellodu	2.136	-	2.136	-	0.00	2.14	0	1
375	Sulurpet	3.345	-	3.345	-	0.00	3.35	0	1
376	K.M. Vadi	5.120	-	5.120	-	0.00	5.12	0	1
377	Yadgir	7.591	-	7.591	-	0.00	9.20	0	2
378	Mangaon (Seasonal)	5.100	-	5.100	-	0.00	5.10	0	1
379	Phulgaon (Seasonal)	0.690	-	0.690	-	0.00	0.69	0	1
380	Cholachguda (Seasonal)	1.627	-	1.627	-	0.00	1.69	0	2
381	Belne Bridge	6.140	-	6.140	-	0.00	9.17	0	2
382	Dhulsar	0.985	-	0.985	-	0.00	1.88	0	2
383	Avershe	2.259	-	2.259	-	0.00	2.44	0	2

S. No.	Water Quality Site	Arsenic (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
384	Chunchankatte	6.070	-	6.070	-	0.00	6.07	0	2
385	Kuppelur	3.807	-	3.807	-	0.00	6.01	0	2
386	Kurundwad	1.671	-	1.671	-	0.00	2.34	0	2
387	Marol	6.850	-	6.850	-	0.00	8.61	0	2

CADMIUM

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
1	Jammu Tawi	0.237	0.124	0.430	0.254	0.04	0.46	0	6
2	Akhnoor	0.190	0.076	0.303	0.190	0.03	0.56	0	6
3	Tandi	0.569	0.690	0.521	0.496	0.00	0.69	0	4
4	Udaipur	0.272	0.319	0.176	0.418	0.00	0.42	0	4
5	Sangam	0.162	0.067	0.239	0.180	0.01	0.35	0	6
6	Ram Munshi Bagh	0.134	0.035	0.191	0.219	0.01	0.37	0	6
7	Dhamkund	0.140	0.114	0.114	0.246	0.03	0.25	0	6
8	Prem Nagar	0.322	0.197	0.100	1.018	0.07	1.02	0	6
9	Safapora	0.193	0.292	0.117	0.171	0.00	0.58	0	6
10	Tehri	0.194	0.154	0.226	0.203	0.02	0.43	0	6
11	Rishikesh	0.229	0.240	0.265	0.182	0.11	0.41	0	6
12	Uttarkashi	0.151	0.106	0.213	0.134	0.07	0.35	0	6
13	Deoprayag	0.218	0.139	0.437	0.078	0.07	0.80	0	6
14	Rudraprayag	0.185	0.132	0.201	0.221	0.06	0.34	0	6
15	Mataji	0.129	0.196	0.129	0.060	0.00	0.20	0	4
16	Rangeli	0.163	0.274	0.136	0.080	0.03	0.38	0	6
17	Paderdibadi	0.435	0.675	0.564	0.066	0.07	1.26	0	6
18	Khanpur	0.292	0.153	0.632	0.091	0.04	1.09	0	6
19	Derol Bridge	0.145	-	0.188	0.059	0.00	0.25	0	3
20	Vautha	0.487	0.507	0.569	0.387	0.17	0.94	0	6
21	Lowara	0.371	-	0.545	0.023	0.00	0.93	0	3
22	Ganod	0.226	-	0.218	0.233	0.00	0.23	0	2
23	Abu Road	0.094	-	0.127	0.029	0.00	0.13	0	3
24	Chitrasani	0.106	-	0.137	0.043	0.00	0.14	0	3
25	Kamalpur	0.065	-	0.129	0.000	0.00	0.13	0	2
26	Burhanpur	0.182	0.167	0.240	0.097	0.00	0.33	0	5
27	Gopalkheda	0.149	0.173	0.181	0.062	0.00	0.21	0	4
28	Sarangkheda	0.355	-	0.552	0.157	0.00	0.55	0	2
29	Gadat	0.102	0.036	0.182	0.008	0.00	0.21	0	4
30	Mahuwa	0.119	0.162	0.142	0.054	0.05	0.22	0	6
31	Durvesh	0.198	0.226	0.277	0.011	0.00	0.30	0	4
32	Garudeshwar	0.098	0.046	0.147	0.102	0.04	0.16	0	6
33	Chanwada	0.398	-	0.586	0.022	0.00	0.97	0	3
34	Pingalwada	0.192	0.179	0.171	0.263	0.00	0.31	0	5
35	Motinaroli	0.105	0.076	0.179	0.015	0.00	0.23	0	5
36	Vapi	0.154	0.038	0.172	0.251	0.03	0.46	0	6
37	Hendegir	0.182	0.160	0.279	0.009	0.00	0.41	0	5
38	Ramgarh	0.074	0.010	0.157	0.023	0.00	0.17	0	5
39	Jamtara	0.054	0.036	0.087	0.004	0.00	0.13	0	5
40	Tilpara Barrage	0.283	0.092	0.121	0.541	0.00	1.07	0	5
41	Maharo	0.369	0.058	0.706	0.007	0.00	1.28	0	5
42	Nutanhat	0.102	0.201	0.125	0.031	0.00	0.20	0	5

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
43	Talcher	0.373	0.276	0.236	0.607	0.02	1.19	0	6
44	Jenapur	0.301	0.186	0.282	0.437	0.00	0.87	0	6
45	Anandpur	0.245	0.153	0.378	0.205	0.01	0.51	0	6
46	Tikarpara	0.279	0.246	0.325	0.266	0.01	0.52	0	6
47	Panposh	0.206	0.107	0.302	0.211	0.00	0.42	0	6
48	Gomlai	0.247	0.257	0.314	0.172	0.01	0.43	0	6
49	Muri	0.413	0.150	0.366	0.724	0.01	1.43	0	6
50	Jamshedpur	0.651	0.351	0.546	1.058	0.03	2.08	0	6
51	Adityapur	0.315	0.200	0.342	0.402	0.02	0.78	0	6
52	Ghatsila	0.270	0.205	0.323	0.284	0.03	0.54	0	6
53	Tilga	0.264	0.203	0.476	0.113	0.02	0.51	0	6
54	Jaraikela	0.200	0.164	0.296	0.141	0.02	0.32	0	6
55	Champua	0.440	0.223	0.289	0.810	0.02	1.60	0	6
56	Govindapur	0.292	0.366	0.297	0.214	0.05	0.65	0	6
57	Purushottampur	0.230	0.141	0.253	0.308	0.00	0.57	0	5
58	Srikakulam	0.365	0.143	0.487	0.466	0.06	0.87	0	6
59	Kashinagar	0.454	0.510	0.432	0.449	0.00	0.86	0	5
60	Basantpur	0.290	0.174	0.103	0.592	0.08	0.79	0	6
61	Rampur	0.228	-	0.164	0.292	0.00	0.35	0	4
62	Bamnidih	0.150	0.079	0.193	0.178	0.00	0.23	0	6
63	Rajim	0.148	-	0.161	0.123	0.00	0.24	0	3
64	Simga	0.125	-	0.171	0.080	0.00	0.25	0	4
65	Andhiyar Kore	0.134	0.090	0.230	0.060	0.00	0.38	0	5
66	Baronda	0.178	-	0.225	0.084	0.00	0.34	0	3
67	Jondhra	0.171	-	0.208	0.098	0.00	0.34	0	3
68	Ghatora	0.160	-	0.171	0.139	0.00	0.19	0	3
69	Pathardhi	0.153	-	0.177	0.107	0.00	0.19	0	3
70	Kurubhata	0.189	0.170	0.296	0.092	0.00	0.40	0	5
71	Salebhata	0.234	0.650	0.179	0.081	0.00	0.65	0	5
72	Kantamal	0.199	0.259	0.191	0.146	0.02	0.32	0	6
73	Manendragarh	0.305	-	0.247	0.420	0.00	0.42	0	3
74	Kesinga	0.120	0.056	0.171	0.101	0.00	0.20	0	5
75	Sundergarh	0.360	0.706	0.189	0.011	0.00	1.27	0	5
76	Farakka	0.502	0.030	0.484	0.756	0.00	1.39	0	5
77	Farakka / H/R	0.168	0.044	0.379	0.082	0.02	0.73	0	6
78	English Bazar	0.669	0.602	1.013	0.114	0.01	2.00	0	6
79	Labha	0.271	0.027	0.495	0.171	0.00	0.98	0	5
80	Berhampore	0.170	0.079	0.357	0.076	0.00	0.71	0	6
81	Katwa	0.091	0.070	0.113	0.092	0.01	0.22	0	6
82	Kalna (EBB)	0.218	0.081	0.499	0.075	0.05	0.82	0	6
83	Chapra	0.353	0.044	0.981	0.034	0.01	1.94	0	6
84	Hanskhali	0.082	0.040	0.130	0.073	0.01	0.21	0	6
85	Elginbridge	0.554	0.807	0.537	0.317	0.04	0.87	0	6
86	Ayodhya	0.435	0.377	0.637	0.292	0.08	0.80	0	6

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
87	Turtipar	0.372	0.261	0.587	0.270	0.11	0.81	0	6
88	Paliakalan	0.326	0.202	0.509	0.267	0.11	0.71	0	6
89	Balrampur	0.280	0.242	0.447	0.151	0.00	0.49	0	6
90	Regauli	0.394	0.267	0.667	0.248	0.06	0.94	0	6
91	Birdghat	0.506	0.592	0.327	0.599	0.15	1.05	0	6
92	Basti	0.268	0.200	0.346	0.259	0.00	0.52	0	6
93	Ghat	0.339	0.208	0.390	0.421	0.15	0.58	0	6
94	Garhmukteshwar	0.259	0.124	0.358	0.296	0.12	0.52	0	6
95	Moradabad	0.276	0.191	0.456	0.180	0.00	0.60	0	6
96	Kachlabridge	0.401	0.128	0.333	0.741	0.13	1.33	0	6
97	Fatehgarh	0.282	0.155	0.314	0.376	0.11	0.64	0	6
98	Bareilly	0.328	0.208	0.499	0.276	0.17	0.56	0	6
99	Dabri	0.236	0.152	0.320	0.237	0.11	0.51	0	6
100	Kanpur	0.349	0.228	0.444	0.374	0.13	0.76	0	6
101	Ankinghat	0.301	0.241	0.327	0.336	0.12	0.55	0	6
102	Bhitaura	0.312	0.218	0.542	0.177	0.01	0.89	0	6
103	Raibareli	0.144	0.184	0.117	0.132	0.00	0.26	0	6
104	Lucknow	0.390	0.299	0.749	0.122	0.00	0.88	0	6
105	Neemsar	0.557	0.180	1.230	0.261	0.00	1.23	0	3
106	Meja Road	0.283	0.061	0.627	0.040	0.00	1.08	0	5
107	Chopan	0.081	0.023	0.178	0.007	0.00	0.21	0	5
108	Maighat	0.310	0.077	0.693	0.009	0.00	1.14	0	5
109	Shahzadpur	0.337	0.057	0.729	0.112	0.00	1.23	0	5
110	Sultanpur	0.292	0.061	0.657	0.026	0.00	1.02	0	5
111	Varanasi	0.516	0.095	1.185	0.020	0.00	2.13	0	5
112	Mirzapur	0.402	0.053	0.750	-	0.00	1.19	0	5
113	Kuldah Bridge	0.231	0.093	0.369	-	0.00	0.57	0	5
114	Duddi	0.330	0.076	0.583	-	0.00	0.97	0	5
115	Chhatnag Allahbad	0.346	0.062	0.794	0.017	0.00	1.31	0	5
116	Buxar	0.450	0.176	0.792	0.316	0.00	1.23	0	5
117	Gandhighat (Patna)	0.176	0.173	0.261	0.013	0.00	0.30	0	5
118	Hathidah	0.412	0.172	0.847	0.021	0.00	1.46	0	5
119	Azmabad	0.210	0.222	0.291	0.023	0.00	0.30	0	5
120	Japla	0.394	0.302	0.671	0.023	0.00	1.02	0	5
121	Koelwar	0.145	0.161	0.196	0.014	0.00	0.31	0	5
122	Gaya	0.138	-	0.199	0.017	0.00	0.24	0	3
123	Lakhisarai	0.153	0.026	0.259	0.068	0.00	0.27	0	4
124	Sripalpur	0.408	0.095	0.913	0.023	0.00	1.59	0	5
125	Lalganj	0.425	0.065	0.774	0.086	0.00	1.29	0	5
126	Tribeni	0.171	0.090	0.229	0.220	0.00	0.24	0	5
127	Sikandarpur	0.142	0.062	0.277	0.035	0.00	0.35	0	5
128	Hayaghat	0.125	0.057	0.239	0.033	0.00	0.27	0	5
129	Dheng Bridge	0.305	0.049	0.700	0.028	0.00	1.18	0	5
130	Jhanjharpur	0.117	0.031	0.248	0.029	0.00	0.30	0	5

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
131	Jai Nagar	0.171	0.150	0.264	0.029	0.00	0.37	0	5
132	Ekmighat	0.474	0.331	0.833	0.041	0.00	1.39	0	5
133	Baltara	0.141	0.119	0.217	0.034	0.00	0.26	0	5
134	Dindori	0.260	0.046	0.336	0.398	0.01	0.68	0	6
135	Manot	0.370	0.238	0.764	0.108	0.01	1.06	0	6
136	Mohgaoan	0.159	0.047	0.298	0.106	0.00	0.44	0	6
137	Bamni	0.126	0.045	0.225	0.068	0.00	0.33	0	5
138	Patan	0.257	0.146	0.591	0.035	0.00	1.05	0	6
139	Belkhedi	0.254	0.163	0.435	0.072	0.07	0.74	0	6
140	Bamanghat	0.192	0.038	0.413	0.061	0.02	0.49	0	6
141	Gadarwara	0.130	0.023	0.271	0.044	0.00	0.40	0	5
142	Sandia	0.236	0.080	0.595	0.033	0.01	0.66	0	6
143	Hoshangabad	0.214	0.108	0.498	0.038	0.01	0.84	0	6
144	Chhidgaon	0.326	0.037	0.907	0.035	0.01	1.54	0	6
145	Handia	0.255	0.036	0.459	0.067	0.00	0.77	0	5
146	Mandleshwar	0.426	0.727	0.303	0.071	0.05	1.40	0	6
147	Polavaram	0.115	0.191	0.097	0.000	0.00	0.22	0	5
148	Konta	0.146	0.079	0.283	0.008	0.00	0.44	0	5
149	Bhadrachalam	0.137	0.141	0.131	-	0.00	0.19	0	5
150	Perur	0.074	0.037	0.213	0.008	0.00	0.21	0	4
151	Pathagudem	0.245	0.084	0.791	0.021	0.00	0.79	0	4
152	Jagdalpur	0.077	0.055	0.122	-	0.00	0.12	0	5
153	Mancherial	0.371	0.022	0.721	-	0.00	0.99	0	5
154	Marella	0.553	-	0.810	0.038	0.00	0.84	0	3
155	Wadenapally	0.725	0.096	1.685	0.064	0.00	2.53	0	5
156	Paleru Bridge	0.267	0.062	0.933	0.013	0.00	0.93	0	4
157	Bawapuram	0.206	0.087	0.392	0.072	0.00	0.41	0	5
158	Damarcherla	0.308	0.068	0.658	0.087	0.00	0.90	0	5
159	Halia	0.265	0.473	0.062	0.053	0.00	0.89	0	4
160	Keesara	1.047	-	1.540	0.061	0.00	2.23	0	3
161	Malkhed	0.245	-	0.367	0.002	0.00	0.61	0	3
162	Badalapur	0.179	0.157	0.202	-	0.00	0.20	0	5
163	Kumhari	0.325	0.054	0.667	0.182	0.00	1.16	0	5
164	Pauni	0.523	0.374	0.925	0.018	0.00	1.59	0	5
165	Ashti	0.260	0.229	0.292	-	0.00	0.43	0	5
166	Hivra	0.390	0.124	0.710	0.281	0.00	1.10	0	5
167	Bamini	0.338	0.046	0.708	0.183	0.00	0.73	0	5
168	Nandgaon	0.603	0.316	0.890	-	0.00	1.12	0	5
169	P.G.Bridge	0.457	0.065	0.980	0.197	0.00	1.56	0	5
170	Bhatpalli	0.560	0.313	0.807	-	0.00	0.95	0	5
171	Tekra	0.411	0.012	0.940	0.150	0.00	1.21	0	5
172	Rajegaon	0.407	0.030	0.834	0.309	0.00	1.45	0	5
173	Satrapur	0.415	0.130	0.747	0.320	0.00	1.29	0	5
174	Ambarampalayam	0.167	0.223	0.078	0.236	0.03	0.40	0	6

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
175	Gummanur	0.170	0.132	0.286	0.016	0.02	0.35	0	6
176	Theni	0.075	0.017	0.070	0.135	0.00	0.24	0	5
177	Ambasamudram	0.632	-	-	0.632	0.00	0.63	0	1
178	Musiri	0.838	0.080	0.066	3.900	0.01	3.90	1	5
179	Elunuthimanagalam	0.198	0.030	-	0.282	0.00	0.47	0	3
180	Kudlur	0.086	0.052	-	0.103	0.00	0.19	0	3
181	Sevanur	0.065	-	-	0.065	0.00	0.07	0	1
182	Thevur	0.029	-	-	0.029	0.00	0.04	0	2
183	Thoppur	0.081	-	-	0.081	0.00	0.15	0	2
184	Murappanadu	0.372	0.127	0.075	0.914	0.01	1.81	0	6
185	A.P. Puram	0.141	0.190	-	0.117	0.00	0.21	0	3
186	Nallammaranpatty	0.170	-	-	0.170	0.00	0.17	0	1
187	Nellithurai	0.034	0.007	0.072	0.012	0.00	0.14	0	6
188	Savandapur	0.411	0.036	0.979	0.028	0.00	1.93	0	6
189	Thengumarahada	0.073	0.076	0.070	-	0.00	0.15	0	5
190	Urachikottai	0.109	0.213	0.058	0.002	0.00	0.42	0	5
191	Kodumudi	0.040	0.012	0.069	0.040	0.01	0.13	0	6
192	M.H.Halli	0.249	0.065	0.015	0.851	0.01	0.85	0	6
193	T. Bekuppe	0.795	0.352	2.982	0.146	0.01	2.98	0	6
194	T.K.Halli	0.238	0.150	-	0.326	0.00	0.33	0	4
195	Kollegal	0.208	0.140	0.568	0.063	0.00	0.57	0	5
196	Biligundullu	0.122	0.098	0.103	0.155	0.00	0.31	0	6
197	Kudige	0.048	0.011	0.012	0.104	0.00	0.21	0	6
198	Akkihebbal	0.132	0.094	0.051	0.288	0.00	0.29	0	6
199	Bendrahalli	0.157	-	-	0.157	0.00	0.30	0	3
200	Thimmanahalli	0.235	0.094	0.341	0.269	0.00	0.54	0	6
201	Sakleshpur	0.090	0.056	0.158	0.055	0.01	0.26	0	6
202	Bantwal	0.197	0.212	0.112	0.337	0.01	0.41	0	6
203	Yennehole	0.166	-	0.170	0.163	0.00	0.33	0	4
204	Haladi	0.249	0.122	0.142	0.484	0.00	0.96	0	6
205	Santeguli	0.110	0.098	0.128	0.105	0.01	0.23	0	6
206	Addoor	0.469	-	0.032	1.343	0.00	1.34	0	3
207	Harlahalli	0.183	0.301	0.178	0.130	0.00	0.30	0	5
208	Honnali	0.127	0.121	0.174	0.086	0.00	0.33	0	6
209	Shimoga	0.271	-	0.322	0.170	0.00	0.61	0	3
210	T. Narasipur	0.071	0.064	0.055	0.099	0.00	0.12	0	5
211	Byaladahalli	0.459	0.210	0.583	-	0.00	0.94	0	3
212	Holehonnur	0.163	0.210	0.088	0.218	0.05	0.37	0	6
213	Chennur	0.678	0.069	1.935	0.031	0.01	3.13	1	5
214	Alladupalli	0.129	0.057	0.289	0.042	0.00	0.44	0	6
215	Nandipalli	0.491	0.058	2.177	0.083	0.00	2.18	0	5
216	Nellore	0.437	0.059	1.237	0.017	0.00	2.41	0	6
217	Naidupet	0.006	0.001	-	0.010	0.00	0.01	0	2
218	Chengalpet	0.025	-	-	0.025	0.00	0.03	0	1

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
219	Vazhavachanur	0.063	0.065	0.061	-	0.00	0.07	0	4
220	Thengudi	0.186	-	0.186	-	0.00	0.26	0	3
221	Porakudi	-	-	-	-	0.00	0.00	0	1
222	Peralam	0.142	-	0.142	-	0.00	0.18	0	3
223	Annavasal	0.207	-	0.207	-	0.00	0.21	0	2
224	Kuniyil	0.140	0.091	0.007	0.370	0.00	0.37	0	5
225	Erinjipuzha	0.049	0.062	0.012	0.075	0.00	0.13	0	6
226	Perumannu	0.151	0.042	0.216	0.196	0.02	0.40	0	6
227	Kumbidi	0.074	0.018	0.135	0.100	0.01	0.18	0	6
228	Arangaly	0.045	0.056	0.015	0.085	0.00	0.09	0	5
229	Pudur	0.105	0.030	0.277	0.085	0.01	0.28	0	6
230	Ramamangalam	0.107	0.050	0.072	0.199	0.00	0.38	0	6
231	Thumpamon	0.136	0.079	0.121	0.201	0.05	0.33	0	6
232	Kidangoor	0.090	0.032	0.034	0.318	0.00	0.32	0	6
233	Pattazhy	0.142	0.057	0.042	0.327	0.01	0.61	0	6
234	Kallooppara	0.036	0.053	0.027	0.030	0.00	0.09	0	6
235	Malakkara	0.037	0.038	0.065	0.007	0.01	0.07	0	6
236	Pulmanthole	0.101	0.057	0.071	0.221	0.02	0.22	0	6
237	Karathodu	0.053	0.050	0.113	0.000	0.00	0.11	0	5
238	Kalampur	0.137	0.026	0.044	0.548	0.00	0.55	0	5
239	Mankara	0.107	0.045	0.156	0.119	0.02	0.21	0	6
240	Neeleswaram	0.190	0.068	0.326	0.176	0.00	0.34	0	6
241	Muthankera	0.083	0.058	0.087	0.104	0.00	0.21	0	6
242	Vandiperiyar	0.249	0.064	0.508	0.104	0.00	0.97	0	5
243	Kuzhithurai	0.217	0.079	0.355	-	0.00	0.50	0	4
244	Ashramam	0.265	0.095	0.759	0.112	0.00	0.76	0	4
245	Kuttyadi	0.069	0.023	0.128	-0.002	0.00	0.21	0	4
246	Tezu	0.273	0.410	-	0.000	0.00	0.72	0	4
247	Dholabazar	0.067	0.057	0.111	0.000	0.00	0.12	0	6
248	Namsai	0.199	0.442	0.132	0.023	0.02	0.78	0	6
249	Margherita	0.277	0.577	0.109	0.016	0.02	1.07	0	6
250	Naharkatia	0.213	0.408	0.118	0.014	0.01	0.74	0	6
251	Chenimari	0.155	0.186	0.127	0.149	0.12	0.19	0	6
252	Dillighat	0.072	0.047	0.130	0.007	0.01	0.15	0	6
253	Desangpani	0.201	0.447	0.147	0.010	0.01	0.75	0	6
254	Nanglamoraghat	0.125	0.170	0.136	0.015	0.02	0.22	0	6
255	Sivasagar	0.239	0.433	0.149	0.033	0.03	0.73	0	6
256	Bokajan	0.109	0.188	0.126	0.012	0.01	0.25	0	6
257	Numaligarh	0.168	0.213	0.131	0.155	0.12	0.31	0	6
258	Chouldhowaghat	0.131	0.150	0.173	0.012	0.01	0.19	0	6
259	Badatighat	0.127	0.058	0.198	0.124	0.01	0.24	0	6
260	Ranganadi NT Road Crossing	0.118	0.107	0.144	0.092	0.05	0.16	0	6
261	Kheronighat	0.608	0.080	2.223	0.048	0.00	2.22	0	5

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
262	Kampur	0.187	0.146	0.260	0.154	0.13	0.35	0	6
263	Dharamtul	0.164	0.060	0.321	0.112	0.01	0.44	0	6
264	Jagibhakatgaon	0.251	0.094	0.438	0.193	0.01	0.71	0	6
265	Bhomoraguri	0.245	0.071	0.502	0.081	0.03	0.81	0	6
266	Tezpur	0.197	0.309	0.127	0.115	0.07	0.46	0	6
267	Seppa	0.224	0.139	0.506	0.029	0.02	0.69	0	6
268	Bhalukpong	0.304	0.117	0.616	0.054	0.05	1.06	0	6
269	Jiabharali NT Road Xing	0.427	0.375	0.638	0.058	0.00	1.09	0	4
270	Bihubar	0.333	0.635	0.156	0.082	0.08	1.11	0	6
271	Dibrugarh	0.092	0.075	0.134	0.043	0.03	0.15	0	6
272	Golaghat	0.230	0.426	0.131	0.038	0.04	0.75	0	6
273	Miao	0.079	0.080	0.137	0.022	0.00	0.16	0	6
274	Neamtighat	0.280	0.505	0.152	0.089	0.09	0.87	0	6
275	Udaypur	0.098	0.056	0.139	0.100	0.02	0.16	0	6
276	Tuting	0.137	0.120	0.153	-	0.00	0.15	0	2
277	Passighat	0.634	0.098	1.483	0.007	0.00	2.80	0	5
278	Puthimari D.R.F.	0.288	0.134	0.133	0.598	0.01	1.19	0	6
279	Pancharatna	0.108	0.120	0.134	0.030	0.03	0.21	0	6
280	Suklai	0.230	0.392	0.159	0.049	0.05	0.63	0	6
281	Kulsi	0.095	0.100	0.123	0.033	0.03	0.14	0	6
282	Dudhnai	0.088	0.088	0.157	0.020	0.01	0.18	0	6
283	Pandu	0.098	0.095	0.133	0.068	0.04	0.15	0	6
284	Puthimari NH X-ING	0.125	0.140	0.141	0.065	0.07	0.16	0	6
285	Sonapur	0.143	0.184	0.145	0.100	0.05	0.23	0	6
286	Matunga	0.119	0.126	0.156	0.034	0.03	0.19	0	6
287	Pagladiya N.T. Road X-ING	0.120	0.141	0.154	0.012	0.01	0.16	0	6
288	A.P.Ghat	0.206	0.167	0.457	0.034	0.00	0.46	0	4
289	Therriaghat	0.220	0.346	0.154	0.035	0.00	0.63	0	5
290	Dholai	0.129	0.159	0.134	0.066	0.00	0.23	0	5
291	Dimapara	0.091	0.101	0.141	0.020	0.00	0.18	0	5
292	Kharkhana	0.243	0.291	0.474	0.079	0.00	0.47	0	5
293	Dawki	0.242	0.128	0.114	0.420	0.00	0.78	0	5
294	Badar Pur Ghat (B.P. Ghat)	0.099	0.121	0.105	0.048	0.00	0.15	0	4
295	Sibbari	0.149	0.220	0.135	0.023	0.00	0.22	0	5
296	Matijuri	0.102	0.135	0.131	0.007	0.00	0.16	0	5
297	Fulertal	0.078	0.103	0.105	0.000	0.00	0.18	0	5
298	Fakirabazar	0.125	0.192	0.095	0.019	0.00	0.21	0	5
299	Gumrabazar	0.126	0.174	0.131	0.023	0.00	0.21	0	5
300	Sankalan	0.166	0.168	0.280	0.047	0.05	0.28	0	6
301	Behalpur	0.197	0.079	0.322	0.192	0.00	0.63	0	6
302	Gajaldoba	0.222	0.328	-	0.011	0.00	0.62	0	5
303	Aie NH Crossing	0.138	0.157	0.168	0.041	0.00	0.33	0	6

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
304	Domohani	0.051	0.057	0.076	0.014	0.01	0.08	0	6
305	Khanitar	0.143	0.248	0.113	0.069	0.00	0.28	0	6
306	Champasari	0.080	0.074	0.115	0.058	0.04	0.12	0	6
307	Dhubri	0.273	0.265	0.460	0.187	0.00	0.53	0	6
308	Majhitar	0.121	0.109	0.217	0.086	0.01	0.22	0	6
309	Sonapurhat	0.217	0.344	0.198	0.000	0.00	0.37	0	6
310	Mathanguri	0.662	0.984	-	0.018	0.00	1.86	0	5
311	Manas NH Crossing	0.137	0.161	0.328	0.018	0.00	0.33	0	6
312	Mathabhanga	0.155	0.199	0.181	0.017	0.01	0.35	0	6
313	Rangpo	0.190	0.283	0.188	0.011	0.01	0.35	0	6
314	Nagrakata	0.077	0.033	0.160	0.002	0.00	0.32	0	6
315	Jaldhaka NH-31	0.145	0.113	0.215	0.138	0.02	0.22	0	6
316	Matigara	0.137	0.228	0.037	0.055	0.03	0.43	0	6
317	Ghugumari	0.184	0.097	0.313	0.142	0.00	0.62	0	6
318	Sevoke	0.077	0.088	0.118	0.016	0.02	0.15	0	6
319	Beki Road Bridge	0.114	0.227	0.056	0.007	0.00	0.45	0	6
320	Chel	0.273	0.341	0.393	0.016	0.02	0.62	0	6
321	Golokganj	0.104	0.208	0.059	0.045	0.00	0.41	0	6
322	SinglaBazar	0.113	0.111	0.217	0.014	0.01	0.22	0	6
323	Kokrajhar	0.076	0.046	0.159	0.024	0.00	0.32	0	6
324	Sankosh LRP	0.129	0.157	0.045	0.185	0.00	0.32	0	6
325	Murti	0.152	0.035	0.416	0.121	0.01	0.42	0	6
326	Diana	0.310	0.321	0.588	0.008	0.01	0.59	0	6
327	Ghish	0.237	0.297	0.069	0.261	0.02	0.56	0	6
328	Hasimara	0.102	0.176	0.009	0.074	0.00	0.35	0	6
329	Coronation	0.154	0.262	0.090	0.002	0.00	0.32	0	6
330	Panbari	0.506	0.978	0.535	0.021	0.01	1.87	0	6
331	Chepan	0.129	0.033	0.357	0.112	0.00	0.36	0	6
332	Barobisha	0.101	0.059	0.045	0.200	0.01	0.35	0	6
333	TeestaBazar	0.183	0.278	0.135	0.042	0.04	0.43	0	6
334	Mekhliganj	0.228	0.242	0.214	-	0.00	0.42	0	5
335	Neora	0.179	0.219	0.034	0.388	0.00	0.39	0	5
336	Tufanganj	0.125	0.041	0.105	0.333	0.00	0.33	0	5
337	Tuini	1.134	0.160	1.621	-	0.00	2.07	0	5
338	Yashwant nagar	0.087	0.000	0.172	0.005	0.00	0.26	0	5
339	Paonta	0.632	1.000	0.448	-	0.00	1.00	0	5
340	Kalanaur	0.548	1.020	0.313	-	0.00	1.02	0	5
341	Mawi	0.198	0.121	0.275	-	0.09	0.32	0	6
342	Palla	0.742	0.532	0.953	-	0.04	1.78	0	6
343	Delhi Rly Bridge	1.261	2.020	1.088	0.087	0.04	4.00	1	5
344	Galeta	0.752	1.766	0.452	0.039	0.03	3.18	1	5
345	Mohana	0.805	1.643	0.741	0.031	0.03	3.15	1	5
346	Gokul Barrage (Mathura)	0.931	2.207	0.470	0.117	0.07	4.00	1	5

S. No.	Water Quality Site	Cadmium (in µg/L)						No. of WQ Stations repoeted	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 3 µg/L	Below 3 µg/L
347	Agra (P.G.)	0.587	1.522	0.172	0.067	0.02	3.02	1	5
348	Auraiya	0.328	0.530	0.250	0.203	0.06	1.00	0	6
349	Etawah	0.394	0.661	0.371	0.151	0.02	1.20	0	6
350	Hamirpur	0.109	0.140	0.080	0.107	0.05	0.23	0	6
351	Pratappur	0.532	1.511	0.059	0.026	0.00	2.99	0	6
352	Seondha	0.624	1.511	0.039	0.022	0.02	3.00	0	6
353	Rajghat	0.493	1.195	0.016	0.042	0.01	2.35	0	6
354	Shahijina	0.329	0.518	0.289	0.032	0.01	1.00	0	6
355	Garrauli	1.038	2.000	0.076	-	0.00	2.00	0	3
356	Kora	1.042	2.980	0.100	0.045	0.00	2.98	0	4
357	Banda	0.894	1.632	0.048	0.266	0.00	3.00	0	5
358	Dholpur	0.626	1.501	0.032	0.063	0.00	3.00	0	6
359	Udi	0.447	1.024	0.082	0.025	0.03	2.00	0	6
360	Tal	0.101	-	0.145	0.014	0.00	0.29	0	3
361	A.B.Road Crossing	0.397	-	0.397	-	0.00	0.53	0	3
362	Khatoli	0.278	0.389	0.452	0.050	0.00	0.63	0	5
363	Aklera	0.154	-	0.154	-	0.00	0.28	0	3
364	Sangod	1.152	-	0.277	2.026	0.00	2.03	0	2
365	Mahidpur	0.113	-	0.169	0.001	0.00	0.29	0	3
366	Barod	0.547	0.968	0.514	0.194	0.00	0.97	0	5
367	Tonk	0.331	-	0.482	0.029	0.00	0.62	0	3
368	Pati	0.186	-	0.186	-	0.00	0.25	0	2
369	Kogaon	0.254	0.026	0.369	-	0.00	0.53	0	3
370	Pachauli	0.372	-	0.372	-	0.00	0.74	0	2
371	Ayilam	0.239	0.007	0.356	-	0.00	0.63	0	3
372	T. Ramapuram	1.489	-	1.489	-	0.00	2.49	0	2
373	Menangudi	0.720	-	0.720	-	0.00	0.94	0	2
374	Kellodu	0.009	-	0.009	-	0.00	0.01	0	1
375	Sulurpet	1.018	-	1.018	-	0.00	1.02	0	1
376	K.M. Vadi	0.029	-	0.029	-	0.00	0.03	0	1
377	Yadgir	0.808	-	0.808	-	0.00	1.11	0	2
378	Mangaon (Seasonal)	0.179	-	0.179	-	0.00	0.18	0	1
379	Phulgaon (Seasonal)	0.306	-	0.306	-	0.00	0.31	0	1
380	Cholachguda (Seasonal)	0.867	-	0.867	-	0.00	1.62	0	2
381	Belne Bridge	0.195	-	0.195	-	0.00	0.20	0	2
382	Dhulsar	0.408	-	0.408	-	0.00	0.58	0	2
383	Avershe	0.201	-	0.201	-	0.00	0.40	0	2
384	Chunchankatte	0.076	-	0.076	-	0.00	0.11	0	2
385	Kuppelur	0.518	-	0.518	-	0.00	0.71	0	2
386	Kurundwad	0.335	-	0.335	-	0.00	0.50	0	2
387	Marol	0.055	-	0.055	-	0.00	0.09	0	2

CHROMIUM

S. No.	Water Quality Site	Chromium (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
1	Jammu Tawi	3.232	1.515	1.515	6.665	0.96	6.70	0	6
2	Akhnoor	1.790	0.610	0.715	4.045	0.26	6.15	0	6
3	Tandi	1.390	0.910	0.450	3.750	0.00	3.75	0	4
4	Udaipur	1.123	2.980	0.255	1.000	0.00	2.98	0	4
5	Sangam	1.103	1.240	1.045	1.025	0.05	2.25	0	6
6	Ram Munshi Bagh	10.050	25.420	0.830	3.900	0.55	49.92	0	6
7	Dhamkund	9.370	1.630	1.320	25.160	0.33	37.00	0	6
8	Prem Nagar	9.412	24.595	0.270	3.370	0.10	49.09	0	6
9	Safapora	9.347	11.030	0.350	16.660	0.21	30.00	0	6
10	Tehri	10.903	4.905	11.380	16.425	4.05	17.06	0	6
11	Rishikesh	9.245	9.920	8.855	8.960	5.07	12.83	0	6
12	Uttarkashi	12.290	3.970	18.050	14.850	3.10	22.17	0	6
13	Deoprayag	9.522	7.435	11.335	9.795	5.29	14.30	0	6
14	Rudraprayag	14.078	6.190	10.960	25.085	6.04	37.16	0	6
15	Mataji	2.218	2.610	0.990	4.280	0.00	4.28	0	4
16	Rangeli	5.382	7.485	2.710	5.950	0.23	13.18	0	6
17	Paderdibadi	8.945	16.840	4.840	5.155	0.99	30.94	0	6
18	Khanpur	7.487	6.460	10.090	5.910	0.02	20.16	0	6
19	Derol Bridge	4.887	-	6.280	2.100	0.00	7.74	0	3
20	Vautha	16.350	17.140	13.620	18.290	4.98	31.60	0	6
21	Lowara	7.050	-	8.000	5.150	0.00	8.92	0	3
22	Ganod	6.355	-	6.390	6.320	0.00	6.39	0	2
23	Abu Road	5.643	-	7.145	2.640	0.00	10.22	0	3
24	Chitrasani	5.933	-	5.315	7.170	0.00	7.17	0	3
25	Kamalpur	4.310	-	6.400	2.220	0.00	6.40	0	2
26	Burhanpur	16.108	20.145	18.020	4.210	0.00	37.63	0	5
27	Gopalkheda	15.435	17.770	18.275	7.420	0.00	23.19	0	4
28	Sarangkheda	11.255	-	17.010	5.500	0.00	17.01	0	2
29	Gadat	5.228	6.970	6.010	1.920	0.00	7.40	0	4
30	Mahuwa	7.327	5.405	9.280	7.295	1.21	14.31	0	6
31	Durvesh	6.513	8.230	7.125	3.570	0.00	8.24	0	4
32	Garudeshwar	9.000	15.950	3.425	7.625	3.06	26.93	0	6
33	Chanwada	4.717	-	3.940	6.270	0.00	6.27	0	3
34	Pingalwada	6.728	7.550	6.115	6.310	0.00	13.56	0	5
35	Motinaroli	6.516	8.995	5.430	3.730	0.00	17.40	0	5
36	Vapi	7.165	5.210	10.965	5.320	2.43	19.50	0	6
37	Hendegir	7.082	16.790	6.915	2.395	0.00	16.79	0	5
38	Ramgarh	11.362	37.490	5.040	4.620	0.00	37.49	0	5
39	Jamtara	3.502	5.900	2.935	2.870	0.00	5.90	0	5
40	Tilpara Barrage	4.538	10.400	2.805	3.340	0.00	10.40	0	5
41	Maharo	21.582	14.330	44.185	2.605	0.00	64.19	1	4
42	Nutanhat	6.236	8.130	8.305	3.220	0.00	8.69	0	5

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		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
43	Talcher	5.902	4.945	5.470	7.290	1.95	9.08	0	6
44	Jenapur	7.258	1.180	15.040	5.555	0.60	22.79	0	6
45	Anandpur	6.710	2.535	12.685	4.910	0.34	15.34	0	6
46	Tikarpara	5.378	1.095	10.570	4.470	0.12	11.63	0	6
47	Panposh	4.575	1.090	8.385	4.250	0.18	13.20	0	6
48	Gomlai	4.218	0.740	9.610	2.305	0.06	10.00	0	6
49	Muri	6.343	0.450	11.625	6.955	0.05	18.60	0	6
50	Jamshedpur	5.510	0.220	7.645	8.665	0.01	11.00	0	6
51	Adityapur	4.022	0.540	6.155	5.370	0.28	7.60	0	6
52	Ghatsila	5.390	1.835	8.200	6.135	0.05	8.60	0	6
53	Tilga	7.224	2.022	13.260	6.390	0.02	16.28	0	6
54	Jaraikela	3.948	0.660	6.380	4.805	0.01	8.56	0	6
55	Champua	8.747	0.630	11.920	13.690	0.02	16.00	0	6
56	Govindapur	5.107	0.930	7.050	7.340	0.54	8.50	0	6
57	Purushottampur	4.192	0.510	7.960	5.990	0.00	8.00	0	5
58	Srikakulam	6.267	5.185	5.810	7.805	0.00	15.61	0	6
59	Kashinagar	5.450	6.350	3.065	7.385	0.00	12.27	0	5
60	Basantpur	66.712	55.895	34.325	109.915	6.38	191.75	3	3
61	Rampur	37.453	-	40.495	34.410	0.00	58.52	1	3
62	Bamnidih	21.432	8.835	30.645	24.815	6.26	30.75	0	6
63	Rajim	10.283	-	9.825	11.200	0.00	14.62	0	3
64	Simga	27.830	-	30.010	25.650	0.00	44.58	0	4
65	Andhiyar Kore	30.468	4.560	38.250	35.640	0.00	59.25	1	4
66	Baronda	26.833	-	34.350	11.800	0.00	45.84	0	3
67	Jondhra	29.510	-	37.615	13.300	0.00	46.34	0	3
68	Ghatora	40.160	-	39.115	42.250	0.00	43.34	0	3
69	Pathardhi	23.923	-	30.385	11.000	0.00	41.89	0	3
70	Kurubhata	30.930	5.590	45.175	29.355	0.00	48.25	0	5
71	Salebhata	24.536	6.620	36.495	21.535	0.00	53.67	1	4
72	Kantamal	35.383	37.650	33.030	35.470	7.66	67.64	2	4
73	Manendragarh	47.167	-	44.375	52.750	0.00	52.75	1	2
74	Kesinga	45.072	73.750	35.975	39.830	0.00	73.75	2	3
75	Sundergarh	36.874	50.360	37.135	9.380	0.00	94.16	2	3
76	Farakka	2.780	1.080	0.970	5.440	0.00	9.49	0	5
77	Farakka / H/R	4.102	6.980	0.850	4.475	0.36	13.25	0	6
78	English Bazar	4.817	10.525	0.445	3.480	0.33	19.88	0	6
79	Labha	2.348	0.600	0.725	4.845	0.00	5.54	0	5
80	Berhampore	2.865	5.000	0.460	3.135	0.06	9.94	0	6
81	Katwa	9.558	5.195	18.410	5.070	0.57	36.25	0	6
82	Kalna (EBB)	4.985	8.040	0.600	6.315	0.33	10.14	0	6
83	Chapra	5.870	5.665	7.950	3.995	0.30	15.39	0	6
84	Hanskhali	8.205	14.505	5.710	4.400	1.15	27.43	0	6
85	Elginbridge	25.207	27.410	25.200	23.010	12.72	39.38	0	6
86	Ayodhya	30.092	30.920	28.395	30.960	12.08	49.76	0	6

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87	Turtipar	25.093	23.210	21.715	30.355	7.81	49.95	0	6
88	Paliakalan	22.425	21.765	23.430	22.080	7.63	35.90	0	6
89	Balrampur	21.152	24.925	23.860	14.670	7.40	42.45	0	6
90	Regauli	17.465	23.060	15.905	13.430	6.58	37.42	0	6
91	Birdghat	12.894	15.415	13.370	6.900	0.00	26.10	0	5
92	Basti	26.688	26.460	14.990	38.615	3.07	66.05	1	5
93	Ghat	17.923	22.465	16.195	15.110	4.69	40.24	0	6
94	Garhmukteshwar	19.498	25.900	19.115	13.480	7.26	38.51	0	6
95	Moradabad	33.720	22.195	62.470	16.495	10.30	108.77	1	5
96	Kachlabridge	18.670	23.220	14.360	18.430	8.70	34.13	0	6
97	Fatehgarh	20.075	20.645	23.685	15.895	4.84	36.45	0	6
98	Bareilly	9.455	5.415	13.725	9.225	3.75	21.91	0	6
99	Dabri	20.382	23.605	25.290	12.250	3.94	43.27	0	6
100	Kanpur	81.053	21.595	211.025	10.540	3.60	366.91	2	4
101	Ankinghat	31.510	38.465	45.610	10.455	5.32	75.94	2	4
102	Bhitaura	26.707	24.350	43.665	12.105	7.01	68.47	1	5
103	Raibareli	13.192	19.295	8.860	11.420	6.35	30.59	0	6
104	Lucknow	14.333	18.595	13.640	10.765	6.01	31.18	0	6
105	Neemsar	22.287	33.670	21.230	11.960	0.00	33.67	0	3
106	Meja Road	8.938	18.495	0.795	6.110	0.00	36.92	0	5
107	Chopan	5.334	9.925	0.545	5.730	0.00	19.59	0	5
108	Maighat	2.812	4.470	0.910	3.300	0.00	8.70	0	5
109	Shahzadpur	10.902	20.830	2.255	8.340	0.00	37.56	0	5
110	Sultanpur	4.444	3.605	0.695	13.620	0.00	13.62	0	5
111	Varanasi	2.230	2.500	1.190	3.770	0.00	4.12	0	5
112	Mirzapur	1.484	1.570	1.025	2.230	0.00	2.23	0	5
113	Kuldah Bridge	4.238	5.540	3.540	3.030	0.00	8.88	0	5
114	Duddi	4.838	5.375	1.525	10.390	0.00	10.66	0	5
115	Chhatnag Allahbad	4.566	7.895	2.100	2.840	0.00	13.86	0	5
116	Buxar	11.100	9.305	12.050	12.790	0.00	15.18	0	5
117	Gandhighat (Patna)	13.518	7.525	16.145	20.250	0.00	20.39	0	5
118	Hathidah	12.298	8.745	9.500	25.000	0.00	25.00	0	5
119	Azmabad	13.658	5.375	16.270	25.000	0.00	27.01	0	5
120	Japla	11.034	4.925	18.535	8.250	0.00	31.37	0	5
121	Koelwar	6.970	4.345	10.330	5.500	0.00	14.98	0	5
122	Gaya	5.590	-	5.635	5.500	0.00	8.33	0	3
123	Lakhisarai	14.818	3.680	4.545	46.500	0.00	46.50	0	4
124	Sripalpur	14.602	8.460	7.420	41.250	0.00	41.25	0	5
125	Lalganj	14.964	8.285	4.125	50.000	0.00	50.00	0	5
126	Tribeni	9.858	1.555	4.590	37.000	0.00	37.00	0	5
127	Sikandarpur	10.956	3.465	7.050	33.750	0.00	33.75	0	5
128	Hayaghat	12.042	7.630	5.725	33.500	0.00	33.50	0	5
129	Dheng Bridge	9.994	2.010	3.475	39.000	0.00	39.00	0	5
130	Jhanjharpur	17.332	6.690	19.390	34.500	0.00	35.58	0	5

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131	Jai Nagar	11.080	8.015	5.310	28.750	0.00	28.75	0	5
132	Ekmighat	12.118	4.775	6.145	38.750	0.00	38.75	0	5
133	Baltara	11.424	10.880	3.680	28.000	0.00	28.00	0	5
134	Dindori	10.992	4.735	5.160	23.080	2.37	39.90	0	6
135	Manot	5.442	3.230	3.140	9.955	0.77	11.47	0	6
136	Mohgaoan	4.862	3.845	5.205	5.535	0.77	7.51	0	6
137	Bamni	2.530	0.530	2.090	3.970	0.00	5.21	0	5
138	Patan	6.592	4.550	10.640	4.585	0.36	17.93	0	6
139	Belkhedi	5.418	8.945	2.615	4.695	2.33	10.09	0	6
140	Bamanghat	6.677	9.045	2.430	8.555	2.40	14.45	0	6
141	Gadarwara	2.704	2.670	1.935	3.490	0.00	4.14	0	5
142	Sandia	3.990	3.475	4.525	3.970	0.98	6.56	0	6
143	Hoshangabad	5.125	6.230	2.850	6.295	1.40	11.06	0	6
144	Chhidgaon	9.587	18.105	1.645	9.010	0.92	35.29	0	6
145	Handia	2.788	0.670	2.435	4.200	0.00	5.70	0	5
146	Mandleshwar	9.486	17.620	2.160	5.015	0.83	34.41	0	6
147	Polavaram	3.786	1.550	7.315	1.200	0.00	10.12	0	5
148	Konta	1.816	1.840	2.145	1.110	0.00	3.43	0	5
149	Bhadrachalam	1.730	1.055	2.110	2.320	0.00	2.32	0	5
150	Perur	1.308	0.935	2.040	1.320	0.00	2.04	0	4
151	Pathagudem	1.458	0.610	2.100	2.510	0.00	2.51	0	4
152	Jagdalpur	2.756	0.595	6.100	0.390	0.00	8.98	0	5
153	Mancherial	1.322	1.245	1.370	1.380	0.00	1.50	0	5
154	Marella	1.467	-	1.315	1.770	0.00	2.15	0	3
155	Wadenapally	3.473	3.325	1.290	5.950	0.00	5.95	0	5
156	Paleru Bridge	3.768	1.765	9.190	2.350	0.00	9.19	0	4
157	Bawapuram	2.592	1.150	4.100	2.460	0.00	7.13	0	5
158	Damarcherla	3.602	2.490	5.360	2.310	0.00	5.47	0	5
159	Halia	9.923	1.235	34.370	2.850	0.00	34.37	0	4
160	Keesara	6.260	-	7.980	2.820	0.00	15.27	0	3
161	Malkhed	2.190	-	1.250	4.070	0.00	4.07	0	3
162	Badalapur	2.024	1.105	2.960	1.990	0.00	5.24	0	5
163	Kumhari	2.526	3.540	0.580	4.390	0.00	5.52	0	5
164	Pauni	1.840	2.155	0.745	3.400	0.00	3.40	0	5
165	Ashti	3.490	0.700	3.395	9.260	0.00	9.26	0	5
166	Hivra	2.232	1.200	1.350	6.060	0.00	6.06	0	5
167	Bamini	3.066	3.040	1.705	5.840	0.00	5.84	0	5
168	Nandgaon	2.030	1.375	1.165	5.070	0.00	5.07	0	5
169	P.G.Bridge	1.890	2.570	0.500	3.310	0.00	4.20	0	5
170	Bhatpalli	2.364	2.030	0.750	6.260	0.00	6.26	0	5
171	Tekra	4.484	2.075	5.375	7.520	0.00	7.52	0	5
172	Rajegaon	1.334	0.605	1.265	2.930	0.00	2.93	0	5
173	Satrapur	5.598	6.375	0.785	13.670	0.00	13.67	0	5
174	Ambarampalayam	12.408	21.820	8.440	6.965	0.98	42.66	0	6

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175	Gummanur	4.112	2.230	6.710	3.395	0.78	9.28	0	6
176	Theni	5.166	2.140	10.770	5.390	0.00	10.77	0	5
177	Ambasamudram	4.480	-	-	4.480	0.00	4.48	0	1
178	Musiri	3.815	2.220	5.495	3.730	0.44	5.79	0	6
179	Elunuthimanagalam	9.027	13.620	-	6.730	0.00	13.62	0	3
180	Kudlur	8.090	13.430	-	5.420	0.00	13.43	0	3
181	Sevanur	4.110	-	-	4.110	0.00	4.11	0	1
182	Thevur	13.555	-	-	13.555	0.00	22.13	0	2
183	Thoppur	5.310	-	-	5.310	0.00	5.84	0	2
184	Murappanadu	7.487	8.380	12.455	1.625	0.82	22.01	0	6
185	A.P. Puram	8.790	17.120	-	4.625	0.00	17.12	0	3
186	Nallammaranpatty	3.110	-	-	3.110	0.00	3.11	0	1
187	Nellithurai	2.052	2.070	2.760	1.680	0.02	4.12	0	6
188	Savandapur	5.747	1.400	14.070	1.770	0.04	28.10	0	6
189	Thengumarahada	1.964	1.895	2.690	0.650	0.00	3.61	0	5
190	Urachikottai	1.948	1.760	2.575	1.070	0.00	4.48	0	5
191	Kodumudi	2.377	2.380	2.410	2.340	0.12	4.70	0	6
192	M.H.Halli	3.883	5.310	5.295	1.045	0.44	10.18	0	6
193	T. Bekuppe	8.252	12.115	7.550	5.090	0.17	24.06	0	6
194	T.K.Halli	4.413	5.500	6.510	2.820	0.00	6.51	0	4
195	Kollegal	2.914	5.790	2.575	1.815	0.00	5.79	0	5
196	Biligundullu	2.172	2.320	1.910	2.285	0.43	4.21	0	6
197	Kudige	2.165	1.720	3.050	1.725	0.40	4.60	0	6
198	Akkihebbal	2.040	1.630	2.485	2.005	0.45	3.10	0	6
199	Bendrahalli	5.427	-	7.020	4.630	0.00	7.02	0	3
200	Thimmanahalli	1.688	1.385	1.765	1.915	0.29	2.83	0	6
201	Sakleshpur	1.757	1.860	1.895	1.515	0.27	3.45	0	6
202	Bantwal	2.008	1.580	3.015	1.430	0.08	3.98	0	6
203	Yennehole	2.495	-	3.300	1.690	0.00	4.77	0	4
204	Haladi	1.647	2.045	1.710	1.185	0.34	2.30	0	6
205	Santeguli	2.965	2.080	5.175	1.640	0.82	6.29	0	6
206	Addoor	3.410	-	3.030	4.170	0.00	4.40	0	3
207	Harlahalli	2.626	2.440	4.085	1.260	0.00	7.28	0	5
208	Honnali	1.788	1.280	1.945	2.140	0.23	3.20	0	6
209	Shimoga	4.670	-	6.455	1.100	0.00	7.97	0	3
210	T. Narasipur	3.106	2.050	4.920	1.590	0.00	9.04	0	5
211	Byaladahalli	2.190	2.710	1.930	-	0.00	2.71	0	3
212	Holehonnur	1.483	1.200	1.785	1.465	0.49	2.24	0	6
213	Chennur	5.283	11.390	1.800	2.660	0.25	22.53	0	6
214	Alladupalli	4.158	7.455	3.815	1.205	0.27	14.64	0	6
215	Nandipalli	3.084	5.900	1.020	1.300	0.00	11.15	0	5
216	Nellore	2.817	6.355	1.325	0.770	0.20	12.51	0	6
217	Naidupet	0.460	0.330	-	0.590	0.00	0.59	0	2
218	Chengalpet	0.290	-	-	0.290	0.00	0.29	0	1

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219	Vazhavachanur	3.438	9.710	1.430	1.305	0.00	9.71	0	4
220	Thengudi	1.793	-	1.845	1.690	0.00	2.90	0	3
221	Porakudi	0.860	-	-	0.860	0.00	0.86	0	1
222	Peralam	0.927	-	0.940	0.900	0.00	1.16	0	3
223	Annavasal	0.970	-	0.850	1.090	0.00	1.09	0	2
224	Kuniyil	9.766	16.010	5.395	6.020	0.00	26.40	0	5
225	Erinjipuzha	3.890	3.080	3.810	4.780	0.96	8.60	0	6
226	Perumannu	3.450	5.850	1.950	2.550	0.84	6.68	0	6
227	Kumbidi	1.327	1.425	1.600	0.955	0.44	2.76	0	6
228	Arangaly	1.038	0.875	1.485	0.470	0.00	2.02	0	5
229	Pudur	3.503	1.240	1.930	7.340	1.19	12.48	0	6
230	Ramamangalam	2.092	2.465	1.925	1.885	0.61	3.24	0	6
231	Thumpamon	1.568	1.055	2.670	0.980	0.23	5.11	0	6
232	Kidangoor	0.787	1.025	0.825	0.510	0.35	1.30	0	6
233	Pattazhy	1.078	0.530	1.845	0.860	0.32	3.05	0	6
234	Kallooppara	0.870	0.580	1.335	0.695	0.14	2.06	0	6
235	Malakkara	1.302	1.435	1.435	1.035	0.33	2.54	0	6
236	Pulmanthole	1.600	1.485	1.690	1.625	1.20	2.18	0	6
237	Karathodu	1.154	1.160	1.230	0.990	0.00	1.43	0	5
238	Kalampur	1.404	1.700	1.365	0.890	0.00	1.97	0	5
239	Mankara	1.673	1.410	1.920	1.690	0.55	3.29	0	6
240	Neeleswaram	0.983	1.080	1.015	0.855	0.39	1.64	0	6
241	Muthankera	1.452	1.605	1.165	1.585	0.77	2.44	0	6
242	Vandiperiyar	2.202	2.425	2.125	1.910	0.00	3.89	0	5
243	Kuzhithurai	1.480	0.585	2.375	-	0.00	4.19	0	4
244	Ashramam	2.160	1.535	4.810	0.760	0.00	4.81	0	4
245	Kuttyadi	1.468	2.000	1.610	0.650	0.00	2.61	0	4
246	Tezu	1.085	0.500	-	1.670	0.00	3.28	0	4
247	Dholabazar	3.708	1.615	7.270	0.770	0.01	14.53	0	6
248	Namsai	2.867	1.875	2.120	4.605	0.53	8.68	0	6
249	Margherita	0.765	0.490	1.475	0.330	0.10	2.47	0	6
250	Naharkatia	1.222	0.555	2.755	0.355	0.17	3.99	0	6
251	Chenimari	1.140	0.460	2.500	0.460	0.04	4.32	0	6
252	Dillighat	1.078	0.620	2.265	0.350	0.10	3.41	0	6
253	Desangpani	1.568	0.960	1.570	2.175	0.44	3.91	0	6
254	Nanglamoraghat	0.833	0.325	1.805	0.370	0.09	2.15	0	6
255	Sivasagar	1.278	0.635	2.970	0.230	0.00	4.96	0	6
256	Bokajan	0.880	0.435	2.000	0.205	0.05	2.32	0	6
257	Numaligarh	1.822	0.410	4.800	0.255	0.07	7.80	0	6
258	Chouldhowaghat	2.598	0.145	6.100	1.550	0.01	11.75	0	6
259	Badatighat	0.830	0.410	1.140	1.095	0.22	1.84	0	6
260	Ranganadi NT Road Crossing	1.390	0.245	3.170	0.755	0.06	3.96	0	6
261	Kheronighat	1.310	1.550	2.240	0.605	0.00	2.92	0	5
262	Kampur	1.344	0.150	3.070	0.280	0.00	5.25	0	5

S. No.	Water Quality Site	Chromium (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
263	Dharamtul	0.488	0.550	0.515	0.310	0.17	0.86	0	6
264	Jagibhakatgaon	0.480	0.480	0.790	0.170	0.17	0.79	0	6
265	Bhomoraguri	0.560	0.865	0.810	0.130	0.04	0.93	0	6
266	Tezpur	0.490	0.600	0.350	0.520	0.04	1.00	0	6
267	Seppa	1.725	0.810	4.210	0.155	0.09	7.71	0	6
268	Bhalukpong	0.892	0.515	1.625	0.180	0.18	2.34	0	6
269	Jiabharali NT Road Xing	1.418	0.120	1.930	1.690	0.00	3.42	0	4
270	Bihubar	1.872	0.845	4.010	0.760	0.07	4.88	0	6
271	Dibrugarh	1.604	0.350	3.500	1.910	0.05	3.77	0	6
272	Golaghat	2.028	0.655	5.035	0.395	0.11	8.50	0	6
273	Miao	2.312	1.215	4.110	1.610	0.46	6.00	0	6
274	Neamtighat	1.060	0.210	1.930	1.040	0.06	2.52	0	6
275	Udaypur	2.692	1.825	8.050	0.880	0.04	8.05	0	6
276	Tuting	0.950	0.590	1.310	-	0.00	1.31	0	2
277	Passighat	0.832	0.575	0.830	1.350	0.00	1.37	0	5
278	Puthimari D.R.F.	5.060	2.875	2.215	10.090	1.03	11.42	0	6
279	Pancharatna	3.675	1.295	4.475	5.255	0.65	6.81	0	6
280	Suklai	10.707	2.705	1.980	27.435	1.83	49.11	0	6
281	Kulsi	3.058	2.970	1.620	4.670	1.62	4.67	0	6
282	Dudhnai	3.377	1.955	1.935	6.240	1.12	7.51	0	6
283	Pandu	3.613	2.700	2.215	5.925	0.74	6.07	0	6
284	Puthimari NH X-ING	4.028	2.540	1.760	7.785	1.32	9.20	0	6
285	Sonapur	3.273	2.075	2.440	5.305	0.60	6.20	0	6
286	Matunga	2.683	4.180	1.785	2.085	0.25	6.31	0	6
287	Pagladiya N.T. Road X-ING	2.468	1.595	2.835	3.480	1.47	3.48	0	6
288	A.P.Ghat	5.330	6.075	1.920	7.250	0.00	11.68	0	4
289	Therriaghat	4.588	4.125	1.390	6.650	0.00	10.03	0	5
290	Dholai	6.692	5.675	1.850	10.130	0.00	14.40	0	5
291	Dimapara	13.684	23.185	3.710	9.170	0.00	45.72	0	5
292	Kharkhana	6.662	8.250	0.940	7.935	0.00	15.02	0	5
293	Dawki	4.242	3.255	1.010	6.845	0.00	7.67	0	5
294	Badar Pur Ghat (B.P. Ghat)	3.705	1.125	5.780	6.790	0.00	6.79	0	4
295	Sibbari	4.598	5.235	3.460	4.530	0.00	10.09	0	5
296	Matijuri	10.804	17.620	3.960	7.410	0.00	35.06	0	5
297	Fulertal	7.016	10.490	1.290	6.405	0.00	13.54	0	5
298	Fakirabazar	8.254	15.135	1.630	4.685	0.00	28.89	0	5
299	Gumrabazar	2.338	2.035	0.840	3.390	0.00	4.81	0	5
300	Sankalan	3.082	1.705	1.390	6.150	0.18	8.00	0	6
301	Behalpur	5.215	0.615	1.090	13.940	0.07	24.81	0	6
302	Gajaldoba	5.386	1.385	7.410	8.375	0.00	13.72	0	5
303	Aie NH Crossing	3.570	1.895	2.915	5.900	0.25	10.13	0	6
304	Domohani	3.803	1.335	3.050	7.025	0.07	9.35	0	6

S. No.	Water Quality Site	Chromium (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
305	Khanitar	4.267	2.410	0.765	9.625	0.03	14.58	0	6
306	Champasari	11.730	7.025	20.440	7.725	0.37	38.83	0	6
307	Dhubri	2.845	1.395	2.115	5.025	0.24	7.65	0	6
308	Majhitar	2.773	1.265	1.905	5.150	1.06	6.82	0	6
309	Sonapurhat	4.317	4.690	1.945	6.315	0.05	9.33	0	6
310	Mathanguri	3.680	0.740	9.200	3.860	0.00	9.20	0	5
311	Manas NH Crossing	2.735	1.635	1.575	4.995	0.51	6.50	0	6
312	Mathabhanga	2.517	1.205	1.605	4.740	0.11	5.55	0	6
313	Rangpo	2.408	0.625	3.140	3.460	0.09	4.35	0	6
314	Nagrakata	2.375	0.320	2.815	3.990	0.04	4.19	0	6
315	Jaldhaka NH-31	2.985	1.355	2.950	4.650	0.02	4.71	0	6
316	Matigara	5.152	2.070	9.365	4.020	0.04	12.12	0	6
317	Ghugumari	2.190	2.070	1.125	3.375	0.12	4.02	0	6
318	Sevoke	9.367	2.975	16.895	8.230	2.40	31.39	0	6
319	Beki Road Bridge	2.213	2.265	1.155	3.220	0.01	5.00	0	6
320	Chel	6.527	3.305	4.050	12.225	1.82	19.96	0	6
321	Golokganj	3.850	1.895	5.895	3.760	0.20	11.17	0	6
322	SinglaBazar	2.212	1.580	1.255	3.800	0.34	3.82	0	6
323	Kokrajhar	2.350	0.475	2.305	4.270	0.17	5.07	0	6
324	Sankosh LRP	2.125	0.830	2.010	3.535	0.11	4.13	0	6
325	Murti	6.270	1.190	13.435	4.185	0.07	17.10	0	6
326	Diana	3.578	0.885	5.005	4.845	0.21	5.65	0	6
327	Ghish	2.758	1.875	2.845	3.555	0.14	4.32	0	6
328	Hasimara	2.478	1.585	1.800	4.050	0.22	4.27	0	6
329	Coronation	4.990	5.415	5.880	3.675	2.47	6.23	0	6
330	Panbari	2.245	0.285	1.845	4.605	0.23	5.88	0	6
331	Chepan	1.880	0.955	1.445	3.240	0.12	4.31	0	6
332	Barobisha	3.190	1.225	4.770	3.575	0.88	8.17	0	6
333	TeestaBazar	2.525	1.465	2.570	3.540	0.50	4.21	0	6
334	Mekhliganj	3.280	1.645	5.725	1.660	0.00	9.23	0	5
335	Neora	7.486	4.325	12.285	4.210	0.00	21.39	0	5
336	Tufanganj	3.346	0.505	6.965	1.790	0.00	12.17	0	5
337	Tuini	2.622	8.000	1.910	0.645	0.00	8.00	0	5
338	Yashwant nagar	1.811	0.085	2.485	2.000	0.00	3.86	0	5
339	Paonta	2.129	0.045	2.535	2.765	0.00	4.58	0	5
340	Kalanaur	6.501	0.016	1.965	14.280	0.00	24.75	0	5
341	Mawi	2.222	1.665	1.955	3.045	0.02	4.83	0	6
342	Palla	1.776	0.454	3.010	1.865	0.00	4.38	0	6
343	Delhi Rly Bridge	4.104	0.801	6.170	5.340	0.10	7.24	0	6
344	Galeta	2.731	0.504	4.680	3.010	0.04	8.82	0	6
345	Mohana	4.022	2.200	5.395	4.470	0.01	8.45	0	6
346	Gokul Barrage (Mathura)	3.817	3.240	4.950	3.260	0.03	8.30	0	6
347	Agra (P.G.)	11.871	3.779	6.710	25.125	0.13	46.46	0	6
348	Auraiya	6.846	1.484	7.255	11.800	0.10	22.12	0	6

S. No.	Water Quality Site	Chromium (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
349	Etawah	9.956	1.988	9.515	18.365	0.15	34.48	0	6
350	Hamirpur	10.744	0.913	14.635	16.685	0.11	31.98	0	6
351	Pratappur	9.911	0.988	4.070	24.675	0.12	47.28	0	6
352	Seondha	4.807	2.911	4.915	6.595	0.10	12.40	0	6
353	Rajghat	6.991	0.904	5.560	14.510	0.14	28.26	0	6
354	Shahijina	5.365	3.279	4.175	8.640	0.12	15.76	0	6
355	Garrauli	4.140	0.089	11.910	0.420	0.00	11.91	0	3
356	Kora	11.662	0.078	9.990	18.290	0.00	22.42	0	4
357	Banda	4.191	3.482	4.940	4.525	0.00	8.52	0	5
358	Dholpur	6.985	1.936	7.775	11.245	0.07	21.32	0	6
359	Udi	7.088	3.620	5.640	12.005	0.12	22.86	0	6
360	Tal	2.810	-	2.645	3.140	0.00	4.53	0	3
361	A.B.Road Crossing	2.607	-	2.485	2.850	0.00	4.09	0	3
362	Khatoli	2.230	1.220	3.195	1.770	0.00	6.07	0	5
363	Aklera	2.647	-	2.670	2.600	0.00	4.95	0	3
364	Sangod	1.230	-	0.830	1.630	0.00	1.63	0	2
365	Mahidpur	3.517	-	3.870	2.810	0.00	7.20	0	3
366	Barod	3.812	7.050	3.045	2.960	0.00	7.05	0	5
367	Tonk	2.413	-	2.395	2.450	0.00	4.56	0	3
368	Pati	2.950	-	2.950	-	0.00	3.71	0	2
369	Kogaon	1.600	2.010	1.395	-	0.00	2.21	0	3
370	Pachauli	6.200	-	6.200	-	0.00	7.92	0	2
371	Ayilam	1.840	1.560	1.980	-	0.00	3.40	0	3
372	T. Ramapuram	13.715	-	13.715	-	0.00	23.65	0	2
373	Menangudi	1.065	-	1.065	-	0.00	1.23	0	2
374	Kellodu	10.070	-	10.070	-	0.00	10.07	0	1
375	Sulurpet	1.300	-	1.300	-	0.00	1.30	0	1
376	K.M. Vadi	1.550	-	1.550	-	0.00	1.55	0	1
377	Yadgir	11.475	-	11.475	-	0.00	22.31	0	2
378	Mangaon (Seasonal)	2.830	-	2.830	-	0.00	2.83	0	1
379	Phulgaon (Seasonal)	2.670	-	2.670	-	0.00	2.67	0	1
380	Cholachguda (Seasonal)	3.180	-	3.180	-	0.00	4.94	0	2
381	Belne Bridge	1.660	-	1.660	-	0.00	3.18	0	2
382	Dhulsar	9.340	-	9.340	-	0.00	11.19	0	2
383	Avershe	2.085	-	2.085	-	0.00	3.11	0	2
384	Chunchankatte	8.400	-	8.400	-	0.00	15.87	0	2
385	Kuppelur	2.190	-	2.190	-	0.00	3.41	0	2
386	Kurundwad	2.185	-	2.185	-	0.00	4.10	0	2
387	Marol	1.495	-	1.495	-	0.00	1.98	0	2

COPPER

S. No.	Water Quality Site	Copper (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
1	Jammu Tawi	14.537	13.360	4.895	25.355	0.72	26.00	0	6
2	Akhnoor	18.227	13.615	4.005	37.060	0.29	50.09	1	5
3	Tandi	12.463	13.900	3.100	29.750	0.00	29.75	0	4
4	Udaipur	16.640	21.650	3.705	37.500	0.00	37.50	0	4
5	Sangam	17.388	27.050	4.870	20.245	0.62	53.48	1	5
6	Ram Munshi Bagh	7.987	5.930	2.105	15.925	0.26	19.60	0	6
7	Dhamkund	11.437	10.495	1.590	22.225	0.66	34.50	0	6
8	Prem Nagar	11.800	10.375	3.985	21.040	0.96	34.75	0	6
9	Safapora	7.175	10.040	1.435	10.050	0.10	19.00	0	6
10	Tehri	20.850	15.300	28.165	19.085	3.70	39.72	0	6
11	Rishikesh	23.510	13.270	31.445	25.815	3.14	43.51	0	6
12	Uttarkashi	22.575	19.255	32.695	15.775	5.71	40.46	0	6
13	Deoprayag	20.483	14.045	25.795	21.610	4.49	38.52	0	6
14	Rudraprayag	23.728	14.850	25.545	30.790	2.80	43.83	0	6
15	Mataji	8.975	4.240	6.315	19.030	0.00	19.03	0	4
16	Rangeli	14.335	17.470	6.505	19.030	1.50	33.04	0	6
17	Paderdibadi	6.165	6.280	5.695	6.520	1.99	9.40	0	6
18	Khanpur	16.148	14.970	4.760	28.715	2.34	47.64	0	6
19	Derol Bridge	6.360	-	7.220	5.500	0.00	7.22	0	3
20	Vautha	44.512	58.860	12.140	62.535	7.57	98.80	2	4
21	Lowara	9.847	-	11.335	6.870	0.00	17.87	0	3
22	Ganod	9.520	-	7.560	11.480	0.00	11.48	0	2
23	Abu Road	8.343	-	10.135	4.760	0.00	10.41	0	3
24	Chitrasani	12.737	-	15.200	7.810	0.00	20.03	0	3
25	Kamalpur	14.250	-	23.760	4.740	0.00	23.76	0	2
26	Burhanpur	28.270	32.790	29.110	17.550	0.00	60.23	1	4
27	Gopalkheda	29.085	36.140	25.830	28.540	0.00	40.89	0	4
28	Sarangkheda	27.945	-	32.510	23.380	0.00	32.51	0	2
29	Gadat	9.660	2.890	13.940	7.870	0.00	15.06	0	4
30	Mahuwa	15.272	5.985	14.390	25.440	3.98	32.42	0	6
31	Durvesh	18.518	37.360	14.735	7.240	0.00	37.36	0	4
32	Garudeshwar	11.933	5.315	8.405	22.080	4.18	34.21	0	6
33	Chanwada	10.997	-	12.605	7.780	0.00	17.98	0	3
34	Pingalwada	12.510	6.065	13.110	24.200	0.00	24.20	0	5
35	Motinaroli	9.676	4.990	14.180	10.040	0.00	23.29	0	5
36	Vapi	14.853	9.190	16.510	18.860	5.89	26.89	0	6
37	Hendegir	6.702	0.980	11.050	5.215	0.00	18.99	0	5
38	Ramgarh	14.316	2.980	8.765	25.535	0.00	45.35	0	5
39	Jamtara	4.222	1.800	4.345	5.310	0.00	5.85	0	5
40	Tilpara Barrage	5.628	4.900	6.060	5.560	0.00	6.89	0	5
41	Maharo	5.770	5.600	5.995	5.630	0.00	9.51	0	5
42	Nutanhat	7.186	15.510	4.750	5.460	0.00	15.51	0	5
43	Talcher	14.240	7.380	8.805	26.535	3.26	38.81	0	6

S. No.	Water Quality Site	Copper (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
44	Jenapur	16.523	8.525	14.200	26.845	5.45	39.70	0	6
45	Anandpur	13.922	14.115	12.725	14.925	8.98	19.97	0	6
46	Tikarpara	9.327	7.670	12.170	8.140	6.89	14.80	0	6
47	Panposh	11.573	10.750	14.150	9.820	6.68	19.67	0	6
48	Gomlai	14.053	11.840	13.210	17.110	6.66	24.92	0	6
49	Muri	8.620	6.300	9.545	10.015	2.92	14.58	0	6
50	Jamshedpur	11.432	10.005	14.845	9.445	7.20	18.94	0	6
51	Adityapur	13.170	21.785	6.615	11.110	0.86	36.67	0	6
52	Ghatsila	32.250	31.455	20.130	39.105	18.67	59.54	1	5
53	Tilga	19.438	10.725	36.945	10.645	6.63	39.29	0	6
54	Jaraikela	12.917	15.532	11.845	11.375	6.65	20.81	0	6
55	Champua	10.678	5.090	11.975	14.970	4.16	20.01	0	6
56	Govindapur	12.253	8.485	10.005	18.270	5.90	26.77	0	6
57	Purushottampur	17.756	4.021	5.770	37.485	0.00	47.46	0	5
58	Srikakulam	20.030	9.735	16.855	33.500	9.36	38.44	0	6
59	Kashinagar	11.278	6.700	10.380	14.465	0.00	17.08	0	5
60	Basantpur	30.147	24.015	14.400	52.025	9.03	61.03	1	5
61	Rampur	30.425	-	20.030	40.820	0.00	53.45	1	3
62	Bamnidih	21.430	17.665	24.325	22.300	1.73	33.60	0	6
63	Rajim	24.417	-	19.365	34.520	0.00	34.52	0	3
64	Simga	18.058	-	17.540	18.575	0.00	28.60	0	4
65	Andhiyar Kore	19.166	2.190	20.830	25.990	0.00	41.88	0	5
66	Baronda	16.147	-	19.770	8.900	0.00	21.82	0	3
67	Jondhra	13.950	-	17.265	7.320	0.00	21.57	0	3
68	Ghatora	17.013	-	20.985	9.070	0.00	21.05	0	3
69	Pathardhi	12.943	-	15.400	8.030	0.00	15.86	0	3
70	Kurubhata	16.968	2.030	20.540	20.865	0.00	33.52	0	5
71	Salebhata	15.686	2.540	15.825	22.120	0.00	30.92	0	5
72	Kantamal	19.862	9.765	16.885	32.935	2.53	55.27	1	5
73	Manendragarh	22.110	-	22.050	22.230	0.00	27.17	0	3
74	Kesinga	16.600	20.600	13.995	17.205	0.00	21.67	0	5
75	Sundergarh	14.268	11.555	16.005	16.220	0.00	22.50	0	5
76	Farakka	10.758	2.790	19.820	5.680	0.00	38.04	0	5
77	Farakka / H/R	8.260	3.730	14.445	6.605	0.99	27.90	0	6
78	English Bazar	11.040	11.970	11.235	8.790	1.06	21.41	0	6
79	Labha	12.703	2.100	20.270	8.170	0.00	39.23	0	5
80	Berhampore	10.052	6.040	20.260	3.855	1.12	39.40	0	6
81	Katwa	13.170	2.660	21.370	15.480	1.02	41.06	0	6
82	Kalna (EBB)	8.105	8.340	10.145	5.830	1.35	18.94	0	6
83	Chapra	6.618	0.620	4.584	14.650	0.01	22.05	0	6
84	Hanskhali	9.158	2.085	17.945	7.445	0.92	34.78	0	6
85	Elginbridge	31.147	27.655	40.210	25.575	7.31	43.84	0	6
86	Ayodhya	22.413	26.715	27.400	13.125	6.68	28.43	0	6
87	Turtipar	35.023	22.170	67.745	15.155	6.25	86.49	1	5

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		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
88	Paliakalan	30.003	28.605	36.355	25.050	6.07	44.03	0	6
89	Balrampur	51.667	44.850	66.535	43.615	7.65	84.57	3	3
90	Regauli	67.470	105.850	54.270	42.290	4.70	180.70	3	3
91	Birdghat	34.693	41.220	33.050	29.810	2.80	79.64	1	5
92	Basti	48.923	43.160	55.490	48.120	7.61	88.63	3	3
93	Ghat	49.178	45.270	73.245	29.020	4.83	85.65	4	2
94	Garhmukteshwar	35.540	17.975	64.810	23.835	5.54	83.26	1	5
95	Moradabad	50.787	60.420	62.935	29.005	11.57	99.10	2	4
96	Kachlabridge	51.845	63.295	69.525	22.715	6.29	109.57	3	3
97	Fatehgarh	38.407	57.055	43.115	15.050	6.11	95.61	1	5
98	Bareilly	46.685	52.685	53.945	33.425	9.70	73.69	3	3
99	Dabri	32.667	21.075	53.290	23.635	7.67	79.46	1	5
100	Kanpur	35.800	19.755	68.140	19.505	7.86	87.10	1	5
101	Ankinghat	46.007	55.415	64.210	18.395	9.32	91.43	3	3
102	Bhitaura	57.858	77.420	52.865	43.290	8.18	140.64	3	3
103	Raibareli	33.155	34.850	34.975	29.640	7.03	52.25	1	5
104	Lucknow	38.973	27.870	41.175	47.875	17.21	78.22	1	5
105	Neemsar	34.960	16.120	24.620	64.140	0.00	64.14	1	2
106	Meja Road	18.678	9.555	23.755	26.770	0.00	43.19	0	5
107	Chopan	8.158	8.380	6.465	11.100	0.00	16.52	0	5
108	Maighat	8.146	9.150	5.660	11.110	0.00	17.80	0	5
109	Shahzadpur	13.538	18.685	9.305	11.710	0.00	20.87	0	5
110	Sultanpur	9.762	8.710	10.590	10.210	0.00	18.54	0	5
111	Varanasi	8.394	9.510	4.505	13.940	0.00	16.21	0	5
112	Mirzapur	7.906	8.625	6.250	9.780	0.00	15.20	0	5
113	Kuldah Bridge	18.684	8.495	34.135	8.160	0.00	50.24	1	4
114	Duddi	10.642	8.800	12.145	11.320	0.00	21.99	0	5
115	Chhatnag Allahbad	11.354	11.805	6.225	20.710	0.00	20.71	0	5
116	Buxar	15.760	6.610	20.790	24.000	0.00	33.26	0	5
117	Gandhighat (Patna)	19.942	17.050	27.125	11.360	0.00	43.41	0	5
118	Hathidah	6.300	4.105	7.785	7.720	0.00	8.74	0	5
119	Azmabad	13.214	3.510	26.110	6.830	0.00	42.97	0	5
120	Japla	8.834	6.635	13.195	4.510	0.00	18.53	0	5
121	Koelwar	10.292	9.875	13.900	3.910	0.00	18.42	0	5
122	Gaya	18.547	-	26.235	3.170	0.00	43.13	0	3
123	Lakhisarai	12.723	4.600	21.680	2.930	0.00	37.64	0	4
124	Sripalpur	14.994	5.145	29.990	4.700	0.00	43.19	0	5
125	Lalganj	7.022	6.655	8.555	4.690	0.00	12.37	0	5
126	Tribeni	12.698	6.745	23.405	3.190	0.00	41.39	0	5
127	Sikandarpur	15.480	8.950	27.400	4.700	0.00	41.11	0	5
128	Hayaghat	13.808	3.840	28.850	3.660	0.00	40.06	0	5
129	Dheng Bridge	9.146	2.855	18.385	3.250	0.00	28.96	0	5
130	Jhanjharpur	8.330	1.655	17.050	4.240	0.00	24.96	0	5
131	Jai Nagar	11.262	3.750	22.415	3.980	0.00	35.79	0	5

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132	Ekmighat	10.664	2.435	22.350	3.750	0.00	37.52	0	5
133	Baltara	13.046	13.155	17.385	4.150	0.00	33.42	0	5
134	Dindori	8.940	2.195	4.580	20.045	0.02	34.24	0	6
135	Manot	12.682	5.015	21.655	11.375	0.98	24.55	0	6
136	Mohgaoan	9.995	2.305	14.985	12.695	0.06	24.81	0	6
137	Bamni	16.250	5.920	18.290	19.375	0.00	34.59	0	5
138	Patan	8.557	1.770	19.095	4.805	0.12	35.54	0	6
139	Belkhedi	14.807	2.655	19.970	21.795	0.16	40.95	0	6
140	Bamanghat	14.775	5.925	25.335	13.065	3.67	46.96	0	6
141	Gadarwara	12.374	5.090	7.345	21.045	0.00	38.19	0	5
142	Sandia	5.960	6.125	4.590	7.165	3.35	9.54	0	6
143	Hoshangabad	14.828	4.945	21.545	17.995	3.19	32.78	0	6
144	Chhidgaon	10.080	3.445	3.310	23.485	0.49	45.10	0	6
145	Handia	8.438	2.750	5.730	13.990	0.00	25.49	0	5
146	Mandleshwar	5.607	3.105	10.220	3.495	1.21	19.23	0	6
147	Polavaram	16.690	2.880	30.975	15.740	0.00	42.80	0	5
148	Konta	4.954	1.405	1.865	18.230	0.00	18.23	0	5
149	Bhadrachalam	3.862	2.810	1.605	10.480	0.00	10.48	0	5
150	Perur	3.438	2.240	0.190	9.080	0.00	9.08	0	4
151	Pathagudem	8.553	3.140	0.570	27.360	0.00	27.36	0	4
152	Jagdalpur	3.688	2.915	2.860	6.890	0.00	6.89	0	5
153	Mancherial	5.946	3.070	7.275	9.040	0.00	11.25	0	5
154	Marella	17.363	-	15.030	22.030	0.00	23.55	0	3
155	Wadenapally	8.706	5.165	7.965	17.270	0.00	17.27	0	5
156	Paleru Bridge	7.275	5.670	6.360	11.400	0.00	11.40	0	4
157	Bawapuram	6.596	4.315	1.590	21.170	0.00	21.17	0	5
158	Damarcherla	13.310	4.545	14.135	29.190	0.00	29.19	0	5
159	Halia	12.680	4.390	12.320	29.620	0.00	29.62	0	4
160	Keesara	14.123	-	7.465	27.440	0.00	27.44	0	3
161	Malkhed	11.320	-	8.780	16.400	0.00	16.40	0	3
162	Badalapur	10.030	16.765	3.945	8.730	0.00	31.00	0	5
163	Kumhari	28.884	19.845	12.895	78.940	0.00	78.94	1	4
164	Pauni	35.528	21.810	9.590	114.840	0.00	114.84	1	4
165	Ashti	39.318	21.040	21.490	111.530	0.00	111.53	1	4
166	Hivra	35.086	25.945	25.865	71.810	0.00	71.81	1	4
167	Bamini	16.720	4.250	19.870	35.360	0.00	35.36	0	5
168	Nandgaon	28.794	24.815	19.880	54.580	0.00	54.58	1	4
169	P.G.Bridge	17.144	4.800	22.115	31.890	0.00	38.69	0	5
170	Bhatpalli	11.294	0.290	18.145	19.600	0.00	27.57	0	5
171	Tekra	6.078	0.785	8.320	12.180	0.00	12.18	0	5
172	Rajegaon	10.616	3.545	16.175	13.640	0.00	25.09	0	5
173	Satrapur	16.814	20.935	17.830	6.540	0.00	39.80	0	5
174	Ambarampalayam	6.370	1.965	2.520	14.625	0.95	26.72	0	6
175	Gummanur	5.282	2.250	2.580	9.665	1.87	15.71	0	6

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176	Theni	8.614	2.250	3.120	17.725	0.00	31.49	0	5
177	Ambasamudram	10.410	-	-	10.410	0.00	10.41	0	1
178	Musiri	6.047	1.900	6.765	9.475	0.82	13.92	0	6
179	Elunuthimanagalam	8.877	4.870	-	10.880	0.00	17.56	0	3
180	Kudlur	8.390	0.980	-	12.095	0.00	17.81	0	3
181	Sevanur	18.400	-	-	18.400	0.00	18.40	0	1
182	Thevur	7.415	-	-	7.415	0.00	11.33	0	2
183	Thoppur	15.745	-	-	15.745	0.00	27.31	0	2
184	Murappanadu	5.778	0.760	5.865	10.710	0.13	17.90	0	6
185	A.P. Puram	9.293	5.980	-	10.950	0.00	18.55	0	3
186	Nallammaranpatty	13.010	-	-	13.010	0.00	13.01	0	1
187	Nellithurai	5.575	0.790	10.265	5.670	0.56	18.49	0	6
188	Savandapur	5.357	1.225	7.290	7.555	0.47	12.88	0	6
189	Thengumarahada	6.138	1.880	6.440	14.050	0.00	14.05	0	5
190	Urachikottai	5.746	1.780	5.060	15.050	0.00	15.05	0	5
191	Kodumudi	6.240	2.850	5.465	10.405	1.72	17.82	0	6
192	M.H.Halli	8.433	7.545	5.125	12.630	0.84	21.81	0	6
193	T. Bekuppe	6.750	7.750	7.070	5.430	0.88	14.62	0	6
194	T.K.Halli	18.088	10.020	16.170	23.080	0.00	40.90	0	4
195	Kollegal	11.826	11.010	7.000	17.060	0.00	29.59	0	5
196	Biligundullu	8.487	3.595	4.900	16.965	0.13	30.38	0	6
197	Kudige	7.233	5.860	2.810	13.030	0.39	22.30	0	6
198	Akkihebbal	17.663	18.230	9.220	25.540	0.85	47.60	0	6
199	Bendrahalli	32.347	-	41.120	27.960	0.00	49.44	0	3
200	Thimmanahalli	9.803	4.495	6.350	18.565	0.09	32.78	0	6
201	Sakleshpur	9.390	4.380	11.450	12.340	0.16	21.98	0	6
202	Bantwal	6.780	3.675	4.390	12.275	0.55	20.65	0	6
203	Yennehole	5.028	-	5.035	5.020	0.00	9.63	0	4
204	Haladi	6.395	5.610	3.505	10.070	0.99	16.74	0	6
205	Santeguli	8.097	4.050	2.300	17.940	0.06	30.39	0	6
206	Addoor	6.993	-	5.230	10.520	0.00	10.52	0	3
207	Harlahalli	15.006	2.020	15.130	21.375	0.00	38.42	0	5
208	Honnali	8.463	1.215	3.050	21.125	0.42	36.49	0	6
209	Shimoga	9.857	-	1.920	25.730	0.00	25.73	0	3
210	T. Narasipur	10.902	5.715	19.485	4.110	0.00	38.55	0	5
211	Byaladahalli	12.020	3.050	16.505	-	0.00	31.42	0	3
212	Holehonnur	6.472	2.080	3.910	13.425	0.96	22.60	0	6
213	Chennur	16.240	11.645	11.215	25.860	2.32	46.93	0	6
214	Alladupalli	9.870	10.945	12.825	5.840	1.84	23.81	0	6
215	Nandipalli	7.936	11.580	1.570	7.475	0.00	21.40	0	5
216	Nellore	11.500	11.950	17.745	4.805	0.98	34.51	0	6
217	Naidupet	7.550	1.730	-	13.370	0.00	13.37	0	2
218	Chengalpet	11.370	-	-	11.370	0.00	11.37	0	1
219	Vazhavachanur	17.288	22.600	28.100	9.225	0.00	28.10	0	4

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220	Thengudi	13.267	-	15.880	8.040	0.00	29.37	0	3
221	Porakudi	15.420	-	-	15.420	0.00	15.42	0	1
222	Peralam	12.920	-	16.725	5.310	0.00	31.31	0	3
223	Annavasal	6.010	-	2.640	9.380	0.00	9.38	0	2
224	Kuniyil	11.890	8.615	14.240	13.740	0.00	27.32	0	5
225	Erinjipuzha	16.433	27.480	14.530	7.290	1.15	53.16	1	5
226	Perumannu	12.655	20.755	2.765	14.445	0.62	40.54	0	6
227	Kumbidi	10.780	24.790	3.780	3.770	0.68	48.90	0	6
228	Arangaly	13.736	27.335	5.040	3.930	0.00	49.07	0	5
229	Pudur	13.937	26.485	4.525	10.800	1.43	49.97	0	6
230	Ramamangalam	10.642	24.735	3.455	3.735	0.67	46.49	0	6
231	Thumpamon	7.957	5.690	4.640	13.540	3.02	23.32	0	6
232	Kidangoor	5.528	9.215	2.600	4.770	0.68	13.63	0	6
233	Pattazhy	6.838	3.650	0.880	15.985	0.68	24.57	0	6
234	Kallooppara	7.832	1.350	0.280	18.090	0.28	33.47	0	6
235	Malakkara	8.392	1.800	3.160	20.215	0.42	37.53	0	6
236	Pulmanthole	3.185	2.890	2.050	4.615	0.33	5.28	0	6
237	Karathodu	5.152	2.055	1.885	17.880	0.00	17.88	0	5
238	Kalampur	4.058	1.755	4.270	8.240	0.00	8.24	0	5
239	Mankara	3.938	2.260	1.715	7.840	0.82	13.05	0	6
240	Neeleswaram	6.080	1.010	2.585	14.645	0.12	26.08	0	6
241	Muthankera	8.842	2.555	1.840	22.130	0.70	36.90	0	6
242	Vandiperiyar	3.080	2.010	1.670	8.040	0.00	8.04	0	5
243	Kuzhithurai	3.238	2.310	4.165	-	0.00	7.84	0	4
244	Ashramam	12.015	1.770	0.830	43.690	0.00	43.69	0	4
245	Kuttyadi	2.570	0.900	3.090	3.200	0.00	5.59	0	4
246	Tezu	3.240	0.335	-	9.050	0.00	9.05	0	3
247	Dholabazar	5.730	0.720	11.530	4.150	0.00	19.19	0	5
248	Namsai	5.146	0.565	3.910	16.780	0.00	16.78	0	5
249	Margherita	3.930	1.880	5.705	4.480	0.00	5.85	0	5
250	Naharkatia	2.930	0.240	5.480	3.210	0.00	7.80	0	5
251	Chenimari	6.652	1.265	12.280	6.170	0.00	19.29	0	5
252	Dillighat	5.994	0.720	5.065	18.400	0.00	18.40	0	5
253	Desangpani	6.205	3.415	8.575	6.625	0.74	12.51	0	6
254	Nanglamoraghat	3.352	1.195	3.635	5.225	1.00	8.96	0	6
255	Sivasagar	6.528	3.920	10.985	4.680	0.89	17.45	0	6
256	Bokajan	10.093	7.250	18.140	4.890	1.01	30.11	0	6
257	Numaligarh	2.418	0.435	4.925	1.895	0.38	6.88	0	6
258	Chouldhowaghat	4.980	4.660	7.490	2.790	0.36	10.66	0	6
259	Badatighat	4.880	5.105	6.080	3.455	0.11	10.10	0	6
260	Ranganadi NT Road Crossing	4.248	4.190	7.620	0.935	0.40	9.66	0	6
261	Kheronighat	6.512	9.535	3.350	5.070	0.00	17.00	0	5
262	Kampur	10.312	6.555	5.185	19.195	0.05	38.14	0	6
263	Dharamtul	7.917	6.055	4.270	13.425	0.05	26.64	0	6

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264	Jagibhakatgaon	4.917	7.540	2.260	4.950	0.02	15.06	0	6
265	Bhomoraguri	7.595	14.045	5.730	3.010	0.38	24.69	0	6
266	Tezpur	6.293	14.740	1.915	2.225	0.59	26.80	0	6
267	Seppa	8.437	14.930	8.470	1.910	0.61	28.90	0	6
268	Bhalukpong	9.578	21.100	3.280	4.355	0.63	40.00	0	6
269	Jiabharali NT Road Xing	1.995	0.250	3.655	0.420	0.00	6.24	0	4
270	Bihubar	9.007	5.715	11.645	9.660	1.28	18.04	0	6
271	Dibrugarh	3.590	3.580	4.635	2.555	0.16	7.00	0	6
272	Golaghat	9.577	0.380	21.660	6.690	0.28	40.45	0	6
273	Miao	4.658	0.100	3.775	10.100	0.04	19.43	0	6
274	Neamtighat	4.193	0.665	6.840	5.075	0.64	9.18	0	6
275	Udaypur	3.070	2.550	4.585	2.075	0.10	5.00	0	6
276	Tuting	9.600	10.180	9.020	-	0.00	10.18	0	2
277	Passighat	8.646	5.950	7.820	15.690	0.00	15.69	0	5
278	Puthimari D.R.F.	12.927	14.580	16.580	7.620	3.56	25.60	0	6
279	Pancharatna	20.002	20.785	28.690	14.875	7.02	33.82	0	6
280	Suklai	28.520	16.870	23.860	44.830	4.66	85.00	1	5
281	Kulsi	9.974	14.980	6.685	8.256	1.67	26.50	0	6
282	Dudhnai	12.745	18.235	12.060	7.940	4.62	31.00	0	6
283	Pandu	27.117	23.110	21.630	36.610	11.33	61.89	1	5
284	Puthimari NH X-ING	19.863	22.665	27.080	9.845	6.31	30.25	0	6
285	Sonapur	25.332	19.345	14.300	42.350	7.72	76.98	1	5
286	Matunga	22.537	17.880	13.605	36.125	3.75	66.89	1	5
287	Pagladiya N.T. Road X-ING	29.726	17.030	11.780	51.395	4.06	97.11	1	5
288	A.P.Ghat	13.178	19.415	6.560	7.320	0.00	35.80	0	4
289	Therriaghat	24.772	23.065	8.010	34.860	0.00	60.02	1	4
290	Dholai	34.202	22.970	17.260	53.905	0.00	67.97	1	4
291	Dimapara	25.994	19.500	5.350	42.810	0.00	77.48	1	4
292	Kharkhana	33.302	22.495	7.250	57.135	0.00	98.82	1	4
293	Dawki	48.456	25.375	20.520	85.505	0.00	164.85	1	4
294	Badar Pur Ghat (B.P. Ghat)	14.100	19.280	10.850	6.990	0.00	34.90	0	4
295	Sibbari	32.294	26.850	9.680	49.045	0.00	92.02	1	4
296	Matijuri	24.326	20.630	15.830	32.270	0.00	55.39	1	4
297	Fulertal	25.840	21.380	7.390	39.525	0.00	73.02	1	4
298	Fakirabazar	29.636	24.015	13.510	43.320	0.00	79.31	1	4
299	Gumrabazar	37.790	20.815	8.350	69.485	0.00	134.25	1	4
300	Sankalan	6.933	4.700	6.670	9.430	0.56	13.94	0	6
301	Behalpur	11.820	3.560	19.340	16.320	0.12	28.24	0	6
302	Gajaldoba	4.540	2.790	-	6.290	0.00	9.73	0	5
303	Aie NH Crossing	6.903	5.630	11.555	3.525	1.99	21.12	0	6
304	Domohani	6.073	5.570	4.130	8.520	0.95	13.45	0	6
305	Khanitar	3.873	5.160	1.810	4.650	0.32	10.00	0	6

S. No.	Water Quality Site	Copper (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
306	Champasari	8.122	5.150	4.240	13.035	0.30	21.98	0	6
307	Dhubri	5.202	7.160	3.530	4.080	1.32	13.00	0	6
308	Majhitar	4.107	6.310	1.430	4.580	0.45	12.00	0	6
309	Sonapurhat	6.295	4.365	7.575	6.945	0.45	14.70	0	6
310	Mathanguri	4.120	6.480	0.320	3.660	0.00	11.00	0	5
311	Manas NH Crossing	5.074	5.555	4.220	5.020	0.11	11.00	0	6
312	Mathabhanga	11.168	4.710	4.320	21.050	0.42	25.09	0	6
313	Rangpo	7.095	5.695	2.820	12.770	0.39	15.78	0	6
314	Nagrakata	7.136	2.505	8.880	10.895	0.01	18.20	0	6
315	Jaldhaka NH-31	5.575	3.900	5.485	7.340	0.80	12.05	0	6
316	Matigara	11.332	5.065	11.885	17.045	0.13	25.37	0	6
317	Ghugumari	2.770	3.950	2.395	1.965	0.46	6.00	0	6
318	Sevoke	6.622	4.010	5.195	10.660	0.02	15.28	0	6
319	Beki Road Bridge	4.752	5.190	2.695	6.370	0.38	10.00	0	6
320	Chel	4.550	3.545	1.430	7.115	0.09	11.17	0	6
321	Golokganj	4.768	3.565	2.040	8.700	0.13	14.26	0	6
322	SinglaBazar	5.857	7.325	2.375	7.870	0.72	12.44	0	6
323	Kokrajhar	5.664	5.530	3.630	6.815	2.06	11.03	0	6
324	Sankosh LRP	13.848	6.080	3.675	31.790	0.16	45.25	0	6
325	Murti	7.846	2.730	6.260	13.755	0.46	22.54	0	6
326	Diana	3.620	3.085	1.865	5.910	0.17	8.30	0	6
327	Ghish	7.736	3.605	2.410	14.530	0.21	25.58	0	6
328	Hasimara	6.302	4.360	4.720	9.035	0.72	11.31	0	6
329	Coronation	5.563	6.140	2.495	8.055	0.28	12.00	0	6
330	Panbari	4.105	6.720	3.780	1.815	0.19	12.00	0	6
331	Chepan	3.858	6.565	2.395	2.615	0.13	13.00	0	6
332	Barobisha	7.002	13.715	1.815	5.475	0.16	27.00	0	6
333	TeestaBazar	8.026	6.115	3.240	12.330	0.23	20.33	0	6
334	Mekhliganj	6.135	4.525	3.370	12.120	0.00	12.12	0	5
335	Neora	4.848	4.660	3.160	8.600	0.00	9.00	0	5
336	Tufanganj	8.730	3.600	4.070	23.650	0.00	23.65	0	5
337	Tuini	5.528	1.190	13.190	0.035	0.00	24.96	0	5
338	Yashwant nagar	5.210	0.820	9.695	0.630	0.00	16.41	0	4
339	Paonta	6.928	4.630	11.400	0.280	0.00	22.13	0	5
340	Kalanaur	3.038	1.280	5.430	0.010	0.00	9.36	0	5
341	Mawi	3.618	1.700	6.640	1.410	0.39	11.85	0	6
342	Palla	5.618	4.520	8.155	2.740	1.41	13.57	0	6
343	Delhi Rly Bridge	10.848	16.175	13.620	2.750	0.81	30.38	0	6
344	Galeta	7.438	5.540	14.355	2.420	0.79	27.57	0	6
345	Mohana	6.430	10.815	2.665	5.190	0.00	19.38	0	5
346	Gokul Barrage (Mathura)	9.176	8.675	13.575	1.380	0.00	26.21	0	5
347	Agra (P.G.)	13.563	10.335	24.510	5.845	2.88	41.02	0	6
348	Auraiya	10.633	6.885	20.220	4.795	2.64	34.68	0	6
349	Etawah	21.097	10.290	47.340	5.660	2.94	84.88	1	5

S. No.	Water Quality Site	Copper (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 50 µg/L	Below 50 µg/L
350	Hamirpur	11.173	4.945	23.675	4.900	1.30	42.98	0	6
351	Pratappur	11.355	6.275	22.400	5.390	2.34	38.33	0	6
352	Seondha	12.597	16.390	20.100	1.300	0.55	37.64	0	6
353	Rajghat	10.828	1.805	22.385	5.760	0.54	40.63	0	6
354	Shahijina	5.162	7.020	5.100	3.365	1.46	12.58	0	6
355	Garrauli	2.323	0.510	2.910	3.550	0.00	3.55	0	3
356	Kora	3.135	1.220	5.690	2.815	0.00	5.69	0	4
357	Banda	8.540	17.340	3.620	2.200	0.00	33.35	0	5
358	Dholpur	12.923	5.570	24.315	8.885	2.33	42.49	0	6
359	Udi	6.255	9.710	5.545	3.510	1.37	17.15	0	6
360	Tal	26.723	-	20.445	39.280	0.00	40.15	0	3
361	A.B.Road Crossing	2.333	-	2.760	1.480	0.00	5.14	0	3
362	Khatoli	6.936	14.090	7.880	2.415	0.00	14.82	0	5
363	Aklera	5.813	-	7.075	3.290	0.00	13.12	0	3
364	Sangod	1.505	-	0.430	2.580	0.00	2.58	0	2
365	Mahidpur	9.253	-	7.870	12.020	0.00	14.44	0	3
366	Barod	4.048	3.880	4.815	3.365	0.00	8.73	0	5
367	Tonk	3.723	-	4.555	2.060	0.00	8.90	0	3
368	Pati	24.400	-	24.400	-	0.00	45.06	0	2
369	Kogaon	23.650	4.650	42.650	-	0.00	42.65	0	3
370	Pachauli	18.730	-	18.730	-	0.00	34.27	0	2
371	Ayilam	19.707	47.360	5.880	-	0.00	47.36	0	3
372	T. Ramapuram	11.545	-	11.545	-	0.00	13.94	0	2
373	Menangudi	17.575	-	17.575	-	0.00	33.06	0	2
374	Kellodu	14.410	-	14.410	-	0.00	14.41	0	1
375	Sulurpet	22.890	-	22.890	-	0.00	22.89	0	1
376	K.M. Vadi	0.870	-	0.870	-	0.00	0.87	0	1
377	Yadgir	11.635	-	11.635	-	0.00	21.00	0	2
378	Mangaon (Seasonal)	1.290	-	1.290	-	0.00	1.29	0	1
379	Phulgaon (Seasonal)	2.980	-	2.980	-	0.00	2.98	0	1
380	Cholachguda (Seasonal)	5.385	-	5.385	-	0.00	6.54	0	2
381	Belne Bridge	0.950	-	0.950	-	0.00	1.25	0	2
382	Dhulsar	43.015	-	43.015	-	0.00	45.98	0	2
383	Avershe	2.950	-	2.950	-	0.00	5.78	0	2
384	Chunchankatte	6.485	-	6.485	-	0.00	12.55	0	2
385	Kuppelur	6.725	-	6.725	-	0.00	11.56	0	2
386	Kurundwad	2.625	-	2.625	-	0.00	3.52	0	2
387	Marol	6.005	-	6.005	-	0.00	11.19	0	2

NICKEL

S. No.	Water Quality Site	Nickel (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
1	Jammu Tawi	3.698	2.045	6.675	1.050	0.00	8.61	0	5
2	Akhnoor	1.624	2.045	1.725	0.580	0.00	3.43	0	5
3	Tandi	3.400	4.300	2.950	-	0.00	5.75	0	3
4	Udaipur	4.733	1.500	6.350	-	0.00	10.13	0	3
5	Sangam	5.975	3.275	8.675	-	0.00	14.41	0	5
6	Ram Munshi Bagh	5.118	3.780	6.455	-	0.00	8.37	0	5
7	Dhamkund	5.854	0.340	5.525	17.540	0.00	17.54	0	5
8	Prem Nagar	3.128	3.170	3.405	2.490	0.00	6.15	0	5
9	Safapora	2.680	1.130	4.540	2.060	0.00	6.14	0	5
10	Tehri	7.028	6.710	4.050	13.620	0.00	13.62	0	5
11	Rishikesh	15.090	18.485	14.340	9.800	0.00	25.63	1	4
12	Uttarkashi	7.658	7.285	5.805	12.110	0.00	12.11	0	5
13	Deoprayag	16.342	16.960	18.585	10.620	0.00	35.75	1	4
14	Rudraprayag	10.078	12.995	4.655	15.090	0.00	15.09	0	5
15	Mataji	7.960	7.950	7.965	-	0.00	10.73	0	3
16	Rangeli	10.542	13.790	6.365	12.400	0.00	14.24	0	5
17	Paderdibadi	6.388	8.160	5.770	4.080	0.00	9.52	0	5
18	Khanpur	8.328	7.130	8.820	9.740	0.00	9.74	0	5
19	Derol Bridge	6.500	-	6.500	-	0.00	8.73	0	2
20	Vautha	9.610	10.355	11.130	5.080	0.00	12.21	0	5
21	Lowara	17.235	-	17.235	-	0.00	20.73	1	1
22	Ganod	9.440	-	9.440	-	0.00	9.44	0	1
23	Abu Road	10.385	-	10.385	-	0.00	11.28	0	2
24	Chitrasani	7.495	-	7.495	-	0.00	11.32	0	2
25	Kamalpur	11.570	-	11.570	-	0.00	11.57	0	1
26	Burhanpur	13.413	8.500	18.325	-	0.00	27.45	1	3
27	Gopalkheda	13.623	2.300	19.285	-	0.00	20.17	1	2
28	Sarangkheda	14.420	-	14.420	-	0.00	14.42	0	1
29	Gadat	7.507	5.480	8.520	-	0.00	8.83	0	3
30	Mahuwa	12.456	17.440	8.405	10.590	0.00	25.68	1	4
31	Durvesh	8.260	4.900	9.940	-	0.00	11.77	0	3
32	Garudeshwar	8.192	10.070	7.095	6.630	0.00	12.74	0	5
33	Chanwada	7.790	-	7.790	-	0.00	8.31	0	2
34	Pingalwada	5.125	6.075	4.175	-	0.00	8.64	0	4
35	Motinaroli	7.605	7.420	7.790	-	0.00	13.24	0	4
36	Vapi	12.368	15.080	10.855	9.970	0.00	23.04	1	4
37	Hendegir	22.820	28.140	13.075	36.990	0.00	36.99	2	2
38	Ramgarh	5.318	2.110	8.360	2.440	0.00	12.45	0	4
39	Jamtara	7.345	0.680	10.265	8.170	0.00	11.33	0	4
40	Tilpara Barrage	7.273	5.100	10.245	3.500	0.00	11.32	0	4
41	Maharo	5.330	2.400	7.805	3.310	0.00	14.82	0	4
42	Nutanhat	14.890	-	14.890	-	0.00	16.47	0	3
43	Talcher	10.650	10.325	10.505	11.590	0.00	12.10	0	5

S. No.	Water Quality Site	Nickel (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
44	Jenapur	10.825	9.703	11.945	10.830	0.00	14.39	0	5
45	Anandpur	15.478	23.835	9.765	10.190	0.00	32.58	1	4
46	Tikarpara	10.206	9.390	8.635	14.980	0.00	14.98	0	5
47	Panposh	15.744	14.940	12.070	24.700	0.00	24.70	1	4
48	Gomlai	9.536	9.349	8.115	12.750	0.00	12.75	0	5
49	Muri	14.862	16.380	9.295	22.960	0.00	24.56	2	3
50	Jamshedpur	11.964	12.005	10.485	14.840	0.00	15.84	0	5
51	Adityapur	12.872	14.080	11.685	12.830	0.00	17.34	0	5
52	Ghatsila	23.322	32.230	17.455	17.240	0.00	45.21	2	3
53	Tilga	15.232	10.260	19.195	17.250	0.00	22.49	1	4
54	Jaraikela	12.381	10.179	8.525	24.500	0.00	24.50	1	4
55	Champua	16.424	16.404	9.665	29.980	0.00	30.31	2	3
56	Govindapur	11.102	13.555	7.850	12.700	0.00	14.50	0	5
57	Purushottampur	20.998	26.525	7.440	23.500	0.00	30.83	3	1
58	Srikakulam	17.996	18.185	12.380	28.850	0.00	28.85	2	3
59	Kashinagar	16.655	9.970	9.815	37.020	0.00	37.02	1	3
60	Basantpur	26.188	36.500	15.320	27.300	0.00	38.42	3	2
61	Rampur	32.570	-	24.050	49.610	0.00	49.61	2	1
62	Bamnidih	21.384	28.580	15.615	18.530	0.00	41.00	1	4
63	Rajim	24.875	-	24.875	-	0.00	27.63	2	0
64	Simga	20.723	-	20.420	21.330	0.00	26.17	2	1
65	Andhiyar Kore	19.608	23.420	21.830	11.350	0.00	26.10	2	2
66	Baronda	21.840	-	21.840	-	0.00	24.75	1	1
67	Jondhra	20.315	-	20.315	-	0.00	23.47	1	1
68	Ghatora	23.005	-	23.005	-	0.00	27.38	1	1
69	Pathardhi	23.150	-	23.150	-	0.00	27.67	1	1
70	Kurubhata	25.230	35.290	27.610	10.410	0.00	35.29	3	1
71	Salebhata	23.953	39.190	23.845	8.930	0.00	39.19	2	2
72	Kantamal	20.254	20.040	25.200	10.790	0.00	32.08	2	3
73	Manendragarh	28.045	-	28.045	-	0.00	30.22	2	0
74	Kesinga	17.105	16.440	23.765	4.450	0.00	28.61	1	3
75	Sundergarh	24.222	28.200	26.970	10.770	0.00	37.68	3	2
76	Farakka	6.255	9.660	4.640	6.080	0.00	9.66	0	4
77	Farakka / H/R	15.010	27.390	4.090	12.090	0.00	49.28	1	4
78	English Bazar	8.230	9.655	4.320	13.200	0.00	13.20	0	5
79	Labha	9.760	18.520	4.030	12.460	0.00	18.52	0	4
80	Berhampore	11.290	16.040	4.940	14.490	0.00	27.78	1	4
81	Katwa	6.732	6.095	5.235	11.000	0.00	11.00	0	5
82	Kalna (EBB)	8.142	7.180	6.465	13.420	0.00	13.42	0	5
83	Chapra	10.870	15.525	5.245	12.810	0.00	22.95	1	4
84	Hanskhali	7.466	5.900	6.090	13.350	0.00	13.35	0	5
85	Elginbridge	12.702	17.455	11.785	5.030	0.00	28.67	1	4
86	Ayodhya	11.162	12.360	12.075	6.940	0.00	16.02	0	5
87	Turtipar	9.054	8.895	11.780	3.920	0.00	14.71	0	5

S. No.	Water Quality Site	Nickel (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
88	Paliakalan	7.662	5.500	11.450	4.410	0.00	15.94	0	5
89	Balrampur	14.110	17.965	15.135	4.350	0.00	27.61	1	4
90	Regauli	10.710	12.525	12.230	4.040	0.00	20.55	1	4
91	Birdghat	15.334	26.695	8.820	5.640	0.00	50.79	1	4
92	Basti	7.902	11.955	2.095	11.410	0.00	14.64	0	5
93	Ghat	4.752	5.310	2.440	8.260	0.00	9.74	0	5
94	Garhmukteshwar	3.384	4.080	2.140	4.480	0.00	6.66	0	5
95	Moradabad	5.950	4.250	4.875	11.500	0.00	11.50	0	5
96	Kachlabridge	3.034	3.260	1.970	4.710	0.00	5.24	0	5
97	Fatehgarh	24.354	41.855	15.860	6.340	0.00	80.51	2	3
98	Bareilly	8.944	10.260	6.480	11.240	0.00	11.54	0	5
99	Dabri	5.932	8.940	3.115	5.550	0.00	9.37	0	5
100	Kanpur	12.224	14.665	13.435	4.920	0.00	20.67	1	4
101	Ankinghat	10.960	15.930	8.885	5.170	0.00	22.66	1	4
102	Bhitaura	11.684	16.400	8.895	7.830	0.00	18.55	0	5
103	Raibareli	4.944	6.520	3.480	4.720	0.00	8.59	0	5
104	Lucknow	9.514	15.705	7.340	1.480	0.00	16.09	0	5
105	Neemsar	13.293	7.980	29.990	1.910	0.00	29.99	1	2
106	Meja Road	5.770	4.090	8.670	3.330	0.00	10.37	0	5
107	Chopan	4.502	3.575	6.750	1.860	0.00	8.89	0	5
108	Maighat	5.082	2.985	8.390	2.660	0.00	8.48	0	5
109	Shahzadpur	6.752	5.175	11.130	1.150	0.00	18.77	0	5
110	Sultanpur	19.266	17.555	11.970	37.280	0.00	37.28	2	3
111	Varanasi	7.702	8.620	8.965	3.340	0.00	14.94	0	5
112	Mirzapur	8.046	5.015	12.480	5.240	0.00	12.56	0	5
113	Kuldah Bridge	6.542	3.920	8.815	7.240	0.00	14.95	0	5
114	Duddi	5.066	4.570	6.580	3.030	0.00	9.83	0	5
115	Chhatnag Allahbad	8.196	5.005	13.395	4.180	0.00	14.63	0	5
116	Buxar	7.945	10.365	5.525	-	0.00	11.35	0	4
117	Gandhighat (Patna)	12.270	17.705	6.835	-	0.00	24.39	1	3
118	Hathidah	7.400	8.200	6.600	-	0.00	11.42	0	4
119	Azmabad	10.590	14.555	6.625	-	0.00	19.87	0	4
120	Japla	9.563	10.205	8.920	-	0.00	16.60	0	4
121	Koelwar	7.073	9.655	4.490	-	0.00	11.93	0	4
122	Gaya	10.805	-	10.805	-	0.00	18.78	0	2
123	Lakhisarai	7.440	9.980	6.170	-	0.00	9.98	0	3
124	Sripalpur	8.440	10.910	5.970	-	0.00	11.34	0	4
125	Lalganj	7.265	10.190	4.340	-	0.00	17.58	0	4
126	Tribeni	5.848	7.470	4.225	-	0.00	13.74	0	4
127	Sikandarpur	3.833	2.345	5.320	-	0.00	8.50	0	4
128	Hayaghat	8.693	11.650	5.735	-	0.00	18.40	0	4
129	Dheng Bridge	2.205	2.285	2.125	-	0.00	2.67	0	4
130	Jhanjharpur	8.985	12.500	5.470	-	0.00	16.46	0	4
131	Jai Nagar	8.280	11.575	4.985	-	0.00	18.83	0	4

S. No.	Water Quality Site	Nickel (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
132	Ekmighat	6.590	9.160	4.020	-	0.00	15.43	0	4
133	Baltara	10.425	13.220	7.630	-	0.00	21.86	1	3
134	Dindori	17.272	30.060	10.000	6.240	0.00	41.58	1	4
135	Manot	12.216	13.710	8.600	16.460	0.00	23.62	1	4
136	Mohgaoan	9.820	11.845	7.880	9.650	0.00	22.49	1	4
137	Bamni	10.615	21.800	9.500	1.660	0.00	21.80	1	3
138	Patan	8.922	9.195	11.830	2.560	0.00	17.28	0	5
139	Belkhedi	5.054	4.870	6.820	1.890	0.00	9.62	0	5
140	Bamanghat	8.258	11.750	4.765	-	0.00	14.30	0	5
141	Gadarwara	13.603	22.490	9.160	-	0.00	22.49	1	3
142	Sandia	13.273	15.680	10.865	-	0.00	20.08	1	4
143	Hoshangabad	11.628	11.735	16.625	1.420	0.00	21.93	1	4
144	Chhidgaon	10.490	13.270	7.710	-	0.00	24.32	1	4
145	Handia	7.953	11.550	9.770	0.720	0.00	12.74	0	4
146	Mandleshwar	10.354	14.170	9.635	4.160	0.00	24.13	1	4
147	Polavaram	6.486	6.420	7.230	5.130	0.00	12.72	0	5
148	Konta	5.928	6.445	6.120	4.510	0.00	10.90	0	5
149	Bhadrachalam	8.810	10.810	9.170	4.090	0.00	17.29	0	5
150	Perur	3.175	4.835	1.560	1.470	0.00	6.98	0	4
151	Pathagudem	4.213	2.345	7.950	-	0.00	7.95	0	4
152	Jagdalpur	8.300	12.725	6.965	2.120	0.00	20.77	1	4
153	Mancherial	7.224	7.205	9.475	2.760	0.00	12.65	0	5
154	Marella	8.033	-	10.890	2.320	0.00	14.60	0	3
155	Wadenapally	5.172	3.500	8.435	1.990	0.00	13.53	0	5
156	Paleru Bridge	5.233	4.565	9.480	2.320	0.00	9.48	0	4
157	Bawapuram	8.302	9.790	10.140	1.650	0.00	13.77	0	5
158	Damarcherla	7.490	5.955	9.025	-	0.00	12.25	0	5
159	Halia	7.605	7.600	15.110	0.110	0.00	15.11	0	4
160	Keesara	8.907	-	11.930	2.860	0.00	18.42	0	3
161	Malkhed	2.717	-	2.180	3.790	0.00	3.79	0	3
162	Badalapur	8.378	5.950	10.725	8.540	0.00	12.97	0	5
163	Kumhari	18.560	17.979	6.170	44.500	0.00	44.50	2	3
164	Pauni	28.948	30.070	4.675	75.250	0.00	75.25	2	3
165	Ashti	19.828	35.099	6.095	16.750	0.00	64.66	1	4
166	Hivra	23.794	27.159	5.325	54.000	0.00	54.00	2	3
167	Bamini	34.928	62.685	15.635	18.000	0.00	64.35	3	2
168	Nandgaon	34.340	50.189	6.660	58.000	0.00	74.26	3	2
169	P.G.Bridge	21.481	31.068	5.135	35.000	0.00	35.00	3	2
170	Bhatpalli	16.442	15.030	5.950	40.250	0.00	40.25	2	3
171	Tekra	31.920	34.389	9.660	71.500	0.00	71.50	2	3
172	Rajegaon	23.710	29.520	6.880	45.750	0.00	48.37	2	3
173	Satrapur	10.004	10.845	5.040	18.250	0.00	18.25	0	5
174	Ambarampalayam	6.714	6.105	9.805	1.750	0.00	13.71	0	5
175	Gummanur	8.283	6.555	10.010	-	0.00	13.09	0	5

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		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
176	Theni	7.013	4.410	12.220	-	0.00	12.22	0	4
177	Ambasamudram	-	-	-	-	0.00	0.00	0	1
178	Musiri	6.210	5.560	6.860	-	0.00	10.35	0	5
179	Elunuthimanagalam	6.410	7.600	-	5.220	0.00	7.60	0	2
180	Kudlur	1.215	2.100	-	0.330	0.00	2.10	0	2
181	Sevanur	-	-	-	-	0.00	0.00	0	1
182	Thevur	-	-	-	-	0.00	0.00	0	1
183	Thoppur	-	-	-	-	0.00	0.00	0	1
184	Murappanadu	7.832	8.695	9.925	1.920	0.00	16.25	0	5
185	A.P. Puram	4.475	5.800	-	3.150	0.00	5.80	0	2
186	Nallammaranpatty	-	-	-	-	0.00	0.00	0	1
187	Nellithurai	4.455	4.225	4.685	-	0.00	7.87	0	5
188	Savandapur	6.562	5.850	9.635	1.840	0.00	11.76	0	5
189	Thengumarahada	5.598	5.195	6.000	-	0.00	9.59	0	5
190	Urachikottai	5.708	6.150	5.265	-	0.00	8.72	0	5
191	Kodumudi	7.865	6.630	9.100	-	0.00	12.92	0	5
192	M.H.Halli	3.336	3.055	4.605	1.360	0.00	8.92	0	5
193	T. Bekuppe	8.794	7.185	12.235	5.130	0.00	15.70	0	5
194	T.K.Halli	2.980	3.540	2.820	2.580	0.00	3.54	0	3
195	Kollegal	5.590	7.200	6.010	3.140	0.00	10.44	0	4
196	Biligundullu	4.902	6.480	4.840	1.870	0.00	7.85	0	5
197	Kudige	4.484	6.220	3.430	3.120	0.00	8.22	0	5
198	Akkihebbal	4.382	4.200	5.370	2.770	0.00	9.19	0	5
199	Bendrahalli	3.405	-	2.910	3.900	0.00	3.90	0	2
200	Thimmanahalli	5.742	5.060	7.785	3.020	0.00	14.37	0	5
201	Sakleshpur	5.646	6.440	5.730	3.890	0.00	9.25	0	5
202	Bantwal	5.580	5.525	4.425	8.000	0.00	8.44	0	5
203	Yennehole	5.420	-	6.295	3.670	0.00	11.31	0	3
204	Haladi	4.888	5.045	5.015	4.320	0.00	9.98	0	5
205	Santeguli	3.774	2.840	4.680	3.830	0.00	8.91	0	5
206	Addoor	4.963	-	5.415	4.060	0.00	8.99	0	3
207	Harlahalli	7.043	7.650	7.515	5.490	0.00	9.63	0	4
208	Honnali	6.724	9.060	4.950	5.600	0.00	9.20	0	5
209	Shimoga	5.600	-	5.825	5.150	0.00	10.17	0	3
210	T. Narasipur	9.353	13.475	5.230	-	0.00	24.30	1	3
211	Byaladahalli	7.637	5.110	8.900	-	0.00	15.11	0	3
212	Holehonnur	6.312	7.960	5.305	5.030	0.00	11.60	0	5
213	Chennur	4.924	5.175	3.865	6.540	0.00	7.10	0	5
214	Alladupalli	4.772	3.955	4.790	6.370	0.00	6.37	0	5
215	Nandipalli	15.090	14.830	18.570	12.130	0.00	21.46	1	3
216	Nellore	3.536	2.985	2.815	6.080	0.00	6.08	0	5
217	Naidupet	3.070	3.520	-	2.620	0.00	3.52	0	2
218	Chengalpet	3.510	-	-	3.510	0.00	3.51	0	1
219	Vazhavachanur	2.433	0.980	2.560	3.760	0.00	3.76	0	3

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220	Thengudi	5.813	-	6.925	3.590	0.00	11.24	0	3
221	Porakudi	4.840	-	-	4.840	0.00	4.84	0	1
222	Peralam	6.160	-	6.565	5.350	0.00	9.79	0	3
223	Annavasal	8.295	-	10.450	6.140	0.00	10.45	0	2
224	Kuniyil	4.954	4.345	4.375	7.330	0.00	7.42	0	5
225	Erinjipuzha	8.396	9.460	9.575	3.910	0.00	14.23	0	5
226	Perumannu	6.640	7.910	7.270	2.840	0.00	10.61	0	5
227	Kumbidi	4.854	5.669	5.595	1.740	0.00	9.57	0	5
228	Arangaly	8.466	14.575	5.295	2.590	0.00	18.77	0	5
229	Pudur	8.912	9.716	10.735	3.660	0.00	12.16	0	5
230	Ramamangalam	6.278	9.625	4.950	2.240	0.00	14.04	0	5
231	Thumpamon	4.460	2.355	7.185	3.220	0.00	7.29	0	5
232	Kidangoor	4.832	5.425	4.895	3.520	0.00	7.78	0	5
233	Pattazhy	4.265	3.473	5.775	2.830	0.00	8.24	0	5
234	Kallooppara	3.965	4.682	3.885	2.690	0.00	8.58	0	5
235	Malakkara	4.276	5.165	4.060	2.930	0.00	9.08	0	5
236	Pulmanthole	3.763	3.172	4.395	3.680	0.00	7.89	0	5
237	Karathodu	5.694	7.985	4.435	3.630	0.00	8.21	0	5
238	Kalampur	6.424	5.264	4.525	12.540	0.00	12.54	0	5
239	Mankara	6.991	8.948	7.375	2.310	0.00	15.54	0	5
240	Neeleswaram	4.658	5.910	4.325	2.820	0.00	10.46	0	5
241	Muthankera	4.669	5.394	4.325	3.910	0.00	9.93	0	5
242	Vandiperiyar	7.007	5.193	10.465	3.720	0.00	13.14	0	5
243	Kuzhithurai	6.590	6.525	6.655	-	0.00	11.67	0	4
244	Ashramam	7.080	7.485	9.990	3.360	0.00	9.99	0	4
245	Kuttyadi	7.657	8.430	7.270	-	0.00	8.43	0	3
246	Tezu	4.889	5.253	-	4.160	0.00	6.48	0	3
247	Dholabazar	3.586	5.145	3.495	0.650	0.00	7.93	0	5
248	Namsai	3.953	4.153	3.130	5.200	0.00	5.28	0	5
249	Margherita	5.278	4.920	3.760	9.030	0.00	9.03	0	5
250	Naharkatia	3.752	4.350	3.535	2.990	0.00	8.22	0	5
251	Chenimari	4.910	6.630	2.750	5.790	0.00	12.02	0	5
252	Dillighat	3.653	6.018	2.050	2.130	0.00	9.01	0	5
253	Desangpani	4.831	2.743	6.095	6.480	0.00	8.01	0	5
254	Nanglamoraghat	7.579	5.528	11.815	3.210	0.00	12.48	0	5
255	Sivasagar	11.922	6.639	21.480	3.370	0.00	35.83	1	4
256	Bokajan	9.357	4.494	14.220	-	0.00	14.61	0	5
257	Numaligarh	4.504	3.884	5.575	3.600	0.00	7.90	0	5
258	Chouldhowaghat	5.219	3.053	5.400	9.190	0.00	9.19	0	5
259	Badatighat	4.151	3.278	5.025	-	0.00	7.19	0	5
260	Ranganadi NT Road Crossing	6.004	3.105	10.425	2.960	0.00	11.36	0	5
261	Kheronighat	5.649	4.718	3.950	9.210	0.00	9.21	0	4
262	Kampur	6.359	8.668	3.105	8.250	0.00	10.21	0	5
263	Dharamtul	4.092	5.085	4.370	1.550	0.00	6.11	0	5

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264	Jagibhakatgaon	7.342	5.626	8.615	8.230	0.00	11.95	0	5
265	Bhomoraguri	4.989	7.372	2.605	4.990	0.00	9.53	0	5
266	Tezpur	3.569	3.868	2.020	4.520	0.00	6.75	0	5
267	Seppa	8.300	7.430	11.310	4.020	0.00	17.36	0	5
268	Bhalukpong	6.826	7.794	6.710	5.120	0.00	12.27	0	5
269	Jiabharali NT Road Xing	6.167	5.380	6.560	-	0.00	7.56	0	3
270	Bihubar	3.880	3.724	5.570	0.810	0.00	6.79	0	5
271	Dibrugarh	3.358	5.825	1.850	1.440	0.00	6.44	0	5
272	Golaghat	9.157	3.838	14.490	9.130	0.00	16.10	0	5
273	Miao	6.419	5.798	8.405	3.690	0.00	12.85	0	5
274	Neamtighat	6.408	2.989	11.865	2.330	0.00	11.88	0	5
275	Udaypur	6.597	6.633	7.835	4.050	0.00	13.79	0	5
276	Tuting	9.213	3.025	15.400	-	0.00	15.40	0	2
277	Passighat	6.830	4.539	6.515	12.040	0.00	12.04	0	5
278	Puthimari D.R.F.	5.150	6.135	5.720	2.040	0.00	6.90	0	5
279	Pancharatna	8.274	8.274	10.840	3.140	0.00	13.29	0	5
280	Suklai	8.813	11.358	7.720	5.910	0.00	20.35	1	4
281	Kulsi	7.573	10.210	2.300	-	0.00	15.74	0	5
282	Dudhnai	7.067	5.373	3.550	17.490	0.00	17.49	0	5
283	Pandu	6.623	9.857	1.830	9.740	0.00	12.13	0	5
284	Puthimari NH X-ING	7.480	9.560	3.960	10.360	0.00	18.12	0	5
285	Sonapur	7.080	11.040	3.835	5.650	0.00	19.71	0	5
286	Matunga	7.245	7.493	8.555	4.130	0.00	13.96	0	5
287	Pagladiya N.T. Road X-ING	4.395	4.818	3.550	-	0.00	5.31	0	5
288	A.P.Ghat	5.653	4.034	8.890	-	0.00	8.89	0	3
289	Therriaghat	6.266	4.008	10.950	6.100	0.00	10.95	0	4
290	Dholai	5.167	5.170	6.500	3.830	0.00	9.48	0	4
291	Dimapara	4.328	4.802	3.380	-	0.00	7.58	0	4
292	Kharkhana	8.885	8.304	10.440	8.490	0.00	15.62	0	4
293	Dawki	8.991	12.821	2.180	8.140	0.00	19.53	0	4
294	Badar Pur Ghat (B.P. Ghat)	11.029	8.283	16.520	-	0.00	16.52	0	3
295	Sibbari	4.748	4.913	4.420	-	0.00	8.68	0	4
296	Matijuri	9.677	5.774	18.870	8.290	0.00	18.87	0	4
297	Fulertal	3.318	2.750	3.780	3.990	0.00	3.99	0	4
298	Fakirabazar	8.093	5.350	16.700	4.970	0.00	16.70	0	4
299	Gumrabazar	6.135	6.544	8.180	3.270	0.00	8.52	0	4
300	Sankalan	5.673	6.623	4.135	6.850	0.00	7.63	0	5
301	Behalpur	6.201	5.163	4.580	11.520	0.00	11.52	0	5
302	Gajaldoba	6.572	6.515	5.270	7.990	0.00	8.66	0	4
303	Aie NH Crossing	9.161	13.677	5.745	6.960	0.00	16.35	0	5
304	Domohani	6.378	7.791	4.730	6.850	0.00	10.47	0	5
305	Khanitar	8.348	5.011	10.610	10.500	0.00	14.66	0	5
306	Champasari	11.552	12.080	12.960	7.680	0.00	19.86	0	5

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307	Dhubri	8.715	12.428	5.475	7.770	0.00	15.85	0	5
308	Majhitar	7.964	3.894	10.085	11.860	0.00	13.30	0	5
309	Sonapurhat	7.441	11.518	3.755	6.660	0.00	18.71	0	5
310	Mathanguri	6.015	3.790	7.440	9.040	0.00	9.04	0	4
311	Manas NH Crossing	10.633	9.057	13.915	7.220	0.00	19.39	0	5
312	Mathabhanga	5.220	5.305	4.895	5.700	0.00	8.82	0	5
313	Rangpo	9.860	6.686	10.765	14.400	0.00	15.02	0	5
314	Nagrakata	5.350	4.674	4.975	7.450	0.00	8.58	0	5
315	Jaldhaka NH-31	4.535	4.753	3.725	5.720	0.00	7.25	0	5
316	Matigara	7.343	9.188	5.405	7.530	0.00	13.35	0	5
317	Ghugumari	5.867	8.742	3.370	5.110	0.00	10.93	0	5
318	Sevoke	8.328	7.926	8.090	9.610	0.00	10.65	0	5
319	Beki Road Bridge	5.655	4.190	7.790	6.450	0.00	7.79	0	5
320	Chel	4.533	4.728	3.750	5.710	0.00	7.03	0	5
321	Golokganj	5.720	5.425	5.590	6.570	0.00	7.75	0	5
322	SinglaBazar	6.989	6.663	5.205	11.210	0.00	11.21	0	5
323	Kokrajhar	7.199	9.472	3.710	9.630	0.00	13.94	0	5
324	Sankosh LRP	8.655	12.394	6.500	5.490	0.00	18.46	0	5
325	Murti	6.570	9.240	4.405	5.560	0.00	16.41	0	5
326	Diana	7.000	6.740	7.410	7.110	0.00	8.82	0	5
327	Ghish	5.786	8.000	3.625	5.680	0.00	8.15	0	5
328	Hasimara	4.805	4.158	5.055	5.600	0.00	9.22	0	5
329	Coronation	7.819	7.079	3.500	17.940	0.00	17.94	0	5
330	Panbari	5.458	4.956	3.775	9.830	0.00	9.83	0	5
331	Chepan	5.355	3.177	6.915	6.590	0.00	13.60	0	5
332	Barobisha	6.091	7.969	3.685	7.150	0.00	8.26	0	5
333	TeestaBazar	6.134	7.046	3.600	9.380	0.00	9.38	0	5
334	Mekhliganj	7.132	8.715	5.795	6.640	0.00	15.85	0	5
335	Neora	5.664	7.164	3.980	6.030	0.00	12.99	0	5
336	Tufanganj	6.909	7.924	7.150	4.640	0.00	14.18	0	5
337	Tuini	3.230	3.870	6.880	1.085	0.00	6.88	0	4
338	Yashwant nagar	3.558	4.930	2.360	3.470	0.00	5.79	0	4
339	Paonta	2.470	4.630	0.020	2.615	0.00	4.63	0	4
340	Kalanaur	3.405	4.830	0.660	4.065	0.00	6.90	0	4
341	Mawi	5.288	4.410	13.730	1.505	0.00	13.73	0	4
342	Palla	4.123	4.470	2.500	4.760	0.00	6.44	0	4
343	Delhi Rly Bridge	8.278	12.400	3.340	8.685	0.00	12.40	0	4
344	Galeta	3.665	6.420	1.390	3.425	0.00	6.42	0	4
345	Mohana	8.818	15.530	0.980	9.380	0.00	15.53	0	4
346	Gokul Barrage (Mathura)	6.070	13.400	0.060	5.410	0.00	13.40	0	4
347	Agra (P.G.)	6.654	5.425	11.750	2.786	0.30	18.17	0	6
348	Auraiya	4.323	2.755	7.275	2.939	0.27	11.67	0	6
349	Etawah	4.909	6.075	4.500	4.152	0.27	9.50	0	6
350	Hamirpur	5.769	3.040	11.165	3.102	0.32	17.81	0	6

S. No.	Water Quality Site	Nickel (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 20 µg/L	Below 20 µg/L
351	Pratappur	3.831	2.525	6.810	2.157	0.42	7.30	0	6
352	Seondha	5.025	6.970	4.760	3.346	0.27	10.53	0	6
353	Rajghat	3.263	2.695	4.630	2.463	0.26	7.92	0	6
354	Shahijina	3.877	3.605	4.510	3.517	0.25	6.78	0	6
355	Garrauli	7.327	3.170	12.190	6.620	0.00	12.19	0	3
356	Kora	5.183	3.190	11.820	2.861	0.00	11.82	0	4
357	Banda	7.219	10.365	8.740	3.312	0.00	17.37	0	5
358	Dholpur	4.259	4.655	5.620	2.503	0.26	9.35	0	6
359	Udi	5.419	7.055	5.695	3.508	0.25	9.76	0	6
360	Tal	3.090	-	2.350	3.830	0.00	3.83	0	2
361	A.B.Road Crossing	3.655	-	2.350	4.960	0.00	4.96	0	2
362	Khatoli	1.620	-	0.870	1.995	0.00	2.13	0	3
363	Aklera	2.625	-	1.690	3.560	0.00	3.56	0	2
364	Sangod	3.735	-	4.390	3.080	0.00	4.39	0	2
365	Mahidpur	3.465	-	2.690	4.240	0.00	4.24	0	2
366	Barod	4.403	-	4.680	4.265	0.00	5.43	0	3
367	Tonk	1.965	-	0.560	3.370	0.00	3.37	0	2
368	Pati	8.525	-	8.525	-	0.00	9.41	0	2
369	Kogaon	13.070	21.620	8.795	-	0.00	21.62	1	2
370	Pachauli	3.620	-	3.620	-	0.00	5.20	0	2
371	Ayilam	6.123	7.610	5.380	-	0.00	7.63	0	3
372	T. Ramapuram	10.065	-	10.065	-	0.00	11.62	0	2
373	Menangudi	7.235	-	7.235	-	0.00	13.40	0	2
374	Kellodu	4.460	-	4.460	-	0.00	4.46	0	1
375	Sulurpet	3.090	-	3.090	-	0.00	3.09	0	1
376	K.M. Vadi	11.290	-	11.290	-	0.00	11.29	0	1
377	Yadgir	15.515	-	15.515	-	0.00	18.85	0	2
378	Mangaon (Seasonal)	7.140	-	7.140	-	0.00	7.14	0	1
379	Phulgaon (Seasonal)	8.050	-	8.050	-	0.00	8.05	0	1
380	Cholachguda (Seasonal)	15.785	-	15.785	-	0.00	18.23	0	2
381	Belne Bridge	5.090	-	5.090	-	0.00	6.91	0	2
382	Dhulsar	12.290	-	12.290	-	0.00	13.52	0	2
383	Avershe	8.570	-	8.570	-	0.00	8.57	0	2
384	Chunchankatte	5.360	-	5.360	-	0.00	8.81	0	2
385	Kuppelur	7.720	-	7.720	-	0.00	11.91	0	2
386	Kurundwad	7.135	-	7.135	-	0.00	7.64	0	2
387	Marol	5.825	-	5.825	-	0.00	10.52	0	2

LEAD

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
1	Jammu Tawi	1.692	2.227	0.275	2.575	0.24	3.63	0	6
2	Akhnoor	2.320	2.116	1.510	3.335	0.40	4.11	0	6
3	Tandi	1.990	3.820	1.070	2.000	0.00	3.82	0	4
4	Udaipur	4.187	3.840	0.230	8.490	0.00	8.49	0	4
5	Sangam	2.769	2.491	4.010	1.805	0.81	6.21	0	6
6	Ram Munshi Bagh	2.489	4.058	1.355	2.055	0.14	5.90	0	6
7	Dhamkund	3.204	2.110	0.250	5.775	0.25	9.54	0	6
8	Prem Nagar	2.425	1.994	1.265	4.015	0.50	6.45	0	6
9	Safapora	2.540	2.205	1.010	3.640	0.86	5.97	0	6
10	Tehri	2.638	3.170	0.795	3.950	0.48	5.77	0	6
11	Rishikesh	3.117	5.002	2.350	2.000	0.28	8.77	0	6
12	Uttarkashi	3.411	3.404	5.360	1.470	0.85	8.85	0	6
13	Deoprayag	3.244	4.168	4.670	0.895	0.40	8.85	0	6
14	Rudraprayag	2.334	2.891	1.515	2.595	0.37	5.17	0	6
15	Mataji	2.767	4.856	1.685	2.840	0.00	4.86	0	4
16	Rangeli	2.789	3.818	1.770	2.780	0.46	5.03	0	6
17	Paderdibadi	4.792	5.856	4.910	3.610	1.37	9.68	0	6
18	Khanpur	2.681	3.588	1.995	2.460	0.88	5.07	0	6
19	Derol Bridge	2.873	-	2.720	3.180	0.00	4.68	0	3
20	Vautha	5.846	4.338	9.795	3.405	1.73	12.48	1	5
21	Lowara	2.653	-	3.300	1.360	0.00	4.98	0	3
22	Ganod	2.450	-	1.680	3.220	0.00	3.22	0	2
23	Abu Road	2.463	-	2.975	1.440	0.00	4.92	0	3
24	Chitrasani	3.513	-	4.325	1.890	0.00	5.11	0	3
25	Kamalpur	0.895	-	0.920	0.870	0.00	0.92	0	2
26	Burhanpur	3.739	5.217	3.245	1.770	0.00	8.70	0	5
27	Gopalkheda	3.298	6.030	2.390	2.380	0.00	6.03	0	4
28	Sarangkheda	2.595	-	0.950	4.240	0.00	4.24	0	2
29	Gadat	2.053	4.640	1.525	0.520	0.00	4.64	0	4
30	Mahuwa	2.625	3.754	1.680	2.440	0.97	5.28	0	6
31	Durvesh	2.683	4.460	2.485	1.300	0.00	4.46	0	4
32	Garudeshwar	4.040	3.510	5.455	3.155	1.51	8.29	0	6
33	Chanwada	1.557	-	1.290	2.090	0.00	2.09	0	3
34	Pingalwada	4.390	4.116	2.285	9.150	0.00	9.15	0	5
35	Motinaroli	2.306	3.219	2.260	0.570	0.00	5.12	0	5
36	Vapi	3.898	3.579	3.065	5.050	2.38	7.02	0	6
37	Hendegir	5.152	6.320	8.255	1.465	0.00	10.26	1	4
38	Ramgarh	3.190	4.800	4.400	1.175	0.00	4.80	0	5
39	Jamtara	2.836	4.330	3.245	1.680	0.00	4.33	0	5
40	Tilpara Barrage	4.470	5.520	4.695	3.720	0.00	6.26	0	5
41	Maharo	2.840	5.620	2.730	1.560	0.00	5.62	0	5
42	Nutanhat	6.108	12.600	6.440	2.530	0.00	12.60	1	4
43	Talcher	7.567	3.825	2.600	16.275	0.04	17.49	2	4

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
44	Jenapur	7.813	3.869	3.290	16.280	0.89	17.24	2	4
45	Anandpur	6.882	3.922	4.930	11.795	3.31	14.30	1	5
46	Tikarpara	6.304	3.926	4.590	10.395	1.29	12.44	1	5
47	Panposh	7.695	3.875	5.170	14.040	3.08	14.41	2	4
48	Gomlai	6.064	4.052	3.575	10.565	0.19	13.69	1	5
49	Muri	5.772	4.005	4.235	9.075	0.00	18.15	1	5
50	Jamshedpur	3.582	4.006	3.870	2.870	0.00	6.25	0	6
51	Adityapur	3.444	3.880	2.160	3.650	0.70	6.60	0	6
52	Ghatsila	3.923	3.983	3.820	3.965	0.72	6.92	0	6
53	Tilga	4.567	3.786	4.340	5.575	0.62	8.20	0	6
54	Jaraikela	4.023	3.850	4.040	4.180	0.23	8.13	0	6
55	Champua	3.171	3.834	3.375	2.305	1.02	5.73	0	6
56	Govindapur	2.855	3.791	4.070	0.705	0.00	6.73	0	6
57	Purushottampur	7.248	3.770	9.230	9.735	0.00	11.32	1	4
58	Srikakulam	4.742	4.075	4.615	5.535	1.98	8.71	0	6
59	Kashinagar	2.311	3.655	0.965	2.985	0.00	3.66	0	5
60	Basantpur	4.731	3.382	6.500	4.310	0.49	12.51	1	5
61	Rampur	2.683	-	4.560	0.805	0.00	6.88	0	4
62	Bamnidih	2.751	2.957	4.235	1.060	0.51	7.95	0	6
63	Rajim	5.690	-	8.285	0.500	0.00	10.45	1	2
64	Simga	2.657	-	3.395	1.180	0.00	5.31	0	4
65	Andhiyar Kore	4.225	0.867	9.610	0.520	0.00	15.35	1	4
66	Baronda	5.950	-	5.950	-	0.00	8.80	0	3
67	Jondhra	3.973	-	5.745	0.430	0.00	6.84	0	3
68	Ghatora	3.705	-	3.705	-	0.00	6.55	0	3
69	Pathardhi	4.897	-	7.315	0.060	0.00	8.01	0	3
70	Kurubhata	1.912	1.448	3.565	0.490	0.00	6.50	0	5
71	Salebhata	2.174	1.735	3.230	0.500	0.00	5.17	0	5
72	Kantamal	3.805	3.965	6.375	1.075	0.84	6.99	0	6
73	Manendragarh	13.490	-	20.190	0.090	0.00	24.90	2	1
74	Kesinga	3.510	6.080	3.625	0.710	0.00	6.47	0	5
75	Sundergarh	4.002	4.090	5.555	0.720	0.00	7.72	0	5
76	Farakka	2.933	0.083	1.885	7.880	0.00	7.88	0	5
77	Farakka / H/R	1.962	3.022	0.845	2.020	0.04	5.57	0	6
78	English Bazar	2.238	2.995	0.715	3.770	0.51	5.10	0	6
79	Labha	2.249	1.644	1.655	4.040	0.00	4.04	0	5
80	Berhampore	1.304	1.055	1.650	1.380	0.10	2.66	0	6
81	Katwa	2.415	1.073	0.800	4.565	0.15	8.98	0	6
82	Kalna (EBB)	1.652	1.990	1.110	1.585	0.07	3.10	0	6
83	Chapra	1.643	1.540	2.130	1.260	0.05	3.33	0	6
84	Hanskhali	2.940	2.690	4.410	1.720	0.08	4.49	0	6
85	Elginbridge	6.627	11.792	1.445	6.645	0.09	12.48	2	4
86	Ayodhya	5.619	7.013	4.135	5.710	1.08	9.76	0	6
87	Turtipar	8.179	8.937	8.820	6.780	3.11	14.53	1	5

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
88	Paliakalan	7.043	7.194	7.070	6.865	2.05	12.09	1	5
89	Balrampur	8.755	8.551	11.290	6.425	0.94	21.64	2	4
90	Regauli	9.122	11.096	10.285	5.985	0.68	19.89	2	4
91	Birdghat	8.519	7.943	3.310	14.305	0.57	22.75	2	4
92	Basti	7.545	9.214	3.195	10.225	0.28	14.13	2	4
93	Ghat	5.633	8.565	1.305	7.030	0.11	11.84	1	5
94	Garhmukteshwar	5.907	7.245	4.265	6.210	0.13	10.24	1	5
95	Moradabad	15.499	35.307	2.985	8.205	1.09	48.92	2	4
96	Kachlabridge	5.826	6.768	4.510	6.200	0.16	9.50	0	6
97	Fatehgarh	6.414	7.993	3.400	7.850	0.10	10.86	1	5
98	Bareilly	9.880	15.185	4.615	9.840	2.08	22.29	2	4
99	Dabri	8.575	9.887	7.760	7.670	7.05	12.72	1	5
100	Kanpur	9.547	10.447	7.655	10.540	0.28	15.03	3	3
101	Ankinghat	7.871	9.498	5.100	9.015	0.09	12.33	3	3
102	Bhitaura	7.453	9.870	4.945	7.545	0.64	11.34	1	5
103	Raibareli	5.762	8.462	1.965	6.860	0.64	10.66	1	5
104	Lucknow	5.687	8.273	2.740	6.410	0.00	11.67	1	4
105	Neemsar	8.885	10.560	-	7.210	0.00	10.56	1	2
106	Meja Road	1.967	2.903	1.130	1.770	0.00	4.29	0	5
107	Chopan	1.332	2.320	0.780	0.460	0.00	3.60	0	5
108	Maighat	1.698	2.561	1.250	0.420	0.00	3.86	0	5
109	Shahzadpur	1.548	2.755	0.940	0.350	0.00	4.54	0	5
110	Sultanpur	1.782	2.571	1.590	0.590	0.00	3.90	0	5
111	Varanasi	1.817	2.679	1.850	0.030	0.00	4.39	0	5
112	Mirzapur	1.328	2.370	0.740	0.420	0.00	3.66	0	5
113	Kuldah Bridge	1.190	2.375	0.470	0.260	0.00	3.63	0	5
114	Duddi	1.286	2.495	0.655	0.130	0.00	3.59	0	5
115	Chhatnag Allahbad	1.462	2.794	0.715	0.290	0.00	4.62	0	5
116	Buxar	4.448	2.410	5.600	7.370	0.00	7.37	0	5
117	Gandhighat (Patna)	1.926	2.535	1.815	0.930	0.00	4.73	0	5
118	Hathidah	1.292	2.020	0.955	0.510	0.00	3.66	0	5
119	Azmabad	1.324	2.390	0.720	0.400	0.00	3.50	0	5
120	Japla	1.412	3.005	0.325	0.400	0.00	3.48	0	5
121	Koelwar	1.334	2.065	1.020	0.500	0.00	3.99	0	5
122	Gaya	0.920	-	0.920	-	0.00	1.73	0	3
123	Lakhisarai	0.653	0.400	0.970	0.270	0.00	1.48	0	4
124	Sripalpur	1.625	2.830	0.420	-	0.00	3.54	0	5
125	Lalganj	1.730	2.900	1.210	0.430	0.00	5.28	0	5
126	Tribeni	1.925	1.530	2.320	-	0.00	4.45	0	5
127	Sikandarpur	0.938	0.670	1.645	0.060	0.00	2.84	0	5
128	Hayaghat	2.774	5.925	0.545	0.930	0.00	10.40	1	4
129	Dheng Bridge	0.690	1.115	0.265	-	0.00	1.78	0	5
130	Jhanjharpur	1.518	2.760	0.380	1.310	0.00	4.91	0	5
131	Jai Nagar	1.518	2.840	0.300	0.090	0.00	5.15	0	5

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
132	Ekmighat	2.618	4.270	0.965	-	0.00	7.04	0	5
133	Baltara	1.980	2.360	2.550	0.080	0.00	4.92	0	5
134	Dindori	2.587	2.735	2.650	2.375	0.57	4.90	0	6
135	Manot	2.370	3.950	1.245	1.915	0.76	4.50	0	6
136	Mohgaoan	3.143	2.370	5.840	1.220	0.20	7.50	0	6
137	Bamni	2.680	0.000	6.105	0.595	0.00	9.81	0	5
138	Patan	1.658	2.480	1.655	0.840	0.52	4.44	0	6
139	Belkhedi	2.200	2.820	2.400	0.560	0.56	4.95	0	6
140	Bamanghat	2.472	3.060	2.815	0.610	0.25	5.38	0	6
141	Gadarwara	0.895	0.390	2.220	0.485	0.00	2.22	0	5
142	Sandia	2.842	3.130	4.880	1.535	0.94	5.32	0	6
143	Hoshangabad	1.778	2.350	2.670	0.760	0.36	4.34	0	6
144	Chhidgaon	1.957	2.815	2.190	0.865	0.48	5.15	0	6
145	Handia	1.956	0.680	3.500	1.050	0.00	3.92	0	5
146	Mandleshwar	2.448	4.645	2.390	0.310	0.07	9.06	0	6
147	Polavaram	2.926	3.521	3.580	1.080	0.00	3.63	0	5
148	Konta	2.122	3.860	0.940	1.010	0.00	6.28	0	5
149	Bhadrachalam	1.691	2.508	0.450	1.300	0.00	3.78	0	5
150	Perur	1.870	2.585	1.030	1.280	0.00	4.11	0	4
151	Pathagudem	3.007	2.634	5.350	1.410	0.00	5.35	0	4
152	Jagdalpur	2.734	3.486	2.780	1.140	0.00	5.15	0	5
153	Mancherial	2.138	2.701	1.590	1.560	0.00	3.98	0	5
154	Marella	4.093	-	5.550	1.180	0.00	5.64	0	3
155	Wadenapally	1.675	2.367	1.255	1.130	0.00	3.64	0	5
156	Paleru Bridge	3.025	2.585	5.790	1.140	0.00	5.79	0	4
157	Bawapuram	2.790	3.156	3.220	1.200	0.00	5.40	0	5
158	Damarcherla	2.754	3.080	3.210	1.190	0.00	5.48	0	5
159	Halia	4.261	3.272	9.330	1.170	0.00	9.33	0	4
160	Keesara	2.380	-	2.910	1.320	0.00	3.46	0	3
161	Malkhed	1.830	-	2.095	1.300	0.00	3.18	0	3
162	Badalapur	1.284	2.411	0.675	0.250	0.00	3.96	0	5
163	Kumhari	1.179	1.852	0.970	0.250	0.00	3.61	0	5
164	Pauni	1.997	3.447	1.395	0.300	0.00	3.74	0	5
165	Ashti	2.485	4.943	0.990	0.560	0.00	5.24	0	5
166	Hivra	2.144	3.379	1.800	0.360	0.00	4.05	0	5
167	Bamini	2.195	3.107	2.180	0.400	0.00	4.93	0	5
168	Nandgaon	2.026	3.531	1.335	0.400	0.00	4.30	0	5
169	P.G.Bridge	2.951	5.884	1.310	0.370	0.00	7.41	0	5
170	Bhatpalli	2.011	3.418	1.330	0.560	0.00	4.98	0	5
171	Tekra	1.900	2.974	1.350	0.850	0.00	4.53	0	5
172	Rajegaon	3.760	5.330	0.620	-	0.00	6.77	0	5
173	Satrapur	2.956	3.866	3.510	0.580	0.00	4.20	0	5
174	Ambarampalayam	2.549	2.808	5.070	1.030	0.94	5.07	0	6
175	Gummanur	3.756	3.097	6.275	1.895	0.00	8.31	0	6

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
176	Theni	2.954	2.886	5.990	1.505	0.00	5.99	0	5
177	Ambasamudram	2.170	-	-	2.170	0.00	2.17	0	1
178	Musiri	2.636	2.992	3.535	1.380	1.19	4.78	0	6
179	Elunuthimanagalam	10.757	15.170	-	8.550	0.00	16.82	2	1
180	Kudlur	4.560	4.890	-	4.395	0.00	8.72	0	3
181	Sevanur	3.310	-	-	3.310	0.00	3.31	0	1
182	Thevur	1.395	-	-	1.395	0.00	2.56	0	2
183	Thoppur	2.295	-	-	2.295	0.00	4.25	0	2
184	Murappanadu	2.926	2.559	5.330	0.890	0.13	7.73	0	6
185	A.P. Puram	8.507	13.240	-	6.140	0.00	13.24	2	1
186	Nallammaranpatty	4.900	-	-	4.900	0.00	4.90	0	1
187	Nellithurai	1.666	2.488	1.975	0.535	0.02	3.54	0	6
188	Savandapur	2.018	2.544	2.880	0.630	0.01	4.18	0	6
189	Thengumarahada	1.521	2.302	1.005	0.990	0.00	4.31	0	5
190	Urachikottai	3.527	3.317	4.930	1.140	0.00	5.08	0	5
191	Kodumudi	2.583	2.718	4.330	0.700	0.04	4.59	0	6
192	M.H.Halli	1.796	3.160	1.275	0.110	0.11	5.64	0	6
193	T. Bekuppe	3.700	3.011	11.230	0.625	0.10	11.23	1	5
194	T.K.Halli	1.915	4.390	2.630	0.320	0.00	4.39	0	4
195	Kollegal	1.898	3.930	2.535	0.245	0.00	4.01	0	5
196	Biligundullu	2.523	2.858	4.260	0.450	0.39	7.24	0	6
197	Kudige	1.287	3.091	0.635	0.135	0.11	4.22	0	6
198	Akkihebbal	1.434	2.513	-	0.355	0.25	3.63	0	6
199	Bendrahalli	0.790	-	1.030	0.670	0.00	1.04	0	3
200	Thimmanahalli	1.970	2.495	3.015	0.400	0.19	3.95	0	6
201	Sakleshpur	1.567	2.556	1.945	0.200	0.19	3.77	0	6
202	Bantwal	1.552	2.795	1.180	0.495	0.45	4.46	0	6
203	Yennehole	0.548	-	0.910	0.185	0.00	1.73	0	4
204	Haladi	1.364	2.383	-	0.345	0.20	3.57	0	6
205	Santeguli	2.540	2.705	6.890	0.200	0.20	6.89	0	6
206	Addoor	7.060	-	1.490	12.630	0.00	12.63	1	2
207	Harlahalli	1.295	3.780	0.390	0.505	0.00	3.78	0	5
208	Honnali	1.828	2.363	2.890	0.230	0.14	5.40	0	6
209	Shimoga	1.007	-	1.480	0.060	0.00	2.47	0	3
210	T. Narasipur	1.665	2.751	0.660	0.500	0.00	3.93	0	5
211	Byaladahalli	3.190	3.800	2.885	-	0.00	3.80	0	3
212	Holehonnur	2.471	2.622	4.660	0.130	0.08	5.67	0	6
213	Chennur	3.065	5.179	3.180	0.835	0.39	8.94	0	6
214	Alladupalli	2.359	1.716	4.275	1.085	0.11	5.22	0	6
215	Nandipalli	4.983	8.117	6.190	1.245	0.00	14.77	1	4
216	Nellore	2.785	3.475	3.790	1.090	0.24	6.71	0	6
217	Naidupet	1.033	0.125	-	1.940	0.00	1.94	0	2
218	Chengalpet	1.260	-	-	1.260	0.00	1.26	0	1
219	Vazhavachanur	3.500	8.430	3.740	0.915	0.00	8.43	0	4

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
220	Thengudi	1.160	-	1.295	0.890	0.00	2.46	0	3
221	Porakudi	0.990	-	-	0.990	0.00	0.99	0	1
222	Peralam	1.440	-	2.000	0.880	0.00	2.00	0	3
223	Annavasal	3.760	-	6.650	0.870	0.00	6.65	0	2
224	Kuniyil	3.391	5.824	2.165	0.980	0.00	8.07	0	5
225	Erinjipuzha	1.813	2.962	-	0.665	0.45	3.89	0	6
226	Perumannu	1.198	2.870	0.640	0.085	0.00	4.05	0	6
227	Kumbidi	2.053	2.805	3.070	0.285	0.02	6.12	0	6
228	Arangaly	2.172	2.836	2.535	0.120	0.00	4.06	0	5
229	Pudur	1.613	2.873	1.460	0.505	0.06	4.14	0	6
230	Ramamangalam	2.030	2.821	3.025	0.245	0.21	3.91	0	6
231	Thumpamon	1.554	3.118	1.230	0.315	0.01	3.97	0	6
232	Kidangoor	1.065	2.950	0.135	0.110	0.08	4.17	0	6
233	Pattazhy	1.320	3.060	0.070	0.205	0.07	4.16	0	6
234	Kallooppara	2.357	2.975	4.020	0.075	0.03	7.15	0	6
235	Malakkara	1.256	2.876	0.030	0.250	0.03	4.21	0	6
236	Pulmanthole	1.507	3.272	0.540	0.225	0.18	4.59	0	6
237	Karathodu	1.819	3.073	1.420	0.110	0.00	4.17	0	5
238	Kalampur	1.717	3.054	1.205	0.070	0.00	4.46	0	5
239	Mankara	3.238	3.580	5.625	0.510	0.17	9.55	0	6
240	Neeleswaram	1.688	3.018	1.895	0.150	0.14	4.26	0	6
241	Muthankera	1.742	2.907	2.180	0.140	0.09	4.21	0	6
242	Vandiperiyar	1.171	1.657	1.155	0.230	0.00	2.58	0	5
243	Kuzhithurai	3.840	0.695	6.985	-	0.00	7.17	0	4
244	Ashramam	0.775	1.022	-	0.280	0.00	1.90	0	4
245	Kuttyadi	1.667	1.578	2.515	0.060	0.00	4.88	0	4
246	Tezu	2.666	4.043	-	1.290	0.00	6.14	0	4
247	Dholabazar	1.109	1.201	0.850	1.275	0.01	1.71	0	6
248	Namsai	1.653	2.679	0.795	1.485	0.04	3.56	0	6
249	Margherita	1.208	0.838	1.040	1.745	0.01	2.29	0	6
250	Naharkatia	1.268	0.925	1.035	1.845	0.03	2.44	0	6
251	Chenimari	0.939	0.958	0.805	1.055	0.02	1.59	0	6
252	Dillighat	1.680	0.926	2.590	1.525	0.15	4.24	0	6
253	Desangpani	1.784	3.537	0.545	1.270	0.45	5.13	0	6
254	Nanglamoraghat	1.917	3.720	0.575	1.455	0.28	5.76	0	6
255	Sivasagar	1.737	3.145	0.685	1.380	0.23	4.12	0	6
256	Bokajan	1.145	1.850	0.960	0.625	0.10	2.29	0	6
257	Numaligarh	2.040	4.019	0.820	1.280	0.07	6.25	0	6
258	Chouldhowaghat	0.948	1.413	0.845	0.585	0.20	2.36	0	6
259	Badatighat	2.107	4.660	1.015	0.645	0.08	6.81	0	6
260	Ranganadi NT Road Crossing	1.703	3.010	1.110	0.990	0.10	3.75	0	6
261	Kheronighat	1.143	1.342	0.850	1.090	0.00	2.62	0	5
262	Kampur	1.621	2.577	0.445	2.060	0.00	2.72	0	5
263	Dharamtul	1.432	3.035	0.520	0.740	0.27	3.45	0	6

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
264	Jagibhakatgaon	1.500	2.926	0.555	1.020	0.08	3.02	0	6
265	Bhomoraguri	0.973	1.648	0.700	0.170	0.14	2.80	0	6
266	Tezpur	3.179	3.561	5.585	0.390	0.02	11.08	1	5
267	Seppa	1.143	2.125	0.500	0.805	0.06	2.78	0	6
268	Bhalukpong	1.601	3.467	1.035	0.300	0.24	4.18	0	6
269	Jiabharali NT Road Xing	0.337	0.878	0.220	0.030	0.00	0.88	0	4
270	Bihubar	0.785	1.269	0.845	0.240	0.16	1.93	0	6
271	Dibrugarh	1.019	0.928	1.060	1.070	0.35	1.78	0	6
272	Golaghat	1.452	1.645	1.785	0.925	0.00	2.38	0	6
273	Miao	1.032	0.946	1.070	1.080	0.11	2.05	0	6
274	Neamtighat	1.154	1.278	1.525	0.660	0.00	2.17	0	6
275	Udaypur	1.067	1.366	1.065	0.770	0.05	1.49	0	6
276	Tuting	1.265	2.410	0.120	-	0.00	2.41	0	2
277	Passighat	2.036	4.446	0.490	0.310	0.00	6.58	0	5
278	Puthimari D.R.F.	3.543	5.803	3.940	0.885	0.79	7.80	0	6
279	Pancharatna	2.547	3.031	2.910	1.700	1.34	4.00	0	6
280	Suklai	3.702	4.557	5.325	1.225	1.16	7.50	0	6
281	Kulsi	2.484	4.111	2.455	0.885	0.67	4.47	0	6
282	Dudhnai	4.012	7.040	3.550	1.445	1.11	10.34	1	5
283	Pandu	2.874	4.932	2.035	1.655	0.87	6.27	0	6
284	Puthimari NH X-ING	2.019	2.547	1.735	1.775	0.97	3.00	0	6
285	Sonapur	3.283	4.164	2.610	3.075	2.03	4.90	0	6
286	Matunga	2.503	4.005	2.175	1.330	1.09	4.12	0	6
287	Pagladiya N.T. Road X-ING	2.791	3.373	2.325	2.675	0.76	4.15	0	6
288	A.P.Ghat	4.462	4.288	4.000	5.270	0.00	6.38	0	4
289	Therriaghat	3.475	5.429	2.920	1.800	0.00	6.00	0	5
290	Dholai	8.502	9.225	8.450	7.805	0.00	13.59	2	3
291	Dimapara	3.292	5.605	2.040	1.605	0.00	6.63	0	5
292	Kharkhana	5.611	6.907	9.130	2.555	0.00	9.13	0	5
293	Dawki	2.729	4.123	2.920	1.240	0.00	4.26	0	5
294	Badar Pur Ghat (B.P. Ghat)	5.009	4.598	4.700	6.140	0.00	6.14	0	4
295	Sibbari	4.810	6.620	3.680	3.565	0.00	9.78	0	5
296	Matijuri	5.226	5.820	8.100	3.195	0.00	8.10	0	5
297	Fulertal	3.881	4.429	2.110	4.220	0.00	5.35	0	5
298	Fakirabazar	3.058	4.136	3.040	1.990	0.00	4.80	0	5
299	Gumrabazar	3.103	5.713	2.110	0.990	0.00	7.57	0	5
300	Sankalan	1.837	2.916	0.960	1.635	0.48	4.22	0	6
301	Behalpur	1.651	2.439	1.710	0.835	0.07	4.81	0	6
302	Gajaldoba	2.796	4.656	-	0.935	0.00	5.24	0	5
303	Aie NH Crossing	1.950	3.119	2.170	0.560	0.52	4.20	0	6
304	Domohani	2.929	6.733	1.205	0.850	0.34	8.31	0	6
305	Khanitar	3.214	3.308	1.215	5.120	0.52	5.84	0	6

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
306	Champasari	1.992	3.490	0.510	1.235	0.51	4.09	0	6
307	Dhubri	2.786	4.890	1.710	1.220	0.56	5.07	0	6
308	Majhitar	3.015	4.100	2.820	2.125	0.88	4.76	0	6
309	Sonapurhat	3.051	3.492	4.230	1.430	1.00	7.46	0	6
310	Mathanguri	2.192	3.510	1.640	1.150	0.00	4.60	0	5
311	Manas NH Crossing	1.375	2.749	0.405	0.970	0.22	5.17	0	6
312	Mathabhanga	1.699	2.807	1.470	0.705	0.45	4.74	0	6
313	Rangpo	1.585	2.876	0.855	1.025	0.36	4.67	0	6
314	Nagrakata	1.666	2.294	1.495	1.210	0.63	3.96	0	6
315	Jaldhaka NH-31	2.235	5.320	0.415	0.970	0.17	5.48	0	6
316	Matigara	2.945	4.184	3.715	0.935	0.44	4.40	0	6
317	Ghugumari	1.844	2.236	2.780	0.985	0.06	4.41	0	6
318	Sevoke	3.101	4.788	1.395	3.120	0.74	4.82	0	6
319	Beki Road Bridge	3.850	7.069	2.060	1.525	0.15	8.77	0	6
320	Chel	2.986	7.293	0.750	0.915	0.74	9.98	0	6
321	Golokganj	1.759	3.537	0.425	1.315	0.21	5.18	0	6
322	SinglaBazar	2.040	2.886	2.380	0.855	0.21	5.56	0	6
323	Kokrajhar	2.154	4.435	0.500	0.700	0.50	4.51	0	6
324	Sankosh LRP	1.751	2.509	1.265	1.480	0.23	4.79	0	6
325	Murti	1.792	3.280	0.865	1.230	0.35	4.26	0	6
326	Diana	1.982	3.605	1.010	0.845	0.56	4.52	0	6
327	Ghish	2.061	3.924	0.990	0.735	0.58	4.76	0	6
328	Hasimara	3.508	2.419	6.770	1.335	0.29	7.85	0	6
329	Coronation	2.107	3.255	1.680	1.385	0.32	5.51	0	6
330	Panbari	1.754	2.481	0.300	1.755	0.30	4.22	0	6
331	Chepan	1.692	2.261	1.620	1.160	0.02	4.50	0	6
332	Barobisha	1.241	2.102	0.410	0.795	0.06	4.14	0	6
333	TeestaBazar	2.085	3.640	0.785	1.830	0.25	4.87	0	6
334	Mekhliganj	2.268	3.966	0.850	0.290	0.00	4.69	0	5
335	Neora	2.080	3.345	1.695	0.320	0.00	4.57	0	5
336	Tufanganj	1.330	2.156	1.065	0.210	0.00	4.21	0	5
337	Tuini	0.278	0.110	0.340	0.320	0.00	0.59	0	5
338	Yashwant nagar	0.536	0.250	0.540	0.675	0.00	0.95	0	5
339	Paonta	0.688	0.590	1.035	0.090	0.00	1.92	0	5
340	Kalanaur	0.330	0.760	0.245	0.070	0.00	0.76	0	5
341	Mawi	0.944	1.605	0.210	1.090	0.00	3.21	0	6
342	Palla	1.503	2.063	0.725	1.720	0.00	4.13	0	6
343	Delhi Rly Bridge	10.690	13.846	2.395	15.830	0.09	27.45	3	3
344	Galeta	2.963	4.299	1.280	3.660	0.00	8.60	0	6
345	Mohana	7.066	12.349	2.970	5.880	0.09	24.11	1	5
346	Gokul Barrage (Mathura)	7.907	17.085	1.610	5.025	0.00	34.17	1	5
347	Agra (P.G.)	6.268	12.460	1.320	3.780	0.00	24.58	1	4
348	Auraiya	3.500	7.010	2.485	2.020	0.00	7.01	0	4
349	Etawah	5.281	5.334	5.850	4.040	0.00	9.35	0	5

S. No.	Water Quality Site	Lead (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 10 µg/L	Below 10 µg/L
350	Hamirpur	4.169	3.433	6.250	1.480	0.00	7.77	0	5
351	Pratappur	4.910	5.515	5.715	2.090	0.00	7.96	0	5
352	Seondha	3.894	5.960	3.630	0.290	0.00	9.41	0	5
353	Rajghat	3.353	1.139	7.190	0.110	0.00	9.67	0	5
354	Shahijina	4.078	4.925	5.080	0.380	0.00	9.03	0	5
355	Garrauli	3.950	6.660	5.110	0.080	0.00	6.66	0	3
356	Kora	3.010	4.280	4.730	0.020	0.00	4.73	0	3
357	Banda	5.528	7.986	6.010	0.130	0.00	8.43	0	4
358	Dholpur	3.650	2.291	6.490	0.690	0.00	9.37	0	5
359	Udi	4.543	4.563	6.480	0.630	0.00	8.73	0	5
360	Tal	3.313	-	2.695	4.550	0.00	5.18	0	3
361	A.B.Road Crossing	0.947	-	1.325	0.190	0.00	2.58	0	3
362	Khatoli	0.564	0.070	0.885	0.490	0.00	1.77	0	5
363	Aklera	1.977	-	2.435	1.060	0.00	4.65	0	3
364	Sangod	0.140	-	0.150	0.130	0.00	0.15	0	2
365	Mahidpur	2.033	-	1.455	3.190	0.00	3.19	0	3
366	Barod	0.942	0.110	1.505	0.795	0.00	2.75	0	5
367	Tonk	1.067	-	1.050	1.100	0.00	1.93	0	3
368	Pati	1.640	-	1.640	-	0.00	2.45	0	2
369	Kogaon	2.870	1.420	3.595	-	0.00	5.50	0	3
370	Pachauli	3.790	-	3.790	-	0.00	5.04	0	2
371	Ayilam	0.818	1.095	0.540	-	0.00	1.10	0	3
372	T. Ramapuram	1.785	-	1.785	-	0.00	3.31	0	2
373	Menangudi	7.300	-	7.300	-	0.00	7.30	0	2
374	Kellodu	1.610	-	1.610	-	0.00	1.61	0	1
375	Sulurpet	2.050	-	2.050	-	0.00	2.05	0	1
376	K.M. Vadi	0.870	-	0.870	-	0.00	0.87	0	1
377	Yadgir	4.355	-	4.355	-	0.00	7.90	0	2
378	Mangaon (Seasonal)	0.070	-	0.070	-	0.00	0.07	0	1
379	Phulgaon (Seasonal)	0.160	-	0.160	-	0.00	0.16	0	1
380	Cholachguda (Seasonal)	0.500	-	0.500	-	0.00	0.92	0	2
381	Belne Bridge	0.850	-	0.850	-	0.00	0.85	0	2
382	Dhulsar	2.955	-	2.955	-	0.00	5.87	0	2
383	Avershe	0.435	-	0.435	-	0.00	0.78	0	2
384	Chunchankatte	0.640	-	0.640	-	0.00	0.64	0	2
385	Kuppelur	1.945	-	1.945	-	0.00	2.84	0	2
386	Kurundwad	1.150	-	1.150	-	0.00	1.15	0	2
387	Marol	0.460	-	0.460	-	0.00	0.46	0	2

MERCURY

S. No.	Water Quality Site	Mercury (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
1	Jammu Tawi	0.060	0.100	0.020	-	0.00	0.10	0	2
2	Akhnoor	0.090	0.100	0.080	-	0.00	0.10	0	2
3	Tandi	0.080	-	0.080	-	0.00	0.08	0	1
4	Udaipur	0.110	-	0.110	-	0.00	0.11	0	1
5	Sangam	0.130	0.190	0.070	-	0.00	0.19	0	2
6	Ram Munshi Bagh	0.080	0.060	0.100	-	0.00	0.10	0	2
7	Dhamkund	0.090	0.090	-	-	0.00	0.09	0	2
8	Prem Nagar	0.150	0.150	-	-	0.00	0.15	0	2
9	Safapora	0.130	0.130	-	-	0.00	0.13	0	2
10	Tehri	0.200	0.310	0.090	-	0.00	0.31	0	3
11	Rishikesh	0.255	0.290	0.220	-	0.00	0.29	0	3
12	Uttarkashi	0.250	0.250	-	-	0.00	0.25	0	3
13	Deoprayag	0.185	0.180	0.190	-	0.00	0.19	0	3
14	Rudraprayag	0.245	0.380	0.110	-	0.00	0.38	0	3
15	Mataji	0.375	0.260	-	0.490	0.00	0.49	0	3
16	Rangeli	0.425	0.270	-	0.580	0.00	0.58	0	3
17	Paderdibadi	0.310	0.260	0.080	0.590	0.00	0.59	0	3
18	Khanpur	0.317	0.240	0.140	0.570	0.00	0.57	0	3
19	Derol Bridge	0.560	-	-	0.560	0.00	0.56	0	2
20	Vautha	0.380	0.280	-	0.480	0.00	0.48	0	3
21	Lowara	0.262	-	0.014	0.510	0.00	0.51	0	2
22	Ganod	0.320	-	0.080	0.560	0.00	0.56	0	2
23	Abu Road	0.395	-	0.230	0.560	0.00	0.56	0	2
24	Chitrasani	0.325	-	0.190	0.460	0.00	0.46	0	2
25	Kamalpur	0.310	-	0.060	0.560	0.00	0.56	0	2
26	Burhanpur	0.303	0.300	0.110	0.500	0.00	0.50	0	3
27	Gopalkheda	0.505	-	0.540	0.470	0.00	0.54	0	2
28	Sarangkheda	0.375	-	0.210	0.540	0.00	0.54	0	2
29	Gadat	0.450	-	0.380	0.520	0.00	0.52	0	2
30	Mahuwa	0.580	0.680	0.540	0.520	0.00	0.68	0	3
31	Durvesh	0.610	-	0.690	0.530	0.00	0.69	0	2
32	Garudeshwar	0.363	0.340	0.290	0.460	0.00	0.46	0	3
33	Chanwada	0.325	-	0.080	0.570	0.00	0.57	0	2
34	Pingalwada	0.373	0.360	0.220	0.540	0.00	0.54	0	3
35	Motinaroli	0.560	0.460	0.690	0.530	0.00	0.69	0	3
36	Vapi	0.380	0.400	0.190	0.550	0.00	0.55	0	3
37	Hendegir	0.330	-	0.080	0.580	0.00	0.58	0	2
38	Ramgarh	0.340	-	0.110	0.570	0.00	0.57	0	2
39	Jamtara	0.385	-	0.180	0.590	0.00	0.59	0	2
40	Tilpara Barrage	0.350	-	0.110	0.590	0.00	0.59	0	2
41	Maharo	0.570	-	-	0.570	0.00	0.57	0	2
42	Nutanhat	0.390	-	0.230	0.550	0.00	0.55	0	2

S. No.	Water Quality Site	Mercury (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
43	Talcher	0.315	0.060	-	0.570	0.00	0.57	0	3
44	Jenapur	0.253	0.150	0.020	0.590	0.00	0.59	0	3
45	Anandpur	0.237	0.170	0.010	0.530	0.00	0.53	0	3
46	Tikarpara	0.403	0.360	0.210	0.640	0.00	0.64	0	3
47	Panposh	0.233	0.060	0.090	0.550	0.00	0.55	0	3
48	Gomlai	0.515	0.420	-	0.610	0.00	0.61	0	3
49	Muri	0.443	0.380	0.290	0.660	0.00	0.66	0	3
50	Jamshedpur	0.340	0.240	0.160	0.620	0.00	0.62	0	3
51	Adityapur	0.337	0.300	0.080	0.630	0.00	0.63	0	3
52	Ghatsila	0.410	0.300	0.290	0.640	0.00	0.64	0	3
53	Tilga	0.310	0.200	0.100	0.630	0.00	0.63	0	3
54	Jaraikela	0.480	0.550	0.280	0.610	0.00	0.61	0	3
55	Champua	0.317	0.210	0.120	0.620	0.00	0.62	0	3
56	Govindapur	0.460	0.420	0.320	0.640	0.00	0.64	0	3
57	Purushottampur	0.620	0.600	-	0.640	0.00	0.64	0	2
58	Srikakulam	0.650	0.780	0.500	0.670	0.00	0.78	0	3
59	Kashinagar	0.327	0.280	0.060	0.640	0.00	0.64	0	3
60	Basantpur	0.497	0.450	0.360	0.680	0.00	0.68	0	3
61	Rampur	0.150	-	0.150	-	0.00	0.15	0	2
62	Bamnidih	0.360	0.430	0.290	-	0.00	0.43	0	3
63	Rajim	0.650	-	0.650	-	0.00	0.65	0	2
64	Simga	0.090	-	0.090	-	0.00	0.09	0	2
65	Andhiyar Kore	0.300	0.300	-	-	0.00	0.30	0	3
66	Baronda	0.400	-	0.400	-	0.00	0.40	0	2
67	Jondhra	0.050	-	0.050	-	0.00	0.05	0	2
68	Ghatora	0.270	-	0.270	-	0.00	0.27	0	2
69	Pathardhi	0.380	-	0.380	-	0.00	0.38	0	2
70	Kurubhata	0.445	0.400	0.490	-	0.00	0.49	0	3
71	Salebhata	0.290	0.300	0.280	-	0.00	0.30	0	3
72	Kantamal	0.535	0.460	0.610	-	0.00	0.61	0	3
73	Manendragarh	0.380	-	0.380	-	0.00	0.38	0	2
74	Kesinga	0.040	-	0.040	-	0.00	0.04	0	2
75	Sundergarh	0.565	0.290	0.840	-	0.00	0.84	0	2
76	Farakka	0.643	0.690	0.660	0.580	0.00	0.69	0	3
77	Farakka / H/R	0.425	0.330	-	0.520	0.00	0.52	0	3
78	English Bazar	0.505	0.580	-	0.430	0.00	0.58	0	3
79	Labha	0.487	0.830	0.110	0.520	0.00	0.83	0	3
80	Berhampore	0.333	0.370	0.080	0.550	0.00	0.55	0	3
81	Katwa	0.420	0.440	0.290	0.530	0.00	0.53	0	3
82	Kalna (EBB)	0.397	0.410	0.250	0.530	0.00	0.53	0	3
83	Chapra	0.437	0.560	0.220	0.530	0.00	0.56	0	3
84	Hanskhali	0.460	0.750	0.090	0.540	0.00	0.75	0	3
85	Elginbridge	0.180	0.130	0.230	-	0.00	0.23	0	3
86	Ayodhya	0.343	0.290	0.110	0.630	0.00	0.63	0	3

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		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
87	Turtipar	0.135	0.180	0.090	-	0.00	0.18	0	3
88	Paliakalan	0.215	0.240	0.190	-	0.00	0.24	0	3
89	Balrampur	0.145	0.190	0.100	-	0.00	0.19	0	3
90	Regauli	0.165	0.210	0.120	-	0.00	0.21	0	3
91	Birdghat	0.360	0.490	0.230	-	0.00	0.49	0	3
92	Basti	0.235	0.270	0.200	-	0.00	0.27	0	3
93	Ghat	0.710	0.750	0.670	-	0.00	0.75	0	3
94	Garhmukteshwar	0.695	0.740	0.650	-	0.00	0.74	0	3
95	Moradabad	0.105	0.180	0.030	-	0.00	0.18	0	3
96	Kachlabridge	0.105	0.170	0.040	-	0.00	0.17	0	3
97	Fatehgarh	0.135	0.180	0.090	-	0.00	0.18	0	3
98	Bareilly	0.550	0.750	0.350	-	0.00	0.75	0	3
99	Dabri	0.145	0.240	0.050	-	0.00	0.24	0	3
100	Kanpur	0.135	0.160	0.110	-	0.00	0.16	0	3
101	Ankinghat	0.085	0.160	0.010	-	0.00	0.16	0	3
102	Bhitaura	0.150	0.170	0.130	-	0.00	0.17	0	3
103	Raibareli	0.135	0.140	0.130	-	0.00	0.14	0	3
104	Lucknow	0.160	0.160	0.160	-	0.00	0.16	0	3
105	Neemsar	0.880	-	0.880	-	0.00	0.88	0	1
106	Meja Road	0.320	0.300	0.340	-	0.00	0.34	0	2
107	Chopan	0.225	0.260	0.190	-	0.00	0.26	0	2
108	Maighat	0.605	0.760	0.450	-	0.00	0.76	0	2
109	Shahzadpur	0.225	0.260	0.190	-	0.00	0.26	0	2
110	Sultanpur	0.500	0.210	0.790	-	0.00	0.79	0	2
111	Varanasi	0.395	0.440	0.350	-	0.00	0.44	0	2
112	Mirzapur	0.360	0.260	0.460	-	0.00	0.46	0	2
113	Kuldah Bridge	0.195	0.300	0.090	-	0.00	0.30	0	2
114	Duddi	0.395	0.520	0.270	-	0.00	0.52	0	2
115	Chhatnag Allahbad	0.230	0.250	0.210	-	0.00	0.25	0	2
116	Buxar	0.480	0.580	0.220	0.640	0.00	0.64	0	3
117	Gandhighat (Patna)	0.380	0.510	0.320	0.310	0.00	0.51	0	3
118	Hathidah	0.513	0.780	0.560	0.200	0.00	0.78	0	3
119	Azmabad	0.320	0.750	0.070	0.140	0.00	0.75	0	3
120	Japla	0.360	0.470	0.490	0.120	0.00	0.49	0	3
121	Koelwar	0.497	0.680	0.690	0.120	0.00	0.69	0	3
122	Gaya	0.320	-	0.550	0.090	0.00	0.55	0	2
123	Lakhisarai	0.387	0.400	0.420	0.340	0.00	0.42	0	3
124	Sripalpur	0.167	0.300	0.110	0.090	0.00	0.30	0	3
125	Lalganj	0.500	0.550	0.750	0.200	0.00	0.75	0	3
126	Tribeni	0.637	0.350	0.780	0.780	0.00	0.78	0	3
127	Sikandarpur	0.310	0.590	0.290	0.050	0.00	0.59	0	3
128	Hayaghat	0.343	0.440	0.540	0.050	0.00	0.54	0	3
129	Dheng Bridge	0.377	0.640	0.460	0.030	0.00	0.64	0	3
130	Jhanjharpur	0.287	0.560	0.220	0.080	0.00	0.56	0	3

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131	Jai Nagar	0.300	0.660	0.210	0.030	0.00	0.66	0	3
132	Ekmighat	0.493	0.690	0.760	0.030	0.00	0.76	0	3
133	Baltara	0.406	0.730	0.089	0.400	0.00	0.73	0	3
134	Dindori	0.415	0.710	0.120	-	0.00	0.71	0	2
135	Manot	0.250	0.450	0.050	-	0.00	0.45	0	2
136	Mohgaoan	0.210	0.340	0.080	-	0.00	0.34	0	2
137	Bamni	0.615	0.810	0.420	-	0.00	0.81	0	2
138	Patan	0.355	0.620	0.090	-	0.00	0.62	0	2
139	Belkhedi	0.635	0.730	0.540	-	0.00	0.73	0	2
140	Bamanghat	0.480	0.730	0.230	-	0.00	0.73	0	2
141	Gadarwara	0.605	0.570	0.640	-	0.00	0.64	0	2
142	Sandia	0.800	0.720	0.880	-	0.00	0.88	0	2
143	Hoshangabad	0.345	0.350	0.340	-	0.00	0.35	0	2
144	Chhidgaon	0.575	0.720	0.430	-	0.00	0.72	0	2
145	Handia	0.205	0.360	0.050	-	0.00	0.36	0	2
146	Mandleshwar	0.345	0.390	0.300	-	0.00	0.39	0	2
147	Polavaram	0.700	0.680	0.720	-	0.00	0.72	0	2
148	Konta	0.215	0.240	0.190	-	0.00	0.24	0	2
149	Bhadrachalam	0.350	0.320	0.380	-	0.00	0.38	0	2
150	Perur	0.320	0.320	-	-	0.00	0.32	0	1
151	Pathagudem	0.460	0.460	-	-	0.00	0.46	0	1
152	Jagdalpur	0.170	0.010	0.330	-	0.00	0.33	0	2
153	Mancherial	0.370	0.240	0.500	-	0.00	0.50	0	2
154	Marella	0.120	-	0.120	-	0.00	0.12	0	1
155	Wadenapally	0.560	0.460	0.660	-	0.00	0.66	0	2
156	Paleru Bridge	0.350	0.350	-	-	0.00	0.35	0	1
157	Bawapuram	0.330	0.330	-	-	0.00	0.33	0	2
158	Damarcherla	0.680	0.780	0.580	-	0.00	0.78	0	2
159	Halia	0.390	0.390	-	-	0.00	0.39	0	1
160	Keesara	0.600	-	0.600	-	0.00	0.60	0	1
161	Malkhed	0.390	-	0.390	-	0.00	0.39	0	1
162	Badalapur	0.280	0.300	0.260	-	0.00	0.30	0	2
163	Kumhari	0.130	0.130	-	-	0.00	0.13	0	2
164	Pauni	0.135	0.110	0.160	-	0.00	0.16	0	2
165	Ashti	0.035	0.050	0.020	-	0.00	0.05	0	2
166	Hivra	0.390	0.130	0.650	-	0.00	0.65	0	2
167	Bamini	0.020	0.020	-	-	0.00	0.02	0	2
168	Nandgaon	0.085	0.100	0.070	-	0.00	0.10	0	2
169	P.G.Bridge	0.149	0.200	0.098	-	0.00	0.20	0	2
170	Bhatpalli	0.195	0.280	0.110	-	0.00	0.28	0	2
171	Tekra	0.175	0.190	0.160	-	0.00	0.19	0	2
172	Rajegaon	0.020	0.020	-	-	0.00	0.02	0	2
173	Satrapur	0.020	0.020	-	-	0.00	0.02	0	2
174	Ambarampalayam	0.130	0.190	0.070	-	0.00	0.19	0	3

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175	Gummanur	0.155	0.230	0.080	-	0.00	0.23	0	3
176	Theni	0.300	0.320	0.280	-	0.00	0.32	0	3
177	Ambasamudram	-	-	-	-	0.00	0.00	0	0
178	Musiri	0.205	0.250	0.160	-	0.00	0.25	0	3
179	Elunuthimanagalam	-	-	-	-	0.00	0.00	0	1
180	Kudlur	-	-	-	-	0.00	0.00	0	1
181	Sevanur	-	-	-	-	0.00	0.00	0	0
182	Thevur	-	-	-	-	0.00	0.00	0	1
183	Thoppur	-	-	-	-	0.00	0.00	0	1
184	Murappanadu	0.215	0.240	0.190	-	0.00	0.24	0	3
185	A.P. Puram	-	-	-	-	0.00	0.00	0	1
186	Nallammaranpatty	-	-	-	-	0.00	0.00	0	0
187	Nellithurai	0.230	0.230	-	-	0.00	0.23	0	3
188	Savandapur	0.260	0.260	-	-	0.00	0.26	0	3
189	Thengumarahada	0.480	0.520	0.440	-	0.00	0.52	0	2
190	Urachikottai	0.200	0.290	0.110	-	0.00	0.29	0	2
191	Kodumudi	0.125	0.210	0.040	-	0.00	0.21	0	3
192	M.H.Halli	0.165	0.280	0.050	-	0.00	0.28	0	3
193	T. Bekuppe	0.270	0.270	-	-	0.00	0.27	0	3
194	T.K.Halli	-	-	-	-	0.00	0.00	0	1
195	Kollegal	0.300	-	0.300	-	0.00	0.30	0	2
196	Biligundullu	0.265	0.250	0.280	-	0.00	0.28	0	3
197	Kudige	0.520	0.520	-	-	0.00	0.52	0	3
198	Akkihebbal	0.200	0.200	-	-	0.00	0.20	0	3
199	Bendrahalli	-	-	-	-	0.00	0.00	0	1
200	Thimmanahalli	0.140	0.190	0.090	-	0.00	0.19	0	3
201	Sakleshpur	0.115	0.190	0.040	-	0.00	0.19	0	3
202	Bantwal	0.240	0.240	0.240	-	0.00	0.24	0	3
203	Yennehole	0.610	-	0.610	-	0.00	0.61	0	2
204	Haladi	0.225	0.230	0.220	-	0.00	0.23	0	3
205	Santeguli	0.135	0.190	0.080	-	0.00	0.19	0	3
206	Addoor	0.450	-	0.450	-	0.00	0.45	0	1
207	Harlahalli	0.220	-	0.220	-	0.00	0.22	0	2
208	Honnali	0.145	0.210	0.080	-	0.00	0.21	0	3
209	Shimoga	0.310	-	0.310	-	0.00	0.31	0	1
210	T. Narasipur	0.205	0.250	0.160	-	0.00	0.25	0	3
211	Byaladahalli	-	-	-	-	0.00	0.00	0	1
212	Holehonnur	0.200	0.210	0.190	-	0.00	0.21	0	3
213	Chennur	0.300	0.380	0.220	-	0.00	0.38	0	3
214	Alladupalli	0.525	0.560	0.490	-	0.00	0.56	0	3
215	Nandipalli	0.200	0.140	0.260	-	0.00	0.26	0	3
216	Nellore	0.320	0.280	0.360	-	0.00	0.36	0	3
217	Naidupet	0.580	0.580	-	-	0.00	0.58	0	1
218	Chengalpet	-	-	-	-	0.00	0.00	0	0

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219	Vazhavachanur	-	-	-	-	0.00	0.00	0	1
220	Thengudi	-	-	-	-	0.00	0.00	0	1
221	Porakudi	-	-	-	-	0.00	0.00	0	0
222	Peralam	0.490	-	0.490	-	0.00	0.49	0	1
223	Annavasal	0.090	-	0.090	-	0.00	0.09	0	1
224	Kuniyil	0.150	0.150	-	-	0.00	0.15	0	2
225	Erinjipuzha	0.195	0.300	0.090	-	0.00	0.30	0	3
226	Perumannu	0.095	0.140	0.050	-	0.00	0.14	0	3
227	Kumbidi	0.215	0.230	0.200	-	0.00	0.23	0	3
228	Arangaly	0.140	0.120	0.160	-	0.00	0.16	0	2
229	Pudur	0.590	0.690	0.490	-	0.00	0.69	0	3
230	Ramamangalam	0.105	0.080	0.130	-	0.00	0.13	0	3
231	Thumpamon	0.060	0.060	-	-	0.00	0.06	0	3
232	Kidangoor	0.070	0.070	-	-	0.00	0.07	0	3
233	Pattazhy	0.285	0.350	0.220	-	0.00	0.35	0	3
234	Kallooppara	0.135	0.240	0.030	-	0.00	0.24	0	3
235	Malakkara	0.020	0.000	0.040	-	0.00	0.04	0	3
236	Pulmanthole	0.045	0.070	0.020	-	0.00	0.07	0	3
237	Karathodu	0.050	0.090	0.010	-	0.00	0.09	0	2
238	Kalampur	0.050	0.090	0.010	-	0.00	0.09	0	2
239	Mankara	0.125	0.120	0.130	-	0.00	0.13	0	3
240	Neeleswaram	0.080	0.080	-	-	0.00	0.08	0	3
241	Muthankera	0.285	0.290	0.280	-	0.00	0.29	0	3
242	Vandiperiyar	0.525	0.520	0.530	-	0.00	0.53	0	2
243	Kuzhithurai	0.060	0.060	-	-	0.00	0.06	0	2
244	Ashramam	0.170	0.260	0.080	-	0.00	0.26	0	2
245	Kuttyadi	0.110	0.110	-	-	0.00	0.11	0	3
246	Tezu	0.630	0.630	-	-	0.00	0.63	0	1
247	Dholabazar	0.485	0.520	0.450	-	0.00	0.52	0	2
248	Namsai	0.705	0.530	0.880	-	0.00	0.88	0	2
249	Margherita	0.205	0.220	0.190	-	0.00	0.22	0	2
250	Naharkatia	0.425	0.610	0.240	-	0.00	0.61	0	2
251	Chenimari	0.590	0.640	0.540	-	0.00	0.64	0	2
252	Dillighat	0.270	0.420	0.120	-	0.00	0.42	0	2
253	Desangpani	0.745	0.800	0.690	-	0.00	0.80	0	2
254	Nanglamoraghat	0.730	0.750	0.710	-	0.00	0.75	0	2
255	Sivasagar	0.435	0.640	0.230	-	0.00	0.64	0	2
256	Bokajan	0.700	0.640	0.760	-	0.00	0.76	0	2
257	Numaligarh	0.725	0.810	0.640	-	0.00	0.81	0	2
258	Chouldhowaghat	0.765	0.650	0.880	-	0.00	0.88	0	2
259	Badatighat	0.440	0.420	0.460	-	0.00	0.46	0	2
260	Ranganadi NT Road Crossing	0.660	0.560	0.760	-	0.00	0.76	0	2
261	Kheronighat	0.160	0.160	-	-	0.00	0.16	0	1

S. No.	Water Quality Site	Mercury (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
262	Kampur	0.445	0.600	0.290	-	0.00	0.60	0	2
263	Dharamtul	0.330	0.360	0.300	-	0.00	0.36	0	2
264	Jagibhakatgaon	0.225	0.370	0.080	-	0.00	0.37	0	2
265	Bhomoraguri	0.405	0.590	0.220	-	0.00	0.59	0	2
266	Tezpur	0.385	0.280	0.490	-	0.00	0.49	0	2
267	Seppa	0.345	0.530	0.160	-	0.00	0.53	0	2
268	Bhalukpong	0.300	0.280	0.320	-	0.00	0.32	0	2
269	Jiabharali NT Road Xing	0.295	0.440	0.150	-	0.00	0.44	0	2
270	Bihubar	0.540	0.760	0.320	-	0.00	0.76	0	3
271	Dibrugarh	0.355	0.320	0.390	-	0.00	0.39	0	3
272	Golaghat	0.555	0.670	0.440	-	0.00	0.67	0	3
273	Miao	0.785	0.820	0.750	-	0.00	0.82	0	3
274	Neamtighat	0.330	0.470	0.190	-	0.00	0.47	0	3
275	Udaypur	0.605	0.470	0.740	-	0.00	0.74	0	3
276	Tuting	0.120	-	0.120	-	0.00	0.12	0	1
277	Passighat	0.400	0.480	0.320	-	0.00	0.48	0	2
278	Puthimari D.R.F.	0.305	0.410	0.200	-	0.00	0.41	0	3
279	Pancharatna	0.275	0.320	0.230	-	0.00	0.32	0	3
280	Suklai	0.250	0.300	0.200	-	0.00	0.30	0	3
281	Kulsi	0.565	0.360	0.770	-	0.00	0.77	0	3
282	Dudhnai	0.225	0.290	0.160	-	0.00	0.29	0	3
283	Pandu	0.350	0.410	0.290	-	0.00	0.41	0	3
284	Puthimari NH X-ING	0.335	0.270	0.400	-	0.00	0.40	0	3
285	Sonapur	0.455	0.420	0.490	-	0.00	0.49	0	3
286	Matunga	0.195	0.310	0.080	-	0.00	0.31	0	3
287	Pagladiya N.T. Road X-ING	0.480	0.770	0.190	-	0.00	0.77	0	3
288	A.P.Ghat	0.280	0.500	-	0.060	0.00	0.50	0	2
289	Therriaghat	0.425	0.390	-	0.460	0.00	0.46	0	2
290	Dholai	0.200	0.280	-	0.120	0.00	0.28	0	2
291	Dimapara	0.420	0.420	-	-	0.00	0.42	0	2
292	Kharkhana	0.300	0.300	-	-	0.00	0.30	0	2
293	Dawki	0.370	0.370	-	-	0.00	0.37	0	2
294	Badar Pur Ghat (B.P. Ghat)	0.310	0.310	-	-	0.00	0.31	0	2
295	Sibbari	0.360	0.360	-	-	0.00	0.36	0	2
296	Matijuri	0.130	0.130	-	-	0.00	0.13	0	2
297	Fulertal	0.400	0.400	-	-	0.00	0.40	0	2
298	Fakirabazar	0.810	0.810	-	-	0.00	0.81	0	2
299	Gumrabazar	0.450	0.450	-	-	0.00	0.45	0	2
300	Sankalan	0.447	0.540	0.590	0.210	0.00	0.59	0	3
301	Behalpur	0.547	0.640	0.560	0.440	0.00	0.64	0	3
302	Gajaldoba	0.390	0.610	0.380	0.180	0.00	0.61	0	3
303	Aie NH Crossing	0.450	0.580	0.730	0.040	0.00	0.73	0	3

S. No.	Water Quality Site	Mercury (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
304	Domohani	0.615	0.580	0.650	-	0.00	0.65	0	3
305	Khanitar	0.567	0.590	0.620	0.490	0.00	0.62	0	3
306	Champasari	0.447	0.600	0.540	0.200	0.00	0.60	0	3
307	Dhubri	0.527	0.800	0.740	0.040	0.00	0.80	0	3
308	Majhitar	0.277	0.450	0.370	0.010	0.00	0.45	0	3
309	Sonapurhat	0.715	0.740	0.690	-	0.00	0.74	0	3
310	Mathanguri	0.407	0.610	0.550	0.060	0.00	0.61	0	3
311	Manas NH Crossing	0.273	0.510	0.290	0.020	0.00	0.51	0	3
312	Mathabhanga	0.527	0.740	0.770	0.070	0.00	0.77	0	3
313	Rangpo	0.770	0.760	0.780	-	0.00	0.78	0	3
314	Nagrakata	0.287	0.550	0.290	0.020	0.00	0.55	0	3
315	Jaldhaka NH-31	0.587	0.490	0.720	0.550	0.00	0.72	0	3
316	Matigara	0.263	0.580	0.190	0.020	0.00	0.58	0	3
317	Ghugumari	0.385	0.510	0.260	-	0.00	0.51	0	3
318	Sevoke	0.400	0.570	0.420	0.210	0.00	0.57	0	3
319	Beki Road Bridge	0.553	0.720	0.840	0.100	0.00	0.84	0	3
320	Chel	0.765	0.810	0.720	-	0.00	0.81	0	3
321	Golokganj	0.290	0.380	0.440	0.050	0.00	0.44	0	3
322	SinglaBazar	0.615	0.860	0.370	-	0.00	0.86	0	3
323	Kokrajhar	0.477	0.740	0.680	0.010	0.00	0.74	0	3
324	Sankosh LRP	0.320	0.580	-	0.060	0.00	0.58	0	3
325	Murti	0.437	0.830	0.430	0.050	0.00	0.83	0	3
326	Diana	0.280	0.310	0.460	0.070	0.00	0.46	0	3
327	Ghish	0.457	0.580	0.110	0.680	0.00	0.68	0	3
328	Hasimara	0.510	0.540	0.440	0.550	0.00	0.55	0	3
329	Coronation	0.380	0.670	0.120	0.350	0.00	0.67	0	3
330	Panbari	0.603	0.860	0.810	0.140	0.00	0.86	0	3
331	Chepan	0.493	0.540	0.760	0.180	0.00	0.76	0	3
332	Barobisha	0.290	0.710	0.110	0.050	0.00	0.71	0	3
333	TeestaBazar	0.350	0.300	0.580	0.170	0.00	0.58	0	3
334	Mekhliganj	0.850	0.810	0.890	-	0.00	0.89	0	2
335	Neora	0.745	0.810	0.680	-	0.00	0.81	0	2
336	Tufanganj	0.200	0.200	-	-	0.00	0.20	0	2
337	Tuini	0.510	-	0.510	-	0.00	0.51	0	1
338	Yashwant nagar	0.012	-	0.012	-	0.00	0.01	0	1
339	Paonta	0.870	-	0.870	-	0.00	0.87	0	1
340	Kalanaur	0.640	-	0.640	-	0.00	0.64	0	1
341	Mawi	0.350	-	0.350	-	0.00	0.35	0	1
342	Palla	0.620	-	0.620	-	0.00	0.62	0	1
343	Delhi Rly Bridge	0.220	-	0.220	-	0.00	0.22	0	1
344	Galeta	0.090	-	0.090	-	0.00	0.09	0	1
345	Mohana	0.680	-	0.680	-	0.00	0.68	0	1
346	Gokul Barrage (Mathura)	0.090	-	0.090	-	0.00	0.09	0	1

S. No.	Water Quality Site	Mercury (in µg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 1 µg/L	Below 1 µg/L
347	Agra (P.G.)	0.700	0.880	0.520	-	0.00	0.88	0	2
348	Auraiya	0.390	0.460	0.320	-	0.00	0.46	0	2
349	Etawah	0.460	0.530	0.390	-	0.00	0.53	0	2
350	Hamirpur	0.540	0.200	0.880	-	0.00	0.88	0	2
351	Pratappur	0.440	0.590	0.290	-	0.00	0.59	0	2
352	Seondha	0.670	0.880	0.460	-	0.00	0.88	0	2
353	Rajghat	0.203	0.350	0.056	-	0.00	0.35	0	2
354	Shahijina	0.355	0.600	0.110	-	0.00	0.60	0	2
355	Garrauli	0.130	-	0.130	-	0.00	0.13	0	1
356	Kora	0.230	-	0.230	-	0.00	0.23	0	1
357	Banda	0.420	0.390	0.450	-	0.00	0.45	0	2
358	Dholpur	0.389	0.770	0.008	-	0.00	0.77	0	2
359	Udi	0.760	0.760	-	-	0.00	0.76	0	2
360	Tal	0.860	-	0.860	-	0.00	0.86	0	1
361	A.B.Road Crossing	0.020	-	0.020	-	0.00	0.02	0	1
362	Khatoli	0.100	0.190	0.010	-	0.00	0.19	0	2
363	Aklera	0.680	-	0.680	-	0.00	0.68	0	1
364	Sangod	0.130	-	0.130	-	0.00	0.13	0	1
365	Mahidpur	0.840	-	0.840	-	0.00	0.84	0	1
366	Barod	0.245	0.480	0.010	-	0.00	0.48	0	2
367	Tonk	0.280	-	0.280	-	0.00	0.28	0	1
368	Pati	-	-	-	-	0.00	0.00	0	1
369	Kogaon	0.450	0.240	0.660	-	0.00	0.66	0	2
370	Pachauli	0.190	-	0.190	-	0.00	0.19	0	1
371	Ayilam	0.155	0.200	0.110	-	0.00	0.20	0	2
372	T. Ramapuram	0.490	-	0.490	-	0.00	0.49	0	1
373	Menangudi	0.440	-	0.440	-	0.00	0.44	0	1
374	Kellodu	-	-	-	-	0.00	0.00	0	0
375	Sulurpet	-	-	-	-	0.00	0.00	0	0
376	K.M. Vadi	-	-	-	-	0.00	0.00	0	1
377	Yadgir	0.060	-	0.060	-	0.00	0.06	0	1
378	Mangaon (Seasonal)	0.330	-	0.330	-	0.00	0.33	0	1
379	Phulgaon (Seasonal)	0.560	-	0.560	-	0.00	0.56	0	1
380	Cholachguda (Seasonal)	0.480	-	0.480	-	0.00	0.48	0	1
381	Belne Bridge	-	-	-	-	0.00	0.00	0	1
382	Dhulsar	0.190	-	0.190	-	0.00	0.19	0	1
383	Avershe	0.610	-	0.610	-	0.00	0.61	0	1
384	Chunchankatte	0.100	-	0.100	-	0.00	0.10	0	1
385	Kuppelur	-	-	-	-	0.00	0.00	0	1
386	Kurundwad	0.320	-	0.320	-	0.00	0.32	0	1
387	Marol	0.040	-	0.040	-	0.00	0.04	0	1

ZINC

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
1	Jammu Tawi	0.040	0.008	0.001	0.092	0.001	0.156	0	6
2	Akhnoor	0.020	0.008	0.003	0.050	0.000	0.071	0	6
3	Tandi	0.029	0.038	0.002	0.074	0.000	0.074	0	4
4	Udaipur	0.069	0.094	0.010	0.104	0.000	0.104	0	4
5	Sangam	0.018	0.023	0.008	0.024	0.001	0.046	0	6
6	Ram Munshi Bagh	0.020	0.015	0.002	0.034	0.002	0.066	0	6
7	Dhamkund	0.029	0.022	0.002	0.048	0.002	0.087	0	6
8	Prem Nagar	0.033	0.016	0.002	0.066	0.002	0.115	0	6
9	Safapora	0.026	0.008	0.003	0.054	0.003	0.089	0	6
10	Tehri	0.027	0.056	0.010	0.015	0.000	0.110	0	6
11	Rishikesh	0.070	0.134	0.009	0.066	0.000	0.213	0	6
12	Uttarkashi	0.024	0.036	0.015	0.020	0.000	0.068	0	6
13	Deoprayag	0.039	0.041	0.030	0.046	0.000	0.075	0	6
14	Rudraprayag	0.122	0.077	0.010	0.280	0.000	0.517	0	6
15	Mataji	0.014	0.004	0.010	0.032	0.000	0.032	0	4
16	Rangeli	0.036	0.027	0.019	0.061	0.006	0.113	0	6
17	Paderdibadi	0.048	0.111	0.011	0.023	0.003	0.218	0	6
18	Khanpur	0.011	0.011	0.009	0.014	0.000	0.019	0	5
19	Derol Bridge	0.012	-	0.012	0.012	0.000	0.013	0	3
20	Vautha	0.049	0.052	0.036	0.060	0.035	0.066	0	6
21	Lowara	0.014	-	0.014	0.013	0.000	0.014	0	3
22	Ganod	0.021	-	0.012	0.029	0.000	0.029	0	2
23	Abu Road	0.012	-	0.011	0.014	0.000	0.014	0	3
24	Chitrasani	0.005	-	0.003	0.008	0.000	0.008	0	3
25	Kamalpur	0.014	-	0.016	0.011	0.000	0.016	0	2
26	Burhanpur	0.067	0.046	0.035	0.172	0.000	0.172	0	5
27	Gopalkheda	0.022	0.026	0.019	0.023	0.000	0.026	0	4
28	Sarangkheda	0.091	-	0.150	0.032	0.000	0.150	0	2
29	Gadat	0.021	0.034	0.023	0.006	0.000	0.034	0	4
30	Mahuwa	0.017	0.024	0.012	0.014	0.004	0.044	0	6
31	Durvesh	0.023	0.033	0.018	0.022	0.000	0.044	0	5
32	Garudeshwar	0.022	0.038	0.013	0.015	0.004	0.068	0	6
33	Chanwada	0.021	-	0.016	0.029	0.000	0.029	0	3
34	Pingalwada	0.085	0.156	0.015	-	0.000	0.288	0	4
35	Motinaroli	0.019	0.024	0.017	0.011	0.000	0.039	0	5
36	Vapi	0.017	0.025	0.012	0.014	0.010	0.027	0	6
37	Hendegir	0.079	0.052	0.128	0.007	0.000	0.189	0	4
38	Ramgarh	0.021	0.023	0.026	0.014	0.000	0.040	0	5
39	Jamtara	0.050	0.093	0.050	0.028	0.000	0.093	0	5
40	Tilpara Barrage	0.232	0.094	0.042	0.491	0.000	0.974	0	5
41	Maharo	0.088	0.328	0.046	0.010	0.000	0.328	0	5
42	Nutanhat	0.018	0.017	0.022	0.014	0.000	0.030	0	5
43	Talcher	0.366	0.031	0.038	1.028	0.028	1.853	0	6

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
44	Jenapur	0.311	0.047	0.003	0.883	0.000	1.635	0	6
45	Anandpur	0.222	0.110	0.002	0.554	0.000	1.008	0	6
46	Tikarpara	0.282	0.082	0.021	0.743	0.002	1.388	0	6
47	Panposh	0.390	0.135	0.056	0.979	0.004	1.835	0	6
48	Gomlai	0.234	0.174	0.013	0.516	0.005	0.860	0	6
49	Muri	0.492	0.323	0.015	1.137	0.003	2.168	0	6
50	Jamshedpur	0.536	0.151	0.016	1.443	0.007	2.733	0	6
51	Adityapur	0.316	0.175	0.014	0.758	0.000	1.450	0	6
52	Ghatsila	0.461	0.143	0.019	1.220	0.008	2.380	0	6
53	Tilga	0.371	0.149	0.019	0.947	0.005	1.850	0	6
54	Jaraikela	0.291	0.142	0.027	0.706	0.006	1.355	0	6
55	Champua	0.404	0.164	0.011	1.035	0.005	2.028	0	6
56	Govindapur	0.526	0.124	0.011	1.442	0.006	2.833	0	6
57	Purushottampur	0.508	0.120	0.016	1.142	0.000	2.200	0	5
58	Srikakulam	0.516	0.103	0.011	1.436	0.009	2.805	0	6
59	Kashinagar	0.994	0.006	0.011	2.471	0.000	4.855	0	5
60	Basantpur	0.036	0.027	0.020	0.087	0.000	0.087	0	5
61	Rampur	0.039	0.000	0.031	0.066	0.000	0.066	0	5
62	Bamnidih	0.046	0.013	0.058	0.069	0.004	0.085	0	6
63	Rajim	0.026	-	0.029	0.019	0.000	0.048	0	3
64	Simga	0.040	-	0.028	0.052	0.000	0.079	0	4
65	Andhiyar Kore	0.020	0.006	0.020	0.027	0.000	0.035	0	5
66	Baronda	0.026	-	0.029	0.020	0.000	0.037	0	3
67	Jondhra	0.025	-	0.018	0.039	0.000	0.039	0	3
68	Ghatora	0.031	-	0.033	0.027	0.000	0.039	0	3
69	Pathardhi	0.132	-	0.178	0.040	0.000	0.328	0	3
70	Kurubhata	0.039	0.002	0.068	0.028	0.000	0.090	0	5
71	Salebhata	0.022	0.001	0.014	0.037	0.000	0.043	0	5
72	Kantamal	0.024	0.013	0.028	0.031	0.002	0.045	0	6
73	Manendragarh	0.177	-	0.074	0.384	0.000	0.384	0	3
74	Kesinga	0.051	0.009	0.037	0.087	0.000	0.151	0	5
75	Sundergarh	0.020	0.003	0.032	0.030	0.000	0.043	0	5
76	Farakka	0.026	0.005	0.033	0.039	0.000	0.064	0	6
77	Farakka / H/R	0.037	0.063	0.002	0.046	0.001	0.100	0	6
78	English Bazar	0.041	0.073	0.002	0.047	0.002	0.140	0	6
79	Labha	0.020	0.012	0.002	0.042	0.000	0.066	0	5
80	Berhampore	0.022	0.019	0.002	0.046	0.001	0.085	0	6
81	Katwa	0.039	0.055	0.005	0.057	0.002	0.096	0	6
82	Kalna (EBB)	0.047	0.042	0.057	0.042	0.002	0.112	0	6
83	Chapra	0.024	0.031	0.006	0.035	0.001	0.061	0	6
84	Hanskhali	0.058	0.115	0.007	0.053	0.003	0.222	0	6
85	Elginbridge	0.046	0.016	0.080	0.042	0.011	0.126	0	6
86	Ayodhya	0.037	0.061	0.028	0.023	0.017	0.065	0	6
87	Turtipar	0.031	0.021	0.033	0.040	0.009	0.061	0	6

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
88	Paliakalan	0.032	0.025	0.040	0.031	0.009	0.052	0	6
89	Balrampur	0.038	0.032	0.034	0.057	0.000	0.064	0	5
90	Regauli	0.032	0.038	0.029	0.028	0.007	0.070	0	6
91	Birdghat	0.331	0.051	0.030	0.913	0.003	1.789	0	6
92	Basti	0.055	0.028	0.027	0.112	0.008	0.161	0	6
93	Ghat	0.028	0.023	0.025	0.035	0.001	0.045	0	6
94	Garhmukteshwar	0.026	0.032	0.023	0.024	0.004	0.060	0	6
95	Moradabad	0.063	0.126	0.026	0.038	0.020	0.212	0	6
96	Kachlabridge	0.038	0.024	0.018	0.072	0.002	0.092	0	6
97	Fatehgarh	0.039	0.025	0.045	0.047	0.005	0.056	0	6
98	Bareilly	0.074	0.148	0.019	0.054	0.014	0.244	0	6
99	Dabri	0.028	0.035	0.016	0.032	0.007	0.063	0	6
100	Kanpur	0.041	0.041	0.035	0.048	0.015	0.068	0	6
101	Ankinghat	0.038	0.032	0.030	0.052	0.001	0.072	0	6
102	Bhitaura	0.059	0.037	0.055	0.086	0.010	0.119	0	6
103	Raibareli	0.030	0.039	0.005	0.047	0.003	0.070	0	6
104	Lucknow	0.044	0.078	0.018	0.037	0.007	0.142	0	6
105	Neemsar	0.039	0.039	0.037	0.042	0.000	0.042	0	3
106	Meja Road	0.012	0.015	0.001	0.016	0.000	0.030	0	5
107	Chopan	0.003	0.004	0.002	0.001	0.000	0.008	0	5
108	Maighat	0.005	0.005	0.006	0.003	0.000	0.010	0	5
109	Shahzadpur	0.011	0.013	0.009	0.009	0.000	0.025	0	5
110	Sultanpur	0.010	0.009	0.001	0.023	0.000	0.023	0	5
111	Varanasi	0.010	0.017	0.003	0.003	0.000	0.033	0	5
112	Mirzapur	0.018	0.044	0.001	0.008	0.000	0.044	0	4
113	Kuldah Bridge	0.007	0.005	0.010	-	0.000	0.019	0	4
114	Duddi	0.005	0.005	0.002	0.009	0.000	0.010	0	5
115	Chhatnag Allahbad	0.008	0.006	0.001	0.018	0.000	0.018	0	4
116	Buxar	0.054	0.077	0.037	0.040	0.000	0.147	0	5
117	Gandhighat (Patna)	0.020	0.020	0.022	0.016	0.000	0.027	0	5
118	Hathidah	0.071	0.145	0.025	0.014	0.000	0.281	0	5
119	Azmabad	0.036	0.025	0.040	0.048	0.000	0.063	0	5
120	Japla	0.030	0.029	0.031	0.030	0.000	0.048	0	5
121	Koelwar	0.029	0.022	0.026	0.047	0.000	0.047	0	5
122	Gaya	0.018	-	0.015	0.025	0.000	0.025	0	3
123	Lakhisarai	0.018	0.011	0.016	0.030	0.000	0.030	0	4
124	Sripalpur	0.020	0.022	0.019	0.016	0.000	0.037	0	5
125	Lalganj	0.024	0.032	0.022	0.012	0.000	0.054	0	5
126	Tribeni	0.014	0.008	0.020	0.016	0.000	0.023	0	5
127	Sikandarpur	0.041	0.031	0.023	0.098	0.000	0.098	0	5
128	Hayaghat	0.023	0.015	0.031	0.023	0.000	0.044	0	5
129	Dheng Bridge	0.028	0.014	0.025	0.059	0.000	0.059	0	5
130	Jhanjharpur	0.040	0.022	0.035	0.087	0.000	0.087	0	5
131	Jai Nagar	0.047	0.026	0.025	0.135	0.000	0.135	0	5

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
132	Ekmighat	0.066	0.018	0.057	0.181	0.000	0.181	0	5
133	Baltara	0.102	0.063	0.137	0.110	0.000	0.247	0	5
134	Dindori	0.039	0.040	0.048	0.029	0.006	0.063	0	6
135	Manot	0.024	0.015	0.042	0.014	0.009	0.054	0	6
136	Mohgaoan	0.027	0.033	0.036	0.012	0.005	0.054	0	6
137	Bamni	0.015	0.010	0.029	0.003	0.000	0.041	0	5
138	Patan	0.031	0.010	0.070	0.012	0.004	0.124	0	6
139	Belkhedi	0.029	0.033	0.047	0.009	0.003	0.076	0	6
140	Bamanghat	0.025	0.037	0.028	0.009	0.004	0.064	0	6
141	Gadarwara	0.019	0.011	0.034	0.008	0.000	0.054	0	5
142	Sandia	0.037	0.035	0.070	0.007	0.005	0.120	0	6
143	Hoshangabad	0.027	0.036	0.038	0.006	0.003	0.062	0	6
144	Chhidgaon	0.021	0.020	0.032	0.010	0.002	0.050	0	6
145	Handia	0.026	0.027	0.041	0.010	0.000	0.063	0	5
146	Mandleshwar	0.018	0.013	0.036	0.006	0.002	0.051	0	6
147	Polavaram	0.007	0.010	0.005	0.005	0.000	0.016	0	5
148	Konta	0.011	0.005	0.029	0.003	0.000	0.029	0	5
149	Bhadrachalam	0.010	0.013	0.008	0.008	0.000	0.022	0	5
150	Perur	0.031	0.013	0.094	0.003	0.000	0.094	0	4
151	Pathagudem	0.027	0.008	0.078	0.013	0.000	0.078	0	4
152	Jagdalpur	0.010	0.011	0.010	0.009	0.000	0.020	0	5
153	Mancherial	0.007	0.005	0.001	0.016	0.000	0.016	0	5
154	Marella	0.027	-	0.033	0.016	0.000	0.063	0	3
155	Wadenapally	0.016	0.015	0.024	0.010	0.000	0.030	0	5
156	Paleru Bridge	0.006	0.005	0.012	0.002	0.000	0.012	0	4
157	Bawapuram	0.074	0.012	0.165	0.016	0.000	0.328	0	5
158	Damarcherla	0.018	0.005	0.033	0.013	0.000	0.056	0	5
159	Halia	0.016	0.015	0.033	0.001	0.000	0.033	0	4
160	Keesara	0.021	-	0.032	0.001	0.000	0.063	0	3
161	Malkhed	0.023	-	0.023	-	0.000	0.023	0	2
162	Badalapur	0.011	0.016	0.008	0.006	0.000	0.031	0	5
163	Kumhari	0.024	0.029	0.002	0.057	0.000	0.057	0	5
164	Pauni	0.014	0.010	0.011	0.028	0.000	0.028	0	5
165	Ashti	0.015	0.018	0.009	0.019	0.000	0.034	0	5
166	Hivra	0.006	0.008	0.003	0.009	0.000	0.011	0	5
167	Bamini	0.013	0.013	0.009	0.019	0.000	0.021	0	5
168	Nandgaon	0.016	0.017	0.009	0.030	0.000	0.030	0	5
169	P.G.Bridge	0.013	0.013	0.004	0.032	0.000	0.032	0	5
170	Bhatpalli	0.014	0.021	0.003	0.023	0.000	0.040	0	5
171	Tekra	0.025	0.041	0.002	0.036	0.000	0.078	0	5
172	Rajegaon	0.019	0.024	0.003	0.039	0.000	0.046	0	5
173	Satrapur	0.013	0.022	0.004	0.011	0.000	0.040	0	5
174	Ambarampalayam	0.010	0.006	0.011	0.014	0.001	0.016	0	6
175	Gummanur	0.013	0.010	0.009	0.018	0.001	0.023	0	6

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
176	Theni	0.017	0.015	0.009	0.023	0.000	0.030	0	5
177	Ambasamudram	0.019	-	-	0.019	0.000	0.019	0	1
178	Musiri	0.063	0.163	0.011	0.015	0.001	0.325	0	6
179	Elunuthimanagalam	0.023	0.030	-	0.019	0.000	0.030	0	3
180	Kudlur	0.025	0.016	-	0.029	0.000	0.043	0	3
181	Sevanur	0.011	-	-	0.011	0.000	0.022	0	2
182	Thevur	0.038	-	-	0.038	0.000	0.050	0	2
183	Thoppur	0.039	-	-	0.039	0.000	0.066	0	2
184	Murappanadu	0.012	0.010	0.007	0.018	0.000	0.020	0	6
185	A.P. Puram	0.147	0.352	-	0.044	0.000	0.352	0	3
186	Nallammaranpatty	0.009	-	-	0.009	0.000	0.009	0	1
187	Nellithurai	0.011	0.020	0.003	0.011	0.000	0.038	0	5
188	Savandapur	0.206	0.601	0.006	0.011	0.001	1.200	0	6
189	Thengumarahada	0.028	0.064	0.005	0.001	0.000	0.126	0	5
190	Urachikottai	0.051	0.117	0.007	0.005	0.000	0.232	0	5
191	Kodumudi	0.024	0.046	0.008	0.017	0.001	0.091	0	6
192	M.H.Halli	0.022	0.033	0.003	0.029	0.001	0.064	0	6
193	T. Bekuppe	0.016	0.023	0.003	0.023	0.000	0.046	0	6
194	T.K.Halli	0.009	0.011	0.002	0.011	0.000	0.014	0	4
195	Kollegal	0.023	0.082	0.003	0.012	0.000	0.082	0	5
196	Biligundullu	0.014	0.030	0.004	0.008	0.003	0.057	0	6
197	Kudige	0.012	0.022	0.007	0.008	0.006	0.037	0	6
198	Akkihebbal	0.011	0.013	0.004	0.016	0.002	0.022	0	6
199	Bendrahalli	0.009	-	0.003	0.012	0.000	0.023	0	3
200	Thimmanahalli	0.011	0.010	0.004	0.017	0.001	0.022	0	6
201	Sakleshpur	0.011	0.020	0.003	0.009	0.002	0.034	0	6
202	Bantwal	0.012	0.025	0.002	0.009	0.001	0.046	0	6
203	Yennehole	0.008	-	0.005	0.012	0.000	0.014	0	4
204	Haladi	0.009	0.007	0.007	0.013	0.004	0.018	0	6
205	Santeguli	0.013	0.010	0.003	0.028	0.002	0.047	0	6
206	Addoor	0.035	-	0.007	0.092	0.000	0.092	0	3
207	Harlahalli	0.019	0.044	0.009	0.017	0.000	0.044	0	5
208	Honnali	0.009	0.008	0.003	0.017	0.001	0.017	0	6
209	Shimoga	0.004	-	0.003	0.004	0.000	0.008	0	4
210	T. Narasipur	0.023	0.018	0.004	0.068	0.000	0.068	0	5
211	Byaladahalli	0.029	0.055	0.016	-	0.000	0.055	0	3
212	Holehonnur	0.013	0.024	0.005	0.010	0.004	0.040	0	6
213	Chennur	0.018	0.031	0.005	0.019	0.002	0.039	0	6
214	Alladupalli	0.008	0.005	0.006	0.013	0.003	0.021	0	6
215	Nandipalli	0.014	0.018	0.005	0.015	0.000	0.031	0	5
216	Nellore	0.014	0.006	0.003	0.033	0.001	0.057	0	6
217	Naidupet	0.021	0.006	-	0.036	0.000	0.036	0	2
218	Chengalpet	0.022	-	-	0.022	0.000	0.022	0	1
219	Vazhavachanur	0.006	0.004	0.001	0.010	0.000	0.013	0	4

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
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		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
220	Thengudi	0.005	-	0.005	-	0.000	0.006	0	2
221	Porakudi	-	-	-	-	0.000	0.000	0	0
222	Peralam	0.004	-	0.003	0.007	0.000	0.007	0	3
223	Annavasal	0.005	-	0.003	0.006	0.000	0.006	0	2
224	Kuniyil	0.106	0.209	0.044	0.026	0.000	0.334	0	5
225	Erinjipuzha	0.024	0.050	0.008	0.013	0.000	0.066	0	6
226	Perumannu	0.016	0.018	0.009	0.021	0.004	0.039	0	6
227	Kumbidi	0.012	0.025	0.008	0.004	0.002	0.047	0	6
228	Arangaly	0.013	0.021	0.005	0.011	0.000	0.037	0	5
229	Pudur	0.024	0.022	0.007	0.042	0.002	0.078	0	6
230	Ramamangalam	0.017	0.032	0.003	0.017	0.002	0.060	0	6
231	Thumpamon	0.021	0.041	0.005	0.018	0.004	0.074	0	6
232	Kidangoor	0.024	0.020	0.012	0.039	0.001	0.067	0	6
233	Pattazhy	0.011	0.010	0.010	0.015	0.000	0.018	0	5
234	Kallooppara	0.015	0.014	0.005	0.026	0.002	0.044	0	6
235	Malakkara	0.026	0.034	0.006	0.039	0.001	0.077	0	6
236	Pulmanthole	0.010	0.016	0.005	0.010	0.003	0.030	0	6
237	Karathodu	0.011	0.017	0.004	0.014	0.000	0.032	0	5
238	Kalampur	0.010	0.012	0.010	0.008	0.000	0.021	0	5
239	Mankara	0.014	0.025	0.004	0.014	0.001	0.048	0	6
240	Neeleswaram	0.024	0.029	0.008	0.035	0.003	0.055	0	6
241	Muthankera	0.018	0.028	0.014	0.011	0.003	0.052	0	6
242	Vandiperiyar	0.019	0.038	0.008	0.006	0.000	0.069	0	5
243	Kuzhithurai	0.026	0.037	0.015	-	0.000	0.073	0	4
244	Ashramam	0.020	0.026	0.010	0.017	0.000	0.047	0	4
245	Kuttyadi	0.013	0.010	0.009	0.022	0.000	0.022	0	4
246	Tezu	0.021	0.038	-	0.003	0.000	0.065	0	4
247	Dholabazar	0.019	0.035	0.005	0.017	0.003	0.063	0	6
248	Namsai	0.034	0.042	0.006	0.075	0.000	0.075	0	5
249	Margherita	0.024	0.032	0.006	0.034	0.003	0.056	0	6
250	Naharkatia	0.020	0.033	0.004	0.022	0.002	0.050	0	6
251	Chenimari	0.018	0.032	0.004	0.018	0.001	0.048	0	6
252	Dillighat	0.023	0.048	0.006	0.016	0.003	0.076	0	6
253	Desangpani	0.011	0.022	0.005	0.006	0.002	0.039	0	6
254	Nanglamoraghat	0.012	0.021	0.006	0.008	0.000	0.037	0	5
255	Sivasagar	0.022	0.040	0.007	0.017	0.000	0.074	0	5
256	Bokajan	0.013	0.020	0.007	0.010	0.000	0.036	0	5
257	Numaligarh	0.018	0.035	0.007	0.013	0.002	0.061	0	6
258	Chouldhowaghat	0.013	0.020	0.006	0.012	0.002	0.036	0	6
259	Badatighat	0.015	0.028	0.007	0.011	0.005	0.046	0	6
260	Ranganadi NT Road Crossing	0.020	0.018	0.025	0.016	0.007	0.040	0	6
261	Kheronighat	0.050	0.052	0.005	0.071	0.000	0.120	0	5
262	Kampur	0.022	0.035	0.012	0.014	0.000	0.062	0	5
263	Dharamtul	0.034	0.023	0.019	0.060	0.008	0.109	0	6

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
264	Jagibhakatgaon	0.034	0.037	0.006	0.060	0.004	0.110	0	6
265	Bhomoraguri	0.026	0.049	0.005	0.022	0.000	0.081	0	5
266	Tezpur	0.116	0.225	0.018	0.095	0.000	0.392	0	5
267	Seppa	0.097	0.234	0.043	0.015	0.001	0.327	0	6
268	Bhalukpong	0.044	0.049	0.006	0.077	0.002	0.141	0	6
269	Jiabharali NT Road Xing	0.032	0.006	0.005	0.111	0.000	0.111	0	4
270	Bihubar	0.022	0.027	0.005	0.036	0.001	0.064	0	6
271	Dibrugarh	0.047	0.050	0.007	0.086	0.002	0.164	0	6
272	Golaghat	0.018	0.025	0.005	0.023	0.003	0.040	0	6
273	Miao	0.021	0.033	0.005	0.024	0.003	0.054	0	6
274	Neamtighat	0.040	0.025	0.006	0.091	0.001	0.180	0	6
275	Udaypur	0.024	0.021	0.007	0.043	0.005	0.073	0	6
276	Tuting	0.025	0.042	0.009	-	0.000	0.042	0	2
277	Passighat	0.009	0.017	0.005	0.001	0.000	0.027	0	5
278	Puthimari D.R.F.	0.100	0.025	0.237	0.037	0.006	0.446	0	6
279	Pancharatna	0.040	0.027	0.042	0.050	0.007	0.060	0	6
280	Suklai	0.193	0.513	0.025	0.041	0.006	1.020	0	6
281	Kulsi	0.077	0.138	0.051	0.043	0.014	0.261	0	6
282	Dudhnai	0.045	0.019	0.029	0.086	0.007	0.106	0	6
283	Pandu	0.041	0.030	0.011	0.082	0.008	0.087	0	6
284	Puthimari NH X-ING	0.083	0.207	0.016	0.026	0.001	0.274	0	6
285	Sonapur	0.102	0.219	0.039	0.048	0.014	0.377	0	6
286	Matunga	0.038	0.044	0.026	0.042	0.005	0.065	0	6
287	Pagladiya N.T. Road X-ING	0.059	0.039	0.059	0.079	0.006	0.125	0	6
288	A.P.Ghat	0.039	0.025	0.052	0.052	0.000	0.052	0	4
289	Therriaghat	0.057	0.060	0.021	0.071	0.000	0.112	0	5
290	Dholai	0.031	0.044	0.018	0.024	0.000	0.080	0	5
291	Dimapara	0.055	0.084	0.021	0.042	0.000	0.162	0	5
292	Kharkhana	0.056	0.093	0.035	0.029	0.000	0.115	0	5
293	Dawki	0.036	0.032	0.021	0.048	0.000	0.062	0	5
294	Badar Pur Ghat (B.P. Ghat)	0.032	0.033	0.028	0.036	0.000	0.047	0	4
295	Sibbari	0.059	0.109	0.017	0.028	0.000	0.200	0	5
296	Matijuri	0.028	0.023	0.019	0.038	0.000	0.040	0	5
297	Fulertal	0.040	0.034	0.014	0.058	0.000	0.086	0	5
298	Fakirabazar	0.056	0.050	0.007	0.087	0.000	0.130	0	5
299	Gumrabazar	0.048	0.077	0.047	0.020	0.000	0.149	0	5
300	Sankalan	0.041	0.015	0.001	0.087	0.001	0.150	0	6
301	Behalpur	0.035	0.014	0.002	0.089	0.001	0.115	0	6
302	Gajaldoba	0.025	0.020	-	0.030	0.000	0.041	0	5
303	Aie NH Crossing	0.267	0.711	0.008	0.081	0.001	1.417	0	6
304	Domohani	0.120	0.249	0.005	0.050	0.005	0.492	0	6
305	Khanitar	0.057	0.065	0.001	0.077	0.001	0.122	0	6
306	Champasari	0.040	0.078	0.002	0.039	0.000	0.131	0	5

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
307	Dhubri	0.120	0.278	0.002	0.079	0.001	0.551	0	6
308	Majhitar	0.046	0.020	0.011	0.089	0.007	0.107	0	6
309	Sonapurhat	0.063	0.054	0.000	0.205	0.000	0.205	0	5
310	Mathanguri	0.060	0.050	0.002	0.099	0.000	0.110	0	5
311	Manas NH Crossing	0.023	0.010	0.002	0.056	0.002	0.080	0	6
312	Mathabhanga	0.094	0.227	0.003	0.052	0.001	0.449	0	6
313	Rangpo	0.047	0.066	0.004	0.049	0.004	0.120	0	6
314	Nagrakata	0.067	0.123	0.003	0.076	0.002	0.242	0	6
315	Jaldhaka NH-31	0.234	0.551	0.001	0.034	0.001	1.096	0	6
316	Matigara	0.013	0.023	0.001	0.017	0.001	0.034	0	6
317	Ghugumari	0.069	0.140	0.003	0.066	0.002	0.273	0	6
318	Sevoke	0.039	0.046	0.006	0.065	0.000	0.103	0	6
319	Beki Road Bridge	0.034	0.026	0.003	0.056	0.003	0.087	0	6
320	Chel	0.076	0.194	0.004	0.029	0.003	0.341	0	6
321	Golokganj	0.039	0.041	0.002	0.073	0.002	0.092	0	6
322	SinglaBazar	0.050	0.064	0.002	0.083	0.001	0.132	0	6
323	Kokrajhar	0.069	0.138	0.003	0.066	0.002	0.269	0	6
324	Sankosh LRP	0.029	0.033	0.002	0.052	0.001	0.079	0	6
325	Murti	0.068	0.142	0.005	0.025	0.004	0.279	0	6
326	Diana	0.082	0.196	0.002	0.015	0.000	0.387	0	5
327	Ghish	0.074	0.196	0.002	0.024	0.001	0.254	0	6
328	Hasimara	0.077	0.158	0.003	0.072	0.003	0.309	0	6
329	Coronation	0.041	0.043	0.009	0.070	0.008	0.092	0	6
330	Panbari	0.061	0.124	0.002	0.058	0.002	0.241	0	6
331	Chepan	0.079	0.182	0.003	0.051	0.003	0.358	0	6
332	Barobisha	0.100	0.182	0.005	0.066	0.005	0.358	0	6
333	TeestaBazar	0.040	0.042	0.003	0.075	0.002	0.082	0	6
334	Mekhliganj	0.053	0.120	0.003	0.017	0.000	0.236	0	5
335	Neora	0.173	0.329	0.004	0.029	0.000	0.396	0	5
336	Tufanganj	0.098	0.166	0.044	0.072	0.000	0.327	0	5
337	Tuini	0.008	0.018	0.006	0.003	0.000	0.018	0	4
338	Yashwant nagar	0.008	0.010	0.007	0.007	0.000	0.013	0	5
339	Paonta	0.014	0.006	0.006	0.026	0.000	0.029	0	5
340	Kalanaur	0.015	0.007	0.006	0.027	0.000	0.034	0	5
341	Mawi	0.014	0.008	0.005	0.028	0.000	0.030	0	6
342	Palla	0.014	0.003	0.008	0.031	0.000	0.031	0	6
343	Delhi Rly Bridge	0.018	0.006	0.005	0.042	0.000	0.044	0	6
344	Galeta	0.012	0.016	0.006	0.018	0.000	0.031	0	5
345	Mohana	0.034	0.045	0.010	0.047	0.000	0.090	0	6
346	Gokul Barrage (Mathura)	0.012	0.016	0.009	0.011	0.000	0.032	0	6
347	Agra (P.G.)	0.023	0.051	0.015	0.004	0.002	0.089	0	6
348	Auraiya	0.030	0.061	0.013	0.017	0.000	0.109	0	6
349	Etawah	0.036	0.057	0.041	0.012	0.001	0.096	0	6
350	Hamirpur	0.030	0.055	0.027	0.008	0.000	0.087	0	6

S. No.	Water Quality Site	Zinc (in mg/L)						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 5 mg/L	Below5 mg/L
351	Pratappur	0.025	0.045	0.013	0.017	0.001	0.080	0	6
352	Seondha	0.021	0.042	0.004	0.017	0.000	0.076	0	6
353	Rajghat	0.032	0.043	0.043	0.011	0.000	0.081	0	6
354	Shahijina	0.015	0.014	0.022	0.009	0.000	0.043	0	6
355	Garrauli	0.017	0.017	0.014	0.018	0.000	0.018	0	3
356	Kora	0.019	0.034	0.022	0.011	0.000	0.034	0	4
357	Banda	0.032	0.043	0.057	0.009	0.000	0.057	0	5
358	Dholpur	0.015	0.024	0.014	0.007	0.000	0.040	0	6
359	Udi	0.017	0.030	0.013	0.009	0.001	0.042	0	6
360	Tal	0.007	-	0.005	0.013	0.000	0.013	0	3
361	A.B.Road Crossing	0.006	-	0.004	0.009	0.000	0.009	0	3
362	Khatoli	0.002	0.000	0.004	0.002	0.000	0.008	0	5
363	Aklera	0.005	-	0.005	-	0.000	0.010	0	2
364	Sangod	0.007	-	0.011	0.004	0.000	0.011	0	2
365	Mahidpur	0.005	-	0.005	0.005	0.000	0.009	0	3
366	Barod	0.008	0.000	0.004	0.016	0.000	0.016	0	5
367	Tonk	0.008	-	0.005	0.012	0.000	0.012	0	3
368	Pati	0.043	-	0.043	-	0.000	0.060	0	2
369	Kogaon	0.038	0.018	0.049	-	0.000	0.076	0	3
370	Pachauli	0.012	-	0.012	-	0.000	0.023	0	2
371	Ayilam	0.009	0.007	0.010	-	0.000	0.016	0	3
372	T. Ramapuram	0.020	-	0.020	-	0.000	0.028	0	2
373	Menangudi	0.002	-	0.002	-	0.000	0.003	0	2
374	Kellodu	0.014	-	0.014	-	0.000	0.014	0	1
375	Sulurpet	0.003	-	0.003	-	0.000	0.003	0	1
376	K.M. Vadi	0.001	-	0.001	-	0.000	0.001	0	1
377	Yadgir	0.006	-	0.006	-	0.000	0.009	0	2
378	Mangaon (Seasonal)	-	-	-	-	0.000	0.000	0	1
379	Phulgaon (Seasonal)	0.001	-	0.001	-	0.000	0.001	0	1
380	Cholachguda (Seasonal)	0.004	-	0.004	-	0.000	0.004	0	2
381	Belne Bridge	0.004	-	0.004	-	0.000	0.004	0	2
382	Dhulsar	0.041	-	0.041	-	0.000	0.052	0	2
383	Avershe	0.003	-	0.003	-	0.000	0.003	0	2
384	Chunchankatte	0.004	-	0.004	-	0.000	0.004	0	2
385	Kuppelur	0.007	-	0.007	-	0.000	0.009	0	2
386	Kurundwad	0.003	-	0.003	-	0.000	0.003	0	2
387	Marol	0.004	-	0.004	-	0.000	0.006	0	2

IRON

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
1	Jammu Tawi	0.054	0.006	0.011	0.193	0	0.193	0	5
2	Akhnoor	0.045	0.067	0.009	0.037	0	0.114	0	5
3	Tandi	0.012	0.007	0.017	-	0	0.017	0	3
4	Udaipur	0.019	0.020	0.018	-	0	0.02	0	3
5	Sangam	0.165	0.218	0.112	-	0	0.25	0	5
6	Ram Munshi Bagh	0.050	0.070	0.012	0.050	0	0.112	0	5
7	Dhamkund	0.120	0.130	0.012	0.210	0	0.21	0	5
8	Prem Nagar	0.118	0.171	0.013	-	0	0.231	0	5
9	Safapora	0.051	0.070	0.014	-	0	0.133	0	5
10	Tehri	0.577	0.052	0.903	0.777	0.027	1.493	4	2
11	Rishikesh	0.588	0.133	0.621	1.009	0.132	1.651	4	2
12	Uttarkashi	0.624	0.072	0.930	0.870	0.038	1.668	3	3
13	Deoprayag	0.324	0.133	0.191	0.648	0.128	0.81	2	4
14	Rudraprayag	0.774	0.095	0.545	1.683	0.065	2.615	3	3
15	Mataji	0.343	0.057	0.243	0.829	0	0.829	2	2
16	Rangeli	0.334	0.071	0.211	0.719	0.017	0.978	3	3
17	Paderdibadi	0.479	0.399	0.257	0.782	0.015	1.37	3	3
18	Khanpur	0.489	0.037	0.539	0.892	0.014	1.743	2	4
19	Derol Bridge	0.950	-	0.841	1.059	0	1.059	2	1
20	Vautha	0.698	0.491	0.422	1.181	0.087	1.75	4	2
21	Lowara	0.555	-	0.199	1.268	0	1.268	1	2
22	Ganod	0.601	-	0.202	1.000	0	1	1	1
23	Abu Road	0.348	-	0.205	0.490	0	0.49	1	2
24	Chitrasani	0.483	-	0.174	0.792	0	0.792	1	2
25	Kamalpur	0.361	-	0.245	0.476	0	0.476	1	1
26	Burhanpur	0.897	0.210	0.641	2.525	0	2.525	2	2
27	Gopalkheda	1.697	0.179	0.767	4.145	0	4.145	2	2
28	Sarangkheda	4.290	-	3.184	5.395	0	5.395	2	0
29	Gadat	0.725	0.173	0.679	1.369	0	1.369	2	2
30	Mahuwa	1.167	0.127	0.826	2.550	0.068	4.335	3	3
31	Durvesh	0.697	0.072	0.749	1.217	0	1.339	2	2
32	Garudeshwar	0.653	0.198	0.461	1.299	0.021	1.95	3	3
33	Chanwada	1.456	-	0.662	2.250	0	2.25	2	1
34	Pingalwada	0.705	0.223	0.608	1.864	0	1.864	2	3
35	Motinaroli	0.802	0.235	0.652	2.235	0	2.235	3	2
36	Vapi	0.691	0.138	0.248	1.686	0.089	2.805	3	3
37	Hendegir	0.664	0.215	1.124	0.429	0	1.472	4	1
38	Ramgarh	0.587	0.271	0.715	0.617	0	1.09	4	1
39	Jamtara	0.559	0.041	0.758	0.619	0	1.082	4	1
40	Tilpara Barrage	0.353	0.048	0.328	0.532	0	0.54	3	2
41	Maharo	0.370	0.033	0.513	0.396	0	0.681	4	1
42	Nutanhat	1.013	0.554	1.135	1.121	0	1.316	5	0
43	Talcher	0.748	0.084	0.987	1.174	0.03	2.3	2	4

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
44	Jenapur	0.849	0.051	1.278	1.218	0.031	2.366	3	3
45	Anandpur	0.836	0.057	0.732	1.721	0.049	1.967	3	3
46	Tikarpara	0.635	0.046	0.607	1.252	0.009	1.335	3	3
47	Panposh	1.105	0.072	1.785	1.459	0.042	3.299	3	3
48	Gomlai	0.509	0.056	0.482	0.990	0.049	1.164	3	3
49	Muri	0.511	0.012	0.374	1.147	0.006	1.846	3	3
50	Jamshedpur	0.727	0.047	0.654	1.480	0.002	2.5	4	2
51	Adityapur	0.685	0.096	0.396	1.564	0.038	1.938	3	3
52	Ghatsila	0.690	0.153	0.693	1.225	0.09	1.431	4	2
53	Tilga	1.010	0.100	1.641	1.289	0.071	2.503	4	2
54	Jaraikela	0.567	0.061	0.644	0.998	0.019	1.269	4	2
55	Champua	1.019	0.085	0.772	2.201	0.049	3.323	4	2
56	Govindapur	0.587	0.110	0.406	1.246	0.109	1.521	4	2
57	Purushottampur	0.753	0.016	0.607	1.563	0	1.59	3	2
58	Srikakulam	1.915	0.099	0.486	5.160	0.096	6.645	4	2
59	Kashinagar	0.524	0.037	0.544	0.749	0	0.95	3	2
60	Basantpur	0.873	0.354	0.561	1.704	0.151	2.93	5	1
61	Rampur	1.185	-	0.697	1.673	0	2.735	4	0
62	Bamnidih	0.801	0.496	0.672	1.236	0.163	1.964	5	1
63	Rajim	1.066	-	0.449	2.300	0	2.3	2	1
64	Simga	0.718	-	0.639	0.798	0	1.432	3	1
65	Andhiyar Kore	0.618	0.143	0.615	0.859	0	1.513	3	2
66	Baronda	0.358	-	0.433	0.210	0	0.535	2	1
67	Jondhra	0.806	-	0.611	1.197	0	1.197	3	0
68	Ghatora	1.224	-	0.533	2.605	0	2.605	3	0
69	Pathardhi	0.817	-	0.596	1.261	0	1.261	3	0
70	Kurubhata	0.823	0.120	0.734	1.264	0	2.285	3	2
71	Salebhata	0.971	0.130	0.843	1.519	0	2.85	3	2
72	Kantamal	0.982	0.366	0.574	2.008	0.127	3.88	4	2
73	Manendragarh	0.967	-	0.483	1.937	0	1.937	3	0
74	Kesinga	1.265	2.367	0.637	1.342	0	2.545	4	1
75	Sundergarh	0.406	0.392	0.552	0.142	0	0.684	3	2
76	Farakka	0.909	0.136	0.048	2.156	0	4.035	1	4
77	Farakka / H/R	0.593	0.151	0.046	1.583	0.041	2.95	1	5
78	English Bazar	0.137	0.120	0.047	0.244	0.04	0.25	0	6
79	Labha	0.156	0.189	0.048	0.249	0	0.28	0	5
80	Berhampore	0.556	0.332	0.045	1.292	0.039	2.31	2	4
81	Katwa	0.196	0.275	0.048	0.266	0.042	0.297	0	6
82	Kalna (EBB)	0.828	0.354	0.054	2.077	0.042	3.89	3	3
83	Chapra	0.588	0.166	0.177	1.422	0.04	2.56	2	4
84	Hanskhali	0.914	0.258	0.471	2.013	0.154	3.76	4	2
85	Elginbridge	0.468	0.372	0.548	0.486	0.318	0.769	6	0
86	Ayodhya	0.586	0.306	0.349	1.105	0.206	1.377	5	1
87	Turtipar	0.345	0.170	0.411	0.456	0.066	0.578	3	3

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
88	Paliakalan	0.366	0.344	0.290	0.463	0.048	0.658	3	3
89	Balrampur	0.292	0.241	0.265	0.372	0.131	0.418	4	2
90	Regauli	0.288	0.273	0.273	0.319	0.06	0.486	3	3
91	Birdghat	0.811	0.268	0.374	1.792	0.007	3.352	3	3
92	Basti	0.411	0.233	0.257	0.745	0.046	1.19	3	3
93	Ghat	0.254	0.146	0.259	0.357	0.04	0.543	2	4
94	Garhmukteshwar	0.174	0.150	0.129	0.244	0.021	0.278	0	6
95	Moradabad	0.504	0.321	0.290	0.901	0.1	1.399	4	2
96	Kachlabridge	0.309	0.176	0.329	0.422	0.085	0.598	2	4
97	Fatehgarh	0.510	0.144	0.914	0.471	0.071	0.917	4	2
98	Bareilly	0.375	0.207	0.206	0.713	0.052	0.984	4	2
99	Dabri	0.272	0.188	0.206	0.423	0.052	0.45	3	3
100	Kanpur	0.746	0.164	1.686	0.389	0.037	2.258	3	3
101	Ankinghat	0.389	0.297	0.283	0.588	0.06	0.633	3	3
102	Bhitaura	0.355	0.145	0.335	0.586	0.09	0.807	3	3
103	Raibareli	0.198	0.109	0.221	0.265	0.012	0.29	0	6
104	Lucknow	0.348	0.163	0.396	0.484	0.047	0.593	3	3
105	Neemsar	0.267	0.249	0.180	0.372	0	0.372	1	2
106	Meja Road	0.040	0.019	0.056	0.051	0	0.057	0	5
107	Chopan	0.053	0.019	0.055	0.119	0	0.119	0	5
108	Maighat	0.038	0.038	0.057	0.001	0	0.059	0	5
109	Shahzadpur	0.125	0.116	0.127	0.140	0	0.202	0	5
110	Sultanpur	0.040	0.023	0.058	-	0	0.058	0	5
111	Varanasi	0.040	0.026	0.053	-	0	0.054	0	5
112	Mirzapur	0.049	0.047	0.051	-	0	0.057	0	5
113	Kuldah Bridge	0.067	0.035	0.098	-	0	0.14	0	5
114	Duddi	0.047	0.023	0.086	0.019	0	0.118	0	5
115	Chhatnag Allahbad	0.039	0.030	0.049	0.040	0	0.05	0	5
116	Buxar	0.182	0.086	0.277	-	0	0.28	0	4
117	Gandhighat (Patna)	0.680	0.144	1.217	-	0	1.442	2	2
118	Hathidah	0.738	0.117	1.337	0.784	0	2.318	3	2
119	Azmabad	0.479	0.085	0.607	1.011	0	1.011	2	3
120	Japla	0.235	0.075	0.257	0.512	0	0.512	2	3
121	Koelwar	0.821	0.096	1.574	0.765	0	3.059	2	3
122	Gaya	0.287	-	0.236	0.388	0	0.388	2	1
123	Lakhisarai	0.197	0.217	0.182	0.206	0	0.217	0	4
124	Sripalpur	0.408	0.089	0.720	0.421	0	1.32	2	3
125	Lalganj	0.282	0.135	0.280	0.582	0	0.582	2	3
126	Tribeni	0.228	0.094	0.353	0.246	0	0.435	1	4
127	Sikandarpur	0.171	0.098	0.209	0.240	0	0.28	0	5
128	Hayaghat	0.260	0.295	0.142	0.429	0	0.454	2	3
129	Dheng Bridge	0.242	0.097	0.333	0.350	0	0.505	2	3
130	Jhanjharpur	0.615	0.101	0.651	1.572	0	1.572	2	3
131	Jai Nagar	0.246	0.114	0.198	0.610	0	0.61	2	3

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
132	Ekmighat	0.516	0.785	0.309	0.394	0	1.106	4	1
133	Baltara	0.245	0.285	0.109	0.439	0	0.56	2	3
134	Dindori	0.160	0.185	0.121	0.174	0.02	0.283	0	6
135	Manot	0.174	0.091	0.218	0.214	0.004	0.225	0	6
136	Mohgaoan	0.380	0.102	0.879	0.160	0.034	1.098	2	4
137	Bamni	0.297	0.167	0.482	0.176	0	0.528	2	3
138	Patan	0.177	0.113	0.245	0.175	0.068	0.289	0	6
139	Belkhedi	0.154	0.160	0.186	0.115	0.04	0.28	0	6
140	Bamanghat	0.343	0.176	0.719	0.133	0.11	1.107	2	4
141	Gadarwara	0.286	0.195	0.526	0.093	0	0.71	2	3
142	Sandia	0.386	0.181	0.866	0.111	0.077	1.013	2	4
143	Hoshangabad	0.329	0.192	0.677	0.118	0.07	0.97	2	4
144	Chhidgaon	0.176	0.161	0.255	0.114	0.038	0.471	1	5
145	Handia	0.276	0.165	0.490	0.117	0	0.586	2	3
146	Mandleshwar	0.131	0.131	0.159	0.074	0	0.168	0	5
147	Polavaram	0.096	0.055	0.141	0.090	0	0.18	0	5
148	Konta	0.074	0.035	0.110	0.082	0	0.169	0	5
149	Bhadrachalam	0.063	0.032	0.079	0.094	0	0.11	0	5
150	Perur	0.045	0.028	0.065	0.058	0	0.065	0	4
151	Pathagudem	0.052	0.038	0.050	0.083	0	0.083	0	4
152	Jagdalpur	0.069	0.036	0.115	0.041	0	0.17	0	5
153	Mancherial	0.047	0.044	0.065	0.019	0	0.077	0	5
154	Marella	0.063	-	0.064	0.061	0	0.066	0	3
155	Wadenapally	0.065	0.036	0.052	0.149	0	0.149	0	5
156	Paleru Bridge	0.043	0.039	0.047	0.048	0	0.068	0	4
157	Bawapuram	0.039	0.037	0.057	0.011	0	0.065	0	5
158	Damarcherla	0.095	0.029	0.121	0.177	0	0.21	0	5
159	Halia	0.101	0.033	0.044	0.294	0	0.294	0	4
160	Keesara	0.119	-	0.049	0.260	0	0.26	0	3
161	Malkhed	0.096	-	0.040	0.210	0	0.21	0	3
162	Badalapur	0.039	0.029	0.032	0.074	0	0.074	0	5
163	Kumhari	0.115	0.048	0.119	0.240	0	0.24	0	5
164	Pauni	0.045	0.011	0.053	0.100	0	0.1	0	5
165	Ashti	0.068	0.042	0.053	0.150	0	0.15	0	5
166	Hivra	0.063	0.041	0.052	0.130	0	0.13	0	5
167	Bamini	0.075	0.016	0.057	0.230	0	0.23	0	5
168	Nandgaon	0.095	0.062	0.066	0.220	0	0.22	0	5
169	P.G.Bridge	0.073	0.016	0.046	0.240	0	0.24	0	5
170	Bhatpalli	0.082	0.066	0.053	0.170	0	0.17	0	5
171	Tekra	0.084	0.065	0.055	0.180	0	0.18	0	5
172	Rajegaon	0.083	0.073	0.064	0.140	0	0.14	0	5
173	Satrapur	0.065	0.049	0.045	0.140	0	0.14	0	5
174	Ambarampalayam	0.139	0.114	0.205	0.099	0.016	0.292	0	6
175	Gummanur	0.079	0.030	0.140	0.099	0.03	0.14	0	6

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
176	Theni	0.065	0.021	0.141	0.071	0	0.141	0	5
177	Ambasamudram	0.070	-	-	0.070	0	0.07	0	1
178	Musiri	0.084	0.019	0.160	0.111	0.01	0.172	0	6
179	Elunuthimanagalam	0.087	0.010	-	0.125	0	0.157	0	3
180	Kudlur	0.110	0.010	-	0.161	0	0.251	0	3
181	Sevanur	0.048	-	-	0.048	0	0.048	0	1
182	Thevur	0.109	-	-	0.109	0	0.135	0	2
183	Thoppur	0.105	-	-	0.105	0	0.143	0	2
184	Murappanadu	0.122	0.006	0.280	0.159	0.002	0.28	0	6
185	A.P. Puram	0.078	0.010	-	0.113	0	0.143	0	3
186	Nallammaranpatty	0.085	-	-	0.085	0	0.085	0	1
187	Nellithurai	0.084	0.016	0.073	0.157	0.011	0.236	0	6
188	Savandapur	0.082	0.011	0.195	0.096	0.002	0.195	0	6
189	Thengumarahada	0.046	0.016	0.085	0.067	0	0.085	0	5
190	Urachikottai	0.090	0.009	0.248	0.095	0	0.248	0	5
191	Kodumudi	0.059	0.013	0.082	0.094	0.01	0.143	0	6
192	M.H.Halli	0.307	0.059	0.037	0.825	0.005	1.059	2	4
193	T. Bekuppe	0.102	0.042	0.034	0.231	0.002	0.271	0	6
194	T.K.Halli	0.146	0.015	0.034	0.267	0	0.293	0	4
195	Kollegal	0.303	0.010	0.031	0.723	0	1.064	2	3
196	Biligundullu	0.109	0.013	0.025	0.289	0.005	0.297	0	6
197	Kudige	0.284	0.015	0.058	0.779	0.009	1.115	2	4
198	Akkihebbal	0.090	0.010	0.049	0.210	0.009	0.3	0	6
199	Bendrahalli	0.585	-	0.040	0.858	0	1.146	2	1
200	Thimmanahalli	0.317	0.014	0.054	0.885	0.007	1.143	2	4
201	Sakleshpur	0.324	0.021	0.049	0.903	0.012	1.193	2	4
202	Bantwal	0.271	0.018	0.053	0.742	0.016	1.166	2	4
203	Yennehole	0.473	-	0.038	0.908	0	1.401	2	2
204	Haladi	0.278	0.017	0.043	0.774	0.01	1.211	2	4
205	Santeguli	0.315	0.023	0.095	0.829	0.015	1.185	2	4
206	Addoor	0.244	-	0.051	0.630	0	0.63	1	2
207	Harlahalli	0.263	0.020	0.052	0.596	0	0.63	2	3
208	Honnali	0.201	0.027	0.104	0.472	0.016	0.54	2	4
209	Shimoga	0.218	-	0.057	0.540	0	0.54	1	2
210	T. Narasipur	0.064	0.012	0.029	0.240	0	0.24	0	5
211	Byaladahalli	0.026	0.020	0.030	-	0	0.039	0	3
212	Holehonnur	0.229	0.026	0.096	0.567	0.01	0.704	2	4
213	Chennur	0.098	0.074	0.039	0.182	0.01	0.259	0	6
214	Alladupalli	0.101	0.077	0.042	0.269	0.01	0.269	0	6
215	Nandipalli	0.098	0.078	0.050	0.143	0	0.27	0	5
216	Nellore	0.102	0.074	0.046	0.269	0.011	0.269	0	6
217	Naidupet	0.110	0.139	-	0.081	0	0.139	0	2
218	Chengalpet	-	-	-	-	0	0	0	0
219	Vazhavachanur	0.090	0.010	0.045	0.152	0	0.289	0	4

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
220	Thengudi	0.051	-	0.044	0.064	0	0.064	0	3
221	Porakudi	-	-	-	-	0	0	0	1
222	Peralam	0.035	-	0.039	0.027	0	0.042	0	3
223	Annavasal	0.041	-	0.040	0.041	0	0.041	0	2
224	Kuniyil	0.134	0.191	0.064	0.160	0	0.265	0	5
225	Erinjipuzha	0.170	0.024	0.053	0.435	0.01	0.53	2	4
226	Perumannu	0.093	0.050	0.039	0.191	0.02	0.211	0	6
227	Kumbidi	0.111	0.049	0.034	0.250	0.021	0.26	0	6
228	Arangaly	0.074	0.029	0.046	0.220	0	0.22	0	5
229	Pudur	0.186	0.025	0.032	0.502	0.02	0.61	2	4
230	Ramamangalam	0.179	0.062	0.036	0.441	0.02	0.48	2	4
231	Thumpamon	0.181	0.038	0.030	0.475	0.01	0.51	2	4
232	Kidangoor	0.181	0.029	0.043	0.471	0.028	0.54	2	4
233	Pattazhy	0.189	0.030	0.050	0.487	0.025	0.49	2	4
234	Kallooppara	0.163	0.033	0.039	0.418	0.02	0.49	2	4
235	Malakkara	0.196	0.035	0.061	0.492	0.024	0.53	2	4
236	Pulmanthole	0.250	0.020	0.068	0.662	0.01	0.724	2	4
237	Karathodu	0.065	0.026	0.041	0.190	0	0.19	0	5
238	Kalampur	0.069	0.028	0.054	0.180	0	0.18	0	5
239	Mankara	0.232	0.021	0.034	0.643	0.02	0.745	2	4
240	Neeleswaram	0.201	0.031	0.040	0.533	0.024	0.576	2	4
241	Muthankera	0.259	0.030	0.114	0.634	0.016	0.747	2	4
242	Vandiperiyar	0.081	0.025	0.059	0.240	0	0.24	0	5
243	Kuzhithurai	0.035	0.032	0.039	-	0	0.042	0	4
244	Ashramam	0.068	0.029	0.043	0.170	0	0.17	0	4
245	Kuttyadi	0.104	0.041	0.039	0.295	0	0.295	0	4
246	Tezu	0.058	0.067	-	0.049	0	0.102	0	4
247	Dholabazar	0.066	0.074	0.096	0.021	0.021	0.123	0	6
248	Namsai	0.057	0.069	0.053	0.047	0.021	0.117	0	6
249	Margherita	0.047	0.077	0.050	0.016	0.012	0.131	0	6
250	Naharkatia	0.059	0.086	0.054	0.008	0.008	0.131	0	6
251	Chenimari	0.043	0.063	0.041	0.006	0.006	0.116	0	6
252	Dillighat	0.043	0.059	0.044	0.026	0.013	0.104	0	6
253	Desangpani	0.057	0.069	0.065	0.025	0.025	0.107	0	6
254	Nanglamoraghat	0.047	0.074	0.053	0.017	0.014	0.118	0	6
255	Sivasagar	0.056	0.083	0.090	0.013	0.012	0.116	0	6
256	Bokajan	0.086	0.079	0.130	0.014	0.014	0.206	0	6
257	Numaligarh	0.054	0.067	0.052	0.043	0.024	0.11	0	6
258	Chouldhowaghat	0.059	0.062	0.083	0.027	0.027	0.094	0	6
259	Badatighat	0.049	0.071	0.050	0.028	0.023	0.101	0	6
260	Ranganadi NT Road Crossing	0.062	0.072	0.067	0.050	0.019	0.104	0	6
261	Kheronighat	0.050	0.056	0.052	0.044	0	0.102	0	5
262	Kampur	0.098	0.058	0.160	0.055	0	0.229	0	5
263	Dharamtul	0.073	0.062	0.143	0.051	0.02	0.143	0	6

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
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264	Jagibhakatgaon	0.051	0.062	0.060	0.031	0.01	0.113	0	6
265	Bhomoraguri	0.056	0.083	0.053	0.031	0.019	0.086	0	6
266	Tezpur	0.051	0.081	0.052	0.020	0.005	0.091	0	6
267	Seppa	0.057	0.058	0.076	0.037	0.02	0.1	0	6
268	Bhalukpong	0.055	0.057	0.066	0.031	0.02	0.094	0	6
269	Jiabharali NT Road Xing	0.060	0.095	0.051	0.045	0	0.095	0	4
270	Bihubar	0.061	0.069	0.053	0.053	0.02	0.117	0	6
271	Dibrugarh	0.081	0.071	0.054	0.104	0.018	0.19	0	6
272	Golaghat	0.045	0.069	0.034	0.032	0.006	0.101	0	6
273	Miao	0.060	0.062	0.050	0.063	0.015	0.109	0	6
274	Neamtighat	0.058	0.073	0.053	0.045	0.026	0.119	0	6
275	Udaypur	0.057	0.066	0.090	0.031	0.02	0.112	0	6
276	Tuting	0.055	0.080	0.030	-	0	0.08	0	2
277	Passighat	0.068	0.068	0.051	0.087	0	0.105	0	5
278	Puthimari D.R.F.	0.357	0.152	0.383	0.549	0.054	0.558	3	3
279	Pancharatna	0.614	0.212	0.435	1.194	0.146	1.362	4	2
280	Suklai	0.335	0.163	0.205	0.638	0.011	0.736	3	3
281	Kulsi	0.449	0.467	0.244	0.635	0.189	0.659	4	2
282	Dudhnai	0.436	0.228	0.518	0.561	0.165	0.759	3	3
283	Pandu	0.223	0.200	0.105	0.365	0.1	0.39	2	4
284	Puthimari NH X-ING	0.419	0.244	0.157	0.856	0.01	0.951	3	3
285	Sonapur	0.472	0.300	0.298	0.818	0.079	0.845	4	2
286	Matunga	0.315	0.245	0.223	0.479	0.03	0.56	3	3
287	Pagladiya N.T. Road X-ING	0.371	0.204	0.230	0.681	0.003	0.71	3	3
288	A.P.Ghat	1.382	0.510	0.909	3.600	0	3.6	3	1
289	Therriaghat	0.387	0.179	0.331	0.623	0	1.006	2	3
290	Dholai	1.075	0.800	0.310	1.733	0	1.785	5	0
291	Dimapara	0.887	0.661	0.198	1.457	0	1.541	3	2
292	Kharkhana	0.855	0.365	0.055	1.746	0	1.932	3	2
293	Dawki	0.167	0.068	0.203	0.248	0	0.285	0	5
294	Badar Pur Ghat (B.P. Ghat)	0.982	0.583	0.270	2.490	0	2.49	2	2
295	Sibbari	1.041	0.473	0.229	2.016	0	2.69	4	1
296	Matijuri	1.211	0.787	0.080	2.201	0	3.085	4	1
297	Fulertal	1.090	0.783	0.387	1.749	0	2.43	4	1
298	Fakirabazar	1.377	0.894	0.675	2.212	0	2.915	5	0
299	Gumrabazar	0.613	0.501	0.317	0.875	0	0.94	5	0
300	Sankalan	0.123	0.135	0.040	0.196	0.033	0.33	1	5
301	Behalpur	0.152	0.156	0.037	0.264	0.032	0.268	0	6
302	Gajaldoba	0.414	0.247	-	0.581	0	0.66	3	2
303	Aie NH Crossing	0.211	0.226	0.093	0.313	0.045	0.397	2	4
304	Domohani	0.310	0.388	0.153	0.388	0.046	0.643	2	4
305	Khanitar	0.363	0.346	0.047	0.538	0.047	0.7	3	3
306	Champasari	0.433	0.194	0.045	1.060	0.039	1.87	1	5

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307	Dhubri	0.156	0.141	0.064	0.263	0.045	0.275	0	6
308	Majhitar	0.262	0.154	0.044	0.589	0.042	0.839	2	4
309	Sonapurhat	0.363	0.182	0.036	0.870	0.029	0.92	2	4
310	Mathanguri	0.313	0.331	0.047	0.430	0	0.565	2	3
311	Manas NH Crossing	0.168	0.151	0.042	0.247	0.042	0.28	0	6
312	Mathabhanga	0.113	0.113	0.036	0.190	0.03	0.209	0	6
313	Rangpo	0.152	0.142	0.042	0.219	0.042	0.257	0	6
314	Nagrakata	0.151	0.081	0.122	0.237	0.037	0.283	0	6
315	Jaldhaka NH-31	0.116	0.146	0.055	0.149	0.035	0.188	0	6
316	Matigara	0.376	0.126	0.152	0.852	0.104	0.94	2	4
317	Ghugumari	0.133	0.153	0.037	0.209	0.032	0.21	0	6
318	Sevoke	0.343	0.182	0.032	0.815	0.015	1.23	2	4
319	Beki Road Bridge	0.260	0.249	0.043	0.381	0.043	0.55	2	4
320	Chel	0.091	0.065	0.042	0.167	0.007	0.18	0	6
321	Golokganj	0.294	0.357	0.040	0.359	0.04	0.598	2	4
322	SinglaBazar	0.302	0.201	0.133	0.489	0.121	0.537	2	4
323	Kokrajhar	0.128	0.104	0.042	0.195	0.042	0.289	0	6
324	Sankosh LRP	0.123	0.108	0.043	0.180	0.043	0.229	0	6
325	Murti	0.279	0.088	0.208	0.541	0.051	0.957	2	4
326	Diana	0.081	0.098	0.034	0.110	0.017	0.14	0	6
327	Ghish	0.115	0.105	0.036	0.204	0.02	0.234	0	6
328	Hasimara	0.099	0.101	0.062	0.135	0.031	0.2	0	6
329	Coronation	0.253	0.231	0.142	0.387	0.102	0.423	3	3
330	Panbari	0.110	0.083	0.043	0.170	0.038	0.25	0	6
331	Chepan	0.127	0.087	0.037	0.259	0.03	0.26	0	6
332	Barobisha	0.144	0.104	0.042	0.236	0.042	0.269	0	6
333	TeestaBazar	0.848	0.590	0.448	1.305	0.13	2.29	4	2
334	Mekhliganj	0.100	0.112	0.044	0.190	0	0.19	0	5
335	Neora	0.103	0.072	0.109	0.155	0	0.17	0	5
336	Tufanganj	0.091	0.081	0.034	0.225	0	0.225	0	5
337	Tuini	0.077	0.030	0.067	0.112	0	0.199	0	5
338	Yashwant nagar	0.079	0.023	0.056	0.130	0	0.201	0	5
339	Paonta	0.042	0.019	0.057	0.038	0	0.06	0	5
340	Kalanaur	0.066	0.030	0.054	0.097	0	0.18	0	5
341	Mawi	0.039	0.033	0.053	0.032	0.006	0.057	0	6
342	Palla	0.074	0.039	0.059	0.123	0.0243	0.165	0	6
343	Delhi Rly Bridge	0.631	0.584	0.059	1.250	0.055	1.3	3	3
344	Galeta	0.155	0.158	0.142	0.165	0.05	0.279	0	6
345	Mohana	0.540	0.426	0.119	1.075	0.051	1.2	3	3
346	Gokul Barrage (Mathura)	0.109	0.133	0.053	0.141	0.052	0.21	0	6
347	Agra (P.G.)	0.123	0.108	0.145	0.117	0.024	0.239	0	6
348	Auraiya	0.235	0.486	0.099	0.120	0.0121	0.96	1	5
349	Etawah	0.358	0.319	0.278	0.477	0.023	0.93	3	3
350	Hamirpur	0.253	0.141	0.200	0.418	0.0154	0.79	2	4

S. No.	Water Quality Site	Iron						No. of WQ Stations reported	
		Average				Min	Max		
		Total	Pre-Monsoon	Monsoon	Post-Monsoon			Above 0.3 mg/L	Below 0.3mg/L
351	Pratappur	0.104	0.068	0.120	0.124	0.01	0.21	0	6
352	Seondha	0.165	0.192	0.151	0.152	0.042	0.2717	0	6
353	Rajghat	0.110	0.071	0.115	0.145	0.035	0.25	0	6
354	Shahijina	0.166	0.194	0.140	0.164	0.048	0.28	0	6
355	Garrauli	0.057	0.010	0.110	0.051	0	0.11	0	3
356	Kora	0.083	0.005	0.180	0.064	0	0.18	0	3
357	Banda	0.100	0.127	0.212	0.017	0	0.233	0	5
358	Dholpur	0.128	0.091	0.090	0.202	0.02	0.3	0	6
359	Udi	0.142	0.143	0.136	0.149	0.0086	0.277	0	6
360	Tal	0.074	-	0.054	0.114	0	0.114	0	3
361	A.B.Road Crossing	0.073	-	0.051	0.118	0	0.118	0	3
362	Khatoli	0.087	0.056	0.055	0.136	0	0.142	0	5
363	Aklera	0.060	-	0.058	0.063	0	0.063	0	3
364	Sangod	0.053	-	0.054	0.051	0	0.054	0	2
365	Mahidpur	0.071	-	0.059	0.096	0	0.096	0	3
366	Barod	0.084	0.052	0.059	0.127	0	0.183	0	5
367	Tonk	0.074	-	0.061	0.102	0	0.102	0	3
368	Pati	0.190	-	0.190	-	0	0.2	0	2
369	Kogaon	0.150	0.170	0.140	-	0	0.26	0	3
370	Pachauli	0.071	-	0.071	-	0	0.083	0	2
371	Ayilam	0.086	0.180	0.039	-	0	0.18	0	3
372	T. Ramapuram	0.149	-	0.149	-	0	0.24	0	2
373	Menangudi	0.036	-	0.036	-	0	0.04	0	2
374	Kellodu	0.124	-	0.124	-	0	0.124	0	1
375	Sulurpet	0.041	-	0.041	-	0	0.041	0	1
376	K.M. Vadi	0.084	-	0.084	-	0	0.084	0	1
377	Yadgir	0.046	-	0.046	-	0	0.05	0	2
378	Mangaon (Seasonal)	0.052	-	0.052	-	0	0.052	0	1
379	Phulgaon (Seasonal)	0.050	-	0.050	-	0	0.05	0	1
380	Cholachguda (Sea-sonal)	0.058	-	0.058	-	0	0.058	0	2
381	Belne Bridge	0.046	-	0.046	-	0	0.059	0	2
382	Dhulsar	0.180	-	0.180	-	0	0.19	0	2
383	Avershe	0.036	-	0.036	-	0	0.037	0	2
384	Chunchankatte	0.071	-	0.071	-	0	0.089	0	2
385	Kuppelur	0.106	-	0.106	-	0	0.177	0	2
386	Kurundwad	0.034	-	0.034	-	0	0.05	0	2
387	Marol	0.109	-	0.109	-	0	0.186	0	2