Vasudhaiva Kutumbakam.
One Earth, One Family, One Future

GOA

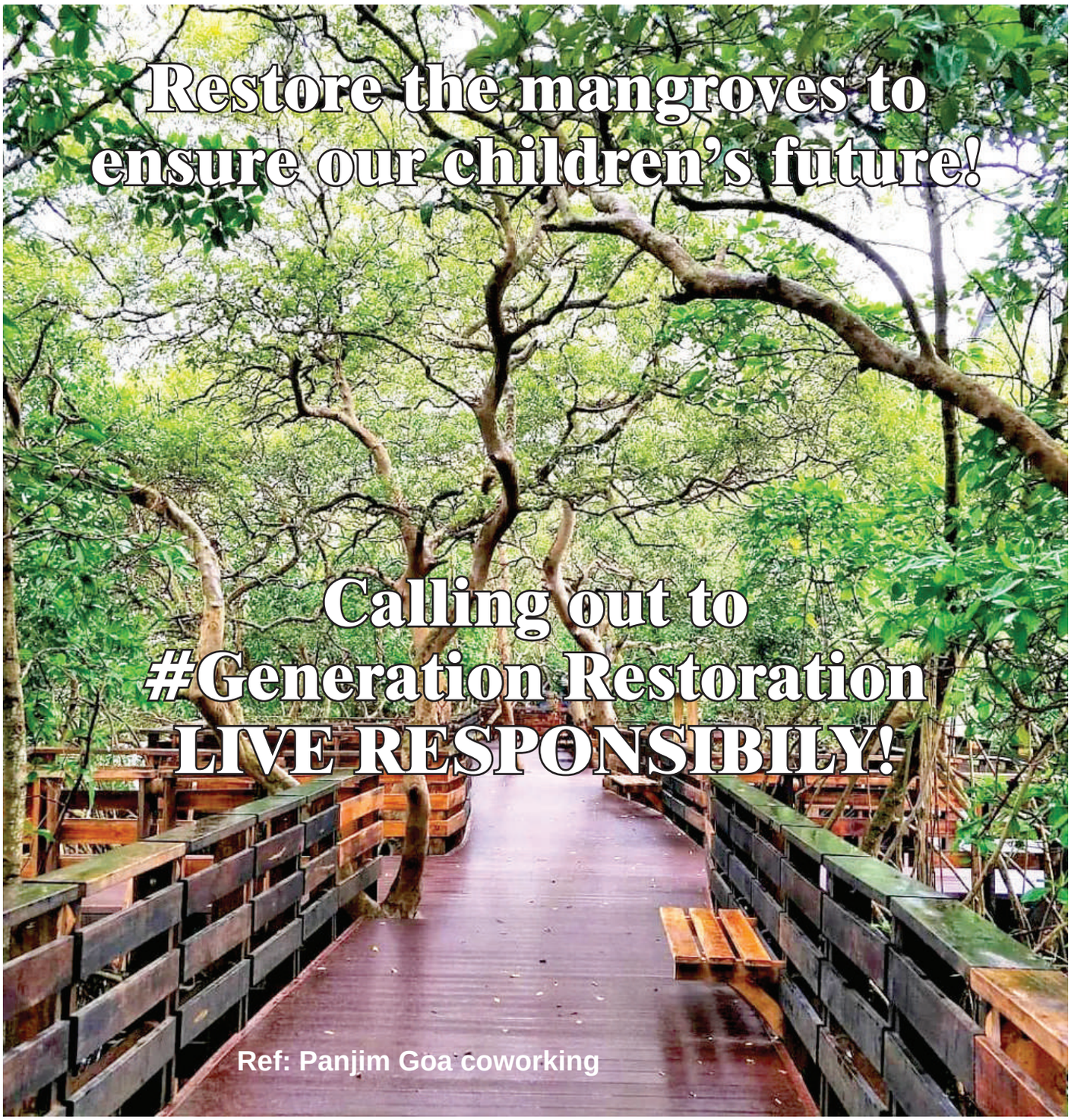
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Lifestyle for Environment

GOA STATE POLLUTION CONTROL BOARD

ANNUAL REPORT 2023-2024



Kalsa Waterfalls, Surla , Goa : Photo by Vaibhav D. Bhagat



Mangroves trees border between land and sea and are a first line of defence for many coastlines, reducing erosion from storm surges, currents, waves and tides. Their intricate root system makes them attractive ecosystem .Mangroves are known to support more than 1,500 species, some 15 per cent of which are endangered (Ref:UNEP). The ecosystem's protective function was dramatically highlighted by the Indian Ocean tsunami of 2004, which killed more than 30,000 people in Sri Lanka. Parts of the coastline were vulnerable to the tsunami because about one-third of Sri Lanka's mangroves had been cleared, mainly to make way for shrimp ponds and salt pans. Following the tsunami, Sri Lanka undertook a mass drive to restore mangroves . However, with few mangroves surviving, the country changed its tactics. Instead of replanting mangroves, it focused on better protecting existing mangroves to allow them to rebuild naturally. In 2015, Sri Lanka became the first nation to legally protect all its remaining mangrove forests. It also launched a national programme to restore thousands of hectares that had been lost and appointed an expert committee to provide guidance and make sure that, this time, restoration would work. (Ref:UNEP).

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001-2015, ISO 14001:2015, ISO 45001:2018 Certified Board

Phone Nos : 0832- 2407700,
2407701, 2407703
Mobile No. : 9356315662
Shri. Mahesh Patil
Chairman

Email Ids:
Chairman, GSPCB: chairman-gspcb.go

CHAIRMAN'S MESSAGE:



I am happy to share Annual Report of the Goa State Pollution Control Board for the year 2023-2024.

The Board continued its endeavour of striking a balance between Development and Environment Management.

The Board continued its pursuit of quality and timely services through its Quality System Accreditations like ISO-9001:2015 (Quality Management System), ISO-14001:2015 (Environment Management System) and ISO-45001:2018 (Occupational Health and Safety Assessment Standards).

In order to maintain the clean and fresh air & water in the State of Goa, Board monitors the quality of Air through its NAMP (National Air Monitoring Programme) at 18 stations in the State Goa along with the use of two Mobile vans monitoring the air quality as and when required. Board monitors the water quality through its NWMP (National Water Monitoring Programme) at 116 locations in the State of Goa (11 locations since February 2022). All the water samples drawn under this programme are analysed in its state of art Laboratory. During this year, Board laboratory has collected and analysed 1610 no of water samples and 5800 no of Air Samples. Its encouraging to see Air quality for most of Goa in good to satisfactory, there are few concern of water quality in the form of fecal coliform during monsoon in some stretches of rivers. However with completion of sewerage system and STP, this issue will be resolved in near future.

The Goa State Pollution Control Board aims to develop all-round capabilities of its employee in the field of pollution prevention and control, Board imparted knowledge based trainings staff through CPCB and other National as well as International Organizations as a continual improvement programme. Board staff visited other State laboratory to understand best practices and benchmarking.

Goa State Pollution Control Board, continued its capacity building program for its staff as well as other stakeholders. New technology suppliers are encouraged for presentation at the Board conference hall attended by Board staff, Industry representatives and related Government staff. Board has created facilitation center in the Board premises to display various approved Environment monitoring and management technologies and equipments.

The Board conducted industrial assessment for determining effectiveness of Environmental management measure. This joint efforts has lead to improvements in the overall environment performance in the industry and has initiated a step towards self compliance.

Board received NABL accreditation to its Laboratory, Board plans to further strengths its Laboratory with new equipment's and techniques. Happy to share two waste treatment facilities i.e. common hazardous treatments, storage and disposal facility (CHWTSPF) at Pissurlem and common biomedical waste facility at Kundaim are operating satisfactorily. This was a need of all the industry and medical professional to dispose waste in scientific manner.

Board organized 2nd International & Sustainability Summit Goa (IESSG) 2024 at Dr. Shyama Prasad Mukherjee Indoor Stadium, Taleigao, and Goa from 02-04 February 2024. Summit was good success with the support from Industry Partner-Confederation of Indian Industry (CII), Manthan as a Network Partner.

Environment technology and services exhibition was held on sidelines of the summit. More than 50 exhibitors participated, displaying latest scientific equipment's, and technology in the field of environment monitoring and management. Hon'ble former Union Minister for Environment Forest & Climate Change Shri. Suresh Prabhu, Hon'ble Chief Minister of Goa Dr. Pramod Sawant and Hon'ble Minister for PWD, Environment & Climate Change Shri. Aleixo Sequeira along with many others participated in the programme.

I also take this opportunity to extend my sincere appreciation to the Board staff and the people of Goa for sharing in our endeavor of maintaining the clean and fresh air of Goa in our march towards the future. Rest assured the Board will continuously seek and strive to improve and maintain the quality of the environment and society at large.

I also thank Goa Government, Central Government, and Central Pollution Control Board for financial and technical support and encouragement.

On behalf of the Goa State Pollution Control Board, it is my pleasure in sharing the performance of the Board through this GSPCB Annual Report for the year 2023-24.

Mahesh K. Patil
CHAIRMAN

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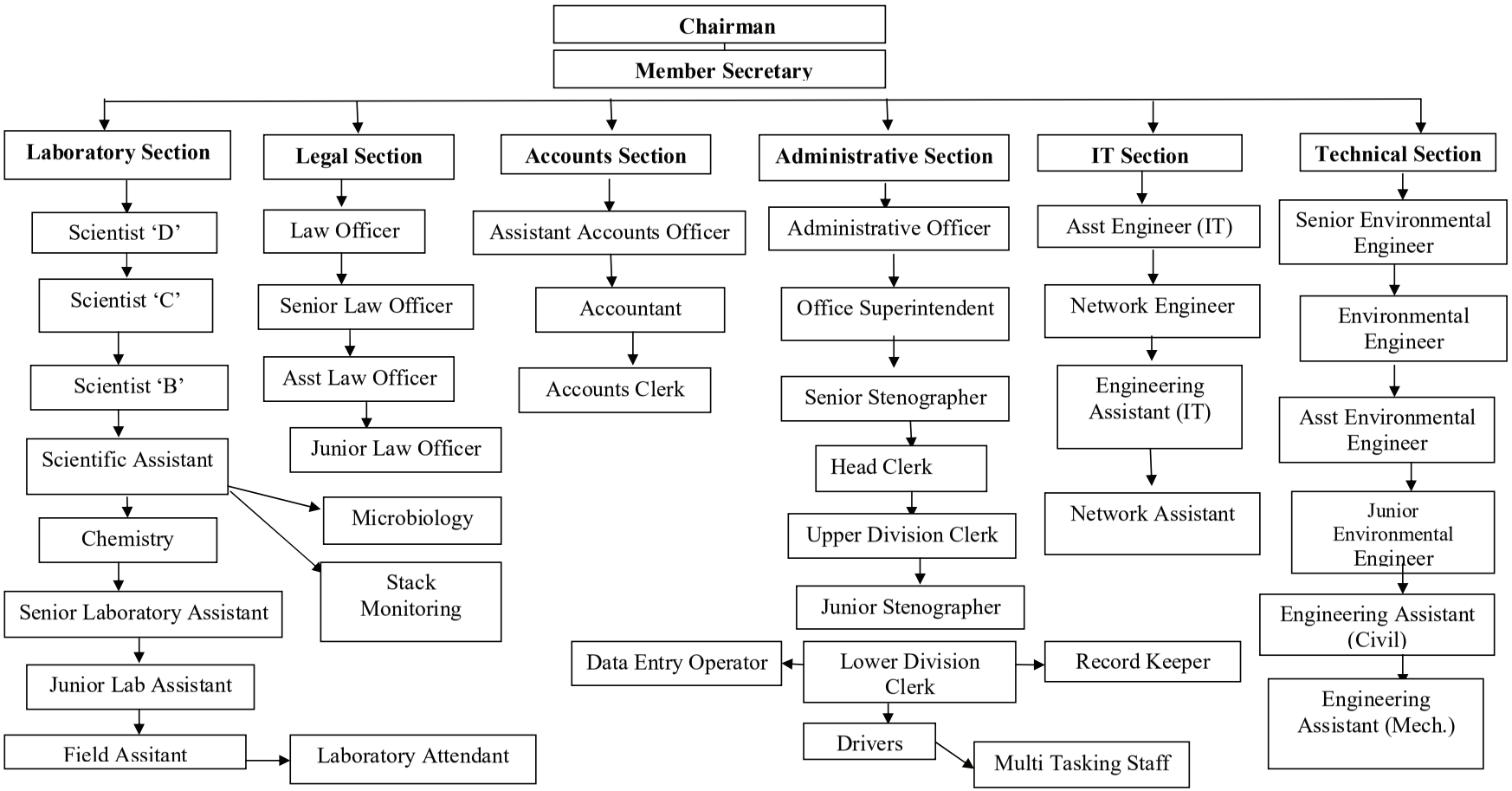
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ORGANISATIONAL CHART OF THE GOA STATE POLLUTION CONTROL BOARD



CHAPTER 1

INTRODUCTION

1.1 GENERAL INTRODUCTION

The Goa State Pollution Control Board (GSPCB) is an autonomous statutory organization constituted on 1st July, 1988 under the Water (*Prevention & Control of Pollution*) Act, 1974. Prior to that, when Goa formed part of the erstwhile union Territory of Goa, Daman and Diu, the Central Board for the Prevention and Control of Water Pollution was performing the functions of the State Board in Goa. The Central Pollution Control Board (CPCB) at Ponda-Goa had established a Section Office for the purpose. The same arrangement continued till the constitution of the State Board. In the meanwhile, the Section Office was re-constituted as West Zonal Office and shifted to Baroda on 4th April, 1988. All the relevant records pertaining to Goa were transferred to the Goa State Pollution Control Board on 12th September, 1988.

The GSPCB, after its constitution, established its office in the Goa Medical College (GMC) Complex at Bambolim. In June 1991, the Government of Goa allotted independent premises for the Board at Patto- Panaji, where the Board shifted it's office at House no. 243, Patto, Panaji in September 1991.

On 15th August, 2002 the Board acquired a new premises on the 1st floor in Dempo Tower at Patto Plaza, Panaji and shifted its full set-up to this new premise. The office as well as the laboratory was operating from here. Subsequently, on 15th August, 2005, additional premises measuring 311.86 Sq. mt. was acquired on the 4th floor of the same building which was dedicated to the Board Laboratory.

The Board has shifted its Administrative, Accounts, Legal, Information and Technology, Scientific and Technical section to the new Board premises located at Saligao, Bardez – Goa on 8th August, 2018, the laboratory along with analysts was shifted at the new premises in July 2019. The Board now continues to function at its premises at Saligao.

1.2 THE BOARD OFFICE

The GSPCB is presently operating from its own independent structure located at Saligao. The Offices of the Chairman, Member Secretary, Technical section, Legal section, Accounts section, Scientific section, Information Technology section & Administrative Section are currently operating from the new premises at Saligao, Bardez - Goa. The Board laboratory and entire Board office is certified under ISO:9001:2015, ISO:14001:2015 and OSHAS : 18001:20018. Additionally, the Board laboratory is accredited under the National Accreditation Board for Testing & Calibration Laboratories (*NABL) i*.e. : ISO 17025:2017.

Presently, there are One hundred twenty seven staff employed in the Board under the various sections.

1.3 FUNCTIONS OF THE VARIOUS SECTIONS

1.3.1 SCIENTIFIC SECTION

The Board has a full fledged laboratory, operating on the 1st and 2nd floors of the Office Building at Saligao.The laboratory is well equipped with instruments and equipments needed for carrying out analysis of water, air and soil, industrial effluents, rivers, wells, etc., for chemical, physical and bacteriological parameters including trace and toxic metals, pesticides and organic components. The Board laboratory follows the procedures / stipulated, protocol and guidelines in accordance with the MoEF and NABL accreditations. The laboratory has conducted periodical Internal Audits and External Audits of the Board Laboratory processes through NABL approved Auditors. Assessment of the Board laboratory is also conducted by external NABL assessment under ISO:17025:2017

The Board has set up 19 Ambient Air Quality (AAQ) and 115 water quality monitoring stations under the Central Pollution Control Board sponsored projects National Air Monitoring Programme (NAMP) and National Water Monitoring Programme (NWMP). Of the 19 AAQ stations, operation of 14 locations are outsourced to MoEF&CC approved laboratories and 5 locations are operated by the GSPCB. The Ambient Air Quality is measured in terms of parameters such as PM_{10}, $PM_{2.5}$, SO_2, NO_X, C_O, O_3 and Pb along with meteorological parameters. The Board has two mobile CAAQMS, which are being used for Continuous Ambient Air Quality Monitoring. Also in addition to NAMP conducted at 19 locations, AAQM has been conducted along transportation routes of e-auctioned ores to address complaints regarding dust pollution. Number of stack emission monitoring have also been conducted during the year.

The 115 NWMP stations are being monitored by GSPCB staff. These stations are monitored at defined intervals and the samples collected are analyzed at the Board laboratory for physical, chemical, metals, pesticides and microbiological parameters. During the year under report the Board laboratory collected **1214** water samples from various sources such as ETP, STP, mine discharge (settling pond, mining pit, etc.), river water, well water, lakes, canal water, etc. and analyzed the same for various parameters i.e pH, Turbidity, Dissolved Solids, Conductivity, Dissolved Oxygen, Nitrate Nitrogen as NO_3-N, Nitrite Nitrogen as NO_2-N, Nitrate as NO_3, Nitrite as NO_2, Chloride as Cl, Sulphate as SO_4^{2-}, Hardness as CaCO3, Calcium as Ca, Magnesium as Mg, Suspended Solids, Oil & Grease, Chemical Oxygen Demand, Biochemical Oxygen Demand, Phosphate, Ammonical nitrogen, Acidity, Alkalinity, Fluoride, Boron (B), Chromium (Cr) Hexavalent, Potassium (K), Sodium (Na), Total Organic Carbon (TOC), Phenolphthalein Alkalinity, Total Fixed Solids, **Cadmium as Cd, Copper as Cu, Nickel as Ni, Chromium as Cr, Zinc as Zn, Cobalt as Co, Lead as Pb, Iron as Fe, Manganese as Mn, Arsenic as As,** Total Coliform, Fecal Coliform, E. Coli, Total plate count, **Organo Chlorine Pesticides (OCPS) (**Aldrin, Dieldrin, Heptachlor, Hexachlorobenzene, Methoxychlor, o,p' DDT, p,p' DDT, p,p'-DDE, α-BHC, β-BHC, γ-BHC)**, Organo Phosphorous Pesticides (OPPs)** (Chlorpyriphos, Profenophos, Malathion, Parathion-methyl).

1.3.2 TECHNICAL SECTION

The Technical Section handles the Consent management. The industries, hazardous waste handling facilities, health care facilities, municipal solid waste facilities, etc. are inspected and monitored on regular basis. The inspection reports and analysis reports are put up online through Online Consent Management and Monitoring System (OCMMS) software which are scrutinized by the Technical Advisory Committee (TAC) for Red and Orange category of industries and subsequently approved by the Chairman (*in case of Red-category of industries*) upon which consents under the relevant acts and authorization under relevant rules are issued. During the year under report, **1,378** consents have been granted for operation and establishment of the above facilities under the Water

and Air Acts, Hazardous Waste Rules, **403** Authorizations/Registrations are granted under Bio-Medical Rules, Solid Waste Rules, E-waste Management Rules, Plastic Waste management Rules, Battery Rules and Hazardous waste management rules. (**refer Annexure XVIII**).

Besides, periodic inspections to monitor red category industries are also conducted to check the consent compliance by the units. Samples of waste water, ambient air and stack emissions are monitored and analyzed in the Board laboratory.

Additionally, inspections in response to public complaints are also conducted as and when required after initially scrutinizing the complaints through the 'Complaint Committee'. The complaints are monitored by inspection, samples are collected and analysed where required and action deemed fit is initiated if required.

1.3.3 LEGAL SECTION

The Legal section handles all the Legal / Court matters related to the functions of the Board. The matters are filed before the Hon'ble Supreme Court, the Hon'ble High Court, the National Green Tribunal (NGT), the Administrative Tribunal the Appellate Authority under the Air Act and the Water Act and other Lower Courts.

The Personal hearings for Industries, Public Hearing (*in case of industrial sectors mandating Environmental Clearance – EC*) and matters related to Right To Information (RTI) Act are also looked after by this Section.

Complaints are scrutinized and examined by the Legal section before initiating action in the matter. Notices/directions/clarifications are issued to the defaulting units under the Environment (Protection) Act, 1986 i.e. Municipal Solid Waste Rules, Hazardous Wastes Rules, Bio-Medical Rules, E-Waste management Rules, Noise Pollution Rules etc. whenever required to seek compliance for the defaultings.

1.3.4 ADMINISTRATIVE SECTION

The Administrative Section deals with all the Administrative matters of the Board, Preparation of Agenda and minutes for the Board meetings and subsequent follow up for the implementation of the decisions taken herein for smooth functioning of the Board.

1.3.5 ACCOUNTS SECTION

The Accounts section of the Board deals with all the Accounting and Financial matters of the Board such as monitoring of Revenue and Expenditures, preparation of Annual Budget and to advise the Board on financial matters in accordance with the Government Rules and Procedures for smooth functioning.

1.3.6. INFORMATION AND TECHNOLOGY

The Information and Technology section provides service to Industry in Online Registration for obtaining various Consents and Authorizations though Online Portal. The entire Board e-governance activities, support for Hardware and Software Infrastructure and troubleshooting are managed and executed successfully by IT Department. The implementation of Office Automation System by SAP Enterprise Resource Planning for the paperless office is achieved by the Board.

1.3.7 OTHER FACILITIES

1.3.7.1 LIBRARY FACILITIES

The Board has a spacious library of its own on the Ground Floor. It has varied publications from different departments/institutions, such as MOEF, CPCB, other State Boards' Annual Reports, etc. Scientific, Legal, Accounts and Technical books, ISI Specifications, etc. are also available in the Board library.

1.3.7.2 CONFERENCE ROOM

The Board has a spacious Conference Room with a seating capacity for **40** people. It is fully air conditioned and has facilities like whiteboard, and over head projector. All Board Meetings and other important meetings are held in the Conference Room.

1.3.7.3 AUDITORIUM

The Board has inaugurated a Auditorium with a seating capacity of **188** It has the facilities for conducting functions, seminars, workshops etc.

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CHAPTER 2

CONSTITUTION OF THE BOARD

2.1 CONSTITUTION OF THE BOARD INCLUDING CHANGES THEREIN

The present Board was constituted under the Chairmanship of Shri. Mahesh K. Patil. This Board was constituted vide Order No. 31-9-2017/STE-DIR/Part/-I/1060 dated 05/01/2022 and the composition is as given below:-

Chairman

1. Shri. Mahesh K. Patil,…….. (w.e.f. 6/01/2022 (AN))

Members

1.	Director, Dte. of Industries, Trade & Commerce.
2.	Chief Engineer, Water Resource Dept.,
3.	Director, Director, Foods and Drugs Administration
4.	Director, Chief Inspector of Factories and Boilers
5.	Director, Directorate of Health Services.
6.	Mr. Shubham Chodankar, Corporator, Corporation of City of Panaji
7.	Shri. Ahirwad T. Khorjuvekar, Councilor, Mapusa Municipal Council
8.	Shri. Pradip K. Naik, Councilor, Curchorem Cacora Municipal Council
9.	Chairman, Confederation of Indian Industries (Goa Chapter), Goa State Office (Western Region
10.	President, Goa Chamber of Commerce and Industries
11.	President, Travel and Tourism Association of Goa,
12.	Managing Director, Goa State Infrastructure Development Corporation
13.	Managing Director, Goa Waste Management Corporation

Vide Notification no.5/20/87/STEP-IV/1741 dated 27/02/2024 the following members are included.

14. Dr. Nutan Bicholkar, Councilor Mapusa Municipal Council
15. Mr. Ameya D. Naik, Ex-Panch of Sanvordem Village Panchayat

Member Secretary

16. Dr. Shamila Monteiro, (w.e.f. 18/07/2018)

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CHAPTER 3

MEETINGS OF THE BOARD

3.1 During the year under report, the Goa State Pollution Control Board held four Board Meetings under the reconstituted Board. The details of the meetings held during the year are presented in the Table below:-

Sr. No.	Sr. No. of Meeting	Date of meeting	Venue	No. of members who attended the meeting
1.	155th	12/5/2023	Conference Hall of theBoard	11
2.	156th	12/9/2023	Conference Hall of theBoard	12
3.	157th	09/01/2024	Conference Hall of theBoard	13

3.2 EXTRACTS OF MINUTES OF BOARD MEETINGS HELD DURING THE YEAR UNDER REPORT.

MINUTES OF THE 155th MEETING OF THE GOA STATE POLLUTION CONTROL BOARD HELttD ON 12th MAY, 2023, 2022 AT 3.00 PM, IN THE CONFERENCE HALL OF THE BOARD

I. The 155th meeting of the Goa State Pollution Control Board was held on 12th May, 2023 at 3.00 pm in the Conference hall of the Board.

The following members attended the meeting:

1.	Mr. Mahesh K. Patil, Chairman
2.	Mrs. Jyoti Sardessai, Director, Dte. of Food & Drugs, Govt. of Goa
3.	Directorate of Health Services, was represented by officer from the Directorate
4.	Shri Shubham Chodankar, Councillor, Corporation of the City of Panaji
5.	Shri Ashirwad T. Khorjuvenkar, Councillor, Mapusa Municipal Council,
6.	Shri Pradip K. Naik, Councillor, Curchorem – Cacora Municipal Council,.
7.	Chairperson Confederation of Indian Industries was represented by Mr. Ankur Promal
8.	President, Goa Chamber of Commerce & Industries was represented by Mr. Sanjay Amonkar, Director General, GCCI
9.	Shri Nilesh Shah, President, Travel and Tourism Association of Goa
10.	Managing Director, Goa Waste Management Corporation was represented Mr. Digvijay Desai, Assistant Manager
11.	Dr. Shamila Monteiro, Member Secretary

Managing Director, Goa State Infrastructure Development Corporation, and Chief Inspector of Factories and Boilers, expressed their inability to attend the meeting. Leave of absence was granted to them.

II. At the outset the Member Secretary welcomed the Chairman and Members for the 155th meeting of the Board. With the permission of the Chair, she instructed Miss Connie Fernandes, Scientist 'C' to make a presentation on the activities carried out by the Board during the last three months:

a. Continued the display of hoardings at six prominent locations at Dabolim airport, Bambolim, Guirim, Banastarim and Keserval through M/s Advertising Associates.

b. Students of Second year B.Sc (Agriculture) visited in the Board laboratory.

c. Board officials participated in the CPPRI initiated NABL training programme in Saharanpur

d. Chairman, GSPCB attend World Sustainable Development Summit Meet (WSDS), 2023 at New Delhi.

e. Chairman attend National Climate Conclave held at Lucknow, u.P and Chaired the panel discussion on Resource Efficiency and Circular Economy.

f. Knowledge sharing sessions were held by the following units – (i) M/s SuAL Ec-Tech Pvt. Ltd. – presentation on eco friendly and sustainable solutions in the area of waste management. (ii) M/s Sigma Molecules – presentation on water treatment plant for industrial waste water (iii) M/s Valuable Energy – presentations on solubag – the revolutionary 100% water dissolvable, non toxic and non plastic packaging film material. (iv) M/s Comtrack – presentation on compliance solution of organizational procedures and policies.

g. Environmental Audit of the following units were conducted by the Environment Audit Team: (i) Selective units - Fish mill processing / Induction – furnaces located in Cuncolim Industrial Estate (ii) Mormugao Port Authority (iii) M/s Goa Shipyard Ltd. (iv) Pharma units (selective) – M/s Lupin, M/s Ion Exchange located in Verna Industrial Estate (v) M/s Berger Paints Ltd., Kundaim Industrial Estate (vi) M/s Seahath Canning, Margao Industrial Estate (vii) M/s Ganesh Benzoplast Ltd., Vasco.

h. The Board in partnership with Confederation of Indian Industry has successfully organized the 1st International Environment and Sustainability Summit, Goa from 2nd to 4th February, 2023. National Enviro0nemtnal Engineering Research Institute (NEERI) was the knowledge partner and Global Reporting Initiative (GRI) was the Network partner. 6th Envirotech Asia Expo was held simultaneously.

i. Interactive session was held at M/s Cipla – unit I, Verna Indl. Estate with Executive members of Verna and Cuncolim Industrial association on the subject matter of Environmental Audit as mandated in t he Goa Air and Goa Water Rules.

j. Online Noise level monitoring (real time) instrumentation – 8 nos. were procured through M/s Welan Technologies

k. Web camera with VC compatibility installed in the meeting rooms. Control room has been established to received information / data transmitted through Continuous Ambient Air Quality Monitoring Stations set up by industrial units in the State.

l. Board carried out Electrical Safety Audit

m. I.T section of the Board participated in IDC Connect event towards creating awareness about the procedural formalities to be mandated for OCMMS registration

n. CII, Hyderabad / Goa in association with GSPCB organized interactive session with Industry representative in response to a Mou executed between CII and GSPCB on 'Green Rating System'

o. Board organized technology specific presentations on Applicability of Retrofit emission control device in D.G sets as mandated by (a) M/s Cummins and (b) M/s Chakr Innovations

III. Thereafter, the following Agenda items were taken up for discussion and deliberation.

Agenda item no. 1

Confirmation of the minutes of the 154th meeting of the Goa State Pollution Control Board held on 12/01/2023

The Member Secretary informed that the minutes of the 154th meeting of the Board held on 12/01/2023 were forwarded to all the members vide this office letter no. 4/154/23-PCB/Admn./20480 dated 23/01/2023. As no comments were received from any members, the minutes of the meeting were confirmed, so as to enter the same in the Minutes Book.

Agenda item no. 02

Follow up action on the decision taken at the Confirmation of the minutes of the 154th meeting of the Board held on 12th January, 2023

Agenda item no. 6 – Members noted that Consent to Establish of M/s Deccan Fine Chemicals (India) Private Limited located at survey no. 28/1-A, Santa Monica Works, Corlim, Tiswadi Goa, for additional products.

Table item no. 1 - *Appointment of staff for control Room* - Members noted that the Control was made operational an Intern was appointed on a consolidated salary of Rs. 6000/- per month.

Members noted that the consolidated salary of Rs. 6000/- per month is meager considering the present day inflation. Member Secretary clarified that the amount is a stipend for the student who have to complete their internship during the course of their studies, which is of duration of one month to three months to complete their graduation/ post graduation. After deliberations it was agreed to raise the stipend amount to the Interns to Rs. 10,000/- per month.

a. Members accorded ex post facto approval for appointment of four nos. of Junior Research Fellows on a consolidated salary of Rs. 20,000/- per month for a period of six months (extendable)

b. Members accorded ex post facto approval for appointment of 5 nos. of Junior Research Fellows on a consolidated salary of Rs. 20,000/- per month and 04 nos. of posts

of Field on a consolidated salary of 15,000/- per month, on contract basis for a period of one year (extendable), to meet the manpower required for monitoring 44 new monitoring locations under National Water Monitoring Programme (NWMP), as sanctioned by Central Pollution Control Board.

c. Members accorded ex post facto approval for appointment of 6 nos. of Junior Research Fellows on a consolidated salary of Rs. 20,000/- per month on contract basis for a period of one year (extendable), to meet the manpower required for monitoring 34 new stations and 03 new stations for rural area under National Air Quality Monitoring Programme (NAMP), as sanctioned by Central Pollution Control Board.

d. Member Secretary informed the members that 05 sanctioned post of Junior Environmental Engineer are vacant. Since the Board required urgent manpower in light of various orders and directions passed by the Hon. High Court, these five posts were advertised to be filled on contract basis as Junior Research Fellows, on a consolidated salary of Rs. 20,000/- per month till such time administrative process is completed for filling of the vacant posts. Members accorded ex post facto approval.

Table item no. 2 – Members applauded the Chairman, Member Secretary and the staff for successfully organizing the 1st International Environment and Sustainability Summit held 2nd to 4th February, 2023 at Dr. Shyama Prasad Mukerjee Indoor Stadium, Taleigao. Member Secretary further informed that the event would not have been a success without the assistance of the Confederation of Indian Industries and Goa Chamber of Commerce and Industries.

Agenda item no. 03

Follow up action on the decision taken at the Confirmation of the minutes of the 153rd meeting of the Board held on 11th October, 2022

***Agenda item no. 03* -** Condemnation of office vehicles – Member Secretary informed the members that the Board had taken decision to condemn the office vehicles after getting upset value of the vehicle from PWD and condemn the vehicle to be sold as scrap by call of quotations from the open market. She further informed that the Goa Waste Management Corporation have issued a Circular dated 06/05/2022 stating that Government has designated the Goa Waste Management Corporation (GWMC), Saligao Goa as the Nodal agency for condemnation of vehicles and obsolete items/ scarp materials, unserviceable equipment etc. to provide single window clearance and service by virtue of which all codal procedures such as inspection at site, fixing of upset value, etc. shall be carried out by GWMC and all funds received from this activity to be deposited in the Govt. Treasury through Department of Science, Technology and Waste Management, Govt. of Goa after deducting 10% service charges on accepted auction amount i.e received amount after disposal of condemned articles to GWMC.

Member Secretary further informed that in compliance to the above Circular clarifications were sought from GWMC with respect to depositing the amount in the Board account instead of Government Treasury as the Board is not under the consolidated funds of the State Government. Reply from GWMC is awaited.

Agenda item no. 04

Draft Manual for Notification with respect to establishing conditions for use of treated water for Effluent Treatment Plants / Sewerage Treatment Plants.

Member Secretary informed the members that Goa State Pollution Control Board had issued directions on 10th March, 2000 which recommended seepage pits, dispersion trench and up flow anaerobic filters in addition to septic tank and soak pit for treating of waste water from ETPs/STPs.

Member Secretary further informed that the Board is receiving numerous complaints with regard to the overflow of sewage / sullage from septic tank and soak pit which result into pollution of streams, lakes and ponds. She further informed that the current design of soak puts and septic tanks is not adequate to operate with the underlying conditions as the retention time is low. Further it was informed that as per IS:2470 and CPHEEO, soak pits are not permitted within 15 metres distance from any source of drinking water, hence alternate systems have to be recommended for treatment of sewage and the treated water to be used for gardening and flushing purpose. Member Secretary further informed that the Manual was necessitated in reference to the PIL no. 443/98.

With the permission of the Chair, Member Secretary directed the Environmental Engineer of the Board to give a presentation on the proposed Draft Manual.

Environmental Engineer placed before the members that a Committee was constituted by the Chairman of the Board comprising of the officials from various stakeholder departments, academicians from Higher Educational Institutions to examine alternative systems for the treatment of sewage water. Accordingly the Committee after detailed discussions held on a number of occasions submitted its report, and the same was examined by the Board. The Committee has recommended alternate system which could be also installed within 15 metres from the drinking water source for upto 300 nos. of users. The Draft Report was explained to the Members.

Members perused and approved to forward the Report to the Department of Environment and Climate Change for Notification in the Government Gazette.

Agenda item no. 05

Representation received from Goa Chamber of Commerce and Industry for commissioning of Continuous Ambient Air Quality Monitoring System in Kundaim Industrial Estate

Member Secretary informed the members that the office is in receipt of a representation from Goa Chamber of Commerce and Industries requesting to commission Continuous ambient air quality monitoring stations (CAAQMS) in Kundaim Industrial Estate, due to high air quality standards.

Member Secretary informed the members that the Board has a NAMP station in Kundaim Industrial Estate near the IDC office and is monitoring the air quality accordingly. Chairman stated that indicative sensor based monitoring stations shall be installed after identifying the hotspots in Kundaim Industrial Estate, which needs to be financed by Industry as part of their CSIR activities. The Board shall send its mobile CAAQMS as and when necessary.

Agenda item no. 06

Application for Consent to Operate (new) under the Water Act, Air Act and the Hazardous and other Waste Rules) for the operation of the Sewage treatment Plant of 5.6 MLD capacity located at Baga, Calangute – Goa.

Member Secretary informed the members that the Board was in receipt of an application for Consent to Operate Consent to Operate (new) under the Water Act, Air Act and the Hazardous and other Waste Rules) for the operation of the Sewage treatment Plant of 5.6 MLD capacity located at Baga, Calangute – Goa. She further informed the members that the plant was granted Consent for trial operation of the plant for a period of six months. At present sewage is brought to the plant by Sewage tankers as the service lines are not yet connected.

It was also brought to the notice of the members that the Board has received complaints from the Panchayat with reference to the operation of the plant and release of untreated sewage into the Baga creek and bringing in industrial sewage. The Board has sought explanation from the PWD with respect to the Industrial sewage.

Members after deliberations approved to grant Consent to Operate the STP for trail operation of six months to stabilize the STP. Further it was decided to seek time line from Public Works Department, for connecting to the sewer lines to the STP

Agenda item no. 07

Application for Consent to Operate (expansion) under the Air Act and the Water Act of M/s. Deccan Fine Chemicals (India) Private Limited, located at Survey no.28/1-A, Santa Monica works, Corlim, Tiswadi-Goa.

Member Secretary informed the members that the Board is in receipt of an application from M/s. Deccan Fine Chemicals (India) Private Limited, for Consent to Operate (expansion) under the Air Act and the Water Act. The members perused the details of the units and sought clarifications as to disposal of treated waste in the Cumbarjua canal. Member Secretary clarified that the unit is having online monitoring system to check the discharge system.

The members after deliberations approved for grant of Consent to Operate (expansion)

Agenda item no. 08

Application for Consent to Operate (new) under the Air Act and the Water Act of M/s. Public Works Department, 2 MLD Sewage treatment plant (STP), located at Patto, Panjim-Goa.

Member Secretary informed the members that the Board is in receipt of an application from Public Works Department for commissioning 2 MLD Sewage treatment plant (STP) at Patto, Panaji.

The members after perusal of the agenda notes desired to inspect the plant. The inspection has been scheduled on 17th May, 2023 at 10.00 am. Decision on the grant of Consent will be taken up subsequently.

Agenda item no. 09

Application for Consent to Operate (New) under the Air Act and the Water Act of M/s Public Works Department, 15.00 MLD Sewage treatment plant (STP) located at Queula, Ponda – Goa.

Member Secretary informed the members that the Board is in receipt of an application from Public Works Department for commissioning the 15.00 MLD Sewage Treatment Plant (STP) located at Queula, Ponda – Goa.. Members perused the agenda notes and after deliberations decided to grant provisional Consent to Operate for six months for trial run till such time online monitoring system is installed.

Agenda item no. 10

Board property at Patto, Panaji Goa.

Member Secretary informed the members that the Board is in receipt of a letter from Department of Home (General), requesting to transfer land under PT sheet no. 46 of Chalta no. 10 (Part) at Patto, Panaji Goa to the Goa Police Department for construction of Panaji Coastal Security Police Station.

Member Secretary further informed the members that the said land admeasuring 720 sq. mtrs. earlier housed the office of the Goa State Pollution Control Board. She further informed that on perusal of the records it was seen that Form I and XIV issued by the Dept. of Settlement and Land Records, Panaji, indicates that Goa State Pollution Control Board is the Occupant of the aforesaid land.She further informed that the land is classified under C-1 zone with F.A.R 200.

Members noted the above, and decided since the land is located in a prime location, the office should avail the opportunity and construct a building so as to augment the income of the Board.

After deliberations it was decided to appoint a Consultant / Advisor to prepare a detailed report on cost as well as best options. Members approved to reply to Panaji Coastal Security Police stating that the Board is proposing to develop the said land.

It was also deliberated that the Board should have an office in South Goa (South Goa Collectorate) and one in Panaji to receive applications / support to the general public in resolving queries etc., as the public is facing difficulties in travelling to the main office at Saligao due to inadequate transport facility. Members approved for the same.

Agenda item no. 11

Implementation of Performance Related Incentive Scheme to the employees of the Board.

Member Secretary informed the members that the Board is proposing to formulate and implement 'Performance Related Incentive Scheme' for its employees in order to motivate its employees and encourage maximum service output from them so as to enhance the overall performance of the Board.

She further explained to the members that Performance Pay proposed would be an amount paid to an employee based on his or her overall performance. It would be based on how the employees have performed in his or her respective work. It will be pay that is given in addition to the basic pay or salary of the particular employee. The incentive or the bonus will be given to the employee in the basis of individual and also team or group level performance. The measurement of the performance pay will be of the targets that the employee achieves and how effective output that he or she gets. Once the scheme is launched, all the employees will be assessed on the basis of their yearly performance and will be paid a performance pay along with their basic pay.

Members desired to know whether this practice was followed in other State Boards, for this query Member Secretary informed the members that every Pollution Control Board has its own schemes / incentives to the staff.

After discussions, it was approved for implementation of the Performance Related Incentive Scheme to the employees of the Board effective from the financial year 2023-2024. It was also agreed that the detailed Evaluation form be formulated through H.R. Consultant.

Agenda item no. 12

Revised Budget Estimate for the year 2022-2023 and Budget Estimate for the year 2023-2024

Member Secretary, as per section 38 of the Water (Prevention and Control of Pollution) Act, 1974, placed before the Members the Revised Budget Estimate for the year 2022-2023 and Budget Estimate for the year 2023-2024 prepared in Form VI and VII, as prescribed in Rule 31.

With the permission of the Chair, Member Secretary directed the Accountant of the Board to give a presentation on the Budget proposal.

The Accountant placed before the Members the Budget Estimate for the year 2023-2024 at Rs. 2503.18 lakhs. The Budget Estimate for 2022-2023 was Rs. 234.42 lakhs and the receipts for the year were Rs. 2803.13 lakhs

Members desired to know the service benefits provided to the staff of the Board. It was informed that the staff are paid Gratuity and Insurance through Life Insurance Corporation, for which the Board has tied up with for disbursement of the amount and Employees Provident Fund, which is paid directly to the employee

Members approved the Revised Estimate for the financial year 2022-2023 and Budget Estimate for the year 2023-2024, prepared in Form VI and VII, so as to forward the same to the State Government.

IV. With the permission of the Chair, the members raised the following issues:

a. President, Travel and Tourism Association of Goa raised the issues with respect to obtaining various approval of the Govt. for operation of the shacks. He also cited the recent orders of the Hon. High Court, wherein Consent to Operate of the Board was mandatory. He further stated that since shacks are seasonal, it is difficult to complete all the formalities within a short time and as such requested for streamlining the process. Chairman informed that as far as Consent is concerned, the same is processed and issued within a period of seven days. However the NOC of Panchayat and other matters, the TTAG could take up the matter with the Tourism Dept., Goa Coastal Zone Management Authority and Panchayat Department.

b. Representative of Confederation of Indian Industry sought extension of time with respect to installation of D.G sets of 125 KVA and above. He further informed that since generators are used only as back up since the cost involved is high. The Board agreed to the proposal for extension of time.

c. Representative of Goa Chamber of Commerce and Industry highlighted the online fee calculation stating that the online fee calculation shows on a high side of the fees to be paid for Consent Management. Member Secretary clarified that the fees are calculated based on the on the Gross Fixed Assets of the unit.

The meeting ended with thanks to the Chair.

MINUTES OF THE 156TH MEETING OF THE GOA STATE POLLUTION CONTROL BOARD HELD ON 12TH SEPTEMBER, 2023 AT 3.00 PM, IN THE CONFERENCE HALL OF THE BOARD

I. The 156th meeting of the Goa State Pollution Control Board was held on 12th September, 2023 at 3.00 pm in the Conference hall of the Board.

The following members attended the meeting:

1.	Mr. Mahesh K. Patil, Chairman
2.	Mrs. Jyoti Sardessai, Director, Dte. of Food & Drugs, Govt. of Goa

3.	Directorate of Health Services, was represented by Dr. Preetam Naik, Chief Medical Officer
4.	Shri Anant S. Pangam, Chief Inspector of Factories and Boilers
5.	Shri Shubham Chodankar, Councillor, Corporation of the City of Panaji
6.	Shri Ashirwad T. Khorjuvenkar, Councillor, Mapusa Municipal Council,
7.	Shri Pradip K. Naik, Councillor, Curchorem – Cacora Municipal Council,.
8.	President, Goa Chamber of Commerce & Industries was represented by Mr. Sanjay Amonkar, Director General, GCCI
9.	Shri Nilesh Shah, President, Travel and Tourism Association of Goa
10.	Managing Director, Goa Waste Management Corporation was represented Mrs. Nandan Prabhudessi, General Manager
11.	Mr. Harish Adconkar, Managing Director, Goa State Infrastructure Development Corporation
12.	Dr. Shamila Monteiro, Member Secretary

Chairperson Confederation of Indian Industries expressed his inability to attend the meeting. Leave of absence was granted.

II. At the outset the Member Secretary welcomed the Chairman and Members for the 156th meeting of the Board. With the permission of the Chair, she instructed Dr. Mohan Girap, Scientist 'C' to make a presentation on the activities carried out by the Board during the last three months:

1.	Knowledge Sharing sessions were held - platform for understanding latest technological interventions towards pollution control measures / instrumentation, etc. by:		
a.	M/s Eco Ventures – Continuous Ambient Air Quality Micro-monitoring station (AirSense).		
b.	NIMS – the Organic Hub – Small biogas plants for treatment of organic waste.		
c.	Steam House India Ltd., – Community boiler projects that supply steam through piped network.		
	Eco Tech Engineers and Consultants – Eco-SBR technology STP.		
d.	Platino Automotive Pvt. Ltd., - Retrofit Emission Control Devices for D.G. sets.		
e.	National Odour Research and management Institute (NORMI) – Odour awareness, monitoring, legal implications and mitigations.		
f.	Anodyne Water Engineering Co. Pvt. Ltd., - Air and Water treatment systems : technology, products and services.		
g.	Ecosense Appliances Pvt. Ltd., - Various domestic / industrial level appliances for treatment of sanitary pads / egg-shells and dairy-wastes		
h.			
2.	Environment Audit of following units have been conducted by Environment Audit Team constituted by the Board**.**		
a.	Casinos – All six casinos		
b.	Goa Carbon Limited, St. Jose De Areal Industrial Estate		
c.	Following units located in Cuncolim Industrial Estate		
a.	Malco Energy Limited	b.	Marpol Pvt. Ltd.,
c.	Trimurti Industries	d.	Global Ispat Limited
e.	Orange Fox Steel Pvt. Ltd	f.	Karthik Alloys Limited
g.	Sunrise Electromelt Limited	h.	Shree Balaji Rolling Pvt. Ltd.,
i.	Shraddha Ispat Pvt. Ltd	j.	Quality Exports
k.	Quality Foods	l.	Shirdi Steel Re-rollers Pvt. Ltd
m.	Pioneer Alloys and Steel India Pvt. Ltd.,		

3.	CYCLATHON was organised on the occasion of World Bicycle Day - 3rd June, 2023 by Directorate of Health Services (DHS), Verna Industrial Association (VIA) and GSPCB .
4.	World Environment Day, -WED 2023 was celebrated in the Board Office on the theme 'Beat Plastic Pollution' wherein Hon. Minister for Environment, Shri Nilesh Cabral was the Chief Guest, Prof. (Dr.) B. C. Choudhary, Advisor, Wildlife Trust of India was the Guest Speaker. On the occasion Manual on Sewage Treatment Technology was launched. In addition, Quiz competition and presentation on Best Industrial Initiatives in Environment management were organised
5.	Stakeholder Consultation on Deposit Refund Scheme (DRS) and Launch of Digital Rupee of the GSPCB was held on 26th June 2023.
6.	Conducted PLOGGING – awareness drive to understand the concept of ban on SuP and DRS initiatives : GSPCB along with YIMBY / Responsible Earth Foundation / Eu-REI - at Colva Beach, South Goa – 11th August 2023 and at Miramar Beach, on 13th August 2023
7.	Chairman, GSPCB attended as well as chaired a panel discussion during 18th Sustainability Summit held in Delhi on 22nd – 23rd August 2023
8.	Continuation of Awareness drives on Ban on Single use Plastic (SuP) in Educational Institutes through M/s Sensible Earth at Hirabai Talualikar High School, Sacordem
9.	Interaction with stakeholders concerned with reference to usage of Common Hazardous Waste Treatment Facility at Pissurlem being operated by M/s Ponda Envirocare
10	Conference on Post-Consumer Recyclates: Challenges & Opportunities, held on 7th September 2023 inaugurated at the hands of Hon'ble Minister for Environment – Mr. Nilesh Cabral in the presence of Chairman, GSPCB, Secretary, Environment – Mr. Arun Kumar Mishra, Former Member Secretary, CPCB – Dr. Prashant Gargava, Head, Sustainability & CST, M/s Godrej Industries Ltd., - Ms. Gayatri Divecha and M.S., GSPCB – Dr. Shamila Monteiro
	Inauguration of Online Environmental Data Monitoring Centre (OEDMC)- Inauguration at the hands of Hon. Minister in presence of CPCB, GSPCB and DoE & CC officials - Display of online Ambient air-quality / effluent water-quality as transmitted by industries-concerned
	Inauguration of Technology Information Centre (TIC) Inauguration at the hands of Hon'ble Minister in presence of CPCB, GSPCB, DoE & CC and GSBB officials
11.	The Board organised Annual Shree Satyanarayan Puja and Thanks Giving Mass on 11th September 2023

III. Thereafter, the following Agenda items were taken up for discussion and deliberation.

Agenda item no. 1

Confirmation of the minutes of the 155th meeting of the Goa State Pollution Control Board held on 12/05/2023.

The Member Secretary informed that the minutes of the 155th meeting of the Board held on 12/05/2023 were forwarded to all the members vide this office letter no. 4/155/23-PCB/Admn./4714 dated 26/05/2023. As no comments were received from any members, the minutes of the meeting were confirmed, so as to enter the same in the Minutes Book.

Agenda item no. 02

Follow up action on the decision taken at the 155th meeting of the Board held on 12th May, 2023.

Agenda item no. 4 – Members noted that the Draft Manual for Notification with respect to establishing conditions for use of treated water for Effluent Treatment Plants / Sewerage Treatment Plants has been forwarded to the Dept. of Environment and Climate Change for notification in the Gazette.

Agenda item no. 06 – Members noted that Consent to Operate (new) under the Water Act, Air Act and the Hazardous and other Waste Rules) for the operation of the Sewage treatment Plant of 5.6 MLD capacity at Baga, Calangute – Goa. has been issued and further directing PWD to submit time line for connecting to the sewer lines to the STP

Agenda item no. 08 – The members persused the agenda with respect to Sewage treatment plant of Public Works Department for 2 MLD at Patto, Panjim-Goa, with respect to the inspection conducted by the Board members, officials of the Board and PWD and its recommendations. The members noted that the unit was issued Consent to Operate for six months and the recommendations of the Board members were also incorporated in the Consent issued.

Agenda item no. 09 – Members noted the provisional Consent to Operate for six months for trial run till online monitoring system is installed has been granted to Public Works Department, 15.00 MLD Sewage treatment plant (STP) located at Queula, Ponda – Goa.

Agenda item no. 10 – Member Secretary informed the members that General Administration Dept. has requested for copies pertaining to letter of the General Admn. Dept. dated 20/11/1996 as the same is not traceable in their records, with respect to premises at 243, Patto Panaji Goa

Agenda item no. 11 – Members noted that e tender is being floated for appointment of H.R Consultant for Implementation of Performance Appraisal and Review System & its roll-out for the staff of Goa State Pollution Control Board.

Agenda item no. 12 – Members noted that the Revised Budget Estimate for the year 2022-2023 and Budget Estimate for the year 2023-2024 has been sent to the Department of Environment and Climate Change.

Agenda item no. 03

Application for Consent to Operate (expansion) under the Air Act and the Water Act of M/s. Deccan Fine Chemicals (India) Private Limited located at Survey no.28/1-A, Santa Monica Works, Corlim, Tiswadi-Goa.

Member Secretary informed the members that the Board was in receipt of application from M/s. Deccan Fine Chemicals (India) Private Limited, for Consent to Operate (expansion) under the Air Act and the Water Act for increase in products Picoxystrobin or 2, 6, Difluroaniline-500 TPA, DCF-TFAP-50 TPA, 560I- 100 TPA and MOAT- 600 TPA and increase in remaining production capacity of 1250 MPA. (Phase II of expansion). She further informed the members that there will additional water requirement of 966 Kld and waste water generation of 1000 Kld which will be treated in the ETP which will be increased to approx. 5000 Kld., however, there would be increase in hazardous waste generation which would be treated in CHWTF / sent for incineration for co-processing in cement industries.

Member Secretary further informed that the application for Consent to Operate (expansion) was placed before 23rd meeting of Technical Advisory Committee (TAC) held on 21/08/2023 and subsequently the Board issued Consent. She further informed that the same is placed before the Board for according ex post facto approval.

Members noted and accorded ex post facto approval.

Agenda item no. 04

Appointment of Junior Research Fellow (on contract) in the Legal Section.

Member Secretary informed the members that the Board has to compile data pertaining to show cause notices issued, coordinating the information so received with the Scientific and Technical section with respect to the Court matters, for which one Junior Research Fellow (Legal) on contract is required to be appointed to assist the Legal section. Members deliberated on this issue and suggested that a Scheme be framed for appointment on contract basis (namely Junior Research Fellows), for a maximum period of one year on a consolidated pay.

After deliberations it was agreed for appointment of a Junior Research Fellow (Legal) on contract with the following criteria, by issuing advertisement in the local newspaper.

Name of the Post	Junior Research Fellow (Legal) (on contract)
No. of posts	One no.
Interview:	Date to be fixed
Age:	Not exceeding 30 years as on date of submission of application.
Duration of contract:	One year
Consolidated pay	Rs. 20,000/- per month
Qualifications	Essential: (a) Bachelors Degree in Law from a recognized university (b) Knowledge of Konkani (c) Knowledge of Computers Desirable: (a) Knowledge of Marathi.

Agenda item no. 05

Application for Consent to Operate under the Air Act, Water Act & Hazardous Waste Authorization for Operation of Sewage Treatment Plant of 5.4 MLD capacity at P.T. Sheet No. 128 & 129 of Mapusa, ***Bardez Goa.***

Member Secretary informed the members that the Board was in receipt of an application for Consent to Operate under the Air Act, Water Act & Hazardous Waste Authorization for Operation of Sewage Treatment Plant of 5.4 MLD.

Member Secretary informed the members that officials of Public Works Department. WD. XXVII, Mapusa were called for making Project/Proposal specific presentation before Technical Advisory Committee (TAC). Subsequent to the presentation / discussion / deliberations, TAC has recommended that the proponent needs to (i) install Filtration unit after chlorination to maintain the residual chlorine before release in the river; (ii) submit load calculations of sewage, (iii) provide port hole to the 380 KVA capacity D.G set and (iv) maintain cycle period to 5 hrs in SBR. TAC recommended the proposal for initial period of 6 months with compliance to above observation in a time bound manner.

Member Secretary further informed the members that as per recommendation of the TAC, Consent to Operate was granted to the Project Proponent on 08/08/2023 for initial period of 6 months subject to compliance with all the mentioned conditions for trial operations.

Members noted and accorded ex-post facto approval.

Agenda item no. 06

Application for Consent to Establish under the Water Act and Air Act for setting up of the Sewage Treatment Plant of 20 MLD capacity located at Survey No. 69/1,69/2 & 69/4, opp. Ticlo petrol pump, Off. NH 66, Porvorim, Bardez Goa.

Member Secretary informed the members that the Board was in receipt of an application for Consent to Establish under the Air Act, Water Act for setting up of the Sewage Treatment Plant of 20 MLD capacity at Porvorim, Bardez Goa

She further informed that the application was discussed at the TAC meeting and recommended that the proponent needs to (i) install Filtration unit after chlorination to maintain the residual chlorine before release in the nullah which ultimately drains into the Mapusa river; (ii) treated water to be supplied to farmers for irrigating the agricultural land within proximity of the STP as area around the STP are Khazan lands which are used for farming. TAC recommended the proposal with compliance to above observation in a time bound manner, which could be verified by the Board prior to considering Consent to Operate application.

Members approved for grant of Consent incorporating the recommendations of the TAC.

Agenda item no. 07

Draft Guidelines for Scrap yards in the State of Goa

Member Secretary further informed that the Board does not issue any NOC / Authorization to Scrap yards /Scrap Recyclers in the State and that Goa Waste Management Corporation is in process of formulating a Policy for scrap yards in the State of Goa for which the Board is required to formulate guidelines. Accordingly the Board has prepared draft guidelines for Scrap yards which are applicable to scrap yards / scrap recyclers collecting and handling only solid waste as defined in the Solid Waste Management Rules, 2016, as amended. It was further informed to the members that in these draft guidelines scrap yards cannot handle waste defined under the Hazardous and Other Waste (Management & Trans boundary Movement) Rules, 2016 as amended, E-waste Management Rules, 2016 as amended, Battery Waste (Management and Handling) Rules, 2001 as amended Construction and Debris (Management & Handling) Rules, 2016 as amended thereafter and Biomedical Waste Management Rules, 2016 as amended.

Member Secretary placed the following for perusal and approval of the members.

Procedure and guidelines for registering waste collector / MRF facility authorized by the Goa State Pollution Control Board.

Draft guidelines for scrap yards / Scrap recyclers in the State of Goa, prepared by the Goa State Pollution Control Board.

Members approved the above guidelines as prepared by the Board for notifying and implementation.

I. Application Procedure for Waste Collectors:

In order to streamline the process of Registration and Licensing for Waste Collectors it is proposed to formulate guidelines. Following entities are required to register with the Board. These guidelines will be applicable to all agencies/ individual collecting only biodegradable & non-biodegradable waste as categorized in Solid Waste Management Rules 2016, as amended thereafter, from Local Bodies & Bulk Generators and to all agencies/individual collecting only non- biodegradable waste as categorized in Solid Waste Management Rules 2016, as amended thereafter, from Industries.

These points are not applicable for Waste Collectors that handle other Waste as specified under the Biomedical Rules 2016 as amended thereafter; Hazardous and other waste (Management

and Transboundary movement) Rules, 2016 as amended thereafter, E waste management rules 2016, as amended thereafter, and Battery Management rules 2022 as amended thereafter and C & D Waste Management Rules 2016, as amended thereafter.

1.	Registration as a Waste Collector:	
	a.	Collection of waste from Local Bodies
	b.	Collection of waste from Industries
	c.	Collection of Waste from units within the State and Disposal of Waste to Facility Outside the State
A.	Collection of waste from Local Bodies:	
	i.	Procedure for application:
	*	Apply online using Google Form: Visit the Goa State Pollution Control Board Website by using the link as follows: https://goaspcb.gov.in/archives/#tab-18296
	*	Select respective Taluka under Proforma for registration as a Waste Collectors
	*	Open and Fill Google Form for Waste Collectors
	ii.	Documents required:
	*	Land Ownership Documents
	*	NOC / Permission from Local Body
	*	Site Plan
	*	Detailed Plan of the Facility
	*	Disposal of Domestic waste water
	*	Details of waste collection/transportation/Disposal
	*	Details of Industry /unit from where the waste is collected/proposed to be collected with details of quantity and types of waste.
	*	Details of unit/Industry where waste is disposed/proposed to be disposed with details of type of waste and quantity of waste.
	iii.	Infrastructure/Siting:
	*	The land in question shall meet the siting guidelines of GSPCB and Town and Country Planning (T&CP)
	*	The area used for waste collections shall not be water logged and must be a completely dry area
	*	The area chosen for waste collection and storage must be fenced and have a concreted working area
	*	A proper access road shall be available up to the entrance of the yard to allow for a quick-fire tender movement in case of emergencies and fire audit to be carried out of scrap yard every 3 months through Department of Fire and Emergency Services.
	*	Land chosen for setting up MRF must have adequate buffer maintained from residential areas, hospitals, educational institutions, religious institutions, public offices and markets etc as prescribed by GSPCB & T&CP
	*	MRF to be setup as per GWMC template and guidelines in case Village Panchayat MRF is not being utilized
	*	Separate compartments to be provided for different types of waste within the MRF.
	*	Separate area to be provided for baling machine
	*	Separate area to be provided for baled waste.

	*	Easy access shall be provided for handling of waste. In case of MRF is located Outside Industrial Area:		
		Sr.	Area	Distance from residence/water body/institutions/ hospitals
		1.	< 100 sq. mts	50 mts.
		2.	100 sq. mts to 500 sq. mts.	100 mts.
		3.	500 sq. mts. to 1000 sq. mts.	200 mts.
		4.	Above 1000 sq. mts.	500 mts
	iv.	Validity:		
	*	Collection from Local Body utilizing Local body MRF: Validity will be for a period of 1 year– fees: Rs. 10,000/- for Dry waste collection and additional Rs. 10,000/- in case wet waste is collected.		
	*	Renewal: Renewal will be granted for a period of 1 Year for the same fees as specified above and will be done on yearly basis		
B.	Collection of waste from Industries:			
	i.	Procedure for application		
	*	Apply online using Google Form: Visit the Goa State Pollution Control Board Website by using the link as follows: https://goaspcb.gov.in/archives/#tab-18296		
	*	Select respective Taluka under Proforma for registration as a Waste Collectors		
	*	Google Form for Waste Collector		
	ii.	Documents required		
	*	Establishment Certificate		
	*	Trade license		
	*	Site Plan		
	*	Land ownership Document		
	*	Copy of Form 1 & 14/Form 4C		
	iii.	Infrastructure/Siting		
	*	The Land in question shall meet the siting guidelines of GSPCB and T&CP		
	*	The area used for waste collections shall not be water logged and must be a completely dry area		
	*	The area chosen for waste collection and storage must be fenced and have a concreted working area		
	*	A proper access road shall be available up to the entrance of the yard to allow for a quick-fire tender movement in case of emergencies and fire audit to be carried out of scrap yard every 3 months through Department of Fire and Emergency Services.		
	*	Land chosen for setting up MRF must have adequate buffer maintained from residential areas, hospitals, educational institutions, religious institutions, public offices and markets etc as prescribed by GSPCB & T&CP		
	*	MRF to be setup as per GWMC template and guidelines		
	*	Separate compartments to be provided for different types of waste within the MRF		
	*	Separate area to be provided for baling machine		
	*	Separate area to be provided for baled waste		
	*	Easy access shall be provided for handling of waste		
	*	In case of MRF located outside Industrial area:		

		Sr. No	**Area**	**Distance from residence/water body/ institutions/hospitals**
		1.	< 100 sq. mts.	50 mts.
		2.	100 sq. mts to 500 sq. mts.	100 mts.
		3.	500 sq. mts. to 1000 sq. mts.	200 mts
		4.	Above 1000 sq. mts.	500 mts.
	iv.	Validity		
	*	Collection from Industry utilizing own MRF (Permanent): Validity will be for a period of 1 year – fees: Rs. 25,000/- for Dry waste collection only.		
	*	Renewal: Renewal will be granted for a period of 1 year for the same fees as specified above and will be done on yearly basis.		
C.	Collection of Waste within the State and Disposal of Waste to Facility outside the State			
	*	In case the waste collector is collecting waste from a unit and sending it for onward treatment/disposal into a facility located outside the State, then the Waste collector has to submit application on google form.		
	*	The same procedure to be followed as mentioned in Part B i.e., collection of waste from industries, However, infrastructure/ siting will not be applicable		
	*	The following details have to be provided instead:		
		Details of Collection & transportation, like vehicle registration number . etc		
		Letter from the Facility (Final Disposal Facility)		
		Respective SPCB Consent/Authorization/Permission		
	*	The Registration/Permission to be issued for transporting/Disposal to the specific Facility		
II.	NOC / Approval for:			
	A.	Setting up of MRF (Permanent)		
	B.	Operation of MRF (Permanent) by Local Body		
A.	Setting up of MRF (Permanent) by Local Body			
	*	The Village Panchayat is required to make an application to the Goa State Pollution Control Board		
	*	Documents for Setting up MRF (Permanent)		
		Land Ownership Documents (in case of Land lease, Lease must be at least 5 years and above)		
		Site Plan		
		Proposal		
	*	Fees & Validity		
		Fees for setting up MRF with a validity for 1 year will be Rs. 5,000/-		
B.	Operation of MRF (Permanent) by Local Body			
	*	The Village Panchayat is required to make an application to the Goa State Pollution Control Board after setting up MRF (Permanent)		
	*	Documents for Setting up MRF (Permanent)		
	*	Land Ownership Documents (in case of Land lease, Lease must be at least 5 years and above)		
	*	Site Plan		
	*	Government Approval for MRF Structure for eg. Technical Clearance, TCP approval, etc		
	*	Fees & Validity		
		Fees for Operation of MRF with a Validity for 3 year will be Rs. 10,000/-		

III.	Applicability of Consent/Authorization	
	a.	Consent: GSPCB will not issue Consent for MRF, However Consent will be applicable for processes involved such as Baling /Shredding/ Reprocessing/ Mechanical Compost, etc. Local Body/Waste Collector will be required to obtain Consent for processes.
	b.	Consent + Authorization: Local Body/Waste Collector will be required to obtained. Consent + Authorization for Facilities having a daily capacity higher than 5 TPD.

II. GuIDELINES FOR WASTE COLLECTORS / SCRAP YARDS

1.	The scrap yards should compulsorily meet all guidelines issued by the Goa State Pollution Control Board (GSPCB), Town and Country Planning (T&CP), Health Department, Local body, Goa Industrial Development Corporation (GIDC), Labour & Employment Department, Directorate of Fire and Emergency Services and Revenue authorities from time to time which may include but not restricted to the following:
2.	The land in question shall meet the siting guidelines of GSPCB & T&CP
3.	The scarp yards shall comply with prevalent regulation, guidelines and by-laws of Panchayat or Municipality
4.	The applicant shall own or obtain the land on lease and shall provide the land ownership document in the format. For I & XIV/Sale deed/lease deed/GIDC allotment letter/allotment letter/NOC from Local Authority.
5.	The area used for waste collections/scrap yard shall not be water logged and a completely dry area
6.	The scrap yards must be fenced and have a concreted working area.
7.	The waste collected should be segregated as per type of waste
8.	Recyclable waste is required to be sent for recycling to agencies registered with GSPCB.
9.	Non-recyclable waste or RDF must be disposed only through GSPCB approved means such as waste to energy, co-processing at cement kilns or any other approved means and proper records maintained
10.	Waste collection must be transported in designated vehicles with compartments to prevent mixing of different waste streams
11.	The vehicle used for transportation must be covered and must also be equipped with a functioning leachate tank
12.	Separate compartments to be provided for different types of waste within the MRF.
13.	Separate area to be provided for baling machine
14.	Separate area to be provided for baled waste.
15.	Easy access shall be provided for handling of waste
16.	A proper access road shall be available up to the entrance of the yard to allow for a quick-fire tender movement in case of emergencies and fire audit to be carried out of scrap yard every 3 months through Department of Fire and Emergency Services.
17.	Portable water provision as well as toilets with soak pit and septic tank/ Sewer line for sewage shall be provided.
18.	Sufficient fire safety measures shall be implemented to safeguard human life and environment.
19.	All workers employed at the yard shall be registered with Labour & Employment Department and provided with requisite Personal Protective Equipment (PPE) to ensure their health and safety along with health card of workers is maintained. The labourers shall also be covered under Employees' State Insurance Corporation.
20.	Details of category-wise incoming and outgoing waste along with vehicle number and driver details must be maintained and shared with regulating agencies GSPCB as and when required as per their Annual Return formats under Air and Water Act. Such Information may be also shared with local Police as and when required.

21.	The scrap yard must have permanent Electricity and Water connection.	
22.	Category of waste to be stacked in proper racks separately and not beyond three meters height above ground level.	
23.	The recovered recyclable item should be sold/handed over only to the authorized recyclers/ dismantlers registered with State Pollution Control Boards	
24.	Also, adequate buffer must be maintained from residential areas, hospitals, educational institutions, religious institutions, public offices and markets etc as prescribed by GSPCB & TCP by the scrap yard for its material or which may cause potential danger to such installation or localities	
25.	Scrap yard registered owner will have to insure his scrap yard and its workers, besides for third party liability against accidents, injury, damage or loss of life	
26.	In case of scrap yards/waste collectors located outside industrial area:	
Sr.	Area	Distance from residence / water body / institutions / hospitals
1.	< 100 sq. mtrs.	50 mtrs.
2.	100 sq. mtrs. to 500 sq. mtrs.	100 mtrs.
3.	500 sq. mtrs. to 1000 sq. mtrs.	200 mtrs.
4.	Above 1000 sq. mtrs.	500 mtrs.
27.	The waste collection /scrap yards shall not handle wet waste in the said area without prior permission of GSPCB.	
28.	The waste collector/ scrap yards cannot handle waste defined under the Hazardous And Other Waste (Management & Trans boundary Movement) Rules, 2016 as amended, E-waste Management Rules, 2016 as amended, Battery Waste (Management and Handling) Rules, 2001 as amended Construction and Debris (Management & Handling) Rules, 2016 as amended thereafter and Biomedical Waste Management Rules, 2016 as amended	

Members approved the above guidelines as prepared by the Board.

Agenda item no. 08

Installation and connectivity to GSPCB Monitoring Systems

Member Secretary informed the members that the Boards mandate is to plan a comprehensive programme for the prevention, control of abatement of pollution of streams, wells and air pollution. She further informed that State Pollution Control Boards are also empowered to stipulate standards for discharge of environmental pollutants for various categories of industries and common effluent treatment plants (CETPs), Common Hazardous Waste and Bio-medical waste incinerators even more stringent than those notified by the Central Govt., under the Environment (Protection) Act, 1986 and Rules framed there under. She further informed that industries in various States are discharging environmental pollutants directly or indirectly into the ambient air and water which pose constant threat and cause adverse effect on water and air quality, for which State Pollution Control Boards / Pollution Control Committees are required to ensure installation and regular operation of the requisite pollution control facilities in the polluting industries for complying the prescribed standards by installing on-line effluent and emission monitoring devices.

Member Secretary further informed the members that inorder to strengthen the monitoring mechanism for effective compliance through self regulatory mechanism, the following directions were issued to all Industries / establishments / hotels having ETP of 50 Kld and above capacity and Sewage Treatment Plants of 100 Kld and above capacity and Steel Plants in Red and Orange Category to:

a.	To install Online Continuous Stack Emission Monitoring System (CSEMS) and Continuous Ambient Monitoring Station in Steel plants in Red and Orange category for the parameters (industry / sector specific parameters) mentioned in the Consent to Operate / Authorization not latter by 31st March, 2024 in consultation with the Board.
b.	To install online effluent quality monitoring system at the outlet of effluent / sewage treatment plants of industries / establishments / hotels having ETPs of 50 Kld and above capacity, STPs of 100 Kld and above capacity for the measure of the parameters (industry / sector specific parameter) like flow, pH, COD, BOD, TSS and for other consented parameters as per the guidelines provided not later than 31st March, 2024 in consultation with the Board.
c.	To connect and upload the online emission and effluent monitoring data at SPCBs / PCCs and CPCB server in a time bound manner but not later than 31st March, 2024 in consultation with the Board.
d.	To ensure regular maintenance and operation of the online system with temper proof mechanism having facilities for online calibration.

Members noted and accorded ex post facto approval.

Agenda item no. 09
Mobile / Data usage reimbursement to the staff of the Board

Member Secretary inform the members that the Board had earlier taken a decision to grant allowance towards mobile / data usage to the staff of the Board. It is now proposed to reimburse the amount after amending the Office Order. Members agreed for the same.

Member Secretary further informed that since staff of the Board are required to be on field, network connectivity is required to be provided to them, for which dongle is provided with reimbursement of yearly plan of the Jio Service Provider for data usage.

Members approved and accorded ex post facto approval.

Agenda item no. 10
Criteria for imposing Bank Guarantee

Member Secretary informed the members that he Board imposes Bank Guarantee based on the cost of the equipment's for pollution control devices or on case-to-case basis as approved by Member Secretary/Chairman. There were no guidelines of Board to impose Bank Guarantee and as such criteria as adopted by Telagana Pollution Control Board was followed so as to have uniformity in imposing Bank Guarantee (BG) .

Member Secretary placed the guidelines for imposing of Bank Guarantees as prepared by the Board for perusal.

Member Secretary informed the members that the Board has prepared the following guidelines which are placed before the members for perusal and approval:

1.	The Bank Guarantees to be imposed shall be based on the investment with minimum amount and maximum amount instead of imposing on investment percentage or equipment cost.
2.	The new slabs for the BG is fixed with minimum and maximum amount to be levied for Red and Orange category industries (The orange category slab amount will be 50% of the Red category slab amounts).

3.	In case of Green category industries, the imposition of the BG for the Green Category Industries will be levied on case to case basis not exceeding the minimum amount of B.G under Orange category.
4.	The criteria is applicable for all the Industries and Common Facilities. In respect of Health Care Establishments, the amount of Bank Guarantee levied may be Rs. 2 lakhs for 50-100 beds and Rs. 10 lakhs for 100 beds & above.
5.	Bank Guarantee Amount : The amount of BG to be imposed on the non-complying industries shall be levied as per the following table:

RED category industries:

Investment in Rs. (Crores)	Minimum amount of BG to be levied (Rs. in lakhs)	Maximum amount of BG to be levied (Rs. in lakhs)
up to 5	1	2
5-10	2	4
10-50	4	8
50-100	8	16
100-250	16	32
250-500	32	64
500 and above	64	128

ORANGE category industries

Investment in Rs. (Crores)	Minimum amount of BG to be levied (Rs. in lakhs)	Maximum amount of BG to be levied (Rs. in lakhs)
up to 5	0.5	1
5-10	1	2
10-50	2	4
50-100	4	8
100-250	8	16
250-500	16	32
500 and above	32	64

GREEN category industries : Imposition of the Bank Guarantees may not be required for Green Category Industries as they are mostly non-polluting in nature. However, the maximum amount of Bank Guarantee shall not exceed the minimum slab amount of Bank Guarantee under Orange Category, on case-to-case basis only, which will be decided by the Member Secretary, Senior Environmental Engineer and Taluka Assistant Environmental Engineer.

Residential Complexes

Investment in Rs. (Crores)	Minimum amount of BG to be levied (Rs. in lakhs)	Maximum amount of BG to be levied (Rs. in lakhs)
up to 5	5	10
5-10	10	15
10-50	15	20
50-100	20	25
100-250	25	30
250-500	30	35
500 and above	35	40

GENERAL:

1.	Bank Guarantees shall be levied on defaulting industries with reference to specific Consent to Operate, Hazardous Waste Authorization and conditions like illegal disposal of effluents outside / within the industries premises, illegal transportation of effluents / hazardous waste for disposal in unauthorized places, not meeting the stack / ambient air quality standards and effluent disposal standards, manufacturing of un-consented products & exceeding the consented products, shifting of units, etc .
2.	For new Red category large Industries during Consent to Establish to ensure compliance to Consent conditions with validity period of 5 years.
3.	For residential complexes during Consent to Establish to submit Bank Guarantee with validity period of 10 years
4.	The amounts of Bank Guarantee to be levied shall depend on the degree of non-compliance e.g : not having effluent treatment plant and air pollution control equipment, discharges / emissions are far in excess of the standards, non functioning of the ETP or air pollution control devices, operation of the industry without CTE / CTO, repeated violations inspite of giving adequate opportunity to rectify the lapses, stock of huge quantity of hazardous waste without sending to TSDF / cement plants etc., may be considered as highest degree of non-compliance. Non installation of monitoring equipments like Continuous Emission Monitoring Systems (CEMS), Continuous Ambient Air Quality Monitoring (CAAQM) stations. VOC – Online analyzers, failure to connect to APPCB website, not providing closed sheds / enclosures to fine raw materials / products yards, etc., may be considered as minimum degree of non-compliance. Other non compliances like causing fugitive emissions by which surrounding environment is affected, odour problems etc., may be considered under intermediate level of non-compliance.
5.	Bank Guarantees shall be levied on industries / CETP's / TSDF's/ other facilities for ensuring the technological / other up-gradation of air pollution control equipments, effluent treatment plants and installation of facilities for handling of effluents / Hazardous Waste (Storage & Handling) within the specified time bound program / schedule.
6.	Bank Guarantees shall also be levied on habitual violating Health Care Establishments (HCEs) and construction projects on specific conditions with regard to segregation, collection, transportation, disposal, construction and commissioning of STPs/ ETPs, noise pollution prevention measures, etc.
7.	For any other specific purposes specified by the State Government / Central Government / CPCB / Judicial Bodies i.e. Hon. Appellate Authority, Hon. Courts, National Green Tribunal, SHRC, NHRC, etc.
8.	The validity period of Bank Guarantee in general shall be one year for defaulting industries and minimum 10 years for new industries in Red Category Industries. Any exemption or relaxation of Bank Guarantee in specific cases and release of the Bank Guarantee will be decided by the Member Secretary / Chairman on case-to-case basis.

Members deliberated on the fee structure and the conditions for imposing the Bank Guarantee and approved the above guidelines as prepared by the Board same for implementation.

Agenda item no. 11

Proposed 2nd International Environment and Sustainability Summit

Member Secretary informed the members that the Board is proposing to hold the 2nd International Environment and Sustainability Summit from 6th to 8th February, 2024 at Dr. Shyama Prasad Mukerjee Indoor Stadium, Taleigao, as the 1st Summit drew a good response.

Member Secretary further informed the members that the expenditure incurred last year was Rs. 2.9 Crores, and this year the expenditure may be slightly more.

She further informed the members that the International Summit shall be a platform for industries to showcase their technology in environment / pollution control measures /good management practices of the industries in the field of environment protection, sustainable products etc. The Summit will be a great opportunity for B to B interaction and B to C and to students to interact with the industries, Scientists and Experts. International and National experts in the field of Environment shall be invited to deliver talks for the International Conference, for which the Board will have to make all arrangements for stay / food, travel etc. for which arrangements will be done. All Speakers shall be treated as eminent personalities for TA/DA claim or upto Rs. 12,000/- per head.

Members deliberated and approved for organizing the 2nd International Environment and Sustainability Summit during the 1st week of February, 2024. The members also approved for an approximate expenditure of Rs. 3.5 Crores towards conduct of the Summit

IV. With the permission of the Chair, the following Table items were taken for discussion.

Table Item no. 01

Request from M/s. South West Port Limited for amendment in the Consent to Operate

Member Secretary informed the members that the Board was in receipt of a request from M/s. South West Port Limited for partial amendment of the monthly Consent to Operate limits from Berth 5A & 6A, Mormugao Harbour, for adjustment of leverage to finish the shipment as follows:

1. Handling of Coaking Coal/Coke (Import) of 5.5 MMTPA, however 0.4 MMT per month from February to May with a leverage 20% to finish the shipment. 1.95 MMT to be handled during the month of June to September with leverage 20% to finish the shipment and 0.485 MMT per month to be handled equally during the months of January to October to January with a leverage 20% to finish the shipment. 2 Limestone (Import) of 1 MMT/Annum. 3. Steel Product (Export) of 2 MMT/Annum

She further informed that the application was placed before Technical Advisory Committee which recommended for grant of Amendment to the Consent to Operate, based on which amendment was issued.

Members noted and accorded ex post facto approval.

Table Item no. 02

Request from M/s Adani Mormugao Port Terminal Private Limited (AMPTPL) for distribution of cargo handling.

Member Secretary informed the members that the Board is in receipt of a request from M/s Adani Mormugao Port Terminal Private Limited (AMPTPL) for handling of cargo with quarterly distribution of volumes within the annual permitted Consent to Operate limits with increasing leverage for adjustment of leverage to finish the shipment which is as follows:

a. Handling of coaking coal/coke (Import), Handling of coal from ship to barge and handling of coal from ship to berth storage yard using material handling system and loading of storage cargo into barge using Material Handling System (MHS) of 5.2 MMTPA.

b. 0.38 MMT per month from February to May with leverage of 20% to finish shipment

c. Total quantity to be handled during February to May will be restricted to 1.52 MMT.

d. 1.80 MMT to be handled during the month of June to September.

e. 0.47MMT per month to be handled equally during the month of October to January with a leverage 20% to finish the shipment.

Member Secretary further informed the members that the application for request for partial amendment of the monthly Consent to Operate limits was placed before Technical Advisory Committee and the Committee had recommended for grant of Amendment to the Consent to Operate

Members deliberate and approved for amendment in the Consent to Operate.

Table item no. 03
Environmental Guidelines for Stone Crushing units

Member Secretary informed the members that the Board is in receipt of a letter from the Central Pollution Control Board with regard to Environmental Guidelines for stone crushing units as formulated by the Central Pollution Control Board for implementation by the States. She further informed the members that the Board shall adopt the guidelines as received by the Board.

Members perused an approved the Environmental guidelines for stone crushing units as prepared by Central Pollution Control Board for implementation.

Table item no. 04
Grant of one-time authorization under the Bio-medical Waste Management Rules,

2016 to non bedded health care facilities

Member Secretary informed the members that the Board issues authorization under the Bio-medical Waste Management Rules, 2016 to bedded and non bedded health care facilities, for bedded health care facilities, the validity of authorization is synchronized with the validity of the Consent to Operate issued under the Air Act and Water Act, whereas for non bedded facility authorizations are issued under the Rules with a maximum validity period of 10 years as per the Notification of the Govt. dated 02/06/2022.

Member Secretary further informed the members that the Board is in receipt of representation requesting for exemption in the authorization fees for non bedded facilities.

The Members after deliberations decided to charge a one time fee for non bedded health care facilities as authorization fees amounting to Rs. 15,000/-, subject to there is no change in name of the Occupier, address and waste quantities. It was further decided that non bedded health care facilities requiring authorization for a lesser period shall pay the corresponding fees for the required period amounting to Rs. 1000/- per annum. It was also decided that healthcare facilities be inspected by the Board officials during the process of grant of authorization or during regular monitoring.

Members also decided that in case of non compliance of the Rules, the facilities be penalized as per the guidelines issued by Central Pollution Control Board for environmental compensation..

V. Chairman informed the members that the staff of the Board dealing with the subject matter of handling of the municipal solid waste are being deputed to Indore, Madhya Pradesh to acquaint themselves with the functioning of the system with reference to the door to door collection, segregation of waste. He informed that the said visit is scheduled from 9th to 13th October, 2023. He further

informed the members that those desiring to visit Indore may inform the Board office accordingly. The visit is being organised by the Board in collaboration with GIZ.

The meeting ended with thanks to the Chair.

MINUTES OF THE 157TH MEETING OF THE GOA STATE POLLUTION CONTROL BOARD HELD ON 9TH JANUARY, 2024 AT 3.00 PM, IN THE CONFERENCE HALL OF THE BOARD

I. The 157th meeting of the Goa State Pollution Control Board was held on 9th January, 2024 at 3.00 pm in the Conference hall of the Board.

The following members attended the meeting:

1.	Mr. Mahesh K. Patil, Chairman
2.	Chief Inspector of Factories and Boilers, was represented by Shri. Pandurang Malik
3.	Chief Engineer, Water Resource Department was represented by Smt. Sushma S. Shirodkar, Assistant Surveyor
4.	Shri. Levinson J. Martins, Managing Director, Goa Waste Management Corporation
5.	Shri Shubham Chodankar, Councillor, Corporation of the City of Panaji
6.	Shri Ashirwad T. Khorjuvenkar, Councillor, Mapusa Municipal Council,
7.	Shri Pradip K. Naik, Councillor, Curchorem – Cacora Municipal Council,.
8.	Shri. Srinivas Dempo, President, Goa Chamber of Commerce & Industries
9.	Shri Nilesh Shah, President, Travel and Tourism Association of Goa
10.	Shri. Anirudh Agrawal, Chairperson, Confederation of Indian Industries
11.	Shri. Sanjay Naik, Panch Member, Village Panchayat Sanvordem
12.	Dr. Nutan D. Bicholkar, Councillor, Mapusa Municipal Council
13.	Dr. Shamila Monteiro, Member Secretary

Mrs. Jyoti Sardessai, Dte. of Food and Drugs Administration and Shri. Harish Adconkar, Managing Director, Goa State Infrastructure Development expressed their inability to attend the meeting. Leave of absence was granted.

II. At the outset the Member Secretary welcomed the Chairman and Members for the 157th meeting of the Board. With the permission of the Chair, she instructed Dr. Mohan Girap, Scientist 'C' to make a presentation on the activities carried out by the Board during the last three months:-

1.	Environment Audit by an Environment Audit Team constituted by the Board. - updates.	
	a.	Majority of the units located in Cuncolim Industrial Estate completed.
	b.	Selective Major units in Pilerne Industrial Estate is completed.
	c.	Few units located in Kundaim Industrial Estate have been completed.
	d.	Major units in Verna Industrial Estate has been completed.
	Continuation of Awareness drives on Ban on Single use Plastic (SuP) in Educational Institutes through M/s Sensible Earth.	
2.	Swachhata Hi Seva campaign was organized on 2nd October 2023 - In and around Panaji and in and around Verna Industrial Estate.	
3.	Chairman was invited by BITS Pilani, Goa campus, Sancoale for a Panel discussion on "Start-up Initiatives.	

4.	Chairman had interaction with GRI officials – Ms. Aditi Haldar & others as well as to attend South Asia Network Meet at New Delhi .	
5.	Officers of the Board (M.S., and Asst. Env. Engr.,) visited Uttarakhand to understand the operational mechanism of Deposit Refund Scheme (DRS) : effective collection and disposal system .	
6.	Hands-on training on E-office software (*to replace existing FLM-based system*) to Board officials by DoIT, Goa.	
7.	Blood Donation Camp was conducted in association with the Asilo Hospital, Mapusa.	
8.	Officers of the Board visited Sonmarg (Jammu and Kasmir) for 10th Greentech CSR India Summit and Awards– 2023 organised by the GreenTech Foundation.	
9.	Officials of Central Road Research Institute (CRRI), New Delhi, visited the Board in respect to Noise Mapping Study to be conducted for the State of Goa.	
10.	National Conference to showcase State-of-the-Art Infrastructure Facilities and initiatives in Solid and Sewage Waste Management by Goa Waste Management Corpaotion held from (*6th – 8th December 2023*) attended by Hon. Chief Minister, Minister for Science and Technology and other dignitaries.	
11.	Officials of GSPCB visited Indore along with representatives from Local Authorities (Municipal Councils / Panchayats) and Mineral Foundation of Goa (MFG) from 13th – 16th December 2024.	
12.	Workshop on Noise Mapping exercise in association with Central Road Research Institute (CRRI), New Delhi on 21st December 2023 was held in the Board Auditorium.	
13.	a.	Online Continuous Noise-level monitoring (real-time) instruments have been procured through M/s Welan Technology Pvt. Ltd.,(*Make – SvaNET, Poland*).
	b.	Technology Information Centre (TIC) and Online Environmental data Monitoring Centre (OEDMC) have been established at the Board.

III. Thereafter, the following Agenda items were taken up for discussion and deliberation.

Agenda item no. 1

Confirmation of the minutes of the 156th meeting of the Goa State Pollution Control Board held on 12/09/2023.

The Member Secretary informed the members that the minutes of the 156th meeting of the Board held on 12/09/2023 were forwarded to all the members vide this office letter no. 4/156/23-PCB/ Admn./14075 dated 29/09/2023. As no comments were received from any members, the minutes of the meeting were confirmed, so as to enter the same in the Minutes Book.

Agenda item no. 02

Follow up action on the decision taken at the 156th d meeting of the Board held on 12/09/2023.

Agenda item no. 04 – Members noted that the selection process for the post of JRF (Legal) is in process.

Agenda item no. 07 - Members noted that the draft guidelines for Scrap yards in the State of Goa, have been forwarded to the State Government for notification.

Agenda item no. 09 - Members noted that Office order is issued with respect to Mobile / Data usage reimbursement to the staff of the Board

Agenda item no. 10 – Members noted that the criteria for imposing Bank Guarantee has been implemented by the Board.

Agenda item no. 11 – Members noted the preparations being made by the Board in respect to the 2nd International Environmental and Sustainability Summit scheduled from 8th to 10th February, 2024.

Table Item no. 02 – Members noted that Consent to Operate with partial amendment to the limits for handling of coal / coke has been issued to M/s Adani Mormugao Port Terminal Private Limited (AMPTPL)

Table item no. 03 – Members noted that the Environmental guidelines for stone crushing units as prepared by Central Pollution Control Board are being implemented by the Board.

Table item no. 04 - Members noted that one-time authorization under the Bio-medical Waste Management Rules, 2016 to non bedded health care facilities is being implemented by the Board.

V. Members noted the visit undertaken to Indore, Madhya Pradesh by Board members and officials of the Board to study the handling of the municipal solid waste door to door collection, segregation of waste.

Agenda item no. 03

Maintaining of Buffer Zone for establishing a Theme park/ garden in Goa from the existing Garbage treatment plant in Survey No. 310/1-A, Pernem- Goa

Member Secretary informed the members that M/s Bramha Corp Theme Park LLP is granted in principle approval by Goa Investment Promotion and Facilitation Board (GIPB) to establish a theme park/ garden in Survey No. 310/1, admeasuring 10,524 sq. mtrs. 311/0 admeasuring 86,700 sq. mtrs. in Pernem village, Pernem Taluka , North Goa.

She further informed the members that the said area is notified by Town and Country Planning Department in the Regional Plan, Goa, 2021 as Buffer Zone and is adjoining a 5 TPD Waste Management Plant of Pernem Municipal Council. She further informed that as per the Regulatory Framework under **'**Guidelines on the provision of Buffer Zone around Waste Processing and Disposal Facilities' issued by Central Pollution Control Board (March 2019) quotes provisions related to Buffer Zone specified in the said Waste Management Rules, 2016 as under ;

Schedule I (A) (ix) - *A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five tonnes per day of installed capacity. This will be maintained within the total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local body in consultation with concerned State Pollution Control Board.*

Separation Distances for Solid Waste Processing and Disposal Facilities under 'Guidelines on the provision of Buffer Zone around Waste Processing and Disposal Facilities' states as under:

Ideally, a distance of 500 meter from the boundary of the Solid Waste Processing and Disposal Facility (sanitary landfill) should be maintained. However, on case to case basis a distance of minimum 200 meter from the Solid Waste Processing and Disposal Facility (sanitary landfill) can be considered subject to the condition that such facility meets the stipulated standards prescribed by State Pollution Control Board with respect to ambient air as well as for stack emissions.

Member Secretary further informed that Pernem Municipal Council, vide letter dated 19/10/2023 has conveyed to the Board that the Council has passed a Resolution 'To restrict the buffer zone to 100 meters radius from the existing garbage treatment plant in survey No. 310/1-A so that the plant remains operational without causing any nuisance to the further development in the jurisdiction'.

Members perused and approved to restrict the buffer zone to 200 metres radius from the existing garbage treatment plant in survey no. 310/1-A.

Agenda item no. 04

Revision for fees for Authorizations**.**

Member Secretary informed the members that the Board receives application from the industrial unit registered with the Board requesting to issue quarterly certificates for compliance for imports and compliance certificates, at present no fees are being levied in the Rules. It was now proposed to levy a fee of Rs. 5000/- per certificate.

Member Secretary informed the members that at the 122nd Board meeting held on 28th November, 2016, a fee Rs. 10000/- for processing Authorization under Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, as considerable time is passed of six years it is proposed to revise the authorization fees for the Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 from the present fee of Rs. 10000/- to Rs. 15000/-.

The members perused and approved as follows: :

Sr.	Item	Fee chargeable
1.	Authorization under Hazardous and other Wastes (Management and Trans-boundary Movement) Rules 2016	Rs. 15000/-
2.	Authorisations under E waste management rules 2016	Rs. 15000/-
3.	Authorisation under the Solid waste management rule 2016	Rs. 15000/-
4.	Registration under Plastic Waste management rule	Fresh registration with validity of one year Rs. 5000/- and subsequent renewal application Rs. 15000/- for three years

Agenda item no. 05

Aerial Survey of North Goa Coastal stretch as per National Geo-spatial Policy, 2022

Member Secretary informed the members that the Board proposes to conduct Aerial Survey & Mapping of a Coastal stretch in North Goa District, to demarcate hotels, residential building, houses, beach shacks, recreation parks, open plots and other tourism recreation related activities on the beaches in North Goa. The aerial survey is necessary as per the National Geo spatial Policy, 2022 and is widely accepted information.

Members perused the agenda notes and approved for conducting Aerial survey and mapping of a coastal stretch in North Goa District.

Agenda item no. 06

Online Continuous Ambient Air quality monitoring (AAQMS) along the mining routes in Goa.

Member Secretary informed the members the Board receives applications requesting to conduct Ambient Air Quality Monitoring (AAQM) to ascertain the ambient air quality during the transportation of iron ore along the transportation routes. She further informed that the conventional method of monitoring will not serve the purpose, as such it was proposed to install Continuous Online Ambient Air Quality Monitoring systems along the mining transportation route to measure parameters like PM10, PM2.5, NO2 and SO2 as per uS-EPA/ MCERTS approved system, as these systems will improve the effectiveness of monitoring along the transportation routes. Member Secretary further informed that a total of 23 locations have been identified for North Goa and South Goa based on the existing routes.

After deliberations the members approved for installation of Continuous Online Ambient Air Quality Monitoring systems as 23 locations as identified by the Board.

Agenda item no. 07

Setting up of two Online Continuous Ambient Air quality monitoring (CAAQMS).

Member Secretary informed the members that presently the Board conducts ambient air quality monitoring at Cuncolim Industrial Estate, Cuncolim and Panaji city through MoEF&CC approved Environmental Laboratory, twice a week by conventional method.

She further informed that these stations are now proposed to be replaced by CAAQMS at Cuncolim Industrial Estate and Panaji City as per NAAQS Standard, 2009. The parameters which will be measured are PM10, PM2.5, NO2 & SO2 on daily basis, AQI will be calculated and Meteorological parameters ie. Wind speed, Wind directions, Relative Humidity and Solar radiation will also be available through this system.

Members noted and approved for replacing the present stations with Online Continuous Ambient Air quality monitoring Stations.

Agenda item no. 08

Standards for Sewage Treatment Plants for discharge of water

Member Secretary informed the members that the Board at its 150th Board meeting held on 30th December, 2021 had approved Discharge standards for Sewage Treatment Plants as defined under section 3 in the Environment (Protection) Rules, 1986.

She further informed that the Technical Advisory Committee (TAC) at its 25th meeting held on 30th October 2023, had recommended that the treated parameters should be as per National Green Tribunal directions and be made applicable to all STP's, however the Board during 150th meeting held on dated 30th December 2021, had approved discharge treated effluent standard for STP upto 150 KLD. It was also informed that TAC at its 25th TAC recommended that the Board should re-consider the decision with regards to the STP discharged standards to units less than 150 KLD STP, since the Board is getting complaints regarding water bodies getting polluted and discharge from the STPs and non- operational of STPs.

Member Secretary proposed to the members that based on the Order of the National Green Tribunal in the matter of O.A 1069/2018 and recommendations of the TAC, the Board should have uniform treated water discharge standards for all the Sewage Treatment Plants irrespective of the capacity of STP. Members deliberated and approved the following standards.

Parameters	Discharge on land for irrigation, Inland surface water	
pH	Between	5.5 & 9.0
Total Suspended Solids	Not to exceed	Not more than 20
BOD, 3 days, 27^{o} C	Not to exceed	10 mg/l
COD	Not to exceed	50 mg/l
Phosphorus Total (Discharge in lakes/water bodies)	Not to exceed	1.0mg/l
N-total	Not to exceed	10mg/l
Feacal Coliform	Less than	100mg/l
Oil & Grease	Not to exceed	10mg/l
NH4-N (Discharge in lakes/water bodies)	Not to exceed	5mg/l

**Note: The oil & Grease and NH4-A is not notified in the Environment Protection Rules, 1986 amended in 2017. However, considering the effect of oil and grease and ammonical N, standards for discharge in rivers are added.

Agenda item no. 09

Levying of fees for issue of compliance certificates

Member Secretary informed the members that the Board receives application from registered industrial units requesting to issue quarterly compliance certificates for imports. Since there are no specific fees levied in the Rules, no fees were being charged, it is now proposed to levy a fee of Rs. 5,000/- for issue of quarterly certificates for compliance for imports. Members approved for levy of the fee.

Agenda item no. 10

Conference of the Chairmen / Member Secretaries of the State Pollution Control Boards / Pollution Control Committees.

Member Secretary informed the members that Central Pollution Control Board conducts its regular Conferences with the Chairmen / Member Secretaries of the State Pollution Control Boards / Pollution Control Committees which are held in different States. She further informed that members that Chairman of the Board had proposed to Central Pollution Control Board to schedule the conduct of the Conference in Goa in the month of February, 2024, which will also coincide with the 2nd International Environmental Sustainable Summit, 2024, being organized by the Board from 8th to 10th February, 2024.

Member Secretary further informed that all expenses and modalities will be worked out by the Central Pollution Control Board and Goa State Pollution Control Board will be assisting in making necessary arrangements.

Members noted and approved.

Agenda item no. 11

Providing lodging and Boarding to VVIP Guests

Member Secretary informed the members that at times the Board invites Hon. union Ministers, Secretaries, Govt. of India and other dignitaries of high-ranking importance and the Board is required

to host and provide lodging and boarding to these esteemed Guests. Members noted and approved the lodging and boarding to these Guests in 5 starred Hotels.

III. With the permission of the Chair, the following Table items were taken for discussion.

Table item no. 01

Finalization of the unaudited accounts for the financial year 2017 - 2018

Members Secretary informed the members that the accounts for the financial year 2017-2018 have been compiled and finalized pending approval.

The External Auditor for Goa State Pollution Control Board, P.B. Deshpande & Co Chartered Accountants was requested to address the Board members regarding the deficiencies in Accounts of the Board. The partner of P.B. Deshpande & Co Chartered Accountants, Smt. Prachi Bharne highlighted the following points at the meeting.

a.	An amount of Rs 2,44,10,667/- is received on 17/03/2018, but no information on source of such amount is available with Goa State Pollution Control Board. Such amount is shown as an un-reconciled receipt in the current liabilities of the balance sheet.
b.	Oriental Bank of Commerce Monitoring A/c no. 0492 had an opening balance of Rs. 47,19,679.42/- and Rs 1,26,71,658/- and was seen two times in the closing balance sheet of the previous financial year. However, an amount of Rs 47,19,679.42/- was transferred to Reserves and Surplus so as to reflect a correct picture in the current years financial statements. No evidence was provided as to why such amount is reflected twice in the books of accounts of the previous financial year.
c.	Fixed Deposits of State Bank of Travancore of Rs. 1,06,09,542/- was closed in financial year 2016-2017 dated 8th October, 2016 was seen in the closing balance sheet of the previous financial year. The opening balance was thus incorrect in the current financial year and hence, such amount was transferred to Reserves and Surplus.
d.	union Bank of India showed a balance of Rs 9373.31/- in the closing balance sheet of the previous financial year incorrectly. The Bank account showed a NIL balance as per the Bank statement. On verification of the Bank Account it was seen that an amount of Rs.1969/- was charged for expenses of the Bank Account and hence was charged to Reserves and Surplus. The Balance of Rs 7404.31/- was transferred to RBI as the Bank Account remained unutilized. The same is shown under the Head of Reserve Bank of India under Sundry Debtors as the same will be recovered after successful KYC updation.
e.	Grants were received for laboratory equipment for financial year 2012-2013… Rs. 25,17,725/-, financial year 2013-2014…. Rs. 46,21,395/- , financial year 2014-2015….. Rs. 36,23,763/- and financial year – 2015-2016 …. Rs.1,86,79,670/- but on purchase of laboratory equipment such amount was not transferred to Reserves and Surplus and such grant was still seen in unutilized grants incorrectly. Hence entries were passed in the current financial year to transfer such amounts. No evidence was provided as to why such entries were not passed in the Books of Accounts of the previous financial year.
f.	Opening balance of Rs 6 lakh Bank Guarantee was seen in the Books of Accounts as a current liability. However, no amount confirmation or party bifurcation received for the same.
g.	M/s Aditya Env. Services Private Ltd is a sundry creditor with an outstanding balance of Rs. 2,65,298.89/- in the Books of Accounts. However no confirmation received from the said party.
h.	The Oriental Bank of Commerce SEAC & SEIAC Account no. 1380, have receipts and payment entries passed which are consolidated in nature. Such entries have been shown as related to the previous financial year. They are not bifurcated and common entry is passed. No explanation is provided as to why such entries were not passed in the previous financial year.
i.	TDS paid to contractors is deducted u/s 194 J instead of 194C incorrectly.

j.	TDS of Rs. 4,370/- and Rs. 4,285/- is passed in Tally under the nature of Professional fees but paid under 24Q (Salary) as TDS on salary incorrectly.
k.	The TDS provision on payment of advances (for building and SAP software) have not been complied with by the Board. Non deduction of tax leads to disallowance of expenses under the Income Tax Act, coupled with corresponding interest and penalties. Tax needs to be deducted and paid in time on all applicable cases to avoid resultant interest and penalties.
l.	Grants pending for utilization Rs 1,475.80 and grants related to Fixed Assets pending for utilization Rs 2,191.00 have an outstanding credit balance and no explanation is provided as to why such amounts are still outstanding.
m.	Grant from Central Pollution Control Board Old Rs 63,23,434/- has an outstanding credit balance and no explanation is provided as to why such amounts are still outstanding. No documents are provided to verify the origin of this grant.
n.	The Board has reported the tax deducted at source on its income from FDR as a Current Asset being an amount Rs. 73,62,356/-. However the recoverability of the amount being remote and the same should be written off. This would have had the effect of reducing the surplus for the year and reducing the balance of current assets by like amount.
o.	Rs 55,25,952/- of financial year 2015-2016 and Rs 1,02,952 of financial year 2016-2017 were transferred from Oriental Bank Of Commerce, Monitoring A/c no. 0492 to previous years income of MCWC. No details were provided on why such entries were not passed in the previous financial year

After deliberations, the members accepted the above deficiencies.

Table item no. 02

Final Award in Arbitration matter filed by Mr. Gerald D'Cunha

Member Secretary placed before the members the Arbitration award passed by the Arbitrator with respect to the Agreement entered by the Board with Mr. Gerald Da Cunha Proprietor of M/s Architecture Autonomous for providing architectural consultancy services for the construction of the laboratory cum office building for the Goa State Pollution Control Board at Saligao, Bardez Goa.

After detailed deliberations and on considering the opinion of the Boards Advocate the members resolved to accept the Arbitration Award dated 12/12/2023 passed by the Arbitrator in the Arbitration proceedings filed against the Board by Mr. Gerald D'Cunha.

The members further requested the Chairman of the Board to explore as to whether it will be possible to negotiate with Mr. Gerald D'Cunha with regard to reduction in the Arbitral amount payable by the Board.

IV. The meeting ended with thanks to the Chair.

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CHAPTER 4

COMMITTEES AND SUB-COMMITTEES CONSTITUTED BY THE BOARD AND THEIR ACTIVITIES

4.1 WASTE DISPOSAL COMMITTEE:

Waste Disposal Committee constituted. Refer Annexure - I.

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4.2 EQHS VIOLATION COMMITTEE

EQHS Violation Committee constituted. Refer Annexure – II.

4.3 GREEN BUILDING IGBC CERTIFICATION

Green Building IGBC Certification committee constituted. Refer Annexure – III.

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CHAPTER 5

MONITORING NETWORK FOR AIR AND WATER QUALITY

5.1 NATIONAL AIR MONITORING PROGRAMME (NAMP)

Central Pollution Control Board is executing a nation-wide programme of Ambient Air Quality Monitoring National Air Quality Monitoring Programme (NAMP). under NAMP project Goa State Pollution Control Board (GSPCB) monitors 18 Ambient Air Quality Monitoring (AAQM) locations within the state of Goa. Besides the 18 AAQM locations, Board monitors additional one location at Fire Brigade Station, MPT (source station) (This station is discontinued as NAMP station). The following are the stations under the NAMP project.

1. Panaji Town, Near GSPCB Office
2. Vasco Town, Fuse off Call Office
3. MPT Quarters, Baina
4. Assanora
5. Bicholim
6. Honda
7. Codli
8. Amona
9. usgao
10. Curchorem*
11. Sanguem
12. Tilamol-Quepem
13. Margao Town
14. Mapusa Town
15. Ponda Town
16. Kundaim Industrial Estate
17. Cuncolim Industrial Estate
18. Tuem Industrial Estate

19. MPT (GSPCB Source Station)
    *not operational due to site constraint

Out of the 18 AAQM locations 15 AAQM locations are outsourced to MoEF&CC recognized Laboratory and 3 stations sampling and analysis conducted by Boards staff.

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The geographical location of the 18 air quality monitoring stations is shown in the map presented in Figure **5.1**.

Figure 5.1: Map of Goa showing the Ambient Air Quality Monitoring Stations under the National Air Monitoring Programme (NAMP)



5.2 TREND STATUS OF AMBIENT AIR QUALITY IN GOA

5.2.1 AMBIENT AIR QUALITY IN OTHER AREAS OF GOA (RESIDENTIAL/COMMERCIAL /INDUSTRIAL LOCATIONS)

Parameters like Particulate Matter (PM_{10}), Particulate Matter ($PM_{2.5}$), Sulphur Dioxide (SO_2) and Nitrous Oxide (NO_2) have been monitored at all the stations. The data has been displayed in terms of Air Quality Index (AQI) in **Annexure IV** for the various locations monitored. Air Quality in the State of Goa as per the locations monitored for the period 2023-2024 is Good to Satisfactory for maximum time of the year. However, it is satisfactory to moderate for Industrial Estate like Cuncolim. The field observations around the monitoring locations indicates prominence of anthropogenic activities like vehicular movements, construction and industrial emmissions.

NATIONAL AMBIENT AIR QUALITY STANDARDS CENTRAL POLLUTION CONTROL BOARD NOTIFICATION

New Delhi, the18thNovember, 2009

No.B-29016/20/90/PCI-L—In exercise of the powers conferred by Sub-section (2) (h) of section 16 of the Air (Prevention and Control of Pollution) Act, 1981 (Act No. 14 of 1981), and in super session of the Notification No(s).S.O. 384(E), dated 11th April, 1994 and S.O. 935(E), dated 14th October, 1998, the Central Pollution Control Board hereby notify the National Ambient Air Quality Standards with immediate effect, namely:-

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time Weighted average	Concentration in Ambient Air		Methods of Measurement
			Industrial, Residential, Rural and Other Area	Ecologically sensitive area (notified by Central Govt.)	
(1)	(2)	(3)	(4)	(5)	(6)
1	Sulphur Dioxide (SO_2), mg/m^3	Annual*	50	20	• Improved West and Geake • Ultraviolet fluorescene
		24 hours**	80	80	
2	Nitrogen Dioxide (NO_2),mg/m^3	Annual*	40	30	• Modified Jacob & Hochheiser (Na- Arsenite) • Chemiluminescence
		24 hours**	80	80	
3	Particulate Matter (size less than 10 mm) or PM_{10} mg/m^3	Annual*	60	60	• Gravimetric • TOEM • Beta attenuation
		24 hours**	100	100	
4	Particulate Matter (sizelessthan2.5 microns) or$PM_{2.5}$ mg/m^3	Annual*	40	40	• Gravimetric • TOEM • Beta attenuation
		24 hours**	60	60	
5	Ozone(O_3)mg/m^3	8 hours **	100	100	• u V photometric • Chemiluminescence • Chemicalmethod
		1 hour **	180	180	
6	Lead(Pb) mg/m^3	Annual*	0.5	0.5	• ASS / ICP method after samplingon EPM 2000 or equivalent filter paper • ED – XRF using Teflon filter
		24 hours**	1.0	1.0	
7	CarbonMonoxide (CO) mg/m^3	8 hours**	2	2	
		1 hour**	4	4	
8	Ammonia(NH_3) mg/m^3	Annual*	100	100	
		24 hours**	400	400	
9	Benzene (C_6H_6) mg/m^3	Annual*	5	5	

10	Benzo(a)Pyrene (BaP) – Particulate phase only ng/m^3	Annual*	1	1	
11	Arsenic(As) ng/m^3	Annual*	6	6	
12	Nickel (Ni) ng/m^3	Annual*	20	20	

* Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

**24 hourly or 8 hourly or 1 hourly monitored values, as applicable, shall be complied with 98% of the time in a year.2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

Note: Whenever and wherever monitoring results on two consecutive days of monitoring exceed the limits specified above for the respective category, it shall be considered adequate reason to institute regular or continuous monitoring and further investigation.

AIR QUALITY INDEX (AQI)

Ambient Air Quality Monitoring data is utilized in the CPCB Air Quality Index (AQI) tool for effective dissemination of air quality information to the common person people in simple linguistic terms that is easily understood by public domain. An Expert Group comprising medical professionals, air quality experts, academia, advocacy groups, and SPCBs was constituted and a technical study was awarded to IIT Kanpur. IIT Kanpur and the Expert Group recommended the said AQI scheme. (ref Air Quality Index-CPCB)

There are six AQI categories, namely Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe, based on eight pollutants (PM_{10}, $PM_{2.5}$, NO_2, SO_2, CO, O_3, NH_3, and Pb) for which short-term (up to 24-hourly averaging period) National Ambient Air Quality Standards are prescribed. **(Refer Table 1).**

Table 1 : AQI Category, Pollutants and Health Breakpoints

AQI Category (Range)	PM_{10} 24-hr	$PM_{2.5}$ 24-hr	NO_2 24-hr	O_3 8-hr	CO 8-hr (mg/m^3)	SO_2 24-hr	NH_3 24-hr	Pb 24-hr
Good (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200	0-0.5
Satisfactory (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400	0.5 –1.0
Moderately polluted (101-200)	101-250	61-90	81-180	101-168	2.1- 10	81-380	401-800	1.1-2.0
Poor (201-300)	251-350	91-120	181-280	169-208	10-17	381-800	801-1200	2.1-3.0
Very poor (301-400)	351-430	121-250	281-400	209-748*	17-34	801-1600	1200-1800	3.1-3.5
Severe (401-500)	430 +	250+	400+	748+*	34+	1600+	1800+	3.5+

One hourly monitoring (for mathematical calculations only)

Based on the measured ambient concentrations, corresponding standards and likely health impact, is determined for each of these pollutants. The AQI values and corresponding ambient concentrations (health breakpoints) as well as associated likely health impacts for the identified eight pollutants are as follows (Refer Table 2).

Table 2: AQI : Associated Health Impacts

AQI	Associated Health Impacts
Severe (401-500)	**SEVERE : May cause respiratory effects even on healthy people and serious health effect on people with lung/heart diseases**
Very Poor (301–400)	**VERY-POOR : May cause respiratory illness to the people on prolonged exposure. Effect may be more pronounced in people with lung and heart diseases**
Poor (201–300)	**POOR : May cause breathing discomfort to people on prolonged exposure and discomfort to people with heart disease**
Moderately polluted (101–200)	**MODERATELY POLLUTED : May cause breathing discomfort to the people with lung disease such as asthma and discomfort to people with heart disease Children and older adults**
Satisfactory (51–100)	**SATISFACTORY : May cause minor breathing discomfort to sensitive people**
Good (0–50)	**GOOD : Minimal impact**

5.3 WATER QUALITY MONITORING IN THE STATE OF GOA

NATIONAL WATER QUALITY MONITORING PROGRAMME (NWMP)

Central Pollution Control Board (CPCB) in collaboration with State Pollution Control Boards (SPCBs) in the States and Pollution Control Committies (PCCs) in union Territories has established a National Water Quality Monitoring Network (NWMP) in order to assess status of Water Quality of Water Resources and to facilitate for prevention and control of pollution in Water Bodies. The Goa State Pollution Control Board (GSPCB) monitors water quality at 115 locations throughout Goa under the Central Pollution Control Board (CPCB) sponsored project National Water Quality Monitoring Programme (NWMP). The water bodies monitored include rivers, wells, canals, lake, reservoir, creek, nallah and also common STP's (Inlet & Outlet). Among the rivers, the estuarine rivers as well as the fresh water rivers which form a part of the riverine-network at water intake points for water treatment plants for public water supply. Ground water sources (bore-well water) located within the selective major industrial estates is also part of this programme. Besides selective Coastal beach-locations (20 nos. of coastal shoreline waters) along the coast of Goa are also included under NWMP network.

The 115 locations covered under this programme are distributed throughout Goa, such that 54 stations are located in the North District and 61 are located in the South District.

NORTH GOA				
Sr. No.	**Type**	**Rivers/ Lake / Canal / Wells / Creeks / STP / Beach / spring / waterfall**	**CPCB Classification as per designated best use**	**Location**
1	R	Rv. Tiracol	Class 'SW-II'	Tiracol
2	R	Rv. Chapora	Class 'C'	1. Near Alorna Fort, Pernem
3	R		Class 'SW-II'	2. Siolim
4	R	Rv. Kalna	Class 'C'	Chandel, Pernem
5	R	Rv. Madei	Class 'C'	Dabos, Valpoi
6	R	Rv. Valvanti	Class 'C'	Sankli, Bicholim
7	R	Rv. Bicholim	Class 'C'	Baranzan Nagar, Bicholim
8	R	Rv. Assanora	Class 'C'	Assanora
9	R	Rv. Sinquerim	Class 'C'	1.Candolim Side Near Bridge
10	R		Class 'C'	2.Nerul Temple
11	R	Rv. Khandepar	Class 'C'	Opa–Ponda
12	R	Rv. Mandovi	Class 'SW-II'	1.Tonca, Marcela
13	R		Class 'SW-II'	2.Amona Bridge
14	R		Class 'SW-II'	3.Mandovi Bridge
15	R		Class 'SW-II'	4.IFFI Jetty
16	R		Class 'SW-II'	5.Near Hotel Marriot
17	R	Rv. Mapusa	Class 'SW-II'	Culvert on Mapusa-Panaji Highway
18	L	Anjunem Lake	Class 'C'	Anjunem
19	L	Mayem Lake	Class 'C'	Mayem, Bicholim
20	L	Carambolim Lake	Class 'C'	Carambolim, Old Goa
21	C	Cumbarjua Canal	Class 'SW-II'	Corlim (Discharge Point of Syngeta Ltd.)
22	W	Well - Kudaim I.E.	Class 'A'	M/s Cadila Healthcare Ltd.
23	W	Well - Corlim I.E.	Class 'A'	Corlim Industrial Estate
24	W	Well - Pilerne I.E.	Class 'A'	M/s unichem
25	W	Borewell - Bethora I.E.	Class 'A'	Bethora Industrial Estate
26	W	Borewell - Madkaim I.E.	Class 'A'	Madkaim Industrial Estate

27	B	Tiracol Beach	Class 'SW-II'	Tiracol
28	B	Miramar Beach	Class 'SW-II'	Miramar
29	B	Calangute Beach	Class 'SW-II'	Calangute
30	B	Morjim Beach	Class 'SW-II'	Morjim
31	B	Vagator Beach	Class 'SW-II'	Vagator
32	R	River Mandovi	Class 'SW-II'	Ribandar-Chodan Ferry Point
33-A	STP	Influent Sample	-	Tonca STP
33-B	STP	Treated Effluent Sample	-	Tonca STP
34	Water Fall	Harwale Waterfall	Class 'C'	Harwale
35	Spring	Salmona Spring	-	Salmona, Saligao
36	R	upstream of River Mandovi, M/s Vedanta Pvt. Ltd.	Class 'SW-II'	Amona
37	R	Downstream of River Mandovi, M/s Vedanta Pvt. Ltd.	Class 'SW-II'	Amona
38	L	Batim Lake	Class 'C'	Goa Velha
39	Creek	St. Inez Creek upstream	Class 'B'	Panaji
40	Creek	St. Inez Creek Downstream	Class 'B'	Panaji
41	L	Dashi Lake	Class 'E'	Goa Velha
42	L	Toyyar Lake	Class 'E'	Chimbel
43	L	Pilerne Lake/saulem Lake	Class 'E'	, Pilerne, Sangolda
44	L	Bondvol Lake	Class 'E'	Calapur, Taleigao
45	L	Sulabhat Lake	Class 'E'	Agacaim
46	L	Curca Lake	Class 'E'	Tiswadi
47	L	Malebhaat Lake	Class 'E'	Tiswadi
48	L	Gawali maula Lake	Class 'E'	Tiswadi
49	L	Canturlim Lake	Class 'E'	Tiswadi
50	L	Parra Lake	Class 'E'	Bardez
51	L	Khandepar Lake	Class 'E'	Bicholim
52	B	Arambol Beach	Class 'SW-II'	Arambol
53	B	Baga Beach	Class 'SW-II'	Baga
54	B	Bambolim Beach	Class 'SW-II'	Bambolim

SOUTH GOA				
Sr. No.	**Type**	**Rivers / Lake / Canal / Wells / Creeks / Nallahs / Dam**	**CPCB Classification as per designated best use**	**Location**
1	R	Rv. Zuari	Class 'SW-II'	1.Panchawadi
2	R		Class 'SW-II'	2.Borim Bridge
3	R		Class 'SW-II'	3.Marciam Jetty
4	R		Class 'SW-II'	4.D/S of point where Kumbarjua Canal Joins
5	R	Rv. Sal	Class 'SW-II'	1.Rumder
6	R		Class 'SW-II'	2.Khareband, Margao
7	R		Class 'SW-II'	3.Pazarconi, Cuncolim (Near Culvert Margao- Cancona NH)
8	R		Class 'SW-II'	4.Orlim Bridge, Orlim
9	R		Class 'SW-II'	5.Near Hotel Leela, Mobor, Cavelossim
10	R	Rv. Talpona	Class 'C'	1.Canacona
11	R	Rv. Khandepar	Class 'C'	Codli near Bridge, u/s OPA waterworks, Sanguem
12	R	Rv. Kushawati	Class 'C'	Near Bund at Kevona, Rivona, Sanguem
13	L	Salaulim Lake	Class 'C'	Salaulim, Sanguem
14	L	Raia Lake	Class 'C'	Curtorim
15	L	Saipem Lake	Class 'C'	Saipem
16	L	Curtorim Lake	Class 'C'	Curtorim
17	C	Agricultural Canal	Class 'E'	Agricultural Canal upstream of Cuncolim I.E. (1 Km from M/s Nicomet Ind.)
18	C	Agricultural Canal	Class 'E'	Agricultural Canal downstream of Cuncolim I.E. (1 Km from M/s Nicomet Ind.)
19	C	Dando Creek	Class 'C'	Dando Mollo, Velsao, Marmugao
20	W	Well - Verna I.E.	Class 'A'	M/s Cipla Limited
21	W	Well - Sancoale I.E.	Class 'A'	Sancoale Industrial Estate
22	W	Borewell - Concolim I.E.	Class 'A'	Cuncolim Industrial Estate
23	B	Mobor Beach	Class 'SW-II'	Mobor

24	B	Baina Beach	Class ‘SW-II’	Baina
25	B	Galgibag Beach	Class ‘SW-II’	Galgibag
26	B	Colva Beach	Class ‘SW-II’	Colva
27	B	Velsao Beach	Class ‘SW-II’	Velsao
28	Dam	Chapoli Dam	Class ‘C’	Chapoli, Canacona
29	Creek	Colva Creek upstream	Class ‘SW-II’	Colva
30	Creek	Colva Creek Downstream	Class ‘SW-II’	Colva
31	Nallah	BethoraNallah upstream	Class ‘B’	Bethora
32	Nallah	BethoraNallah Downstream	Class ‘B’	Bethora
33	L	Sarzora Lake	Class ‘C’	Chinchinim
34	L	Ambulor Lake	Class ‘C’	Verna
35	L	Xeldem lake	Class ‘E’	Quepem
36	L	Nanda Lake	Class ‘E’	Quepem
37	L	Cottombi	Class ‘E’	Curchorem
38	L	Panchami Lake	Class ‘E’	Ponda
39	L	Tarvalem Lake	Class ‘E’	Shiroda
40	L	Macasana Lake	Class ‘E’	Macasana
41	L	Kamala Lake (komollamTollem)	Class ‘E’	Benaulim
42	L	Tarvale (Moigal) Lake	Class ‘E’	Shiroda
43	L	Dhulpe Lake	Class ‘E’	Shiroda
44	L	Betal Temple Lake	Class ‘E’	Keri, Ponda
45	L	Maimollem Lake	Class ‘E’	Vasco
46	L	Durga Lake	Class ‘E’	Chinchinnim
47	L	udden Lake	Class ‘E’	Shiroda
48	L	Talaulim Lake (Talsal Lake)	Class ‘E’	Ponda
49	L	Bandolem Lake	Class ‘E’	Sancoale
50	L	Orlim Lake	Class ‘E’	Orlim
51	L	SapuTollem (tollea Bandar)	Class ‘E’	Velim

52	L	VodleTollem	Class 'E'	Benaulim
53	L	Dhakte (diuler) Tollem	Class 'E'	Benaulim
54	L	Karmale Lake	Class 'E'	Ponda
55	B	Bogmalo Beach	Class 'SW-II'	Bogmalo
56	B	Betalbatim Beach	Class 'SW-II'	Betalbatim
57	B	Benaulim Beach	Class 'SW-II'	Benaulim
58	B	Varca Beach	Class 'SW-II'	Varca
59	B	Agonda Beach	Class 'SW-II'	Agonda
60	B	Palolem Beach	Class 'SW-II'	Palolem
61	B	Rajbhag Beach	Class 'SW-II'	Rajbhag

The total **115** locations are divided into two groups i.e., (i) **107** locations which are being monitored on monthly-basis and (ii) **8** locations (*i.e.* Bore wells located within selective industrial estates) are monitored on half yearly-basis as per CPCB protocol.

One Thousand Two Hundred and Fourteen (1214) samples were collected from above-referred locations and analyzed in our NABL accredited Board Laboratory during the year 2023-2024. The water-quality parameters / data obtained based on the analysis was interpreted using the Central Pollution Control Board's classification on the designated best use of the water body.

From the water Quality data analysis for the year 2023-2024, following is inferred: -

1. The water quality parameters such as pH, Dissolved Oxygen, Biochemical Oxygen Demand and Total Coliform of River Kalna at Chandel, River Assanora at Assanora, River Valvanti at Sanquelim, River Madei at Dabos, Harwale Waterfall, Anjunem Lake, River Khandepar at Codli, River Khushavati at Rivona, River Talpona at Canacona, Salaulim Resevoir at Salaulim and Chapoli Dam are within the permissible limits for class C (*fresh waters*) as per CPCB classification based on designated best use of rivers.

2. Out of the 12 measurements in a year the Total Coliform parameter of River Chapora near Alorna Fort, Pernem and River Khandepar at Opa exceeded only once in a year, River Bicholim at Barazan Nagar, Bicholim exceeded 9 times in a year and Dando Mollo Creek exceeded 4 times in a year for class C Classification.

3. Dashi Lake, Toyyar Lake, Bondvol Lake, Sulabhat Lake, Xeldem Lake, Nanda Lake, Cottombi Lake, Panchami Lake, Betal Temple Lake, Karmale Lake, Dhulpe Lake, udden Lake, Tarvalem Lake, Talaulim (Talsal Lake), Macasana Lake, SapuTollem Lake, Orlim Lake, VodleTollem Lake, Dhakte (Diuler) Tollem, Kamala Lake, Mayem Lake, Carambolim Lake, Sarzora Lake, Curtorim Lake, Saipem Lake, Batim Lake, Agricultural Canal upstream of Cuncolim Industrial Estate and Agricultural Canal Downstream of Cuncolim Industrial Estate are meeting the permissible limits for Class E.

4. pH parameter is below the permissible limit of the water sample of Ambulor Lake once in a year, Pilerne/ Saulem Lake twice in a year, Canturlim Lake 5 times in a year, Khandepar Lake 7

times in a year and Tarvalem(Moigal) Lake 6 times in a year and is exceeding the permissible limits of the water sample of Raitollem once in a year out of the 12 measurements in a year as per the Class E classification.

5. As per the Class E classification, the conductivity parameters is exceeding the permissible limits for the water samples of the Malabhaat Lake 8 times in a year, Gawali Maula Lake only once, Curca Lake 8 times in a year, Canturlim Lake twice in a year, Parra Lake only once, Banastarim Lake 5 times in a year, Maimollem lake thrice in a year, Bandolem Lake 4 times in a year and Durga Lake 5 times in a year out of the 12 measurements in a year.

6. The water quality parameters pH, Dissolved Oxygen, Biochemical Oxygen Demand and Total Coliform are within the permissible limits and are meeting the Class A classification for the water samples of the Borewell at Kundaim Industrial Estate, Corlim Industrial Estate, Sancoale Industrial Estate and Verna Industrial Estate.

7. pH parameters of the water samples are below the permissible limits as per Class A classification for the water samples of Borewell at Madkai Industrial Estate, Borewell at Bethora Industrial Estate monitored twice in a year.

8. Out of the two measurements in a year, Dissolved Oxygen of the water sample of the Pilerne Industrial Estate is below the permissible limit once in a year and Total Coliform of the water sample of Cuncolim Industrial Estate is not meeting the permissible limits twice in a year as per the class A classification.

9. As per the Class B Classification the water samples of the Upstream of Bethora Nallah, Downstream of Bethora Nallah is exceeding the permissible limit for parameters such as Biochemical Oxygen Demand and Disloved Oxygen for 5-7 measurement in year and upstream of St. Inez Creek and Downstream of ST. Inez Creek is not meeting the permissible limit for the parameters such as Dissolved Oxygen and Biochemical Oxygen Demand most of the time in a year.

10. As per SW-II classification, the fecal coliform parameter of the water samples of River Mapusa on Culvert, NH ,Cumbhajua Canal, River Sal at Pazorconi, River Sal at Mobor, River Sal at Orlim bridge, River Sal at Khareband, River Sal at Rumder, River Zuari at Panchwadi, River Zuari at Cortalim, River Zuari Madkai , River Zuari Borim bridge ,River Tiracol, River Chapora at Siolim bridge, River Sinquerim at Candolim bridge, River Sinquerim at Ganpati Temple, River Mandovi at Tonca-Marcela , River Mandovi at IFFI jetty, River Mandovi at Hotel Marriott, River Mandovi at Ribander-Chodan ferry , River Mandovi at Amona bridge ,River Mandovi near bridge, Panaji , upstream of Colva creek, Downstream of Colva creek, upstream of River Mandovi at Sesa Goa, Downstream of River Mandovi at Sesa Goa and Biana Beach has exceeded and the fecal coliform of the water samples of Tiracol Beach , Miramar Beach, Calangute Beach, Morjim Beach, Mobor Beach, Galgibag Beach, Colva Beach, Vagator Beach, Velsao Beach, Arambol Beach, Baga Beach, Bambolim Beach, Bogmalo Beach, Betalbatim Beach, Benaulim Beach, Varca Beach, Agonda Beach, Pallolem Beach, Rajbhag Beach has exceeded particularly during monsoon season.

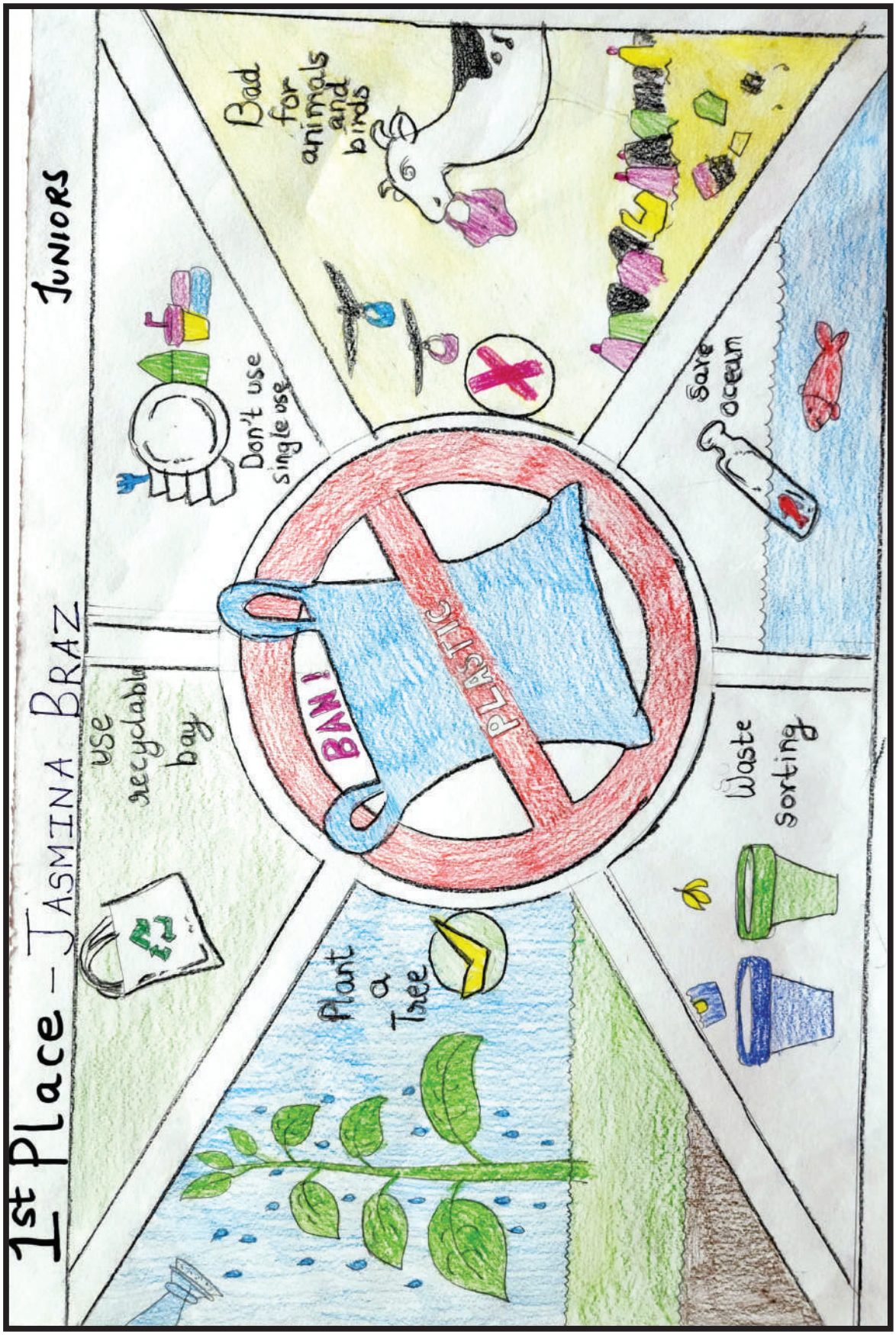
11. Dissolved Oxygen and Biochemical Oxygen Demand of River Mapusa, River Sal at Rumder, River Sal at Khareband is not meeting the permissible limits of class SWII river most of the times in a year out of the 12 measurements in a year.

12. Residual Chlorine parameter of the water sample collected at the Outlet of the STP at Tonca

Panaji, is exceeding the permissible limit for STP 5 times out of the twelve measurements in a year.

The water quality data is given in Annexure - V




1st Place - Jasmina Braz
Juniors
use recyclable bag
Don't use single use
Bad for animals and birds
Save ocean
BAN!
PLASTIC
Plant a Tree
Waste sorting

CHAPTER 6

PRESENT STATE OF ENVIRONMENT, ENVIRONMENTAL PROBLEMS AND COUNTER MEASURES

6.1 STUDY CONDUCTED AT AMONA- IN AND AROUND THE VEDANTA PIG IRON PLANT IN RESPECT OF W.P. NO. 881 OF 2017 DATED 26/11/2018.

The Goa State Pollution Control Board has conducted Ambient Air Quality Monitoring at 06 locations in 04 geographic quadrants at distances of 250 mtrs, 500 mtrs and 1000 mtrs respectively, around Pig Iron Plant (PIP) Amona plant boundary accordingly.

The Board has conducted the AAQM for the month of April and May 2023 at 06 Ambient Air Quality Monitoring locations in and around the M/s. Vedanta Ltd; Pig Iron Plant- Amona. The Ambient Air Quality Index (AQI) is Satisfactory during the monitoring period. The data is annexed at **Annexure VI.**

6.2 CONTINUOUS AMBIENT AIR QUALITY MONITORING STATION (CAAQMS) MOBILE VAN WAS OPERATED FOR CONDUCTING AMBIENT AIR QUALITY MONITORING IN AND AROUND THE INDUSTRIAL PREMISES IN GOA FOR THE PERIOD FROM APRIL 2023 TO MARCH 2024

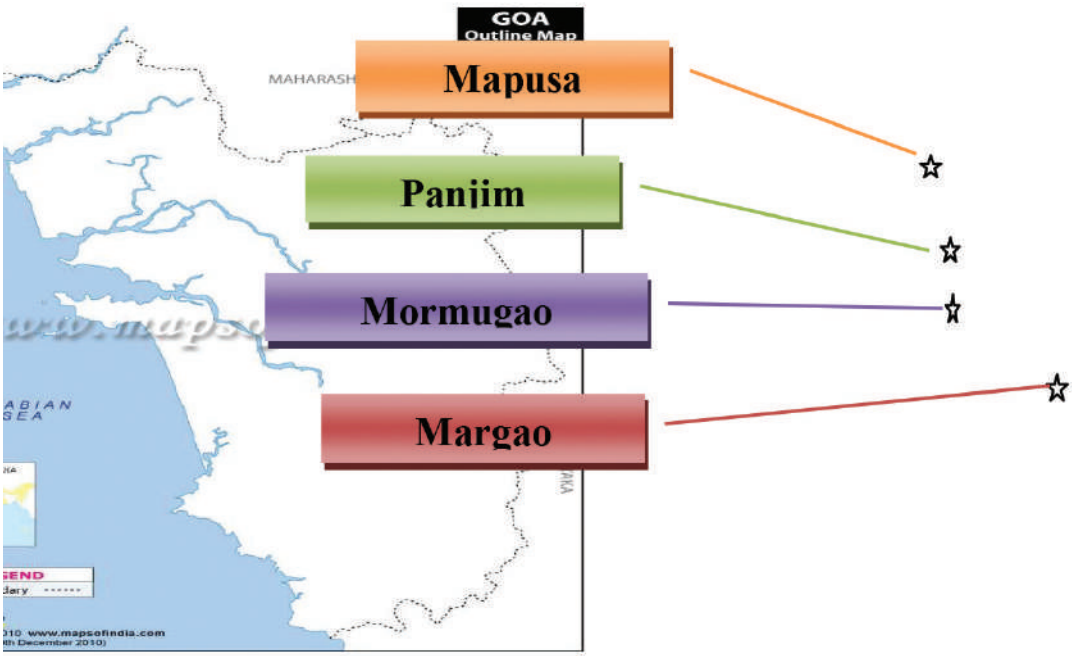
The Goa State Pollution Control Board has carried out CAAQMS at 26 different units within the state of Goa; The ambient Air Quality monitored was found to be within the prescribed limits for most of the Industries. In case of exceedences the Industry has been directed to undertake necessary control measures at site for control of Ambient Air Pollution and other recommendations.

Sr no	Name of the Industries	Monitoring Date
1.	M/s Shivam Ispat – Kundaim	04/04/2023 to 07/04/2023
2.	M/s Sunrise Electromet –Cuncolim	11/04/2023 to 14/04/2023
3.	M/s Hindustan Solid Waste-Calangute. Bardez	19/04/2023 to 22/04/2023
4.	M/s Biotic waste- Kundaim	25/04/2023 to 28/04/2023
5.	M/s Vedanta Pig Iron plant-Amona	10/05/2023 to 16/05/2023
6.	M/s Vedanta Pig iron plant- Navelim	17/05/2023 to 23/05/2023
7.	M/s Cadilla- Kundaim	25/04/2023 to 28/04/2023
8.	M/s Adani Marmagoa Port Terminal Pvt Ltd- Mormugao	07/09/2023 to 09/09/2023
9.	M/s Glenmerk-Colvale	27/10/2023 to 29/10/2023
10.	M/s Dessai cement Company- Navelim	31/10/2023 to 03/11/2023
11.	M/s GMR Mopa airport	29/11/2023 to 02/12/2023

12.	M/s Mandovi Pellets- Borim	07/11/2023 to 10/11/2023
13.	M/s Goa Carbon-St. Jose De Areal -Salcete	22/12/2023 to 29/12/2023
14.	M/s Ambey Metallic Pissurlem	06/12/2023 to 09/12/2023
15.	M/s Mohit Ispat-Navelim Bicholim	12/12/2023 to15/12/2023
16.	M/s Counto Microfine product-Pissurlem	20/12/2023 to 21/12/2023
17.	M/s Alcon Cement-Surla Bicholim	19/12/2023 to 20/12/2023
18.	M/s Mohit Steel Pvt Ltd-Kundaim	10/01/2024 to 13/01/2024
19.	M/s Shivam ispat-Kundaim	10/01/2024 to 11/01/2024
20.	M/s P &G-usgoa	14/02/2024 to 17/02/2024
21.	M/s MRF unit II- usgao	20/02/2024 to 23/02/2024
22.	M/s MRF unit I-usgao	27/02/2024 to 01/03/2024
23.	M/s Shraddha Ispat-Santona, Sanguem	05/03/2024 to 08/03/2024
24.	M/s Goa Sponge-Santona, Sanguem	12/03/2024 to 14/03/2024
25.	M/s Goa Ispat- Madkai	19/03/2024 to 22/03/2024
26.	M/s Deccan Chemicals Pvt Ltd. -Corlim	26/03/2024 to27/03/2024

6.3 NOISE MONITORING AND AMBIENT AIR QUALITY MONITORING (AAQM) DURING DEEPAWALI FESTIVAL, 2023

6.3.1 NOISE LEVEL MONITORING DURING DEEPAWALI FESTIVAL, 2023



NOISE LEVEL LIMITS PRESCRIBED BY CBCB

Category of Area/Zone	Limits in dB (A) Leq	
	Day Time (6.00 am – 10.00 pm)	Night Time (10.00 pm – 6.00 am)
Commercial Area	65	55
Residential Area	55	45
Silence Zone	50	40

CITY : MAPUSA

- **Latitude & Longitude :**15.60^{0}42'N, 73.82 ^{0}56'E
- **Climate/Meteorology:** Tropical Climate
- **Population:**39,989as per 2011 census*

- **Major land use:** urban
- **Monitoring Location:** Near Municipal Market
- **Description of monitoring site:** Commercial
- **Activities around the monitoring location:**
  - **On Pre-Deepawali day (06-11-2023) :-**Medium to Light Vehicular Movement and honking.
  - **On Deepawali Day (12-11-2023)** : Heavy to Light Vehicular Movement , Music Was Played (19:00hr to 21:00hr), Bursting of fire crackers .

Data/Observations:

Noise level during Deepawali festival, 2023:

Location A: Mapusa Area/Zone:Commercial	Pre-Deepawali day ((06-11-2023)			Deepawali Day (12-11-2023)		
Time duration	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr	61.6	83.4	**57.3**	61.4	91.5	**65.5**
19:00 to 20:00 Hr	56.9	84.5	**56.2**	60.5	107.9	**66.9**
20:00 to 21:00 Hr	55.6	91.6	**55.4**	57.8	101.7	**70.7**
21:00 to 22:00 Hr	51.2	84.5	**54.6**	57.5	101.1	**64.2**
22:00 to 23:00 Hr	48.9	88.5	**53.5**	54.0	95.9	**59.3**
23:00 to 24:00 Hr	49.5	69.0	**54.3**	52.1	93.2	**58.6**

CITY :PANJIM

- **Latitude & Longitude :** 15^{0}29'56' N, 73^{0}49'40'E
- **Climate/Meteorology:** Tropical Monsoon Climate
- **Population:** 70,991 as per 2011 census*
- **Major land use:** urban
- **Monitoring Location:** Patto-Panjim
- **Description of monitoring site:** Commercial

- **Activities around the monitoring location:**
  - On **Pre-Deepawali day (06-11-2023) :** Heavy to Light Vehicular Movement, honking, vehicles parking area nearby .
  - **On Deepawali Day (12-11-2023):** Heavy to Light Vehicular Movement ,honking, parking area nearby Bursting of fire crackers .

Data/Observations:
Noise level during Deepawali festival, 2023:

Location B : Panaji Zone :commercial	**Pre-Deepawali day (06-11-2023)**			**On Deepawali Day (12-11-2023)**		
Time duration	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr	53.9	79.5	**61.2**	51.3	81.1	**63.4**
19:00 to 20:00 Hr	50.9	85.9	**60.4**	51.1	117.5	**88.1**
20:00 to 21:00 Hr	47.2	80.5	**58.8**	49.8	104.2	**71.8**
21:00 to 22:00 Hr	44.2	71.2	**54.4**	48.0	113.1	**85.7**
22:00 to 23:00 Hr	44.5	69.1	**53.7**	47.6	113.9	**84.8**
23:00 to 24:00 Hr	42.1	73.9	**52.6**	47.1	83.6	**54.9**

CITY : VASCO

- **Latitude & Longitude :** $15^0$23'53**'**N, $73^0$48'40**'**E
- **Climate/Meteorology:** Tropical Climate
- **Population:** 94393 as per 2011 census*
- **Major land use:** urban
- **Monitoring Location:** Fuse Call-Office, Vasco
- **Description of monitoring site:** Commercial

- **Activities around the monitoring location**
  - On **Pre-Deepawali day (06-11-2023):** Medium to Light Vehicular Movement.
  - **On Deepawali Day (12-11-2023)** :Heavy to Light Vehicular Movement , honking ,Bursting of fire crackers

Data/Observations:
Noise level during Deepawali festival, 2023:

Location C : Vasco Area/Zone:Commercial	**Pre-Deepawali day (06-11-2023)**			**On Deepawali Day (12-11-2023)**		
Time duration	Lmin	Lmax	Leqd B(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:0l0 Hr	62.3	113.9	**64.8**	64.4	98.0	67.0
19:00 to 20:00 Hr	64.1	82.4	**61.8**	63.6	103.3	69.7
20:00 to 21:00 Hr	63.8	94.9	**66.9**	63.5	115.8	75.3
21:00 to 22:00 Hr	62.3	85.3	**59.8**	63.3	117.1	78.8
22:00 to 23:00 Hr	59.7	84.5	**57.1**	61.8	119.4	76.8
23:00 to 24:00 Hr	59.3	85.5	**57.9**	58.7	104.4	62.4

CITY : MARGAO

- **Latitude & Longitude :** $15^0$16'25**'**N, $73^0$57'29**'**E
- **Climate/Meteorology:** Tropical Monsoon Climate
- **Population:** 87,650as per 2011 census*
- **Major land use:** urban
- **Monitoring Location:** Municipality Garden
- **Description of Monitoring Site:** Commercial
- Activities around the monitoring location :
  - **On Pre-Deepawali Day (06-11-2023):** Medium to heavy Vehicular Movement. Honking
  - **On Deepawali Day (12-11-2023)** :Heavy to Light Vehicular Movement , Honking ,Bursting of fire crackers.

Data/Observations:
Noise level during Deepawali festival, 2023:

Location D : Margao Area/Zone:Commercial	**Pre-Deepawali day (06-11-2023)**			**On Deepawali Day (12-11-2023)**		
Time duration	Lmin	Lmax	Leq dB(A)	Lmin	Lmax	Leq dB(A)
18:00 to 19:00 Hr	39.9	87.6	**61.7**	67.9	94.7	**64.5**
19:00 to 20:00 Hr	30.0	78.2	**60.4**	67.7	105.9	**67.8**
20:00 to 21:00 Hr	34.8	76.1	**56.9**	66.1	105.0	**67.9**
21:00 to 22:00 Hr	35.2	82.0	**61.3**	66.9	109.5	**66.9**
22:00 to 23:00 Hr	30.3	79.0	**58.0**	66.0	95.9	**64.7**
23:00 to 24:00 Hr	26.3	82.8	**54.6**	65.3	110.1	**64.3**

Note: All values are in Leq dB(A)

The value reported in should not be compared with Prescribed Noise Level standards for designated areas as the time period for Measurement (6 p.m. to 12 Midnight) do not match with the period specified in the prescribed standard Day time(6 a.m. to10 p.m.) and night time(10 p.m. to 6 a.m.).

* Census data source – www.citypopulation.deindia

6.3.2 AMBIENT AIR QUALITY- DEEPAWALI 2023

Ambient level monitoring was carried out during the year 2023 at four cities i.e. Vasco, Margao, Panaji and Mapusa on pre-diwali on 06/11/2023 and on diwali day on 12/11/2023. Measurement was carried out from 6pm to 12am. The data is annexed at **ANNEXURE-VII**.

6.4 AMBIENT AIR QUALITY MONITORING ALONG IRON ORE TRANSPORTATION ROUTE

The Board processed the application received for transportation of iron ore from several applicants. Ambient Air Quality Monitoring (AAQM) with respect to of these applications and routes specified was conducted at the following locations. The AAQM data is placed at **Annexure-VIII**. All the monitored parameters at these above 39 AAQM locations along the iron ore transportation routes are within permissible limits.

LIST OF AAQM IRON ORE TRANSPORTATION STATIONS NORTH

Sr. No	Station Name	City
1.	At Open Space in front of Govt. Primary School Fanaswadi Naveli	Bicholim
2.	On the Open Terrace of Residential house of Shri. Shrikant B. Shetker	Bicholim
3.	On The Open Terrace Of Residential House of Mr. Manoj Ganphule at Bimbal	Sattari
4.	On The Open Terrace OF Residential House of Mr.Sahil Gaonkar at Dhamse	Sattari
5.	On The Open Terrace Of Residential House Of Shri Tuisidas Parab, Kotambi	Pale
6.	On The Open Terrace OF Residential House of Mr.Vishnu Gawas, Ambegal	Bicholim
7.	Within the premises of Village Panchayat Pissurlem	Pissurlem
8.	On the open terrace of shri. Hanumant Hoble, H.No. 937/1,Haladanwada	Mayem
9.	Within the premises of residential house of Mr. Devendra N. Sawant	Bicholim
10.	On Open Terrace Of Shri. Chandudas Madhudar Satodkar	Bicholim
11.	open terrace of residential house shrimati Subhada Suralkar, Tarwado	Bicholim
12.	On the open terrace of residential house of Mr. Sunil Satoskar, Sankaili	Surla
13.	open terrace of residential house shri Ritesh Malik, house no. 81, Satyakade Sanquelim	Kotambi
14.	On the open terrace of shop of Mrs. Vanika Samir K, Gokulwadi	Sanquelim
15.	On the open terrace of residential house of Mr. Pundalik Tukaram Gauns	Naveli
16.	On The Open Terrace Of Residential House Of Mr. Smit Ghatwal , Mayem	Bicholim
17.	Within The Premises Of New Village Panchayat Building , Mayem Vaiguiner	Bicholim

LIST OF AAQM IRON ORE TRANSPORTATION STATIONS SOUTH

1.	Residential Premises of Mr. Simon Diniz, Kakumodi, Xeldem	Curchorem
2.	On the open Terrance of M/s. Mallikarjun Store near Village Panchayat	Sanvordem
3.	On the Open terrace of residential of Ramnath B. Naik, Ambaulim, Gudumol	Quepem
4.	Within Premisise of Shree Sateri Temple, Bag Xelvona	Quepem
5.	On the Open terrace of residential of Mr. Ramakant Karapurkar, Capxem	Quepem
6.	On the Open terrace of residential house of Mr. Anil alias shaba Faldessai	Cavrem

7.	On the Open terrace of residential of Mr. Dilip Raikar, Ambeudok	Sanguem
8.	On the open terrace of residential house of Shri. Suresh Kapekar, Talpar	Sanguem
9.	On the Open terrace of residential house of Shri. Jesmon Simous, Kevona	Sanguem
10.	On the open terrace of residence of Shri Diago Pereira, uguem	Sanguem
11.	On the open terrace of godown owned by Shri Sidhivinayak Sausthan temple	Sanguem
12.	Within the premises of M/s Vedanta Ltd., Andrem Waddo, Khamomole	Curchorem
13.	M/s. Acm Jetty At Xirford Bagawada	Curchorem
14.	Within The Premises Of Shree Lailesh Gaounkar, Kevona	Sanguem
15.	Within the premises of Shri Dinesh Rivonkar, H. No- 363, Deulawada	Rivona
16.	On the open terrace of Residence of Shri Budnesab Vatnal, Gandhinagar	Sanvordem
17.	On the open terrace of residential house Shri Caitano D. Costa, Capxem	Sanvordem
18.	On the open terrace of Residence of Shri Shailesh Ramnath Naik	uguem
19.	On The Open Terrace Of Shri Aniket Desai Vansaiwada	Collem
20.	On The Open Terrace Of Shri ulhas R. Naik, Tionimoil, Karmane	Dudhal
21.	On the open terrace of Residence of Shri Prakash Desai	Shigao
22.	On the open terrace of Shri Venus Mascarenhas	kalay

6.5 THE STUDY ON WORKPLACE EMISSION MONITORING OF PM_{10} AND $PM_{2.5}$ SOURCE APPORTIONMENT STUDY IN THE VICINITY OF M/S. VEDANTA PIG IRON PLANT.

Proposal to Carry out assessment of Particulate Matter (PM10 & PM2.5) emission in respect of M/s. Vedanta Ltd PIP, Amona Goa, vide order No. 2021/GSPCB/Letter/4101/Lab/8903 dated 22/08/2022 to NEERI Nagpur.

The said study was awarded to NEERI to be conducted at M/s. Vedanta Ltd; Amona Navelim in and around 5 kms study area. 24 hrly Monitoring for 7 days per location for two season ie. Winter and Sumer Season completed Sampling in and around the industry M/s. Vedanta Ltd; completed interim Reports -2 Submitted. Final report with data analysis and conclusions is awaited.

6.6 CONSULTANCY SERVICES FOR NOISE MAPPING, HOT SPOT IDENTIFICATION AND MITIGATION PLAN FOR NOISE POLLUTION CONTROL IN GOA

Consultancy Services for Noise Mapping, Hot spot identification and Mitigation Plan for Noise Pollution Control in Goa-Work order issued Vide No. 3/32/12-PCB/Lab/13365 Dt. 15/09/2023 to M/s. Envirotech Instruments Pvt. Ltd; New Delhi. Traffic Survey Conducted at traffic junctions in Goa.

Also Noise monitoring/ sampling conducted in 104 kms stretch of Goa ie From Patradevi, pernem to Canacona.

6.7 CONDUCTING CONTINUOUS AMBIENT NOISE MONITORING AT 12 LOCATIONS IN GOA, WORK ORDER ISSUED TO M/S. WELAN TECHNOLOGIES, PUNE.

Conducting Continuous Ambient Noise Monitoring at 12 locations in Goa. Installation of Noise Meters, operation & maintenance of Noise Stations, personnel, Monitoring and Data Submission on monthly basis to Board. 08 Stations were put in operation out of 12 locations.4 locations are under process of installation for requirement of No Objection Certificates (NOC) from concerned authorities.

6.8 ANNUAL REPORT OF STACK MONITORING FOR THE YEAR APRIL 2023 TO MARCH 2024.

During the year under report, the Goa State Pollution Control Board conducted Stack Emission Monitoring programmes for 52 Stacks in different Industries / Hotels within the State of Goa . The units mostly comprise of Induction Furnaces, Reheating Furnaces, Boilers, Thermic Fluid Heaters, Rotary Kilns, DG Sets, Incinerators, etc. The details of the stack emission monitoring conducted are presented below.

Sr. No.	Area	Industrial Area	Name of Unit	Type of Stack	Date of Sampling
1	Corlim		Deccan Fine Chemicals Pvt. Ltd.	Boiler 30 TPH	19.04.23
2	Corlim		Deccan Fine Chemicals Pvt. Ltd.	Oil Heating unit (4 Lac Kcal/hr)	21.04.23
3	Corlim		Deccan Fine Chemicals Pvt. Ltd.	DG (1500 KVA)	25.04.23
4	Bambolim	-	M/s. Goan Hotels & Reality Pvt. Ltd. (Grand Hyatt Goa)	DG (1010 KVA)	27.04.23
5	Bambolim	-	M/s. Goan Hotels & Reality Pvt. Ltd. (Grand Hyatt Goa)	Boiler 3 TPH	03.05.23
6	-	Verna Ind. Estate	M/s. Goa Thermopack Pvt. Ltd.	Boiler 1 TPH	05.05.23
7	Amona	-	M/s Vedanta Ltd. (PIG Iron Plant)	Hot Blast Stove 1 &3 (Blast Furnace 1)	18.10.23
8	Amona	-	M/s Vedanta Ltd. (PIG Iron Plant)	Hot Blast Stove 1 &3 (Blast Furnace 2)	25.10.23
9	Bardez	-	M/s Castle Royale	DG (500 KVA)	27.10.23
10	Surla , Bicholim Goa	-	M/s. Alcon Cement Company Pvt Ltd	Packer – I (30 TPH)	07.11.23
11	Surla , Bicholim Goa	-	M/s. Alcon Cement Company Pvt Ltd	Packer – II (60 TPH)	09.11.23
12	Surla , Bicholim Goa	-	M/s. Alcon Cement Company Pvt Ltd	Cement Mill – I (12 TPH)	13.11.23

Sr. No.	Area	Industrial Area	Name of Unit	Type of Stack	Date of Sampling
13	Surla , Bicholim Goa	-	M/s. Alcon Cement Company Pvt Ltd	Cement Mill – II (17 TPH)	29.11.23
14	-	Kundaim Ind Estate	M/s. Biotic waste solution pvt ltd	Incinerator (300 kg/hr)	01.12.23
15	-	Tivim Ind. Estate	M/s. Geno Pharmaceuticals Ltd	Boiler (600 Kg/ hr)	06.12.23
16	-	Tivim Ind. Estate	M/s. Geno Pharmaceuticals Ltd	DG (625 KVA)	11.12.23
17	-	Kundaim Ind Estate	M/s. Biotic waste solution pvt ltd	DG (250 KVA)	13.12.23
18	-	Madkaim Ind. Estate -	M/s. Encube Ethicals Pvt Ltd ,	Boiler (600Kg/hr)	15.12.23
19	-	Madkaim Ind. Estate -	M/s. Encube Ethicals Pvt Ltd ,	Boiler (850Kg/hr)	20.12.23
20	-	Madkaim Ind. Estate -	M/s. Encube Ethicals Pvt Ltd ,	DG (500 KVA)	27.12.23
21	-	Madkaim Ind. Estate -	M/s. Encube Ethicals Pvt Ltd ,	Boiler (850Kg/hr)	03.01.24
22	-	Madkaim Ind. Estate -	M/s. Encube Ethicals Pvt Ltd ,	Boiler (850Kg/hr)	05.01.24
23	-	Kundaim Ind Estate	M/s. Biotic waste solution pvt ltd	Boiler (400 kg/hr)	08.01.24
24	-	Verna Ind Estate	M/s. Launderaids	Boiler (2TPH)	10.01.24
25	-	Verna Ind Estate	M/s. Micro labs limited	DG (500 KVA)	12.01.24
26	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Blast Furnace I (Before Bag House)	16.01.24
27	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Blast Furnace I (After Bag House)	16.01.24
28	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Blast Furnace II (Before Bag House)	18.01.24
29	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Blast Furnace II (After Bag House)	18.01.24

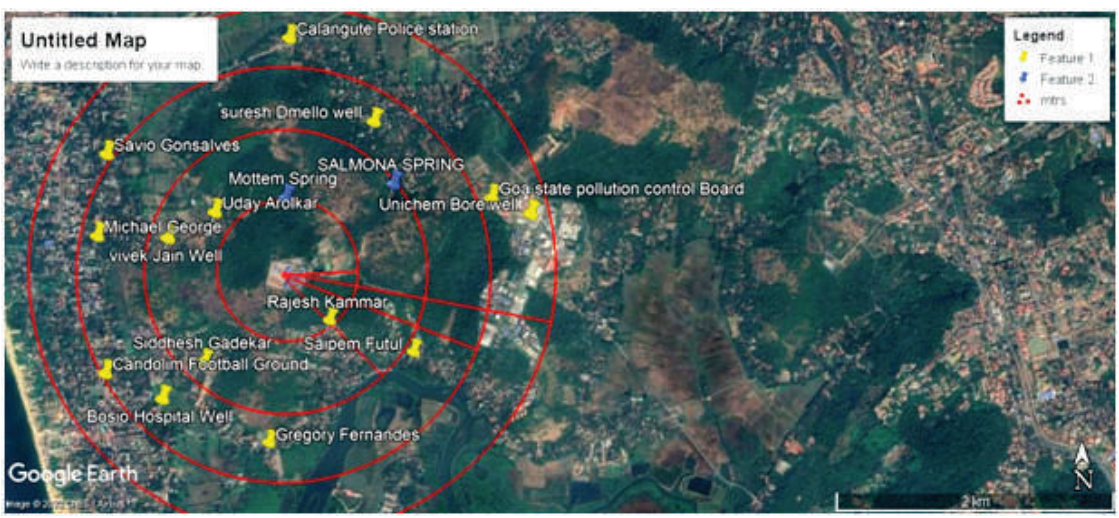
Sr. No.	Area	Industrial Area	Name of Unit	Type of Stack	Date of Sampling
30	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Laddle Dumping Chamber Before Bag House	23.01.24
31	Amona , Marcela-Bicholim.	-	M/s. VEDANTA LIMITED (Pig Iron Plant)	Laddle Dumping Chamber After Bag House	23.01.24
32	-	Verna Ind Estate	M/s. Launderaids	Boiler (1TPH)	29.01.24
33	-	Verna Ind Estate	M/s. Medizest Pharmaceuticals Pvt. Ltd.	Boiler (1TPH)	31.01.24
34	-	Verna Ind Estate	M/s. Medizest Pharmaceuticals Pvt. Ltd.	DG (515 KVA)	02.02.24
35	-	Verna Ind Estate	M/s. Commscope India Pvt. Ltd.	DG (910 KVA)	06.02.24
36	-	Verna Ind Estate	M/s. Watson Pharma Private Limited	Boiler (1.5 TPH)	12.02.24
37	-	Verna Ind Estate	M/s. Commscope India Pvt. Ltd.	DG (750 KVA) No.5	14.02.24
38	-	Verna Ind Estate	M/s. Commscope India Pvt. Ltd.	DG (750 KVA) No.4	16.02.24
39	-	Pisurlem Ind. Estate	M/S. Ambey Metallic Ltd,	Rotary Kiln (100 tons/day)	20.02.24
40	-	Pisurlem Ind. Estate	M/S. Ambey Metallic Ltd,	DG (125 KVA)	22.02.24
41	Pisurlem Satteri	-	Counto Microfine Products	Ball Mill	26.02.24
42	Pisurlem Satteri	-	Counto Microfine Products	DG (250 KVA)	28.02.24
43	Sanguem Goa	-	M/s. Goa Sponge & Power Ltd	Induction Furnace I (12 MT)	04.03.24
44	Sanguem Goa	-	M/s. Goa Sponge & Power Ltd	Rotary Kiln (9000 tons/ heat)	06.03.24
45	Sanguem Goa	-	M/s. Goa Sponge & Power Ltd	Fluidised Bed Combustion	08.03.24
46	Sanguem Goa	-	M/s. Shraddha Ispat Pvt Ltd	DG (500 KVA) (Set1)	12.03.24

Sr. No.	Area	Industrial Area	Name of Unit	Type of Stack	Date of Sampling
47	Sanguem Goa	-	M/s. Shraddha Ispat Pvt Ltd	Rotary Kiln (100 tons/ day)	14.03.24
48	Calangute, Bardez – Goa	-	M/s. Club 69 Estrela Do Mar Beach Resort	DG (520 KVA)	18.03.24
49	Calangute, Bardez – Goa	-	M/s. News Builders & Developers Pvt. Ltd.	DG (200 KVA)	20.03.24
50	Arpora, Bardez – Goa		M/s. IAPL Group Pvt. Ltd (Park Regis)	DG (400 KVA)	22.03.24
51	-	Cuncolim Ind. Estate	M/s. Orange Fox Steel Pvt. Ltd.	Induction Furnace (12 MT/ Heat)	26.03.24
52	-	Cuncolim Ind. Estate	M/s. Shraddha Ispat Pvt Ltd	Induction Furnace (12 MT/ Heat)	28.03.24

Remark : The result of the stack emission monitoring indicate that the flue gases of monitored parameters are within the permissible limits.

6.9 REPORT ON WATER QUALITY AROUND THE GOA WASTE MANAGEMENT PLANT SALIGAO

The study was conducted to assess ground water impacts around the Goa waste Management plant(GWMP). The objective of the study was to assess ground water impacts around the GWM plant, inclusive of existing residential activities, commercial & other activities. Water Samples were collected from different sources like Open ground well, Bore wells and spring water samples to determine the water quality of said samples. The parameters of prime importance under Physical, Chemical (inorganic & organic) and Biological category were considered in the region within 500meters, 1KM & 1.5 KM & 2 KM radius from the proposed site.



The study area of environmental quality has been monitored within the impact zone from GWMP plant during monsoon August 2023, Post monsoon September 2022 and in summer month March 2023.

The analysis test results of said samples indicates that the wells and spring water found to be slightly acidic which is mainly due to naturally occurring process i.e carbonic acid formation which makes the open water slightly acidic, Turbidity values have shown exceedance in almost all of the water samples. The other parameters such as NO_3 , NO_2, Cl-, SO_4, Na, K, Hardness, Calcium as Ca, Magnesium as Mg, Alkalinity are within the limits, marginally the inorganic parameters like Fe, Mn , Boron and Fluoride showed exceedence in prescribed limits for once. **However,** these well water were retested at a later date to analyse the Fe and Mn content and the values were found within the prescribed limit. Incase of bacteriological quality of ground water samples collected from the study area showed the presence of coliform bacteria in almost all the samples.

6.10 COMPLIANCE WITH RESPECT TO CONTAMINATION OF WELLS AT SAIPEM, CANDOLIM

Subsequent to the fire incident at M/s Berger Becker Coating Pvt. Ltd. at Pilerne Industrial Estate, the Board had surveyed the open wells along with the Panch member of Candolim and collected well water samples. The well waters were analyzed for parameters, Dissolved oxygen, pH, Biochemical Oxygen Demand, Nitrite as NO_3, Nitrite as NO_2, Turbidity, Chloride, Chemical Oxygen Demand, Hardness as $CaCO_3$, Calcium as Ca, Magnesium as Mg, Sulphate, Total Dissolved Solids, Suspended Solids, Oil& Grease, Cadmium, Copper, Nickel, Chromium, Zinc, Cobalt, Lead, Iron, Manganese, Total Coliform, FecalColifrom, E.Coil, Poly Aromatic Hydrocarbons (PAH).

The water quality data of the samples collected indicate that the pH of all the water samples is below the permissible limits. Ecoli is present in all the well water samples. Turbidity is found exceeding the permissible limits in some of the well water.

6.11 ASSESSMENT OF GROUND WATER QUALITY MONITORING IN AND AROUND CUNCOLIM INDUSTRIAL ESTATE.

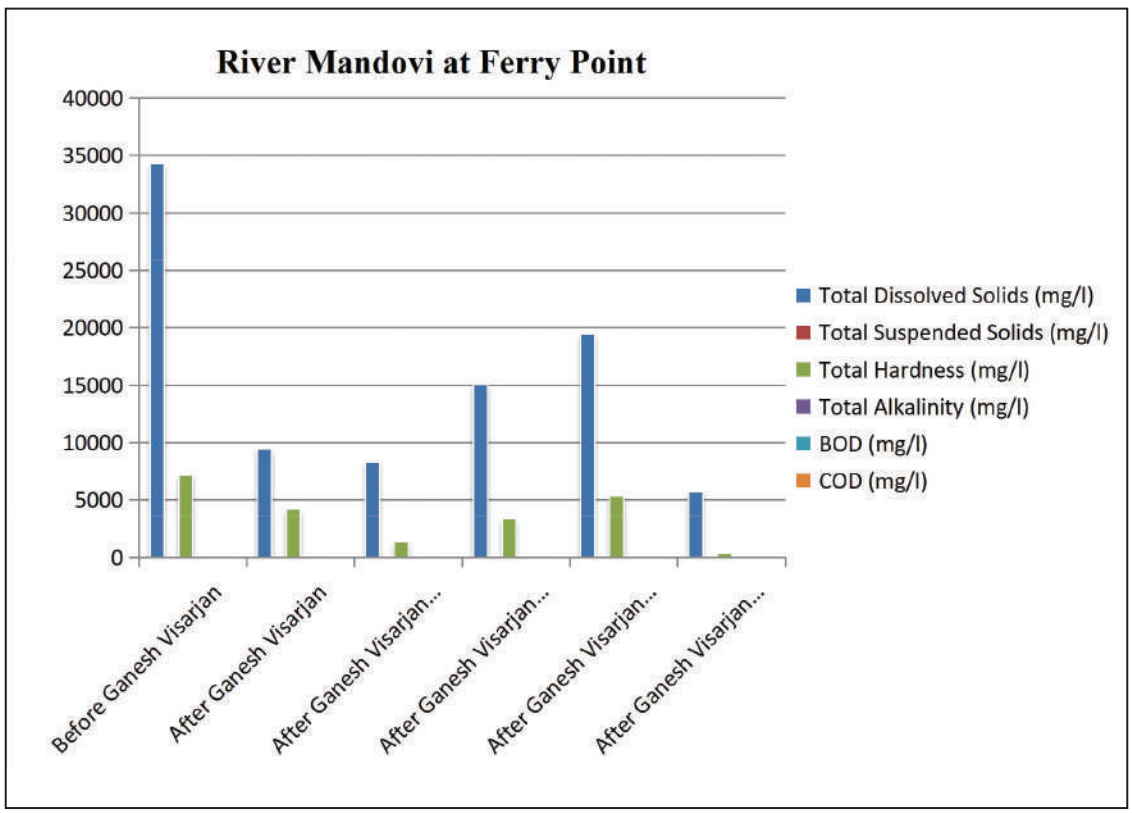
The Cuncolim is a village situated in the Salcete taluka of South Goa District and is located South of Madgaon town at a distance of about 15km on the Madgaon- Canacona road and industrial estate at North Latitude $15^0$11'9.09''N and East Longitudes $74^0$1'45.93''E and is falling in Survey of India Toposheet No. 48E/15. The area experiences warm and humid climate throughout year. The summer season prevails from March to May and the area receives rainfall from June to September. The winter season prevails from November to February. The main source of ground water occurring in the Cuncolim Industrial Estate is mainly through precipitation and return flow from applied irrigation. The ground water occurrence and movement are controlled by the degree of weathering, fracturing and the geomorphological set up in the area. The ground water occurs under unconfined, semi-confined and confined conditions in the weathered and fractured zones of granite gneiss. The laterites and the near surface weathered and jointed zones of granitic gneiss and associated rocks together constitute the main water table or phreatic aquifer.

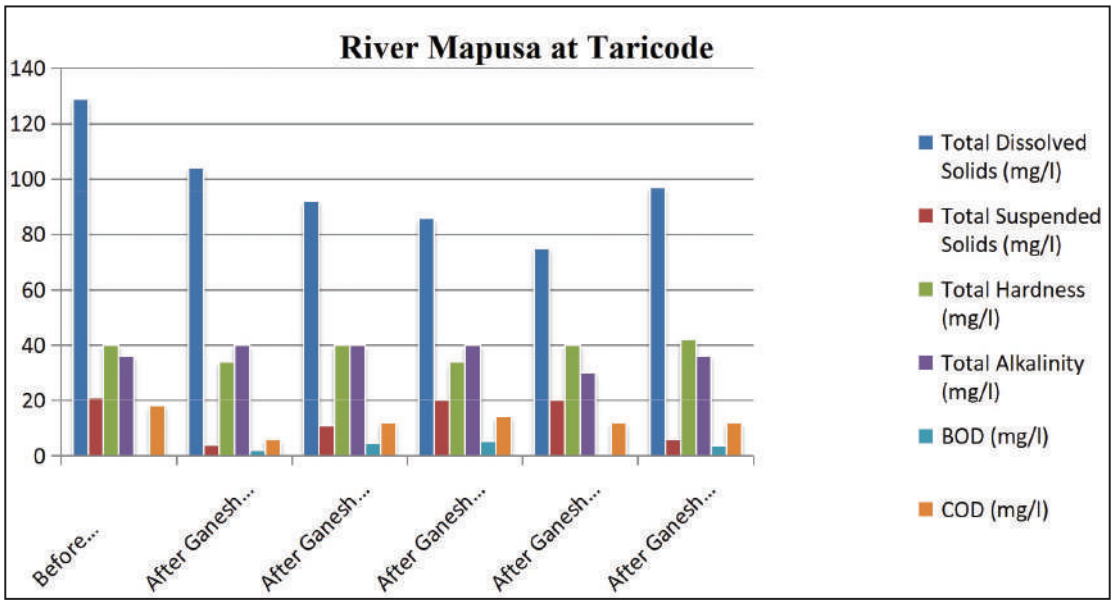
The Cuncolim Industrial Estate comprises of the units like; induction furnaces, rolling mills engaged in the production of steel ingots and rolled products. Fish processing units, fish meal, distillery, chemical industries, bottling industries, etc. In order to know the quality of ground water and to understand its impact on the surrounding areas, Goa State Pollution Control Board has decided to initiate and monitor ground water (Bore well & Dug well) samples in and around Cuncolim Industrial Estate in the month of November 2022 at 19 locations. Further, the samples were decided to collect every month since January 2023. The overall monitoring data collected for the month November 2022 and from January 2023 to March 2024 indicates that most of the physical, inorganic, organic and metal parameters are within permissible limits. However, the Iron and Manganese values are exceeding permissible limits at most of the times. Also, most of the times the E. Coli was found present in the samples collected.

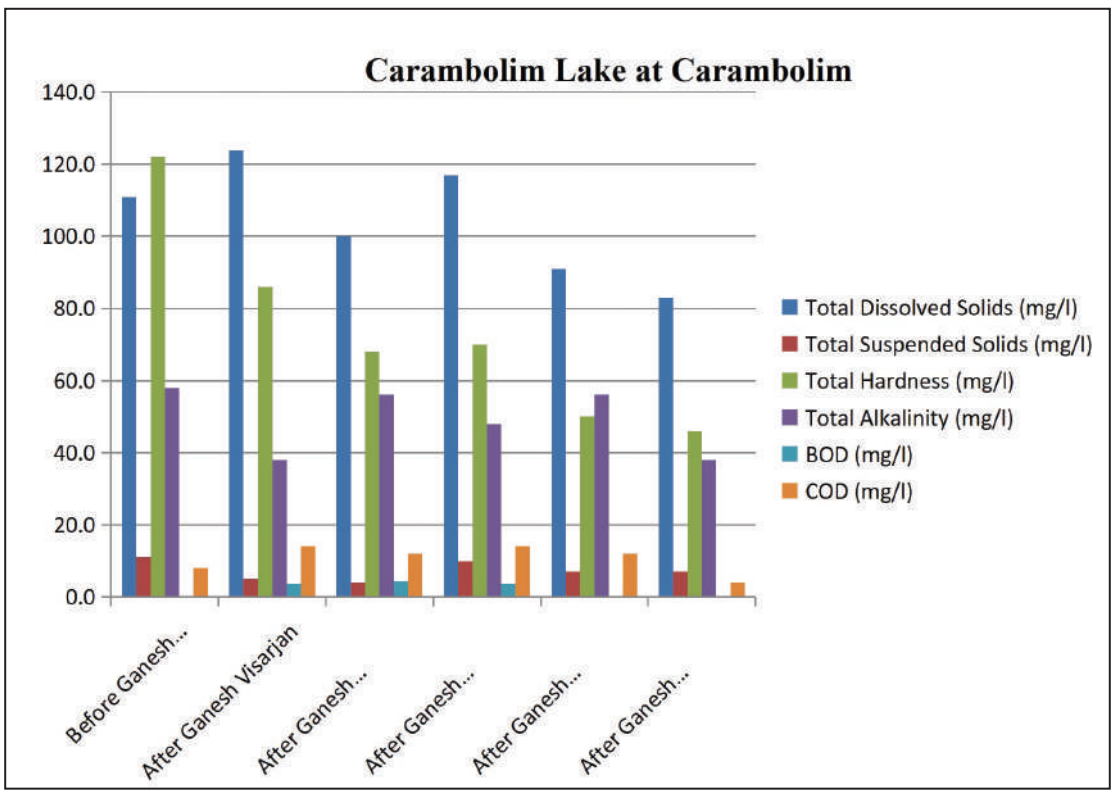
6.12 MONITORING OF WATER QUALITY DURING PRE-POST-GANESH VISARJAN (2023)

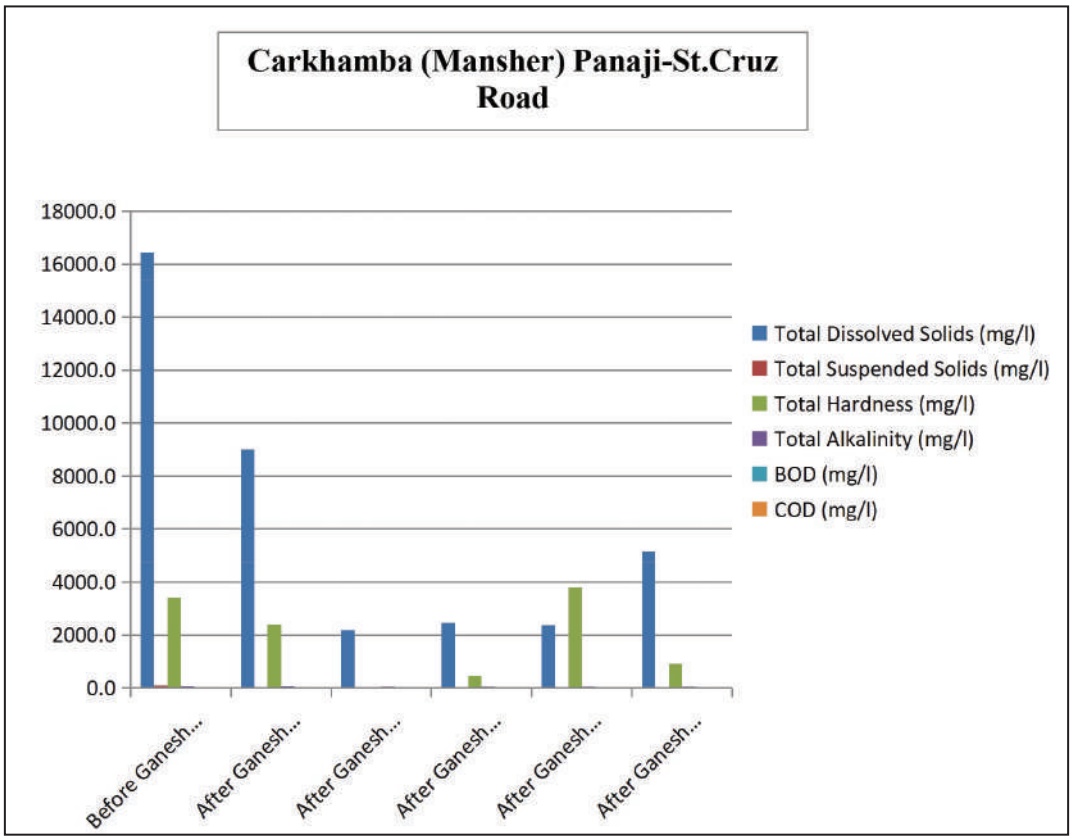
As per the directions of the Central Pollution Control Board, the Goa State Pollution Control Board (GSPCB), monitors water quality during Pre and Post Ganesh Visarjan at 12 major 'idol-immersion' locations during Ganesh festival. The parameters such as Dissolved Oxygen, Conductivity, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Dissolved Solids, Total Suspended Solids, Total Hardness, Total Alkalinity and trace metals such as Cadmium, Cobalt, Copper, Total Chromium, Manganeses, Lead, Zinc, Mercury, Antimony, Barium and Strontium are monitored. As per the water quality monitoring conducted during pre and post Ganesh Visarjan, the measured values indicate the increase in Total Dissolved Solids (TDS)at most of the locations after Visarjan periods which is reported not a major environmental concern as the water is not used for domestic purposes.

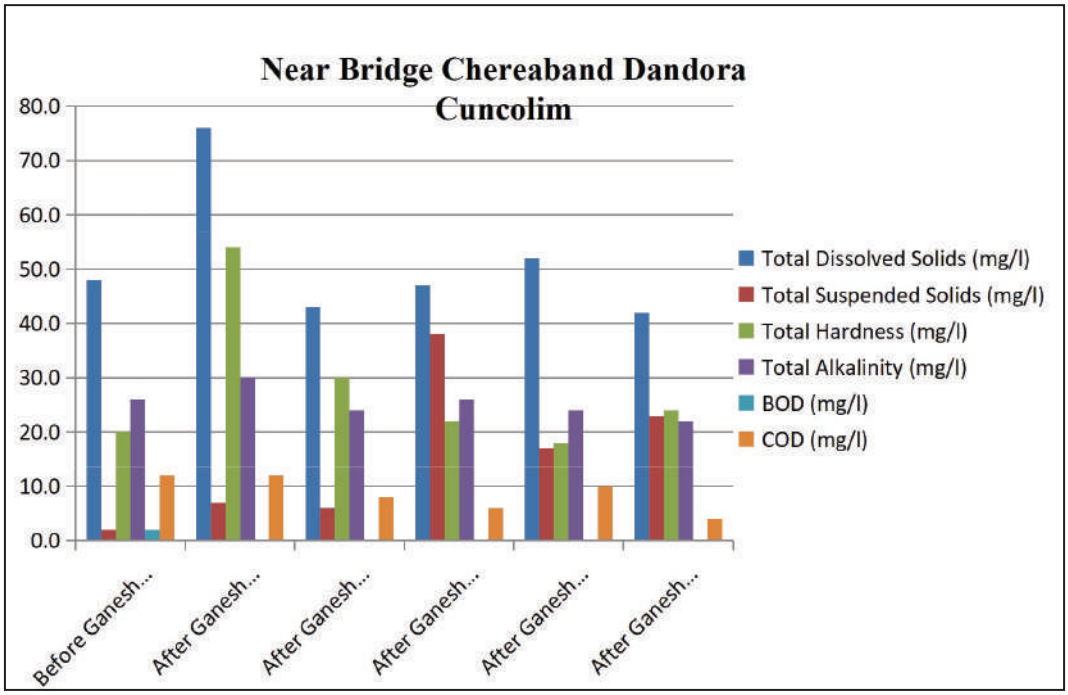
GANESH VISARJAN DATA OF 2023

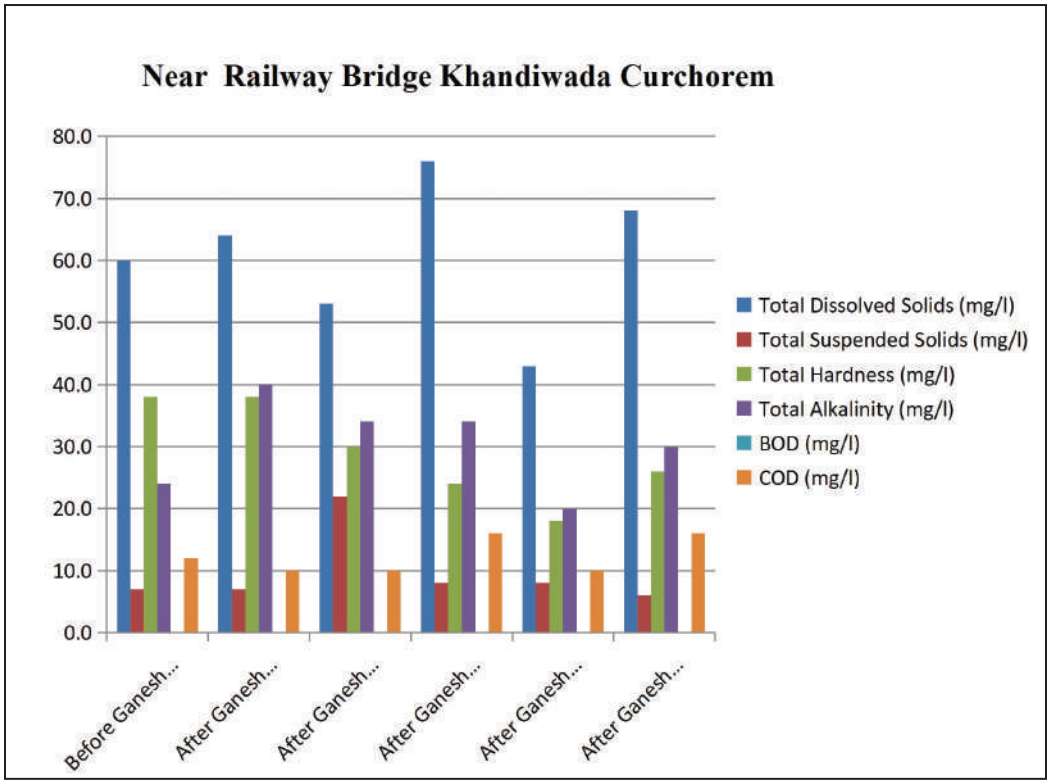


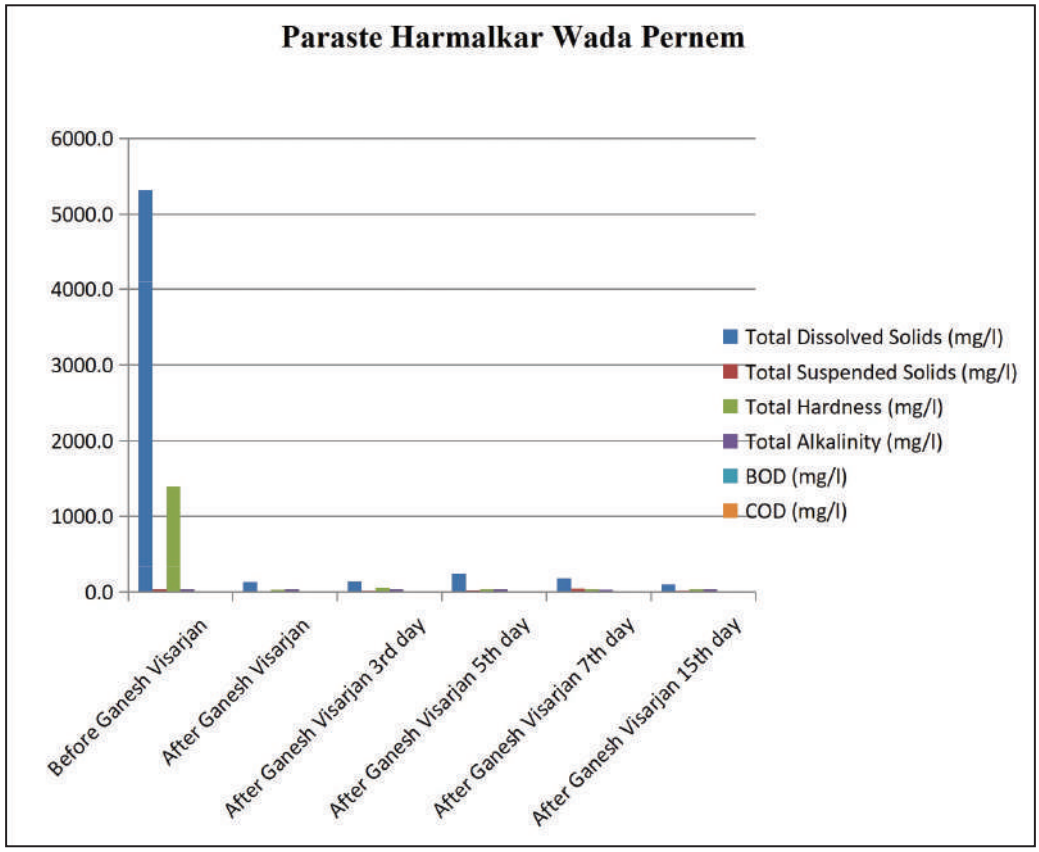

River Mapusa at Taricode
140
120
100
80
60
40
20
0
Before...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)

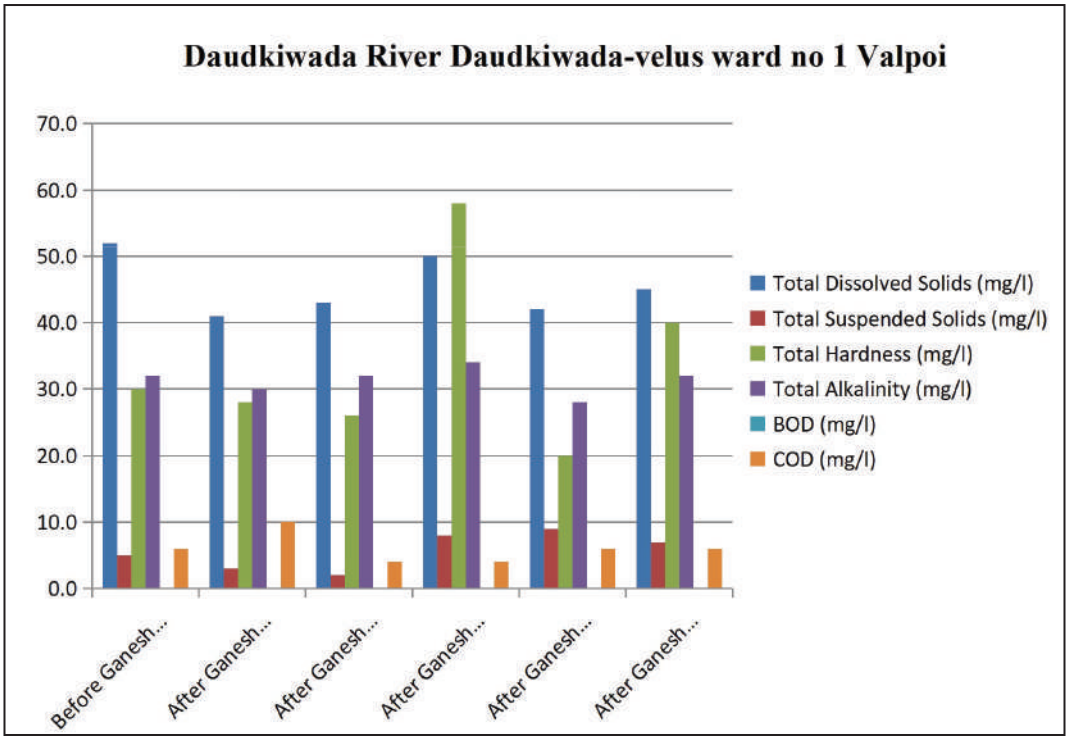

Carambolim Lake at Carambolim
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
Before Ganesh...
After Ganesh Visarjan
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)

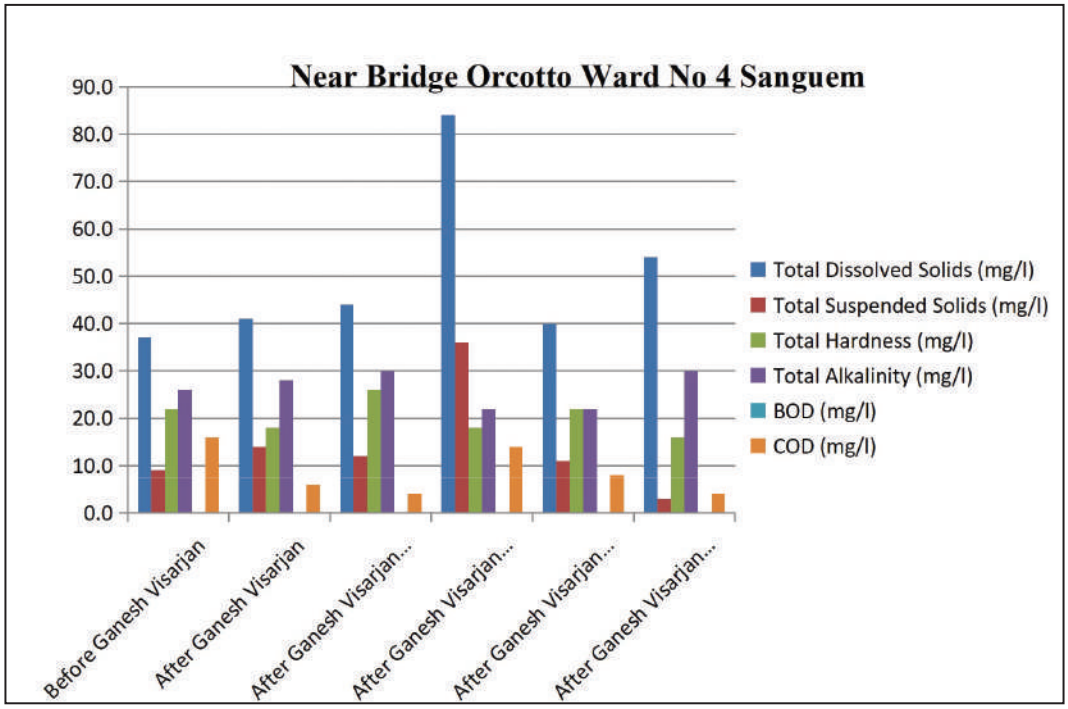

Carkhamba (Mansher) Panaji-St.Cruz Road
18000.0
16000.0
14000.0
12000.0
10000.0
8000.0
6000.0
4000.0
2000.0
0.0
Before Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)

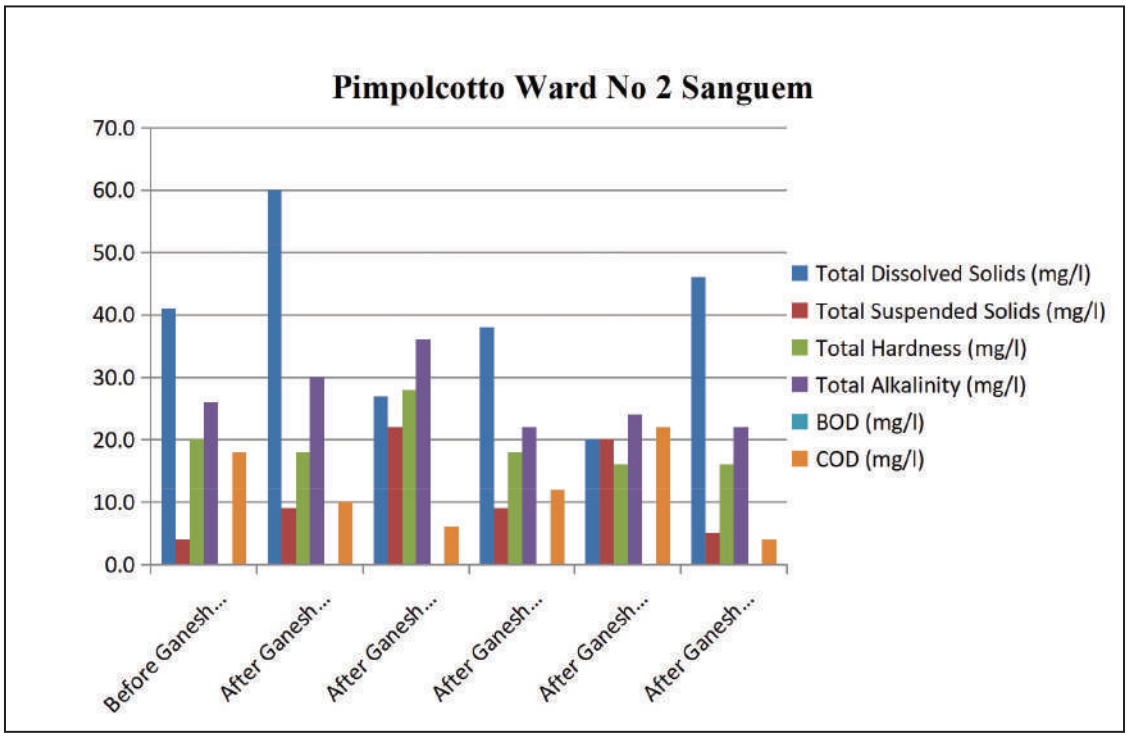

Near Bridge Chereaband Dandora Cuncolim
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Before Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)

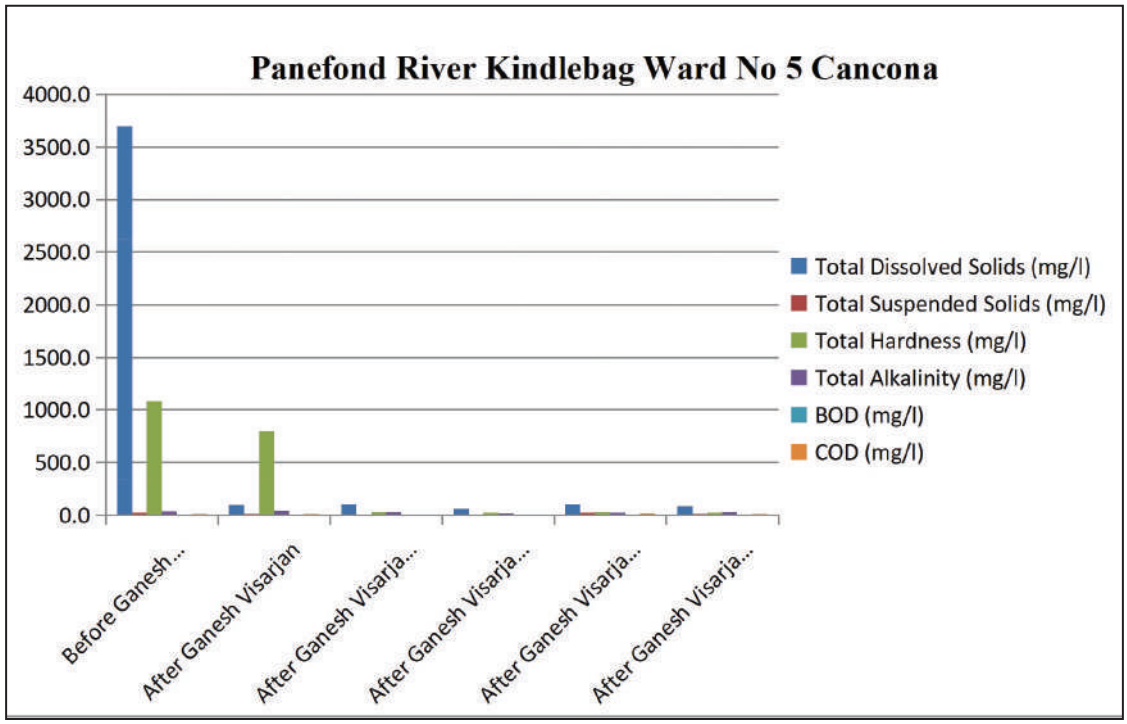

Near Railway Bridge Khandiwada Curchorem
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Before Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)

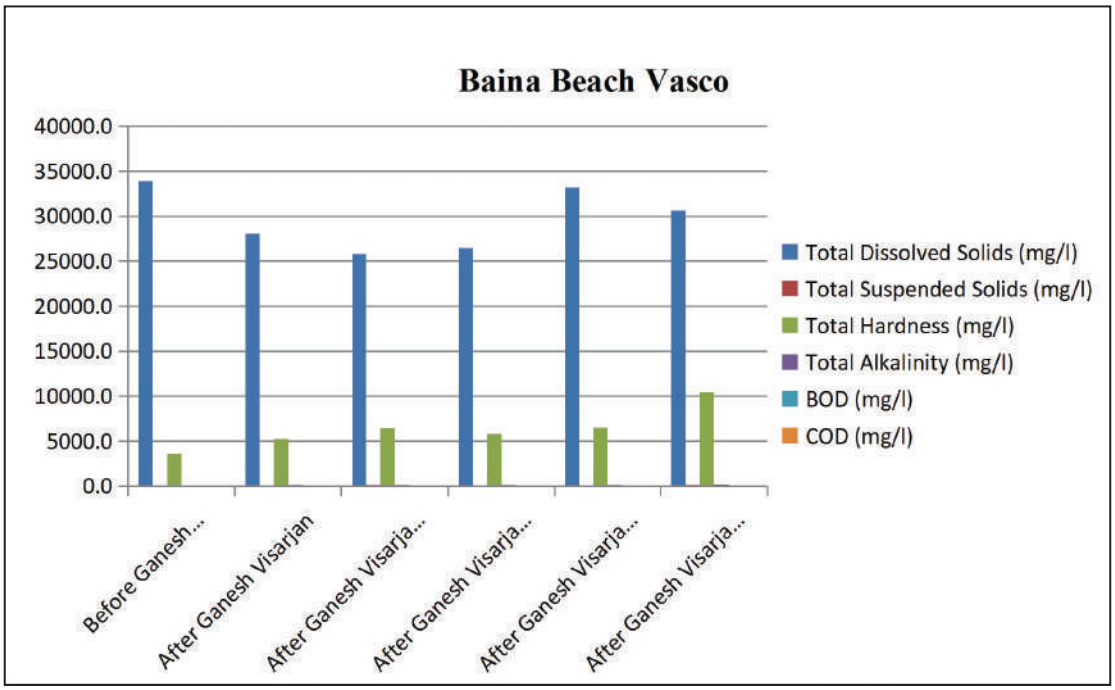

Paraste Harmalkar Wada Pernem
6000.0
5000.0
4000.0
3000.0
2000.0
1000.0
0.0
Before Ganesh Visarjan
After Ganesh Visarjan
After Ganesh Visarjan 3rd day
After Ganesh Visarjan 5th day
After Ganesh Visarjan 7th day
After Ganesh Visarjan 15th day
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)


Daudkiwada River Daudkiwada-velus ward no 1 Valpoi
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Before Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)


Near Bridge Orcotto Ward No 4 Sanguem
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Before Ganesh Visarjan
After Ganesh Visarjan
After Ganesh Visarjan...
After Ganesh Visarjan...
After Ganesh Visarjan...
After Ganesh Visarjan...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)


Pimpolcotto Ward No 2 Sanguem
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
Before Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
After Ganesh...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)


Panefond River Kindlebag Ward No 5 Cancona
4000.0
3500.0
3000.0
2500.0
2000.0
1500.0
1000.0
500.0
0.0
Before Ganesh...
After Ganesh Visarjan
After Ganesh Visarja...
After Ganesh Visarja...
After Ganesh Visarja...
After Ganesh Visarja...
Total Dissolved Solids (mg/l)
Total Suspended Solids (mg/l)
Total Hardness (mg/l)
Total Alkalinity (mg/l)
BOD (mg/l)
COD (mg/l)



6.13 PERFORMANCE EVALUATION STUDIES OF EFFLUENT TREATMENT PLANT / SEWAGE TREATMENT PLANT IN THE STATE OF GOA.

6.13.1. EFFLUENT TREATMENT PLANT – M/S SOUTH GOA PLANNING & DEVELOPMENT AUTHORITY (SGPDA) WHOLESALE FISH MARKET, FARTODA MARGAO GOA FROM 05-03-2024 TO 06-03-2024 (24 HRS)

I. SUMMARY AND CONCLUSIONS

a. The SGPDA wholesale fish market, Margao located to the Northern side of the Serulim – Margao road and to the Eastern side of river Sal.

b. The retail fish traders/vendors were doing their business of selling fish in retail in the market with the vendors sitting on the ground with fish in their baskets/plastic crates with puddles of leachate around. Fish was also being sold all along the main entrance road right up to the main road. The ground does not have concrete flooring; leachate (fish water) was observed collected in the potholes/depression all around the place. The fish vendors were seen emptying their containers of the waste water on the ground.

c. The waste water generated get diverted in to the storm water drain by gravity, the same is connected to the collection tank.

d. The SGPDA has set up Vertical Wetland 1 & 2 system for treatment of waste water generated from the fish market adjacent to the river Sal

e. The process of treatment involved in wetland treatment are the constructed wetland stages containing various layers of gravel and sand that aid in the treatment of the waste water. There is a distribution grid which ensures that the water is uniformly spread out across the available area where the canna indica plants are planted. There is a multitude of processes that happen simultaneously within the constructed wetland that achieve the desired treatment

of the wastewater stream. The wastewater generated at the SGPDA fish market is collected in a collection tank than the water from river Sal has been mixed and diluted the raw effuelent. This is then pumped to the first stage of the constructed wetland which is operated in aerobic conditions. Slowly the water filters down the first stage and enters into the second stage of the wetland by gravity. The second stage is operated under anaerobic conditions. The water flows down and flow out by gravity which is achieved by a gradient given at the bottom of the wetland and is then collected at the final collection tank before being discharge into the Sal river.

f. The waste water generated from the fish market complex get scattered and saturate in to the ground before it reached the collection tank.

g. The waste water approx. 12 m^3 is directed to an ETP of 15 KLD capacity.

h. Analysis report of Final effluent collected from 24 hours during operation of plant indicates that the consent parameter is within the prescribed standard limits.

II. RECOMMENDATIONS

a. The fish market complex ground needs concrete flooring, with proper drainage system to divert the waste water generated in to the effluent treatment plant.

b. The concrete flooring needs to get rid of the potholes and depressions which results in water stagnation and can facilitate to maintain hygiene with regular washing of floor.

c. To provide the platform for the fish vendor for selling their fish with collection tank for waste and wash water and provide separate area for collection of waste water from the fish transportation trucks so that the waste water can be transferred to the ETP for treatment

d. To direct the SGPDA to installation of flow meter at inlet and outlet of the ETP

e. The SGPDA should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits.

f. Records should be maintained of the sludge generated and disposed.

g. May suggest the SGPDA to explore the possibility of reuse of treated water which is presently discharge into River Sal

6.13.2. SEWAGE TREATMENT PLANT - PUBLIC WORKS DEPARTMENT 6.7 MLD SEWAGE TREATMENT PLANT - SIRVODEM, NAVELIM-GOA FROM 12-04-2023 TO 13-04-2023 (24HRS)

I . SUMMARY AND CONCLUSIONS

a. The sewage treatment plant of Public Works Department at Navelim is operational and analysis of samples collected for a period of 24 hours during operation of plant indicates that the consent parameter within the prescribed standard limits of the consent issued by the Board.

b. On perusal of the log sheets for the past one year it is observed that the rate of sewage received at the sewage treatment plant is well within the designed flow ie. Peak flow 6.0 MLD.

c. The mixed liquor suspended solids (MLSS) value C-Tech basinis 1722mg/l

d. The dissolved oxygen values at C-Tech basin is 7.0 mg/l

e. The activated sludge plant was operating at F/M ratio at C-Tech basin is 0.02 per day

f. The sludge generated is centrifuged and staggered within the premises.

g. Incoming flow of raw effluent at STP is around 6 MLD during monitoring period.

h. The treated effluent meeting the standard is diverted to nallah /river Sal for flushing of the river and to maintain sufficient flow in the river.

i. The sludge generated at the STP is approximately 50 T per month as per the records maintained at the site.

j. Treatment plant use chlorine as a disinfectant to kill microorganisms before discharging effluent to the environment which is ineffective.

II RECOMMENDATIONS

a. The unit shall install Continuous treated effluent monitoring system at the outlet before discharging the treated effluent into the nallah ie river Sal

b. The unit may be directed to install sludge drying beds. The unit shall provide closed shed for storing the excess sludge generated from the STP.

c. The shall install online display board at the entrance of the unit .

d. The unit shall get the effluent sample collected both before and after treatment and analyse, every month the parameter indicated in the consent condition from a laboratory recognised by MoEF.

e. May suggest the unit to explore the possibility of reuse of treated water

f. The disinfectant used should be effective on microorganism.

6.13.3. SEWAGE TREATMENT PLANT - SEWERAGE AND INFRASTRUCTURAL DEVELOPMENT CORPORATION OF GOA 20 MLD SEWAGE TREATMENT PLANT - SIRVODEM, NAVELIM-GOA FROM 12-04-2023 TO 13-04-2023 (24HRS)

I SUMMARY AND CONCLUSIONS

a. The sewage treatment plant of Sewerage and Infrastructural Development Corporationof Goa Ltd. at Navelim is operational and analysis of samples collected for a period of 24 hours during operation of plant indicates that the consent parameter within the prescribed standard limits of the consent issued by the Board.

b. The mixed liquor suspended solids (MLSS) value C-Tech basin is 3130 mg/l

c. The dissolved oxygen values at C-Tech basin is 1.7 mg/l

d. The activated sludge plant was operating at F/M ratio at C-Tech basin is 0.4 per day

e. The sludge generated is staggered within the premises.

f. Incoming flow of raw effluent at STP is around 15 MLD during monitoring period.

g. The treated effluent meeting the standard is diverted to nallah /river Sal for flushing of the river and to maintain sufficient flow in the river.

h. The sludge generated at the STP is approximately 100 T per month as per the records maintained at the site.

II RECOMMENDATIONS

a. The unit shall install Continuous treated effluent monitoring system at the outlet before discharging the treated effluent into the nallah i.e river Sal

b. The unit may be directed to install sludge drying beds. The unit shall provide closed shed for storing the excess sludge generated from the STP.

c. The shall install online display board at the entrance of the unit .

d. The unit shall get the effluent sample collected both before and after treatment and analyse, every month the parameter indicated in the consent condition from a laboratory recognised by MoEF.

e. May suggest the unit to explore the possibility of reuse of treated water

6.13.4. EFFLUENT TREATMENT PLANT – M/S GODREJ BOYCE AND MANUFACTURING COMPANY LTD. PLOT NO. E3 D4 D5 D6, MADKAIM INDUSTRIAL ESTATE MADKAIM PONDA - GOA FROM 19-05-2023 TO 20-05-2023 (24HRS)

I. SUMMARY AND CONCLUSIONS

a. The unit deals with manufacturing of Electroplating of Brass, Electroplating MAZAK and Electroplating MS component.

b. The Industry has designed an Effluent Treatment Plant to treat 160 KLD of waste water , however 170 KLD of waste water generated during monitoring period

c. The domestic waste water approx. 45 KLD is directed to an STP.

d. The ETP is under capacity as effluent seen overflowing from holding tank, Adequate capacity of effluent holding tank was not provided to store the wastewater in case of failure or excess of effluent

e. The unit has submitted water consumption for various activities at site arbitrarily just for the sake of submission and not based on actual consumption . Correct water balance not available.

f. The performance of the ETP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of heavy metal (Ni). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the ETP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II. RECOMMENDATIONS

a. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board..

b. The ETP design at site is unscientific. It is apparent that poor design and operation of ETP is the cause of the non –performance of ETP.

c. A holding tank of adequate storage capacity should be provided to store the untreated effluent in case of non-functioning of ETP

d. Water flow meters should be installed at inlet and outlet of ETP to measure the volume of influent and treated effluent and its record of utilization should be maintained

e. The unit needs to categorise under **Red Category**

f. ETP needs up gradation for treatment of effluent containing high concentration of Ni.

g. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of ETP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

h. Records should be maintained of the sludge generated and disposed.

i. May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the ETP.

6.13.5. EFFLUENT TREATMENT PLANT –M/S NAIK MOTORS PVT LTD., SURVEY NO 38/12, 38/13 &38/18 H NO 708/2, SOCCORO, ALTO PORVORIM, BARDEZ GOA FROM 28-02-2024 TO 29-02-2024 (24HRS).

I. SUMMARY AND CONCLUSIONS

a. M/s Naik Motors located along the NH 66 Socorro Porvorim Goa.

b. The unit is engaged in servicing and washing of Mahindra make four wheeler vehicles.

c. The treated water generated is utilised for cleaning the carpet area within the unit premises and gardening.

d. The unit has installed the ETP having capacity 4m^3, the untreated water being neutralised in the neutralisation tank by adding caustic soda.

e. The unit has not provided aeration tank hence MLSS, MLVSS and DO was not collected during the performance evaluation study.

f. Analysis report of Final effluent collected from 24 hours during operation of plant indicates that the consent parameter was exceeding the prescribed standard limits.

g. used oil removed from four wheeler vehicles has been disposed through authorised recyclers and manifesto has been maintained.

II. RECOMMENDATIONS

a. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

b. The ETP design at site is unscientific. It is apparent that poor design and operation of ETP is the cause of the non –performance of ETP.

c. Water flow meters should be installed at inlet and outlet of ETP to measure the volume of influent and treated effluent and its record of utilization should be maintained

d. ETP needs upgradation for treatment of effluent containing high concentration of BOD

e. Records should be maintained of the sludge generated and disposed.

f. May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the ETP.

6.13.6. EFFLUENT TREATMENT PLANT – M/S BIOTIC WASTE SOLUTION PVT LTD.. PLOT NO. BW -1, KUNDAIM INDUSTRIAL ESTATE , KUNDAIM PONDA - GOA, FROM 21-04-2023 TO 22-04-2023 (24HRS).

I. SUMMARY AND CONCLUSIONS

a. The unit deals with Biomedical waste treatment facility.

b. The Industry has designed an Effluent Treatment Plant to treat 10 KLD , however 2 KLD of waste water generated during monitoring period

c. The domestic waste water approx. 1.0 KLD is directed to an septic tank/ soak pit..

d. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 132.0 mg/l, 102.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

e. The settleability test shown settled volume of sludge of approx. 5 ml/l, i.e 0.5% of sludge in the Aeration tank and calculated SVI was 37.8 ml/g .

f. The activated sludge plant was operating at F/M ratio at 1.2 per day.

g. The performance of the ETP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of organic loading (BOD, COD). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the ETP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II RECOMMENDATIONS

a. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

b. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

c. The ETP design at site is unscientific. It is apparent that poor design and operation of ETP is the cause of the non –performance of ETP.

d. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

e. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of ETP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

f. Records should be maintained of the sludge generated and disposed.

g. May suggest the unit to explore the possibility of reuse of treated water

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the ETP.

6.13.7. SEWAGE TREATMENT PLANT – M/S CROMPTON GREAVES CONSUMER ELECTRICALS LTD. SY NO 214-A KUNDAIM INDUSTRIAL ESTATE. KUNDAIM,PONDAGOA FROM 12-05-2023 TO 13-05-2023 (24HRS).

I. SUMMARY AND CONCLUSIONS

a. The unit deals with assembling and manufacturing of electric fans including powder coating and painting.

b. The unit has designed an Sewage Treatment Plant to treat 50 KLD of waste water, however 50 KLD of waste water generated during monitoring period.

c. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 1280.0 mg/l, 1080.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

d. The settleability test shown settled volume of sludge of approx. 600 ml/l, i.e 60% of sludge in the Aeration tank and calculated SVI was 465.0 ml/g .

e. The activated sludge plant was operating at F/M ratio at 0.3 per day.

f. The performance of the STP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of organic loading (BOD, COD, SS). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the STP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II. RECOMMENDATIONS

a. The parameter which were measured to assess the treatment efficiency of STP are DO, pH, COD ,BOD, SS, Total Coliform, Fecal Coliform. Results showed that the effluent from the STP investigated failed to comply with discharge standard in terms of COD, BOD, Fecal Coliform & DO . Therefore, it was proposed that such proper maintenance and operation while removing excess sludge and scum be conducted in order to increase treatment efficiency

b. The unit should ensure continuous operations of STP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

c. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

d. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

e. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of STP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

f. Records should be maintained of the sludge generated and disposed.

g. May suggest the unit to explore the possibility of reuse of treated water

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the STP.

6.13.8. EFFLUENT TREATMENT PLANT – M/S ENCUBE ETHICALS PVT.LTD PLOT NO– C-1 TO C4 MADKAIM INDUSTRIAL ESTATE , MADKAIM PONDA GOA FROM 27-05-2023 TO 28-05-2023 (24HRS).

I. SUMMARY AND CONCLUSIONS

a. The unit deals with manufacturing of Ointments, Creams, Lotions and Gels.

b. The Industry has designed an Effluent Treatment Plant to treat 250 KLD of waste water , however 230 KLD of waste water generated during monitoring period

c. The domestic waste water approx. 60 KLD is directed to an ETP of 250 KLD capacity. Thus the quantity of total effluent generated (trade + sewage) is characteristically around 230 KLD.

d. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 4.0 mg/l, 3.3 mg/l and 0.0 mg/l (N0 dissolved oxygen) respectively.

e. The settleability test shown settled volume of sludge of approx. 700 ml/l, i.e 70% of sludge in the Aeration tank and calculated SVI was 175000.0 ml/g .

f. The activated sludge plant was operating at F/M ratio at 958 per day.

g. Analysis report of Final effluent collected from 24 hours during operation of plant indicates that the consent parameter are within the prescribed standard limits.

II. RECOMMENDATIONS

a. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

b. Since in an aeration tank, the settled volume sludge is high, indicates high amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

c. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

d. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of ETP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

e. Records should be maintained of the sludge generated and disposed.

f. May suggest the unit to explore the possibility of reuse of treated water.

6.13.9. SEWAGE TREATMENT PLANT – M/S GODREJ BOYCE AND MANUFACTURING COMPANY LTD. PLOT NO. E3 D4 D5 D6, MADKAIM INDUSTRIAL ESTATE MADKAIM PONDA - GOA FROM 19-05-2023 TO 20-05-2023 (24HRS)

I. SUMMARY AND CONCLUSIONS

a. The unit deals with manufacturing of Electroplating of brass, Electroplating of MAZAK, Locks and pars of locks.

b. The unit has designed an Sewage Treatment Plant to treat 100 KLD of waste water, however 56 KLD of waste water generated during monitoring period.

c. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 18510.0 mg/l, 13620.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

d. The settleability test shown settled volume of sludge of approx. 60 ml/l, i.e 0.6% of sludge in the Aeration tank and calculated SVI was 3.2 ml/g .

e. The activated sludge plant was operating at F/M ratio at 0.03 per day.

f. The performance of the STP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of Suspended solid (SS). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the STP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II RECOMMENDATIONS

a. The parameter which were measured to assess the treatment efficiency of STP are DO, pH, COD ,BOD, SS, Total Coliform, Fecal Coliform. Results showed that the effluent from the STP investigated failed to comply with discharge standard in terms of SS & DO. Therefore, it was proposed that such proper maintenance and operation while removing excess sludge and scum be conducted in order to increase treatment efficiency.

b. The unit should ensure continuous operations of STP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

c. The unit needs to categorise under **Red Category**

d. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

e. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

f. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of STP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

g. Records should be maintained of the sludge generated and disposed.

h. May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the STP.

6.13.10. EFFLUENT TREATMENT PLANT – M/S MICRO LABS LIMITED PLOT NO– 155 TO 159 VERNA INDUSTRIAL ESTATE, VERNA SALCETE GOA FROM 05-05-2023 TO 06-05-2023 (24HRS)

I. SUMMARY AND CONCLUSIONS

a. The unit deals with manufacturing of Tablets and capsules.

b. The Industry has designed an Effluent Treatment Plant to treat 100 KLD of waste water , however 90 KLD of waste water generated during monitoring period

c. The domestic waste water approx. 40 KLD is directed to an ETP of 100 KLD capacity. Thus the quantity of total effluent generated (trade + sewage) is characteristically around 90 KLD.

d. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 35.0 mg/l, 21.0 mg/l and 4.6 mg/l respectively.

e. The settleability test shown settled volume of sludge of approx. 650 ml/l, i.e 65% of sludge in the Aeration tank and calculated SVI was 18571 ml/g .

f. The activated sludge plant was operating at F/M ratio at 20.6 per day.

g. Analysis report of Final effluent collected from 24 hours during operation of plant indicates that the consent parameter are within the prescribed standard limits.

II. RECOMMENDATIONS

a. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

b. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

c. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

d. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of ETP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

e. Records should be maintained of the sludge generated and disposed.

f. May suggest the unit to explore the possibility of reuse of treated water.

6.13.11. SEWAGE TREATMENT PLANT – M/S PRABHU REALTORS.,SY NO 13/4 NEAR GRANDIOUR BLDG ALTO DABOLIM DABOLIM , SALCETE GOA. FROM 28-04-2023 TO 29-04-2023 (24HRS)

I. SUMMARY AND CONCLUSIONS

a The unit deals residential complex cum commercial complex having 166 flats.

b. The unit has designed an Sewage Treatment Plant to treat 105 KLD of waste water, however 140 KLD of waste water generated during monitoring period

c. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 62.0 mg/l, 14.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

d. The settleability test shown settled volume of sludge of approx. 80 ml/l, i.e 0.8% of sludge in the Aeration tank and calculated SVI was 1290.0 ml/g .

e. The activated sludge plant was operating at F/M ratio at 20.6 per day.

f. STP was emanating a foul smell in the air.

g. The unit is operating without CTO

h. Effluent quantity is higher than consented quantity.

i. The performance of the STP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of organic loading (BOD, COD, SS). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the STP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II. RECOMMENDATIONS

a. The parameter which were measured to assess the treatment efficiency of STP are DO, pH, COD ,BOD, SS, Phosphate, N-Total, NH4, Total Coliform, Fecal Coliform. Results showed that the effluent from the STP investigated failed to comply with discharge standard in terms of COD, BOD, Ammonical Nitrogen, N-Total, Fecal Coliform & DO . Therefore, it was proposed that such proper maintenance and operation while removing excess sludge and scum be conducted in order to increase treatment efficiency

b. The unit should ensure continuous operations of STP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

c. The unit shall be categorise under **Red Category**.

d. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

e. The STP design at site is unscientific and is under capacity. It is apparent that poor design and operation of STP is the cause of the non –performance of STP. STP must be upgraded scientifically within 3 month.

f. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

g. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of STP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

h. Immediate action shall be initiated to stop the effluent discharging outside the premises.

i. Records should be maintained of the sludge generated and disposed.

j. May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the STP.

6.13.12. SEWAGE TREATMENT PLANT – M/S PRABHU VIOLETTA.SY NO 13/4, C- 7,BEHIND VISHAL MEGA MART, ALTO - DABOLIM , SALCETE GOA., FROM 28-04-2023 TO 29-04-2023 (24HRS).

I. <u>SUMMARY AND CONCLUSIONS</u>

a. The unit deals residential complex cum commercial complex having 128 flats

b. The unit has designed an Sewage Treatment Plant to treat 85 KLD of waste water, however 105 KLD of waste water generated during monitoring period

c. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 66.0 mg/l, 12.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

d. The settleability test shown settled volume of sludge of approx. 90 ml/l, i.e 0.9% of sludge in the Aeration tank and calculated SVI was 1363.0 ml/g .

e. The activated sludge plant was operating at F/M ratio at 16.6 per day.

f. STP was emanating a foul smell in the air.

g. The unit is operating without CTO

h. Effluent quantity is higher than consented quantity.

i The performance of the STP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of organic loading (BOD, COD, SS). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the STP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II. RECOMMENDATIONS

a. The parameter which were measured to assess the treatment efficiency of STP are DO, pH, COD ,BOD, SS, Phosphate, N-Total, NH4, Total Coliform, Fecal Coliform. Results showed that the effluent from the STP investigated failed to comply with discharge standard in terms of COD, BOD, Ammonical Nitrogen,N-Total, Fecal Coliform & DO . Therefore, it was proposed that such proper maintenance and operation while removing excess sludge and scum be conducted in order to increase treatment efficiency

b. The unit should ensure continuous operations of STP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

c. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

d. The unit shall be categorise under **Red Category**

e. The STP design at site is unscientific and is under capacity. It is apparent that poor design and operation of STP is the cause of the non –performance of STP. STP must be upgraded scientifically within 3 month.

f. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

g. The unit should engage experts and skilled manpower for timely advice for proper operation and maintenance of STP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

h. Immediate action shall be initiated to stop the effluent discharging outside the premises.

i.. Records should be maintained of the sludge generated and disposed.

J . May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the STP.

6.13.13. EFFLUENT TREATMENT PLANT – M/S SEAHATH CANNING COMPANY, PLOT NO– 8, MARGAO INDUSTRIAL ESTATE ST JOSE DE AREAL, CURTORIM GOA FROM 05-04-2023 TO 06-04-2023 (24HRS)

I. SUMMARY AND CONCLUSIONS

a. The unit deals with manufacturing of Canning of Fish and Ice block.

b. The Industry has designed an Effluent Treatment Plant to treat 8 KLD , however 6 KLD of waste water generated during monitoring period

c. The domestic waste water approx. 1.5 KLD is directed to an ETP of 8 KLD capacity. Thus the quantity of total effluent generated (trade + sewage) is characteristically around 8 KLD.

d. The analysis reports indicate that MLSS, MLVSS & DO in the Aeration Tank are 2013.0 mg/l, 1580.0 mg/l and 0.0 mg/l (no dissolved oxygen) respectively.

e. The settleability test shown settled volume of sludge of approx. 120 ml/l, i.e 12% of sludge in the Aeration tank and calculated SVI was 60 ml/g .

f. The activated sludge plant was operating at F/M ratio at 0.4 per day.

g. Board has granted permission to send the fish waste to fish meal plant, however M/s Seahath has installed their own fish meal plant within the premises without obtaining Consent to established and Consent to operation.

h. The civil construction work is in full swing for establishing Tin manufacturing. The unit has neither obtained consent to established nor informed the board regarding the same.

i. The unit manufactures Tin at the existing premises without obtaining consent of the Board.

j. The performance of the ETP was found to be below average as the as the final treated effluent was not able to meet the standards for discharge of treated industrial effluent in terms of organic loading (BOD, COD). It can be assume that discharge of such effluent may cause severe health risks and environmental problems at the disposal point. The reason for the low performance of the ETP can be attributed to poor managements practices, operating conditions and organic overloading under full operational capacity.

II. RECOMMENDATIONS

a. The parameter which were measured to assess the treatment efficiency of ETP are DO, pH, COD ,BOD, SS, Phosphate, Total Coliform, Fecal Coliform. Results showed that the effluent from the ETP investigated failed to comply with discharge standard in terms of COD, BOD, Phosphate, Fecal Coliform & DO . Therefore, it was proposed that such proper maintenance and operation while removing excess sludge and scum be conducted in order to increase treatment efficiency

b. The unit should ensure continuous operations of ETP plant to maintain the parameters within the stimulated limits as per the consent issued by the board.

c. Since in an aeration tank, the settled volume sludge is low, indicates less amount of sludge in the aeration tank and higher amount of untreated sludge remains in the collection tank. The untreated sludge in the collection tank needs to be treated in the aeration tank by increasing aeration to enhance DO and by maintaining the sludge volume in the aeration tank.

d. The ETP design at site is unscientific. It is apparent that poor design and operation of ETP is the cause of the non –performance of ETP.

e. Sludge volume index should be checked per day for each activated sludge process. Check should be done regularly for dissolved oxygen content, F/M ratio, MLSS and MLVSS.

f. The unit should engage experts and skilled manpower for timely advice for proper operation

and maintenance of ETP. The designer and operator should have a broad knowledge of each system involving the implication of hydraulics and organic loads

g. Immediate action shall be initiated to stop the effluent discharging outside the premises.

i. Records should be maintained of the sludge generated and disposed.

j. May suggest the unit to explore the possibility of reuse of treated water.

(III) ACTION TAKEN:

In view of the above non-compliance to the consent parameters, Board has initiated necessary action against the unit for rectification of the defect of the ETP.

6.14. OTHER ACTIVITIES OF THE BOARD

A. TECHNICAL ADVISORY COMMITTEE (TAC) MEETINGS

Continuation of TAC meetings (*i.e. from 18th TAC meet held on 10th April 2023 till 34th TAC meet held on 22nd March 2024*) to discuss / deliberate and recommend with observations w.r.t. the proposals related to Red / Orange category of industries in respect of renewal / amendment / expansion including proposals related to technological interventions on case-to-case basis. Thus, approximately 75 – 80 applications / proposals have been processed.

B. KNOWLEDGE SHARING (KS) PROGRAMME

Continuation of making the platform available to various firms / agencies dealing with latest technological interventions dealing with process-based / product-based / technology-based outputs towards addressing various environmental control measures in the field of Air / Water / Waste / Odour / Noise / Retrofitting Emission Control Devices (RECD) in D.G. sets including GIS-based applications. Thus, approximately 20 firms through five such programmes have presented their technological interventions which were attended by representatives of stakeholder departments / industrial sectors.

C. ENVIRONMENTAL ASSESSMENT (EA) OF INDUSTRIAL UNITS

Continuation of environmental assessment of industrial sectors through empanelment of environment assessors. Accordingly, majority of the units (*fish-processing / fish-meal related / induction furnaces*) in Cuncolim Industrial Estate (18 nos.), Verna Industrial Estate (47 nos.), Pilerne Industrial estate (07 nos.), Bethora Industrial Estate (03 nos.) along with selective units located in Margao Industrial Estate (2 nos.), Kakoda Industrial Estates (2 nos.), Offshore Casino-vessels (06 nos.), Mormugao Port Authority (MPA), Goa Shipyard Ltd., Ganesh Benzoplast, Hindustan Waste Treatment Pvt. Ltd., Biotic Waste Solutions Pvt. Ltd., Nestle India Ltd., (02 units), Madras Rubber Factory (MRF), have been assessed and based on the reported findings / non-compliances to consent conditions, the units were issued Show Cause Notices (SCNs') by the Board with instructions to submit action plan within stipulated timeframe. Subsequently, the Board is ensuring the on-site compliance to submissions made by the units or proceeding with initiating legal action for non-submission, if any. **(list attached) Refer Annexure IX.**

D. INFORMATION TECHNOLOGY CENTER (ITC)

As a matter of creating hand-on understanding of interventions in the field of decentralised

sewage treatment / any other environment-related control measures among general public or visitors, the Board has invited participation for displaying their technology (*in the form of brochure / working-model / prototype / pamphlet, etc.,*) by allotting a suitable space in a room on ground floor at a nominal rental charges @rs. 10,000/- per month. Any person / environment enthusiast can avail the benefit of the said facility to acquaint with the latest technology and gent connected directly for any future engagement without the intervention of the Board.

E. PILOT-SCALE DEMO UNITS TO DEMONSTRATE DECENTRALIZED METHOD OF DOMESTIC EFFLUENTS

In continuation with an aim to facilitate and understand the process-methodology / working-mechanism of decentralised domestic sewage treatment, the Board, *through the firm concerned*, has installed three pilot-scale demo plants within the Board campus. Accordingly, (i) M/s Ideatech Automation., Chennai (*Geotube technology*), (ii) M/s Backtreat Environmental Solutions LLP, Goa (*constructed wetland*), (iii) Kafmar Solutions Pvt Ltd., Goa (*modified-constructed wetland*) have set up their demo-units during last year. Water-quality of the treated outlet is being monitored through Board laboratory with specific reference to CPCB-prescribed parameters including microbial pollution.

F. CELEBRATION OF WORLD WATER DAY 2024

The GSPCB in association with the Institute of Engineers India (IEI), Goa chapter has organised a theme lecture by Mr. Subrai Nadkarni, Ex, Chief Engineer, Water Resources Department (WRD) in the auditorium of the Board to commemorate World Water Day on 26th March 2024.

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CHAPTER 7

ENVIRONMENTAL TRAINING

7.1 TRAINING / WORKSHOPS/ SEMINARS, ETC., ATTENDED BY BOARD OFFICIALS

During the year under report, the officials of the Board attended training programmes / workshops / seminars etc., organized by reputed Institutions. The details of the same are as follows:-

TRAININGS FOR THE YEAR 2023-2024 (Scientific Section)			
Name of the Officials	Topic	Date	Place
Dr. Mohan Girap, Sci 'C'	Air (Prevention & control of pollution) Act, 1981 and Rules	16th May, 2023	Mumbai
	Water (Prevention & control of pollution) Act, 1974 and Rules	16th May, 2023	
	Environment protection Act 1986 (Amended) and Rules	23rd May, 2023	
Miss. Connie Fernandes, Sci 'C' Mr. NileshParsekar, Sci 'B' Mrs. JoshnaParab, SA	ISO 45001:2018 – Health Safety Management (Online)	20th to 24th June, 2023	Online Mode
Mrs. Denza Cardozo, Sci 'B' Mrs. SwaraGaonkar, JLA Mrs. ReemaRedkar, JLA	Biological Parameter	24th to 28th July, 2023	Delhi
Mrs. EdmaSheth, SA Mrs. ReshmaVaz, SA	Awareness Programme: Demonstration on Extraction Procedure for Antibiotic Residues in Environmental Sample	8th August, 2023	Bengaluru
Mrs. JenicaSequeira, Sci 'D'	National Committee on Noise Pollution Control	25th August, 2023	Delhi
Mrs. Livia D'Silva, Sci 'B'	E-Waste Management – Issues collection and Disposal Mechanism	2nd& 3rd August, 2023	Hyderabad
Mr. NileshParsekar, Sci 'B	7th Industrial Green Chemistry World (IGCW-2023) Convention and Eco-system	6th to 8th November, 2023	Mumbai

TRAININGS FOR THE YEAR 2023-2024
(Technical Section)

Name of the Officials	Topic	Date	Place
Mrs. NandanPrabhudessai, AEE	The Biomedical Waste Rules	24th May, 2023	Mumbai
Mrs. NandanPrabhudessai, AEE	National Committee on Noise Pollution Control	25th August, 2023	Delhi
Mrs. NandanPrabhudessai, AEE	E-Waste Management – Issues collection and Disposal Mechanism	2nd& 3rd August, 2023	Hyderabad

TRAININGS FOR THE YEAR 2023-2024
(Information Technology Section)

Name of the Officials	Topic	Date	Place
Mr. Pratik Chari, NE Mr. RajendraNaik, EA	Information Security Management System (ISMS-ISO 27001) Lead Implementer	14th to 16th June, 2023	Tamil Nadu

7.2. DEPUTATION IN THE BOARD

1. Vide Government Order No. DA/Admn/45-6(Part)/2021-2022/TR146/39 dated 17/05/2021 of the Directorate of Accounts Smt. Claudia S. Correia, Assistant Accounts Officer was posted as Assistant Accounts Officer of the Board.

Vide Government Order No. DA/Admn-II/10-26(Part)A/2021-2022/TR-576/108 dated 13/07/2021 of the Directorate of Accounts Shri. Jonathan James Alphonso was posted as Accountant of the Board.

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Chapter 8

LEGAL MATTERS OF THE BOARD

8.1 ROLES AND RESPONSIBILITIES OF LEGAL SECTION

- Ensures that the Board is adequately represented before the Courts of law and Judicial forums and that the Advocates appointed by the Board are adequately briefed in individual matters.
- Ensures that all pleadings filed before the Courts of law and Judicial forums are drafted and vetted within the specified time frames set out by the Courts and that the same are filed before the Courts.
- Ensures that orders passed by the Courts are informed to the Board and that the directions passed by the Courts are complied with within the stipulated time periods.
- Submits Legal opinions/interpretations of Court Orders, Judgments, statutes of law as and when directed.
- Ensures that all legal correspondence issued by the Board including statutory directions are legally drafted and vetted prior to issue by the Board.

8.2 IMPLEMENTATION OF ACTS & RULES

- Water (Prevention and Control of Pollution) Act, 1974,
- Air (Prevention and Control of Pollution) Act, 1981
- Some of the provisions under Environmental (Protection) Act 1986.
- Goa Water (Prevention & Control of Pollution) Rules
- Air (Prevention & Control of Pollution) Rules
- The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- The Bio-Medical Waste Management Rules, 2016.
- The Solid Waste Management Rules, 2016.
- The Construction and Demolition Waste Management Rules, 2016.

- The Plastic Waste Management Rules 2016
- The E-waste (Management) Rules, 2016
- The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
- The Noise Pollution (Regulation and Control) Rules, 2000.
- The Batteries (Management and Handling) Rules, 2001
- Notifications: Environment Impact Assessment Notification, 2006.

8.3 BROAD ACTION THAT CAN BE INITIATED AGAINST A VIOLATOR BY THE GSPCB; IN THE EVENT OF VIOLATION OF THE PROVISIONS OF THE WATER ACT, AIR ACT, ENVIRONMENT (PROTECTION) ACT AND THE RULES FRAMED THEREUNDER

- Issue of statutory directions under section 33(A) of the Water Act, 31(A) of the Air Act and Section 5 of the Environment (Protection) Act, as the case may be; for carrying out specific pollution control measures or for closure of the unit/establishment after complying with the principles of Natural Justice.
- Initiation of Criminal Proceedings under the Water Act, Air Act and the Environment (Protection) Act before Criminal Courts of Law.
- Imposition of Polluter Pays Penalty in terms of NGT directives and CPCB guidelines after detailed assessment and computation of the Penalty and after complying with the principles of Natural Justice.

8.4 REQUIREMENT OF CONSENT OF THE BOARD

- No industry can run without valid consent to establish/operate under Air and Water Act and any operation carried out without such lawful consents is deleterious to the environment in as much as it frustrates the regulatory regime of law to prevent and control environmental pollution.
- Section 21 of the Air Act and Section 25 of the Water Act places restrictions, both on establishment and operation of any industrial plant without previous consent of the Board. The legislative intent behind this provision would lead to decipher two concepts--- one, the consent for the purpose of establishing an industrial plant while the other for operation of that plant. The purpose of this section is to ensure that when a unit or an industrial plant is given consent to operate, the unit ought to have satisfied all the conditions stated in the order of consent to establish `would have installed the requisite effluent treatment plants and other ant-pollution devices to ensure that it causes no pollution. It necessary implies that this is the rule
- Renewal of Consent not to be granted unless all adequate measures are taken to control pollution failing which action as per section 31(A) of Air and section 33(A) of Water may be initiated against the owner. It is settle law that grant of renewal is a fresh grant though it breathes life into the operation of the previous consent or license granted as per existing appropriate provisions of law/Act, rules or orders acts intra vires . The right to get renewal is not a vested right but a privilege subject to fulfilment

of the conditions precedent enumerated under the Act. The time period for compliance is also not specified.

- Allowing Operation of any industry without complying with air and water pollution control measures solely on the economic aspect does not justify the continuance. Balancing the vital interests of the vast majority of citizens against the commercial interests of few the balance must heavily tilt in favour of citizens in general. Balance must overwhelmingly prioritize the harmful effects of the hazardous air on present and future generations.

- Environment is wealth which needs protection from being plundered by law violators, for their monetary interests, by adequate monitoring and stringent vigilance. Its scientific management, including enforcement of polluter pays principle, requires study of level of pollution and contributors thereto and cost of restoration to be recovered by an efficient machinery. Such steps will advance the environmental rule of law and lead to sustainable development. The 'Polluter Pays' principle requires compensation to be recovered to meet the cost of remedying the adverse impact of pollution. Governance of such laws can be held to be satisfactory if the magnitude of punishment of law violators corresponds to the extent of violation of law and the compensation recovered is adequate to meet the cost of damage.

- The issue of granting consent to operate to the units does not bestow any legal right to the units. The units are required to seek and obtain the requisite clearances/licences/ permits/NOCs required under statutory provisions stipulated under various laws, Acts and Rules of Central/State Government/Court Order etc before taking any effective steps to implement the project. Incase the units has not complied with the required permissions before taking any effective steps to implement the project the authorities are free to initiate action under the relevant provision of law.

8.5 LITIGATION PROFILE OF THE GSPCB :

- The GSPCB is party Respondent in a number of cases before various Courts and Judicial Forums including the Supreme Court of India, High Court of Bombay at Goa, National Green Tribunal at New Delhi and Pune, Administrative Tribunal at Panaji, District and Sessions Court, JMFC, Human Rights Commission, Lokayukta, State Information Commission and Arbitration Forum.

- The GSPCB engages Advocates to appear on its behalf before various Courts of law and Judicial forums and defend its interests.

- The GSPCB has at its 151st Meeting; reconstituted the panel of Advocates who will appear on its behalf before various Courts of law and Judicial forums and defend its interests.

- The Member Secretary of the GSPCB in terms of the powers conferred under the Goa Water and Air Rules 2021 appoints Advocates from the Panel to appear on behalf of the Board in individual cases.

- Terms and Conditions of the appointment of Advocates of the Board as well as Fees to be paid to the Boards Advocates are as specified in the minutes of the 151st Board meeting.

- The Board is required to file pleadings by way of Affidavits in reply etc. before these Courts/Forums and is occasionally also required to prefer Petitions/Applications/ Appeals etc. before these forums as and when required.

8.6 IMPORTANT COURT MATTERS PERTAINING TO GSPCB DURING THE YEAR 2023-24

1. Cases before the Supreme Court

Sr No.	Case no.	Case name
	WP(Civil) no. 728/2015	Arjun Gopal&ors V/s Union of India &ors
	WP(Civil) no. 13029/1985	M.C.Mehta V/s. Union of India &ors.
	Civil Appeals No(s). 5826-5827 of 2019	MathalaChandrapati Rao V/s. Union of India &Ors.
	SLA(Civil) no. 3739/2020	Ganesh Benzoplast Limited V/s. Mormugao Port Trust/Board of Trustees &ors.
	WP(C) no. 369 of 2020	M. Kaviya&ors V/s. Union of India &ors
	Civil Appeal no. 1657/2018	Bharat Jhunjhunwala V/s Pushp Saini
	Civil Appeal no-4983/2021	Bainguinim Citizens Forum v/s GWMC and ors
	Civil Appeal No. 1926/2022	K.S Radhakrishnan V/s Union of India &Ors.
	SLP (C) no. 24758/2023	GSPCB V/s. PayalBaadkar&ors
	Writ Petition(Civil) no. 1062/2023	InduVerma V/s. Union of India &ors

2. Cases before the High Court of Bombay at Goa

Sr. No.	Case no.	Case Title
	PIL WP 24/2018 (STM no. 2420/2018) and MA (STA no. 2421/2018)	Sherwyn Filipe Francisco Corriea&ors V/s. Gos State pollution Control Board &ors
	SuoMotu Writ Petition 2/2007	---V/s State of Goa &ors (Solid waste matter)
	WP/881/2017	PravirPhadte v/s State of Goa and ors.
	PILWP/22/2021	Antonio Alvares v/s CS State of Goa and ors
	WP/225/2021	Kevin Colaco v/s Deputy Collector and ors
	WP/779/2021	Goa Foundaton v/s DMG and ors
	PILWP/28/209	Arturo De souza v/s State of Goa and ors
	PILWP/41/2018	SanjeevRaiturkar v/s State of Goa and ors.
	PILWP/2/2020	The Goa Foundation V/s. State of Goa
	LD-VC-CW-29-2020	MulakhKhanjan Tenants Association &ors V/s. State of Goa &ors
	PILWP/15/2011	Colva Civic and Consumer Forum v/s State of Goa and ors
	PILWP 45/2019	Citizens for Sonsodo&ors V/s. MMC &rs

	MCA no. 354/2017 in W.P.no. 1/2008.	Villagers of the Shrigao Villagers V/s. SirigaoNagarik SanghatanaSirigao&Ors.
	WP/696/2013 And WP/615/2014	SayadriSinari v/s State of Goa and ors And PayalBadkar and ors v/s GSPCB and ors
	PIL WP no. 17/2018	Dhatwadausgao Citizens Forum &Anr. V/s. Village Panchayat of usgao-Ganjem&ors (Goa Foundation v/s M/s. MRF ltd)
	First Appeal no. 138/2017 & Civil Application. 265/2017-	Jose Azavedo and 5 Ors. V/s. Manuel Filomena Gama and 50 Ors
	WP/399/2018	Cain D'Cruz V/s. Mamlatdar of Salcete, Govt. of Goa, margao
	Public Interest Litigation Writ Petition No.2824 Of 2022(Filing)	Rajesh Sinary … Petitioner Versus
	Contempt Petition No.14/22 (Filing) In PILWP No.7/2021 with Contempt Petition No.1909/2022 in PILWP No.876/2022	SagardeepSirsaikar V/s. State of Goa &ors
	Contempt Petition no. 1 of 2023 in WP no.310 of 2021	Caetano A. Monteiro V/s. Dr.ShamilaMonteiro, Member Secretary &ors
	PIL WP 1/2023	Sanjay Redkar V/s. Southern Western Railway &ors
	PIL WP 44/2022	Reuben Franco V/s. Director of Tourism, Govt. of Goa &ors
	WP 463/2023 (F)	John Caridade Dsouza And Anr Mary Dsouzav/s The State Of Goa, Thr. The Chief Secretary And 4 Ors
	Pilwp no.631/2023 (f)	Hanumantchandrakantparab v/s. Dmg and ors.
	WP/607/2023	KamaliniRamakantPaiguinikar v/s. State of Goa and Ors.
	PIL WP No.7/2023	The Goa Foundation V/s. Town and Country Planning Department and Ors.
	WP/715/2023(F)	Fomento Resources Pvt. Ltd. V/s. State of Goa and Ors.
	WP/739/2023(F)	DomnicD'souza V/s. Collector (North) Goa and Ors.
	PILSM No.2/2022	High Court on his own motion V/s, State of Goa thru. Chief Secretary and ors.
	WP 1/2023	The Colva Village Panchayat V/s.GSPCB and Ors.
	PIL Writ Petition No.12 Of 2023	Telotin Domingo CaboVs State Of Goa
	PILWP No.756/2023 (F)	(Gakurved) thru. General Secretary V/s. State of Goa and Ors.
	WP No.1089/2023(F)	Mr.RishalSawhney V/s. GSPCB and Ors.
	WP No.1088/2023(F)	Mr.VinodHarmalkar V/s. GSPCB and Ors.

	WP No.1090/2023(F)	Mr.VirajHarmalkar V/s. GSPCB and Ors.
	WP No.1137/2023(F)	RBZ Hospitality Goa LLP and 2 ors V/s. The State of Goa and Ors.
	PILWP No.1182/2023 (F)	Smt. Parvati S. Kamat V/s. State of Goa
	PILWP (F) No.1093/2023	Rohan R.Naik and Anr. V/s. The State of Goa and 3 Ors.
	WP No.1367/2023 (F)	M/s. Seahath Canning Company V/s. The State of Goa and Ors,
	WP NO.441/2023	Managing Committee Of Agaji Complex Thr Its President RupeshBhalchandraShirodkar And 3 Ors Versus State Of Goa Thr. Chief Secretary And 9 Ors
	WP No.2271/2023 (F)	Mr. Rosario Valadares V/s. State of Goa Through Chief Secretary and Ors.
	WP NO.2269/2023 (F)	VidhyadharbhikuDabholkar and 2 Others V/s. The State of Goa and Ors.
	WP No.587 /2023	Venan Bonaventure Dias V/s. Fenny Gama and 2Ors.
	WP No.718/2023	Arvind Sinai Nagarsenkar V/s. Canacona Municipal Council, and ors
	WP. Cr. No.2321/2023 (F)	Mr.DevanandShirodkar V/s. State of Goa and Ors.
	WP No.724/2023	Ravi Harmalkar and Anr. V /s. State of Goa and Ors.
	WP/2700/2023 (F)	Mr.Deepak PaiRaikar V /s. State of Goa &ors.
	PILWP No.2853/2023 (F)	Mr.SudeshMayekar and anrs V/s. State of Goa and Ors.
	PILWP 80/2024(F)	The Goa Foundation Thr Its. Secretary Dr. Claude Alvares Versus The Goa State Pollution Control Board Thr Its Member Secretary And 5 Ors
	PILWP 99/2024(F)	The Goa Foundation Versus the Station Master, Kalay Railway Station And Ors.
	PILWP No.119/2024(F)	MulakhKhazan Farmers Association V/s. The Directorate of Mines and Geology
	WP No.247/2024 (F)	Brown Packaging System Pvt. Ltd. V .s, The State of Goa and Ors.
	WP no. 495/2024(F)	Ms. Jennifer Jane Gomes V/s. State of Goa &ors.
	WP No. 502/2024 (F)	La Olalian Estate Pvt. Ltd. And Ors. V/s. GSPCB and Ors.

	WP 537/2024(F)	ThriveniDontamsetti Vs The State Of Goa Thr. Its Chief Secretary And 9 Ors
	WP 553/2024(F)	Manpreet Kaur GonaVs The State Of Goa Thr. Its Chief Secretary And 9 Ors
	WP No.564/2024(F)	Nalini BraganzaVs The State Of Goa Thr. Its Chief Secretary And 9 Ors
	WP No.563/2024(F)	Sanket Singh ChauhanVs The State Of Goa Thr. Its Chief Secretary And 9 Or
	WP No.551/2024(F)	Ashwin Jerome Fernandes Represented PoaEvita Maria Fernandes Alias Evita Maria ZuzarteVs The State Of Goa Thr. Its Chief Secretary And 9 Ors
	WP No.523/2024(F)	Harish GopalaniVs The State Of Goa Thr. Its Chief Secretary And 9 Ors
	WP No.176/2024	Angelo Mark Fernandes V/s. State of Goa and Others
	PILWP No.301/2024 (F)	Mrs.Petricia Pinto and Ors V/s. Department of Tourism and Ors.
	WP No.646/2024(F)	MeherFazal V/s. State of Goa and Ors.
	WP.597/2024(F)	Sandeep Dayal V/s. State of Goa and Ors.
	WP 598/2024(F)	Ranjana Gupta V/s. State of Goa and Ors.
	WP No.645/2024(F)	ManavKrishan V/s. State of Goa and Ors.
	WP No.583/2024(F)	AnuragKaira V/s. . State of Goa and Ors.
	WP No.644/2024(F)	Sonia Sahani V/s. . State of Goa and Ors.
	WP no. 702/2024 (F)	Arvinder Singh Sodhi V/s. State of Gos&ors
	WP/670/2024(F)	Sanjay Relan V/s. State of Goa &ors
	WP/267/2024	Gaurav Krishna Naik V/s. State of Goa &ors
	WP no. 798/2023	LaxmanGawas& 2 ors v/s. State of Goa &ors.
	WP no. 9/2024	Deepti Sharma V/s. State of Goa &ors
	PILWP /2024	Piyush Panchal and Ors. V/s. State of Goa
	PILWP No.775/2024(F)	Mr.Christus C. Lopes and Ors. V/s. State of Goa and Ors.
	PILWP No.13/2024	Calangute Constituency Forum thr. Its President PremanandDuikar V/s. The State of Goa
	PILWP No.1035/2024 (F)	The Goa Foundation V/s. The Chief Wildlife Warden and Ors,

3. CASES PENDING BEFORE THE NATIONAL GREEN TRIBUNAL

Sr No.	CASE NAME	CASE NO
	Executive Application No.01/2023 (WZ) in OA No.16/2016 (WZ)	Salu D'Souza &Anr. V/s. GCZMA &Ors
	OA/42/2021	RoyalaFernandes v/s State of Goa and ors
	Appeal/54/2018	LinetteeNunes v/s GSPCB and ors
	OA/185/2017	CavellosimCcivic Forum v/s VP Cavellosim and ors.
	OA/87/2016	Board of Trustees of MPT v/s WISL and ors
	OA/66/2021	SarangYadwadkar v/s State of Maharashtra and ors
	OA/73/2021	Brackish water Research Centre v/s Gujrat PCB and ors
	Appeal no/2/2022	Dr. Joe De souza v/s State of Goa and ors
	OA/18/2022	ChandravadanSsurti v/s State of Goa and ors
	Appeal No.15/2023 (WZ)	Federation of Rainbow Warriors and Ors. V/s. union of India and Ors.
	Appeal no.16/2023(wz)	Old cross fishing canoe cooperative society ltd and ors v/s. m/s. south west port ltd and ors.
	IA No.184/2023 in Appeal No.27/2023 (WZ)	Spacebound Web Labs Pvt. Ltd. through its authorised officer v/s. GSPCB through Member Secretary
	OA No.____/2023	Smt. ParvatiSachitKamat V/s. The Additional Principal Chief Conservator of Forest
	Appeal No.37/2023 (WZ) with IA No.245/2023 in Appeal no.37/2023 (WZ)	TriveshManoharAjgaonkar V/s. State of Goa and Ors.
	OA No.113/2024	News Item Titled " Illegal sand mining continues unabated on Goan Riverbeds" appearing in O Herald dated 30/12/2023
	OA No.188/2023 (WZ)	Praveen D Lima (The President of Green Space (NGO) V/s. The State of Goa and Ors.
	OA/276/2024	News Item Titled " sand Mafia is taking complete control of illegal river sand mining" appearing in O Herald dated 13/2/2024
	EA No.04/2024 in OA No.512/2018	Shailesh Singh V/s. State of uttar Pradesh &Ors.
	OA No. 456/2022	PavelBoloyangov v/s State of Goa
	OA No. 534/2022	KuldeepRana V/s State of Goa

4. CASES PENDING BEFORE THE LOWER COURTS

Sr No.	CASE NO	CASE NAME
	Criminal Case No. 190/OA/2015/A	GSPCB V/s. umiya Habitat
	Cri. Case no. 539/OA/16/E	GSPCB V/s. Quality Exports
	Cr. Case no. 2039/OA/2017/D	GSPCB V/s. MPT
	Case no. IPC/0000026/2023	GSPCB V/s. Spacebound Web labs
	Criminal Case No. 623/OA/2015/D	GSPCB V/s. Everilda D mello
	Cri. Case no.AOA/663/P&CP Act/17/C	GSPCB V/s. Ms Curlies Guest House
	Civil suit no 45/2019	Maria Fernandes V/s. The State
	Civil suit no 22/2018	Mrs Anjali Anand V/s. Govt of Goa
	Civil Suit No. 05/2021	PareshGauns v/s GSPCB
	Case No. 12/18/2018/DYC/1449	State V/s. SujitSatoskar
	Case no. 2/447/GCSC-ST/2021-22/754	RohidasDhakuGaude a&ors V/s. Rajan Alias RajuKudchadkar&ors
	Case no. Misc/ap/27/2023/Cond/ Pollu/AP/Water in Pollution Appeal/ un-Reg/2023/Water) andCase no. Misc/ap/28/2023/Cond/Pollu/AP/Air in Pollution Appeal/un-Reg/2023/ Water)	Caetano Monteiro V/s. M/s. Harison
	Pollution Appeal/1/2023/Water and Pollution Appeal/02/2023/Air	Village Panchayat Kalay V/s. GSPCB
	Criminal Case no. 65/2023 Criminal Case no. 66/2023 Criminal Case no. 67/2023	MPA V/s. GSPCB Liceyamma V/s. GSPCB DD Ambe V/s. GSPCB
	Proceeding no138/2019	Citizen of Sonsodo v/s MMC
	Proceeding no. 28/2020	Mr..SadanandVaingankar v/s Directorate of Health Services
	Proceedings no. 62/2020	Complaint from ParshuramSonurlekar
	Proceeding no. 45/2022	Mr.Venan Bonaventure Dias V/s The Health Officer
	Case no. Pollution Appeal/3/2023/ Water and Case no. Pollution Appeal/04/2023/Air	GovindKustaGaonkar V/s. GSPCB &anr.
		ShamsundarNaik v/s Harish Rajani&ors.
	Proceeding no. 168/2017	Sandeep HonuGawade V/s. MS, GSPCB &ors
	Pollution Appeal/7/2023/Water and Pollution Appeal/08/2023/Air	Desa Engineering Works V/s GSPCB

	Misc/ap/102/2023/Cond/Pollution/Ap/Water in Pollution Appeal/ un-Regd/2023/Water and Misc/ ap/103/2023/Cond/Pollution/Ap/air in Pollution Appeal/ un-Regd /2023/ Air	M/s. Niyaaz Restaurant V/s. GSPCB
	Civil Misc. Application no. 19/2023/C in Review Application no. 01/2023/C in Proceeding no. 14/2019 (Disposed of)	Shushant Ray V/s. Smt. PriyaSamant&ors
	Pollution Appeal no. 01/2024/Water and 02/2024/Air	M/s. Sunmaria Guest House V/s. GSPCB
	Proceeding no. 82/2024	ParshuramSonurlekar V/s. MS, GSPCB

8.7 RIGHT TO INFORMATION ACT 2005 (RTI ACT)

- The RTI Act provides access to all information *that is available andexisting*. This is clear from a combined reading of section 3 and thedefinitions of 'information' and 'right to information' under clauses (f)and (j) of section 2 of the Act. If a public authority has any information inthe form of data or analysed data, or abstracts, or statistics, an applicantmay access such information, subject to the exemptions in section 8 of theAct. But where the information sought is not a part of the record of apublic authority, and where such information is not required to bemaintained under any law or the rules or regulations of the publicauthority, the Act does not cast an obligation upon the public authority, tocollect or collate such non-available information and then furnish it to anapplicant."

- A public authority is also not required to furnish information which require drawing of inferences and/or making of assumptions or reasons or answering of queries. It is also not required to provide 'advice' or 'opinion' to an applicant, nor required to obtain and furnish any 'opinion' or 'advice' to an applicant. The reference to 'opinion' or 'advice' in the definition of 'information' in section 2(f) of the Act, only refers to such material available in the records of the public authority. Many public authorities have, as a public relation exercise, provide advice, guidance and opinion to the citizens. But that is purely voluntary and should not be confused with any obligation under the RTI Act.

- The Act should not be allowed to be **MISUSED OR ABUSED**, to become a tool to obstruct the national development and integration, or to destroy the peace, tranquillity and harmony among its citizens. Nor should it be converted into a tool of oppression or intimidation of honest officials striving to do their duty. The nation does not want a scenario where 75% of the staff of public authorities spends 75% of their time in collecting and furnishing information to applicants instead of discharging their regular duties. The threat of penalties under the RTI Act and the pressure of the authorities under the RTI Act should not lead to employees of a public authorities prioritising 'information furnishing', at the cost of their normal and regular duties.

- The clause of '**LIFE OR LIBERTY'**can be invoked to obtain information within 48 hours of filing the RTI application. The 'Life or Liberty' clause can be applied only in cases where there is an imminent danger to the life or liberty of a person and the non-supply

of the information may either lead to death or grievous injury to the concerned person. Such imminent danger or the fact that the disclosure of the information would obviate the danger to the life of liberty of an individual has to be demonstrably proven. Merely the fact that the disclosure of information may assist an appellant to lead a better life is not sufficient for invoking the proviso of Section 7(1).

- **"Personal Information**are passport details, copies of birth certificate and copies of records of educational qualification, action taken against employees, confidential reports are personal information, The performance of an employee/officer in an organization is primarily a matter between the employee and the employer and normally those aspects are governed by the service rules which fall under the expression "personal information", the disclosure of which has no relationship to any public activity or public interest. On the other hand, the disclosure of which would cause unwarranted invasion of privacy of that individual, if the Public Information Officer or the Appellate Authority is satisfied that the larger public interest justifies the disclosure of such information, appropriate orders could be passed but the petitioner cannot claim those details as a matter of right."

- The Goa State Pollution Control Board has appointed the following officials as First Appellate Authority, Public Information Officer and Assistant Public Information Officer as per the RTI Act 2005.

1)	• Member Secretary	• First Appellate Authority
2)	• Law Officer	• Public Information Officer
3)	• Senior Law Officer	• Assistant Public Information Officer

- During the Year 2023 the Board has received**175 number**of Applications for request of information.

- **04** Appealswerereceived as per the provisions of the Act.

8.8 THE SEXUAL HARASSMENT OF WOMEN AT WORKPLACE (PREVENTION, PROHIBITION AND REDRESSAL) ACT 2013

Constitution of the Internal Complaints Committee

As per Section 4(1) of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 ("the Act"), the Internal Complaints Committee (referred to as "Complaints Committee" hereafter) is to be set up at every workplace. As per Section 4(2), this will be headed by a woman and at least half of its members should be women. In case a woman officer of sufficiently senior level is not available in a particular office, an officer from another office may be so appointed. To prevent the possibility of any undue pressure or influence from senior levels, such Complaints Committees should involve a third party, either an NGO or some other body which is familiar with the issue of sexual harassment. In terms of section 22 of the Act, the employer shall include the number of cases filed, if any, and their disposal under the Act, in the annual report of his organization.

The complaint Committee is constituted and is functioning vide Office Order No. 1/86/13-PCB/Admin/16473.

NO COMPLAINTS ARE REGISTERED for the Year 2023-24

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CHAPTER 9

FINANCE AND ACCOUNTS OF THE BOARD

9.1 STATUS OF AUDITING OF ACCOUNTS OF THE BOARD

As per sub-sections 2 & 3 of section 40 of the water (Prevention and Control of Pollution) Act, 1974, the accounts of the Board are to be audited by an Auditor duly qualified to act as an Auditor of Companies under section 226 of the Companies Act, 1956. The said Auditor is to be appointed by the State Government on the advice of Comptroller & Auditor General of India (CAG).

Auditing of the Board accounts for the financial year 2017-18 has been completed. The Audit of accounts of the F.Y. 2018-2019, 2019-20, 2020-21, 2021-22 and 2022-23 are in process of being completed.

9.2 INCOME, EXPENDITURE AND FUNDING

The income and expenditure account of the Board for the year ended 31st March, 2024 is as per table below:

RECEIPT AND PAYMENT STATEMENT FOR THE YEAR 2023-2024

Receipts	Amount	Payments	Amount
Lab Analysis and Ambient Monitoring	1,45,82,363.00	Advertisment & Publicity	15,27,574.00
Consent Fees	21,41,47,549.00	Auditors Charges	15,49,260.00
RTI Fees	24,254.00	Building Maintainance	18,09,639.00
Bio Medical Fees	25,85,500.00	Electricity and Water Supply	18,22,003.00
Fines for Single use Plastic	-90,400.00	Salary	12,93,40,558.00
Casinos	99,44,000.00	Hospitality Expenses	11,28,910.00
E- Tendering Application	1,48,000.00	International Conference	3,81,66,065.00
Other Receipts	4,70,022.00	Misc Expenses	33,35,956.00
Fines & Penalty	24,79,098.00	Office Exp and Assets	67,86,445.00
Material Recover Facility (MRF)	10,000.00	Petrol and Deisel	14,08,554.00
Rent of Office Premises	22,75,814.00	Postage	2,61,614.00

Public Hearing	80,00,000.00	Printing and Stationery	6,39,514.00
Knowledge Sharing Presentation Fee	1,60,000.00	Honorarium	4,89,024.00
Miscellaneous Fees	1,67,62,128.11	Repairs and Maintainance of Vehicle	2,61,711.00
Interest received	13,56,142.00	Staff Cars and Office Vehicles	26,87,120.00
Booking of Conference Hall	25,000.00	Telephone Charges	72,800.00
Noise Fees	64,52,508.00	Traning of Staff	1,23,500.00
International Conference Income(IESSG)	2,52,89,220.82	Travel Expenses	15,50,467.00
Environment Assessment	44,17,500.00	Vehicle Hire Charges	24,87,908.00
Waste colletion Fees	16,47,000.00	Wages	74,61,713.00
Grants towards NAMP	3,17,05,375.00	Payment for Professional and Other Special charges	71,40,979.00
Grants in Aid Abatment of Pollution	2,50,00,000.00	AMC for IT Equipment	47,35,685.00
		IT & Software Expenses	17,42,010.00
		Computers and Periferals	53,588.00
		Laboratory Expenses	70,06,067.00
		NABL Expenditure	1,12,492.00
		NAMP Outsourced	1,28,35,332.00
		NWAMP Outsourced	11,03,259.00
		Capital Expenditure for Laboratory	5,87,432.00
		Grant of Monitoring cum Working	12,47,789.00
		Grant towards Digital Pani	2,59,010.00
		Grants towards DPR for Rejuvention of Polluted River	90,000.00
		Grants in Aid Abatment of Pollution	2,07,66,941.00
		Receipts over Expenditure	10,68,00,154.93
TOTAL	36,73,91,073.93	TOTAL	36,73,91,073.93

***Unaudited**

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CHAPTER 10

ANY OTHER IMPORTANT MATTERS DEALT WITH BY THE BOARD

10.1 IMPLEMENTATION OF HAZARDOUS AND OTHER WASTE (MANAGEMENT & TRANSBOUNDARY MOVEMENT) RULES, 2016, AS AMENDED, THEREAFTER.

The Hazardous Waste (Management & Handling) Rules were notified by the Ministry of Environment & Forests in the year 1989 under the provisions of the Environment Protection Act, 1986. Later the Rules were amended in the years 2000, 2003, 2008, 2016, 2018 and 2020and subsequently, they were modified as the Hazardous and other Wastes (Management & Transboundary Movement) Rules 2016, as amended thereafter.

The Board grants authorizations to industries generating and handling hazardous wastes. The Goa State Pollution Control Board has identified 1797 industrial units generating hazardous waste in Goa upto the period of April 2021-2022. The hazardous waste generated in the State of Goa for the year 2022-2023, is as follows: Landfillable (253.42MT), Incinerable (2976.80 MT), Recyclable (2378.77 MT), utilizable (39264.01MT).

10.2 IMPLEMENTATION OF BIO-MEDICAL WASTE MANAGEMENT RULES, 2016 AS AMENDED, THEREAFTER.

For the purpose of implementation of the Bio-Medical Waste Management Rules 2016, HCFs have been classified as per bedded and non bedded.

1. Bedded – 168 nos
2. Non bedded – 866 nos

For the year 2022, 241 Health Care units were granted authorizations under the Bio-Medical Waste Management Rules, 2016, as amended, 2018.

10.3 NOISE POLLUTION (REGULATION & CONTROL) RULES, 2000.

The Board conducts monitoring of noise levels whenever any specific complaints of noise pollution are received and action is taken accordingly. In pursuance of clause (c) of rule 2 of the Noise Pollution Regulation & Control Rules, 2000, the Government of Goa vide Notification No. 2/51/2000 –II D (G) Vol I has designated (1) District Magistrates (2) Director General of Police (3) Deputy Collector and Sub-Divisional Magistrates (4) Superintendent of Police and Sub-Divisional Police Officers as 'authority' for the maintenance of ambient air quality standards in respect of noise under the said rules, with effect from 21.09.2000. In view of this, the Board forwards to the Competent Authority all the reports of Noise Level Monitoring conducted by the Board for necessary action.

10.4 IMPLEMENTATION OF SOLID WASTES MANAGEMENT RULES, 2016, AS AMENDED, THEREAFTER.

The Board issues an authorization to all the Local Bodies under the provisions of Solid Waste Management Rules 2016. The authorizations have been issued independently for specific purpose to the local Bodies.

As per the Annual Report for the year 2022-23 submitted to the Central Pollution Control Board, out of 13 Municipal Councils and 1 Municipal Corporation; 1 Municipal Corporation and 10 Municipal council has installed garbage treatment plant is in operation.

10.5 IMPLEMENTATION OF PLASTICS WASTE (MANAGEMENT & HANDLING) RULES, 2016 AS AMENDED, THEREAFTER.

There are Forty-Five units involved in manufacture of plastic bags and containers in the State. The 45 units have obtained consent.

The Government of Goa through the High Level Task Force (HLTF) constituted to provide directions and implement various measures as announced in the Budget Speech, 2012-13, towards resolving the solid waste management problems affecting the State of Goa has taken a decision to phase out the plastic from domestic use.

Accordingly the Government has decided to strictly implement banning the manufacturing, sale and use of the plastic having thickness less than 50 microns and bags which do not have the name of manufacturer, thickness and registration number printed on them as per the provisions of the Plastic Rules 2010 and Goa Non Biodegradable Garbage (Control) Act, 1996.

Further as per Plastic Waste Management rules, 2016 as amended in 2021

a. The manufacture, import, stocking, distribution, sale and use of following single- use plastic commodities shall be prohibited from 1st January, 2022: Ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, polystyrene [Thermocol] for decoration.

b. The manufacture, import, stocking, distribution, sale and use of following single-use plastic commodities shall be prohibited from 1st July, 2022:

   i) single-use plastic (including polystyrene and expanded polystyrene) items: plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping/packing films around sweet boxes; invitation cards; and cigarette packets, plastic/PVC banners less than 100 micron, stirrers. ii. the above provision shall not apply to commodities (including carry bags) made of compostable plastic material.

Board has issued directions to Municipal Administration, Panchayats, Collectors to ensure implementation of the rules. Also Public notices and awareness through stakeholder meetings is carried out by the Board.

10.6 IMPLEMENTATION OF BATTERIES (MANAGEMENT AND HANDLING) RULES, 2022.

There is one unit who are involved in manufactures/assembling/pre-conditioners of lead acid battery within the state of Goa. Following have been registered with this Board: Bulk Consumer- 123 nos., Authorised Manufacturer/ Producer – 03, Authorised Refurbisher- NIL, Authorised Collection

Centre- 1 no., Authorised Dismantler- 02nos. & Authorised Recycler – NIL. Most of the Bulk consumers are filing half yearly returns regularly to the Board, while most of the dealers are not filing half yearly returns to this office.

10.7 IMPLEMENTATION OF E-WASTES (MANAGEMENT) RULES, 2022

The computer market in the State has been increasing due to lot of commercial development and IT related activities. The State is emerging with a large middle class group who are willing to buy PC's. A large chunk of demand is still met by Assemblers who compete primarily on low cost advantage.

PC usage increases with the increase of the income level and education level of people. Majority of obsolete PC's are diverted to the grey markets, wherein the non functional parts are changed and fixed with the new parts in PC's and further sold back to customers and remaining miscellaneous scraps are sold to scrap-dealers and recyclers.

There are no recyclers in the State specially doing recycling for obsolete PC's. Existing E-waste handling practices are not expected to manage future E-waste generation thus formal recycling center is needed for E-waste collection, segregation, dismantling and recycling of the material. There is a lack of awareness in public regarding E-waste handling, treatment and disposal.

Presently, one unit is registered with the Board for collection and dismantling of E-waste from the State of Goa, which is then sent to the registered recycler for recycling. Also the Board has granted authorization for one unit for dismantling of E-waste

10.8. IMPLEMENTATION OF CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT RULES, 2016, AS AMENDED THEREAFTER.

The State government has handed over land to Goa Waste Management Corporation (GWMC) in survey no. 146/2, 146/3, 146/4, 148/2, 148/6 and 148/7 of Village Curchirem of Bicholim Taluka, for setting up C & D Waste Management Facility of 500 TPD capacity. The Board has granted authorization to Goa Waste Management Corporation (GWMC) for temporary storage of C & D waste at the said site. Meanwhile GWMC has also initiated process for identifying an alternate land for C&D facility.

Further, Collector North Goa has notified an abandoned laterite quarry in Tuem Village for deposition C&D waste for backfilling and subsequently deposition of waste by various departments has already started. Since commencement upto 31/03/2023 approx. 2000 cubic meter of C&D waste has been backfilled in abandoned quarry at Tuem. The Board has granted authorization to The Director of Mines & Geology, Panaji for backfilling of abandoned laterite stone quarry with C & D Waste (inert) in Sy. No. 119/6 to 119/18 & 119/35 to 119/37 of Village Tuem, Pernem Goa.

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CHAPTER 11

MAJOR ACCOMPLISHMENTS OF THE BOARD DURING THE FINANCIAL YEAR 2023-24

11.1 CHAIRMAN'S VISITS :

a) TERI's World Sustainable Development Summit Meet

Chairman, GSPCB attended World Sustainable Development Summit Meet (WSDS), 2023 an annual event organized by TERI, Delhi at New Delhi and participated in the panel discussion on Circular Economy . It discusses various Environmental and Development Initiatives, Policies with experts around the around the Globe.





b) NATIONAL CLIMATE CONCLAVE HELD AT LUCKNOW, U.P., ON 10TH -11TH APRIL 2023

Chairman, GSPCB attended National Climate Conclave held at Lucknow, u.P., on 10th -11th April 2023. The Conclave was attended by Industries, Policy makers, Regulators and N.G.O's etc. Chairman chaired the panel discussion on Resource Efficiency (RE) and Circular Economy. He highlighted Goa Government's initiative for proposed Deposit Refund Scheme (DRS) and Goa Circular Economy Policy, which is presently in progress.

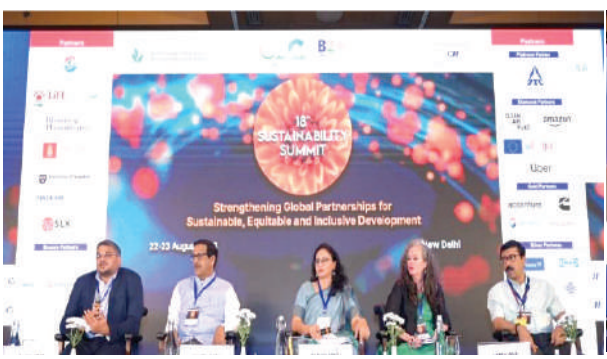






c) 18TH SUSTAINABILITY SUMMIT HELD IN DELHI ON 22ND – 23RD AUGUST 2023

Chairman attended 18TH Sustainability Summit held in Delhi on 22nd – 23rd august 2023 where he chaired a Panel Discussion where they discussed initiatives of private and Government projects in waste management, circular economy. He highlighted Godrej Ltd joint project in waste management in Goa and expressed need to involve more corporates in development.





d) INTERACTION WITH STAKEHOLDERS CONCERNED W.R.T. USAGE OF COMMON HAZARDOUS WASTE TREATMENT FACILITY AT PISSURLEM

Chairman-GSPCB had an interaction with stakeholders concerned w.r.t. usage of Common Hazardous Waste Treatment Facility at Pissurlem being operated by M/s Ponda being operated by M/s Ponda. This was part of consultation with Industry and others to understand the problems and develop management practices.



e) BITS Pilani, Goa campus, Sancoale :Start-up Initiatives:

Chairman -GSPCB was a panel member in the discussion hosted by BITS Pilani, Goa campus, Sancoale on Start-up Initiatives.



f) Global Reporting Initiative (GRI)stakeholder conference :

Chairman participated in the stakeholder conference organized by Global Reporting Initiative (GRI) on eve of 25 years completion in India. Chairman presented Industry and Regulating perspective and importance of sustainability report based on GRI guidelines.



11.2. WORLD ENVIRONMENT DAY, 2023 CELEBRATION :

Taking into focus the huge quantities of plastic waste, which get washed ashore along the beaches of the coastal states , the Goa State Pollution Control Board celebrated World Environment Day on 5th Junes 2023 on the united Nations Environment Programme (uNEP) theme “Beat Plastic Pollution .Be the Solution”. The 2023 uNEP theme for World Environment Day urges governments, industry, communities, and individuals to come together to address our excessive lifestyles involving use of plastics , polluting our air, land and eventually oceans, damaging life and threatening human health . It encourages us as individuals to explore more sustainable life style’s, ensuring a more environmentally promising future for our children. It demands “I” be the SOLuTION!

The GSPCB carried out a number of events , some in collaboration with other sister concerns.

a) CYCLATHON :

The Goa State Biodiversity Board through the Department of Environment , Government of Goa in collaboration with the Goa State Pollution Contol Board in association with the Goa Industries Development Corporation & Verna Industries Association, initiated a Cyclathon on Sunday ,the 4th of June’2023 as part of the World Environment Day’2023 celebration and World Bicycle Day . The cyclathon was supported by the 7 Cycling Clubs of Goa, including Xaxti Riders, Propedalerz, Sportif Amigos, Slopes & Bends, Panjim Cycling Club, Goa Naval Area, and Vasco Cycling Club.

Over 300 cyclists participated wth the youngest rider being a 10-year-old, to the senior most 80 years old . cyclathon began at the 4 main locations at 6:00 to 6.15 am namely Margao, Vasco , Panjim & Ponda

The cyclathon was flagged off in Panjim in the presence of GSPCB Chairman Mahesh Patil and and Member Secretary Dr Shamila Monteiro Goa State Pollution Control Board (GSPCB) from various locations across Goa to converge Cortalim Ferry point and finally ended at Verna Industrial Estate for the inauguration of the new Verna Industrial Estate entrance .This was followed by a tree plantation Drive in the Verna Industrial Estate at the hands of all of who participated

The event included participation from several government and police officials who joined in with cycle riders from across Goa to create awareness about having clean surroundings and greener industrial areas.



Cyclathon Team Margao : The start



Cyclathon Team Panjim : The start

The following GSPCB staff participated in the Cyclathon, through beautiful scenic Goa

Sr. No.	Name of GSPCB Official	Designation
ROUTE: MARGAO-SHIRODA-LOUTOLIM-CORTALIM-VERNA -MARGAO		
1.	Connie F.Fernandes	Sc.C
2.	Pravin Faldessai	AEE
3	Pranali Raut	ALO
4	Luiza D'silva	JLA
5	Sherwin Da Costa	JEE
6	Mrs. Pranali Raut Dessai	JLO
7	Mrs. Luiza D'Silva	JLA
8	Mr. Joseph Alex Gomes	H/o GSPCB staff
ROUTE: PANAJIM-CORTALIM-VERNA -MARGAO		
10	Mr. Amit Shanbag	AEE



Ready , steady….GO!



GSPCB Tean: On the go!



GSPCB Team : Race complete



GSPCB Team: Tired but exhilarated



GSPCB Team with Chairman GSPCB Shri Mahesh Patil, Member Secretary Smt (Dr) Shamila Monteiro, and Shri (Dr) Pradeep Sarmokadam .Member Secretary -GSBB



Mission Life Pledge



Shri (Dr) Pradeep Sarmokadam with cyclists Cycling hard!

The staff cycled distance ranging from 25 to 55 kms. The Goa State Pollution Control Board extended its gratitude to the Goa State Biodiversity Board , the Department of Environment, Government of Goa, the Goa Industries Development Corporation & Verna Industries Association, and the 7 Cycling Clubs of Goa , including Xaxti Riders, Propedalerz, Sportif Amigos, Slopes & Bends, Panjim Cycling Club, Goa Naval Area, and Vasco Cycling Club for this initiative as part of the World Environment Day'2023 celebration and World Bicycle Day . It was an exhilarating experience, indeed.!

b) MAIN EVENT: WED 5th June'2023 at GSPCB:

The WED event held in the GSPCB auditorium and was graced by Prof.B.C.Choudhary-Retd. Scientist Wildlife Institute of India,Dehradun, who was the key Note speaker in the presence of Shri Nilesh Cabral. Hon'ble Minister for Legislative Affairs, Environment , Law & Judiciary & Public works , and other Officials.



Lighting of the Lamp: ***Shri Nilesh Cabral. Hon'ble Minister for Legislative Affairs, Environment, Law & Judiciary & Public works , Prof.B.C.Choudhary-Retd. Scientist Wildlife Institute of India,Dehradun, Shri Mahesh Patil, Chairman -Goa State Pollution Control Board, Smt.(Dr.) Shamila Monteiro, Member Secretary -Goa State Pollution Control Board,Ms. Connie Fernandes, Scientist "C" Goa State Pollution Control Board.***



Welcoming of Dignitaries



Shri Nilesh Cabral.-Min.of Env.



Shri Mahesh Patil, Chairman -GSPCB
State Pollution Control Board



Key note speaker : Prof.B.C.Choudhary Retd. Sc.-WII



Smt.(Dr.) Shamila Monteiro ,MS-GSPCB

Professor .B.C.Choudhary-(Retd). Scientist Wildlife Institute of India,Dehradun, the key Note speaker highlighted the consequences of Goa's tourist status on the plastic waste generation in Goa , where the visiting population is significantly more than the residential population making Goa a plastic waste sink both landward and sea ward side. As per the Central Pollution Control Board Annual Report 2019-2020 & 2021-2022 .on Implementation of Plastic Waste Management Rules 2016 (As amended) has ranked 1st and 2nd largest plastic waste generating states in India for the respective years cited. His message was loud and clear. "We welcome you to Goa, but not your waste.



Ms. Connie Fernandes, Sc.“C” GSPCBCompere



Shri. Siddhant Dessai-JEE-GSPCB



Hon’ble Minister addressing the gathering



Release of the GSPCB Annual Report 2022-23



Release of the GSPCB Concise Acts & Rules



Release of the GSPCB Manual on Sewage Treatment Systems



Release of the GSPCB collaboration with M/s Sensible Earth launch of

"Maka Naka Plastic" recycled cloth bags



Mission Life Pledge

c) **SUP (Single Use Plastics) Champions:** The GSPCB felicitated the GSPCB staff for their intensive drive in penalizing use of SuP.

Sr. No.	Name of GSPCB Official	Sr. No	Name of GSPCB Official
1.	Chaitanya Salgaonkar (SA)	10	Saish Waldankar (JEE)
2	Samir Borkar (SLA)	11	Kundan Shet (JEE)
3	Vishwendra Naik (JEE)	12	Siddhant Prabhudessai, (JEE)
4	Vijay Kansekar (JEE)	13	Liston Fernandes (EA)
5	Siddhant Desai (JEE)	14	Deepak Naik (JLA)
6	Sherwin Da Costa (JEE)	15	Luiza D'Silva (JLA)
7	Rajmohan Prabhu Dessai (JEE)	16	Akshay Morajkar (JRF)
8	Aryada Deshpande (JEE)	17	Shubham Salgaonkar (JRF)
9	Prathamesh Gauns Dessai (JEE)	18	Milagrina Colaco (FA)
		19	Seby Fernandes (FA)



Chaitanya Salgaokar-Sc. Asst.



Sherwin da Costa-JEE



Luiza D'Silva-JLA



Milagrina Colaco -JLA

d) AWARENESS :

To impart awareness the Board conducted a number of all inclusive events which were carried out prior to 5th June like Children's Poster Competition, Best Practices in Environmental Management & Quiz Competition for Industries and Government Departments. The programme culminated on 5th June where the winners were felicitated at the hands of the, Hon'ble Minister for Legislative Affairs, Environment , Law & Judiciary & Public works Shri Nilesh Cabral.

Presentations were also given by the following Agencies

i. M/s Recycle : Deposit refund scheme

ii. M/s Sensible earth: for upscaling our cloth waste and giving us beauty in return

iii. M/s Ideatec for use Geofil GeosyntheticTubes.which for dewatering or sludge removal process





Ms.Ekta Narain of M/s Recycle





Shri Sanjiv Khandelwal of M/s Sensible earth





Shri. R.V.Pathy of M/s Ideatec geobags

e) TREE PLANTATION DRIVE



Shri Nilesh Cabral. Hon'ble Minister for Legislative Affairs, Environment , Law & Judiciary & Public works



Shri Rohit Monserrate - CCP Mayor



Prof.B.C.Choudhary-Retd. Scientist Wildlife Institute of India,Dehradun



Shri Mahesh Patil, Chairman -Goa State Pollution Control Board



Smt.(Dr.) Shamila Monteiro ,Member Secretary -Goa State Pollution Control Board

f) ENVIRONMENTAL TECHNOLOGY & RESOURCES:

The Technology experts also displayed their respective technologies to help facilitate ease of obtaining necessary information on available environmental pollution technologies so as to enable units to make informed decisions.



EP Kamat Group



M/s Sensible earth



M/s Edenic Green



M/s Envirocare Labs

g) CHILDREN'S POSTER COMPETITION :

The event took place in the presence of our esteemed Chairman, Member Secretary, and GSPCB staff, witnessing remarkable participation from 84 young individuals across age groups ranging from 3 years to 15 years .The Poster Competition, was held on 1st June 2023. The children poured their hearts into their artwork, passionately conveying the dire consequences of single-use plastic on our lives, the environment, and the well-being of both humans and animals. Their powerful depictions vividly portrayed how plastic waste contaminates our lakes, rivers, and seas, posing grave threats to marine life and ecosystems. The pollution caused by plastic, whether in landfills or through incineration, emerged as a significant challenge to our planet.



Sub Senior Category



Junior Category



Senior Category



In recognition of their outstanding work, the top three performers were awarded in the Senior Category: Shloka Haldankar (1st Prize), Nirvee R. Naik (2nd Prize), Pranjal C. Parab (3rd Prize), along with two consolation prizes to Siona Laura Fernandes (4th Prize) and Aaliyah J. Gonsalves (5th Prize).

In the Junior Category, Jasmina Valencia Genarosa Braz secured the 1st Prize, followed by Vaibhavi Talankar (2nd Prize), and Chrissie Fernandes (3rd Prize). Kavya Naik received the 4th Prize, and Swizel E. Fernandes earned the 5th Prize as consolation.

In the Sub Junior Category, Anirudh Sheth won the 1st Prize, Slayden Vaz achieved the 2nd Place, and Arya Raut secured the 3rd Place. The consolation prizes went to Vedika Gaonkar (4th Place) and Nasya Naik (5th Place).



1st Prize Sub Junior Category : Anirudh Sheth



2nd Prize Sub Junior Category: Slayden Vaz



1st Prize Junior Category:Jasmina Valencia Genarosa Braz



2nd Prize Junior Category: Vaibhavi Talankar



3rd Prize Junior Category: Chrissie Fernandes



1st Prize Senior Category: Shloka Haldankar



2nd Prize Senior Category: Nirvee R. Naik

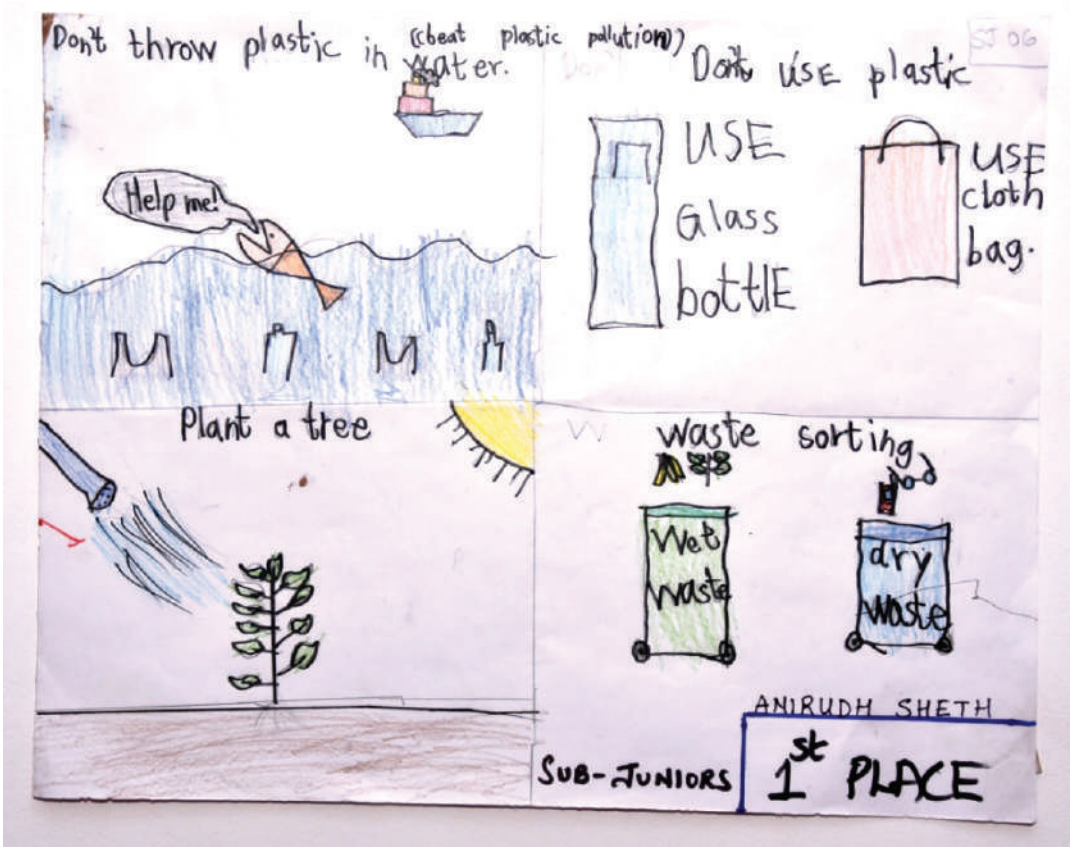


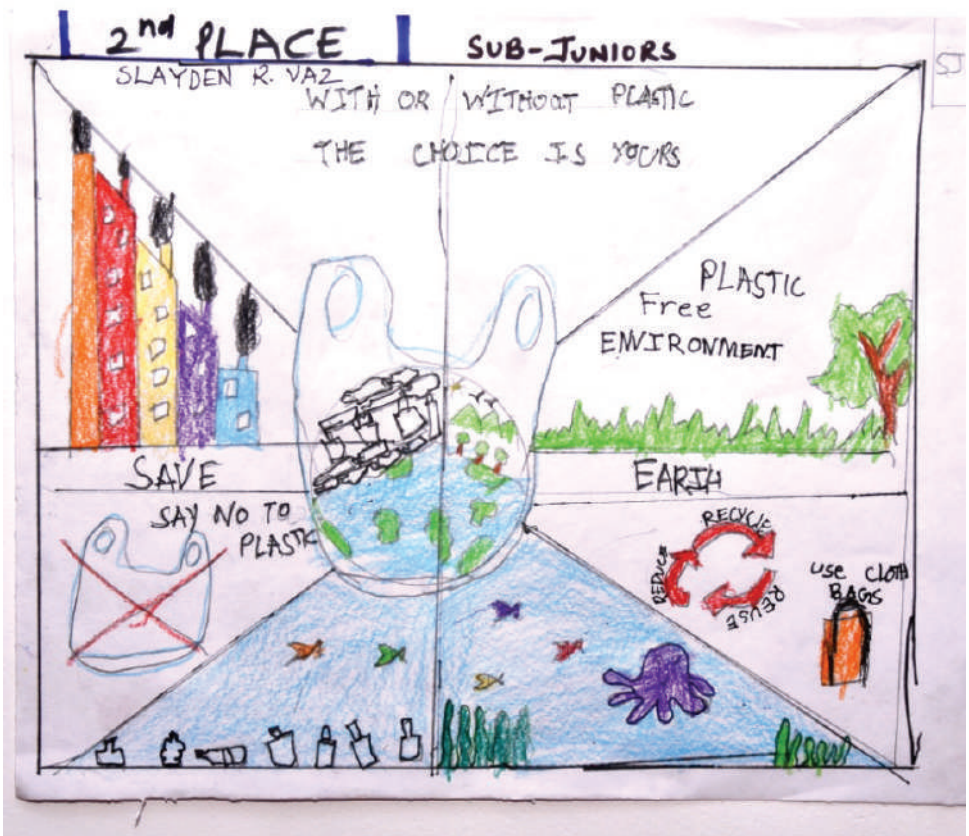
3rd Prize Senior Category: Pranjal C. Parab

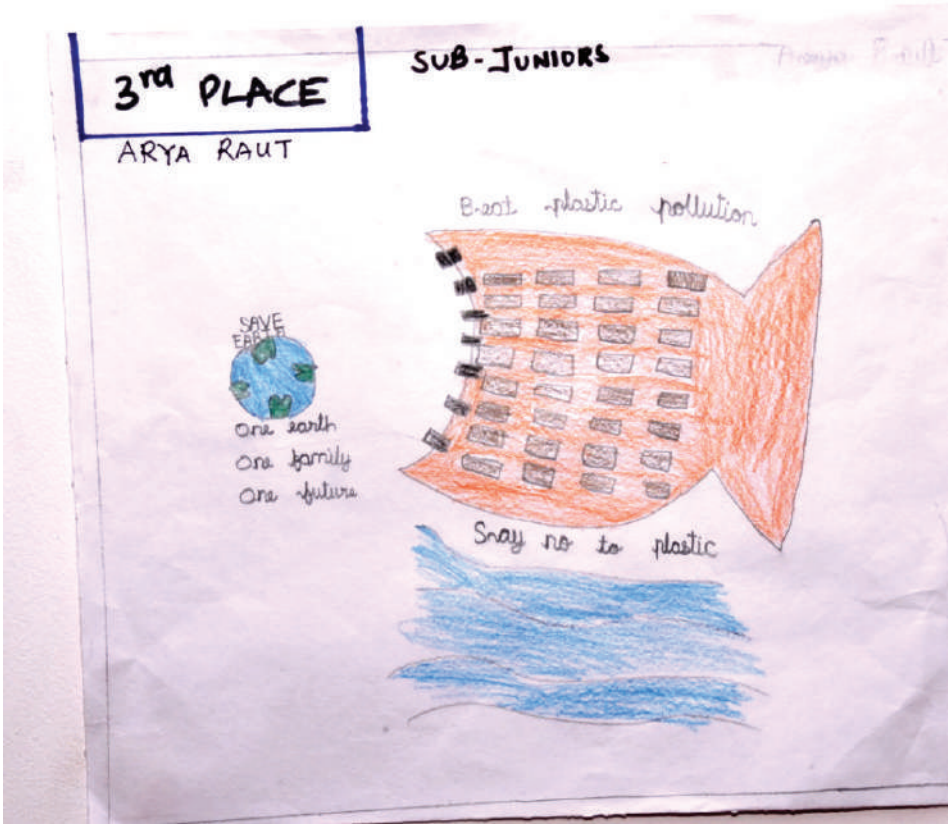

SENIOR 1ST PLACE
522
BEAT PLASTIC POLLUTION
REDUCE
REUSE
RECYCLE
USE CLOTH BAGS
STOP BUYING SINGLE USE PLASTIC
STOP POLLUTION
MAKE A PROPER USE OF PLASTIC
STOP POLLUTING WATER
~SHLOKA HALBANKAR

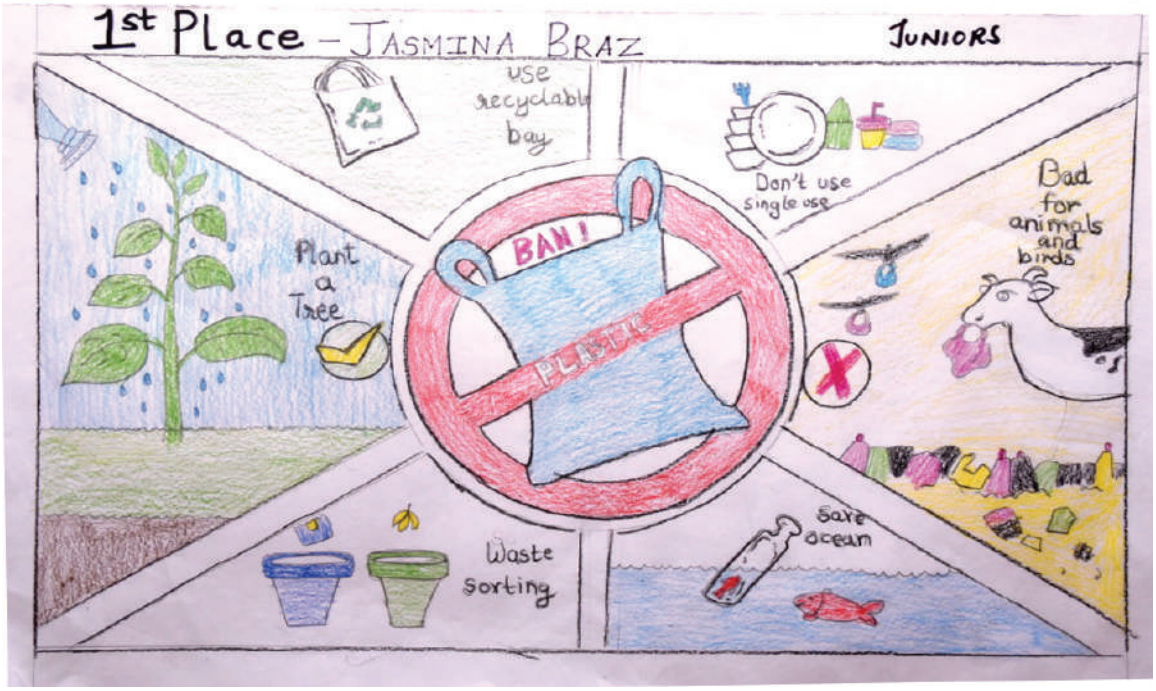

SENIOR - 2ND PLACE
BEAT PLASTIC FOR BETTER HEALTH AND ENVIRONMENT
NO Single use Plastic
—NIRVEE R. NAIK

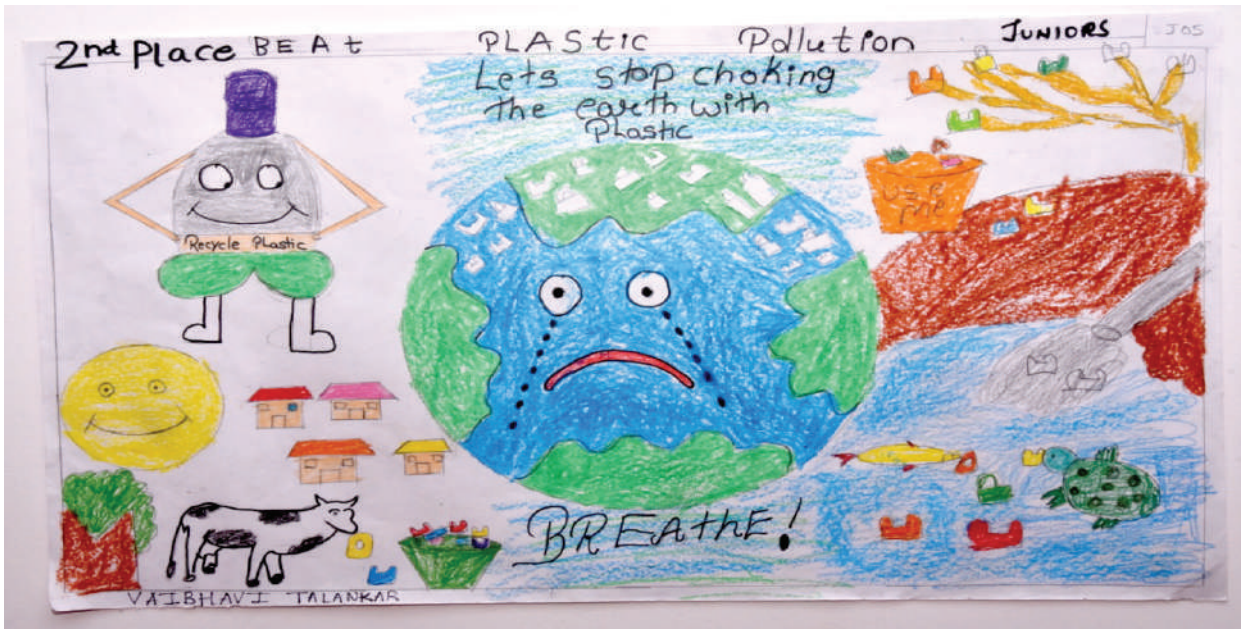

SENIOR - 3RD PLACE
STOP PLASTIC POLLUTION
USE PAPER BAGS
DON'T USE SINGLE USE
BAD FOR ANIMALS AND BIRDS
PLANT A TREE
WASTE SORTING
SAVE OCEAN
ONLY USE PAPER BAGS
- PRANJAL C. PARAB


Don't throw plastic in water.
(beat plastic pollution)
Don't use plastic
Help me!
USE Glass bottle
USE cloth bag.
Plant a tree
waste sorting
Wet waste
dry waste
ANIRUDH SHETH
SUB-JUNIORS
1st PLACE


2nd PLACE
SUB-JUNIORS
SLAYDEN R. VAZ
WITH OR WITHOUT PLASTIC
THE CHOICE IS YOURS
PLASTIC Free ENVIRONMENT
SAVE
EARTH
SAY NO TO PLASTIC
RECYCLE
REDUCE
REUSE
use cloth BAGS


3rd PLACE
SUB-JUNIORS
ARYA RAUT
B-ost plastic pollution
SAVE EARTH
One earth
One family
One future
Snay no to plastic


1st Place – JASMINA BRAZ
JUNIORS
use recyclable bag
Don't use single use
Bad for animals and birds
Plant a Tree
BAN!
PLASTIC
Waste Sorting
Save ocean





h) BEST PRACTICES IN ENVIRONMENTAL MANAGEMENT:

As part of the World Environment Day Celebrations, the Goa State Pollution Control Board (GSPCB) organized a highly successful presentation competition focusing on the best practices to combat plastic pollution under the theme “Beat Plastic Pollution: Be the Solution.” The competition, held on 01/05/2023 at the GSPCB Auditorium, received numerous impressive presentations from various organizations. Out of the submissions, six exceptional organizations were shortlisted to present their initiatives to a panel of esteemed judges. The event was a remarkable showcase of innovative strategies and solutions in addressing the plastic menace.

Participating Organizations:

The competition featured presentations from the following six organizations, each demonstrating their commitment and efforts to combat plastic pollution:

1. Corporation of the City of Panaji: The Corporation of the City of Panaji presented on the various initiatives implemented by the city to tackle the plastic menace. They emphasized the importance of waste segregation at the source, achieving an impressive segregation of waste into 16 fractions. The presentation highlighted the streamlined processes of waste collection, transportation, sorting, and disposal, contributing to a bin-free city.

2. GMR – Goa International Airport Limited: GMR – Goa International Airport Limited showcased their initiatives undertaken at the Mopa airport to promote sustainability. The presentation focused on reducing single-use plastics within the airport premises and sensitizing tourists to the importance of responsible waste disposal. Their efforts aimed to create a cleaner and more sustainable environment in Goa.

3. Auxillium High School: Auxillium High School presented a captivating 5-minute video showcasing their commitment to promoting a zero waste lifestyle and sustainability. The video highlighted various activities undertaken by the school, including waste segregation into four fractions, waste deposition by students from their homes, awareness campaigns, cleanliness drives, and the creation of cloth bags from waste clothes. The school demonstrated their dedication to educating and inspiring the younger generation.

4. Becker – Berger Pvt. Ltd.: Becker – Berger Pvt. Ltd. delivered an insightful presentation on their innovative approach to waste elimination. They showcased how the company repurposes waste PET bottles as a raw material for making specialized paint, effectively reducing waste and contributing to a circular economy. Their presentation demonstrated the potential for creative solutions in transforming waste into valuable resources.

5. Persistent Systems Limited: Persistent Systems Limited presented their ongoing efforts to transform their campus into a zero-waste campus. Their steps toward minimizing the use of plastics and eliminating single-use plastics highlighted their commitment to sustainable practices. The presentation showcased their comprehensive approach to waste management and their dedication to creating an environmentally friendly workplace.

6. Goa Chamber of Commerce & Industries: The Goa Chamber of Commerce & Industries painted an overall picture of the gross and net amount of plastic waste generated in the state. Their presentation shed light on the severity of the plastic menace and emphasized the collective responsibility to address this pressing issue. By providing valuable insights into the challenges faced by the state, the organization highlighted the importance of collaborative efforts.

Following each presentation, a 5-minute question and answer session engaged the judges and the enthusiastic audience. The panel of judges consisted of esteemed individuals who brought valuable expertise to the evaluation process:

1. Shri. Pradip Sarmokadam, Member Secretary – Goa State Biodiversity Board.
2. Shri. Sujeet Dongre, Scientist E, Centre for Environmental Education.
3. Shri. Baylon Gomes, Managing Director, Bavish Pvt. Ltd.

After meticulous evaluation and tallying of the judges' scores, the winners were announced:

1st Place: Corporation of the City of Panaji

2nd Place: GMR – Goa International Airport Limited

3rd Place: Auxillium High School, Caranzalem

The winners were recognized for their exceptional initiatives, innovative approaches, and significant contributions toward combating plastic pollution. The Winners were presented a Plaque of Excellence on the World Environment Day Celebration held on 5th June 2023 in the Auditorium of the Goa State Pollution Control Board



Mayor Shri. Rohan Monserrate, Commissioner Shri. Clen Madeira being felicitated by Hon'ble Minister with a Plaque of Excellence on behalf of the CCP securing First Place in Best Environmental Practices.



Shri. Shivarama M S, Vice President & Head - EHS & Sustainability being felicitated by Hon'ble Minister with

a Plaque of Excellence on behalf of the GMR - GIAL securing 2nd Place in Best Environmental Practices.



Sister Melissa D'Souza, Teacher being felicitated by Hon'ble Minister with a Plaque of Excellence on behalf of the Auxillium High School, Caranzalem for securing 3rd Place in Best Environmental Practices.

i) QUIZ COMPETITION :ON 2023 UNEP THEME "BEAT PLASTIC POLLUTION .BE THE SOLUTION".

Environmental Quiz Competition was held under uNEP theme "Beat Plastic Pollution – Be the Solution" on 2nd June 2023 in the GSPCB Auditorium on the occasion of the celebration of the World Environment Day 2023 organized by Goa State Pollution Control Board. Total 33 teams (2 participants in each team) from various Educational Institutes, Government Organizations, Private Companies participated in the Quiz Competition. After the screening test held out of which the following 5 teams had reached the final quiz round.

1. Goa State Infrastructural Development Corporation
2. BITS Pilani, K.K.Birla Campus
3. Goa State Biodiversity Board (GOVAN)
4. Goa Chamber of Commerce & Industry
5. Goa Forest Department

From the above teams the following were the winner of the Quiz Competitions

	Name of the Participants	Company/Institution/Govt. Dept
1st Prize	Ashutosh Raj Dwivedi	Birla Institute of Technology and Science Pilani ,Goa
	Shamik Sandip Prabhu Chodnekar	
2nd Prize	Dr.Sidhesh S. Naik	Goa Forest Department
	Shefali Naik	
3rd Prize	Mithilesh S. Navelkar	Goa State Biodiversity Board (GOVAN)
	Laxmikant K. Desai	



1st Place Quiz Competition: Birla Institute of Technology and Science Pilani ,Goa



3rd Place Quiz Competition: Goa State Biodiversity Board (GOVAN)



Distribution of Sound Level meter kits to State Police

The event concluded with a presentation of mementos as a token of appreciation to the esteemed judges , Quiz Master, Dignitaries and distinguished Speakers for their valuable insights and support throughout the competition. The Competition on Beat Plastic Pollution was a resounding success, demonstrating the dedication and commitment of organizations and individuals in Goa to finding sustainable solutions to the plastic menace. The event's impact extended beyond the competition itself, inspiring a collective effort toward a cleaner and greener future for the state. The Goa State Pollution Control Board expresses its gratitude to all the participants, organizers, judges, and the enthusiastic audience for their active involvement and commitment to environmental sustainability. The programme concluded with the National Anthem



National Anthem



The Goa State Pollution Control Board staff with Shri Mahesh Patil, Chairman -Goa State Pollution Control Board, Smt.(Dr.) Shamila Monteiro ,Member Secretary -Goa State Pollution Control Board Shri (Dr.) Pradeep Sarmokadam-Member Secretary- Goa State Bio Diversity Board


GOA STATE
POLLUTION
CONTROL BOARD
BEAT
PLASTIC
POLLUTION
UNEP
WORLD
ENVIRONME
DAY 202
The ONLY source of Plastic Pollution.
HUMANS!
We see the difference,
animals can't,
Be the solution for the silent,
Before its too late!
Less Plastic,
More Life Please!

11.3 PLOGGING – AWARENESS DRIVE TO UNDERSTAND THE CONCEPT OF BAN ON SUP AND DRS

GSPCB in partnership with YIMBY / Responsible Earth Foundation / Eu-REI carried out a beach cleaning drive at Colva beach on 11th August 2023 along with Village Panchayat of Colva, Karnataka Commercial and Industrial Corporation Private Limited (KCIC), Village Panchayat of Benaulim, locals, Rotary Club of Margao, Rotract Club of Margao, Inner Wheel Club of Margao, Lions Club of Alem De Margao, Leo club Of Alem De Margao and others organised a Plogging drive at Colva Beach, with a participation of over 60 Volunteers, at Vagator Beach on 12th August'2023, along with Village Panchayat Anjuna-Caisua, Karnataka Commercial and Industrial Corporation Private Limited (KCIC), locals, Rotract Club of Mapusa, Inner Wheel Club of Mapusa, JCI Mapusa and others and at Miramar beach on 13th August '2023 along with Corporation of the City of Panaji, Village Panchayat Taleigao, Karnataka Commercial and Industrial Corporation Private Limited (KCIC), Rotary Club of Dona Paula, Rotary Club Mid Town, Dempo College, Locals and others organised a Plogging drive at Miramar Beach on 13th August 2023, with a participation of 150 volunteers and to demonstrate the zeloop app with marked QR pasted (instruction) stickers on the bins present at the beaches.

Around 180 kgs . 120 Kgs and 600 Kgs of waste , was collected at Colva beach, Vagator beach and at Miramar beach respectively which was later disposed by the Karnataka Commercial and Industrial Corporation Private Limited (KCIC).





At Colva beach, South Goa – 11th August 2023





At Miramar beach, North Goa – 13th August 2023

11.4 REAL TIME NOISE MONITORING IN STATE OF GOA (25TH AUGUST 2023)

The GSPCB has also initiated real time noise monitoring at the following 12 locations in the State of Goa ,namely Ashvem- Pernem, Calangute- Bardez, Baga – Bardez, Anjuna-Bardez, Vagator -Bardez Candolim- Bardez, Arambol- Bardez, Mandrem- Pernem, Morjim- Pernem, Colva- Salcette, Cavelossim- Salcette and Benaulim- Salcette, with the objective of monitoring the ambient air quality noise levels in state of Goa along the Beach site. The contract was awarded to Welan Technologies Pvt Ltd for period of 05 years to install online fixed station of Make Svantek, Model SV200A Class 1, Type 1. Out of 12 stations only 07 stations are in operation and the remaining stations are in the process of obtaining NOC which is in process. The said data is communicated to 'Environmental Data Monitoring Centre on real time basis.





Installation of Online Noise meters at different sites in Goa.

11.5. ENVIRONMENTAL AWARENESS DRIVE IN SCHOOLS OF GOA

The Board with assistance of reference materials from Centre for Science and Environment, New Delhi , initiated an Solid Waste awareness drive in 20 schools in in Goa with an objective aimed at creating awareness about various environmental issues among school children. These publications highlight topics like waste Management in schools, Environmental Audit in Schools, Best Environmental practices followed by schools across the country etc, which is very much relevant to the students with

the primary objective of helping the students and teachers to grasp the vital link between environment and everyday life and put environmental awareness into practice.

The Board distributed the 20 sets of following publications to be gifted to a total of 20 identified schools in the vicinity of the Board i.e. Saligao and randomly in other locations . The package also Included an annual subscription of Down to Earth Magazine.

CSE RESOURCES

1. Down to Earth (Yearly subscription, 24 issues)
2. Waste Management in schools
3. Paving the Path
4. How Green is your school
5. Managing Solid Waste in schools

10 schools each were covered in both Districts i.e North and South Goa .

The following schools were covered :

NORTH GOA

Sr. No.	Name of School	Handed over to	On Date
1.	Lourdes Convent High School, Sonabhat Saligao.	 Sr. Alveira - Headmistress	29-09-2023
2.	Mater Dei Institution, Near Calangute Police station, Saligao, Goa.	 Ms. Sonia Salgaonkar - Principle	29-09-2023

3.	Seminary of Our Lady High School, Saligao, Goa.	 Fr. Valeriano Vaz	29-09-2023
4.	Government Primary School, Saligao, Goa.	 Ms. Siddhi Arolkar - Principal	29-09-2023
5.	The Ardee School Goa, 193, Bella Vista Vaddo, Sangolda, Bardez, Goa.	 Teaching Staff	29-09-2023
6.	Chubby Cheeks Spring Valley High School, Green Valley, Porvorim-Pilerne, Bardez, Goa.	 Ms. Gauri Shenvi Bhobe -Teacher	29-09-2023

7.	Vidya Niketan School, Chogm Road, Saligao Road, Calangute Bardez, Saligao Goa.	 Ms. Varsha Bhise - Principle	29-09-2023
8.	Our lady of Divar High School, Piedade, Divar Ilhas, Tiwasdi, Goa	 Mrs. Edvida Gonsalves - Principle	27-11-2023
9.	Shree Ram High School, Khadki, Sattari, Goa.	Mr. Shivaji Dessai - Headmaster	29-11-203
10.	Dr. K.B. Hedgewar Shikshan Prasarak Mandal's School, Ponda, Goa.	Smt. Yogitha Chari - Sr. Teacher	27-11-2023

SOUTH GOA

Sr. No.	Name of School	Handed over to	On Date
1.	Mae dos Pobres High School, Nuvem, Near Jesus Mary Joseph Church, Salcette, Goa	 Ms. Joyce Colaco - Teacher	29-09-2023

2.	Rosary High School, Navelim, Salcette, Goa.	 Mr. Mario J.S.P. Morais, Headmaster Mrs.Cynthia Fernandes - Asst. Headmistress	29-09-2023
3.	Perpetual Succour Convent High School, Navelim, Salcette, Goa.	Ms. Joan Gracias – Senior Teacher	29-09-2023
4.	Saviour of the World High School, Loutolim, Salcette, Goa.	 Ms. Athene Pacheco - Asst.Teacher	29-09-2023
5.	Holy Spirit School, Near Holy Spirit Church, Borda-Margao, Salcette, Goa.	 Mrs. Esmeralda Mendes - Headmistress	29-09-2023
6.	Tagore Educational Institute, P.O. Surla, Kothambi-Sanquelim, Goa,	 Ms. Priti Naik - Teacher	

7.	Our Lady of Fatima High School, Rivona, Goa.	 Fr. Richard Crasto - Headmaster	30-11-2023
8.	Shri. Damodar Vidyalaya, Loliem-Canacona, Goa.	 Mr. Jitendra Amshekar - Headmaster	14-12-2023
9.	Chandranath Education Society's High School, Assolda Goa, Chandor.	 Mrs. Anmita M. Dessai - Headmistress	30-11-2023
10.	S.E.S's Smt. Hirabai Talaulikar High School, Sancordem-Dharbandora, Goa	 Mrs. uttara Patil - Principle Incharge	30-11-2023

The Board had also requested the Industries / Organization to sponsor the listed CSE Environmental educational publications distribution to the available schools in their respective areas as part of their CSR initiatives.

◆◆◆

11.6 INAUGURATION OF TECHNOLOGY INFORMATION CENTRE & ENVIRONMENTAL DATA MONITORING CENTRE

The Goa State Pollution Control Board inaugurated the "The Technology Information Centre" , "The Environmental Data Monitoring Centre" and hosted the Conference on 'Simplifying Post-Consumer Recyclates: Challenges and Opportunities' at the hands of Shri. Nilesh Cabral- Hon. Minister for Public Works, Environment and Climate Change, Legislative Affairs & Law and Judiciary in the premises of Goa State Pollution Control Board (GSPCB) , Saligao, Bardez Goa on 07th September' 2023 . This event was a knowledge sharing initiative of the GSPCB with an objective to bring the Industries at par with the Best available Technologies for pollution control.



Technology Information Centre





Inauguration Of Environmental Data Monitoring Centre





Conference on "Simplifying Post Consumer Recyclates: Challenges & Opportunities"

The 'Environmental Data Monitoring Centre" aims at creating a single point display of the real time data of Industries including CAAQMS (Continuous Ambient Air Monitoring Stations) , OCEMS (On Line Continuous Emission Monitoring) and real time Noise Monitoring . The data Centre will scrutinize the industry data received and facilitate needful action if exceedances are noted.

The GSPCB has also initiated real time noise monitoring at the following 12 locations in the State of Goa ,namely Ashvem-Pernem, Calangute- Bardez, Baga – Bardez, Anjuna-Bardez, Candolim-Bardez, Arambol- Bardez, Mandrem- Pernem, Morjim- Pernem, Colva- Salcette, Cavelossim- Salcette, Benaulim- Salcette, Agonda- Canacona, with the objective of monitoring the ambient air quality noise levels. The said data will also be made available in the 'Environmental Data Monitoring Centre.

11.7 GSPCB ANNUAL DAY 2023

The Board organized its annual Day on 11th September 2023 by organizing a Satyanarayan Puja and Eucharistic celebration. On this occasion a fellowship lunch was organized, followed by games.



Puja under the yajaman by Mrs. & Mr. Narayan





Thanksgiving Mass

11.8 GSPCB CLEANLINESS DRIVE : SWACHHATA HI SEVA 2023.

The Board carried out a Cleanliness drive by its staff in North Goa and South Goa on 1st October 2023 as part of Swachhata Hi Seva 2023.

Cleanliness drive was carried out at Village Pilerne area and along Western bypass Road at Nuvem.



North Goa



South Goa

11.9 VISIT TO UTTARAKHAND- DEPOSIT REFUND SCHEME

The State of Goa is proposing to implement the Deposit Refund Scheme (DRS) in the State of Goa. The said scheme is implemented in Char Dham to Uttarakhand for verification of the Deposit Refund scheme implemented by Recyckal in Char Dham at uttarakhand.

The following official visited Kedarnath and Chopta in Uttarakhand to verify the implementation of DRS:

Dr. Shamila Monteiro, Member Secretary
Mrs. Nandan Vinay Prabhudessai, AEE
Mr. Keshav Fadke, AEE

Background

The uttarakhand government introduced the policy mandating DRS in the region. The Project implemented at No cost to Government. Awareness was created amongst Stakeholders. QR code label was put on the plastic bottles which were sold in Kedarnath and Chopta. Collections points were placed and the amount was refunded to the people. Recylkal deployed technology, manpower and operational funding.

Visit:

Kedarnath: Visit on 26th October 2023

It was observed that shops sold Bottles only with QR codes. There was no littering seen along the Kedarnath Route. Few bottles were seen which did not have QR code. Collection Point was placed near the Helipad. The Board officials interviewed the shopkeepers and locals. The shopkeepers and locals were happy that the area once littered with plastic bottles was clean. They said since the DRS was implemented bottles are not thrown by the tourist. They also stated that the same scheme should be adopted for multilayered plastic as Maggie is sold widely in Kedarnath. Some locals (Shri. Mohan Lal) were of opinion that the plastic bottles should be completely banned as the scheme imposes additional amount the tourist has to pay. The number of collection centres should increase.



Board Officials alongwith team of DRS (Shri. Rohit Joshi and Shri. Mukesh, Sanitary Inspector, Municipal Administration) at Kedarnath



Interaction with Dhaba owner at Kedarnath





QR code scanning machine at base of Kedarnath



Use of the scanning machine demonstrated by DRS official. Shir. Rohit Joshi

Chopta Hill 27th October 2023

The Board officials resided at Bunker House in Chopta. The Owner of the Bunker House (Shri. Sparsh) is carrying out DRS in his hotel. He has a collection centre in the basement of his hotel. He encourages the locals as well as the tourist to purchase the QR coded bottles and to return it at his hotel. He also conducts collection in an around his hotel.

The Board officials interacted with the Dhaba owners along Chota. They said that the Chota Hill is used by trekkers. The trekkers used to dump bottles along the route. Now once the DRS is implemented the bottles are not littered they are collected and disposed at the collection points and money is refunded.



The Board officials also interacted with Smt. Sushmaji who is actively carrying out awareness amongst locals, shopkeepers, hotels etc regarding DRS and has now increased the collection of bottles in Chopta.



Helpdesk with awareness board regarding DRS at base of Chopta Hill



Collection points along Chopta Hill



Waste collected during the return journey from Chopta Hill- The bottles were without QR code



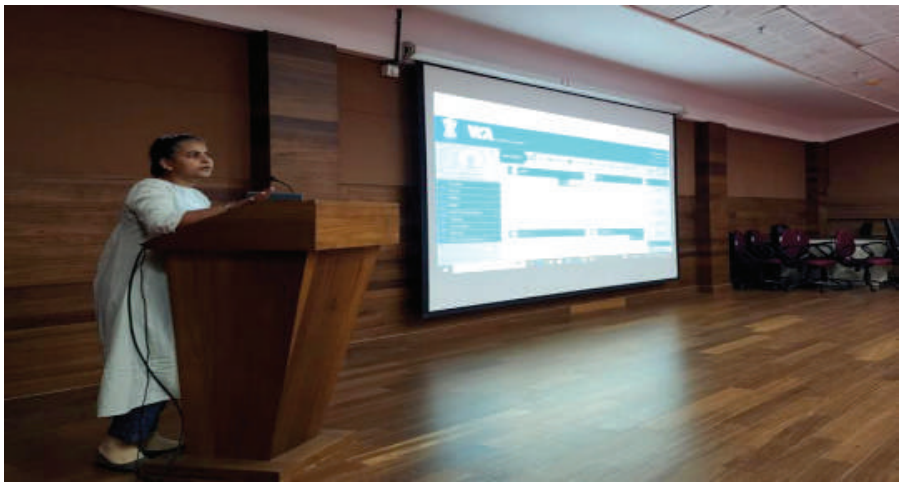


Interaction with Hotel Sun Inn located on route where DRS is implemented

In view of the interactions and the site visit it may be concluded that:

1. DRS is successful in collection of bottles.
2. Reduction of littering of bottles.
3. Need to implement for multilayered plastic.
4. Increase the scope of DRS from Char Dham to entire State.
5. More collection Points needed.

11.10 HANDS-ON TRAINING ON E-OFFICE SOFTWARE (TO REPLACE EXISTING FLM-BASED SYSTEM) TO BOARD OFFICIALS BY DOIT, GOA (20TH NOVEMBER, 2023)



Dy. Director, DoIT, Goa explaining the file processing mechanism using e-office

The IT Section along with officials of Department Of Information Technology, Electronics and Communications conducted a comprehensive training session for its staff on the E-office portal/software developed by NIC India, which will be adopted by the Goa Government for processing documents and files in its respective offices. The hands on training aimed to enhance efficiency and streamline administrative processes on E-office. Staff members learned about digital file mana gement, workflow management, and secure document handling to ensure a smooth transition to the new system.

The Goa State Pollution Control Board conducted a comprehensive training session for its staff on the E- office portal/software developed by NIC India. This training aimed to enhance efficiency and streamline administrative processes. Staff members learned about digital file management, workflow automation, and secure document handling to ensure a smooth transition to the new system.

11.11 23RD ANNUAL GREENTECH ENVIRONMENT SUMMIT & AWARDS 2023, SONMARG

The Summit was attended by Dr. Shamila Monteiro, Member Sceretary, Goa State Pollution Control Board, Ms. Jenica Sequeira, Scientist D, Goa State Pollution Control Board and Ms. Nandan V. Prabhudessai, AEE, Goa State Pollution Control Board.



The Greentech Foundation organised a CSR Summit and Awards from November 22-23 at Sonmarg, Srinagar. Kamleshwar Sharan, CEO, and Chairman of Greentech Foundation introduced the event and briefed about the Greentech foundation and its activities. Deputy Commissioner Ganderbal, Shayambir who was chief guest on the occasion, emphasised the significance of the programme organised by the Greentech Foundation in Sonamarg. During the inauguration Dr. Sapna Poti is the Director, Strategic Alliances in the Office of the Principal Scientific Adviser to the Government of India. presented the regarding the activities carried out at Manthan Platform. Dr. Shantanu Dutta, member Secretary, Assam Pollution control Board presented on all the activities carried out in assam for environment protection. Dr. Shamila Monteiro, Member secretary Goa State Pollution Control Board gave a presentation on how State Pollution Control Board is actively involved for ensuring circular economy, implantation of single use plastic ban.

Attendees included SDPO Kangan Dr. Muzaffar Jan, SHO Sonamarg Fayaz Ahmad, and Chief Executive Officer of Sonamarg Development Authority (CEO) Dr. Ilyas Hussain. Throughout the summit, discussions and workshops explored practical approaches to integrating CSR into corporate frameworks, exchanging knowledge, and providing actionable insights. Keynote speakers from the private sector underscored the pivotal role of corporations in driving responsible practices.

The event culminated in the recognition of outstanding CSR initiatives, sparking healthy competition among the nearly forty corporates and public sector units present. Awardees, including Oil India Ltd, IREL, SJVN, NLC, Hindustan unilever, Adani Port, JSW, SBI, Birla Cement, Crompton Greaves were celebrated for their impactful projects spanning marginalized communities, women empowerment, rehabilitation of the disabled, safety and heritage conservation.

The Greentech Foundation expressed optimism about the collective impact, anticipating significant contributions to the global dialogue on sustainability. The CSR Summit and Awards 2023 stand as a testament to the commitment of these organizations toward a socially responsible and sustainable future.

11.12 EXPOSURE VISIT TO INDORE MUNICIPAL CORPORATION (IMC) FOR STAKEHOLDERS FOR WASTE MANAGEMENT IN GOA (14 - 15 DECEMBER, 2023)



Background:

The Goa State Pollution Control Board (GSPCB) is entrusted with the crucial responsibility of preserving and enhancing the quality of the environment in the state of Goa. GSPCB plays a pivotal role in regulating and monitoring pollution levels, ensuring environmental compliance, and promoting sustainable development in the region. The GSPCB's intention for organizing an exposure visit of stakeholders from the pollution control board and heads of different municipalities/Panchayat in Goa to the Indore Municipal Corporation (IMC) to learn how IMC engages various stakeholders, including residents, businesses, and local communities, to ensure active participation in waste management. This knowledge can be applied to enhance Goa's stakeholder engagement strategies.

Objective of the exposure Visit: GSPCB had planned a three-day exposure visit to IMC from 13th Decemeber to 16th December. The primary objective of this visit is to gain insights into the waste management practices and policies implemented by IMC.

Visit Focus Areas:

1. **Waste Management:** The visit aimed to understand the waste management strategies employed by IMC, including waste collection, transportation, and disposal methods.

2. **Stakeholder Engagement:** It intended to explore how IMC engages with various stakeholders, including residents, businesses, and local communities, to ensure active participation in waste management initiatives.
3. **Segregation at Source:** The visit aimed to provide an opportunity to observe and learn about the techniques and programs IMC uses to achieve waste segregation at the source.

4. **Policy Mandates:** The objective was to gather information on the policy mandates and regulations enforced by IMC to regulate and streamline waste management processes.

Participant Members:

Sr. No	Name	Designation
1.	Shri Pradip Kushali Naik	Chairperson Curchorem Cacora Municipal Council (Board Member, GSPCB)
2	Shri Ashirvad Tukaram Khorjuvekar	Councillor, Mapusa Municipal Council (Board Member, GSPCB)
3	Shri Sanjay Naik	Village Panachahayt Sanvorden, (Board Member, GSPCB)
4	Shri Shidharth G. Dessai	Zilla Panchayat Member Xeldem Constituency
5	Shri Manohar Lavu Karekar	Chief Officer Curchorem Cacora Municipal Council
6	Smt Pritee Prasad Naik	Chairperson Sanguem Municipal Council
7	Shri Custodio Fernandes	Sarpanch Assolda Village Panchayat
8	Smt. Kavita uday Gauns Dessai	Sarpanch Xeldem Village Panchayat
9	Smt Chanmayi Chandan Naik	Sarpanch Sanvordem Village Panchayat
10	Miss Rhucha Subhash Vasta	Vice -Chairperson, Curchorem Cacora Municipal Council Goa

11	Shri Satu Goankar	Project Executive Mineral Foundation of Goa
12	Dr. Mohan Girap	Scientist C, GSPCB
13	Shri Manoj Kudalkar	Assistant Environmental Engineer, GSPCB
14	Shri Amit Shanbag	Assistant Environmental Engineer, GSPCB
15	Shri Pravin Fal Dessai	Assistant Environmental Engineer, GSPCB
16.	Shri Shashank Krishna Dessai	Assistant Manager Goa Waste Management Corporation
17.	Shri Sidhant Prabhu Dessai	Junior Environmental Engineer
18.	Shri Samir Borkar	Senior Laboratory Assistant
19.	Shri Sidhant Parab	Junior Research Fellow GSPCB
20.	Mrs Anuradha Bhatta	GIZ European Union – Resource Efficiency Initiative (Eu-REI), India
21	Shri Kartik Kapoor	GIZ European Union – Resource Efficiency Initiative (Eu-REI), India










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पेंट के डिब्बे, पेस्टीसाइड के डिब्बे, सी.एफ.एल. बल्ब,
ट्यूबलाइट, टूटी हुई मरक्यूरी थर्मामीटर, अनुपयोगी
सेनेटरी वेस्ट जैसे डाइपर
सेनेटरी नेपकीन एवंगंदे
मेडिसिन अपशिष्ट की गई
सुईं एवं मास्क इत्यादि



11.13 GSPCB WORKSHOP IN COLLABORATION THE CENTRAL ROAD RESEARCH INSTITUTE ON NOISE MAPPING, HOT SPOT IDENTIFICATION AND MITIGATION MEASURES THROUGH CRRI & ENVIROTECH SOLUTIONS PVT. LTD

The Goa State Pollution Control Board (GSPCB) has awarded a project for noise mapping, hotspots identification and mitigation measures to control noise pollution in state of Goa. Initially a workshop was organised by the Goa State Pollution Control Board (GSPCB) in collaboration the Central Road Research Institute (CRRI) and Envirotech Solutions Pvt Ltd on 21.12.2023, The objective of the study is to develop noise maps in terms of day and night equivalent noise levels as per Noise Pollution (Regulation & Control) Rules 2000, the 12-months-long project has been executed by CSIR-Central Road Research Institute (CRRI), New Delhi, in collaboration with Envirotech Instruments Pvt Ltd. A noise data/information collection drive across the state of Goa to determine the hotspots sources and possible measures that may be required to control noise pollution. The report will also suggest technology based solutions to reduce noise pollution created at the outdoor venues. Highlighting hotspots areas, collection of primary data comprising traffic volume, vehicular speed, road details (type, number of lanes, surface material etc), building layouts, meteorological and topographical data including background data for the preparation of the noise map. Submission of final report in September 2024 with recommendation for both short term and long term measures derived from detailed analysis highlighting specific areas targeted for noise mapping, Mitigation measures will be recommended to the stakeholders for remedial noise pollution in identified locations. The study will end in September 2024.





Dr. Manoranjan Parida-Director CSIR-CRRI,
Dr. Naseem Akhtar – Chief Scientist lighting the lamp with Board Officials

11.14 THE 2ND INTERNATIONAL ENVIRONMENT AND SUSTAINABILITY SUMMIT GOA (IESSG) 2024



The Goa State Pollution Control Board (GSPCB) in partnership with Confederation of Indian Industry (CII) as Industry partner and Manthan : Ideas and Implementation through Science Technologies and Innovations, O/o the Principal Scientific Adviser to the Government of India as Knowledge partner had organized the 2nd International Environment and Sustainability Summit Goa (IESSG) at Dr. Shyama Prasad Mukherjee Stadium, Bambolim in Goa from 8th – 10th February 2024.

The theme for the Summit was Structuring the Present for a Sustainable Future : Our Commitments to Actions with a aim to align the deliberations with the Sustainable Developmental Goals (SDGs'). The Summit comprised of (i) exhibition stalls set-up by well-known industrial firms (31 nos.) – to name few include Recykle, Vedanta Ltd., Adani Mormugao Port Terminal Pvt. Ltd., Kafmar Environmental Services, Nevco Engineers, Envirotech Instruments, Goa Waste Management Corporation, Garuda uAV Soft Solution, Envirocare Labs, Manohar International Airport, Thermo Fisher Scientific India Pvt. Ltd., P.T. Ecological Services, etc., demonstrating their latest technological intervention through process / product or application-based utilization along with Start-up pavilion (15 nos.) put-up by IIT, Goa, Forum for Innovation Incubation Research and Entrepreneurship (FiiRE) and few private entrepreneurs and ten plenary sessions namely – (a) Decarbonisation : Accelerating Industry Transition Pathways, (b) Green Credits : A Step towards Mission LiFE, (c) Sustainable Mining : A Necessity, Not an Alternative, (d) Circular Economy : Challenges & Opportunities, (e) Climate Finance for Impact, (f) Greening of Industries in Goa, (g) Scaling up Clean Technology, (h) pathways to Sustainable Development, (i) Water Security & Conservation and (j) Biodiversity Conservation : An Opportunity for Businesses.

The Summit was inaugurated on 8th February 2024 at the hands of Shri. Aleixo Sequeira, Hon'ble Minister for Law & Judiciary, Environment, Captain of Ports & Legislative Affairs, Govt. of



Goa in the august presence of Shri. Suresh Prabhu, Founding Chancellor, Rishihood university, Former Rajya Sabha Member & Former union Minister, Dr. Sapna Poti, Director, Strategic Alliances, O/o PSA, Govt. of India, Shri, Mahesh Patil, Chairman, GSPCB and Dr. (Mrs.) Shamila Monteiro, Member Secretary, GSPCB.

The inauguration was followed by plenary session – Decarbonisation: Accelerating Industry Transition Pathways which was moderated by Dr. Ashok Khosla, Chairman & Founder, Development Alternatives and included Ms. Divya Sharma, Executive Director, Climate Group, Mr. Debajit das, National Project Coordinator, uNIDO, Mr. Shailesh Tyagi, Partner & Lead, Deliotte Climate Change. This was followed by a session on Green Credits : A Step Towards Mission LiFE which was moderated by Mr. Shikhar Jain, Executive Director, CII-ITC Center for Excellence for Sustainable Development with panelist from Cipla Ltd., Goa State Climate Chanmge Cell and DCM Shgriram Ltd.,. Then, Mr. R.K. Bansal, Director, Recycling and Environment Industry Association of India moderated a session on Sustainable Mining : A Necessity, Not an Alternative comprising of speakers representing Tata Steel Ltd., MoEF & CC, Gos Foundation and Editor, Gomantak.





The last session of the day was on Circular Economy : Challenges & Opportunities and was moderated by Dr. Ajay Deshpande, Adjunct Professor, IIT, Bombay & Former Expert Member, NGT wherein speakers representing Recykle, Lindstorm, Circulate Capital and EU-REI, GIZ presented their views.





On 2nd day of the summit, four sessions were held starting with a session on Climate Finance for Impacts during which Ms. Yashika Mallik, Climate Change Specialist, World Bank delivered the keynote address and later was moderated by Mr. Bose Varghese, Senior Director ESG, Cyril Amarchand Mangaldas with panelist representing Tata Capital Ltd., and Core Carbon X Solutions Pvt. Ltd.,





This was followed by a plenary session on Greening of Industries in Goa in coordination with the CII, Green Business Center, H'bad. Dr. (Mrs.) Shamila Monteiro, M.S., GSPCB introduced to the topic and was later moderated by Mr. Muthusezhiyan, Deputy Executive Director, CII wherein speakers from Godrej & Boycee Mfg Co. Ltd., Deccan Fine Chemicals and Hindustan Coca-Cola Beverages shared their expertise in the environment-related initiatives adopted by the firm.

Subsequently, two sessions were held one on Scaling up Clean Technology wherein Dr. Sapna Poti, Director, Strategic Alliances, O/o Principal Scientific Adviser, Govt. of India delivered keynote address and was moderated by Mr. Hitesh Sharma, South Asia Lead, HP Inc., among panelist represented by SKS Clean Tech, Lohum Cleantech, uNIDo and IIT, Dharwad regarding their start-up initiatives.





This was followed by a session on Pathways to Sustainable Development and was moderated by Mr. Mudit Janin, Head-Research, Tata Capital Ltd., with panelists representing Ashoka Leyland and Brigh Blu. Third day started with a plenary session on Water Security and Conservation which was moderated by Mr. Ajith Radhakrishnan, Senior Specialist & Country Coordinator 203o Water Resources



Group, World Bank with panelist representing JSW Foundation, MIT-World Peace university, Pune, Hindustan Coca-Cola Beverages and CII. Lastly, the

session was held on Biodiversity Conservation: An Opportunity for Businesses which was moderated by Mr. Vivel Talwar, Founder, Chrysalis with panelist representing Goa State Biodiversity Board (GSBB), World Wide Fund (WWF) and Corbette Foundation.

The plenary session was attended by about 300 delegates while, the exhibition was attended by various educational institutions and industrial sections and was well appreciated by general visitors as well.

The Valedictory function of the Summit was held on 10th February 2024 at 02.30 p.m. in the august presence of Shri. R. B. Barad, IAS, Chairman, Gujrat.





Pollution Control Board as Chief Guest and Shri. Anirudh Agrawal, Chairman, CII Goa Council & Managing Director, Agrawal Renewable Energy & Pvt. Ltd., among Mr. Mahesh Patil, Chairman, GSPCB and Dr. (Mrs.) Shamila Monteiro, M.S., GSPCB. A recorded speech of Shri Bhupender Yadav-ji, Hon'ble Minister for Environment & Climate Change, Govt. of India was also screened. During the session, GMR Goa International Airport Ltd., (Manohar International Airport), M/s Nanutel and Aayush Hospital were felicitated for acquiring Green-building Certification while, four industrial units from Goa namely, M/s Deccan Fine Chemicals (India) Pvt. Ltd., M/s Godrej Locks, M/s Hindustan Coca-Cola Ltd., and M/s Britacel Silicones Ltd., were felicitated obtaining GreenCo rating through CII, Green Business Center, H'bad at the hands of the Chief Guest. Baseline study report on Deposit Refund System (DRS) in the State of Goa – an initiative of the GSPCB with EU-REI, GIZ was also released along with a introductory video on DRS through joint venture with Recykle and Anubhuti Foundation was also released during the valedictory session.

The GSPCB also released a Souvenir, commemorating IESSG 2024 which received more than 40 articles on Sustainability from eminent Academic Institutes like IIT-Mumbai, IIT Goa, BITS Pilani K.K.Birla Goa Campus, Goa university, prominent College faculties, teenagers and many more. You may access the souvenir on the following link https://drive.google.com/file/d/1Nx-8IiuIMCooRjiA5vrB9FEOhCjcvI_H/view?usp=sharing or the QR code:

11.15 GSPCB: BREAST SCREENING CAMP

The Board in association Dr. Niky Hadfadkar from Yuvraj Singh Foundation (Youwecan) staff Nurse Sr. Sharmila Pednekar and Sr. Divya Gad from PHC Saligao conducted a free breast screening camp and awareness session for all the female staff of the Board on 20/02/2024. A total of 68 no. of female staff availed the facility.






11.16 GSPCB: "KNOWLEDGE SHARING (KS) PROGRAMME

The knowledge sharing programme is conducted by the GSPCB to create awareness about the Latest Technological Interventions to address environmental issues. For the year 2022-23,they included:

Sr. No.	Name of the Firm	Topic	Name of Designated person	Contact details	Date of Presentation
1	N. K Waste Management	Aerobic wet Waste management systems	Hemal Khanderia	+918888831931 nkwastemanagement@outlook.com	
2	Blue Planet	Eco friendly technologies	Yeshwant natekar	+917977274820 agnel_goa@yahoo.co.in yeshwantnatekar@gmail.com	

3	Welan Technologies	Noise Monitoring Solutions	Manas Mahajan	+918380068001 manas@welantechnologies.com	
4	Devic Earth Pvt Ltd	Ambient Air (PM2.5 / PM10) Purification technology	Anand Wankhede	+919356573789 anand.wankhede@devic-earth.com	
5	Thermax Ltd	Water and Sewage Treatment	Vrushali Shiralkar	+918390901183 vrushali.shiralkar@Thermaxglobal.com	
6	Alogreen Water Tech Pvt. Ltd	Rejuvenation of lakes / rivers / creeks			
7	Nevco engineers	OPSIS CAAQMS	C. Sahoo	+919444915371 c.sahoo@nevcoengineers.com	
8	Aquario LifeSciences	"IDEXX E.Coli & Colliform Kit (approved by FSSAI / APHA / BIS)"	Mr. Roshan Das		
9	Arun Enterprises	Plastic Shredding Machine	Mr. Karthi Kumar D	+919884068651 karthikumar@arunpla.com	
10	HORIBA India Pvt. Ltd	Technical and manufacturing of Gas and Water products	Kunal Soni	+919582155908 kunal.soni@horiba.com	
11	Organica Biotech Pvt. Ltd	Wastewater remediation	Karen Sam	+918692061199 karen.sam@organicabiotech.com	
12	Natural Gas Pvt. Ltd	Natural Gas	Mohammad Zafar	+0832-2412933 marketing@goanaturalgas.com	
13	Sustainable Communities India Pvt Ltd	Clean Air Accelerator	Amit Kumar Singh Parihar	asingh@sustain.org	
14	Panache Ideate	Hybrid Technology for treating effluents from small to big eateries, restaurants & hotels'	Aneesh Soni	+919316915870 panacheideate@gmail.com	27-07-2022

15	Veneklasen India Pvt. Ltd	Noise and Vibration Management	Sangeeta Kaushal	+919319717101 skaushal@veneklasen.com	27-07-2022
16	Re Sustainability Ltd	Hazardous waste management initiatives in India and way forward	Bobby Kurien	+919000994516 bobbykurien@resustainability.com	27-07-2022
17	Goa With Earth	Solution to Pollution	David Dsouza	david51260@live.com	27-10-2022
18	P.T Ecological Services	Online Monitoring System	Rohit Patole	+919834599576 info@ptespl.com	27-10-2022
19	S G Corps	High efficiency Sewage Treatment System	Vaibhav Gadgil	+919049910161 vaibhavgadgil@gmail.com	27-10-2022
20	Bramha Corp	Impact Validation of an Ayurveda Methodology	Wilson Godinho	+919822980947 widesproperties@gmail.com	27-10-2022
21	ACOEM	Ambient Air Quality Monitoring	Harsh Dixit	+917229044507 Harsh.dixit@acoem.com	18-11-2022
22	PackMile	Eliminating SuP in packaging	Mr. Pawan Maheshwari	+919741571000 pawan@packmile.com	18-11-2022
23	Climatique Technologies	Plasma Waste Gasification system	Chirag Rawat	+919407186800 Chirag.rawat@climatique.in	18-11-2022
24	Prima Equipments	Testing and Calibration Laboratory Facility (OCEMS) for the QAL-1 & QAL - 2	Pritesh Shah	+917490843986 pritesh@primaequipment.com	18-11-2022
25	Aaxis Nano Technologies	Water/Waste Water & Environmental Online Instruments	Tushar Agarkar	+918425973874 tushar@aaxisnano.com	15-12-2022
26	Rochem India	Green ZLD solutions for waste water recycle & reuse	Nikhil Gharat	+918657495348 nikhil.gharat@rochem.com	15-12-2022
27	Biomimicry Tech	Decentralised waste water treatment plant	Dr.Aniban Roy	+919830265292 info@biomimicrytech.com	15-12-2022
28	Next Engineering Enviro Pvt Ltd	Environmental Monitoring Solutions	Varun patel	+919978312492 varun@nextengineering.com	15-12-2022

29	Sujal Eco Tech Pvt Ltd	Eco Friendly and sustainable solutions in waste management	Lt. Cdr. Shailesh Deshpande	+919833613711 sujalecotech@gmail.com	13-04-2023
30	Sigma molecules	Water treatment plant for industrial waste water	Pankaj Madan	9717565242 pushparaj@ sigmamolecules.com	13-04-2023
31	Valuable Energy – Solubag	100% water dissolvable Non-toxic and non plastic packaging film material	Aniket Pujari	8055799171 Aniket.pp1@gmail.com	13-04-2023
32	Comptrack	Compliance solutions of organizational procedures and policies	Satyen Vaiude	9403383109 satyen@comptrack.in	13-04-2023
33	Eco-Ventures	Continuous Ambient Air QualityMicro-Monitoring Station	Shashin Shah	7400161080	07-07-2023
34	NIMS the organic hub	Small biogas plants for treatment of organic waste	Samir Morajkar	8956691426 nimsmktg@gmail.com	07-07-2023
35	Steam House India Limited	Community boiler projects that supply steam through a piped network.	Vishal Budia	9727740710 khushi@steamhouse.in	07-07-2023
36	EcoTec Engineers and Consultants	Eco SBR Technology STP.	Jacob Varghese	jacob@ecotec.in; 9444039589	16-08-2023
37	Platino Automotive Private Limited	Retrofit Emission Control Device (RECD)	Priya	sales@platino.co.in; 9884644440	16-08-2023
38	National Odour Research & Management Institute (NORMI)	Odour Awareness: Monitoring, Legal Implications and Mitigations	Dr. Ajay Garg	odournormi@gmail.com; 9811386723	16-08-2023
39	Anodyne Water Engineering Co. Pvt. Ltd	Technology, Products and Services for Air and Water Treatment Systems.	Nikhil Garg	nikhil@anodyne.in; 9560046178	16-08-2023
40	Ecosense Appliances Pvt. Ltd	Various Eco sense appliances	Ketaki Kokil	admin@ ecosenseappliances.com; 9158898075	16-08-2023
41	Enviro group		Kallol Das	ese2001@gmail.com 8336931888	08-09-2023

42	SERIGAS	Organic waste treatment system	Sandeep Phaldessai	sandeepphaldesai@gmail.com 9823196314	08-09-2023
43	Dust a side-Hincol	Dust suppression systems for material handling applications	T. k Subhash	tksubhash@hincol.com 9324005255	17-11-2023
44	Bruks Siwertell AB	Best available technology for handling coal	Mathiraj	Srcrmgr5@gmail.com 9342107595	17-11-2023
45	Organic Recycling Systems Ltd	Sanjeevak Carbonization Systems	Mayur Garhande	Mayur.garhande@organicrecycling.co.in 8104311270	27-02-2024
46	Tellus Habitat	Sustainable Technologies for the treatment of reclamation wastewater and solid waste.	Seema Sukhani	seemasukhani@tellushabitat.com 8527812869	27-02-2024
47	Energy Desk Private Limited	INNOVATIVE AND ENERGY-EFFICIENT Solutions	Mandar Velde	mandar.velde@energydesk.in	12-04-24
48	Avris Environment Technologies LLP	Design, development, manufacturing & supply of Food Waste Treatment System	Ravi Ayyangar	bharath@avristech.com ravi@avristech.com;	12-04-24
49	SaafWater	Water Quality, Quantity and Flow based applications. AI-IoT based water intelligence platform.	Hrishikesh M. Bhandari	Contact: +91 87880 56988 Email: hrishikesh@saafwater.com	12-04-24
50	Innovative Water Technologies Private Limited	Water and Waste Water Solutions	Rushad Balaporia	Rushad.balaporia@iwtech.in +919372920096	17-05-24
51	Earth Care Equipments Private Limited	Organic Waste Converter.	Anniruddha Deshpande	9923139992	17-05-24


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BEAT PLASTIC POLLUTION
REDUCE
REUSE
RECYCLE
USE CLOTH BAGS
STOP BUYING SINGLE USE PLASTIC
STOP POLLUTION
MAKE A PROPER USE OF PLASTIC
STOP POLLUTING WATER
~SHLOKA HALDANKAR

ANNEXURE-I

GOA STATE POLLUTION CONTROL BOARD
गोंय राज्य प्रदूषण नियंत्रण मंडळ
(An ISO 9001-2015, ISO 14001:2015, ISO 45001:2018 Certified Board)

Phone Nos : 0832- 2407700, 2407701, 2407703

Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary, GSPCB: ms-gspcb.goa@nic.in
Office: mail.gspcb@gov.in

No.3/20/07-PCB/Vol.VII/Part/Admin/15126 13/10/2023

OFFICE ORDER

Read: Office order no. 3/20/07-PCB/Vol.II/Part/7286 dated 24/11/2015

In supersession of office order referred to above, a Committee comprising of the following officers is hereby constituted as the "Waste Disposal Committee", of the Goa State Pollution Control Board for the purpose of disposal of condemned articles (vehicles, equipment, machinery, furniture and other related condemned items and dead stock associated with Goa State Pollution Control Board), under the Chairmanship of the Member Secretary, Goa State Pollution Control Board.

Sr. no.	Name of the Official and Designation	Committee Designation
1.	Dr. Shamila Monteiro, Member Secretary	Chairman
2.	Mrs. Jenica Sequeira, Scientist "D"	Member
3.	Mrs. Natalia Dias, Law Officer	Member
4.	Mrs. Claudia Correia, Asst. Accounts Officer	Member
5.	Mrs. Indira Raut, Asst. Engineer (IT)	Member
6.	Mrs. Nandan Prabhudessai, Asst. Environmental Engineer	Member
7.	Mrs. Tulita Da Costa e Fernandes, Admin. Officer	Member Convenor

The committee shall schedule a meeting of all its members to ensure further needful in order to achieve timely disposal of these condemned items as per requirements, after following necessary codal formalities, so as to minimize the safety risk concerning the storage of these non-functional items in the Board premises.

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao - Bardez Goa - 403511

The procedure adopted by the Committee comprises following stages:-

1.	The concerned section head requires to declare "Non functionality" of a concerned equipments/furniture/or any such related items within a month of such a declaration from the concerned authority with supporting documents
2.	The inventory of these items along with the certificate to that effect is to be presented before the committee during their scheduled ,meeting within 7 days of intimation
3	The discussion held will be so minuted with a defined time frame action plan and responsibility wherein disposal should be completed within 75 days of meeting.
4	All the members of the committee are required to be present at the said meeting as and when schedule on said attendance sheet
5.	In case the concerned member is unable to attend the next link officer is authorized to attend after duly recording reason for absentism.

(Mahesh K. Patil)
Chairman
Goa State Pollution Control Board

To,
The Officials concerned.

c.c. to :-

1.	All the Sections Heads.
2.	Ms. Connie Fernandes, Scientist "C"/MR 3.Personal file of the officials 4. Accounts Section 5. Notice Board 6. Guard file

ANNEXURE-II

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001-2015, ISO 14001:2015, ISO 45001:2018 Certified Board)

Phone Nos : 0832- 2407700, 2407701, 2407703

Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary, GSPCB: ms-gspcb.goa@nic.in
Office: mail.gspcb@gov.in

No. 1/5/23-PCB/Vol.XXXI/Admn/1652 8 01/10/2023

OFFICE ORDER

A committee comprising of the following officials is reconstituted for conducting inspection/visit to the Board office for any EQHS violations. Further the said committee shall register the violations in the Register and handed over to the Management Representative. The committee shall conduct inspections/site visit at least once in a month.

Further Admin Head shall also inspect the premises along the Management from time to time and report of the same shall also be submitted to Management Representative.

Sr. no.	Name of the Official and Designation
1.	Mrs. Mitzi Da silva, Head Clerk
2.	Mr. Sherwin Da Costa , Junior Environmental Engineer
3.	Mr. Santosh Haldankar, Scientific Assistant
4.	Mrs. Jocelyn Coelho, Senior Laboratory Assistant
5.	Mr. Chetan Upadhye, Network Assistant

This order supersedes Order no. 1/5/15-PCB/Vol.XXII/8 dated 28/07/2016.

(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

To,
The concerned officials

c.c. to :-

1.	All the Sections Heads.
2.	Personal file of the official 2. Ms. Connie Fernandes, Scientist "C"/MR 3.Staff file 4. Notice Board 5. Guard file

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao - Bardez Goa - 403511

ANNEXURE-III

GOA STATE POLLUTION CONTROL BOARD

गोंय राज्य प्रदूषण नियंत्रण मंडळ

(An ISO 9001-2015, ISO 14001:2015, ISO 45001:2018 Certified Board)

Phone Nos : 0832- 2407700,
2407701, 2407703

Email Ids:
Chairman, GSPCB: chairman-gspcb.goa@nic.in
Member Secretary, GSPCB: ms-gspcb.goa@nic.in
Office: mail.gspcb@gov.in

No. 1/5/23-PCB/ Vol.XXX/Admn/ 21621

OFFICE ORDER

04/01/2024

The following officials of the Board are hereby nominated as Committee members for **"Green Building IGBC Certification** of the Goa State Pollution Control Board office cum Laboratory building.

Sr. no.	Name of the Official and Designation
	Scientific Section:
1	Mrs. Jenica Sequeira, Scientist "D"
2	Ms. Connie Fernandes, Scientist "C"
3	Dr. Mohan Girap, Scientist "C"
	Technical Section
1	Mr. Sanjeev S. Joglekar, Senior Environmental Engineer
2	Mrs. Nandan Prabhudessai, Assistant Environmental Engineer
3	Mr. Rohan Nagvekar, Assistant Environmental Engineer
4	Mr. Sebastiao Colaco, Engineering Assistant
	Administration Section
1	Mrs. Tulita Da Costa e Fernandes, Admin. Officer
2	Mrs. Swapna G. Naik, Office Superintendent
	Information Technology Section
1	Mrs. Indira Raut, Assistant Engineer (IT)
2	Mr. Pratik Chari. Network Engineer
	Accounts Section
1	Mrs. Claudia Correia, Assistant Accounts Officer
2	Mr. Jonathan Alphonso, Accountant

This issues with the approval of the Chairman.

(Dr. Shamila Monteiro)
Member Secretary
Goa State Pollution Control Board

To,
The Offciers/Officials listed above

c.c to: Chairman, Goa State Pollution Control Board .... For information

c..c to: All Section Heads 2. Office copy 3. Guard file

Near Pilerne Industrial Estate, Opp.- Saligao Seminary, Saligao - Bardez Goa - 403511

ANNEXURE-IV

ANNUAL AAQM DATA OF NAMP STATIONS FROM APRIL 2023 TO MARCH 2024							
Station: Near Dempo Towers, Patto plaza							**City: Panaji**
		Pollutants concentration in µg/m3					**AIR QLTY**
	Parameters	PM10	PM2.5	SO2	NO2	AQI	
Sr. No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	44	18	2	5	**44**	Good
2	06-04-2023	231	48	2	24	**187**	Moderate
3	10-04-2023	62	17	2	5	**62**	Satisfactory
4	13-04-2023	64	17	2	12	**64**	Satisfactory
5	17-04-2023	139	36	2	17	**126**	Moderate
6	20-04-2023	96	30	2	14	**96**	Satisfactory
7	24-04-2023	97	30	2	17	**97**	Satisfactory
8	27-04-2023	79	30	2	10	**79**	Satisfactory
MAY							
9	01-05-2023	68	12	2	5	**68**	Satisfactory
10	04-05-2023	76	18	2	10	**76**	Satisfactory
11	08-05-2023	52	18	2	5	**52**	Satisfactory
12	11-05-2023	58	20	2	5	**58**	Satisfactory
13	15-05-2023	61	15	2	11	**61**	Satisfactory
14	18-05-2023	65	21	2	11	**65**	Satisfactory
15	22-05-2023	77	23	2	11	**77**	Satisfactory
16	25-05-2023	108	34	2	11	**105**	Moderate
17	29-05-2023	68	20	2	5	**68**	Satisfactory
JUNE							
18	01-06-2023	65	22	2	12	**65**	Satisfactory

19	05-06-2023	40	8	2	5	**40**	Good
20	08-06-2023	38	12	2	5	**38**	Good
21	12-06-2023	35	14	2	5	**35**	Good
22	15-06-2023	30	5	2	5	**30**	Good
23	19-06-2023	38	7	2	5	**38**	Good
24	22-06-2023	32	6	2	5	**32**	Good
25	26-06-2023	31	7	2	5	**31**	Good
26	29-06-2023	20	5	2	5	**20**	Good
JULY							
27	03-07-2023	17	3	2	5	**17**	Good
28	06-07-2023	17	2	2	5	**17**	Good
29	10-07-2023	34	6	2	5	**34**	Good
30	13-07-2023	23	7	2	5	**23**	Good
31	17-07-2023	24	7	2	5	**24**	Good
32	20-07-2023	23	4	2	5	**23**	Good
33	24-07-2023	12	3	2	5	**12**	Good
34	27-07-2023	31	6	2	5	**31**	Good
35	31-07-2023	43	11	2	5	**43**	Good
AUGUST							
36	03-08-2023	23	3	2	5	**23**	Good
37	07-08-2023	39	14	2	5	**39**	Good
38	10-08-2023	39	12	2	5	**39**	Good
39	14-08-2023	61	24	2	13	**61**	Satisfactory
40	17-08-2023	41	15	2	11	**41**	Good
41	21-08-2023	36	7	2	5	**36**	Good
42	24-08-2023	27	3	2	5	**27**	Good
43	28-08-2023	29	4	2	5	**29**	Good
44	31-08-2023	46	12	2	5	**46**	Good

SEPTEMBER							
45	04-09-2023	46	14	2	5	**46**	Good
46	07-09-2023	54	20	2	14	**54**	Satisfactory
47	11-09-2023	30	9	2	5	**30**	Good
48	14-09-2023	28	4	2	5	**28**	Good
49	18-09-2023	32	10	2	5	**32**	Good
50	21-09-2023	36	8	2	5	**36**	Good
51	25-09-2023	45	14	2	5	**45**	Good
52	28-09-2023	43	19	2	5	**43**	Good
OCTOBER							
53	02-10-2023	56	20	2	11	**56**	Satisfactory
54	05-10-2023	45	13	2	7	**45**	Good
55	09-10-2023	53	16	2	14	**53**	Satisfactory
56	12-10-2023	68	25	7	12	**68**	Satisfactory
57	16-10-2023	80	15	7	12	**80**	Satisfactory
58	19-10-2023	69	19	2	13	**69**	Satisfactory
59	23-10-2023	70	17	4	11	**70**	Satisfactory
60	26-10-2023	66	17	2	10	**66**	Satisfactory
61	30-10-2023	73	14	4	12	**73**	Satisfactory
NOVEMBER							
62	02-11-2023	112	26	5	15	**108**	Moderate
63	05-11-2023	74	22	2	9	**74**	Satisfactory
64	06-11-2023	63	20	5	18	**63**	Satisfactory
65	07-11-2023	56	14	4	13	**56**	Satisfactory
66	08-11-2023	44	12	2	5	**44**	Good
67	09-11-2023	65	23	2	18	**65**	Satisfactory
68	10-11-2023	78	22	5	18	**78**	Satisfactory
69	11-11-2023	54	14	5	22	**54**	Satisfactory

70	12-11-2023	84	27	6	14	**84**	Satisfactory
71	13-11-2023	59	24	5	23	**59**	Satisfactory
72	14-11-2023	68	22	2	24	**68**	Satisfactory
73	15-11-2023	82	32	5	21	**82**	Satisfactory
74	16-11-2023	89	22	5	22	**89**	Satisfactory
75	17-11-2023	92	30	5	18	**92**	Satisfactory
76	18-11-2023	85	33	4	22	**85**	Satisfactory
77	19-11-2023	67	27	5	15	**67**	Satisfactory
78	20-11-2023	73	26	6	15	**73**	Satisfactory
79	23-11-2023	63	18	2	14	**63**	Satisfactory
80	27-11-2023	64	23	2	10	**64**	Satisfactory
81	30-11-2023	48	15	2	13	**48**	Good
DECEMBER							
82	04-12-2023	61	16	2	12	**61**	Satisfactory
83	07-12-2023	71	24	2	15	**71**	Satisfactory
84	11-12-2023	68	22	2	16	**68**	Satisfactory
85	14-12-2023	108	25	4	16	**105**	Moderate
86	18-12-2023	110	33	5	14	**107**	Moderate
87	21-12-2023	126	27	4	25	**117**	Moderate
88	25-12-2023	103	26	2	24	**102**	Moderate
89	28-12-2023	92	20	2	14	**92**	Satisfactory
JANUARY							
90	02-01-2024	90	22	4	12	**90**	Satisfactory
91	04-01-2024	80	18	3	19	**80**	Satisfactory
92	08-01-2024	63	16	6	8	**63**	Satisfactory
93	11-01-2024	67	27	4	16	**67**	Satisfactory
94	15-01-2024	65	27	3	15	**65**	Satisfactory
95	18-01-2024	58	33	3	22	**58**	Satisfactory

96	22-01-2024	55	17	2	17	**55**	Satisfactory
97	25-01-2024	108	26	5	17	**105**	Moderate
98	29-01-2024	124	29	3	18	**116**	Moderate
FEBRUARY							
99	01-02-2024	79	25	3	19	**79**	Satisfactory
100	05-02-2024	115	37	3	14	**110**	Moderate
101	08-02-2024	54	17	4	12	**54**	Satisfactory
102	12-02-2024	117	31	2	15	**111**	Moderate
103	15-02-2024	99	17	5	14	**99**	Satisfactory
104	19-02-2024	79	26	4	15	**79**	Satisfactory
105	22-02-2024	70	17	3	21	**70**	Satisfactory
106	26-02-2024	87	36	3	13	**87**	Satisfactory
107	29-02-2024	91	27	4	15	**91**	Satisfactory
MARCH							
108	04-03-2024	93	32	5	12	**93**	Satisfactory
109	07-03-2024	69	25	2	16	**69**	Satisfactory
110	11-03-2024	86	26	4	16	**86**	Satisfactory
111	14-03-2024	57	10	4	12	**57**	Satisfactory
112	18-03-2024	79	23	5	17	**79**	Satisfactory
113	21-03-2024	94	20	2	24	**94**	Satisfactory
114	25-03-2024	74	25	5	18	**74**	Satisfactory
115	28-03-2024	63	9	6	12	**63**	Satisfactory
* No Monitoring MB-Machine Breakdown							

Station: Within the premises of Muncipal Building							City: Mapusa
		Pollutants concentration in µg/m3				AQI	AIR QLTY
	Parameters	PM10	PM2.5	SO2	NO2		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	38	12	2	5	**38**	Good
2	06-04-2023	40	11	2	5	**40**	Good
3	10-04-2023	48	13	2	5	**48**	Good
4	13-04-2023	38	14	2	5	**38**	Good
5	17-04-2023	49	16	2	5	**49**	Good
6	20-04-2023	46	16	2	5	**46**	Good
7	24-04-2023	37	16	2	5	**37**	Good
8	27-04-2023	52	16	2	5	**52**	Satisfactory
MAY							
9	02-05-2023	49	11	2	9	**49**	Good
10	04-05-2023	69	25	2	5	**69**	Satisfactory
11	08-05-2023	48	13	2	5	**48**	Good
12	11-05-2023	128	35	2	19	**119**	Moderate
13	15-05-2023	68	24	2	13	**68**	Satisfactory
14	18-05-2023	164	34	2	29	**142**	Moderate
15	22-05-2023	81	24	2	24	**81**	Satisfactory
16	25-05-2023	113	28	2	22	**109**	Moderate
17	29-05-2023	95	29	2	18	**95**	Satisfactory
JUNE							
18	01-06-2023	101	45	2	11	**101**	Moderate
19	05-06-2023	105	23	2	20	**103**	Moderate
20	08-06-2023	77	18	2	13	**77**	Satisfactory
21	12-06-2023	46	12	2	5	**46**	Good

22	15-06-2023	58	8	2	9	**58**	Satisfactory
23	19-06-2023	56	11	2	5	**56**	Satisfactory
24	22-06-2023	45	14	2	5	**45**	Good
25	26-06-2023	32	3	2	5	**32**	Good
26	30-06-2023	31	6	2	5	**31**	Good
JULY							
27	03-07-2023	19	3	2	5	**19**	Good
28	06-07-2023	15	5	2	5	**15**	Good
29	10-07-2023	22	3	2	5	**22**	Good
30	13-07-2023	21	5	2	5	**21**	Good
31	17-07-2023	16	5	2	5	**16**	Good
32	20-07-2023	29	7	2	5	**29**	Good
33	24-07-2023	17	3	2	5	**17**	Good
34	27-07-2023	32	9	2	5	**32**	Good
35	31-07-2023	37	13	2	5	**37**	Good
AUGUST							
36	03-08-2023	39	15	2	5	**39**	Good
37	07-08-2023	43	17	2	5	**43**	Good
38	10-08-2023	66	21	2	5	**66**	Satisfactory
39	14-08-2023	60	19	2	5	**60**	Satisfactory
40	17-08-2023	41	14	2	5	**41**	Good
41	21-08-2023	42	18	2	5	**42**	Good
42	24-08-2023	30	5	2	5	**30**	Good
43	28-08-2023	41	11	2	5	**41**	Good
44	31-08-2023	84	24	2	5	**84**	Satisfactory
SEPTEMBER							
45	04-09-2023	49	16	2	5	**49**	Good
46	07-09-2023	67	16	2	10	**67**	Satisfactory

47	11-09-2023	109	33	2	17	**106**	Moderate
48	14-09-2023	41	12	2	13	**41**	Good
49	18-09-2023	44	13	2	5	**44**	Good
50	21-09-2023	40	11	2	5	**40**	Good
51	25-09-2023	59	15	2	5	**59**	Satisfactory
52	28-09-2023	38	10	2	5	**38**	Good
OCTOBER							
53	03-10-2023	57	14	4	13	**57**	Satisfactory
54	05-10-2023	46	10	5	9	**46**	Good
55	09-10-2023	60	14	2	13	**60**	Satisfactory
56	12-10-2023	73	21	4	12	**73**	Satisfactory
57	16-10-2023	74	16	5	10	**74**	Satisfactory
58	19-10-2023	87	31	2	13	**87**	Satisfactory
59	23-10-2023	59	14	2	11	**59**	Satisfactory
60	26-10-2023	53	12	4	11	**53**	Satisfactory
61	30-10-2023	91	20	4	10	**91**	Satisfactory
NOVEMBER							
62	02-11-2023	79	18	4	16	**79**	Satisfactory
63	06-11-2023	74	18	5	10	**74**	Satisfactory
64	09-11-2023	88	28	4	17	**88**	Satisfactory
65	13-11-2023	60	20	2	12	**60**	Satisfactory
66	16-11-2023	122	34	6	14	**115**	Moderate
67	20-11-2023	58	25	4	12	**58**	Satisfactory
68	23-11-2023	72	35	4	17	**72**	Satisfactory
69	27-11-2023	64	14	5	18	**64**	Satisfactory
70	30-11-2023	49	13	2	16	**49**	Good

DECEMBER							
71	04-12-2023	86	23	2	16	**86**	Satisfactory
72	07-12-2023	99	22	4	16	**99**	Satisfactory
73	11-12-2023	94	19	2	14	**94**	Satisfactory
74	14-12-2023	116	26	2	16	**111**	Moderate
75	18-12-2023	93	24	4	15	**93**	Satisfactory
76	21-12-2023	103	29	2	20	**102**	Moderate
77	26-12-2023	73	26	4	13	**73**	Satisfactory
78	28-12-2023	78	23	2	14	**78**	Satisfactory
JANUARY							
79	02-01-2024	46	24	4	13	**46**	Good
80	04-01-2024	62	14	3	7	**62**	Satisfactory
81	08-01-2024	47	20	3	9	**47**	Good
82	11-01-2024	57	18	3	20	**57**	Satisfactory
83	15-01-2024	104	41	7	14	**103**	Moderate
84	18-01-2024	57	26	3	24	**57**	Satisfactory
85	23-01-2024	55	21	5	16	**55**	Satisfactory
86	25-01-2024	50	20	3	17	**50**	Good
87	29-01-2024	99	29	3	15	**99**	Satisfactory
FEBRUARY							
88	01-02-2024	82	33	4	18	**82**	Satisfactory
89	05-02-2024	123	37	3	16	**115**	Moderate
90	08-02-2024	52	15	4	23	**52**	Satisfactory
91	12-02-2024	58	21	4	13	**58**	Satisfactory
92	15-02-2024	49	20	4	16	**49**	Good
93	19-02-2024	81	29	5	12	**81**	Satisfactory
94	22-02-2024	124	32	4	21	**116**	Moderate
95	26-02-2024	76	22	3	19	**76**	Satisfactory
96	29-02-2024	68	18	3	23	**68**	Satisfactory

MARCH							
97	04-03-2024	47	22	7	12	**47**	Good
98	07-03-2024	77	24	4	19	**77**	Satisfactory
99	11-03-2024	85	23	2	14	**85**	Satisfactory
100	14-03-2024	43	15	2	19	43	Good
101	18-03-2024	51	16	5	18	57	Satisfactory
102	21-03-2024	82	28	4	23	53	Satisfactory
103	26-03-2024	58	13	2	16	54	Satisfactory
104	28-03-2024	64	11	5	14	52	Satisfactory
* No Monitoring MB-Machine Breakdown							

Station: Fuse Call Office								**City: Vasco**
		Pollutants concentration in µg/m3					**AQI**	**AIR QLTY**
	Parameters	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**	**NH3**		
Sr. No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL								
1	04-04-2023	41	34	2	25	*	**57**	Satisfactory
2	06-04-2023	41	32	2	27	*	**53**	Satisfactory
3	11-04-2023	39	46	2	17	*	**77**	Satisfactory
4	13-04-2023	32	32	2	15	*	**53**	Satisfactory
5	19-04-2023	34	41	2	22	*	**68**	Satisfactory
6	21-04-2023	56	32	2	19	*	**56**	Satisfactory
7	26-04-2023	30	28	2	16	*	**47**	Good
8	28-04-2023	27	23	2	14	*	**38**	Good
MAY								
9	03-05-2023	36	22	2	12	*	**37**	Good
10	05-05-2023	57	16	2	11	*	**57**	Satisfactory
11	10-05-2023	29	23	2	11	*	**38**	Good
12	12-05-2023	34	24	2	11	*	**40**	Good

13	17-05-2023	37	20	2	11	*	**37**	Good
14	19-05-2023	44	25	2	11	*	**44**	Good
15	24-05-2023	23	12	2	10	*	**23**	Good
16	26-05-2023	38	17	2	10	*	**38**	Good
17	31-05-2023	234	18	2	11	*	**189**	Moderate
JUNE								
18	02-06-2023	24	18	6	10	*	**30**	Good
19	07-06-2023	15	8	5	15	*	**19**	Good
20	09-06-2023	16	12	5	12	*	**20**	Good
21	14-06-2023	19	17	4	13	*	**28**	Good
22	16-06-2023	40	20	2	5	*	**40**	Good
23	21-06-2023	34	33	6	5	*	**55**	Satisfactory
24	23-06-2023	32	7	2	5	*	**32**	Good
25	27-06-2023	15	19	2	5	*	**32**	Good
JULY								
26	07-07-2023	39	31	2	20	*	**52**	Satisfactory
27	12-07-2023	82	18	2	19	*	**82**	Satisfactory
28	14-07-2023	24	18	2	19	*	**30**	Good
29	19-07-2023	27	39	2	5	*	**65**	Satisfactory
30	21-07-2023	16	38	2	5	*	**63**	Satisfactory
31	28-07-2023	MB	34	MB	MB	*		
AUGUST								
32	02-08-2023	198	37	2	14	*	**165**	Moderate
33	04-08-2023	16	32	2	13	*	**53**	Satisfactory
34	09-08-2023	43	36	2	5	*	**60**	Satisfactory
35	11-08-2023	27	19	2	5	*	**32**	Good
36	16-08-2023	50	4	2	5	*	**50**	Good
37	18-08-2023	10	13	2	11	*	**22**	Good

38	23-08-2023	37	13	2	5	*	**37**	Good
39	25-08-2023	11	7	2	5	*	**12**	Good
40	30-08-2023	31	14	2	5	*	**31**	Good
SEPTEMBER								
41	01-09-2023	26	6	2	5	*	**26**	Good
42	06-09-2023	34	12	2	12	*	**34**	Good
43	08-09-2023	5	4	2	11	*	**14**	Good
44	13-09-2023	7	6	2	14	10	**18**	Good
45	15-09-2023	10	7	2	5	10	**12**	Good
46	18-09-2023	17	11	2	5	10	**18**	Good
47	22-09-2023	28	18	2	9	10	**30**	Good
48	27-09-2023	6	9	2	14	10	**18**	Good
OCTOBER								
49	04-10-2023	41	20	2	5	10	**41**	Good
50	06-10-2023	62	53	2	5	10	**88**	Satisfactory
51	11-10-2023	129	36	2	17	10	**119**	Moderate
52	13-10-2023	93	18	2	17	10	**93**	Satisfactory
53	18-10-2023	67	53	2	9	10	**88**	Satisfactory
54	20-10-2023	74	56	2	9	10	**93**	Satisfactory
55	25-10-2023	51	28	2	11	10	**51**	Satisfactory
56	27-10-2023	82	58	2	25	10	**97**	Satisfactory
NOVEMBER								
57	01-11-2023	79	34	2	13	10	**79**	Satisfactory
58	03-11-2023	57	25	2	13	10	**57**	Satisfactory
59	08-11-2023	41	13	2	26	10	**41**	Good
60	10-11-2023	49	32	2	17	10	**53**	Satisfactory
61	15-11-2023	103	88	2	17	10	**193**	Moderate
62	17-11-2023	82	50	2	19	10	**83**	Satisfactory

63	22-11-2023	68	42	2	19	10	**70**	Satisfactory
64	24-11-2023	52	22	2	5	10	**52**	Satisfactory
65	29-11-2023	68	23	2	13	10	**68**	Satisfactory
DECEMBER								
66	01-12-2023	85	40	2	11	10	**85**	Satisfactory
67	06-12-2023	76	45	2	5	10	**76**	Satisfactory
68	08-12-2023	51	38	2	5	10	**63**	Satisfactory
69	13-12-2023	56	40	2	5	10	**67**	Satisfactory
70	15-12-2023	56	47	2	21	10	**78**	Satisfactory
71	20-12-2023	105	80	2	15	10	**167**	Moderate
72	22-12-2023	96	85	2	5	10	**183**	Moderate
73	27-12-2023	75	56	2	10	10	**93**	Satisfactory
74	29-12-2023	60	29	2	19	10	**60**	Satisfactory
JANUARY								
75	03-01-2024	78	56	2	28	10	**93**	Satisfactory
76	05-01-2024	92	70	2	27	10	**133**	Moderate
77	10-01-2024	69	50	2	23	10	**83**	Satisfactory
78	12-01-2024	58	35	6	30	10	**58**	Satisfactory
79	17-01-2024	63	36	2	18	10	**63**	Satisfactory
80	19-01-2024	227	38	2	25	10	**185**	Moderate
81	23-01-2024	97	43	2	20	10	**97**	Satisfactory
82	25-01-2024	89	60	2	22	10	**100**	Satisfactory
83	31-01-2024	76	49	2	28	10	**82**	Satisfactory
FEBRUARY								
84	02-02-2024	77	47	2	23	10	**78**	Satisfactory
85	07-02-2024	106	58	2	18	10	**104**	Moderate
86	09-02-2024	96	57	2	15	10	**96**	Satisfactory

87	14-02-2024	80	55	2	24	10	**92**	Satisfactory
88	16-02-2024	72	44	2	21	10	**73**	Satisfactory
89	21-02-2024	119	25	2	19	10	**113**	Moderate
90	23-02-2024	70	31	2	23	10	**70**	Satisfactory
91	28-02-2024	83	44	2	14	10	**83**	Satisfactory
MARCH								
92	01-03-2024	54	42	2	5	10	**70**	Satisfactory
93	06-03-2024	83	34	4	11	10	**83**	Satisfactory
94	08-03-2024	86	55	5	5	10	**92**	Satisfactory
95	13-03-2024	50	22	2	5	10	**50**	Good
96	15-03-2024	164	45	2	5	10	**143**	Moderate
97	20-03-2024	96	60	2	11	10	**100**	Satisfactory
98	22-03-2024	91	MB	2	5	10	**91**	Satisfactory
99	26-03-2024	54	MB	2	5	10	**54**	Satisfactory
100	28-03-2024	70	MB	2	5	10	**70**	Satisfactory

* No Monitoring MB-Machine Breakdown

Station:MPT Quarters								**City: Baina**
		Pollutants concentration in µg/m3					**AQI**	**AIR QLTY**
	Parameters	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**	**NH3**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL								
1	04-04-2023	42	MB	2	12	*	**42**	Good
2	06-04-2023	41	MB	2	17	*	**41**	Good
3	11-04-2023	36	MB	2	16	*	**36**	Good
4	13-04-2023	32	MB	2	16	*	**32**	Good
5	19-04-2023	29	MB	2	16	*	**29**	Good
6	21-04-2023	28	MB	2	12	*	**28**	Good

7	26-04-2023	33	MB	2	15	*	**33**	Good
8	28-04-2023	45	MB	2	17	*	**45**	Good
MAY								
9	03-05-2023	49	MB	2	11	*	**49**	Good
10	05-05-2023	31	MB	2	11	*	**31**	Good
11	10-05-2023	48	MB	2	10	*	**48**	Good
12	12-05-2023	42	MB	2	10	*	**42**	Good
13	17-05-2023	59	MB	2	11	*	**59**	Satisfactory
14	19-05-2023	41	MB	2	11	*	**41**	Good
15	24-05-2023	21	MB	2	13	*	**21**	Good
16	26-05-2023	31	MB	2	9	*	**31**	Good
17	31-05-2023	31	MB	2	9	*	**31**	Good
JUNE								
18	02-06-2023	19	MB	7	9	*	**19**	Good
19	07-06-2023	20	MB	5	11	*	**20**	Good
20	09-06-2023	38	MB	5	10	*	**38**	Good
21	14-06-2023	32	MB	4	11	*	**32**	Good
22	16-06-2023	27	MB	2	5	*	**27**	Good
23	21-06-2023	32	MB	2	5	*	**32**	Good
24	23-06-2023	29	MB	2	5	*	**29**	Good
25	27-06-2023	38	MB	2	5	*	**38**	Good
JULY								
26	12-07-2023	61	MB	2	16	*	**61**	Satisfactory
27	14-07-2023	41	MB	2	15	*	**41**	Good
28	19-07-2023	32	MB	2	15	*	**32**	Good
29	21-07-2023	86	MB	2	5	*	**86**	Satisfactory
30	28-07-2023	142	MB	2	5	*	**128**	Moderate

AUGUST								
31	02-08-2023	45	MB	2	14	*	**45**	Good
32	04-08-2023	34	MB	2	13	*	**34**	Good
33	09-08-2023	70	MB	2	5	*	**70**	Satisfactory
34	11-08-2023	32	MB	2	5	*	**32**	Good
35	16-08-2023	135	19	2	5	*	**123**	Moderate
36	18-08-2023	143	10	2	5	*	**129**	Moderate
37	23-08-2023	146	5	2	5	*	**131**	Moderate
38	25-08-2023	110	9	2	5	*	**107**	Moderate
39	30-08-2023	30	MB	2	5	*	**30**	Good
SEPTEMBER								
40	01-09-2023	24	MB	2	5	*	**24**	Good
41	06-09-2023	44	22	2	5	*	**44**	Good
42	08-09-2023	20	10	2	12	*	**20**	Good
43	13-09-2023	52	14	2	5	10	**52**	Satisfactory
44	15-09-2023	22	13	2	5	10	**22**	Good
45	18-09-2023	157	16	2	5	10	**138**	Moderate
46	22-09-2023	107	8	2	10	10	**105**	Moderate
47	27-09-2023	110	8	2	16	10	**107**	Moderate
OCTOBER								
48	04-10-2023	121	19	2	5	10	**114**	Moderate
49	06-10-2023	128	72	2	5	10	**140**	Moderate
50	11-10-2023	131	MB	2	12	10	**121**	Moderate
51	13-10-2023	94	MB	2	5	10	**94**	Satisfactory
52	18-10-2023	94	88	2	9	10	**193**	Moderate
53	20-10-2023	138	59	4	5	10	**125**	Moderate
54	25-10-2023	63	29	2	10	10	**63**	Satisfactory
55	27-10-2023	97	10	2	11	10	**97**	Satisfactory

NOVEMBER								
56	01-11-2023	96	39	2	9	10	**96**	Satisfactory
57	03-11-2023	80	17	2	11	10	**80**	Satisfactory
58	08-11-2023	34	13	2	9	10	**34**	Good
59	10-11-2023	83	21	2	23	10	**83**	Satisfactory
60	15-11-2023	129	74	2	16	10	**147**	Moderate
61	17-11-2023	104	28	2	10	10	**103**	Moderate
62	22-11-2023	66	25	2	11	10	**66**	Satisfactory
63	24-11-2023	44	28	2	5	10	**47**	Good
64	29-11-2023	48	23	2	10	10	**48**	Good
DECEMBER								
65	01-12-2023	68	29	2	11	10	**68**	Satisfactory
66	06-12-2023	84	35	2	5	10	**84**	Satisfactory
67	08-12-2023	67	30	2	9	10	**67**	Satisfactory
68	13-12-2023	56	33	2	5	10	**56**	Satisfactory
69	15-12-2023	95	42	2	23	10	**95**	Satisfactory
70	29-12-2029	117	23	2	28	10	**111**	Moderate
JANUARY								
71	03-01-2024	88	45	2	24	10	**88**	Satisfactory
72	05-01-2024	103	55	2	26	10	**102**	Moderate
73	10-01-2024	56	36	2	37	10	**60**	Satisfactory
74	12-01-2024	81	33	2	36	10	**81**	Satisfactory
75	17-01-2024	81	37	2	27	10	**81**	Satisfactory
76	19-01-2024	82	36	2	18	10	**82**	Satisfactory
77	23-01-2024	96	30	2	22	10	**96**	Satisfactory
78	25-01-2024	98	50	2	17	10	**98**	Satisfactory
79	31-01-2024	73	43	2	24	10	**73**	Satisfactory

FEBRUARY								
80	02-02-2024	86	48	2	22	10	**86**	Satisfactory
81	07-02-2024	108	53	2	16	10	**105**	Moderate
82	09-02-2024	116	59	2	17	10	**111**	Moderate
83	14-02-2024	85	48	2	24	10	**85**	Satisfactory
84	16-02-2024	93	39	2	26	10	**93**	Satisfactory
85	21-02-2024	88	22	2	22	10	**88**	Satisfactory
86	23-02-2024	63	25	2	15	10	**63**	Satisfactory
87	28-02-2024	91	36	2	12	10	**91**	Satisfactory
MARCH								
88	01-03-2024	57	33	2	5	10	**57**	Satisfactory
89	06-03-2024	82	32	5	10	10	**82**	Satisfactory
90	08-03-2024	135	43	5	10	10	**123**	Moderate
91	13-03-2024	74	24	2	5	10	**74**	Satisfactory
92	15-03-2024	105	18	2	5	10	**103**	Moderate
93	20-03-2024	120	53	2	5	10	**113**	Moderate
94	22-03-2024	87	25	2	5	10	**87**	Satisfactory
95	26-03-2024	73	22	2	5	10	**73**	Satisfactory
96	28-03-2024	66	26	2	5	10	**66**	Satisfactory

* No Monitoring MB-Machine Breakdown

Station: Roof top of Municipal market							**City: Ponda**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	**Date**	**24-hr avg**	**24-hr avg**	**24-hr avg**	**24-hr avg**		
APRIL							
1	06-04-2023	119	22	2	5	**112**	Moderate
2	10-04-2023	106	25	2	13	**104**	Moderate

3	13-04-2023	61	13	2	5	**61**	Satisfactory
4	17-04-2023	51	10	6	5	**51**	Satisfactory
5	20-04-2023	56	14	2	5	**56**	Satisfactory
6	24-04-2023	69	18	2	5	**69**	Satisfactory
7	27-04-2023	57	19	2	5	**57**	Satisfactory
MAY							
8	01-05-2023	75	24	2	9	**75**	Satisfactory
9	04-05-2023	49	11	2	5	**49**	Good
10	08-05-2023	71	24	2	12	**71**	Satisfactory
11	11-05-2023	45	11	2	5	**45**	Good
12	15-05-2023	46	15	2	5	**46**	Good
13	18-05-2023	54	18	2	5	**54**	Satisfactory
14	22-05-2023	71	18	2	10	**71**	Satisfactory
15	25-05-2023	119	30	2	12	**113**	Moderate
16	29-05-2023	67	16	2	11	**67**	Satisfactory
JUNE							
17	01-06-2023	58	11	2	14	**58**	Satisfactory
18	05-06-2023	80	16	2	18	**80**	Satisfactory
19	08-06-2023	74	24	2	17	**74**	Satisfactory
20	12-06-2023	44	10	2	5	**44**	Good
21	15-06-2023	43	7	2	5	**43**	Good
22	19-06-2023	37	8	2	5	**37**	Good
23	22-06-2023	36	6	2	5	**36**	Good
24	26-06-2023	56	15	2	5	**56**	Satisfactory
25	29-06-2023	38	10	2	5	**38**	Good
JULY							
26	03-07-2023	20	4	2	5	**20**	Good
27	06-07-2023	21	2	2	5	**21**	Good

28	10-07-2023	20	3	2	5	**20**	Good
29	13-07-2023	25	6	2	5	**25**	Good
30	17-07-2023	19	4	2	5	**19**	Good
31	20-07-2023	28	8	2	5	**28**	Good
32	24-07-2023	36	11	2	5	**36**	Good
33	27-07-2023	25	6	2	5	**25**	Good
34	31-07-2023	50	22	2	5	**50**	Satisfactory
AUGUST							
35	03-08-2023	74	25	2	5	**74**	Satisfactory
36	07-08-2023	51	26	2	11	**51**	Satisfactory
37	10-08-2023	49	18	2	5	**49**	Good
38	14-08-2023	42	15	2	10	**42**	Good
39	17-08-2023	38	11	2	11	**38**	Good
40	21-08-2023	43	12	2	5	**43**	Good
41	24-08-2023	23	6	2	5	**23**	Good
42	28-08-2023	43	13	2	10	**43**	Good
43	31-08-2023	59	16	2	5	**59**	Satisfactory
SEPTEMBER							
44	04-09-2023	63	19	2	19	**63**	Satisfactory
45	07-09-2023	111	28	2	20	**108**	Moderate
46	11-09-2023	24	9	2	5	**24**	Good
47	14-09-2023	58	15	2	12	**58**	Satisfactory
48	18-09-2023	37	11	2	5	**37**	Good
49	21-09-2023	33	7	2	5	**33**	Good
50	25-09-2023	40	15	2	5	**40**	Good
51	28-09-2023	18	4	2	5	**18**	Good

OCTOBER							
52	02-10-2023	46	12	2	5	**46**	Good
53	05-10-2023	39	11	4	5	**39**	Good
54	09-10-2023	59	17	2	17	**59**	Satisfactory
55	12-10-2023	72	14	4	13	**72**	Satisfactory
56	16-10-2023	71	20	4	10	**71**	Satisfactory
57	19-10-2023	66	26	2	11	**66**	Satisfactory
58	23-10-2023	64	20	2	13	**64**	Satisfactory
59	26-10-2023	79	19	4	11	**79**	Satisfactory
60	30-10-2023	53	15	2	10	**53**	Satisfactory
NOVEMBER							
61	02-11-2023	79	20	4	11	**79**	Satisfactory
62	06-11-2023	45	14	4	16	**45**	Good
63	09-11-2023	55	17	4	17	**55**	Satisfactory
64	13-11-2023	76	20	5	20	**76**	Satisfactory
65	16-11-2023	113	23	7	14	**109**	Moderate
66	20-11-2023	87	24	6	14	**87**	Satisfactory
67	23-11-2023	104	18	5	18	**103**	Moderate
68	27-11-2023	74	16	6	23	**74**	Satisfactory
69	30-11-2023	59	11	5	17	**59**	Satisfactory
DECEMBER							
70	04-12-2023	86	26	2	14	**86**	Satisfactory
71	07-12-2023	72	26	2	17	**72**	Satisfactory
72	11-12-2023	75	18	2	15	**75**	Satisfactory
73	14-12-2023	103	27	2	13	**102**	Moderate
74	18-12-2023	100	31	2	15	**100**	Moderate
75	21-12-2023	117	24	2	16	**111**	Moderate
76	25-12-2023	88	21	2	16	**88**	Satisfactory
77	28-12-2023	106	30	4	17	**104**	Moderate

JANUARY							
78	02-01-2024	120	24	6	18	**113**	Moderate
79	04-01-2024	56	12	3	17	**56**	Satisfactory
80	08-01-2024	84	25	3	11	**84**	Satisfactory
81	11-01-2024	66	18	5	22	**66**	Satisfactory
82	15-01-2024	88	26	3	17	**88**	Satisfactory
83	18-01-2024	57	31	4	16	**57**	Satisfactory
84	23-01-2024	89	36	3	16	**89**	Satisfactory
85	25-01-2024	108	24	3	20	**105**	Moderate
86	29-01-2024	101	31	3	13	**100**	Moderate
FEBRUARY							
87	01-02-2024	80	26	3	17	**80**	Satisfactory
88	05-02-2024	135	17	4	15	**123**	Moderate
89	08-02-2024	124	24	4	18	**116**	Moderate
90	12-02-2024	128	25	3	14	**119**	Moderate
91	15-02-2024	153	38	4	12	**136**	Moderate
92	19-02-2024	72	28	4	12	**72**	Satisfactory
93	22-02-2024	56	18	2	23	**56**	Satisfactory
94	26-02-2024	117	16	3	16	**111**	Moderate
95	29-02-2024	101	31	4	13	**100**	Moderate
MARCH							
96	04-03-2024	89	18	5	18	**89**	Satisfactory
97	07-03-2024	105	32	3	15	**103**	Moderate
98	11-03-2024	92	22	3	15	**92**	Satisfactory
99	14-03-2024	86	19	4	17	**86**	Satisfactory
100	18-03-2024	100	25	6	18	**100**	Satisfactory
101	21-03-2024	103	21	2	19	**102**	Moderate
102	25-03-2024	54	10	4	6	**54**	Satisfactory
103	28-03-2024	70	15	5	16	**70**	Satisfactory

Station: Rooftop of Ravindra Bhavan Building						City: Margao	
		Time Weighted Average (TWA)				AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3					
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2		
APRIL							
1	06-04-2023	27	9	2	5	**27**	Good
2	10-04-2023	45	11	2	5	**45**	Good
3	13-04-2023	46	10	2	5	**46**	Good
4	17-04-2023	42	15	2	5	**42**	Good
5	20-04-2023	36	5	2	5	**36**	Good
6	24-04-2023	60	12	2	5	**60**	Satisfactory
7	27-04-2023	76	24	2	5	**76**	Satisfactory
MAY							
8	01-05-2023	80	22	2	5	**80**	Satisfactory
9	04-05-2023	117	37	2	24	**111**	Moderate
10	08-05-2023	44	15	2	5	**44**	Good
11	11-05-2023	50	13	2	5	**50**	Good
12	15-05-2023	64	16	2	10	**64**	Satisfactory
13	18-05-2023	67	20	2	12	**67**	Satisfactory
14	22-05-2023	58	14	2	15	**58**	Satisfactory
15	25-05-2023	93	26	2	16	**93**	Satisfactory
16	29-05-2023	45	11	2	14	**45**	Good
JUNE							
17	01-06-2023	57	16	2	15	**57**	Satisfactory
18	05-06-2023	42	9	2	5	**42**	Good
19	08-06-2023	73	20	2	5	**73**	Satisfactory
20	12-06-2023	33	6	2	5	**33**	Good

21	15-06-2023	22	7	2	5	**22**	Good
22	19-06-2023	35	12	2	5	**35**	Good
23	22-06-2023	48	11	2	5	**48**	Good
24	26-06-2023	22	8	2	5	**22**	Good
25	29-06-2023	29	4	2	14	**29**	Good
JULY							
26	03-07-2023	30	4	2	5	**30**	Good
27	06-07-2023	28	5	2	5	**28**	Good
28	10-07-2023	32	6	2	5	**32**	Good
29	13-07-2023	21	5	2	5	**21**	Good
30	17-07-2023	26	7	2	5	**26**	Good
31	20-07-2023	21	6	2	5	**21**	Good
32	24-07-2023	32	7	2	5	**32**	Good
33	27-07-2023	21	4	2	5	**21**	Good
34	31-07-2023	63	19	2	5	**63**	Satisfactory
AUGUST							
35	03-08-2023	33	7	2	5	**33**	Good
36	07-08-2023	67	21	2	17	**67**	Satisfactory
37	10-08-2023	32	7	2	5	**32**	Good
38	14-08-2023	83	25	2	12	**83**	Satisfactory
39	17-08-2023	31	11	2	5	**31**	Good
40	21-08-2023	46	15	2	9	**46**	Good
41	24-08-2023	36	9	2	5	**36**	Good
42	28-08-2023	57	16	2	5	**57**	Satisfactory
43	31-08-2023	63	24	2	5	**63**	Satisfactory
SEPTEMBER							
44	04-09-2023	64	14	2	5	**64**	Satisfactory
45	07-09-2023	55	8	2	5	**55**	Satisfactory
46	11-09-2023	30	4	2	5	**30**	Good

47	14-09-2023	30	5	2	5	**30**	Good
48	18-09-2023	43	12	2	5	**43**	Good
49	21-09-2023	43	10	2	5	**43**	Good
50	25-09-2023	50	18	2	5	**50**	Satisfactory
51	28-09-2023	31	8	2	5	**31**	Good
OCTOBER							
52	02-10-2023	62	15	2	11	**62**	Satisfactory
53	05-10-2023	27	6	2	5	**27**	Good
54	09-10-2023	90	29	2	15	**90**	Satisfactory
55	12-10-2023	53	14	5	15	**53**	Satisfactory
56	16-10-2023	104	20	6	11	**103**	Moderate
57	19-10-2023	100	29	2	15	**100**	Satisfactory
58	23-10-2023	135	34	2	10	**123**	Moderate
59	26-10-2023	92	22	4	12	**92**	Satisfactory
60	30-10-2023	54	18	2	11	**54**	Satisfactory
NOVEMBER							
61	02-11-2023	59	23	5	11	**59**	Satisfactory
62	06-11-2023	63	13	2	10	**63**	Satisfactory
63	09-11-2023	43	11	2	15	**43**	Good
64	13-11-2023	67	22	2	16	**67**	Satisfactory
65	16-11-2023	69	19	2	11	**69**	Satisfactory
66	20-11-2023	64	20	6	9	**64**	Satisfactory
67	23-11-2023	46	10	5	19	**46**	Good
68	27-11-2023	61	24	4	22	**61**	Satisfactory
69	30-11-2023	50	13	2	22	**50**	Good
DECEMBER							
70	04-12-2023	62	16	2	15	**62**	Satisfactory
71	07-12-2023	59	19	2	18	**59**	Satisfactory
72	11-12-2023	63	14	2	14	**63**	Satisfactory

73	14-12-2023	81	26	2	18	**81**	Satisfactory
74	18-12-2023	55	19	4	14	**55**	Satisfactory
75	21-12-2023	118	33	4	17	**112**	Moderate
76	25-12-2023	89	19	2	16	**89**	Satisfactory
77	28-12-2023	75	29	4	17	**75**	Satisfactory
JANUARY							
78	02-01-2024	64	23	4	12	**64**	Satisfactory
79	04-01-2024	67	14	5	16	**67**	Satisfactory
80	08-01-2024	66	21	2	15	**66**	Satisfactory
81	11-01-2024	69	26	6	17	**69**	Satisfactory
82	15-01-2024	72	28	5	14	**72**	Satisfactory
83	18-01-2024	59	35	2	16	**59**	Satisfactory
84	22-01-2024	61	27	6	13	**61**	Satisfactory
85	25-01-2024	97	30	5	19	**97**	Satisfactory
86	29-01-2024	111	34	2	13	**108**	Moderate
FEBRUARY							
87	01-02-2024	87	29	2	18	**87**	Satisfactory
88	05-02-2024	22	8	2	9	**22**	Good
89	08-02-2024	98	30	2	16	**98**	Satisfactory
90	12-02-2024	84	26	4	15	**84**	Satisfactory
91	15-02-2024	96	24	2	20	**96**	Satisfactory
92	19-02-2024	95	39	4	14	**95**	Satisfactory
93	22-02-2024	82	25	4	19	**82**	Satisfactory
94	26-02-2024	61	14	2	16	**61**	Satisfactory
95	29-02-2024	62	26	5	16	**62**	Satisfactory
MARCH							
96	04-03-2024	49	19	7	14	**49**	Good
97	07-03-2024	47	14	2	16	**47**	Good
98	11-03-2024	77	19	2	16	**77**	Satisfactory

99	14-03-2024	88	29	2	17	**88**	Satisfactory
100	18-03-2024	76	33	6	19	**76**	Satisfactory
101	21-03-2024	74	21	2	16	**74**	Satisfactory
102	25-03-2024	91	23	2	18	**91**	Satisfactory
103	28-03-2024	82	16	2	13	**82**	Satisfactory

Station: Residence of Mr. Rama Naik, Assanora Junction							**City: Assanora**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	83	24	2	14	**83**	Satisfactory
2	06-04-2023	126	31	2	11	**117**	Moderate
3	10-04-2023	157	32	2	9	**138**	Moderate
4	13-04-2023	92	27	2	16	**92**	Satisfactory
5	17-04-2023	88	25	2	11	**88**	Satisfactory
6	20-04-2023	69	11	2	5	**69**	Satisfactory
7	24-04-2023	84	10	2	13	**84**	Satisfactory
8	27-04-2023	123	28	2	10	**115**	Moderate
MAY							
9	02-05-2023	108	37	2	21	**105**	Moderate
10	04-05-2023	86	27	2	10	**86**	Satisfactory
11	08-05-2023	59	19	2	5	**59**	Satisfactory
12	11-05-2023	90	34	2	14	**90**	Satisfactory
13	15-05-2023	72	26	2	15	**72**	Satisfactory
14	18-05-2023	56	12	2	13	**56**	Satisfactory
15	22-05-2023	50	12	2	16	**50**	Satisfactory
16	25-05-2023	71	19	2	13	**71**	Satisfactory
17	29-05-2023	57	15	2	13	**57**	Satisfactory

JUNE							
18	01-06-2023	77	16	2	17	**77**	Satisfactory
19	05-06-2023	56	18	2	14	**56**	Satisfactory
20	08-06-2023	45	8	2	11	**45**	Good
21	12-06-2023	51	14	2	5	**51**	Satisfactory
22	15-06-2023	28	7	2	5	**28**	Good
23	19-06-2023	47	10	2	5	**47**	Good
24	22-06-2023	35	2	2	5	**35**	Good
25	26-06-2023	80	20	2	5	**80**	Satisfactory
26	30-06-2023	56	14	2	5	**56**	Satisfactory
JULY							
27	03-07-2023	27	7	2	5	**27**	Good
28	06-07-2023	34	8	2	5	**34**	Good
29	10-07-2023	28	7	2	5	**28**	Good
30	13-07-2023	19	5	2	5	**19**	Good
31	17-07-2023	30	9	2	5	**30**	Good
32	20-07-2023	17	5	2	5	**17**	Good
33	24-07-2023	26	5	2	5	**26**	Good
34	27-07-2023	24	3	2	5	**24**	Good
35	31-07-2023	38	12	2	5	**38**	Good
AUGUST							
36	03-08-2023	45	14	2	5	**45**	Good
37	07-08-2023	36	9	2	5	**36**	Good
38	10-08-2023	92	30	2	19	**92**	Satisfactory
39	14-08-2023	62	22	2	5	**62**	Satisfactory
40	17-08-2023	31	10	2	5	**31**	Good
41	21-08-2023	42	11	2	5	**42**	Good
42	24-08-2023	27	3	2	5	**27**	Good

43	28-08-2023	31	12	2	5	**31**	Good
44	31-08-2023	42	17	2	5	**42**	Good
SEPTEMBER							
45	04-09-2023	57	14	2	9	**57**	Satisfactory
46	07-09-2023	65	12	2	5	**65**	Satisfactory
47	11-09-2023	57	15	2	14	**57**	Satisfactory
48	14-09-2023	46	12	2	5	**46**	Good
49	18-09-2023	60	21	2	5	**60**	Satisfactory
50	21-09-2023	39	16	2	5	**39**	Good
51	25-09-2023	42	12	2	5	**42**	Good
52	28-09-2023	36	12	2	5	**36**	Good
OCTOBER							
53	03-10-2023	31	10	2	5	**31**	Good
54	05-10-2023	37	13	2	5	**37**	Good
55	09-10-2023	60	14	2	12	**60**	Satisfactory
56	12-10-2023	43	9	2	15	**43**	Good
57	16-10-2023	52	17	2	5	**52**	Satisfactory
58	19-10-2023	56	20	2	10	**56**	Satisfactory
59	23-10-2023	54	11	2	10	**54**	Satisfactory
60	26-10-2023	52	16	5	5	**52**	Satisfactory
61	30-10-2023	64	26	4	9	**64**	Satisfactory
NOVEMBER							
62	02-11-2023	52	20	6	13	**52**	Satisfactory
63	06-11-2023	56	20	4	12	**56**	Satisfactory
64	09-11-2023	60	19	4	13	**60**	Satisfactory
65	13-11-2023	48	16	2	13	**48**	Good
66	16-11-2023	69	23	6	15	**69**	Satisfactory
67	20-11-2023	61	19	4	13	**61**	Satisfactory

68	23-11-2023	40	16	2	14	**40**	Good
69	27-11-2023	82	24	4	15	**82**	Satisfactory
70	30-11-2023	44	11	2	13	**44**	Good
DECEMBER							
71	04-12-2023	62	17	2	10	**62**	Satisfactory
72	07-12-2023	47	19	4	15	**47**	Good
73	11-12-2023	57	17	2	13	**57**	Satisfactory
74	14-12-2023	94	26	2	16	**94**	Satisfactory
75	18-12-2023	51	8	4	17	**51**	Satisfactory
76	21-12-2023	73	25	4	19	**73**	Satisfactory
77	26-12-2023	53	15	4	19	**53**	Satisfactory
78	28-12-2023	96	21	2	14	**96**	Satisfactory
JANUARY							
79	02-01-2024	63	23	6	11	**63**	Satisfactory
80	04-01-2024	78	25	3	20	**78**	Satisfactory
81	08-01-2024	50	13	4	12	**50**	Good
82	11-01-2024	61	14	4	23	**61**	Satisfactory
83	15-01-2024	67	23	5	14	**67**	Satisfactory
84	18-01-2024	47	23	4	19	**47**	Good
85	23-01-2024	74	26	4	17	**74**	Satisfactory
86	25-01-2024	93	21	4	16	**93**	Satisfactory
87	29-01-2024	98	31	3	14	**98**	Satisfactory
FEBRUARY							
88	01-02-2024	77	28	3	16	**77**	Satisfactory
89	05-02-2024	98	25	3	16	**98**	Satisfactory
90	08-02-2024	72	15	4	17	**72**	Satisfactory
91	12-02-2024	71	25	4	16	**71**	Satisfactory
92	15-02-2024	48	16	3	19	**48**	Good

93	19-02-2024	78	23	4	16	**78**	Satisfactory
94	22-02-2024	60	14	2	23	**60**	Satisfactory
95	26-02-2024	67	19	3	17	**67**	Satisfactory
96	29-02-2024	62	17	4	19	**62**	Satisfactory
MARCH							
97	04-03-2024	58	15	6	13	**58**	Satisfactory
98	07-03-2024	74	24	4	22	**74**	Satisfactory
99	11-03-2024	82	24	2	13	**82**	Satisfactory
100	14-03-2024	49	11	4	19	**49**	Good
101	18-03-2024	62	20	5	19	**62**	Satisfactory
102	21-03-2024	79	26	2	19	**79**	Satisfactory
103	26-03-2024	84	34	2	18	**84**	Satisfactory
104	28-03-2024	58	13	5	11	**58**	Satisfactory

Station: Residence of Mr. Sagun Ramkrishna Fadte							**City: Amona**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	120	26	2	10	**113**	Moderate
2	06-04-2023	95	24	2	11	**95**	Satisfactory
3	10-04-2023	69	16	2	5	**69**	Satisfactory
4	13-04-2023	128	26	2	18	**119**	Moderate
5	17-04-2023	68	16	2	5	**68**	Satisfactory
6	20-04-2023	57	8	2	5	**57**	Satisfactory
7	24-04-2023	78	19	2	10	**78**	Satisfactory
8	27-04-2023	73	14	2	5	**73**	Satisfactory
MAY							

9	01-05-2023	53	18	2	5	**53**	Satisfactory
10	04-05-2023	77	24	2	5	**77**	Satisfactory
11	08-05-2023	78	25	2	11	**78**	Satisfactory
12	11-05-2023	50	21	2	5	**50**	Good
13	15-05-2023	71	19	2	9	**71**	Satisfactory
14	18-05-2023	43	12	2	5	**43**	Good
15	22-05-2023	61	12	2	5	**61**	Satisfactory
16	25-05-2023	60	26	2	5	**60**	Satisfactory
17	29-05-2023	62	17	2	5	**62**	Satisfactory
JUNE							
18	01-06-2023	72	16	2	9	**72**	Satisfactory
19	05-06-2023	43	10	2	5	**43**	Good
20	08-06-2023	31	10	2	5	**31**	Good
21	12-06-2023	38	11	2	5	**38**	Good
22	15-06-2023	50	9	2	5	**50**	Satisfactory
23	19-06-2023	46	9	2	5	**46**	Good
24	22-06-2023	43	6	2	5	**43**	Good
25	26-06-2023	39	6	2	5	**39**	Good
26	29-06-2023	26	2	2	5	**26**	Good
JULY							
27	03-07-2023	37	10	2	5	**37**	Good
28	06-07-2023	30	4	2	5	**30**	Good
29	10-07-2023	27	9	2	5	**27**	Good
30	13-07-2023	26	6	2	5	**26**	Good
31	17-07-2023	25	8	2	5	**25**	Good
32	20-07-2023	25	5	2	5	**25**	Good
33	24-07-2023	11	4	2	5	**11**	Good
34	27-07-2023	32	10	2	5	**32**	Good
35	31-07-2023	43	12	2	5	**43**	Good

AUGUST							
36	03-08-2023	41	10	2	5	**41**	Good
37	07-08-2023	61	21	2	5	**61**	Satisfactory
38	10-08-2023	54	13	2	9	**54**	Satisfactory
39	14-08-2023	55	18	2	5	**55**	Satisfactory
40	17-08-2023	41	11	2	5	**41**	Good
41	21-08-2023	37	11	2	5	**37**	Good
42	24-08-2023	32	11	2	5	**32**	Good
43	28-08-2023	42	12	2	5	**42**	Good
44	31-08-2023	47	13	2	5	**47**	Good
SEPTEMBER							
45	04-09-2023	49	12	2	5	**49**	Good
46	07-09-2023	33	10	2	5	**33**	Good
47	11-09-2023	42	11	2	5	**42**	Good
48	14-09-2023	43	13	2	5	**43**	Good
49	18-09-2023	30	7	2	5	**30**	Good
50	21-09-2023	24	10	2	5	**24**	Good
51	25-09-2023	21	9	2	5	**21**	Good
52	28-09-2023	31	4	2	5	**31**	Good
OCTOBER							
53	02-10-2023	28	9	2	5	**28**	Good
54	05-10-2023	45	14	2	5	**45**	Good
55	09-10-2023	107	38	6	11	**105**	Moderate
56	12-10-2023	70	25	5	12	**70**	Satisfactory
57	16-10-2023	116	28	5	19	**110**	Moderate
58	19-10-2023	64	15	2	11	**64**	Satisfactory
59	23-10-2023	103	34	4	9	**102**	Moderate
60	26-10-2023	101	44	6	12	**101**	Moderate
61	30-10-2023	70	23	5	11	**70**	Satisfactory

NOVEMBER							
62	02-11-2023	121	37	9	12	**114**	Moderate
63	06-11-2023	60	19	4	12	**60**	Satisfactory
64	09-11-2023	54	17	2	9	**54**	Satisfactory
65	13-11-2023	73	24	2	15	**73**	Satisfactory
66	16-11-2023	114	32	4	17	**110**	Moderate
67	20-11-2023	116	23	7	15	**111**	Moderate
68	23-11-2023	94	26	8	20	**94**	Satisfactory
69	27-11-2023	123	34	5	18	**115**	Moderate
70	30-11-2023	96	26	4	20	**96**	Satisfactory
DECEMBER							
71	04-12-2023	99	29	2	15	**99**	Satisfactory
72	07-12-2023	88	20	6	13	**88**	Satisfactory
73	11-12-2023	133	24	5	14	**122**	Moderate
74	14-12-2023	152	26	2	17	**135**	Moderate
75	18-12-2023	123	29	4	10	**116**	Moderate
76	21-12-2023	103	21	2	14	**102**	Moderate
77	25-12-2023	110	40	7	16	**107**	Moderate
78	28-12-2023	122	31	2	14	**115**	Moderate
JANUARY							
79	02-01-2024	117	27	5	14	**111**	Moderate
80	04-01-2024	120	33	4	15	**113**	Moderate
81	08-01-2024	102	22	3	11	**102**	Moderate
82	11-01-2024	92	27	5	24	**92**	Satisfactory
83	15-01-2024	118	22	3	15	**112**	Moderate
84	18-01-2024	54	12	3	23	**54**	Satisfactory
85	23-01-2024	70	17	4	16	**70**	Satisfactory
86	25-01-2024	74	26	4	16	**74**	Satisfactory
87	29-01-2024	63	18	4	17	**63**	Satisfactory

FEBRUARY							
88	01-02-2024	66	22	3	18	**66**	Satisfactory
89	05-02-2024	55	14	5	19	**55**	Satisfactory
90	08-02-2024	133	28	4	16	**122**	Moderate
91	12-02-2024	135	29	3	17	**123**	Moderate
92	15-02-2024	114	41	3	20	**109**	Moderate
93	19-02-2024	73	18	4	13	**73**	Satisfactory
94	22-02-2024	79	22	5	21	**79**	Satisfactory
95	26-02-2024	97	25	3	14	**97**	Satisfactory
96	29-02-2024	104	25	3	14	**103**	Moderate
MARCH							
97	04-03-2024	96	23	4	14	**96**	Satisfactory
98	07-03-2024	77	24	4	14	**77**	Satisfactory
99	11-03-2024	73	22	4	14	**73**	Satisfactory
100	14-03-2024	52	14	2	18	**52**	Satisfactory
101	18-03-2024	64	13	6	15	**64**	Satisfactory
102	21-03-2024	89	31	4	21	**89**	Satisfactory
103	25-03-2024	77	22	4	15	**77**	Satisfactory
104	28-03-2024	78	23	8	12	**78**	Satisfactory

Station: Municipality Building							**City: Bicholim**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	06-04-2023	63	13	2	10	**63**	Satisfactory
2	10-04-2023	84	14	2	12	**84**	Satisfactory

3	13-04-2023	82	19	2	11	**82**	Satisfactory
4	17-04-2023	61	14	2	5	**61**	Satisfactory
5	20-04-2023	40	8	2	5	**40**	Good
6	24-04-2023	62	11	2	5	**62**	Satisfactory
7	27-04-2023	68	17	2	5	**68**	Satisfactory
MAY							
8	02-05-2023	69	20	2	19	**69**	Satisfactory
9	04-05-2023	97	39	2	5	**97**	Satisfactory
10	08-05-2023	62	19	2	5	**62**	Satisfactory
11	11-05-2023	91	26	2	5	**91**	Satisfactory
12	15-05-2023	76	16	2	9	**76**	Satisfactory
13	18-05-2023	72	21	2	15	**72**	Satisfactory
14	22-05-2023	58	18	2	18	**58**	Satisfactory
15	25-05-2023	68	30	2	20	**68**	Satisfactory
16	29-05-2023	61	18	2	21	**61**	Satisfactory
JUNE							
17	01-06-2023	74	21	2	11	**74**	Satisfactory
18	05-06-2023	40	7	2	5	**40**	Good
19	08-06-2023	65	11	2	5	**65**	Satisfactory
20	12-06-2023	43	9	2	5	**43**	Good
21	15-06-2023	35	9	2	5	**35**	Good
22	19-06-2023	58	15	2	5	**58**	Satisfactory
23	22-06-2023	43	11	2	5	**43**	Good
24	26-06-2023	46	14	2	5	**46**	Good
25	30-06-2023	37	10	2	5	**37**	Good
JULY							
26	03-07-2023	17	5	2	5	**17**	Good
27	06-07-2023	20	2	2	5	**20**	Good
28	10-07-2023	29	3	2	5	**29**	Good

29	13-07-2023	20	6	2	5	**20**	Good
30	17-07-2023	24	5	2	5	**24**	Good
31	20-07-2023	18	7	2	5	**18**	Good
32	24-07-2023	26	10	2	5	**26**	Good
33	27-07-2023	24	8	2	5	**24**	Good
34	31-07-2023	31	7	2	5	**31**	Good
AUGUST							
35	03-08-2023	23	9	2	5	**23**	Good
36	07-08-2023	34	12	2	5	**34**	Good
37	10-08-2023	41	14	2	5	**41**	Good
38	14-08-2023	46	11	2	5	**46**	Good
39	17-08-2023	26	6	2	5	**26**	Good
40	21-08-2023	35	8	2	5	**35**	Good
41	24-08-2023	31	5	2	5	**31**	Good
42	28-08-2023	35	10	2	5	**35**	Good
43	31-08-2023	44	13	2	5	**44**	Good
SEPTEMBER							
44	04-09-2023	31	7	2	5	**31**	Good
45	07-09-2023	31	4	2	10	**31**	Good
46	11-09-2023	43	17	2	5	**43**	Good
47	14-09-2023	43	10	2	5	**43**	Good
48	18-09-2023	39	12	2	5	**39**	Good
49	21-09-2023	33	10	2	5	**33**	Good
50	25-09-2023	39	8	2	5	**39**	Good
51	28-09-2023	50	12	2	5	**50**	Satisfactory
OCTOBER							
52	03-10-2023	58	17	2	5	**58**	Satisfactory
53	05-10-2023	57	16	4	11	**57**	Satisfactory
54	09-10-2023	54	19	4	22	**54**	Satisfactory

55	12-10-2023	58	15	2	15	**58**	Satisfactory
56	16-10-2023	65	23	4	10	**65**	Satisfactory
57	19-10-2023	62	18	2	10	**62**	Satisfactory
58	23-10-2023	69	19	2	9	**69**	Satisfactory
59	26-10-2023	67	16	4	11	**67**	Satisfactory
60	30-10-2023	63	18	6	15	**63**	Satisfactory
NOVEMBER							
61	02-11-2023	76	18	4	13	**76**	Satisfactory
62	06-11-2023	51	14	4	17	**51**	Satisfactory
63	09-11-2023	67	20	2	12	**67**	Satisfactory
64	13-11-2023	84	24	2	16	**84**	Satisfactory
65	16-11-2023	64	18	5	12	**64**	Satisfactory
66	20-11-2023	72	29	4	14	**72**	Satisfactory
67	23-11-2023	70	14	2	16	**70**	Satisfactory
68	27-11-2023	75	21	2	16	**75**	Satisfactory
69	30-11-2023	51	16	2	18	**51**	Satisfactory
DECEMBER							
70	04-12-2023	69	17	4	14	**69**	Satisfactory
71	07-12-2023	81	22	2	18	**81**	Satisfactory
72	11-12-2023	60	18	2	16	**60**	Satisfactory
73	14-12-2023	64	18	2	11	**64**	Satisfactory
74	18-12-2023	66	15	4	17	**66**	Satisfactory
75	21-12-2023	79	24	2	13	**79**	Satisfactory
76	26-12-2023	66	14	4	13	**66**	Satisfactory
77	28-12-2023	77	18	4	14	**77**	Satisfactory
JANUARY							
78	02-01-2024	77	24	5	16	**77**	Satisfactory
79	04-01-2024	82	24	3	16	**82**	Satisfactory
80	08-01-2024	40	7	3	13	**40**	Good

81	11-01-2024	71	23	5	24	**71**	Satisfactory
82	15-01-2024	74	19	3	15	**74**	Satisfactory
83	18-01-2024	67	22	3	17	**67**	Satisfactory
84	23-01-2024	78	29	3	19	**78**	Satisfactory
85	25-01-2024	75	21	4	16	**75**	Satisfactory
86	29-01-2024	78	25	3	16	**78**	Satisfactory
FEBRUARY							
87	01-02-2024	77	22	3	18	**77**	Satisfactory
88	05-02-2024	85	24	3	20	**85**	Satisfactory
89	08-02-2024	58	26	3	12	**58**	Satisfactory
90	12-02-2024	76	18	3	15	**76**	Satisfactory
91	15-02-2024	114	44	4	15	**109**	Moderate
92	19-02-2024	84	24	5	16	**84**	Satisfactory
93	22-02-2024	76	23	3	18	**76**	Satisfactory
94	26-02-2024	73	18	3	17	**73**	Satisfactory
95	29-02-2024	73	17	3	22	**73**	Satisfactory
MARCH							
96	04-03-2024	73	25	5	16	**73**	Satisfactory
97	07-03-2024	68	21	4	16	**68**	Satisfactory
98	11-03-2024	81	20	4	14	**81**	Satisfactory
99	14-03-2024	63	14	2	19	**63**	Satisfactory
100	18-03-2024	73	24	6	15	**73**	Satisfactory
101	21-03-2024	83	21	2	22	**83**	Satisfactory
102	26-03-2024	78	22	2	18	**78**	Satisfactory
103	28-03-2024	74	19	6	21	**74**	Satisfactory

Station: Near Ajoba temple, Honda junction							City: Honda
		Pollutants concentration in µg/m3				AQI	AIR QLTY
	Parameters	PM10	PM2.5	SO2	NO2		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	69	21	2	14	**69**	Satisfactory
2	06-04-2023	71	16	2	12	**71**	Satisfactory
3	10-04-2023	80	19	2	5	**80**	Satisfactory
4	13-04-2023	102	25	2	12	**102**	Moderate
5	17-04-2023	78	20	2	10	**78**	Satisfactory
6	20-04-2023	46	14	2	5	**46**	Good
7	24-04-2023	60	19	2	5	**60**	Satisfactory
8	27-04-2023	88	21	2	5	**88**	Satisfactory
MAY							
9	01-05-2023	55	17	2	5	**55**	Satisfactory
10	04-05-2023	41	11	2	5	**41**	Good
11	08-05-2023	45	13	2	5	**45**	Good
12	11-05-2023	58	19	2	5	**58**	Satisfactory
13	15-05-2023	64	21	2	11	**64**	Satisfactory
14	18-05-2023	53	12	2	10	**53**	Satisfactory
15	22-05-2023	55	16	2	9	**55**	Satisfactory
16	25-05-2023	58	17	2	9	**58**	Satisfactory
17	29-05-2023	50	15	2	5	**50**	Satisfactory
JUNE							
18	01-06-2023	53	18	2	10	**53**	Satisfactory
19	05-06-2023	55	16	2	10	**55**	Satisfactory
20	08-06-2023	57	12	2	11	**57**	Satisfactory
21	12-06-2023	42	13	2	5	**42**	Good

22	15-06-2023	36	9	2	5	**36**	Good
23	19-06-2023	57	18	2	5	**57**	Satisfactory
24	22-06-2023	33	3	2	5	**33**	Good
25	26-06-2023	48	9	2	5	**48**	Good
26	29-06-2023	24	4	2	5	**24**	Good
JULY							
27	03-07-2023	32	5	2	5	**32**	Good
28	06-07-2023	13	3	2	5	**13**	Good
29	10-07-2023	36	4	2	5	**36**	Good
30	13-07-2023	18	2	2	5	**18**	Good
31	17-07-2023	26	6	2	5	**26**	Good
32	20-07-2023	17	5	2	5	**17**	Good
33	24-07-2023	15	3	2	5	**15**	Good
34	27-07-2023	37	11	2	5	**37**	Good
35	31-07-2023	34	11	2	5	**34**	Good
AUGUST							
36	03-08-2023	32	4	2	5	**32**	Good
37	07-08-2023	51	14	2	10	**51**	Satisfactory
38	10-08-2023	41	12	2	5	**41**	Good
39	14-08-2023	43	9	2	5	**43**	Good
40	17-08-2023	32	8	2	5	**32**	Good
41	21-08-2023	41	11	2	5	**41**	Good
42	24-08-2023	34	13	2	5	**34**	Good
43	28-08-2023	29	6	2	5	**29**	Good
44	31-08-2023	53	17	2	5	**53**	Satisfactory
SEPTEMBER							
45	04-09-2023	45	12	2	5	**45**	Good
46	07-09-2023	36	6	2	5	**36**	Good
47	11-09-2023	37	9	2	5	**37**	Good

48	14-09-2023	46	6	2	5	**46**	Good
49	18-09-2023	44	9	2	5	**44**	Good
50	21-09-2023	42	17	2	5	**42**	Good
51	25-09-2023	43	11	2	5	**43**	Good
52	28-09-2023	50	11	2	5	**50**	Good
OCTOBER							
53	02-10-2023	38	12	2	4	**38**	Good
54	05-10-2023	29	9	2	8	**29**	Good
55	09-10-2023	64	28	2	7	**64**	Satisfactory
56	12-10-2023	53	16	2	13	**53**	Satisfactory
57	16-10-2023	53	15	4	4	**53**	Satisfactory
58	19-10-2023	65	12	2	13	**65**	Satisfactory
59	23-10-2023	90	23	2	13	**90**	Satisfactory
60	26-10-2023	82	30	5	18	**82**	Satisfactory
61	30-10-2023	54	13	2	12	**54**	Satisfactory
NOVEMBER							
62	02-11-2023	65	15	5	18	**65**	Satisfactory
63	06-11-2023	65	18	6	13	**65**	Satisfactory
64	09-11-2023	55	14	2	16	**55**	Satisfactory
65	13-11-2023	53	18	2	12	**53**	Satisfactory
66	16-11-2023	83	31	7	15	**83**	Satisfactory
67	20-11-2023	63	17	4	18	**63**	Satisfactory
68	23-11-2023	53	18	4	16	**53**	Satisfactory
69	27-11-2023	80	26	2	15	**80**	Satisfactory
70	30-11-2023	45	17	2	21	**45**	Good
DECEMBER							
71	04-12-2023	78	20	2	15	**78**	Satisfactory
72	07-12-2023	77	24	2	16	**77**	Satisfactory

73	11-12-2023	62	16	5	16	**62**	Satisfactory
74	14-12-2023	88	23	4	18	**88**	Satisfactory
75	18-12-2023	70	22	4	12	**70**	Satisfactory
76	21-12-2023	96	30	2	13	**96**	Satisfactory
77	25-12-2023	82	25	5	13	**82**	Satisfactory
78	28-12-2023	79	20	2	14	**79**	Satisfactory
JANUARY							
79	02-01-2024	69	27	3	14	**69**	Satisfactory
80	04-01-2024	73	20	4	19	**73**	Satisfactory
81	08-01-2024	53	13	3	16	**53**	Satisfactory
82	11-01-2024	65	21	4	18	**65**	Satisfactory
83	15-01-2024	66	31	5	17	**66**	Satisfactory
84	18-01-2024	57	15	3	25	**57**	Satisfactory
85	23-01-2024	72	23	3	19	**72**	Satisfactory
86	25-01-2024	86	37	3	22	**86**	Satisfactory
87	29-01-2024	78	27	3	16	**78**	Satisfactory
FEBRUARY							
88	01-02-2024	71	25	3	13	**71**	Satisfactory
89	05-02-2024	67	21	4	20	**67**	Satisfactory
90	08-02-2024	78	17	5	19	**78**	Satisfactory
91	12-02-2024	76	16	3	17	**76**	Satisfactory
92	15-02-2024	51	9	5	16	**51**	Satisfactory
93	19-02-2024	68	21	3	18	**68**	Satisfactory
94	22-02-2024	51	8	4	22	**51**	Satisfactory
95	26-02-2024	106	28	3	14	**104**	Moderate
96	29-02-2024	99	31	2	17	**99**	Satisfactory
MARCH							
97	04-03-2024	93	26	5	19	**93**	Satisfactory
98	07-03-2024	69	18	5	20	**69**	Satisfactory

99	11-03-2024	75	19	4	15	**75**	Satisfactory
100	14-03-2024	47	17	2	13	**47**	Good
101	18-03-2024	71	24	4	16	**71**	Satisfactory
102	21-03-2024	88	35	4	19	**88**	Satisfactory
103	25-03-2024	70	17	2	18	**70**	Satisfactory
104	28-03-2024	44	10	2	5	**44**	Good

Station: Residence of J. Natekar, Usgao Junction							**City: Usgao**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	32	10	2	5	**32**	Good
2	06-04-2023	105	16	2	19	**103**	Moderate
3	10-04-2023	113	24	2	11	**109**	Moderate
4	13-04-2023	62	11	2	5	**62**	Satisfactory
5	17-04-2023	188	39	2	17	**159**	Moderate
6	20-04-2023	84	23	2	10	**84**	Satisfactory
7	24-04-2023	78	21	2	10	**78**	Satisfactory
8	27-04-2023	86	26	2	5	**86**	Satisfactory
MAY							
9	01-05-2023	63	19	2	5	**63**	Satisfactory
10	04-05-2023	50	16	2	5	**50**	Good
11	08-05-2023	49	15	2	5	**49**	Good
12	11-05-2023	58	21	2	5	**58**	Satisfactory
13	15-05-2023	58	16	2	10	**58**	Satisfactory
14	18-05-2023	65	14	2	13	**65**	Satisfactory
15	22-05-2023	60	17	2	13	**60**	Satisfactory
16	25-05-2023	40	12	2	13	**40**	Good

17	29-05-2023	102	24	2	15	**101**	Moderate
JUNE							
18	01-06-2023	86	20	2	10	**86**	Satisfactory
19	05-06-2023	86	18	2	14	**86**	Satisfactory
20	08-06-2023	63	10	2	5	**63**	Satisfactory
21	12-06-2023	45	14	2	5	**45**	Good
22	15-06-2023	44	12	2	5	**44**	Good
23	19-06-2023	47	17	2	5	**47**	Good
24	22-06-2023	39	10	2	5	**39**	Good
25	26-06-2023	33	4	2	5	**33**	Good
26	29-06-2023	20	5	2	5	**20**	Good
JULY							
27	03-07-2023	34	9	2	5	**34**	Good
28	06-07-2023	16	6	2	5	**16**	Good
29	10-07-2023	25	6	2	5	**25**	Good
30	13-07-2023	23	3	2	5	**23**	Good
31	17-07-2023	23	4	2	5	**23**	Good
32	20-07-2023	22	7	2	5	**22**	Good
33	24-07-2023	30	7	2	5	**30**	Good
34	27-07-2023	13	2	2	5	**13**	Good
35	31-07-2023	40	10	2	5	**40**	Good
AUGUST							
36	03-08-2023	27	4	2	5	**27**	Good
37	07-08-2023	62	21	2	14	**62**	Satisfactory
38	10-08-2023	58	18	2	10	**58**	Satisfactory
39	14-08-2023	45	16	2	10	**45**	Good
40	17-08-2023	41	12	2	5	**41**	Good
41	21-08-2023	29	5	2	5	**29**	Good
42	24-08-2023	48	7	2	5	**48**	Good

43	28-08-2023	33	6	2	5	**33**	Good
44	31-08-2023	47	15	2	5	**47**	Good
SEPTEMBER							
45	04-09-2023	45	10	2	5	**45**	Good
46	07-09-2023	43	12	2	11	**43**	Good
47	11-09-2023	51	17	2	11	**51**	Satisfactory
48	14-09-2023	53	15	2	11	**53**	Satisfactory
49	18-09-2023	48	18	2	5	**48**	Good
50	21-09-2023	36	10	2	5	**36**	Good
51	25-09-2023	26	5	2	5	**26**	Good
52	28-09-2023	60	12	2	5	**60**	Satisfactory
OCTOBER							
53	02-10-2023	42	13	2	5	**42**	Good
54	05-10-2023	44	5	2	5	**44**	Good
55	09-10-2023	62	20	4	9	**62**	Satisfactory
56	12-10-2023	65	27	6	14	**65**	Satisfactory
57	16-10-2023	66	18	2	13	**66**	Satisfactory
58	19-10-2023	52	11	2	10	**52**	Satisfactory
59	23-10-2023	103	18	2	17	**102**	Moderate
60	26-10-2023	62	17	5	14	**62**	Satisfactory
61	30-10-2023	54	11	4	15	**54**	Satisfactory
NOVEMBER							
62	02-11-2023	41	15	5	12	**41**	Good
63	06-11-2023	72	21	4	11	**72**	Satisfactory
64	09-11-2023	88	24	4	15	**88**	Satisfactory
65	13-11-2023	88	28	4	11	**88**	Satisfactory
66	16-11-2023	58	18	5	13	**58**	Satisfactory
67	20-11-2023	79	27	4	18	**79**	Satisfactory
68	23-11-2023	61	14	4	18	**61**	Satisfactory

69	27-11-2023	53	16	2	15	**53**	Satisfactory
70	30-11-2023	65	26	2	14	**65**	Satisfactory
DECEMBER							
71	04-12-2023	48	14	6	11	**48**	Good
72	07-12-2023	103	23	4	16	**102**	Moderate
73	11-12-2023	73	24	4	15	**73**	Satisfactory
74	14-12-2023	77	17	2	15	**77**	Satisfactory
75	18-12-2023	91	26	2	17	**91**	Satisfactory
76	21-12-2023	105	30	4	20	**103**	Moderate
77	25-12-2023	98	18	2	17	**98**	Satisfactory
78	28-12-2023	72	21	2	11	**72**	Satisfactory
JANUARY							
79	02-01-2024	97	30	2	11	**97**	Satisfactory
80	04-01-2024	49	18	5	17	**49**	Good
81	08-01-2024	72	18	5	11	**72**	Satisfactory
82	11-01-2024	76	20	5	17	**76**	Satisfactory
83	15-01-2024	77	25	4	12	**77**	Satisfactory
84	18-01-2024	61	15	2	17	**61**	Satisfactory
85	22-01-2024	105	30	2	14	**103**	Moderate
86	25-01-2024	83	23	2	17	**83**	Satisfactory
87	29-01-2024	73	26	2	14	**73**	Satisfactory
FEBRUARY							
88	01-02-2024	89	28	4	18	**89**	Satisfactory
89	05-02-2024	103	29	2	21	**102**	Moderate
90	08-02-2024	100	29	2	17	**100**	Moderate
91	12-02-2024	118	23	4	16	**112**	Moderate
92	15-02-2024	146	38	4	13	**131**	Moderate
93	19-02-2024	110	32	4	19	**107**	Moderate
94	22-02-2024	65	17	2	17	**65**	Satisfactory

95	26-02-2024	82	22	2	17	**82**	Satisfactory
96	29-02-2024	79	25	2	15	**79**	Satisfactory
MARCH							
97	04-03-2024	59	11	5	22	**59**	Satisfactory
98	07-03-2024	83	22	2	14	**83**	Satisfactory
99	11-03-2024	71	20	4	19	**71**	Satisfactory
100	14-03-2024	93	25	2	14	**93**	Satisfactory
101	18-03-2024	75	22	6	17	**75**	Satisfactory
102	21-03-2024	73	24	4	18	**73**	Satisfactory
103	25-03-2024	84	22	4	15	**84**	Satisfactory
104	28-03-2024	75	26	7	20	**75**	Satisfactory

Station: Premises of Somnath English High School						**City: Codli**	
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	36	10	2	5	**36**	Good
2	06-04-2023	84	22	2	11	**84**	Satisfactory
3	10-04-2023	81	20	2	5	**81**	Satisfactory
4	13-04-2023	72	19	2	14	**72**	Satisfactory
5	17-04-2023	84	25	2	5	**84**	Satisfactory
6	20-04-2023	66	13	2	10	**66**	Satisfactory
7	24-04-2023	105	21	2	5	**104**	Moderate
8	27-04-2023	73	17	2	10	**73**	Satisfactory
MAY							
9	01-05-2023	83	34	2	5	**83**	Satisfactory
10	04-05-2023	69	20	2	5	**69**	Satisfactory
11	08-05-2023	36	9	2	5	**36**	Good

12	11-05-2023	42	11	2	5	**42**	Good
13	15-05-2023	79	29	2	11	**79**	Satisfactory
14	18-05-2023	43	14	2	11	**43**	Good
15	22-05-2023	77	27	2	12	**77**	Satisfactory
16	25-05-2023	49	19	2	15	**49**	Good
17	29-05-2023	63	17	2	13	**63**	Satisfactory
JUNE							
18	01-06-2023	109	19	2	10	**106**	Moderate
19	05-06-2023	61	22	2	9	**61**	Satisfactory
20	08-06-2023	55	15	2	5	**55**	Satisfactory
21	12-06-2023	48	10	2	11	**48**	Good
22	15-06-2023	50	12	2	5	**50**	Satisfactory
23	19-06-2023	47	11	2	5	**47**	Good
24	22-06-2023	35	8	2	5	**35**	Good
25	26-06-2023	35	6	2	5	**35**	Good
26	29-06-2023	20	4	2	5	**20**	Good
JULY							
27	03-07-2023	14	2	2	5	**14**	Good
28	06-07-2023	24	4	2	5	**24**	Good
29	10-07-2023	25	7	2	5	**25**	Good
30	13-07-2023	18	6	2	5	**18**	Good
31	17-07-2023	20	5	2	5	**20**	Good
32	20-07-2023	33	10	2	5	**33**	Good
33	24-07-2023	22	3	2	5	**22**	Good
34	27-07-2023	27	3	2	5	**27**	Good
35	31-07-2023	40	10	2	5	**40**	Good
AUGUST							
36	03-08-2023	24	7	2	5	**24**	Good
37	07-08-2023	93	27	2	14	**93**	Satisfactory

38	10-08-2023	37	9	2	5	**37**	Good
39	14-08-2023	48	18	2	5	**48**	Good
40	17-08-2023	19	6	2	5	**19**	Good
41	21-08-2023	27	10	2	5	**27**	Good
42	24-08-2023	34	4	2	5	**34**	Good
43	28-08-2023	38	10	2	5	**38**	Good
44	31-08-2023	63	19	2	10	**63**	Satisfactory
SEPTEMBER							
45	04-09-2023	33	8	2	5	**33**	Good
46	07-09-2023	41	14	2	9	**41**	Good
47	11-09-2023	51	14	2	13	**51**	Satisfactory
48	14-09-2023	25	5	2	5	**25**	Good
49	18-09-2023	38	14	2	5	**38**	Good
50	21-09-2023	48	15	2	5	**48**	Good
51	25-09-2023	59	18	2	5	**59**	Satisfactory
52	28-09-2023	46	14	2	5	**46**	Good
OCTOBER							
53	02-10-2023	80	26	4	15	**80**	Satisfactory
54	05-10-2023	93	26	2	19	**93**	Satisfactory
55	09-10-2023	90	30	4	15	**90**	Satisfactory
56	12-10-2023	69	24	10	16	**69**	Satisfactory
57	16-10-2023	80	26	5	16	**80**	Satisfactory
58	19-10-2023	50	13	2	5	**50**	Good
59	23-10-2023	78	26	2	14	**78**	Satisfactory
60	26-10-2023	68	11	4	12	**68**	Satisfactory
61	30-10-2023	43	7	4	11	**43**	Good
NOVEMBER							
62	02-11-2023	100	28	7	19	**100**	Satisfactory
63	06-11-2023	46	8	2	14	**46**	Good

64	09-11-2023	35	11	2	10	**35**	Good
65	13-11-2023	83	38	2	20	**83**	Satisfactory
66	16-11-2023	119	24	7	14	**113**	Moderate
67	20-11-2023	131	46	4	13	**121**	Moderate
68	23-11-2023	147	28	3	18	**131**	Moderate
69	27-11-2023	80	20	4	18	**80**	Satisfactory
70	30-11-2023	47	15	5	17	**47**	Good
DECEMBER							
71	04-12-2023	30	7	2	15	**30**	Good
72	07-12-2023	79	22	2	20	**79**	Satisfactory
73	11-12-2023	34	10	2	12	**34**	Good
74	14-12-2023	51	12	4	16	**51**	Satisfactory
75	18-12-2023	50	14	5	15	**50**	Good
76	21-12-2023	103	40	5	16	**102**	Moderate
77	25-12-2023	63	18	2	16	**63**	Satisfactory
78	28-12-2023	56	17	2	13	**56**	Satisfactory
JANUARY							
79	02-01-2024	78	20	5	21	**78**	Satisfactory
80	04-01-2024	48	16	3	15	**48**	Good
81	08-01-2024	38	10	2	6	**38**	Good
82	11-01-2024	51	14	5	18	**51**	Satisfactory
83	15-01-2024	57	16	5	15	**57**	Satisfactory
84	18-01-2024	57	25	3	15	**57**	Satisfactory
85	22-01-2024	41	17	3	17	**41**	Good
86	25-01-2024	71	24	4	19	**71**	Satisfactory
87	29-01-2024	34	7	3	6	**34**	Good
FEBRUARY							
88	01-02-2024	70	21	2	20	**70**	Satisfactory
89	05-02-2024	35	5	2	9	**35**	Good

90	08-02-2024	92	33	2	17	**92**	Satisfactory
91	12-02-2024	65	18	2	16	**65**	Satisfactory
92	15-02-2024	55	17	5	14	**55**	Satisfactory
93	19-02-2024	57	23	4	16	**57**	Satisfactory
94	22-02-2024	108	27	6	21	**105**	Moderate
95	26-02-2024	46	16	2	13	**46**	Good
96	29-02-2024	87	32	2	19	**87**	Satisfactory
MARCH							
97	04-03-2024	67	18	5	15	**67**	Satisfactory
98	07-03-2024	**113**	30	4	13	**109**	Moderate
99	11-03-2024	95	30	2	17	**95**	Satisfactory
100	14-03-2024	**107**	27	2	19	**105**	Moderate
101	18-03-2024	97	23	5	19	**97**	Satisfactory
102	21-03-2024	**135**	46	4	22	**124**	Moderate
103	25-03-2024	**134**	51	4	16	**123**	Moderate
104	28-03-2024	77	25	7	17	**77**	Satisfactory

Station: Rooftop of PWD Office, Near Bus Stand							**City: Sanguem**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**		
Sr. No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	55	16	2	10	**55**	Satisfactory
2	06-04-2023	68	18	2	10	**68**	Satisfactory
3	10-04-2023	38	9	2	5	**38**	Good
4	13-04-2023	44	11	2	5	**44**	Good
5	17-04-2023	43	11	2	5	**43**	Good
6	20-04-2023	32	8	2	5	**32**	Good
7	24-04-2023	63	17	2	5	**63**	Satisfactory
8	27-04-2023	65	14	2	5	**65**	Satisfactory

MAY							
9	01-05-2023	54	14	2	5	**54**	Satisfactory
10	04-05-2023	72	22	2	5	**72**	Satisfactory
11	08-05-2023	41	11	2	5	**41**	Good
12	11-05-2023	104	30	2	12	**103**	Moderate
13	15-05-2023	81	32	2	14	**81**	Satisfactory
14	18-05-2023	48	13	2	10	**48**	Good
15	22-05-2023	39	10	2	11	**39**	Good
16	25-05-2023	67	22	2	11	**67**	Satisfactory
17	29-05-2023	46	9	2	5	**46**	Good
JUNE							
18	01-06-2023	60	26	2	5	**60**	Satisfactory
19	05-06-2023	42	12	2	5	**42**	Good
20	08-06-2023	50	13	2	5	**50**	Satisfactory
21	12-06-2023	30	5	2	5	**30**	Good
22	15-06-2023	24	8	2	5	**24**	Good
23	19-06-2023	49	12	2	5	**49**	Good
24	22-06-2023	38	9	2	5	**38**	Good
25	26-06-2023	37	7	2	5	**37**	Good
26	29-06-2023	36	7	2	5	**36**	Good
JULY							
27	03-07-2023	26	3	2	5	**26**	Good
28	06-07-2023	25	6	2	5	**25**	Good
29	10-07-2023	17	2	2	5	**17**	Good
30	13-07-2023	25	4	2	5	**25**	Good
31	17-07-2023	19	4	2	5	**19**	Good
32	20-07-2023	23	5	2	5	**23**	Good
33	24-07-2023	18	4	2	5	**18**	Good
34	27-07-2023	24	5	2	5	**24**	Good
35	31-07-2023	34	8	2	5	**34**	Good

AUGUST							
36	03-08-2023	38	11	2	5	**38**	Good
37	07-08-2023	32	10	2	5	**32**	Good
38	10-08-2023	46	15	2	5	**46**	Good
39	14-08-2023	46	15	2	5	**46**	Good
40	17-08-2023	29	9	2	5	**29**	Good
41	21-08-2023	32	5	2	5	**32**	Good
42	24-08-2023	29	3	2	5	**29**	Good
43	28-08-2023	48	11	2	5	**48**	Good
44	31-08-2023	53	13	2	5	**53**	Satisfactory
SEPTEMBER							
45	04-09-2023	66	20	2	5	**66**	Satisfactory
46	07-09-2023	47	12	2	12	**47**	Good
47	11-09-2023	47	10	2	5	**47**	Good
48	14-09-2023	35	14	2	5	**35**	Good
49	18-09-2023	46	13	2	5	**46**	Good
50	21-09-2023	30	9	2	5	**30**	Good
51	25-09-2023	29	7	2	5	**29**	Good
52	28-09-2023	25	5	2	5	**25**	Good
OCTOBER							
53	02-10-2023	31	9	2	5	**31**	Good
54	05-10-2023	87	30	4	15	**87**	Satisfactory
55	09-10-2023	46	14	2	12	**46**	Good
56	12-10-2023	79	23	4	15	**79**	Satisfactory
57	16-10-2023	65	16	5	9	**65**	Satisfactory
58	19-10-2023	80	23	2	16	**80**	Satisfactory
59	23-10-2023	66	25	2	14	**66**	Satisfactory
60	26-10-2023	70	20	5	10	**70**	Satisfactory
61	30-10-2023	54	14	5	12	**54**	Satisfactory

NOVEMBER							
62	02-11-2023	61	13	8	19	**61**	Satisfactory
63	06-11-2023	64	21	2	15	**64**	Satisfactory
64	09-11-2023	57	19	4	13	**57**	Satisfactory
65	13-11-2023	100	33	2	11	**100**	Moderate
66	16-11-2023	146	41	5	16	**131**	Moderate
67	20-11-2023	65	17	4	18	**65**	Satisfactory
68	23-11-2023	111	26	9	20	**107**	Moderate
69	27-11-2023	95	45	4	18	**95**	Satisfactory
70	30-11-2023	55	20	4	14	**55**	Satisfactory
DECEMBER							
71	04-12-2023	64	15	5	9	**64**	Satisfactory
72	07-12-2023	56	12	4	15	**56**	Satisfactory
73	11-12-2023	63	22	6	16	**63**	Satisfactory
74	14-12-2023	56	22	2	14	**56**	Satisfactory
75	18-12-2023	71	36	2	11	**71**	Satisfactory
76	21-12-2023	32	7	2	5	**32**	Good
77	25-12-2023	37	14	2	5	**37**	Good
78	28-12-2023	68	21	2	12	**68**	Satisfactory
JANUARY							
79	02-01-2024	110	36	2	14	**107**	Moderate
80	04-01-2024	114	49	2	17	**110**	Moderate
81	08-01-2024	69	11	5	15	**69**	Satisfactory
82	11-01-2024	86	22	4	11	**86**	Satisfactory
83	15-01-2024	93	28	4	19	**93**	Satisfactory
84	18-01-2024	95	35	4	29	**95**	Satisfactory
85	22-01-2024	60	18	2	15	**60**	Satisfactory
86	25-01-2024	85	35	2	17	**85**	Satisfactory
87	29-01-2024	78	25	2	14	**78**	Satisfactory

FEBRUARY							
88	01-02-2024	82	24	2	19	**82**	Satisfactory
89	05-02-2024	156	44	5	18	**137**	Moderate
90	08-02-2024	99	27	4	16	**99**	Satisfactory
91	12-02-2024	90	24	2	12	**90**	Satisfactory
92	15-02-2024	133	24	6	16	**122**	Moderate
93	19-02-2024	63	20	2	13	**63**	Satisfactory
94	22-02-2024	80	20	2	20	**80**	Satisfactory
95	26-02-2024	107	31	2	19	**105**	Moderate
96	29-02-2024	85	27	2	17	**85**	Satisfactory
MARCH							
97	04-03-2024	106	44	5	23	**104**	Moderate
98	07-03-2024	112	40	4	13	**108**	Moderate
99	11-03-2024	92	23	2	20	**92**	Satisfactory
100	14-03-2024	61	17	17	13	**61**	Satisfactory
101	18-03-2024	93	33	33	17	**93**	Satisfactory
102	21-03-2024	71	20	20	18	**71**	Satisfactory
103	25-03-2024	56	20	20	13	**56**	Satisfactory
104	28-03-2024	57	13	5	5	**57**	Satisfactory

Station: Residence of D. Rivonkar, Tilamol Junction							**City: Tilamol**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	87	21	2	14	**87**	Satisfactory
2	06-04-2023	38	6	2	5	**38**	Good
3	10-04-2023	90	22	2	5	**90**	Satisfactory
4	13-04-2023	77	15	2	11	**77**	Satisfactory

5	17-04-2023	41	8	2	5	**41**	Good
6	20-04-2023	50	11	2	5	**50**	Good
7	24-04-2023	104	23	2	5	**103**	Moderate
8	27-04-2023	51	12	2	5	**51**	Satisfactory
MAY							
9	01-05-2023	58	20	2	5	**58**	Satisfactory
10	04-05-2023	83	25	2	12	**83**	Satisfactory
11	08-05-2023	43	9	2	5	**43**	Good
12	11-05-2023	50	11	2	5	**50**	Good
13	15-05-2023	63	15	2	10	**63**	Satisfactory
14	18-05-2023	38	8	2	5	**38**	Good
15	22-05-2023	50	15	2	5	**50**	Good
16	25-05-2023	67	18	2	5	**67**	Satisfactory
17	29-05-2023	39	13	2	5	**39**	Good
JUNE							
18	01-06-2023	65	15	2	13	**65**	Satisfactory
19	05-06-2023	63	15	2	14	**63**	Satisfactory
20	08-06-2023	43	10	2	13	**43**	Good
21	12-06-2023	39	13	2	5	**39**	Good
22	15-06-2023	23	3	2	5	**23**	Good
23	19-06-2023	63	14	2	5	**63**	Satisfactory
24	22-06-2023	30	8	2	5	**30**	Good
25	26-06-2023	18	2	2	5	**18**	Good
26	29-06-2023	27	3	2	5	**27**	Good
JULY							
27	03-07-2023	39	8	2	5	**39**	Good
28	06-07-2023	23	3	2	5	**23**	Good
29	10-07-2023	20	5	2	5	**20**	Good
30	13-07-2023	23	3	2	5	**23**	Good

31	17-07-2023	33	10	2	5	**33**	Good
32	20-07-2023	23	8	2	5	**23**	Good
33	24-07-2023	14	4	2	5	**14**	Good
34	27-07-2023	28	5	2	5	**28**	Good
35	31-07-2023	52	13	2	5	**52**	Satisfactory
AUGUST							
36	03-08-2023	61	21	2	5	**61**	Satisfactory
37	07-08-2023	83	22	2	15	**83**	Satisfactory
38	10-08-2023	56	20	2	10	**56**	Satisfactory
39	14-08-2023	67	15	2	5	**67**	Satisfactory
40	17-08-2023	26	7	2	10	**26**	Good
41	21-08-2023	39	15	2	5	**39**	Good
42	24-08-2023	37	6	2	5	**37**	Good
43	28-08-2023	55	16	2	5	**55**	Satisfactory
44	31-08-2023	48	11	2	5	**48**	Good
SEPTEMBER							
45	04-09-2023	39	11	2	10	**39**	Good
46	07-09-2023	47	12	4	5	**47**	Good
47	11-09-2023	38	10	2	5	**38**	Good
48	14-09-2023	37	10	2	5	**37**	Good
49	18-09-2023	45	8	2	5	**45**	Good
50	21-09-2023	21	7	2	5	**21**	Good
51	25-09-2023	51	17	2	5	**51**	Satisfactory
52	28-09-2023	28	8	2	5	**28**	Good
OCTOBER							
53	02-10-2023	83	30	2	14	**83**	Satisfactory
54	05-10-2023	98	23	2	21	**98**	Satisfactory
55	09-10-2023	60	21	4	18	**60**	Satisfactory
56	12-10-2023	69	17	5	13	**69**	Satisfactory

57	16-10-2023	79	23	5	15	**79**	Satisfactory
58	19-10-2023	83	24	2	13	**83**	Satisfactory
59	23-10-2023	112	30	2	11	**108**	Moderate
60	26-10-2023	89	16	2	13	**89**	Satisfactory
61	30-10-2023	55	11	4	15	**55**	Satisfactory
NOVEMBER							
62	02-11-2023	79	23	4	14	**79**	Satisfactory
63	06-11-2023	52	14	4	16	**52**	Satisfactory
64	09-11-2023	53	11	2	13	**53**	Satisfactory
65	13-11-2023	82	22	2	16	**82**	Satisfactory
66	16-11-2023	106	29	8	15	**104**	Moderate
67	20-11-2023	107	29	6	15	**105**	Moderate
68	23-11-2023	97	22	5	19	**97**	Satisfactory
69	27-11-2023	48	17	2	18	**48**	Good
70	30-11-2023	48	17	4	18	**48**	Good
DECEMBER							
71	04-12-2023	73	23	2	15	**73**	Satisfactory
72	07-12-2023	68	22	2	17	**68**	Satisfactory
73	11-12-2023	92	22	2	14	**92**	Satisfactory
74	14-12-2023	134	26	2	11	**123**	Moderate
75	18-12-2023	118	27	5	21	**112**	Moderate
76	21-12-2023	38	18	6	13	**38**	Good
77	25-12-2023	112	20	2	14	**108**	Moderate
78	28-12-2023	105	35	4	14	**103**	Moderate
JANUARY							
79	02-01-2024	98	26	4	14	**98**	Satisfactory
80	04-01-2024	101	28	2	13	**101**	Moderate
81	08-01-2024	50	7	2	6	**50**	Satisfactory

82	11-01-2024	92	28	4	27	**92**	Satisfactory
83	15-01-2024	104	26	2	13	**103**	Moderate
84	18-01-2024	90	27	2	20	**90**	Satisfactory
85	22-01-2024	97	34	4	16	**97**	Satisfactory
86	25-01-2024	80	23	4	22	**80**	Satisfactory
87	29-01-2024	181	40	2	15	**154**	Moderate
FEBRUARY							
88	01-02-2024	97	26	2	18	**97**	Satisfactory
89	05-02-2024	118	27	4	19	**112**	Moderate
90	08-02-2024	77	26	2	17	**77**	Satisfactory
91	12-02-2024	73	22	5	15	**73**	Satisfactory
92	15-02-2024	89	41	2	19	**89**	Satisfactory
93	19-02-2024	73	30	5	19	**73**	Satisfactory
94	22-02-2024	85	24	2	24	**85**	Satisfactory
95	26-02-2024	105	26	2	19	**103**	Moderate
96	29-02-2024	92	25	5	16	**92**	Satisfactory
MARCH							
97	04-03-2024	129	21	4	21	**119**	Moderate
98	07-03-2024	115	29	2	15	**110**	Moderate
99	11-03-2024	74	17	2	18	**74**	Satisfactory
100	14-03-2024	85	24	2	21	**85**	Satisfactory
101	18-03-2024	97	30	6	20	**97**	Satisfactory
102	21-03-2024	127	32	4	20	**118**	Moderate
103	25-03-2024	80	21	2	18	**80**	Satisfactory
104	28-03-2024	56	16	5	5	**56**	Satisfactory

Station: Rooftop of Power Station, Cuncolim Ind Estate							City: Cuncolim
		Pollutants concentration in µg/m3				AQI	AIR QLTY
	Parameters	PM_{10}	$PM_{2.5}$	SO_2	NO_2		
Sr. No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	219	51	2	13	**180**	Moderate
2	06-04-2023	71	24	2	5	**71**	Satisfactory
3	10-04-2023	136	42	2	16	**124**	Moderate
4	13-04-2023	141	34	2	18	**127**	Moderate
5	17-04-2023	113	29	2	15	**108**	Moderate
6	20-04-2023	156	39	2	18	**137**	Moderate
7	24-04-2023	157	35	2	17	**138**	Moderate
8	27-04-2023	135	40	2	12	**123**	Moderate
MAY							
9	01-05-2023	73	19	2	5	**73**	Satisfactory
10	04-05-2023	108	33	2	21	**105**	Moderate
11	08-05-2023	113	41	2	15	**108**	Moderate
12	11-05-2023	124	40	2	17	**116**	Moderate
13	15-05-2023	135	46	2	22	**124**	Moderate
14	18-05-2023	116	30	2	26	**111**	Moderate
15	22-05-2023	131	41	2	21	**121**	Moderate
16	25-05-2023	88	24	2	20	**88**	Satisfactory
17	29-05-2023	93	30	2	24	**93**	Satisfactory
JUNE							
18	01-06-2023	80	25	2	11	**80**	Satisfactory
19	05-06-2023	55	21	2	10	**55**	Satisfactory
20	08-06-2023	91	29	2	22	**91**	Satisfactory
21	12-06-2023	60	17	2	12	**60**	Satisfactory

22	15-06-2023	87	24	2	15	**87**	Satisfactory
23	19-06-2023	83	30	2	14	**83**	Satisfactory
24	22-06-2023	35	6	2	5	**35**	Good
25	26-06-2023	39	7	2	5	**39**	Good
26	29-06-2023	43	8	2	5	**43**	Good
JULY							
27	03-07-2023	39	9	2	5	**39**	Good
28	06-07-2023	20	2	2	5	**20**	Good
29	10-07-2023	33	7	2	5	**33**	Good
30	13-07-2023	17	4	2	5	**17**	Good
31	17-07-2023	28	7	2	5	**28**	Good
32	20-07-2023	22	6	2	5	**22**	Good
33	24-07-2023	24	6	2	5	**24**	Good
34	27-07-2023	25	7	2	5	**25**	Good
35	31-07-2023	51	20	2	5	**51**	Satisfactory
AUGUST							
36	03-08-2023	89	29	2	5	**89**	Satisfactory
37	07-08-2023	92	33	2	27	**92**	Satisfactory
38	10-08-2023	75	19	2	13	**75**	Satisfactory
39	14-08-2023	113	26	2	5	**109**	Moderate
40	17-08-2023	77	17	2	5	**77**	Satisfactory
41	21-08-2023	85	27	2	5	**85**	Satisfactory
42	24-08-2023	65	12	2	11	**65**	Satisfactory
43	28-08-2023	56	17	2	5	**56**	Satisfactory
44	31-08-2023	78	26	2	19	**78**	Satisfactory
SEPTEMBER							
45	04-09-2023	88	25	2	14	**88**	Satisfactory
46	07-09-2023	112	26	2	11	**108**	Moderate
47	11-09-2023	87	29	2	21	**87**	Satisfactory

48	14-09-2023	105	31	2	23	**104**	Moderate
49	18-09-2023	105	34	2	20	**103**	Moderate
50	21-09-2023	82	20	2	18	**82**	Satisfactory
51	25-09-2023	63	17	4	5	**63**	Satisfactory
52	28-09-2023	111	33	2	5	**108**	Moderate
OCTOBER							
53	02-10-2023	57	13	2	14	**57**	Satisfactory
54	05-10-2023	87	28	4	16	**87**	Satisfactory
55	09-10-2023	121	33	2	15	**114**	Moderate
56	12-10-2023	85	27	6	13	**85**	Satisfactory
57	16-10-2023	94	32	2	24	**94**	Satisfactory
58	19-10-2023	114	26	2	19	**109**	Moderate
59	23-10-2023	110	31	2	17	**107**	Moderate
60	26-10-2023	148	40	2	11	**132**	Moderate
61	30-10-2023	81	26	6	11	**81**	Satisfactory
NOVEMBER							
62	02-11-2023	65	17	15	21	**65**	Satisfactory
63	06-11-2023	57	16	5	20	**57**	Satisfactory
64	09-11-2023	72	21	4	18	**72**	Satisfactory
65	13-11-2023	80	23	2	18	**80**	Satisfactory
66	16-11-2023	110	37	6	15	**106**	Moderate
67	20-11-2023	132	23	6	15	**121**	Moderate
68	23-11-2023	90	31	7	16	**90**	Satisfactory
69	27-11-2023	73	26	6	21	**73**	Satisfactory
70	30-11-2023	55	20	4	14	**55**	Satisfactory
DECEMBER							
71	04-12-2023	96	27	4	5	**96**	Satisfactory
72	07-12-2023	65	20	2	14	**65**	Satisfactory
73	11-12-2023	102	24	2	13	**101**	Moderate

74	14-12-2023	104	24	4	12	**102**	Moderate
75	18-12-2023	91	23	2	12	**91**	Satisfactory
76	21-12-2023	147	35	2	14	**131**	Moderate
77	25-12-2023	95	25	2	17	**95**	Satisfactory
78	28-12-2023	67	21	4	18	**67**	Satisfactory
JANUARY							
79	02-01-2024	149	27	5	16	**132**	Moderate
80	04-01-2024	105	29	2	14	**104**	Moderate
81	08-01-2024	114	29	2	14	**110**	Moderate
82	11-01-2024	53	3	5	18	**53**	Satisfactory
83	15-01-2024	146	37	4	14	**131**	Moderate
84	18-01-2024	120	20	5	19	**114**	Moderate
85	22-01-2024	72	27	2	15	**72**	Satisfactory
86	25-01-2024	143	41	4	18	**128**	Moderate
87	29-01-2024	163	26	5	14	**142**	Moderate
FEBRUARY							
88	01-02-2024	77	24	4	19	**77**	Satisfactory
89	05-02-2024	118	41	4	14	**112**	Moderate
90	08-02-2024	87	27	4	15	**87**	Satisfactory
91	12-02-2024	97	35	2	15	**97**	Satisfactory
92	15-02-2024	83	24	2	18	**83**	Satisfactory
93	19-02-2024	85	25	4	11	**85**	Satisfactory
94	22-02-2024	83	21	2	21	**83**	Satisfactory
95	26-02-2024	88	35	2	15	**88**	Satisfactory
96	29-02-2024	83	21	4	16	**83**	Satisfactory
MARCH							
97	04-03-2024	86	32	5	13	**86**	Satisfactory
98	07-03-2024	101	31	4	17	**100**	Moderate
99	11-03-2024	106	27	2	16	**104**	Moderate

100	14-03-2024	79	16	4	22	**79**	Satisfactory
101	18-03-2024	133	39	6	21	**122**	Moderate
102	21-03-2024	110	21	2	19	**106**	Moderate
103	25-03-2024	99	33	4	14	**99**	Satisfactory
104	28-03-2024	78	34	7	21	**78**	Satisfactory

Station: Near IDC Office							**City: Kundaim**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr. No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	82	23	2	12	**82**	Satisfactory
2	06-04-2023	106	28	2	5	**104**	Moderate
3	10-04-2023	197	43	2	19	**165**	Moderate
4	13-04-2023	71	18	6	15	**71**	Satisfactory
5	17-04-2023	87	21	2	9	**87**	Satisfactory
6	20-04-2023	72	19	2	5	**72**	Satisfactory
7	24-04-2023	77	25	2	5	**77**	Satisfactory
8	27-04-2023	76	19	2	5	**76**	Satisfactory
MAY							
9	01-05-2023	78	20	2	5	**78**	Satisfactory
10	04-05-2023	82	19	2	10	**82**	Satisfactory
11	08-05-2023	54	17	2	5	**54**	Satisfactory
12	11-05-2023	50	13	2	5	**50**	Satisfactory
13	15-05-2023	61	16	2	10	**61**	Satisfactory
14	18-05-2023	65	22	2	12	**65**	Satisfactory
15	22-05-2023	43	12	2	12	**43**	Good
16	25-05-2023	100	26	2	12	**100**	Moderate
17	29-05-2023	95	30	2	16	**95**	Satisfactory

JUNE							
18	01-06-2023	84	28	2	12	**84**	Satisfactory
19	05-06-2023	51	14	2	9	**51**	Satisfactory
20	08-06-2023	92	23	2	18	**92**	Satisfactory
21	12-06-2023	46	8	2	5	**46**	Good
22	15-06-2023	42	10	2	5	**42**	Good
23	19-06-2023	62	15	2	5	**62**	Satisfactory
24	22-06-2023	28	5	2	5	**28**	Good
25	26-06-2023	27	5	2	5	**27**	Good
26	29-06-2023	37	15	2	5	**37**	Good
JULY							
27	03-07-2023	32	4	2	5	**32**	Good
28	06-07-2023	15	2	2	5	**15**	Good
29	10-07-2023	17	5	2	5	**17**	Good
30	13-07-2023	28	4	2	5	**28**	Good
31	17-07-2023	26	9	2	5	**26**	Good
32	20-07-2023	38	7	2	5	**38**	Good
33	24-07-2023	16	4	2	5	**16**	Good
34	27-07-2023	22	4	2	5	**22**	Good
35	31-07-2023	36	10	2	5	**36**	Good
AUGUST							
36	03-08-2023	24	4	2	5	**24**	Good
37	07-08-2023	41	10	2	5	**41**	Good
38	10-08-2023	48	15	2	5	**48**	Good
39	14-08-2023	47	17	2	5	**47**	Good
40	17-08-2023	23	5	2	5	**23**	Good
41	21-08-2023	56	16	2	5	**56**	Satisfactory
42	24-08-2023	34	7	2	5	**34**	Good
43	28-08-2023	27	7	2	5	**27**	Good
44	31-08-2023	39	14	2	5	**39**	Good

SEPTEMBER							
45	04-09-2023	48	16	2	13	**48**	Good
46	07-09-2023	78	18	5	13	**78**	Satisfactory
47	11-09-2023	53	15	2	11	**53**	Satisfactory
48	14-09-2023	29	2	2	5	**29**	Good
49	18-09-2023	28	7	2	5	**28**	Good
50	21-09-2023	25	4	2	5	**25**	Good
51	25-09-2023	36	4	2	5	**36**	Good
52	28-09-2023	24	6	2	5	**24**	Good
OCTOBER							
53	02-10-2023	50	12	2	14	**50**	Satisfactory
54	05-10-2023	41	11	2	5	**41**	Good
55	09-10-2023	45	13	2	10	**45**	Good
56	12-10-2023	65	19	2	12	**65**	Satisfactory
57	16-10-2023	49	16	7	5	**49**	Good
58	19-10-2023	68	22	2	10	**68**	Satisfactory
59	23-10-2023	71	22	2	14	**71**	Satisfactory
60	26-10-2023	67	15	5	11	**67**	Satisfactory
61	30-10-2023	53	21	2	15	**53**	Satisfactory
NOVEMBER							
62	02-11-2023	72	23	2	14	**72**	Satisfactory
63	06-11-2023	49	19	2	14	**49**	Good
64	09-11-2023	51	11	2	15	**51**	Satisfactory
65	13-11-2023	114	26	2	13	**109**	Moderate
66	16-11-2023	116	32	5	14	**110**	Moderate
67	20-11-2023	94	34	5	13	**94**	Satisfactory
68	23-11-2023	52	16	2	18	**52**	Satisfactory
69	27-11-2023	80	23	4	18	**80**	Satisfactory
70	30-11-2023	45	16	2	20	**45**	Good

DECEMBER							
71	04-12-2023	64	17	5	17	**64**	Satisfactory
72	07-12-2023	89	22	2	12	**89**	Satisfactory
73	11-12-2023	65	18	4	14	**65**	Satisfactory
74	14-12-2023	80	32	2	19	**80**	Satisfactory
75	18-12-2023	91	29	2	14	**91**	Satisfactory
76	21-12-2023	107	29	2	16	**105**	Moderate
77	25-12-2023	85	27	4	15	**85**	Satisfactory
78	28-12-2023	81	21	2	13	**81**	Satisfactory
JANUARY							
79	02-01-2024	68	15	3	14	**68**	Satisfactory
80	04-01-2024	94	24	3	17	**94**	Satisfactory
81	08-01-2024	48	10	3	19	**48**	Good
82	11-01-2024	64	15	4	19	**64**	Satisfactory
83	15-01-2024	66	28	3	17	**66**	Satisfactory
84	18-01-2024	52	18	4	24	**52**	Satisfactory
85	23-01-2024	65	17	3	14	**65**	Satisfactory
86	25-01-2024	101	33	3	18	**100**	Moderate
87	29-01-2024	100	28	3	16	**100**	Satisfactory
FEBRUARY							
88	01-02-2024	71	26	3	17	**71**	Satisfactory
89	05-02-2024	101	37	4	17	**101**	Moderate
90	08-02-2024	91	24	3	21	**91**	Satisfactory
91	12-02-2024	89	19	2	17	**89**	Satisfactory
92	15-02-2024	80	12	4	17	**80**	Satisfactory
93	19-02-2024	102	36	3	14	**102**	Moderate
94	22-02-2024	71	27	4	21	**71**	Satisfactory
95	26-02-2024	115	28	4	19	**110**	Moderate
96	29-02-2024	89	22	3	17	**89**	Satisfactory

MARCH							
97	04-03-2024	93	22	5	19	**93**	Satisfactory
98	07-03-2024	90	28	4	16	**90**	Satisfactory
99	11-03-2024	96	24	4	19	**96**	Satisfactory
100	14-03-2024	88	18	2	15	**88**	Satisfactory
101	18-03-2024	133	32	8	20	**122**	Moderate
102	21-03-2024	123	41	4	23	**116**	Moderate
103	25-03-2024	81	22	2	18	**81**	Satisfactory
104	28-03-2024	66	21	6	5	**66**	Satisfactory

Station: Tuem Industrial Estate Near ESIC Hospital							**City: Tuem**
		Pollutants concentration in µg/m3				**AQI**	**AIR QLTY**
	Parameters	**PM10**	**PM2.5**	**SO2**	**NO2**		
Sr.No	Date	24-hr avg	24-hr avg	24-hr avg	24-hr avg		
APRIL							
1	03-04-2023	65	15	2	14	**65**	Satisfactory
2	06-04-2023	51	12	2	5	**51**	Satisfactory
3	10-04-2023	62	19	2	5	**62**	Satisfactory
4	13-04-2023	75	12	2	15	**75**	Satisfactory
5	17-04-2023	58	13	2	5	**58**	Satisfactory
6	20-04-2023	43	8	2	5	**43**	Good
7	24-04-2023	46	9	2	5	**46**	Good
8	27-04-2023	53	8	2	5	**53**	Satisfactory
MAY							
9	02-05-2023	105	34	2	22	**103**	Moderate
10	04-05-2023	56	13	2	5	**56**	Satisfactory
11	08-05-2023	53	11	2	5	**53**	Satisfactory
12	11-05-2023	97	38	2	16	**97**	Satisfactory
13	15-05-2023	104	33	2	19	**103**	Moderate

14	18-05-2023	101	24	2	20	**101**	Moderate
15	22-05-2023	62	16	2	15	**62**	Satisfactory
16	25-05-2023	96	34	2	22	**96**	Satisfactory
17	29-05-2023	86	24	2	17	**86**	Satisfactory
JUNE							
18	01-06-2023	92	25	2	12	**92**	Satisfactory
19	05-06-2023	74	21	2	11	**74**	Satisfactory
20	08-06-2023	38	11	2	5	**38**	Good
21	12-06-2023	64	19	2	5	**64**	Satisfactory
22	15-06-2023	110	31	2	14	**107**	Moderate
23	19-06-2023	90	19	2	5	**90**	Satisfactory
24	22-06-2023	48	13	2	5	**48**	Good
25	26-06-2023	62	16	2	5	**62**	Satisfactory
26	30-06-2023	60	13	2	5	**60**	Satisfactory
JULY							
27	03-07-2023	33	6	2	5	**33**	Good
28	06-07-2023	22	3	2	5	**22**	Good
29	10-07-2023	24	4	2	5	**24**	Good
30	13-07-2023	25	7	2	5	**25**	Good
31	17-07-2023	23	7	2	5	**23**	Good
32	20-07-2023	29	5	2	5	**29**	Good
33	24-07-2023	11	2	2	5	**11**	Good
34	27-07-2023	26	6	2	5	**26**	Good
35	31-07-2023	33	8	2	5	**33**	Good
AUGUST							
36	03-08-2023	26	3	2	5	**26**	Good
37	07-08-2023	46	16	2	5	**46**	Good
38	10-08-2023	98	37	2	17	**98**	Satisfactory
39	14-08-2023	37	11	2	5	**37**	Good

40	17-08-2023	43	13	2	5	**43**	Good
41	21-08-2023	42	13	2	5	**42**	Good
42	24-08-2023	38	10	2	5	**38**	Good
43	28-08-2023	42	12	2	5	**42**	Good
44	31-08-2023	59	14	2	5	**59**	Satisfactory
SEPTEMBER							
45	04-09-2023	40	11	2	11	**40**	Good
46	07-09-2023	45	11	2	5	**45**	Good
47	11-09-2023	62	17	2	21	**62**	Satisfactory
48	14-09-2023	30	9	2	5	**30**	Good
49	18-09-2023	50	14	2	5	**50**	Good
50	21-09-2023	51	15	2	11	**51**	Satisfactory
51	25-09-2023	43	10	2	5	**43**	Good
52	28-09-2023	47	8	2	5	**47**	Good
OCTOBER							
53	03-10-2023	42	11	2	5	**42**	Good
54	05-10-2023	65	25	4	11	**65**	Satisfactory
55	09-10-2023	46	14	2	13	**46**	Good
56	12-10-2023	44	5	5	10	**44**	Good
57	16-10-2023	38	9	6	5	**38**	Good
58	19-10-2023	41	14	4	5	**41**	Good
59	23-10-2023	50	21	4	5	**50**	Good
60	26-10-2023	48	16	6	11	**48**	Good
61	30-10-2023	75	26	4	12	**75**	Satisfactory
NOVEMBER							
62	02-11-2023	92	19	6	19	**92**	Satisfactory
63	06-11-2023	79	24	2	9	**79**	Satisfactory
64	09-11-2023	56	11	2	13	**56**	Satisfactory
65	13-11-2023	64	20	2	16	**64**	Satisfactory

66	16-11-2023	74	33	4	14	**74**	Satisfactory
67	20-11-2023	74	17	5	16	**74**	Satisfactory
68	23-11-2023	72	26	6	19	**72**	Satisfactory
69	27-11-2023	65	25	4	18	**65**	Satisfactory
70	30-11-2023	48	15	2	13	**48**	Good
DECEMBER							
71	04-12-2023	58	21	2	9	**58**	Satisfactory
72	07-12-2023	53	10	4	20	**53**	Satisfactory
73	11-12-2023	61	20	4	13	**61**	Satisfactory
74	14-12-2023	63	20	2	17	**63**	Satisfactory
75	18-12-2023	60	16	2	11	**60**	Satisfactory
76	21-12-2023	72	22	2	16	**72**	Satisfactory
77	26-12-2023	57	19	2	20	**57**	Satisfactory
78	28-12-2023	92	29	2	15	**92**	Satisfactory
JANUARY							
79	02-01-2024	97	29	7	12	**97**	Satisfactory
80	04-01-2024	71	29	3	14	**71**	Satisfactory
81	08-01-2024	51	16	3	17	**51**	Satisfactory
82	11-01-2024	93	31	3	24	**93**	Satisfactory
83	15-01-2024	122	38	4	17	**115**	Moderate
84	18-01-2024	64	24	4	24	**64**	Satisfactory
85	23-01-2024	87	23	2	18	**87**	Satisfactory
86	25-01-2024	64	22	3	18	**64**	Satisfactory
87	29-01-2024	88	28	3	13	**88**	Satisfactory
FEBRUARY							
88	01-02-2024	86	31	2	19	**86**	Satisfactory
89	05-02-2024	114	37	4	18	**109**	Moderate
90	08-02-2024	82	31	3	18	**82**	Satisfactory
91	12-02-2024	113	35	4	14	**109**	Moderate

92	15-02-2024	50	14	4	20	**50**	Good
93	19-02-2024	64	25	3	16	**64**	Satisfactory
94	22-02-2024	44	13	3	16	**44**	Good
95	26-02-2024	102	34	2	19	**101**	Moderate
96	29-02-2024	70	23	3	18	**70**	Satisfactory
MARCH							
97	04-03-2024	45	10	4	18	**45**	Good
98	07-03-2024	66	22	4	16	**66**	Satisfactory
99	11-03-2024	84	28	3	14	**84**	Satisfactory
100	14-03-2024	66	14	3	20	**66**	Satisfactory
101	18-03-2024	75	24	6	16	**75**	Satisfactory
102	21-03-2024	115	43	4	23	**110**	Moderate
103	26-03-2024	91	26	2	21	**91**	Satisfactory
104	28-03-2024	69	21	8	14	**69**	Satisfactory

ANNEUXRE - V

NWMP ANNUAL REPORT 2023-2024

RIVER CHAPORA NEAR ALORNA FORT, PERNEM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	32	28	28	30	28	29	29	28	29	32	31	29	
2	Dissolved Oxygen(mg/l)	7.2	7.00	6.50	6.3	8.7	8	7	7.3	6.6	6.6	7.6	7.8	4 mg/l or more
3	pH	7.4	7.1	7.55	7.29	7.00	7.13	7.2	7.48	6.8	7.23	6.97	7.04	6-9
4	Conductivity(µs/cm)	367.4	1327	1410	106.8	61.7	74.2	70.3	63.10	379.8	16460.0	914.9	146	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.12	0.489	0.2	0.121	0.2	0.11	0.2	2	0.187	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.01	0.01	BDL	0.012	BDL	0.017	0.05	BDL	BDL	
8	Total Coliform(MPN/100ml)	680	220	2400	1400	1100	7900	4900	3300	1700	3300	2300	2000	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	450	170.00	2100	790	790	3300	2300	1700	1300	2300	780	680	
10	Fecal Streptococci(MPN/100ml)	170.0	70.00	330.00	350	240	220	240	220	130	230	200	170	
11	Turbidity(NTU)	4.2	5.82	3.08	14.38	13.92	4.58	3.76	3.14	6.61	3.25	2.81	5.59	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	28	30.0	48.0	24.0	28.0	24.0	32.0	34.0	34.0	58.0	30.0	24	
14	Chlorides(mg/l)	7.34	440.0	13.7	12.5	3.3	5.0	3.5	4.5	29.7	6398.0	4.5	26.49	
15	COD(mg/l)	6.0	BDL	6.0	10.0	24.00	4.00	14.00	2.00	4.00	-	4.0	12	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	1.68	5	5	2.24	0.56	5.04	1.7	2.8	3.36	0.56	2.2	
17	Ammonia (mg/l)	BDL	BDL	0.06	0.2	BDL	BDL	BDL	BDL	0.1	0.1	BDL	0.06	
18	Total Hardness(mg/l)	26.0	128.0	12.0	26.0	28.0	26.0	22.0	20.0	1600.0	1920.0	114.0	24	
19	Calcium(mg/l)	5.6	14.0	3.2	6.4	6.4	5.6	4.8	4.8	160.3	144.3	11.2	8.016	
20	Magnesium(mg/l)	2.9	2.0	BDL	2.4	2.9	2.90	2.43	BDL	291.60	379.10	20.89	BDL	
21	Sulphate(mg/l)	3.8	24.0	103.10	12.94	3.1	2.4	4.3	BDL	158.4	518.1	35.4	6.3	
22	Sodium(mg/l)	16.3	57.5	136.7	47.9	0.7	17.2	28.5	11.8	290.0	1310.0	61.6	8.7	
23	Total Dissolved Solids(mg/l)	209.0	782.0	847.0	65.0	38.0	47.0	42.0	38.0	242.0	10079.0	549.0	93.0	
24	Total Fixed Solids(mg/l)	147.0	412.0	330.0	46.0	22.0	37.0	16.8	15.0	81.0	4157.0	220.0	39	
25	Total Suspended Solids(mg/l)	8.0	17.0	7.0	28	9	10	7	6	16	5	3	16	
26	Phosphate(mg/l)	0.127	BDL	0.028	0.078	0.03	0.04	0.062	0.02	BDL	0.07	BDL	BDL	
27	Boron(mg/l)	BDL	0.09	5.41	0.44	2.81	0.7	BDL	BDL	0.2	0.7	0.83	BDL	
28	Potassium(mg/l)	13.7	19	39.3	38	2.3	13.2	31.5	3.3	80	490	14.10	2.7	
29	Flouride(mg/l)	BDL	0.18	0.52	0.24	0.22	BDL	BDL	0.17	0.2	0.5	0.49	0.3	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-			-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.01	-	-	-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	0.002	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	0.001	-	-	-	-	-	0.016	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	0.004	-	-	-	-	-	0.008	-	-	-	-	-	
37	IronTotal(mg/l)	0.11	-	-	-	-	-	1.18	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER KALNA AT CHANDEL, PERNEM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	32	28	28	30	28	29	29	28	29	31	30	29	
2	Dissolved Oxygen(mg/l)	6.2	6.50	5.8	7.1	7.2	7.9	6.9	7.3	7.6	7.6	6.9	6.6	4 mg/l or more
3	pH	6.91	6.99	7.45	7.28	6.7	7.44	7.15	7.19	7.1	7.7	6.71	6.82	6-9
4	Conductivity(µs/cm)	48.63	72.33	120.1	55.7	48.56	70.29	70.94	58.60	77.03	1212.00	87.33	78	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.51	0.34	0.12	BDL	BDL	0.13	0.1	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.009	BDL	BDL	BDL	0.01	BDL	BDL	0.007	BDL	
8	Total Coliform(MPN/100ml)	1300	540	2600	3500	2200	3300	2400	2200	2300	3400	3300	3100	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	780	350	2200	1700	1300	2300	1300	1100	1300	2200	780	780	
10	Fecal Streptococci (MPN/100ml)	130	79	270	240	350	68.00	130.00	110	220	110	140	110	
11	Turbidity(NTU)	3.75	5.58	2.59	11.11	11.9	3.0	4.7	19.17	2.39	3.67	3.87	2.90	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	36.0	30.0	36.0	22.0	28.0	40.0	34.0	38.0	26.0	38.0	46.00	36.0	
14	Chlorides(mg/l)	4.4	6.0	19.6	5.0	5.7	4.00	3.50	4.5	5.5	17.5	6.0	6.50	
15	COD(mg/l)	6.0	BDL	6.00	4.0	12.00	4	10	12.00	2.00	20.00	10.0	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	1.12	10.6	5.6	2.8	0.56	4.48	1.12	1.7	2.8	1.68	1.7	
17	Ammonia (mg/l)	0.07	BDL	0.12	0.1	BDL	BDL	BDL	BDL	0.1	0.1	0.6	0.14	
18	Total Hardness(mg/l)	26.0	38.0	94.0	16.0	30.0	30.00	20.00	22.00	30.0	34.0	44.0	32.0	
19	Calcium(mg/l)	6.4	8.0	9.6	4.81	4.81	8.00	4.00	4.81	6.40	8.82	4.80	7.20	
20	Magnesium(mg/l)	2.43	4.00	17.01	BDL	4.4	2.40	2.43	2.43	3.40	2.92	7.78	3.40	
21	Sulphate(mg/l)	BDL	3.0	4.17	7.03	2.91	1.2	2.3	3.3	BDL	5.8	4.2	2.00	
22	Sodium(mg/l)	7.6	14.6	15.8	32.6	0.9	17.1	27.8	2.0	18.4	7.4	7.4	4.0	
23	Total Dissolved Solids(mg/l)	31.0	43.0	72.0	40.0	30.0	43.0	43.0	35.0	50.0	742.0	52.0	48.0	
24	Total Fixed Solids(mg/l)	15.0	25.0	40.0	36.0	18.0	34.0	17.2	14.0	17.0	308.0	21.0	20.0	
25	Total Suspended Solids(mg/l)	9.0	15.0	6.0	25	6	4	9	34	3	6	4	11.0	
26	Phosphate(mg/l)	0.052	0.12	0.039	0.143	0.02	0.05	0.024	0.16	BDL	BDL	0.16	BDL	
27	Boron(mg/l)	BDL	0.04	1.78	0.33	BDL	0.61	BDL	BDL	BDL	0.2	0.493	BDL	
28	Potassium(mg/l)	12.3	7	12.5	23.8	1.7	12.9	24.1	1.2	7.8	4.8	5.4	2.4	
29	Flouride(mg/l)	BDL	0.14	BDL	0.24	1.16	BDL	BDL	0.065	0.2	0.06	0.42	0.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-			-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.013	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.014	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.39	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER ASSANORA AT ASSANORA													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	28	29	27	26	28	28	30	29	29	28	28	28	
2	Dissolved Oxygen(mg/l)	7.5	6.1	6.1	6	6.1	7.7	6.2	6	BDL	6.3	5.7	6.3	4 mg/l or more
3	pH	6.92	7.04	7.04	6.72	6.66	6.75	6.86	6.71	6.88	6.3	6.34	6.56	6-9
4	Conductivity(µs/cm)	100.9	78.6	61.37	48.9	58.67	70.4	53.9	57.34	71.02	62.78	56.57	50	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.91	BDL	0.2	0.08	0.22	BDL	0.29	0.233	0.89	0.103	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	0.011	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1400	1700	2000	1700	1500	3300	2100	2800	2200	2200	1400	1700	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1100	1300	1700	1300	1200	2300	1100	1700	1300	1300	1100	1300	
10	Fecal Streptococci (MPN/100ml)	110	170	540	350	280	700	170	210	140	140	120	130	
11	Turbidity(NTU)	3.94	5.14	4.39	4.02	6.08	4.62	5.08	3.28	6.62	2.24	3.65	1.03	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	30	22	28	20	24	24	26	18	24	30	26	20.0	
14	Chlorides(mg/l)	19.6	14	4.0	5.99	6	4.89	3.42	3.5	5	9.99	7.33	3.499	
15	COD(mg/l)	8.0	4	8.0	6	8	6	6	4	10	BDL	6	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.8	0.6	1.68	2.8	0.6	1.6	1.68	1.68	0.56	0.56	0.56	2.802	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.12	BDL	BDL	0.05	BDL	BDL	0.061	BDL	BDL	
18	Total Hardness(mg/l)	24.0	58	36.0	20	64	30	28	32	64	24	26	18.0	
19	Calcium(mg/l)	8.00	15.2	7.0	7.21	3.2	4.81	4.01	8.02	8.02	4.8	4.81	4.809	
20	Magnesium(mg/l)	BDL	4.9	4.0	BDL	1.944	4.37	4.37	2.92	10.7	2.916	3.402	1.458	
21	Sulphate(mg/l)	2.5	2.4	17	3.05	BDL	2.73	2.85	BDL	BDL	2.127	2.09	2.625	
22	Sodium(mg/l)	7.7	11.4	16.9	59.9	5.9	24.5	6.6	4.3	4.2	25.8	6.3	1.0	
23	Total Dissolved Solids(mg/l)	61.0	44	37.0	29	52	44	33	36	42	35	38	32.0	
24	Total Fixed Solids(mg/l)	30.0	30	15.0	23	21	27	20	21	17	21	23	19.0	
25	Total Suspended Solids(mg/l)	8.0	11	7.0	16	2	6	7	6	10	7	11	2.0	
26	Phosphate(mg/l)	0.05	BDL	0.06	0.199	0.03	0.2	0.02	BDL	BDL	0.04	0.02	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	1.87	0.6	0.26	0.2	1.77	BDL	1.084	1.07	1.105	
28	Potassium(mg/l)	12.2	0.5	8.6	46.3	2.8	12.8	0.7	0.9	5.3	12.3	5.5	0.9	
29	Flouride(mg/l)	BDL	0.22	BDL	0.47	BDL	0.52	0.87	BDL	0.2	0.213	BDL	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.001	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	0.11	-	-	-	-	-	0.29	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER VALVANTI AT SANQUELIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	28	29	27	27	28	28	30	28	29	28	28	28	
2	Dissolved Oxygen(mg/l)	6.00	6.70	7.30	7.0	7.5	7.9	7.8	6.2	7.6	7.6	5.9	7.2	4 mg/l or more
3	pH	6.9	7.64	7.64	7.64	6.94	6.96	7.05	6.74	6.80	6.52	6.56	6.80	6-9
4	Conductivity(µs/cm)	63.1	62.78	71.23	53.44	61.51	60.90	65.30	77.35	71.46	59.48	58.2	67	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.79	0.113	0.199	0.13	0.18	BDL	0.14	0.176	0.27	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	0.005	BDL	BDL	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	1700	2700	3200	2700	1700	4600	2200	1700	2300	2300	2100	2200	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1300	2200	1700	1700	1300	3100	1400	780	1300	1300	1400	1700	
10	Fecal Streptococci (MPN/100ml)	140	220	280	330	220	320	210	92	200	200	170	170	
11	Turbidity(NTU)	2.49	5.13	8.16	2.42	1.48	3.62	2.77	2.58	3.14	2.18	3.17	4.92	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	34.00	30.0	40.00	12.00	16.00	22.0	28.0	22.0	28.0	28.0	28.00	24.0	
14	Chlorides(mg/l)	11.25	12.5	4.0	5.0	4.0	3.9	3.9	5.5	6.5	7.0	5.4	7.498	
15	COD(mg/l)	6.0	4.0	10.0	4.0	16.00	4.00	4.00	4.00	8.00	BDL	4.0	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	0.6	2.24	3.4	2.8	2.24	2.8	2.8	1.68	1.12	1.68	1.401	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.1	BDL	BDL	BDL	BDL	0.2	BDL	0.1	BDL	
18	Total Hardness(mg/l)	38.0	14.0	48.0	16.0	18.0	18.0	18.0	44.00	26.0	18.0	24.0	20.0	
19	Calcium(mg/l)	7.20	3.2	8.00	BDL	4.00	4.01	3.2	13.6	7.2	4.8	4.8	4.809	
20	Magnesium(mg/l)	4.86	BDL	7.00	2.9	BDL	1.94	2.4	2.4	BDL	BDL	2.91	1.944	
21	Sulphate(mg/l)	2	2.8	12	2.54	BDL	2.62	2.0	2.4	4.0	3.2	2.1	2.375	
22	Sodium(mg/l)	7.6	12.5	14.7	57.5	8.6	27.1	7.2	4.6	5.0	28.2	5.6	3.1	
23	Total Dissolved Solids(mg/l)	38.0	40.0	44.0	30.0	35.0	38.0	40.0	52.0	42.0	36.0	58.0	41.0	
24	Total Fixed Solids(mg/l)	13.0	24.0	10.0	24.0	14.0	24.0	24.0	31.0	17.0	22.0	35.0	24.0	
25	Total Suspended Solids(mg/l)	4.0	12.0	4.0	10	7	10.0	7.0	5.0	4.0	6.0	9.0	3.0	
26	Phosphate(mg/l)	0.052	BDL	0.04	0.421	0.13	0.435	BDL	0.024	0.14	0.028	BDL	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	1.83	BDL	0.42	BDL	1.19	BDL	1.304	0.96	1.527	
28	Potassium(mg/l)	12.3	0.3	8.1	46.2	4.6	13.3	1.1	1.9	5.6	14.5	4.8	0.8	
29	Flouride(mg/l)	BDL	0.32	BDL	0.29	BDL	0.39	0.64	BDL	1	0.453	BDL	BDL	
30	Arsenic(mg/l)	BDL						BDL						
31	Cadmium(mg/l)	BDL						BDL						
32	Copper(mg/l)	BDL						0.002						
33	Lead(mg/l)	BDL						0.001						
34	Chromium(mg/l)	BDL						0.001						
35	Nickel(mg/l)	BDL						BDL						
36	Zinc(mg/l)	BDL						BDL						
37	IronTotal(mg/l)	0.023						0.16						
38	Mercury (mg/l)	BDL						BDL						
39	Alpha BHC (mg/l)	BDL						BDL						
40	Hexachlorobenzene (mg/l)	BDL						BDL						
41	Beta BHC (mg/l)	BDL						BDL						
42	Gamma BHC (mg/l)	BDL						BDL						
43	Heptachlor (mg/l)	BDL						BDL						
44	Aldrin (mg/l)	BDL						BDL						
45	Heptachlor endo-epoxide (mg/l)	BDL						BDL						
46	Alpha Endosulfan (mg/l)	BDL						BDL						
47	p,p'-DDE (mg/l)	BDL						BDL						
48	Dieldrin (mg/l)	BDL						BDL						
49	Eldrin (mg/l)	BDL						BDL						
50	Beta Endosulphan (mg/l)	BDL						BDL						
51	o,p'-DDD (mg/l)	BDL						BDL						
52	o,p'-DDT (mg/l)	BDL						BDL						
53	p,p'-DDT (mg/l)	BDL						BDL						
54	Methoxychlor (mg/l)	BDL						BDL						
55	Malathion (mg/l)	BDL						BDL						
56	Chlorpyrifos (mg/l)	BDL						BDL						

RIVER MADEI AT DABOSE, VALPOI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	30	29	27	26	28	28	30	28	29	28	29	29	
2	Dissolved Oxygen(mg/l)	8	6.90	6.5	6	8.3	8.2	6.8	7.3	7.5	7	5.7	6.8	4 mg/l or more
3	pH	7.19	7.66	7.66	6.77	7.34	7.18	7.43	7.38	6.88	6.55	6.68	7.31	6-9
4	Conductivity(µs/cm)	61.07	130.8	145.6	88.95	95.72	71.80	66.78	70.00	84.24	87.71	105.3	113	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.34	BDL	BDL	0.10	0.10	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.021	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1700	2100	2400	2100	1400	2500	1300	2200	1400	1400	2200	2400	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1400	1700	1700	1700	780	1700	790	1300	1100	1100	1300	1400	
10	Fecal Streptococci (MPN/100ml)	120	170	94	390	210	390	140	120	150	150	140	120	
11	Turbidity(NTU)	2.92	4.2	7.19	1.83	1.69	3.32	1.55	1.97	4.1	2.65	2.05	1.21	
12	Phenolphthalein Alkalinity(mg/l)	10.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	50.00	50.0	66.00	42.00	28.00	28.0	38.0	28.0	32.0	48.00	44.00	54.0	
14	Chlorides(mg/l)	11.7	17.5	4.0	5.0	19.5	3.9	2.9	3.0	10.0	5.5	7.5	6.0	
15	COD(mg/l)	6.0	4.00	4.00	14.00	8.00	8.00	8.00	6.00	6.00	4.00	6.0	2.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	0.6	1.12	2.8	1.12	1.12	1.12	2.8	0.56	0.56	1.121	1.12	
17	Ammonia (mg/l)	BDL	0.06	BDL	0.1	BDL	BDL	BDL	0.1	0.1	0.1	0.1	BDL	
18	Total Hardness(mg/l)	66.0	14.0	86.0	38.00	20.0	28.00	26.00	52.00	32.00	36.00	46.0	46.0	
19	Calcium(mg/l)	14.40	3.2	18.00	8.80	4.81	4.01	4.01	5.61	8.01	7.21	8.02	12.02	
20	Magnesium(mg/l)	7.29	BDL	10.0	3.9	BDL	4.4	3.9	7.8	2.9	4.4	6.32	3.89	
21	Sulphate(mg/l)	2.34	BDL	6.0	3.26	0.738	2.62	4.2	BDL	BDL	BDL	2.5	1.55	
22	Sodium(mg/l)	7.6	13.1	9.8	60.2	19.5	24.2	7.8	4.3	5.3	24.8	8.5	6.7	
23	Total Dissolved Solids(mg/l)	37.0	78.0	87.0	55.0	55.0	49.0	42.0	48.0	50.0	51.0	66.0	66.0	
24	Total Fixed Solids(mg/l)	17.0	49.0	48.0	44.0	33.0	28.0	25.0	29.0	20.0	30.0	39.0	40.0	
25	Total Suspended Solids(mg/l)	6.0	9.0	6.0	9	6	7	11	4	6	7	2	5.0	
26	Phosphate(mg/l)	0.288	BDL	0.24	BDL	0.027	0.04	0.049	0.036	BDL	0.02	0.021	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	1.62	0.902	0.62	0.23	0.85	BDL	1.46	1.971	BDL	
28	Potassium(mg/l)	12.2	0.4	8.3	49.9	17.1	11.2	2.1	0.7	5.4	12.2	5.9	5.8	
29	Flouride(mg/l)	BDL	0.25	0.43	0.31	0.319	0.56	1.2	BDL	0.6	0.349	0.471	BDL	
30	Arsenic(mg/l)	BDL						BDL						
31	Cadmium(mg/l)	BDL						BDL						
32	Copper(mg/l)	BDL						BDL						
33	Lead(mg/l)	BDL						0.001						
34	Chromium(mg/l)	BDL						BDL						
35	Nickel(mg/l)	BDL						BDL						
36	Zinc(mg/l)	BDL						BDL						
37	IronTotal(mg/l)	BDL						0.12						
38	Mercury (mg/l)	BDL						BDL						
39	Alpha BHC (mg/l)	BDL						BDL						
40	Hexachlorobenzene (mg/l)	BDL						BDL						
41	Beta BHC (mg/l)	BDL						BDL						
42	Gamma BHC (mg/l)	BDL						BDL						
43	Heptachlor (mg/l)	BDL						BDL						
44	Aldrin (mg/l)	BDL						BDL						
45	Heptachlor endo-epoxide (mg/l)	BDL						BDL						
46	Alpha Endosulfan (mg/l)	BDL						BDL						
47	p,p'-DDE (mg/l)	BDL						BDL						
48	Dieldrin (mg/l)	BDL						BDL						
49	Eldrin (mg/l)	BDL						BDL						
50	Beta Endosulphan (mg/l)	BDL						BDL						
51	o,p'-DDD (mg/l)	BDL						BDL						
52	o,p'-DDT (mg/l)	BDL						BDL						
53	p,p'-DDT (mg/l)	BDL						BDL						
54	Methoxychlor (mg/l)	BDL						BDL						
55	Malathion (mg/l)	BDL						BDL						
56	Chlorpyrifos (mg/l)	BDL						BDL						

HARWALE WATERFALL														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	28	29	27	26	28	28	29	28	28	28	30	29	
2	Dissolved Oxygen(mg/l)	7.5	7.1	5.5	5.9	7.5	7.6	6.7	7.4	7.8	7.5	6.0	6.9	4 mg/l or more
3	pH	7.36	7.37	7.4	6.24	7.38	7.13	7.67	7.52	7.58	7.34	7.27	7.27	6-9
4	Conductivity(µs/cm)	172.9	183.6	201.1	53.38	79.73	80.83	62.54	82.24	108.20	107.10	123.40	128	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.3	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.76	0.10	0.40	0.13	0.34	BDL	0.40	0.34	0.22	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	0.005	BDL	BDL	BDL	0.016	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	2100	2600	2400	2600	3300	3900	2400	3500	3300	3300	2500	2200	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1700	2100	1700	2200	2300	2600	1300	2400	1700	1300	2100	1700	
10	Fecal Streptococci (MPN/100ml)	270	340	170	490	340	540	280	350	220	220	330	350	
11	Turbidity(NTU)	3.17	4.86	7.16	3.46	5.05	3.86	5.63	7.58	4.19	3.21	2.97	1.96	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	80.0	76.0	86.0	32.0	28.00	120.00	32.0	32.0	32.0	54.0	54.0	54.0	
14	Chlorides(mg/l)	11.7	22.0	5.0	6.0	5.0	5.4	4.5	7.5	8.0	9.5	8.3	8.50	
15	COD(mg/l)	6.0	4.0	12.0	8.0	6.00	16.00	10.00	4.00	6.00	6.00	6.0	2.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	0.60	1.7	2.8	2.24	1.68	2.8	0.56	0.56	0.56	2.24	0.56	
17	Ammonia (mg/l)	BDL	0.06	0.05	0.1	BDL	BDL	BDL	BDL	0.1	BDL	0.2	BDL	
18	Total Hardness(mg/l)	68.0	30.0	98.0	14.00	32.0	38.00	26.0	36.0	40.0	46.00	56.0	50.0	
19	Calcium(mg/l)	14.3	8.0	27.0	BDL	7.2	4.0	7.2	4.8	9.6	12.02	12.02	13.63	
20	Magnesium(mg/l)	7.78	2.4	7.0	2.43	3.40	6.80	1.94	5.83	3.90	3.89	6.31	3.89	
21	Sulphate(mg/l)	7.08	2.8	2.0	BDL	BDL	3.54	1.8	2.6	2.2	4.3	5.1	6.28	
22	Sodium(mg/l)	7.7	12.5	13.1	60.5	6.3	31.8	9.7	8.0	5.3	31.9	6.1	6.7	
23	Total Dissolved Solids(mg/l)	103.0	122.0	123.0	30.0	47.0	47.0	34.0	53.0	65.0	62.0	123.0	74.0	
24	Total Fixed Solids(mg/l)	33.0	86.0	78.0	24.0	19.0	27.0	20.0	32.0	26.0	37.0	74.0	44.0	
25	Total Suspended Solids(mg/l)	6.0	10.0	9.0	10.00	6.00	5.0	10.0	3.0	6.0	8.0	6.0	6.0	
26	Phosphate(mg/l)	0.06	BDL	0.05	0.03	0.09	0.22	0.04	BDL	0.03	0.04	0.06	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	0.8	0.3	0.27	0.5	1.3	BDL	37.0	1.0	0.70	
28	Potassium(mg/l)	12.2	0.5	8.5	47.5	3.0	35.9	1.8	2.9	5.4	30.4	5.4	5.7	
29	Flouride(mg/l)	BDL	0.3	0.6	0.26	BDL	0.47	0.043	0.59	1.2	0.456	0.25	BDL	
30	Arsenic(mg/l)	BDL						BDL						
31	Cadmium(mg/l)	BDL						BDL						
32	Copper(mg/l)	BDL						BDL						
33	Lead(mg/l)	BDL						0.0						
34	Chromium(mg/l)	BDL						BDL						
35	Nickel(mg/l)	BDL						BDL						
36	Zinc(mg/l)	BDL						BDL						
37	IronTotal(mg/l)	BDL						0.142						
38	Mercury (mg/l)	BDL						BDL						
39	Alpha BHC (mg/l)	BDL						BDL						
40	Hexachlorobenzene (mg/l)	BDL						BDL						
41	Beta BHC (mg/l)	BDL						BDL						
42	Gamma BHC (mg/l)	BDL						BDL						
43	Heptachlor (mg/l)	BDL						BDL						
44	Aldrin (mg/l)	BDL						BDL						
45	Heptachlor endo-epoxide (mg/l)	BDL						BDL						
46	Alpha Endosulfan (mg/l)	BDL						BDL						
47	p,p'-DDE (mg/l)	BDL						BDL						
48	Dieldrin (mg/l)	BDL						BDL						
49	Eldrin (mg/l)	BDL						BDL						
50	Beta Endosulphan (mg/l)	BDL						BDL						
51	o,p'-DDD (mg/l)	BDL						BDL						
52	o,p'-DDT (mg/l)	BDL						BDL						
53	p,p'-DDT (mg/l)	BDL						BDL						
54	Methoxychlor (mg/l)	BDL						BDL						
55	Malathion (mg/l)	BDL						BDL						
56	Chlorpyrifos (mg/l)	BDL						BDL						

RIVER BICHOLIM, BARAZAN NAGAR, BICHOLIM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	35	29	29	27	31	30	29	28	29	28	29	30	
2	Dissolved Oxygen(mg/l)	4.8	4.0	6.4	6.5	6.5	7.2	7.3	6.8	5.8	5.4	6.0	6.0	4 mg/l or more
3	pH	6.70	6.80	7.42	6.57	7.22	6.91	6.84	6.96	6.69	6.62	6.50	6.92	6-9
4	Conductivity(µs/cm)	137.30	183.50	94.50	86.13	125.40	113.3	80.52	90.79	180.80	124.10	101.1	165	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.7	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.30	0.64	0.60	0.50	0.12	0.90	0.2	BDL	0.40	0.40	0.329	
7	Nitrite Nitrogen as NO_2-N mg/l	0.007	BDL	0.01	0.006	BDL	BDL	BDL	BDL	0.186	0.005	BDL	0.007	
8	Total Coliform(MPN/100ml)	11000	7900	9400	6300	8400	22000	54000	2300	3500	3500	7000	7900	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	7900	4900	7000	4600	6300	11000	11000	1300	1700	1300	4900	3300	
10	Fecal Streptococci (MPN/100ml)	790	49	840	580	700	5400	2200	170	140	170	230	210	
11	Turbidity(NTU)	3.42	4.16	2.48	7.68	8.9	190	5.11	3.3	5.14	4.45	5.1	6.19	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	60.0	74.0	82.0	20.0	28.0	24	30.0	34.0	36.0	56.0	42.0	48.0	
14	Chlorides(mg/l)	23.00	17.1	228.30	15.5	11.5	16.5	5.0	14.5	11.0	110.0	12.5	17.495	
15	COD(mg/l)	16.0	12.0	12.0	12.0	8.0	12	4.0	4.00	6.00	8.00	8.00	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	7.3	BDL	1.68	5.6	0.56	0.56	1.12	1.12	1.12	1.7	4.2	
17	Ammonia (mg/l)	BDL	1.11	0.19	0.1	BDL	BDL	BDL	0.0	0.1	0.1	BDL	BDL	
18	Total Hardness(mg/l)	74.0	86.0	142.0	20	40	30	24.00	48.00	40.00	44	36	52.0	
19	Calcium(mg/l)	13	20.0	24	5.61	13.62	6.4	8.0	9.61	5.60	9.62	8.00	12.02	
20	Magnesium(mg/l)	10.2	8.7	19.9	BDL	1.46	3.4	BDL	5.8	6.3	4.9	3.9	5.346	
21	Sulphate(mg/l)	2.97	3.5	41.50	7.15	3.36	2.89	BDL	3.8	3.1	2.7	1.7	BDL	
22	Sodium(mg/l)	9.4	15.2	51.7	65.0	20.0	81.1	3.6	1775.0	7.0	5.4	14.7	7.7	
23	Total Dissolved Solids(mg/l)	90.0	117.0	695.0	60.0	82.0	69	51.0	58.0	110.0	79.0	64.0	105.0	
24	Total Fixed Solids(mg/l)	35.0	46.0	395.0	48.0	27.0	28	32.0	32.0	74.0	47.0	38.0	63.0	
25	Total Suspended Solids(mg/l)	8.0	7.0	60.0	26	14	4	9	11	11	20	22	3.0	
26	Phosphate(mg/l)	BDL	0.06	1.07	0.05	0.05	0.04	0.08	BDL	0.03	0.03	0.03	0.066	
27	Boron(mg/l)	BDL	0.83	0.41	0.5	BDL	BDL	0.9	0.7	1.1	1.1	0.94	1.208	
28	Potassium(mg/l)	12.7	3.1	302.2	47.10	2.80	69.8	1.7	550.0	6.3	5.20	13.30	5.3	
29	Flouride(mg/l)	BDL	BDL	0.25	BDL	0.7	0.6	0.2	BDL	BDL	0.61	0.4	BDL	
30	Arsenic(mg/l)	BDL						BDL						
31	Cadmium(mg/l)	BDL						BDL						
32	Copper(mg/l)	BDL						0.001						
33	Lead(mg/l)	BDL						0.001						
34	Chromium(mg/l)	BDL						0.004						
35	Nickel(mg/l)	BDL						0.002						
36	Zinc(mg/l)	BDL						0.002						
37	IronTotal(mg/l)	0.03						0.219						
38	Mercury (mg/l)	BDL						BDL						
39	Alpha BHC (mg/l)	BDL						BDL						
40	Hexachlorobenzene (mg/l)	BDL						BDL						
41	Beta BHC (mg/l)	BDL						BDL						
42	Gamma BHC (mg/l)	BDL						BDL						
43	Heptachlor (mg/l)	BDL						BDL						
44	Aldrin (mg/l)	BDL						BDL						
45	Heptachlor endo-epoxide (mg/l)	BDL						BDL						
46	Alpha Endosulfan (mg/l)	BDL						BDL						
47	p,p'-DDE (mg/l)	BDL						BDL						
48	Dieldrin (mg/l)	BDL						BDL						
49	Eldrin (mg/l)	BDL						BDL						
50	Beta Endosulphan (mg/l)	BDL						BDL						
51	o,p'-DDD (mg/l)	BDL						BDL						
52	o,p'-DDT (mg/l)	BDL						BDL						
53	p,p'-DDT (mg/l)	BDL						BDL						
54	Methoxychlor (mg/l)	BDL						BDL						
55	Malathion (mg/l)	BDL						BDL						
56	Chlorpyrifos (mg/l)	BDL						BDL						

MAYEM LAKE AT MAYEM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	35	29	29	27	31	30	29	28	29	28	29	30	
2	Dissolved Oxygen mg/l	7.8	6.8	5.9	6.6	7.7	7.7	6.1	5.9	7.4	8.5	5.3	6.2	
3	pH	7.07	7.2	7.58	6.46	7.08	7.06	6.41	6.39	6.48	6.48	7.01	6.67	6-8.5
4	Conductivity(µs/cm)	38.26	54.51	62.76	67.68	68.93	220.70	71.57	44.35	50.09	46.34	44.21	65	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.2	0.3	0.2	BDL	BDL	BDL	0.1	BDL	0.1	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.0	0.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1300	3500	2300	3400	920	2200	1100	1700	2300	2400	5400	3500	
9	Fecal Coliform(MPN/100ml)	780	2400	1300	2700	540	1300	790	1100	1300	1300	1700	1300	
10	Fecal Streptococci MPN/100ml	210	230	330	390	400	350	280	110	140	110	280	220	
11	Turbidity(NTU)	4.46	3.1	3.71	BDL	2.6	2.3	1.37	1.04	4.78	4.1	15.7	5.98	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	20.0	20.0	36.0	16.0	12.0	18.0	20.0	24.0	14.00	18.0	18.0	20.0	
14	Chloride mg/l	8.8	8.8	10.2	14.5	6.5	9.5	8.0	5.5	7.5	75.0	6.50	9.497	
15	COD(mg/l)	4.0	4.0	10.0	3.0	10.0	10.0	4.0	2.00	6.00	14.0	8	6.0	
16	Total Kjeldhal Nitrogen(mg/l)	0.56	0.56	2.80	2.24	6.72	1.7	1.68	0.56	0.56	0.56	1.1	1.401	
17	Ammonia mg/l	0.1	0.16	BDL	0.1	BDL	BDL	BDL	BDL	BDL	0.1	0.48	0.05	
18	Hardness(mg/l)	14.0	20.0	24.0	12.0	32.00	10.0	28.0	20.0	20.0	14.00	16	18.0	
19	Calcium(mg/l)	BDL	4.0	6.41	3.2	4.8	4	3.2	4.8	2.4	2.4	5.6	5.611	
20	Magnesium(mg/l)	2.4	2.4	1.9	BDL	4.86	1.46	4.86	1.94	3.40	BDL	BDL	BDL	
21	Sulphate(mg/l)	BDL	BDL	2.40	4.3	BDL	2.6	BDL	BDL	2.9	BDL	BDL	2.4	
22	Sodium(mg/l)	7.6	19.0	306.9	59.5	28.7	80.5	5.5	3975.0	5.4	7.3	8.4	4.9	
23	Total Dissolved Solids(mg/l)	25.0	35.0	1408.0	40.0	46.0	135.0	42.0	27.0	32.0	29.0	27.0	41.0	
24	Total Fixed Solids(mg/l)	10.0	14.0	622.0	32.0	18.0	54.0	25.0	18.0	19.0	17.0	11.00	24.0	
25	Total Suspended Solid	9.0	13.0	55.0	8.00	8.00	8.00	5.00	6.00	9.00	13.00	8.00	2.0	
26	Phosphate(mg/l)	0.02	0.10	0.33	0.03	0.03	BDL	0.07	BDL	0.04	0.11	0.08	BDL	
27	Boron(mg/l)	BDL	BDL	0.39	0.0	BDL	0.6	0.3	1.2	1.1	1.10	BDL	1.208	Max 2mg/l
28	Potassium(mg/l)	12.3	2.6	221.5	59.40	5.80	68.80	5.90	2275.00	4.90	5.10	2.4	4.70	
29	Fluoride(mg/l)	BDL	0.70	BDL	BDL	0.4	BDL	0.2	BDL	0.42	0.62	BDL	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	0.035	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	0.02	-	-	-	-	-	0.144	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

CARAMBOLIM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	36	29	28	27	27	28	29	30	28	26	33	28	
2	Dissolved Oxygen mg/l	8.4	7.2	4.9	7.3	6.0	7.0	8.0	4.4	6.2	6.8	7.2	6.9	
3	pH	7.42	7.02	7.72	7.32	7.04	7.64	7.46	7.40	7.31	7.32	7.6	7.36	6-8.5
4	Conductivity(µs/cm)	236.1	224.1	232.3	123.7	157.90	167.00	152.50	145.9	168.40	170.6	176.6	197	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.5	BDL	BDL	0.690	0.124	0.016	BDL	0.12	0.1	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.005	BDL	0.022	0.03	0.077	0.007	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	2200	780	790	1700	1400	2800	790	1100	330	390	170	140	
9	Fecal Coliform(MPN/100ml)	1700	780	490	1100	940	1700	230	790	230	330	130	110	
10	Fecal Streptococci(MPN/100ml)	1100	110	170	130	110	170	230	170	79	150	46	94	
11	Turbidity(NTU)	4.82	2.16	24.4	2.9	3.2	3.1	BDL	4.0	2.1	3.23	3.2	4.76	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	56.0	54.0	50.0	38.0	40.0	50.0	72.0	48.0	56.0	68.00	118.0	62.0	
14	Chloride mg/l	27.0	31.3	33.0	13.5	13.0	23.0	19.5	53.3	4448.6	16.0	699.8	20.54	
15	COD(mg/l)	4.0	6.0	6.0	8.0	4.0	6.00	8.00	6.00	6.00	6.0	4.0	12.0	
16	Total Kjeldhal Nitrogen(mg/l)	0.6	1.12	2.8	1.12	1.1	1.12	0.56	0.7	1.121	1.12	1.12	0.56	
17	Ammonia mg/l	0.04	BDL	0.33	0.1	0.1	0.0	BDL	BDL	BDL	BDL	BDL	0.05	
18	Hardness(mg/l)	66.0	106.0	88.0	40.0	48.0	52.0	50.0	86.0	64.0	58.00	82.0	62.0	
19	Calcium(mg/l)	16.0	15.2	21.0	15.2	14.4	15.2	8.8	20.0	19.2	9.61	18.4	17.64	
20	Magnesium(mg/l)	6.3	16.5	9.0	BDL	2.9	3.4	6.8	8.75	3.89	0.24	8.7	4.37	
21	Sulphate(mg/l)	3.10	6.1	14.0	7.6	8.0	8.9	6.2	3.9	2.5	4.0	43.7	9.72	
22	Sodium(mg/l)	17.8	2.9	22.4	52.7	14.4	98.9	6.1	15.9	10.5	7.0	1060.0	8.6	
23	Total Dissolved Solids(mg/l)	160.0	156.0	139.0	85.0	99.0	100.0	92.0	93.0	107.0	103.0	113.0	197.0	
24	Total Fixed Solids(mg/l)	109.0	116.0	71.0	68.0	70.0	40.0	56.0	56.0	64.0	62.0	67.8	118.0	
25	Total Suspended Solid (mg/l)	11.0	28.0	51.0	10.000	7.000	7.00	4.00	20.00	3.00	7.00	2.00	10.0	
26	Phosphate(mg/l)	0.07	0.09	0.17	BDL	0.03	0.08	0.12	0.04	0.04	BDL	BDL	0.02	
27	Boron(mg/l)	0.3	BDL	0.86	0.4	0.8	0.4	0.4	1.1	1.2	1.2	1.2	1.61	Max 2mg/l
28	Potassium(mg/l)	16.0	1.4	9.9	43.70	7.50	95.70	2.30	14.20	7.80	6.3	1050.00	6.2	
29	Fluoride(mg/l)	0.37	BDL	0.59	0.06	0.32	0.95	BDL	0.2	0.216	BDL	0.136	1.05	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.05	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

ANJUNEM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	29	29	27	26	28	28	29	27	28	28	28	28	
2	Dissolved Oxygen mg/l	7.5	7.0	6.2	7.7	8.1	8.2	8.0	4.1	8.2	7.4	7.4	4.5	4 mg/l or more
3	pH	8.04	7.56	7.56	6.68	7.59	7.17	8.47	6.56	7.22	7.22	7.6	6.67	6-9
4	Conductivity(µs/cm)	49.85	44.19	95.05	46.54	51.40	60.32	66.30	43.51	44.76	43.55	49.09	45	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.3	0.34	0.10	0.39	BDL	BDL	BDL	0.34	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	33	49	540	540	46	790	240	170	110	110	94	110	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	23	33	130	240	33	490	130	79	79	79	70	78	
10	Fecal Streptococci MPN/100ml	7.8	11.0	70	21	11	49	79	49	23	23	33.0	31	
11	Turbidity(NTU)	3.27	2.16	19.87	6.22	1.48	1.02	2.35	3.07	3.02	1.06	BDL	0.84	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	20.0	22.0	46.0	22.0	20.00	22.0	28.0	16.0	16.0	26.0	26.00	24.0	
14	Chloride mg/l	7.8	9.5	2.0	4.0	2.5	6.4	8.8	3.0	4.5	5.5	5.9	2.499	
15	COD(mg/l) mg/l	4.0	4.0	4.0	2.0	4.00	18.0	16.0	6.00	8.00	BDL	8.0	14.0	
16	Total Kjeldhal Nitrogen(mg/l)	1.7	0.60	0.56	2.2	0.56	2.8	2.24	1.12	1.68	1.68	1.12	2.802	
17	Ammonia mg/l	BDL	BDL	0.43	0.1	BDL	BDL	BDL	BDL	0.3	BDL	0.1	BDL	
18	Hardness(mg/l)	26.0	90.0	48.0	18.00	16.0	24.0	20.0	70.00	20.00	16.0	14.0	20.0	
19	Calcium(mg/l)	4.00	20.0	14.0	4.8	BDL	1.6	2.4	3.2	4.8	3.01	4.01	5.611	
20	Magnesium(mg/l)	3.9	9.7	3.0	BDL	2.92	4.86	3.40	15.07	BDL	BDL	0.97	1.458	
21	Sulphate(mg/l)	BDL	BDL	6.0	5.1	0.3	1.2	BDL	BDL	3.8	BDL	0.6	1.85	
22	Sodium(mg/l)	7.6	13.0	10.4	59.5	7.1	5.6	15.3	4.2	4.0	5.4	5.6	2.7	
23	Total Dissolved Solids(mg/l)	30.0	26.0	57.0	27.0	37.0	38.0	41.0	28.0	27.0	26.0	33.0	25.0	
24	Total Fixed Solids(mg/l)	15.0	18.0	17.0	21.0	26.0	27.0	24.0	17.0	11.0	16.0	20.0	15.0	
25	Total Suspended Solid (mg/l)	8.0	5.0	29.0	21	2	5	6	5	4	4	4	2.0	
26	Phosphate(mg/l)	0.108	BDL	0.05	0.04	0.14	0.05	0.07	0.05	0.04	BDL	BDL	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	1.12	1.06	0.43	0.24	0.99	0.77	1.113	1.06	1.693	
28	Potassium(mg/l)	12.3	0.1	7.6	49.3	3.9	1.7	7.8	0.7	4.9	1.9	5.1	0.2	
29	Fluoride(mg/l)	BDL	0.24	0.39	0.499	BDL	0.51	0.38	0.48	0.3	0.456	BDL	0.144	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	0.005	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.078	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BATIM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C			28	26	28	29	29	30	30	30	30	30	
2	Dissolved Oxygen(mg/l)			4.5	5.1	7.2	5.2	6.2	2.0	3.3	3.0	6.6	5.9	
3	pH			7.04	6.9	6.4	6.74	6.81	6.22	6.2	6.28	6.25	6.64	6-8.5
4	Conductivity(µs/cm)			121.3	59.8	84.00	104.80	96.27	64.08	119.30	121.3	82.5	96	Max 2250 µs/cm
5	BOD(mg/l)			BDL	BDL	2.4	BDL	BDL	4	3.0	5	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)			0.14	BDL	0.03	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l			0.015	BDL	BDL	0.01	BDL	BDL	0.0011	BDL	0.007	BDL	
8	Total Coliform(MPN/100ml)			2800	9200	1400	1700	1100	490	1400	460	470	430	
9	Fecal Coliform(MPN/100ml)			2200	3500	1100	1100	790	230	940	330	400	310	
10	Fecal Streptococci (MPN/100ml)			170	94	84	350	94	27	170	140	170	140	
11	Turbidity(NTU)			8.47	5.7	9.47	7.58	10.16	12.71	8.59	15.81	2.43	13.40	
12	Phenolphthalein Alkalinity(mg/l)			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)			20.0	20.0	22.0	26.0	22.0	16.0	24.0	52.0	24.0	26.0	
14	Chlorides(mg/l)			7.30	9.0	10.5	16.5	399.9	11.0	23.0	10.5	13.5	15.50	
15	COD(mg/l)			18.0	16	36	6	6	20	20	18	10	8.0	
16	Total Kjeldahl Nitrogen(mg/l)			1.68	1.12	2.2	1.12	1.12	0.56	1.1	1.12	0.56	1.12	
17	Ammonia (mg/l)			0.46	BDL	0.2	0.1	0.0	0.1	0.1	0.2	0.1	0.07	
18	Total Hardness(mg/l)			28.0	18.0	32.0	22.0	16.0	16.00	24.00	22.0	22	22.0	
19	Calcium(mg/l)			7.2	4	7.2	4.8	4	3.2	4.8	4.81	5.61	5.61	
20	Magnesium(mg/l)			2.4	2	3.4	2.43	BDL	BDL	2.9	2.43	BDL	1.94	
21	Sulphate(mg/l)			28	7.2	4.2	2.2	BDL	7.2	7.5	4.6	BDL	9.35	
22	Sodium(mg/l)			BDL	4.5	10.4	29.3	37.0	7.8	8.9	12.8	7.6	6.8	
23	Total Dissolved Solids(mg/l)			75.0	38.0	54.0	59.0	58.0	41.0	76.0	68.0	52.0	53.0	
24	Total Fixed Solids(mg/l)			30.0	23.0	32.0	33.0	23.0	25.0	45.0	40.0	30.0	31.0	
25	Total Suspended Solids(mg/l)			14.0	4	47	14	18	44	22	20	18	25.0	
26	Phosphate(mg/l)			BDL	0.02	0.95	0.04	0.05	0.159	0.044	0.096	0.03	BDL	
27	Boron(mg/l)			0.21	BDL	0.87	0.4	0.21	1.1	0.9	0.933	0.8	0.44	Max 2mg/l
28	Potassium(mg/l)			BDL	1.5	5.6	12.1	11.5	4.90	5.70	8.2	7.0	5.8	
29	Flouride(mg/l)	**Dry**	**Dry**	0.3	**BDL**	**1.8**	**BDL**	0.4	**BDL**	**0.21**	**BDL**	**BDL**	BDL	
30	Arsenic(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)			-	-	-	-	0.0	-	-	-	-	-	
34	Chromium(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)			-	-	-	-	0.0	-	-	-	-	-	
36	Zinc(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)			-	-	-	-	1.77	-	-	-	-	-	
38	Mercury (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)			-	-	-	-	BDL	-	-	-	-	-	

RIVER KHANDEPAR, OPA, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	31	29	29	28	28	29	29	30	30	29	30	30	
2	Dissolved Oxygen(mg/l)	7.3	7.3	6.8	6.8	7.1	7.2	6.3	6.6	6.0	8.2	7.2	7.5	4 mg/l or more
3	pH	7.67	7.43	7.40	6.77	6.98	6.98	6.67	7.31	7.34	7.25	7.37	7.09	6-9
4	Conductivity(µs/cm)	115.20	105.2	99.48	110.2	60	60.18	51	60	75	78.19	93	112	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.0	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.16	0.2	BDL	0.12	0.4	BDL	0.2	0.17	0.7	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	230	490	220	4600	2200	1300	790	1700	2300	9400	2600	2700	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	130	330	170	2300	1300	490	490	310	450	4900	1700	1700	
10	Fecal Streptococci (MPN/100ml)	70	94	49	920	350	540	350	70	130	490	230	210	
11	Turbidity(NTU)	2.86	2.35	1.70	5.88	3.40	3.40	87.40	1.68	0.56	BDL	1.97	2.58	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	42.0	40.0	28.0	22.0	22	18	22	24	22	38	40	42	
14	Chlorides(mg/l)	10.00	7.80	14.68	8.50	53.9	2.99	5.50	3.91	5.5	5.99	6.90	10.50	
15	COD(mg/l)	4.0	4.0	6.0	4.0	16.0	12.0	16.0	8.0	2.0	8.0	6.0	BDL	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	1.12	9.0	0.56	9.5	1.4	3.9	0.56	1.60	0.56	2.80	1.1	
17	Ammonia (mg/l)	BDL	BDL	0.10	BDL	BDL	BDL	0.06	BDL	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	72.0	60.0	32.0	40.0	24.0	26.0	20.0	10.0	36.0	28.0	34.0	42.0	
19	Calcium(mg/l)	20.00	11.20	9.60	6.40	5.6	8.82	3.00	2.40	5.60	7.21	8.00	9.6	
20	Magnesium(mg/l)	5.30	7.8	2.0	5.8	2.43	BDL	2.90	0.97	5.30	2.43	3.40	4.4	
21	Sulphate(mg/l)	BDL	2.0	3.12	1.20	6.9	2.76	5.80	1.49	BDL	BDL	2.20	5.3	
22	Sodium(mg/l)	7.8	12.8	15.70	49.70	9.2	106.6	0.8	3.8	21.2	4.7	16.5	5.7	
23	Total Dissolved Solids(mg/l)	74.0	64.0	60.0	75.0	30.0	36.0	31.0	38.0	50.0	53.0	60.0	67.0	
24	Total Fixed Solids(mg/l)	55.0	46.0	35.0	60.0	16.0	22.0	12.0	23.0	17.0	32.0	21.0	27.0	
25	Total Suspended Solids(mg/l)	6.0	18.0	3.0	13.0	12.0	4.0	139.0	8.0	BDL	2.0	3.0	4.0	
26	Phosphate(mg/l)	0.19	0.28	BDL	0.08	0.19	0.067	0.030	0.020	BDL	0.020	BDL	BDL	
27	Boron(mg/l)	BDL	BDL	1.49	0.46	BDL	0.674	0.090	4.390	BDL	1.3	0.2	BDL	
28	Potassium(mg/l)	14.8	0.2	14.8	41.5	5.4	88	1.2	0.6	9.6	3.1	5.8	6.8	
29	Flouride(mg/l)	0.22	BDL	BDL	0.37	0.2	BDL	0.2	0.2	0.2	BDL	0.3	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.029	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.012	-	-	-	-	-	
36	Zinc(mg/l)	0.01	-	-	-	-	-	0.023	-	-	-	-	-	
37	IronTotal(mg/l)	0.05	-	-	-	-	-	2.76	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER KHANDEPAR AT CODLI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	31	29	30	28	28	28	29	29	30	29	30	30	
2	Dissolved Oxygen(mg/l)	6.8	7.1	6.8	6.8	6.8	7.0	7.0	6.9	7.6	8.0	6.1	6.7	4 mg/l or more
3	pH	7.40	7.46	7.47	7.00	7.0	7.0	6.6	7.0	7.02	7.07	7.16	7.08	6-9
4	Conductivity(µs/cm)	89.61	81.97	120.9	44.91	51	51.32	50	61	71	69.4	78	83	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	1.3	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.15	0.2	1.0	0.174	0.2	BDL	0.2	0.14	0.10	0.10	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	0.006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	330	1300	330	1200	1100	1100	5400	1100	2300	9200	2100	2600	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	230	790	230	700	790	490	2400	330	780	2400	1100	1400	
10	Fecal Streptococci (MPN/100ml)	79	130	170	130	110	240	540	94	49	140	130	200	
11	Turbidity(NTU)	3.19	2.37	1.76	4.88	12.1	12.1	34.3	2.15	1.11	BDL	1.09	1.3	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	34.0	32.0	44.0	24.0	18	32.0	18.0	24.0	26.0	28.0	38	36.0	
14	Chlorides(mg/l)	8.50	8.90	4.00	9.99	6.00	3.99	2.90	3.42	8.60	5.99	5.50	5.50	
15	COD(mg/l)	6.0	4.0	10.0	12.0	6.0	14.0	18.0	8.0	2.0	8.0	2.0	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	1.68	0.56	1.10	8.40	1.60	3.40	0.56	2.20	0.56	2.20	2.24	
17	Ammonia (mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.06	BDL	
18	Total Hardness(mg/l)	46.0	54.0	78.0	18.0	14.0	30.0	12.0	38.0	22.0	26.0	36.0	38.0	
19	Calcium(mg/l)	12	8.00	12.0	7.21	4.8	4.01	4.00	4.81	4.80	5.61	8.80	8.82	
20	Magnesium(mg/l)	3.9	8.3	12.0	BDL	BDL	4.86	BDL	6.3	2.4	2.91	3.40	3.89	
21	Sulphate(mg/l)	BDL	2.2	12.0	2.31	2.5	1.89	2.5	1.47	2.20	2.01	3.10	BDL	
22	Sodium(mg/l)	7.4	13.0	11.80	4.80	8.5	92.1	0.6	3.8	42.5	4.7	15.5	7.8	
23	Total Dissolved Solids(mg/l)	51.0	57.0	7.0	26.0	30.0	30.0	31.0	39.0	47.0	45.0	51.0	52.0	
24	Total Fixed Solids(mg/l)	36.0	42.0	31.0	15.0	15.0	18.0	12.0	23.0	16.0	28.0	19.0	31.0	
25	Total Suspended Solids(mg/l)	6.0	30.0	4.0	7.0	16.0	17.0	63.0	10.0	2.0	BDL	4.0	4.0	
26	Phosphate(mg/l)	0.07	0.13	0.02	BDL	0.46	0.107	BDL	0.050	BDL	BDL	0.040	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	0.375	0.2	0.656	0.200	1.100	BDL	1.3	BDL	1.0	
28	Potassium(mg/l)	14.7	0.2	7.60	2.70	5.3	81.5	0.9	0.2	25.1	3.2	5.0	5.8	
29	Flouride(mg/l)	BDL	BDL	0.38	BDL	0.4	BDL	BDL	BDL	0.3	0.2	0.2	0.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.027	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.011	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.014	-	-	-	-	-	
37	IronTotal(mg/l)	0.14	-	-	-	-	-	1.43	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER KUSHAWATI NEAR BUND AT KEVONA, RIVONA, SANGUEM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	29	29	27	27	29	30	30	30	30	26	29	29	
2	Dissolved Oxygen(mg/l)	6.6	6.3	5.5	7.3	7.2	7.8	7.7	7.4	8.0	7.6	7.1	7.2	4 mg/l or more
3	pH	7.08	7.2	8.12	6.75	6.55	6.97	6.70	7.14	6.80	7.13	6.65	7.21	6-9
4	Conductivity(µs/cm)	114.70	208.40	207.10	56.02	62	81.95	59	67	81	47.30	127	157	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	2.1	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.14	BDL	BDL	0.38	0.18	BDL	0.22	BDL	0.20	0.20	0.20	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	2000	2200	2200	1100	1400	700	790	350	1300	2300	1700	1700	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1700	1700	1700	790	1100	490	490	120	490	780	1100	1300	
10	Fecal Streptococci (MPN/100ml)	580	170	170	280	220	130	240	70	220	45	140	170	
11	Turbidity(NTU)	2.88	1.76	1.46	3.33	1.9	1.25	4.3	1.17	1.71	2.01	1.24	1.05	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	70.0	90.0	96.0	20.0	22	26.0	22.0	42.0	28.0	48.0	66	78	
14	Chlorides(mg/l)	5.87	6.0	7.00	6.00	3.49	7.49	3.91	5.0	4.99	10.99	5.49	16.5	
15	COD(mg/l)	8.0	BDL	10.0	4.0	20.0	12.0	6.0	2.0	6.0	8.0	2.0	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.1	0.56	1.1	2.2	2.8	3.92	1.12	2.8	0.56	1.12	0.56	2.2	
17	Ammonia (mg/l)	BDL	0.27	BDL	0.14	0.134	BDL	BDL	BDL	0.090	BDL	BDL	BDL	
18	Total Hardness(mg/l)	80.0	40.0	104.0	18.0	20.0	34.0	22.0	24.0	34.0	48.0	60.0	70.0	
19	Calcium(mg/l)	20.0	6.0	20.8	4.01	4.81	4.01	4.01	4.80	7.21	8.82	11.22	13.6	
20	Magnesium(mg/l)	7.29	6.0	12.6	BDL	BDL	5.83	2.91	2.9	3.9	6.318	7.776	8.7	
21	Sulphate(mg/l)	BDL	4.0	BDL	0.84	BDL	3.71	1.70	BDL	1.67	BDL	2.32	2.6	
22	Sodium(mg/l)	7.6	14.9	13.6	21.0	10.3	18.0	191.3	7.2	22.4	4.0	14.3	12.8	
23	Total Dissolved Solids(mg/l)	73.0	127.0	122.00	38.00	31.0	51.0	36.0	45.0	46.0	26.0	83.0	96.0	
24	Total Fixed Solids(mg/l)	41.0	76.0	114.0	30.0	19.0	20.0	21.0	15.0	28.0	16.0	51.0	35.0	
25	Total Suspended Solids(mg/l)	9.0	10.0	7.0	3.0	3.0	5.0	10.0	4.0	6.0	8.0	4.0	3.0	
26	Phosphate(mg/l)	0.079	0.20	0.03	0.054	0.265	0.05	0.25	BDL	BDL	0.036	BDL	BDL	
27	Boron(mg/l)	BDL	0.02	3.75	0.253	0.535	0.2	0.3	0.3	0.9	1.0	1.1	BDL	
28	Potassium(mg/l)	12.3	7.3	3.9	1.4	7.5	8.6	60.3	5.3	13.5	3.9	7.8	3.2	
29	Flouride(mg/l)	BDL	0.20	0.23	0.271	0.95	0.3	1.44	BDL	BDL	BDL	0.3	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.007	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	0.005	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.156	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER TALPONA AT CANACONA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	31	28	30	28	30	29	30	29	28	30	29	28	
2	Dissolved Oxygen(mg/l)	6.5	5.2	6.0	6.8	7.6	7.3	7.1	6.9	6.9	7.2	7.1	5.4	4 mg/l or more
3	pH	6.8	7.10	7.24	7.14	6.63	7.13	8.36	7.88	7.08	6.62	6.72	7.03	6-9
4	Conductivity(µs/cm)	67.19	90.70	68.46	98.10	58	55.20	48	65	100	55.98	60	87	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.32	BDL	0.30	BDL	0.10	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	230	490	1100	1300	2200	230	780	1100	1300	1100	1300	1100	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	130	330	700	790	1300	78	450	490	490	680	780	680	
10	Fecal Streptococci (MPN/100ml)	70	49	140	170	170	49	130	94	130	110	140	120	
11	Turbidity(NTU)	3.01	3.01	4.24	3.85	2.97	5.18	BDL	0.78	2.13	2.66	2.43	1.5	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	28.0	28.0	110.0	22.0	20	26.0	30.0	24.0	16.0	26.0	28	28.0	
14	Chlorides(mg/l)	6.8	18.0	6.0	4.0	5.0	7.6	3.5	7.5	5.0	5.5	6.998	14.5	
15	COD(mg/l)	4.0	8.0	4.0	5.0	6.0	6.0	4.0	4.0	26.0	6.0	6.0	2.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.68	1.12	2.24	1.68	1.10	0.39	0.56	1.10	0.56	0.56	1.681	1.12	
17	Ammonia (mg/l)	0.17	BDL	0.09	0.1	BDL	BDL	BDL	0.03	BDL	BDL	0.065	BDL	
18	Total Hardness(mg/l)	26.0	32.0	40.0	14.0	22.0	18.0	20.0	18.0	18.0	22.0	48.0	32.0	
19	Calcium(mg/l)	4.8	5.60	10.0	2.0	4.0	4.008	4.0	8.0	3.2	3.2	4.81	8.02	
20	Magnesium(mg/l)	3.4	4.4	3.0	2.0	2.9	1.94	2.4	3.59	2.43	3.4	8.748	2.92	
21	Sulphate(mg/l)	22.3	3.50	35.0	3.3	BDL	BDL	BDL	1.56	2.37	BDL	2.647	3.75	
22	Sodium(mg/l)	7.6	5.0	11.3	48.8	3.8	22.1	19.5	6.8	7.0	5.7	7.9	7.7	
23	Total Dissolved Solids(mg/l)	45.0	58.0	41.0	59.0	37.0	36.0	29.0	40.0	64.0	37.0	38.0	55.0	
24	Total Fixed Solids(mg/l)	8.0	23.0	19.0	30.0	26.00	12.00	19.0	16.0	38.0	24.0	22.0	33.0	
25	Total Suspended Solids(mg/l)	10.0	26.0	4.0	4.0	11.00	8.00	5.0	2.0	5.0	5.0	2.0	3.0	
26	Phosphate(mg/l)	BDL	0.06	0.05	0.03	0.104	0.1	0.124	BDL	0.23	BDL	0.062	BDL	
27	Boron(mg/l)	BDL	0.29	BDL	0.39	0.69	0.26	0.82	0.14	BDL	0.89	0.98	1.14	
28	Potassium(mg/l)	12.2	6	7.9	41.3	2.1	2.4	4.1	8.9	5.5	4.8	4.6	2.9	
29	Flouride(mg/l)	BDL	0.82	0.43	BDL	0.6	0.5	BDL	0.03	0.20	BDL	BDL	0.43	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	0.12	-	-	-	-	-	0.104	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

CREEK AT DANDO MOLLO, VELSAO, MORMUGAO														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	30	29	28	27	29	29	31	29	29	29	30	29	
2	Dissolved Oxygen(mg/l)	6.50	4.40	6.0	4.30	5.5	5.9	4.4	5.3	7.1	5.6	8.1	5.8	4 mg/l or more
3	pH	6.5	7.73	8.37	7.76	7.05	7.10	7.55	7.54	6.83	6.88	8.73	7.12	6-9
4	Conductivity(µs/cm)	4216.00	3132.00	60230.00	630.80	757	1990	4343	12480	9421	9882	12810	9187	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.23	0.14	1.106	0.623	0.15	7.2	0.3	3.4	6.7	6.483	3.1	1.1	
7	Nitrite Nitrogen as NO_2-N mg/l	0.177	0.013	0.027	0.039	0.08	0.202	BDL	0.048	0.06	0.092	0.18	0.065	
8	Total Coliform(MPN/100ml)	1400	780	2400	2100	220	2800	5400	680	240×10^2	4900	6300	5400	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	1100	450	2100	1700	110	1300	2400	400	79×10^2	3300	3300	2400	
10	Fecal Streptococci (MPN/100ml)	120	93	230	460	49	350	790	230	5400	540	350	280	
11	Turbidity(NTU)	5.92	1.81	2.80	4.94	9.44	5.09	8.53	9.54	BDL	1.57	3.14	7.77	
12	Phenolphthalein Alkalinity(mg/l)	16.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	100.0	62.0	120.0	68.0	54	46	74	112	36	44	48	56	
14	Chlorides(mg/l)	4109.36	2249.30	17366.90	115.78	200.0	549.8	1510.1	3898.8	3548.9	3798.8	4824.75	6198.08	
15	COD(mg/l)	-	-	-	10.0	6.0	10.0	10.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	4.50	3.90	6.20	3.92	1.68	2.80	2.20	3.36	3.36	3.36	4.5	1.68	
17	Ammonia (mg/l)	BDL	2.04	0.4	0.008	0.4	BDL	BDL	1.86	0.32	1.1	1.03	0.4	
18	Total Hardness(mg/l)	5500.0	1200	8500	126.0	122.0	206.0	478.0	1800	1120	1140	8000.0	900.0	
19	Calcium(mg/l)	1002.0	160.3	1002.0	21.643	23.25	24.85	44.80	400.8	96.19	168.3	400.8	80.16	
20	Magnesium(mg/l)	729.0	194.4	1458.0	17.496	15.52	34.99	88.90	194.4	213.84	175.00	1701.0	170.1	
21	Sulphate(mg/l)	684.06	708.7	3280.2	33.92	36.28	60.69	112.8	247.4	208.3	253.9	206.2	91.43	
22	Sodium(mg/l)	118.3	113.00	458.40	51.10	67.4	164.4	142.8	5075	2320	870	2275.0	1030.0	
23	Total Dissolved Solids(mg/l)	4397.0	1920.0	36154.0	384.0	500.0	1258.0	2847.0	7121	5770.6	6028	8530.0	6148.0	
24	Total Fixed Solids(mg/l)	2236.0	1305.0	17961.0	177.0	423.0	518.0	10811.0	4293	2380	4340	3519.0	3691.0	
25	Total Suspended Solids(mg/l)	14.0	4.0	5.0	14.0	13.0	11.0	14.0	38	BDL	4.0	7.0	17.0	
26	Phosphate(mg/l)	0.680	0.07	0.680	0.296	0.27	0.199	0.020	0.52	0.2	0.924	0.59	0.19	
27	Boron(mg/l)	BDL	0.370	3.34	1.38	0.5	1.8	0.1	1.7	0.75	2.66	0.1	1.8	
28	Potassium(mg/l)	28.10	21.90	200.9	40.0	23.5	90.6	40.1	3600	1190	490	350.0	550.0	
29	Flouride(mg/l)	0.82	0.53	2.18	BDL	0.9	2.9	0.5	0.6	0.76	0.52	0.78	0.5	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.028	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.121	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

SELAULIM RESERVOIR AT SELAULIM, SANGUEM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	28	29	27	27	29	30	30	30	30	26	29	30	
2	Dissolved Oxygen mg/l	7.4	6.9	6.0	5.1	7.4	8.6	7.4	7.2	8.2	5.7	7.4	8.2	4 mg/l or more
3	pH	6.47	7.18	7.85	7.07	6.99	7.53	7.17	7.49	6.98	7.09	7.08	7.66	6-9
4	Conductivity(µs/cm)	38.20	51.27	60.74	55.27	47	76.93	46	4491	43	133.30	45	54	
5	BOD(mg/l) mg/l	BDL	2.0	BDL	BDL	BDL	2.0	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	BDL	0.05	0.185	0.137	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	<1.8	4.5	33	22	17	23	6.8	63	33	7.8	140	94	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	NIL	Nil	23	9.3	7.8	7.8	4.5	26.0	23	5	79	49	
10	Fecal Streptococci MPN/100ml	<1.8	<1.8	6.8	7.8	4.5	2	2	<1.8	22	2	49	2	
11	Turbidity(NTU)	2.18	2.89	2.26	3.12	2.90	1.00	1.70	1.05	BDL	1.30	3.30	0.43	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	22.0	22.0	26.0	24.0	18	16.0	18.0	30.0	18.0	22.0	22	28.0	
14	Chloride mg/l	3.91	4.0	7.50	5.00	3.0	10.49	3.42	4.5	3.49	6.99	6.99	5.0	
15	COD(mg/l)	4.0	4.0	8.0	4.0	12.0	8.0	14.0	6.0	8.0	10.0	2.0	8.0	
16	Total Kjeldhal Nitrogen(mg/l)	BDL	0.6	0.6	2.0	2.2	3.36	2.24	2.2	0.56	0.56	0.56	1.1	
17	Ammonia mg/l	BDL	0.17	0.05	0.30	BDL	BDL	BDL	BDL	0.06	BDL	BDL	BDL	
18	Hardness(mg/l)	16.0	38.0	34.0	18.0	20.0	16.0	12.0	12.0	20.0	14.0	20.0	16.0	
19	Calcium(mg/l)	4.00	5.0	6.41	4.01	3.21	4.01	BDL	1.6	5.61	4.01	3.2	2.4	
20	Magnesium(mg/l)	BDL	6.0	4.40	BDL	2.92	BDL	2.43	1.9	1.45	BDL	2.916	2.4	
21	Sulphate(mg/l)	BDL	2.0	BDL	3.34	2.34	3.49	1.388	BDL	BDL	BDL	2.12	3.50	
22	Sodium(mg/l)	7.6	14.6	16.7	31.5	9.3	14.5	189.6	8.2	22.7	3.7	12.8	5.7	
23	Total Dissolved Solids(mg/l)	22.0	31.0	36.00	32.00	24.0	51.0	31.0	30.0	27.0	74.0	27.0	36.0	
24	Total Fixed Solids(mg/l)	11.0	18.0	32.0	28.0	14.0	21.0	18.0	10.0	16.0	44.0	18.0	13.0	
25	Total Suspended Solid (mg/l)	6.0	10.0	3.0	6.0	4.0	8.0	5.0	2.0	2.0	6.0	12.0	4.0	
26	Phosphate(mg/l)	BDL	BDL	BDL	0.05	BDL	0.08	1.47	BDL	BDL	0.03	BDL	BDL	
27	Boron(mg/l)	BDL	0.01	0.85	0.30	0.567	0.62	0.18	BDL	0.90	0.94	0.90	BDL	
28	Potassium(mg/l)	12.2	6.8	3.300	11.2	6.4	10.9	58.9	6.8	13.4	2.2	9.5	3.9	
29	Fluoride(mg/l)	BDL	0.02	0.24	0.33	BDL	0.3	2.04	BDL	BDL	0.2	0.3	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.04	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	0.005	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	0.008	-	-	-	-	-	0.002	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.08	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RAITOLLEM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	32	31	28	26	28	29	31	29	29	28	30	28	
2	Dissolved Oxygen mg/l	9.3	6.6	6.2	4.4	7.1	6.9	5.3	6.2	4.0	5.8	5.2	5.6	
3	pH	9.33	6.78	7.03	6.8	6.86	7.35	7.31	7.38	7.42	6.95	7.13	7.06	6-8.5
4	Conductivity(µs/cm)	90.3	405.7	131.4	91.48	101	126.5	101	94	113	117.10	126	145	Max 2250 µs/cm
5	BOD(mg/l) mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.16	0.11	0.92	0.2	BDL	BDL	BDL	0.15	0.10	BDL	BDL	0.4	
7	Nitrite Nitrogen as NO_2-N mg/l	0.016	0.009	0.025	BDL	0.007	BDL	BDL	BDL	BDL	BDL	BDL	0.011	
8	Total Coliform(MPN/100ml)	2500	1400	4900	9200	3500	5400	3300	2400	2800	2200	2200	2100	
9	Fecal Coliform(MPN/100ml)	2100	1400	3300	3500	2400	2200	1700	1300	1700	1400	1300	1700	
10	Fecal Streptococci MPN/100ml	330	46	380	220	220	140	130	120	330	220	140	170	
11	Turbidity(NTU)	95.8	62.1	6.38	44.8	1.36	BDL	1.07	2.87	1	2.89	5.58	3.08	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	44.0	30.0	22.0	22.0	28	30.0	28.0	34.0	36.0	50.0	44	36	
14	Chloride mg/l	27.00	113.70	1100.70	8.0	6.49	9.99	7.49	9.00	13.20	12.70	15.99	18.99	
15	COD(mg/l)	10.0	21.0	12.0	12.0	16.0	6.0	8.0	4.0	12.0	12.0	12.0	6.0	
16	Total Kjeldhal Nitrogen(mg/l)	4.50	2.20	3.40	2.8	1.68	0.56	0.56	2.24	1.10	1.68	2.24	2.20	
17	Ammonia mg/l	BDL	BDL	0.58	0.1	0.066	0.05	BDL	BDL	0.08	0.11	BDL	BDL	
18	Hardness(mg/l)	50.0	50.0	38.0	28.0	36.0	26.0	24.0	34.0	40.0	40.0	38.0	46.0	
19	Calcium(mg/l)	9.62	9.60	7.2	5.6	8.02	6.41	4.809	10.42	8.82	8.02	7.21	4.80	
20	Magnesium(mg/l)	6.3	6.3	4.86	3.4	3.888	2.43	2.916	1.944	4.370	4.86	4.86	8.3	
21	Sulphate(mg/l)	27.4	47.6	43.2	7.1	6.64	5.77	6.25	5.14	5.05	5.10	5.39	6.0	
22	Sodium(mg/l)	18.0	43.6	78.20	7.90	17.2	96.6	4.7	6.4	5.4	6.2	17.3	15.9	
23	Total Dissolved Solids(mg/l)	51.0	252.0	79.0	59.0	51.0	73.0	58.0	60.0	70.0	78.0	70.0	87.0	
24	Total Fixed Solids(mg/l)	42.0	126.0	41.0	35.0	31.0	45.0	35.0	36.0	42.0	47.0	42.0	35.0	
25	Total Suspended Solid(mg/l)	164.0	68.0	22.0	5.0	2.0	4.0	4.0	4.0	5.0	8.0	11.0	6.0	
26	Phosphate(mg/l)	0.020	1.66	0.049	0.16	0.142	0.06	0.12	0.11	0.04	BDL	BDL	0.05	
27	Boron(mg/l)	0.71	0.2	BDL	0.18	1.268	0.4	0.407	0.7	1.54	1.50	1.49	0.60	Max 2mg/l
28	Potassium(mg/l)	1.7	34.8	44.9	8.7	9.90	86.9	2.2	4.3	5.0	5.8	10.7	18.5	
29	Fluoride(mg/l)	1.08	BDL	BDL	BDL	BDL	0.2	BDL	BDL	BDL	BDL	0.307	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.007	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.014	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.024	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.293	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

SAIPEM LAKE, NAVELIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C			29	27	27	28	32	29	30	28	29	29	
2	Dissolved Oxygen mg/l			BDL	1.9	2.8	2.5	2.3	1.9	1	2	1.1	0.9	
3	pH			7.12	6.67	6.77	7.69	7.6	6.76	7.37	6.61	6.65	6.51	6-8.5
4	Conductivity(µs/cm)			312.5	241.3	267	268	298	250	219	256.6	256	470	Max 2250 µs/cm
5	BOD(mg/l) mg/l			6.4	8.0	8.0	4.0	8.4	5.76	6.72	6.4	6.1	6.0	
6	Nitrate Nitrogen as NO_3-N(mg/l)			3.55	1.07	BDL	BDL	0.437	0.22	3.05	BDL	BDL	4.3	
7	Nitrite Nitrogen as NO_2-N mg/l			0.017	0.13	BDL	0.033	BDL	BDL	0.011	0.01	BDL	BDL	
8	Total Coliform(MPN/100ml)			2200	2400	2800	9200	4900	5400	2800	2400	1300	1700	
9	Fecal Coliform(MPN/100ml)			1700	1300	2200	3500	2300	2400	220	1300	490	1300	
10	Fecal Streptococci MPN/100ml			220	110	540	170	150	220	210	170	110	220	
11	Turbidity(NTU)			27.0	13.8	9.94	3.72	13.92	9.19	7.49	5.37	13.23	5.99	
12	Phenolphthalein Alkalinity(mg/l)			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)			90.0	48.0	80	70.0	106.0	28.0	66.0	94.0	88	98	
14	Chloride mg/l			37.4	20	21.49	25.45	22.99	24	22.5	23.4	27.99	10.0	
15	COD(mg/l)			20.0	20.0	20.0	22.0	22.0	24.0	16.0	18.0	18.0	20.0	
16	Ammonia mg/l			0.6	3.9	1.12	1.12	2.8	2.8	2.8	3.36	1.12	1.1	
17	Total Kjeldhal Nitrogen(mg/l)			1.92	1.0	0.1	0.71	0.89	0.77	1.82	2.39	1.541	0.86	
18	Hardness(mg/l)			70.0	92.0	90.0	62.0	94.0	140.0	78.0	66.0	78.0	88.0	
19	Calcium(mg/l)			21.6	21.6	26.45	16.83	21.643	20.84	16.03	13.60	21.64	26.50	
20	Magnesium(mg/l)			3.9	9.2	5.832	4.86	9.72	21.38	9.23	7.77	5.832	5.3	
21	Sulphate(mg/l)			17.9	21.79	14.11	12.46	15.59	40.88	6.79	6.83	13.63	36.00	
22	Sodium(mg/l)			289.9	5.3	28.3	101.6	15.3	15	11.3	11.1	22.4	33.4	
23	Total Dissolved Solids(mg/l)			185.0	151.0	134.0	159.0	160.0	130.0	153.0	172.0	143.0	280.0	
24	Total Fixed Solids(mg/l)			79.0	60.0	81.0	98.0	96.0	78.0	92.0	103.0	85.0	112.0	
25	Total Suspended Solid(mg/l)			8.0	20.0	20.0	7.0	20.0	11.0	22.0	25.0	20.0	8.0	
26	Phosphate(mg/l)			0.23	0.64	0.463	0.57	0.78	0.38	0.63	0.92	0.937	0.16	
27	Boron(mg/l)			0.32	BDL	1.265	0.3	0.433	0.75	1.21	1.24	1.11	BDL	Max 2mg/l
28	Potassium(mg/l)			305.4	2.8	16.1	99.2	7.5	13	8.5	9.5	7.3	27.2	
29	Fluoride(mg/l)	**DRY**	**DRY**	0.22	0.23	BDL	BDL	0.356	0.28	BDL	0.13	0.379	BDL	
30	Arsenic(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)			-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)			-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)			-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)			-	-	-	-	0.010	-	-	-	-	-	
35	Nickel(mg/l)			-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)			-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)			-	-	-	-	4.915	-	-	-	-	-	
38	Mercury (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)			-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)			-	-	-	-	BDL	-	-	-	-	-	

CURTORIM LAKE, CURTORIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	32	31	28	26	28	29	31	29	29	28	29	28	
2	Dissolved Oxygen mg/l	6.0	7.0	7.4	5.4	6.4	6.3	4.1	4.1	1.3	6.9	4.8	4.7	
3	pH	7.52	6.80	6.93	6.50	6.91	7.48	7.40	6.87	7.74	6.89	6.88	6.89	6-8.5
4	Conductivity(µs/cm)	114.2	201.8	63.29	88.86	116	136.0	131	121	136	144.0	142	159	Max 2250 µs/cm
5	BOD(mg/l)	BDL	2.2	BDL	BDL	BDL	BDL	BDL	2.0	BDL	2.1	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.10	0.22	0.1	BDL	BDL	0.443	0.18	BDL	BDL	BDL	0.4	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.005	0.036	0.01	0.017	BDL	0.070	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	2300	1700	5400	5400	3500	5400	4900	1300	1100	1400	790	700	
9	Fecal Coliform(MPN/100ml)	1300	790	3500	2400	2800	3500	2300	790	700	1100	330	460	
10	Fecal Streptococci(MPN/100ml)	490	26	920	170	540	220	219	140	220	280	110	170	
11	Turbidity(NTU)	12.57	6.25	223.00	3.38	33.8	3.27	2.74	4.38	4.69	2.92	4.98	2.65	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	56.0	44.0	14.0	34.0	38	34.0	46.0	46.0	44.0	60.0	54	48	
14	Chloride mg/l	26.00	34.00	32.30	9.90	8.49	11.99	11.49	12.50	30.33	15.16	16.49	17.99	
15	COD(mg/l)	8.0	15.0	10.0	14.0	16.0	4.0	6.0	8.0	16.0	14.0	16.0	10.0	
16	Total Kjeldhal Nitrogen(mg/l)	2.8	1.7	3.4	1.6	1.12	0.56	1.681	1.68	1.60	1.12	1.68	0.60	
17	Ammonia mg/l	BDL	BDL	0.48	BDL	0.138	BDL	0.355	BDL	BDL	BDL	BDL	BDL	
18	Hardness(mg/l)	90.0	62.0	94.0	46.0	36.0	30.0	40.0	50.0	44.0	40.0	50.0	42.0	
19	Calcium(mg/l)	8.02	11.20	32.1	5.6	7.21	7.21	6.413	9.62	10.42	8.82	10.42	8.00	
20	Magnesium(mg/l)	17.00	8.30	3.4	7.7	4.374	2.92	5.832	6.32	4.37	4.37	5.832	5.3	
21	Sulphate(mg/l)	8.87	10.70	31.7	18.0	15.47	8.00	33.65	5.30	5.31	5.72	3.01	BDL	
22	Sodium(mg/l)	14.5	36.6	50.90	1.0	17.5	97.9	8.5	7.8	6.2	6.9	17.0	15.9	
23	Total Dissolved Solids(mg/l)	73.0	123.0	36.00	57.0	58.0	81.0	74.0	80.0	91.0	98.0	79.0	96.0	
24	Total Fixed Solids(mg/l)	59.0	74.0	20.0	34.0	35.0	50.0	44.0	48.0	55.0	59.0	47.0	38.0	
25	Total Suspended Solid (mg/l)	5.0	38.0	122.0	43.0	40.0	6.0	8.0	5.0	17.0	16.0	9.0	4.0	
26	Phosphate(mg/l)	0.05	0.13	0.136	0.3	0.152	0.08	0.09	0.074	BDL	BDL	BDL	BDL	
27	Boron(mg/l)	0.40	BDL	BDL	0.2	0.577	0.3	0.4	0.8	1.25	1.25	1.12	BDL	Max 2mg/l
28	Potassium(mg/l)	0.8	37.0	44.1	0.9	8.3	88	4	5	6	6.6	11.1	18.6	
29	Fluoride(mg/l)	0.65	BDL	BDL	0.40	0.21	BDL	BDL	0.21	BDL	BDL	0.163	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.005	-	-	-	-	-	0.012	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.039	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.023	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	8.36	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

CHAPOLI DAM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class C river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	31	28	30	28	30	29	30	29	28	31	28	30	
2	Dissolved Oxygen(mg/l)	8.2	7.2	5.6	5.8	7.9	7.7	7.4	7.5	7.6	7	6.5	7.6	4 mg/l or more
3	pH	7.1	8.0	7.25	7.0	7.2	7.5	7.72	7.74	7.48	7.24	7.75	8.41	6-9
4	Conductivity(µs/cm)	67.45	71.87	81.33	172.80	71	77.11	68	61	64	64.72	61	188	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	2.2	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.105	BDL	1.60	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	79	49	940	540	350	79	78	330	33	240	110	540	5000 or less MPN/100 ml
9	Fecal Coliform(MPN/100ml)	49	33	460	350	170	33	45	230	23	130	70	220	
10	Fecal Streptococci (MPN/100ml)	23	23	120	110	110	23	4.5	79	21	63	22	79	
11	Turbidity(NTU)	1.97	1.57	4.77	6.28	2.81	2.30	1.06	2.07	2.39	1.95	3.12	6.64	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	24.0	28.0	32.0	26.0	26	30.0	40.0	24.0	20.0	16.0	30	26	
14	Chlorides(mg/l)	7.3	8.30	7.0	8.0	6.0	13.59	5.50	5.50	8.00	7.0	8.497	16.0	
15	COD(mg/l)	4.0	6.00	4.0	2.0	8.0	8.0	4.0	10.0	20.0	6.0	4.0	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.68	2.24	1.68	2.24	1.70	0.33	1.12	2.20	2.24	1.12	1.681	2.80	
17	Ammonia (mg/l)	0.08	BDL	0.07	BDL	BDL	BDL	BDL	0.05	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	24.0	48.0	68.0	28.0	26.0	22.0	28.0	20.0	20.0	22.0	34.0	24.0	
19	Calcium(mg/l)	2.4	3.2	8.0	7.0	7.21	4.80	7.2	12.00	4.01	4.0	8.818	4.81	
20	Magnesium(mg/l)	4.4	9.7	12.0	2.0	BDL	2.43	2.4	3.70	2.43	2.9	2.916	2.92	
21	Sulphate(mg/l)	3.0	BDL	BDL	BDL	BDL	BDL	2.2	1.06	1.84	2.10	BDL	4.64	
22	Sodium(mg/l)	7.6	16.60	10.4	50.2	1.7	18.0	37.3	3.7	9.1	6.2	7.5	8.2	
23	Total Dissolved Solids(mg/l)	42.0	45.0	50.0	104.0	43.0	47.0	43.0	37.0	40.0	40.0	39.0	116.0	
24	Total Fixed Solids(mg/l)	18.0	18.0	26.0	45.0	31.0	16.0	29.0	15.0	24.0	25.0	23.0	69.0	
25	Total Suspended Solids(mg/l)	6.0	3.0	9.0	9.0	13.0	4.0	6.0	4.0	11.0	3.0	2.0	14.0	
26	Phosphate(mg/l)	BDL	0.12	0.07	0.04	0.034	0.050	0.127	0.02	0.08	BDL	0.081	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	0.14	0.57	0.38	0.79	0.06	BDL	0.84	0.939	1.57	
28	Potassium(mg/l)	12.3	2.90	7.70	40.20	1.60	1.90	13.3	7.00	6.50	5.90	4.5	3.0	
29	Flouride(mg/l)	1.08	0.92	0.2	BDL	0.59	0.5	BDL	0.13	BDL	BDL	BDL	0.39	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.008	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.043	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

AMBULOR LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	29	29	28	27	29	29	31	30	29	29	29	29	
2	Dissolved Oxygen(mg/l)	4.6	5.3	5.6	6.0	6.5	6.1	6.4	2.8	5.1	6.4	7.5	5.4	
3	pH	6.5	6.9	6.74	6.86	6.1	6.67	7.55	7.16	6.84	6.8	6.78	6.59	6-8.5
4	Conductivity(µs/cm)	109.0	78.25	85.92	61.26	63	70.86	60	93	66	64.07	68	84	Max 2250 µs/cm
5	BOD(mg/l)	BDL	4.0	BDL	BDL	BDL	BDL	BDL	3.9	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.64	1.04	0.44	0.3	0.1	0.2	BDL	BDL	0.146	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.006	0.14	0.099	BDL	BDL	BDL	BDL	BDL	BDL	0.015	BDL	BDL	
8	Total Coliform(MPN/100ml)	1300	1700	2100	2800	3500	2400	1100	78	78	110	230	210	
9	Fecal Coliform(MPN/100ml)	790	1300	1400	1400	1300	1300	490	45	45	78	130	130	
10	Fecal Streptococci (MPN/100ml)	170	170	240	280	940	920	350	130	33	49	49	40	
11	Turbidity(NTU)	36.1	16.87	6.6	3.7	3.71	4.57	3.24	2.55	BDL	3.84	2.6	6.03	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	24	16.0	24.0	16.0	20	16	22	26	26	28	32	32	
14	Chlorides(mg/l)	12.0	13.00	13.20	6.00	7.49	18.99	5.50	14.50	6.49	24.0	10.88	13.0	
15	COD(mg/l)	12.0	12.0	6.0	BDL	4.0	8.0	4.0	18.0	10.0	10.0	6.0	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	4.48	2.24	5.6	1.7	0.56	2.24	3.4	1.7	2.2	1.68	2.8	0.56	
17	Ammonia (mg/l)	3.01	1.14	0.2	0.28	BDL	BDL	0.04	0.3	0.06	0.3	0.26	BDL	
18	Total Hardness(mg/l)	28.0	24.0	54.0	32.0	20.0	18.0	20.0	20.0	14.0	30.0	26.0	20.0	
19	Calcium(mg/l)	4.8	2.4	6.4	7.21	4.0	4.0	4.0	5.6	4.8	5.6	4.0	4.0	
20	Magnesium(mg/l)	3.9	4.3	9.23	3.40	2.43	BDL	2.4	1.4	BDL	3.9	3.9	2.43	
21	Sulphate(mg/l)	21.0	3.00	6.11	3.54	3.40	2.71	2.2	4.90	2.60	8.00	BDL	5.4	
22	Sodium(mg/l)	8.3	14.4	15.8	10.2	21.2	91.6	1.2	5.3	22.6	7.6	5.9	4.6	
23	Total Dissolved Solids(mg/l)	74	50.0	52.0	40.0	41.0	44.0	39.0	63.0	41.0	42.0	43.0	50.0	
24	Total Fixed Solids(mg/l)	28	18.0	23	28.0	30.0	18.0	13.0	21.0	16.0	30.0	17.0	32.0	
25	Total Suspended Solids(mg/l)	11.0	12.0	8.0	8.0	6.0	10.0	6.0	5.0	BDL	7.0	6.0	13.0	
26	Phosphate(mg/l)	0.1	0.11	0.027	0.02	0.04	0.05	0.08	0.09	BDL	0.156	0.11	BDL	
27	Boron(mg/l)	BDL	BDL	0.9	0.9	0.5	0.3	0.2	BDL	BDL	0.64	BDL	BDL	Max 2mg/l
28	Potassium(mg/l)	14.8	3.5	8.2	6.3	10.8	82.9	3.3	6.4	11.4	5.8	0.9	3.7	
29	Flouride(mg/l)	BDL	BDL	BDL	0.15	0.70	1.3	0.1	BDL	BDL	BDL	BDL	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	0.56	-	-	-	-	-	0.34	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

SARZORA LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	30	30	29	26	27	30	29	28	29	29	28	28	
2	Dissolved Oxygen(mg/l)	7.1	6.9	6.1	7.4	7.2	6.9	8.2	6.9	7.3	8.5	8	5.0	
3	pH	8.34	7.4	7.7	6.72	6.94	6.83	7.39	7.41	6.93	6.78	7.71	7.38	6-8.5
4	Conductivity(µs/cm)	85.63	73.14	116.7	53.34	61	65.66	64	57	64	70.22	102	69	Max 2250 µs/cm
5	BOD(mg/l)	2.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.31	BDL	1.03	BDL	BDL	BDL	0.12	0.12	BDL	0.1	0.13	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.006	BDL	BDL	BDL	BDL	BDL	BDL	0.008	BDL	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	1100	490	2200	1700	920	1700	6.8	45	68	790	700	460	
9	Fecal Coliform(MPN/100ml)	790	330	1700	1100	280	490	4.5	20	45	330	170	230	
10	Fecal Streptococci (MPN/100ml)	240	130	220	220	220	34	2	14	17	79	79	63	
11	Turbidity(NTU)	4.31	4.49	9.76	2.67	1.89	1.9	3.08	2.19	2.92	1.58	3.76	4.67	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	30.0	24.0	32.0	16.0	16	22	24	22	22	18	10	30	
14	Chlorides(mg/l)	16.0	9.5	239.0	6.5	5.38	6.0	3.91	5.87	5.99	5.5	28	7.49	
15	COD(mg/l)	11.0	4.0	18.0	BDL	26.0	2.0	10.0	6	8	14	6.0	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	0.6	3.36	1.12	1.12	1.7	1.6	1.68	1.12	2.8	1.12	1.68	
17	Ammonia (mg/l)	BDL	0.24	0.29	0.08	BDL	BDL	0.11	BDL	0.2	BDL	0.07	BDL	
18	Total Hardness(mg/l)	30.0	22.0	20.0	16.0	14.0	14.0	22.0	26	242	46	18	18.0	
19	Calcium(mg/l)	4.0	5.6	4.0	3.2	4.01	3.2	4.01	4.81	91.38	8	2.4	4.01	
20	Magnesium(mg/l)	4.9	BDL	2.4	BDL	0.97	1.5	2.91	3.402	3.4	6.3	2.91	1.944	
21	Sulphate(mg/l)	BDL	BDL	2.30	2.50	2.0	0.8	BDL	BDL	BDL	3.6	1.54	3.4	
22	Sodium(mg/l)	12.8	11.0	BDL	22.4	4.7	93.8	6.5	6.6	6	3.1	25.3	5.2	
23	Total Dissolved Solids(mg/l)	52.0	38.0	74.0	36.0	39.0	44.9	41.0	35	39	44	64.0	38.0	
24	Total Fixed Solids(mg/l)	29.00	23.0	29	24.0	23.0	14.9	24.0	21	16	15	38.0	22.0	
25	Total Suspended Solids(mg/l)	13.0	10.0	17.0	6.0	7.0	5.0	7.0	8	4	2	10.0	10.0	
26	Phosphate(mg/l)	0.04	BDL	BDL	BDL	0.042	BDL	BDL	0.03	BDL	0.03	0.08	BDL	
27	Boron(mg/l)	0.53	BDL	BDL	0.5	BDL	BDL	BDL	0.2	BDL	0.2	1.01	1.13	Max 2mg/l
28	Potassium(mg/l)	5.0	0.5	BDL	4.6	1.5	87.4	3.9	3.4	5.4	3.4	16.6	3.9	
29	Flouride(mg/l)	BDL	0.27	BDL	0.18	0.73	1.1	BDL	0.63	0.3	0.9	BDL	0.709	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.007	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.213	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

DASHI LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	32	28	27	30	28	29	29	28	30	31	30	29	
2	Dissolved Oxygen(mg/l)	7.1	6	6.3	6.4	6.3	6.2	5.2	6.1	6.3	6.6	7	6.5	
3	pH	7.35	7.36	7.32	7.01	6.1	6.48	6.31	7.12	7.01	7.3	7.04	6.63	6-8.5
4	Conductivity(µs/cm)	105.6	155.9	137.5	137.2	119.6	111.50	100.10	122.3	181.6	199.8	149.90	107	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.8	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.14	0.1	0.296	0.14	0.10	0.50	BDL	0.1	BDL	0.30	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.006	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	790	1700	2100	5400	2400	49	230	320	94	3500	490	460	
9	Fecal Coliform(MPN/100ml)	490	1300	1700	2400	1300	17	130	260	46	2400	130	170	
10	Fecal Streptococci (MPN/100ml)	130	240	270	220	140	4.5	120	79	7.8	49	110	94	
11	Turbidity(NTU)	2.05	1.02	1.32	2.63	4.48	1.45	1.37	1.48	1.04	1.23	1.33	1.45	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	68	76	72	42	48	44.00	34.00	88	60	18	66.0	44.0	
14	Chlorides(mg/l)	7.34	6	9.29	51.48	14.74	5.5	4.0	6.0	8.6	10.49	8.0	10.00	
15	COD(mg/l)	6	6	4	12	22	6	4	4	2	4	2	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	0.56	7.3	4.5	2.8	1.68	0.56	1.7	2.2	2.8	0.56	1.70	
17	Ammonia (mg/l)	BDL	BDL	0.08	0.066	BDL	BDL	BDL	BDL	BDL	0.02	0.1	BDL	
18	Total Hardness(mg/l)	74	182	66	58	42	56.00	38.00	54	68	88	66.00	38.0	
19	Calcium(mg/l)	22.4	15	15.2	7.21	8.02	10.42	5.61	11.2	15.2	16.83	17.63	8.00	
20	Magnesium(mg/l)	4.37	35	6.8	9.7	5.34	7.29	5.83	6.30	7.30	11.18	5.35	4.400	
21	Sulphate(mg/l)	2.29	2	2.04	8.88	BDL	BDL	1.54	BDL	BDL	BDL	BDL	2.80	
22	Sodium(mg/l)	7.6	14.5	11	48.2	11.2	12.6	3.2	2.8	21.8	2.3	13.1	3.7	
23	Total Dissolved Solids(mg/l)	66	96	83	84	75	70.0	63.0	73.0	121.0	124	91.0	67.0	
24	Total Fixed Solids(mg/l)	32	51	43	58	45	28.0	40.0	29.0	41.0	51	52.0	28.0	
25	Total Suspended Solids(mg/l)	9	8	3	11	4	9	4	3	2	2	3	5.0	
26	Phosphate(mg/l)	BDL	BDL	BDL	0.016	BDL	0.08	0.03	BDL	BDL	BDL	BDL	BDL	
27	Boron(mg/l)	BDL	0.05	1.51	0.77	BDL	0.4	0.6	BDL	BDL	BDL	0.9	BDL	Max 2mg/l
28	Potassium(mg/l)	12.2	6.8	6.6	48.1	18	4.70	0.70	1.2	10.8	2.9	10.60	2.0	
29	Flouride(mg/l)	BDL	0.06	0.3	0.5	BDL	0.3	BDL	BDL	0.2	BDL	0.4	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
32	Copper(mg/l)	0.13	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	0.015	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.02	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.013	-	-	-	-	-	0.02	-	-	-	-	-	
37	IronTotal(mg/l)	0.05	-	-	-	-	-	0.3	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

TOYYAR LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	30	29	28	26	28	27	29	30	28	26	32	28	
2	Dissolved Oxygen(mg/l)	6.2	9	6.4	7.4	8	6.2	7.1	6.9	7.1	7.7	6.5	7.6	
3	pH	7.53	8.82	7.65	6.68	7.07	7.04	6.94	7.5	6.43	7.36	7.85	6.69	6-8.5
4	Conductivity(µs/cm)	41.27	42.03	94.08	50.6	57.41	54.29	65.18	38.98	41800	43.67	47.22	48	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.6	BDL	BDL	0.27	0.347	0.05	0.20	0.15	0.443	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.005	0.016	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1100	310	940	5400	1700	9200	2400	2200	2400	2100	1700	1100	
9	Fecal Coliform(MPN/100ml)	790	230	700	1700	1400	2200	790	1300	790	700	1100	790	
10	Fecal Streptococci (MPN/100ml)	170	79	130	920	350	920	49	70	280	170	140	120	
11	Turbidity(NTU)	2.13	2.2	3.1	7.65	3.02	1.42	0.58	11.49	2.55	6.03	5.27	7.35	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	20	10	18	20	18	20.00	16.00	16	14	16	30.0	20.0	
14	Chlorides(mg/l)	8.8	8.8	5	10.9	5	4.5	9.0	4.9	3.0	5.99	110.5	6.0	
15	COD(mg/l)	6	6	6	6	6	4	6	8	4	2	6	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.56	1.12	2.24	0.56	0.6	0.56	1.7	1.1	0.56	0.56	0.56	2.8	
17	Ammonia (mg/l)	BDL	BDL	BDL	BDL	BDL	0.0	0.1	BDL	0.1	BDL	BDL	BDL	
18	Total Hardness(mg/l)	34	20	64	16	24	12.00	8.00	20	36	16	34.00	14.0	
19	Calcium(mg/l)	2.4	4	9	4	4	3.20	2.40	4.81	4.81	4.8	4.008	2.4	
20	Magnesium(mg/l)	6.8	2.4	10	BDL	3.4	0.97	BDL	1.94	5.83	0.972	5.83	BDL	
21	Sulphate(mg/l)	BDL	1.2	25	3.9	2	3.32	BDL	2.6	1.649	2.08	3.864	BDL	
22	Sodium(mg/l)	7.6	12.8	13.6	56.4	12.6	88.8	1.4	14.4	5.1	4.7	10.6	6.5	
23	Total Dissolved Solids(mg/l)	24	27	56	33	37	33.0	39.0	24.0	26752.0	27	29.0	30.0	
24	Total Fixed Solids(mg/l)	13	16	21	26	27	13.0	16.0	14.0	16051.0	17	17.0	12.0	
25	Total Suspended Solids(mg/l)	10	38	10	30	7	3	3	38	4	6	2	15.0	
26	Phosphate(mg/l)	0.05	0.26	0.06	0.05	BDL	0.032	0.02	0.11	0.08	0.02	0.042	0.03	
27	Boron(mg/l)	BDL	BDL	0.97	0.34	0.35	0.1	BDL	0.95	1.061	1.1	0.441	BDL	Max 2mg/l
28	Potassium(mg/l)	12.2	0.2	9.2	53.9	8.1	80.30	2.50	7.9	4.1	3.1	2675.00	3275.0	
29	Flouride(mg/l)	BDL	BDL	0.9	0.22	BDL	0.37	0.20	0.09	0.186	0.2	3.305	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.011	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

PILERNE LAKE/SAULEM LAKE, PILERNE, SANGOLDA													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	29	30	28	30	30	29	30	35	35	29	
2	Dissolved Oxygen(mg/l)	-	-	5.7	5.2	9.4	7.8	8.2	6.7	4.9	4.8	8	4.4	
3	pH	-	-	7.03	6.53	5.67	6.68	5.87	6.58	6.45	6.61	6.67	6.28	6-8.5
4	Conductivity(µs/cm)	-	-	197.5	133.3	98.45	126.50	134.60	179.9	126.6	322.4	164.90	142	Max 2250 µs/cm
5	BOD(mg/l)	-	-	6	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	1.11	2.646	1.7	1.02	1.90	0.3	0.454	BDL	BDL	0.2	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.09	0.014	0.006	0.005	0.012	0.006	BDL	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	-	-	2400	3500	3500	5400	1700	1500	700	790	5400	2400	
9	Fecal Coliform(MPN/100ml)	-	-	1300	1700	2400	2400	700	490	460	330	2400	790	
10	Fecal Streptococci (MPN/100ml)	-	-	280	49	130	170	220	140	110	23	210	170	
11	Turbidity(NTU)	-	-	7.17	3.87	2.2	1.91	1.92	1.85	2.13	4.25	3.09	2.5	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	46	22	22	24.00	22.00	32	30	30	32.0	32	
14	Chlorides(mg/l)	-	-	49	18	15.8	16.5	14.5	16.1	24.0	56.9	30.0	23.99	
15	COD(mg/l)	-	-	20	8	6	4	6	6	BDL	4	4	14	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.36	4.5	0.56	4.48	0.56	2.8	2.242	1.1	1.68	1.7	
17	Ammonia (mg/l)	-	-	BDL	0.174	0.05	BDL	BDL	0.2	BDL	BDL	0.2	BDL	
18	Total Hardness(mg/l)	-	-	220	26	28	34.00	40.00	58	26	70	54.00	24	
19	Calcium(mg/l)	-	-	4	7.21	6.41	8.02	8.80	13.6	4.01	12.8	15.23	7.2	
20	Magnesium(mg/l)	-	-	51	BDL	2.9	3.40	4.37	5.80	3.89	9.23	3.89	BDL	
21	Sulphate(mg/l)	-	-	6.5	5.42	8.7	10.15	12.1	28.9	3.971	23.1	17.2	6.5	
22	Sodium(mg/l)	-	-	56.9	45.2	6	17.2	8.1	10.4	13.2	12.6	26.4	9.4	
23	Total Dissolved Solids(mg/l)	-	-	126	81	67	77.0	91.0	117.0	81.0	200	102.0	89	
24	Total Fixed Solids(mg/l)	-	-	48	57	51	30.0	52.0	43.0	48.0	83	63.0	37	
25	Total Suspended Solids(mg/l)	-	-	11	6	4	5	13	4	3	8	9	8	
26	Phosphate(mg/l)	-	-	0.04	0.028	0.02	0.05	BDL	0.03	0.023	BDL	0.02	BDL	
27	Boron(mg/l)	-	-	BDL	0.46	0.6	BDL	0.8	BDL	1.194	BDL	0.9	BDL	Max 2mg/l
28	Potassium(mg/l)	-	-	46.2	38.5	3.2	7.20	2.10	3.7	6.8	6.2	4.20	3.5	
29	Flouride(mg/l)	-	-	BDL	0.38	0.5	0.2	BDL	0.3	0.222	BDL	BDL	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.02	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.01	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.03	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.5	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BONDVOL LAKE, CALAPUR, TALEIGAO													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	27	26	28	29	29	29		29	29		
2	Dissolved Oxygen(mg/l)	-	-	4.2	5.1	4.5	6.4	7.1	4.1		7.9	8.5		
3	pH	-	-	6.38	6.92	5.84	6.13	6.65	6.15		7	6.90		6-8.5
4	Conductivity(µs/cm)	-	-	66.29	50.92	54.46	65.66	37.56	52.5		98.85	69.82		Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.49	0.4	0.24	0.84	BDL	0.29		BDL	0.30		
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	BDL	BDL	BDL	BDL	0.014		BDL	BDL		
8	Total Coliform(MPN/100ml)	-	-	3500	9200	2100	3500	1700	2400		1100	1200		
9	Fecal Coliform(MPN/100ml)	-	-	2400	2400	1100	1300	1100	1300		700	940		
10	Fecal Streptococci (MPN/100ml)	-	-	540	1600	350	490	170	120		280	220		
11	Turbidity(NTU)	-	-	1.44	2.94	4.27	6.46	8	10.05		7.18	7.62		
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL		
13	Total Alkalinity(mg/l)	-	-	18	14	18	22.00	16.00	12		22	20.0		
14	Chlorides(mg/l)	-	-	14.2	6	5	299.9	6.5	6.5		16.49	12.0		
15	COD(mg/l)	-	-	8	2	6	8	10	8		BDL	8		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	1.1	3.4	1.1	2.24	2.2	1.12		1.12	1.12		
17	Ammonia (mg/l)	-	-	BDL	0.08	0.13	0.1	BDL	0.1		BDL	0.1		
18	Total Hardness(mg/l)	-	-	30	16	24	84.00	8.00	12		42	46.00		
19	Calcium(mg/l)	-	-	4	3.2	2.4	12.02	BDL	3.21		8.016	4		
20	Magnesium(mg/l)	-	-	4.86	1.9	4.4	13.12	BDL	BDL		5.346	8.75		
21	Sulphate(mg/l)	-	-	BDL	3.4	2.8	2.86	4	5.88		5.989	4.2		
22	Sodium(mg/l)	-	-	11.8	49.2	10.4	50.3	6.1	5.3		6.7	6.7		
23	Total Dissolved Solids(mg/l)	-	-	38	35	33	38.0	24.0	34.0		61	39.0		
24	Total Fixed Solids(mg/l)	-	-	20	21	27	23.0	8.0	20.0		36	24.0		
25	Total Suspended Solids(mg/l)	-	-	11	11	6	9	14	35		5	12		
26	Phosphate(mg/l)	-	-	0.17	0.18	0.11	0.049	0.07	0.047		0.102	0.06		
27	Boron(mg/l)	-	-	BDL	BDL	0.83	0.4	BDL	1		1.403	0.9		Max 2mg/l
28	Potassium(mg/l)	-	-	7.3	23.4	5.8	23.50	2.00	2.1		3	5.40		
29	Flouride(mg/l)	-	-	BDL	BDL	0.21	BDL	0.20	BDL	**DRY**	BDL	BDL	**DRY**	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-		-	-		
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-		-	-		
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-		-	-		
33	Lead(mg/l)	-	-	-	-	-	-	0.00	-		-	-		
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-		-	-		
35	Nickel(mg/l)	-	-	-	-	-	-	0.00	-		-	-		
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-		-	-		
37	IronTotal(mg/l)	-	-	-	-	-	-	0.31	-		-	-		
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-		-	-		
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-		-	-		

SULABHAT LAKE, AGACAIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	28	26	28	29	29	30	29	29	30	30	
2	Dissolved Oxygen(mg/l)	-	-	4.4	6.6	5.1	6.9	5.3	5.8	7	6.8	6.2	7.0	
3	pH	-	-	7.49	7.14	6.78	7.08	6.83	7.01	6.9	6.5	6.67	6.83	6-8.5
4	Conductivity(µs/cm)	-	-	97.23	72.3	88.81	82.90	63.87	67.43	79270	91.73	84.20	71	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	BDL	0.5	0.04	0.54	0.20	BDL	0.3	BDL	BDL	0.3	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.005	0.01	BDL	0.009	BDL	0.006	0.0082	0.006	0.007	0.009	
8	Total Coliform(MPN/100ml)	-	-	3300	2400	1700	2400	1300	3500	3500	2200	2100	1700	
9	Fecal Coliform(MPN/100ml)	-	-	2300	1300	790	790	490	1700	2200	1400	1100	790	
10	Fecal Streptococci (MPN/100ml)	-	-	490	540	220	330	150	140	230	210	220	150	
11	Turbidity(NTU)	-	-	15.13	3.75	4.95	6.1	6.1	6.11	6.77	12.19	8.61	7.81	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	16	18	16	30.00	26.00	18	14	22	24.0	18.0	
14	Chlorides(mg/l)	-	-	611.5	6	7.5	1249.6	6.0	8.0	13.5	13.99	14.5	9.497	
15	COD(mg/l)	-	-	14	2	8	10	4	10	28	4	4	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	BDL	3.92	0.56	2.8	1.7	0.56	1.7	1.12	1.12	1.1	
17	Ammonia (mg/l)	-	-	BDL	0.14	0.09	0.1	BDL	0.1	BDL	0.201	0.2	BDL	
18	Total Hardness(mg/l)	-	-	32	30	24	22.00	22.00	24	22	26	22.00	18.0	
19	Calcium(mg/l)	-	-	9.6	5.6	5.6	5.61	BDL	5.61	6.41	5.611	4.81	5.60	
20	Magnesium(mg/l)	-	-	BDL	3.4	2.4	1.94	4.30	2.43	BDL	2.916	2.43	1	
21	Sulphate(mg/l)	-	-	15.4	5.4	3.9	466	BDL	7.51	7.77	7.009	6.683	9.6	
22	Sodium(mg/l)	-	-	11.1	50.4	12.5	50.4	6.1	7.0	7.5	460	7.0	8.3	
23	Total Dissolved Solids(mg/l)	-	-	59	47	53	43.0	41.0	42.0	49147.0	52	47.0	42.0	
24	Total Fixed Solids(mg/l)	-	-	38	29	45	26.0	13.0	25.0	29488.0	31	28.0	17.0	
25	Total Suspended Solids(mg/l)	-	-	28	12	8	10	9	19	13	8	15	12.0	
26	Phosphate(mg/l)	-	-	0.012	0.09	0.14	0.107	0.07	0.038	0.032	0.133	0.042	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	0.94	0.3	0.2	0.88	1.11	1.241	0.591	1	Max 2mg/l
28	Potassium(mg/l)	-	-	7.4	35.5	7.3	36.20	3.50	3.6	4.2	310	5.90	7.3	
29	Flouride(mg/l)	-	-	BDL	BDL	0.22	0.092	0.20	BDL	0.26	0.34	1.019	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.29	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

MALEBHAAT LAKE, TISWADI													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	27	27	28	28	29	29	30	29	30	29	
2	Dissolved Oxygen(mg/l)	-	-	5.5	6.6	6.4	5.6	5.2	4.55	4.8	5.3	4	4.8	
3	pH	-	-	6.53	7.24	6.97	7.69	7.82	7.77	7.6	7.58	6.86	7.65	6-8.5
4	Conductivity(µs/cm)	-	-	1553	1205	21990	30990.00	31440.00	40490	45900	47860	49180.00	52840	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.15	0.9	0.133	1.30	0.16	0.19	0.2	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.007	BDL	0.008	0.025	BDL	0.013	0.0179	0.056	0.062	0.009	
8	Total Coliform(MPN/100ml)	-	-	790	1100	2400	2800	2200	3500	790	940	1100	1400	
9	Fecal Coliform(MPN/100ml)	-	-	490	700	1300	2200	1300	1500	490	700	790	700	
10	Fecal Streptococci (MPN/100ml)	-	-	110	350	350	540	210	240	140	170	140	110	
11	Turbidity(NTU)	-	-	7.51	10.78	21.1	6.1	9.02	6.14	2.77	5.08	10.59	9.0	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6.0	BDL	
13	Total Alkalinity(mg/l)	-	-	20	28	112	90.00	124.00	76	92	134	116.0	116	
14	Chlorides(mg/l)	-	-	1100.7	337.5	7747.6	10996.5	4398.6	15995.0	9622.0	16869.8	16869.8	15620.00	
15	COD(mg/l)	-	-	12	8	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	5.6	2.2	1.12	1.12	1.12	1.12	1.7	1.68	2.8	0.56	
17	Ammonia (mg/l)	-	-	BDL	0.223	BDL	0.1	0.1	0.1	BDL	BDL	0.1	BDL	
18	Total Hardness(mg/l)	-	-	138	124	3600	3600.00	3400.00	6400	7200	8000	7800.00	5600	
19	Calcium(mg/l)	-	-	12	10.4	320.6	240.50	240.48	480.96	480.96	641.28	6.41	480.9	
20	Magnesium(mg/l)	-	-	26.2	23.8	680.4	729.00	680.40	1263.60	1458.00	1555.2	1506.60	1069.2	
21	Sulphate(mg/l)	-	-	53.4	72.07	488.3	1166.3	125.8	1030.75	1095.85	46.872	2363.18	1962.5	
22	Sodium(mg/l)	-	-	11.7	120	483.3	569.6	3060.0	5575.0	3650.0	2844	5175.0	7075	
23	Total Dissolved Solids(mg/l)	-	-	1020	748	12409	18831.0	18863.0	25914.0	29376.0	26801	27540.0	27193.0	
24	Total Fixed Solids(mg/l)	-	-	795	446	9803	10852.0	7545.0	15549.0	17625.0	16080	16524.0	23529.0	
25	Total Suspended Solids(mg/l)	-	-	14	20	80	9	14	13	2	10	18	26.0	
26	Phosphate(mg/l)	-	-	0.019	0.08	0.099	0.29	0.21	0.108	0.071	0.119	0.027	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	1.15	1.2	1.4	2.89	1.1	1.08	1.096	1.26	Max 2mg/l
28	Potassium(mg/l)	-	-	7.3	69.1	149.1	214.80	1560.00	2400	1450	517.7	1725.00	3025	
29	Flouride(mg/l)	-	-	BDL	BDL	0.86	0.6	1.23	1.05	0.87	1.428	0.638	0.94	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.11	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

GAWALI MAULA LAKE, TISWADI													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	28	26	28	28	29	29	30	29	30	30	
2	Dissolved Oxygen(mg/l)	-	-	6.4	6.9	4.2	4.3	2.7	1.8	2.7	2.7	4.3	2.7	
3	pH	-	-	7.3	6.7	6.1	5.96	6.19	6.3	6.2	6.54	6.60	6.91	6-8.5
4	Conductivity(µs/cm)	-	-	3386	220.3	509	413.30	296.80	311.4	433.5	575.6	612.20	788	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	2.24	3	4	5.6	BDL	5.4	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.38	0.2	0.06	BDL	BDL	BDL	0.2	BDL	0.20	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.011	BDL	0.006	
8	Total Coliform(MPN/100ml)	-	-	2400	1200	1300	350	490	2200	790	630	790	630	
9	Fecal Coliform(MPN/100ml)	-	-	1100	700	790	130	330	1100	490	460	490	460	
10	Fecal Streptococci (MPN/100ml)	-	-	130	130	110	33	49	170	140	120	150	170	
11	Turbidity(NTU)	-	-	7.08	11.9	3.73	5.19	7.04	7.2	10.55	10.65	18.23	16.64	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	26	18	20	24.00	32.00	34	34	54	48.0	76	
14	Chlorides(mg/l)	-	-	1712	51	123.61	50.0	80.0	65.0	254.9	144.96	111.0	234.90	
15	COD(mg/l)	-	-	4	12	26	4	14	14	20	20	2	18.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	5.6	2.2	1.12	0.56	0.56	1.12	0.6	0.56	0.56	0.56	
17	Ammonia (mg/l)	-	-	0.85	BDL	BDL	BDL	0.1	0.1	0.1	0.137	BDL	BDL	
18	Total Hardness(mg/l)	-	-	480	40	70	42.00	32.00	40	46	62	66.00	84	
19	Calcium(mg/l)	-	-	40	7.2	7.21	6.41	4.00	8.02	7.21	8.82	12.02	9.62	
20	Magnesium(mg/l)	-	-	92	5.3	12.63	6.32	5.35	4.86	6.80	9.72	8.75	14.6	
21	Sulphate(mg/l)	-	-	147	5.9	9.46	13.3	8.83	43.08	44.92	20.875	10.88	16.58	
22	Sodium(mg/l)	-	-	142	5.9	32.2	50.2	23.9	27.2	29.1	43	36.7	56.1	
23	Total Dissolved Solids(mg/l)	-	-	2165	141	326	253.0	178.0	199.0	277.0	322	352.0	472.0	
24	Total Fixed Solids(mg/l)	-	-	865	85	195	150.0	71.0	119.0	166.0	193	214.0	297.0	
25	Total Suspended Solids(mg/l)	-	-	40	4	32	11	10	18	25	15	17	29.0	
26	Phosphate(mg/l)	-	-	0.07	0.02	0.07	0.04	0.05	0.026	0.03	0.181	0.05	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	0.35	0.3	0.3	1.03	0.94	0.921	1.2	0.87	Max 2mg/l
28	Potassium(mg/l)	-	-	36.3	0.8	9.9	17.10	7.60	11.3	12.1	12.4	11.30	20.1	
29	Flouride(mg/l)	-	-	0.58	0.41	1.42	BDL	0.33	BDL	0.31	0.24	BDL	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.54	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

CURCA LAKE, TISWADI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	-	26	28	29	29	29	29	28	30	29	
2	Dissolved Oxygen(mg/l)	-	-	-	5.2	6.9	4.1	4.4	4.3	4.2	4.1	1.8	6.1	
3	pH	-	-	-	7.03	7.12	6.54	6.66	6.97	6.9	6.88	7.47	7.06	6-8.5
4	Conductivity(µs/cm)	-	-	-	109.5	6813	4990.00	5996.00	18130	32010	23760	38980.00	42490	Max 2250 µs/cm
5	BOD(mg/l)	-	-	-	BDL	BDL	BDL	BDL	BDL	2.1	BDL	5.6	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	-	1	0.12	0.58	0.20	0.11	0.5	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	-	BDL	0.008	0.008	BDL	0.006	BDL	0.005	0.066	0.007	
8	Total Coliform(MPN/100ml)	-	-	-	4300	2200	3500	2100	5400	930	840	790	490	
9	Fecal Coliform(MPN/100ml)	-	-	-	1700	1300	790	700	1400	680	630	490	330	
10	Fecal Streptococci (MPN/100ml)	-	-	-	350	280	700	220	130	170	150	140	120	
11	Turbidity(NTU)	-	-	-	13.81	12.73	6.14	6.09	5.14	6.17	5.4	6.74	14.19	
12	Phenolphthalein Alkalinity(mg/l)	-	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	-	14	40	40.00	40.00	50	68	76	96.0	104	
14	Chlorides(mg/l)	-	-	-	18.6	1949.4	1899.4	18.6	6872.9	8997.2	8947.23	17119.7	16744.80	
15	COD(mg/l)	-	-	-	4	4	14	12	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	-	3.92	1.1	3.36	1.7	2.8	2.2	1.68	2.24	0.56	
17	Ammonia (mg/l)	-	-	-	0.105	0.2	0.1	0.2	0.3	BDL	0.348	0.2	BDL	
18	Total Hardness(mg/l)	-	-	-	24	1200	800.00	480.00	2800	3800	2740	6600.00	7200	
19	Calcium(mg/l)	-	-	-	5.6	160.3	32.86	112.20	160.32	480.96	176.352	4.01	1042.1	
20	Magnesium(mg/l)	-	-	-	2.4	194.4	174.50	48.60	583.20	631.80	558.9	1360.80	1117.8	
21	Sulphate(mg/l)	-	-	-	8.22	93.3	112.84	415.3	1904.18	2023.53	798.56	1682.78	2893.8	
22	Sodium(mg/l)	-	-	-	60.4	302.4	60.0	197.9	2300.0	2525.0	2090	4225.0	5500	
23	Total Dissolved Solids(mg/l)	-	-	-	72	3953	2544.0	3869.0	11966.0	21126.0	13543	19490.0	32232	
24	Total Fixed Solids(mg/l)	-	-	-	42	1545	1526.0	1217.0	7180.0	12675.0	8125	11694.0	18491	
25	Total Suspended Solids(mg/l)	-	-	-	25	28	11	12	16	12	4	12	17	
26	Phosphate(mg/l)	-	-	-	0.09	0.1	0.166	0.07	0.031	0.037	0.067	0.669	0.039	
27	Boron(mg/l)	-	-	-	BDL	1.8	0.5	0.3	2.52	0.94	1.826	1.055	1.02	Max 2mg/l
28	Potassium(mg/l)	-	-	-	41.3	59.3	41.80	53.10	1800	1250	710	1625.00	2325	
29	Flouride(mg/l)	-	-	-	BDL	0.67	0.221	0.20	0.59	0.76	1	0.981	0.55	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.00	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.18	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

CANTURLIM LAKE, TISWADI													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	27	27	28	29	29	29	29	28	30	29	
2	Dissolved Oxygen(mg/l)	-	-	4.5	4.5	1.4	2.4	1	0.9	5.1	2	4.2	5.0	
3	pH	-	-	6	7.03	5.74	5.65	5.96	5.94	7.5	5.67	6.00	7.56	6-8.5
4	Conductivity(µs/cm)	-	-	175.8	119	107.4	105.90	89.02	120.2	42710	317.9	115.00	52600	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	5.7	3.6	BDL	3.5	2.6	5.8	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.42	1.6	0.976	0.20	0.40	0.53	1.1	0.288	0.10	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.013	BDL	0.01	0.017	BDL	0.014	0.0646	BDL	0.014	0.010	
8	Total Coliform(MPN/100ml)	-	-	1100	2100	790	2400	790	1700	1700	1400	1700	1500	
9	Fecal Coliform(MPN/100ml)	-	-	790	1400	490	790	330	700	1300	790	1100	940	
10	Fecal Streptococci (MPN/100ml)	-	-	240	220	150	78	70	170	490	220	210	140	
11	Turbidity(NTU)	-	-	8.61	4.94	4.71	5.14	7.14	5.65	5.38	4.16	3.12	10.85	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	20	18	34	24.00	16.00	24	90	116	24.0	116	
14	Chlorides(mg/l)	-	-	22.1	11.6	11	10.0	16.6	25.0	9372.1	749.77	18.0	16744.80	
15	COD(mg/l)	-	-	12	6	22	18	14	16	-	18	4		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.4	2.24	0.56	0.56	1.7	1.68	1.1	0.56	2.2	0.56	
17	Ammonia (mg/l)	-	-	BDL	0.126	BDL	BDL	0.2	0.1	BDL	0.105	0.1	BDL	
18	Total Hardness(mg/l)	-	-	58	26	36	20.00	24.00	32	6600	180	32.00	6400.0	
19	Calcium(mg/l)	-	-	18.4	6.4	4.8	3.20	5.60	7.21	561.12	24.048	8	561.12	
20	Magnesium(mg/l)	-	-	2.92	2.4	5.8	292.00	2.43	3.40	1263.60	29.16	3.00	1215.0	
21	Sulphate(mg/l)	-	-	4.2	6.6	3.9	3.73	BDL	4.21	1578.68	16.991	4.3	2925.0	
22	Sodium(mg/l)	-	-	12	63.2	6.4	26.6	9.3	11.5	3575.0	20.5	21.2	8085.0	
23	Total Dissolved Solids(mg/l)	-	-	116	76	68	62.0	58.0	77.0	27334.0	181	70.0	26924.0	
24	Total Fixed Solids(mg/l)	-	-	80	45	53	39.0	19.0	46.0	16400.0	108	30.0	16151.0	
25	Total Suspended Solids(mg/l)	-	-	29	14	9	8	14	17	6	2	11	10.0	
26	Phosphate(mg/l)	-	-	0.157	0.12	0.076	0.27	0.15	0.114	0.121	0.23	0.02	0.04	
27	Boron(mg/l)	-	-	BDL	BDL	0.79	0.4	BDL	0.99	0.99	1.368	0.2	1.7	Max 2mg/l
28	Potassium(mg/l)	-	-	7.5	47.7	2.9	12.60	5.00	10.2	1425	8.2	7.70	4250.0	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	BDL	0.20	BDL	0.25	0.936	BDL	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.26	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

PARRA LAKE, BARDEZ														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	29		27	28	30	28	30	28	28	29	
2	Dissolved Oxygen(mg/l)	-	-	7.5		7.8	9.5	4.9	6.5	8.4	7.5	8.2	7.3	
3	pH	-	-	8.31		6.67	6.97	7.44	7.8	7.68	7.73	7.80	7.9	6-8.5
4	Conductivity(µs/cm)	-	-	2667		761.1	1111.00	1106.00	1774	1830	20.34	2179.00	2470	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL		BDL	BDL	BDL	BDL	1.9	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.2		0.16	BDL	BDL	BDL	BDL	2.8	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.044		BDL	BDL	BDL	BDL	BDL	0.07	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	2500		1100	3500	1700	2100	1300	700	9200	1100	
9	Fecal Coliform(MPN/100ml)	-	-	2100		700	1300	490	790	790	490	1300	790	
10	Fecal Streptococci (MPN/100ml)	-	-	340	**S**	220	270	23	150	23	23	170	120	
11	Turbidity(NTU)	-	-	4.18	**A**	1.47	1.13	1.46	2.22	2.62	1.91	2.09	0.97	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	**M**	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	114	**P**	50	48.00	58.00	104	50	50	56.0	114	
14	Chlorides(mg/l)	-	-	46.77	**L**	5.5	6.5	5.0	7.5	2.5	9.9	10.0	11.88	
15	COD(mg/l)	-	-	10	**E**	4	8	2	8	8	6	8	10	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	6.7		0.56	3.36	1.68	1.12	3.4	3.3	2.24	0.6	
17	Ammonia (mg/l)	-	-	0.61	**W**	BDL	BDL	0.1	BDL	BDL	0.1	0.1	0.05	
18	Total Hardness(mg/l)	-	-	2600	**A**	340	760.00	640.00	1200	2200	1520	1540.00	1600	
19	Calcium(mg/l)	-	-	13.6	**S**	121.8	224.40	24.00	416.8	400.8	26.45	569.13	400.8	
20	Magnesium(mg/l)	-	-	623.5		8.74	48.60	9.72	38.90	291.60	48.6	29.16	145.8	
21	Sulphate(mg/l)	-	-	1377.4	**N**	BDL	618.45	436.2	BDL	887.5	BDL	1278.13	1625	
22	Sodium(mg/l)	-	-	86.5	**O**	13.1	17.4	9.4	10.9	26.1	6.7	24.9	9.5	
23	Total Dissolved Solids(mg/l)	-	-	1603	**T**	448	717.0	732.0	1064.0	1176.0	12	1458.0	1544	
24	Total Fixed Solids(mg/l)	-	-	491		313	295.0	442.0	426.0	390.0	4	872.0	617.6	
25	Total Suspended Solids(mg/l)	-	-	8	**C**	4	3	8	4	6	2	6	3	
26	Phosphate(mg/l)	-	-	0.02	**O**	BDL	0.03	0.07	0.04	BDL	BDL	BDL	0.03	
27	Boron(mg/l)	-	-	2.4	**L**	0.4	0.4	0.8	0.24	BDL	0.04	1.7	0.1	Max 2mg/l
28	Potassium(mg/l)	-	-	30.2	**L**	8.8	9.10	5.90	7.7	13.7	6	2.50	5.1	
29	Flouride(mg/l)	-	-	1.88	**E**	0.5	0.63	0.60	1.28	0.7	0.8	1.1	0.9	
30	Arsenic(mg/l)	-	-	-	**C**	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	**T**	-	-	0.00	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	**E**	-	-	0.01	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	**D**	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-		-	-	0.02	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	**A**	-	-	0.01	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	**S**	-	-	0.02	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-		-	-	0.16	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	**T**	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	**H**	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	**E**	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-		-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	**G**	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	**A**	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	**T**	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	**E**	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-		-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	**W**	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	**A**	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	**S**	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-		-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	**C**	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	**L**	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	**O**	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	**S**	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	**E**	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	**D**	-	-	BDL	-	-	-	-	-	

KHANDEPAR LAKE, BICHOLIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	LOCATION NOT FOUND	27	30	29	28	28	29	29	28	29	
2	Dissolved Oxygen(mg/l)	-	-		6.1	6.4	6.1	5.4	5.7	7.8	5.8	8.6	6.8	
3	pH	-	-		5.93	7.45	5.64	5.56	5.86	5.67	5.58	6	5.71	6-8.5
4	Conductivity(µs/cm)	-	-		106.5	125.8	73.13	93.15	52.27	131.6	51.61	44.73	57	Max 2250 µs/cm
5	BOD(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.60	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-		2.07	1.3	0.40	1.10	0.4	0.203	0.3	0.2	0.148	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-		BDL	0.005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-		1400	170	11000	230	23	350	61	330	230	
9	Fecal Coliform(MPN/100ml)	-	-		1100	110	4900	130	13	120	40	130	130	
10	Fecal Streptococci (MPN/100ml)	-	-		240	49	920	140	6.8	70	6.8	79	70	
11	Turbidity(NTU)	-	-		BDL	2.29	BDL	BDL	BDL	2.1	BDL	1.2	1.25	
12	Phenolphthalein Alkalinity(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-		22	22	14.00	22.00	18	12	14	12.0	18	
14	Chlorides(mg/l)	-	-		11.49	10.99	8.5	7.5	19.0	29.0	29	7.0	9.47	
15	COD(mg/l)	-	-		3	8	4	8	2	8	8	16.0	8	
16	Total Kjeldahl Nitrogen(mg/l)	-	-		3.92	5.04	1.12	0.56	1.12	0.56	0.56	0.6	2.8	
17	Ammonia (mg/l)	-	-		0.05	BDL	BDL	BDL	0.0	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-		26	28	12.00	32.00	30	28	21	10.0	12	
19	Calcium(mg/l)	-	-		6.41	7.21	4.00	4.00	8.02	4	4.81	2.40	3.206	
20	Magnesium(mg/l)	-	-		4.76	2.43	BDL	5.35	2.43	4.40	2.43	1	BDL	
21	Sulphate(mg/l)	-	-		4.78	3.36	BDL	2.28	4.27	6	BDL	1.40	3.025	
22	Sodium(mg/l)	-	-		54.4	20.8	90.0	5.1	4125.0	7.7	5.2	48	5.4	
23	Total Dissolved Solids(mg/l)	-	-		60	79	47.0	58.0	31.0	86.0	33	29.0	36.0	
24	Total Fixed Solids(mg/l)	-	-		48	26	19.0	32.0	15.0	57.0	20	17.0	21.0	
25	Total Suspended Solids(mg/l)	-	-		14	5	2	5	3	4	5	25.0	2.0	
26	Phosphate(mg/l)	-	-		0.02	BDL	0.05	0.08	0.03	0.023	0.02	0.02	BDL	
27	Boron(mg/l)	-	-		0.4	BDL	BDL	0.4	0.7	1.19	1.2	0.85	1.355	Max 2mg/l
28	Potassium(mg/l)	-	-		45.5	8.7	77.40	2.90	2625	4.7	4.3	4.4	4.8	
29	Flouride(mg/l)	-	-		BDL	0.6	BDL	BDL	BDL	BDL	2.09	0.40	BDL	
30	Arsenic(mg/l)	-	-		-	-	-	0.008	-	-	-	-	-	
31	Cadmium(mg/l)	-	-		-	-	-	0.00	-	-	-	-	-	
32	Copper(mg/l)	-	-		-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	-	-		-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	-	-		-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	-	-		-	-	-	0.00	-	-	-	-	-	
36	Zinc(mg/l)	-	-		-	-	-	0.03	-	-	-	-	-	
37	IronTotal(mg/l)	-	-		-	-	-	0.041	-	-	-	-	-	
38	Mercury (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	

BANASTARIM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	-	-	NOT ACESSIBLE	NOT ACESSIBLE	28	27	30	29	29	26	32	30	
2	Dissolved Oxygen(mg/l)	-	-			5.7	5.7	5.2	4.3	4.2	5.7	5.5	4.8	
3	pH	-	-			6.54	6.86	6.97	6.7	7.03	7.52	7.75	6.75	6-8.5
4	Conductivity(µs/cm)	-	-			623.6	1505.00	1725.00	5539	30450	37520	41820.00	40740	Max 2250 µs/cm
5	BOD(mg/l)	-	-			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-			BDL	BDL	BDL	0.2	0.568	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-			0.02	0.01	0.07	0.008	0.092	0.006	0.005	0.006	
8	Total Coliform(MPN/100ml)	-	-			3500	3500	2400	2800	3500	2200	330	490	
9	Fecal Coliform(MPN/100ml)	-	-			2200	1700	790	2200	1100	1300	230	330	
10	Fecal Streptococci (MPN/100ml)	-	-			350	350	240	130	220	220	79	94	
11	Turbidity(NTU)	-	-			13.66	8.43	2.75	17.2	4.23	5.57	7.35	13.51	
12	Phenolphthalein Alkalinity(mg/l)	-	-			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-			28	26.00	44.00	34	72	112	108.0	92	
14	Chlorides(mg/l)	-	-			280	449.9	549.8	1712.2	5048.4	14595.47	13245.9	14245.6	
15	COD(mg/l)	-	-			6	4	6	4	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-			0.6	0.56	1.12	1.7	1.681	2.24	0.56	3.9	
17	Ammonia (mg/l)	-	-			0.077	0.1	0.1	0.2	BDL	0.21	0.1	0.06	
18	Total Hardness(mg/l)	-	-			70	130.00	148.00	720	3800	5200	8000.00	5600	
19	Calcium(mg/l)	-	-			6.4	11.20	12.83	64.13	240.48	480.96	721.44	961.9	
20	Magnesium(mg/l)	-	-			13.1	24.79	28.19	136.08	777.60	972	1506.60	1215	
21	Sulphate(mg/l)	-	-			19	48.69	47.59	84.74	1438.71	3889.72	2245.32	1612.5	
22	Sodium(mg/l)	-	-			57.6	177.6	75.8	450.0	35.3	3050	9200.0	4.7	
23	Total Dissolved Solids(mg/l)	-	-			423	903.0	1034.0	3544.0	19488.0	21185	23837.0	27887	
24	Total Fixed Solids(mg/l)	-	-			304	361.0	414.0	2126.0	11692.0	12722	14302.0	11579.0	
25	Total Suspended Solids(mg/l)	-	-			28	15	6	40	6	11	4	30	
26	Phosphate(mg/l)	-	-			0.075	0.083	0.08	0.1	0.058	0.04	0.085	BDL	
27	Boron(mg/l)	-	-			1.36	0.9	BDL	1.33	1.918	1.9	1.826	BDL	Max 2mg/l
28	Potassium(mg/l)	-	-			23.3	112.90	21.30	260	9.6	1525	2675.00	1425	
29	Flouride(mg/l)	-	-			0.35	0.66	BDL	0.23	1.683	1.3	3.305	0.8	
30	Arsenic(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-			-	-	0.00	-	-	-	-	-	
35	Nickel(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-			-	-	0.033	-	-	-	-	-	
38	Mercury (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-			-	-	BDL	-	-	-	-	-	

XELDEM LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	29	29	28	28	30	29	29	30	28	28	29	29	
2	Dissolved Oxygen(mg/l)	4.0	4.8	4.1	4.1	4.0	4.7	4.6	2.4	5.6	6.8	8.1	5.9	
3	pH	6.60	6.61	7.49	7.0	6.58	6.98	6.54	6.88	6.73	6.39	6.60	6.44	6-8.5
4	Conductivity(µs/cm)	39.95	63.53	85.22	138.50	108	121.5	71	128	159	121.7	72	58	Max 2250 µs/cm
5	BOD(mg/l)	2.0	2.1	BDL	BDL	BDL	BDL	BDL	3.5	BDL	BDL	BDL	2.0	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.22	0.27	BDL	BDL	0.1	0.4	1.0	1.0	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.01	0.02	0.011	BDL	BDL	0.01	0.007	0.005	BDL	BDL	
8	Total Coliform(MPN/100ml)	940	490	700	3500	2400	2800	9200	3500	3300	3500	3500	5400	
9	Fecal Coliform(MPN/100ml)	700	330	490	2400	1300	1700	5400	1300	2300	1300	2800	2400	
10	Fecal Streptococci (MPN/100ml)	110	70	79	540	350	240	540	350	540	350	210	220	
11	Turbidity(NTU)	11.12	6.94	36.5	37.2	28.6	9.76	6.79	34.1	43.3	4.32	4.31	4.27	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	32.0	34.0	38.0	20.0	34	34	34	64	42	28	30	24	
14	Chlorides(mg/l)	5.87	7.0	6.00	24.00	9.49	8.6	4.4	12.6	9.49	12.99	15.1	5.0	
15	COD(mg/l)	8.0	6.0	12.0	10.0	10.0	20.0	18.0	16.0	2.0	4.0	10.0	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	1.12	1.1	3.0	0.56	3.9	1.68	3.9	1.68	1.68	1.68	2.2	
17	Ammonia (mg/l)	BDL	0.22	0.17	0.59	0.092	BDL	BDL	0.3	1.46	0.136	0.07	BDL	
18	Total Hardness(mg/l)	16.0	40.0	46.0	28.0	36.0	30.0	26.0	36.0	44.0	30.0	16.0	14.0	
19	Calcium(mg/l)	4.00	6.0	8.02	4.81	BDL	11.2	BDL	6.4	10.42	5.61	4.0	3.2	
20	Magnesium(mg/l)	BDL	6.0	6.30	3.89	7.78	BDL	5.83	4.80	4.37	3.89	1.46	1.50	
21	Sulphate(mg/l)	2.68	BDL	13.81	21.9	7.01	5.9	5.59	8.6	7.94	8.35	6.12	3.50	
22	Sodium(mg/l)	7.6	14.6	14.4	34.4	15.0	15.3	218.2	15.3	31.3	8.9	26.4	5.6	
23	Total Dissolved Solids(mg/l)	25.0	37.0	47.00	90.0	65.0	81.0	45.0	80.0	101.0	68.0	45.0	41.0	
24	Total Fixed Solids(mg/l)	13.0	17.0	40.0	81.0	39.0	27.0	27.0	25.0	61.0	40.0	18.0	14.0	
25	Total Suspended Solids(mg/l)	10.0	9.0	52.0	10.0	62.0	41.0	25.0	57.0	39.0	12.0	9.0	2.0	
26	Phosphate(mg/l)	0.095	BDL	0.26	0.144	0.048	0.06	0.05	0.10	0.08	0.08	BDL	0.04	
27	Boron(mg/l)	BDL	0.05	3.04	0.363	0.501	0.3	0.2	BDL	1.0	1.1	0.2	BDL	Max 2mg/l
28	Potassium(mg/l)	12.2	7.2	4.0	7.1	8.5	9.9	64.4	11.8	18.9	8.1	9.7	3.3	
29	Flouride(mg/l)	BDL	0.20	0.24	0.281	BDL	0.4	1.83	BDL	BDL	BDL	0.2	0.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.777	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		

NANDA LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	27	29	29	28	28	29	29	30	28	29	29	30	
2	Dissolved Oxygen(mg/l)	3.9	4.4	5.3	5.8	6.1	7.9	4.3	6.6	7.3	5.8	7.2	6.2	
3	pH	6.48	6.68	7.56	6.94	6.67	6.95	6.93	7.15	6.75	6.61	6.53	6.51	6-8.5
4	Conductivity(µs/cm)	36.59	59.97	86.98	169.30	82	85.63	198	71	73	76.98	67	55	Max 2250 µs/cm
5	BOD(mg/l)	2.2	BDL	BDL	BDL	BDL	2.6	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.11	0.16	BDL	BDL	0.2	0.36	0.4	0.393	0.1	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.005	0.007	0.01	BDL	BDL	0.01	0.007	BDL	0.01	BDL	
8	Total Coliform(MPN/100ml)	840	210	630	5400	3500	5400	9200	2400	2800	1100	1400	1700	
9	Fecal Coliform(MPN/100ml)	460	130	460	2400	2400	2400	2800	1300	1100	790	1100	1100	
10	Fecal Streptococci (MPN/100ml)	130	33	94	940	540	350	140	94	110	130	170	140	
11	Turbidity(NTU)	5.75	3.58	17.98	10.81	38.8	12.36	7.9	33.2	7.52	3.52	11.08	6.9	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	32.0	32.0	32.0	22.0	28	26	28	34	24	26	32	22	
14	Chlorides(mg/l)	4.89	149.0	8.50	31.49	6.99	7.0	12.23	7.5	7.5	13.5	9.06	4.5	
15	COD(mg/l)	6.0	8.0	18.0	8.0	32.0	8.0	16.0	8.0	4.0	6.0	6.0	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	1.12	1.1	3.0	1.68	2.8	2.2	3.4	1.12	1.12	1.12	1.7	
17	Ammonia (mg/l)	BDL	0.22	0.13	0.06	0.083	BDL	0.06	0.07	0.23	0.17	0.07	BDL	
18	Total Hardness(mg/l)	18.0	28.0	24.0	28.0	26.0	20.0	64.0	18.0	26.0	20.0	24.0	18.0	
19	Calcium(mg/l)	4.00	5.0	8.02	4.01	4.81	4.8	8.82	3.2	6.41	4.81	6.41	4.80	
20	Magnesium(mg/l)	BDL	4.0	BDL	4.37	3.40	BDL	10.20	2.40	2.43	BDL	1.94	1.50	
21	Sulphate(mg/l)	BDL	BDL	7.65	11.87	4.62	4.2	15.79	5.2	5.47	4.95	4.23	4.20	
22	Sodium(mg/l)	7.6	14.5	14.0	24.5	20.8	15.5	232.9	11.6	25.8	4.3	48.6	5.3	
23	Total Dissolved Solids(mg/l)	21.0	35.0	51.0	101.0	49.0	51.0	132.0	48.0	43.0	43.0	49.0	36.0	
24	Total Fixed Solids(mg/l)	12.0	13.0	43.0	63.0	29.0	16.0	79.0	15.0	26.0	25.0	17.0	12.0	
25	Total Suspended Solids(mg/l)	10.0	19.0	19.0	8.0	81.0	20.0	36.0	51.0	14.0	10.0	22.0	8.0	
26	Phosphate(mg/l)	0.07	BDL	0.08	0.095	0.083	0.25	2.02	0.13	0.03	0..061	BDL	BDL	
27	Boron(mg/l)	BDL	0.10	3.01	0.38	0.606	0.4	0.3	0.4	0.9	0.9	0.31	BDL	Max 2mg/l
28	Potassium(mg/l)	12.3	6.6	3.80	5.5	9.3	8.9	70.3	9.1	14.5	3.6	12.5	3.5	
29	Flouride(mg/l)	BDL	BDL	0.20	0.03	0.40	0.3	3.79	BDL	0.2	BDL	0.21	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.011	-	-	-	-	-	0.003	-	-	-	-	-	
37	IronTotal(mg/l)	0.12	-	-	-	-	-	0.291	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

COTTOMBI LAKE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	27	29	29	28	29	29	29	30	28	29	29	30	
2	Dissolved Oxygen(mg/l)	5.0	6.4	5.6	7.5	3.3	5.2	4.6	6.3	6.7	5.7	6.6	5.3	
3	pH	6.75	6.99	7.36	6.98	6.62	6.66	6.83	7.13	6.68	6.61	6.37	6.54	6-8.5
4	Conductivity(µs/cm)	36.74	63.06	117.20	207.6	95	134.1	74	77	110	87.1	78	56	Max 2250 µs/cm
5	BOD(mg/l)	BDL	2.4	BDL	BDL	3.8	2.3	BDL	2.0	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	BDL	0.11	BDL	BDL	0.06	0.1	0.1	0.087	0.749	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.005	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.045	BDL	
8	Total Coliform(MPN/100ml)	630	2200	460	3500	2800	2400	1100	920	1100	1700	790	940	
9	Fecal Coliform(MPN/100ml)	330	1300	330	1700	2200	1300	490	280	330	1300	490	490	
10	Fecal Streptococci (MPN/100ml)	140	240	110	280	240	280	240	170	220	49	220	110	
11	Turbidity(NTU)	4.26	9.43	25.50	4.78	9.01	3.55	2.14	2.97	5.08	5.82	11.46	3.64	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	30.0	20.0	24.0	18.0	34	28	34	38	22	24	26	26	
14	Chlorides(mg/l)	5.87	10.0	29.00	29.0	5.49	35.2	4.4	5.5	16.0	10.5	12.08	4.5	
15	COD(mg/l)	6.0	8.0	6.0	12.0	38.0	4.0	18.0	8.0	8.0	10.0	4.0	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	0.56	1.1	5.6	3.36	4.50	2.80	2.8	1.1	1.1	1.12	1.7	
17	Ammonia (mg/l)	BDL	0.20	0.05	0.22	BDL	BDL	0.10	BDL	0.19	0.12	0.168	BDL	
18	Total Hardness(mg/l)	20.0	36.0	34.0	26.0	34.0	26.0	26.0	36.0	26.0	18.0	20.0	20.0	
19	Calcium(mg/l)	4.80	6.0	6.41	3.21	7.21	4.00	4.01	2.4	5.61	4.01	2.4	7.2	
20	Magnesium(mg/l)	BDL	5.0	4.40	4.37	3.89	3.90	3.8	7.29	2.91	BDL	3.4	0.5	
21	Sulphate(mg/l)	BDL	BDL	10.20	3.63	3.06	4.20	3.19	1.7	7.14	7.25	5.3	3.7	
22	Sodium(mg/l)	7.60	14.6	10.7	35.8	11.3	49.6	206.0	12.6	30.1	6.1	9.9	5.2	
23	Total Dissolved Solids(mg/l)	23.0	37.0	69.0	110.0	48.0	83.0	49.0	48.0	72.0	49.0	49.0	37.0	
24	Total Fixed Solids(mg/l)	14.0	15.0	62.0	77.0	29.0	30.0	29.0	17.5	43.0	29.0	20.0	12.0	
25	Total Suspended Solids(mg/l)	11.0	15.0	44.0	4.0	18.0	7.0	13.0	5.0	11.0	14.0	22.0	13.0	
26	Phosphate(mg/l)	0.099	BDL	0.09	0.08	0.564	0.23	1.56	0.04	0.04	0.09	0.084	BDL	
27	Boron(mg/l)	BDL	0.13	3.62	0.21	0.562	0.4	0.2	0.4	1.0	1.0	0.081	BDL	Max 2mg/l
28	Potassium(mg/l)	12.2	6.8	4.2	10.9	7.1	18.5	66	10.1	18.6	5.4	7.3	3.5	
29	Flouride(mg/l)	BDL	BDL	0.31	0.29	0.33	0.3	2	BDL	BDL	BDL	0.35	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	0.001	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.013	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	0.002	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	0.003	-	-	-	-	-	0.003	-	-	-	-	-	
35	Nickel(mg/l)	0.002	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.06	-	-	-	-	-	0.002	-	-	-	-	-	
37	IronTotal(mg/l)	0.82	-	-	-	-	-	0.485	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		

PANCHAMI LAKE, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-			28	27	28	29		29	29	29	
2	Dissolved Oxygen(mg/l)	-	-			6.5	7.3	5.6	4.2		4.8	6.5	5.9	
3	pH	-	-			6.85	6.85	6.07	6.54		6.52	6.25	6.26	6-8.5
4	Conductivity(µs/cm)	-	-			48	48.21	64	61		46.19	52	73	Max 2250 µs/cm
5	BOD(mg/l)	-	-			BDL	BDL	BDL	BDL		BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-			0.1	BDL	0.2	BDL		BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-			BDL	BDL	BDL	BDL		BDL	0.02	BDL	
8	Total Coliform(MPN/100ml)	-	-			2200	33	350	490		3500	2200	2200	
9	Fecal Coliform(MPN/100ml)	-	-			1400	23	130	230		1300	630	1700	
10	Fecal Streptococci (MPN/100ml)	-	-			280	13	33	84		460	210	220	
11	Turbidity(NTU)	-	-			1.31	1.31	2.47	1.76		BDL	3.36	5.18	
12	Phenolphthalein Alkalinity(mg/l)	-	-			BDL	BDL	BDL	BDL		BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-			18	22	14	16		16	20	16	
14	Chlorides(mg/l)	-	-			7.6	3.99	11.9	6.5		6.49	6.9	13.0	
15	COD(mg/l)	-	-			4.0	14.0	10.0	8.0		6.0	8.0	16.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-			7.8	1.68	3.4	0.56		1.68	2.8	3.36	
17	Ammonia (mg/l)	-	-			BDL	BDL	BDL	BDL		0.18	BDL	BDL	
18	Total Hardness(mg/l)	-	-			12	30	10	18		16.0	12.0	14.0	
19	Calcium(mg/l)	-	-			4	0.8	3.2	3.2		4.8	2.4	4.81	
20	Magnesium(mg/l)	-	-			0.5	6.8	BDL	2.43		BDL	1.5	BDL	
21	Sulphate(mg/l)	-	-			1.2	1.28	BDL	BDL		BDL	BDL	7.2	
22	Sodium(mg/l)	-	-			12.1	92.8	4.4	5.1		4.8	17.1	9.2	
23	Total Dissolved Solids(mg/l)	-	-			29	26	44	36		27	35	48.0	
24	Total Fixed Solids(mg/l)	-	-			22	17	18	23		18	12	28.0	
25	Total Suspended Solids(mg/l)	-	-			4	5	5	6		3.0	7.0	8.0	
26	Phosphate(mg/l)	-	-			0.02	0.039	0.02	BDL		0.02	BDL	BDL	
27	Boron(mg/l)	-	-			0.3	0.625	BDL	2.48		1.1	0.3	1.14	Max 2mg/l
28	Potassium(mg/l)	-	-			8.7	80.3	3.8	2.1		3.5	6.2	8.5	
29	Flouride(mg/l)	-	-	**DRY**	**NOT ACCESSIBLE**	0.5	BDL	0.2	BDL	**NOT ACCESSIBLE**	0.2	0.2	0.31	
30	Arsenic(mg/l)	-	-			-	-	BDL			-	-	-	
31	Cadmium(mg/l)	-	-			-	-	0.001			-	-	-	
32	Copper(mg/l)	-	-			-	-	0.004			-	-	-	
33	Lead(mg/l)	-	-			-	-	0.005			-	-	-	
34	Chromium(mg/l)	-	-			-	-	0.025			-	-	-	
35	Nickel(mg/l)	-	-			-	-	0.01			-	-	-	
36	Zinc(mg/l)	-	-			-	-	0.021			-	-	-	
37	IronTotal(mg/l)	-	-			-	-	0.57			-	-	-	
38	Mercury (mg/l)	-	-			-	-	BDL			-	-	-	
39	Alpha BHC (mg/l)	-	-			-	-	BDL	-		-	-	-	
40	Hexachlorobenzene (mg/l)	-	-			-	-	BDL	-		-	-	-	
41	Beta BHC (mg/l)	-	-			-	-	BDL	-		-	-	-	
42	Gamma BHC (mg/l)	-	-			-	-	BDL	-		-	-	-	
43	Heptachlor (mg/l)	-	-			-	-	BDL	-		-	-	-	
44	Aldrin (mg/l)	-	-			-	-	BDL	-		-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-			-	-	BDL	-		-	-	-	
46	Alpha Endosulfan (mg/l)	-	-			-	-	BDL	-		-	-	-	
47	p,p'-DDE (mg/l)	-	-			-	-	BDL	-		-	-	-	
48	Dieldrin (mg/l)	-	-			-	-	BDL	-		-	-	-	
49	Eldrin (mg/l)	-	-			-	-	BDL	-		-	-	-	
50	Beta Endosulphan (mg/l)	-	-			-	-	BDL	-		-	-	-	
51	o,p'-DDD (mg/l)	-	-			-	-	BDL	-		-	-	-	
52	o,p'-DDT (mg/l)	-	-			-	-	BDL	-		-	-	-	
53	p,p'-DDT (mg/l)	-	-			-	-	BDL	-		-	-	-	
54	Methoxychlor (mg/l)	-	-			-	-	BDL	-		-	-	-	
55	Malathion (mg/l)	-	-			-	-	BDL	-		-	-	-	
56	Chlorpyrifos (mg/l)	-	-			-	-	BDL	-		-	-	-	

BETAL TEMPLE LAKE, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	29	28	29	28	28	29	31	29	29	29	
2	Dissolved Oxygen(mg/l)	-	-	7.6	7.1	6.4	7.9	5.9	6.8	5.5	6.9	6	5.6	
3	pH	-	-	7.23	6.23	6.69	6.69	6.13	6.66	6.83	7.09	6.21	6.22	6-8.5
4	Conductivity(µs/cm)	-	-	115.3	129.4	177	177.3	56	49	72	60.69	59	62	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.1	0.4	0.181	BDL	0.2	0.15	0.10	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.047	BDL	BDL	0.006	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	2200	1300	2100	3500	3500	5400	330	5400	2800	2600	
9	Fecal Coliform(MPN/100ml)	-	-	1300	490	1700	2400	2400	1300	230	2400	2200	2100	
10	Fecal Streptococci (MPN/100ml)	-	-	540	140	220	220	540	540	33	540	220	170	
11	Turbidity(NTU)	-	-	18.4	1.73	2.9	2.9	2.55	2.83	0.8	BDL	4.62	5.08	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	8.0	
13	Total Alkalinity(mg/l)	-	-	46.0	18.0	8	16.0	14.0	12.0	14.0	24.0	20	38.0	
14	Chlorides(mg/l)	-	-	18.10	18.00	8.49	7.49	6.50	5.50	8.60	6.99	7.50	8.0	
15	COD(mg/l)	-	-	8.0	BDL	2.0	4.0	6.0	4.0	2.0	10.0	4.0	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	8.4	0.56	2.80	3.36	3.40	1.12	1.70	1.12	1.70	0.6	
17	Ammonia (mg/l)	-	-	BDL	BDL	0.103	BDL	BDL	BDL	0.050	0.10	0.06	BDL	
18	Total Hardness(mg/l)	-	-	28.0	14.0	12.0	44.0	14.0	20.0	22.0	18.0	14.0	18.0	
19	Calcium(mg/l)	-	-	8.0	3.21	2.41	3.21	3.20	4.81	3.20	4.00	3.20	3.2	
20	Magnesium(mg/l)	-	-	2.0	BDL	BDL	8.75	BDL	BDL	3.40	1.99	1.50	2.4	
21	Sulphate(mg/l)	-	-	8.43	4.84	3.78	5.23	BDL	2.70	2.00	2.78	BDL	3.9	
22	Sodium(mg/l)	-	-	15.5	10.5	13.2	94.4	0.7	4.5	23.3	4.9	16.4	3.9	
23	Total Dissolved Solids(mg/l)	-	-	70.0	29.0	88.0	99.0	35.0	30.0	47.0	33.0	37.0	38.0	
24	Total Fixed Solids(mg/l)	-	-	38.0	24.0	53.0	59.0	12.0	12.0	16.0	23.0	12.0	15.0	
25	Total Suspended Solids(mg/l)	-	-	14.0	3.0	7.0	6.0	6.0	3.0	2.0	5.0	7.0	8.0	
26	Phosphate(mg/l)	-	-	0.02	BDL	0.113	0.095	0.02	BDL	BDL	0.4	0.06	BDL	
27	Boron(mg/l)	-	-	1.74	0.39	0.51	0.625	BDL	0.7	BDL	1.4	BDL	BDL	Max 2mg/l
28	Potassium(mg/l)	-	-	15.5	4.7	8.6	81.5	3.6	1.4	10.7	3.6	5.7	6.4	
29	Flouride(mg/l)	-	-	BDL	BDL	0.21	BDL	1.1	BDL	BDL	0.2	0.2	0.2	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.025	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.012	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0..021	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.57	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

KARMALE LAKE, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-			29	27	29	29	31	29	29	29	
2	Dissolved Oxygen(mg/l)	-	-			6.0	6.3	6.1	5.0	4.2	5.1	5.4	5.1	
3	pH	-	-			6.93	6.93	5.92	6.29	7.1	7.01	6.22	5.31	6-8.5
4	Conductivity(µs/cm)	-	-			62	62.47	48.48	48	99	54.56	55	68	Max 2250 µs/cm
5	BOD(mg/l)	-	-			BDL	BDL	BDL	BDL	1.4	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-			0.5	BDL	0.3	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-			BDL	0.006	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-			3500	3500	920	790	1100	1100	2400	2500	
9	Fecal Coliform(MPN/100ml)	-	-			2800	2400	240	330	700	790	1300	1300	
10	Fecal Streptococci (MPN/100ml)	-	-			540	350	240	240	350	350	150	170	
11	Turbidity(NTU)	-	-			1.72	1.72	3.95	2.59	3.27	BDL	5.56	6.3	
12	Phenolphthalein Alkalinity(mg/l)	-	-			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-			30	6	18	14	18	20	22	22.0	
14	Chlorides(mg/l)	-	-			7.0	5.49	5.90	5.49	14.10	5.99	7.50	10.50	
15	COD(mg/l)	-	-			6.0	10.0	4.0	10.0	4.0	6.0	2.0	14.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-			7.3	1.12	3.9	1.12	1.1	1.12	2.8	1.68	
17	Ammonia (mg/l)	-	-			BDL	BDL	BDL	BDL	BDL	0.1	BDL	BDL	
18	Total Hardness(mg/l)	-	-			16	36	12	20	24	18	18	18.0	
19	Calcium(mg/l)	-	-			3.2	4.01	3.2	4.01	4	5.61	4	4.01	
20	Magnesium(mg/l)	-	-			1.9	6.32	BDL	2.43	3.4	BDL	1.9	BDL	
21	Sulphate(mg/l)	-	-			1.9	4.405	BDL	2.604	7.1	BDL	2.3	5.36	
22	Sodium(mg/l)	-	-			13.7	93.5	0.4	5.0	23.5	4.6	16.3	8.8	
23	Total Dissolved Solids(mg/l)	-	-			42	38	30	29.0	66.0	35.0	38.0	44.0	
24	Total Fixed Solids(mg/l)	-	-			21.9	23	12	17.0	22.0	20.0	14.0	26.0	
25	Total Suspended Solids(mg/l)	-	-			5	3	8	10	6	7.0	11.0	11.0	
26	Phosphate(mg/l)	-	-			0.13	0.095	BDL	0.027	0.18	0.03	BDL	BDL	
27	Boron(mg/l)	-	-			0.2	0.635	BDL	1.409	BDL	1.2	BDL	0.89	Max 2mg/l
28	Potassium(mg/l)	-	-			12.1	80.7	3.2	1.4	10.9	3.4	5.9	8.2	
29	Flouride(mg/l)	-	-	**DRY**	**NOT ACCESSIBLE**	BDL	BDL	0.2	BDL	0.3	0.2	BDL	BDL	
30	Arsenic(mg/l)	-	-			-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-			-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	-	-			-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	-	-			-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	-	-			-	-	0.025	-	-	-	-	-	
35	Nickel(mg/l)	-	-			-	-	0.011	-	-	-	-	-	
36	Zinc(mg/l)	-	-			-	-	0.023	-	-	-	-	-	
37	IronTotal(mg/l)	-	-			-	-	0.48	-	-	-	-	-	
38	Mercury (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-			-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-			-	-	BDL	-	-	-	-	-	

DHULPE LAKE, SHIRODA, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	27	26	28	27	27	28	30	27	29	28	
2	Dissolved Oxygen(mg/l)	-	-	4.4	4.9	5.6	6.7	5.6	4.7	5.2	6.4	4.7	5.1	
3	pH	-	-	6.4	6.4	6.57	7.1	7.05	6.47	6.53	7.35	7.73	7.18	6-8.5
4	Conductivity(µs/cm)	-	-	101.2	63.93	114	99.39	141	112	164	90.44	114	359	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.63	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.025	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	-	-	2200	2800	5400	3500	2400	5400	340	330	320	350	
9	Fecal Coliform(MPN/100ml)	-	-	1100	1700	2400	2400	1300	1700	170	170	170	130	
10	Fecal Streptococci (MPN/100ml)	-	-	220	920	540	920	220	350	110	94	70	94	
11	Turbidity(NTU)	-	-	501.0	14.07	4.9	9.3	1.56	4.37	3	2.77	2.14	4.31	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	14.0	22.0	32	42.0	80.0	42.0	66.0	44.0	42	64.0	
14	Chlorides(mg/l)	-	-	6.3	4.7	12.49	6.9	3.99	5.5	5.49	6.5	13.5	56.48	
15	COD(mg/l)	-	-	14.0	10.0	8.0	10.0	8.0	10.0	4.0	4.0	6.0	12.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	6.16	0.56	1.12	1.68	1.681	2.24	2.2	0.56	0.56	2.24	
17	Ammonia (mg/l)	-	-	2.3	0.10	0.057	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	26.0	24.0	36.0	36.0	54.0	68.0	72.0	36.0	48.0	60.0	
19	Calcium(mg/l)	-	-	3.2	3.2	4.01	4.81	4.81	4.81	12.02	5.6	5.6	7.21	
20	Magnesium(mg/l)	-	-	4.3	3.8	6.318	5.8	10.206	13.61	10.21	5.4	8.3	10.2	
21	Sulphate(mg/l)	-	-	118.6	6.4	4.14	4.3	0.738	BDL	BDL	BDL	BDL	10.78	
22	Sodium(mg/l)	-	-	BDL	3.3	25	16.0	2.1	4.0	6.3	11.9	4.0	20.4	
23	Total Dissolved Solids(mg/l)	-	-	62.0	41.0	64.0	60.0	80.0	76.0	100.0	58.0	71.0	237.0	
24	Total Fixed Solids(mg/l)	-	-	25.0	25.0	26.0	24.0	48.0	45.0	41.0	36.0	45.0	142.0	
25	Total Suspended Solids(mg/l)	-	-	342.0	19.0	6.0	16	5	6	4	5	4.0	4.0	
26	Phosphate(mg/l)	-	-	0.45	0.05	BDL	0.08	0.035	0.053	BDL	0.52	BDL	0.02	
27	Boron(mg/l)	-	-	BDL	0.23	0.619	BDL	0.294	1.18	BDL	1.15	1.07	0.84	Max 2mg/l
28	Potassium(mg/l)	-	-	BDL	2.5	12.4	3.4	0.8	1.4	5.4	1.9	3.9	11.4	
29	Flouride(mg/l)	-	-	BDL	0.7	BDL	BDL	BDL	BDL	0.2	BDL	1.0	0.32	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.008	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.17	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

UDDEN LAKE, SHIRODA, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	LOCATION NOT ACCESSIBLE	26	27	27	26	28	30	27	29	29	
2	Dissolved Oxygen(mg/l)	-	-		5.5	6.1	7.5	6.5	6.1	6.3	5.8	5.5	2.9	
3	pH	-	-		5.84	6.62	7.04	7.04	6.87	6.73	6.61	6.17	6.09	6-8.5
4	Conductivity(µs/cm)	-	-		45.38	68	98.54	83	62	64	74.11	58	60	Max 2250 µs/cm
5	BOD(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.3	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-		0.1	0.16	0.51	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-		BDL	0.06	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-		1400	3500	2200	2100	5400	5400	5400	3500	2400	
9	Fecal Coliform(MPN/100ml)	-	-		1100	1300	1400	1100	1300	940	700	790	790	
10	Fecal Streptococci (MPN/100ml)	-	-		170	350	540	240	350	350	240	220	170	
11	Turbidity(NTU)	-	-		7.69	4.14	4.85	4.29	8.11	1.96	5.33	4.67	3.2	
12	Phenolphthalein Alkalinity(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-		14.0	20	36.0	32.0	30.0	20.0	20.0	26	32.0	
14	Chlorides(mg/l)	-	-		6.0	4.49	9.90	7.49	5.00	7.99	10.99	8.0	7.5	
15	COD(mg/l)	-	-		10.0	8.0	16.0	6.0	8.0	7.0	4.0	4.0	18.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-		3.36	0.56	1.12	1.121	1.68	1.6	0.56	1.12	3.36	
17	Ammonia (mg/l)	-	-		0.0476	BDL	BDL	0.051	BDL	BDL	BDL	0.098	BDL	
18	Total Hardness(mg/l)	-	-		10.0	30.0	34.0	12.0	52.0	52.0	12.0	22.0	18.0	
19	Calcium(mg/l)	-	-		2.404	4.01	4.81	2.4	4	6.41	3.2	4.0	2.4	
20	Magnesium(mg/l)	-	-		0.972	4.86	5.35	1.458	10.21	8.74	BDL	2.9	2.9	
21	Sulphate(mg/l)	-	-		3.228	2.82	4.4	2.43	2.19	2.66	3.54	3.1	3.15	
22	Sodium(mg/l)	-	-		5.8	15.2	8.3	4.3	4.4	6.5	11.8	4.2	1.5	
23	Total Dissolved Solids(mg/l)	-	-		28.0	42.0	59.0	49.0	40.0	39.0	47.0	38.0	38.0	
24	Total Fixed Solids(mg/l)	-	-		19.0	17.0	24.0	29.0	24.0	16.0	30.0	26.0	23.0	
25	Total Suspended Solids(mg/l)	-	-		11.0	8.0	10.0	10.0	10.0	2.0	9.0	8.0	12.0	
26	Phosphate(mg/l)	-	-		0.04	BDL	0.07	0.032	0.025	0.02	0.15	BDL	BDL	
27	Boron(mg/l)	-	-		BDL	1.37	0.26	0.294	1.88	BDL	0.8	1.22	0.91	Max 2mg/l
28	Potassium(mg/l)	-	-		8.8	8.5	3.6	1.4	1.4	5.4	3.1	3.7	1.2	
29	Flouride(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	0.2	0.84	BDL	
30	Arsenic(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-		-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-		-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	-	-		-	-	-	0.011	-	-	-	-	-	
35	Nickel(mg/l)	-	-		-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-		-	-	-	0.27	-	-	-	-	-	
38	Mercury (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	

TARVALEM LAKE, SHIRODA, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-		26	28	29	26	29	29	27	29	28	
2	Dissolved Oxygen(mg/l)	-	-		5.9	6.5	6.7	5.4	5.1	6.8	5.4	7.3	6.0	
3	pH	-	-		6.03	6.35	6.27	6.26	6.67	5.96	6.73	6.48	6.27	6-8.5
4	Conductivity(µs/cm)	-	-		69.40	50	61.47	54	60	29	72.88	65	248	Max 2250 µs/cm
5	BOD(mg/l)	-	-		BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-		0.1	BDL	1.7	BDL	BDL	0.6	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-		BDL	BDL	0.044	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-		2200	330	3500	2600	120	170	210	170	1400	
9	Fecal Coliform(MPN/100ml)	-	-		1700	230	2400	1700	78	110	130	140	330	
10	Fecal Streptococci (MPN/100ml)	-	-		240	49	350	240	63	94	94	70	110	
11	Turbidity(NTU)	-	-		12.61	2.83	8.55	1.52	3.45	BDL	5.40	4.18	3.94	
12	Phenolphthalein Alkalinity(mg/l)	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-		16.0	30	30.0	32.0	20.0	10.0	24.0	20	28.0	
14	Chlorides(mg/l)	-	-		15.00	9.60	6.99	4.99	4.00	36.98	54.30	10.5	52.48	
15	COD(mg/l)	-	-		10.0	12.0	6.0	6.0	6.0	6.0	4.0	4.0	12.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-		9.5	3.4	2.2	0.6	1.7	1.1	0.56	0.56	3.92	
17	Ammonia (mg/l)	-	-		BDL	BDL	BDL	BDL	0.1	BDL	BDL	BDL	0.14	
18	Total Hardness(mg/l)	-	-		12.0	10.0	28.0	26.0	22.0	12.0	18.0	22.0	28.0	
19	Calcium(mg/l)	-	-		1.60	3.2	4.01	2.40	4.00	2.40	3.21	4.00	3.21	
20	Magnesium(mg/l)	-	-		1.9	BDL	4.37	4.86	2.92	1.46	2.43	2.9	4.9	
21	Sulphate(mg/l)	-	-		3.00	BDL	2.54	1.888	2.91	5.40	2.821	2.1	11.4	
22	Sodium(mg/l)	-	-		30.50	19.1	6.0	2.8	4.7	3.8	12.0	4.6	15.3	
23	Total Dissolved Solids(mg/l)	-	-		43.0	34.0	40.0	31.0	40.0	17.0	47.0	40.0	154.0	
24	Total Fixed Solids(mg/l)	-	-		16.0	22.0	17.0	18.0	24.0	11.0	29.0	27.0	92.0	
25	Total Suspended Solids(mg/l)	-	-		16.0	2.0	14.0	5.0	5.0	2.0	9.0	7.0	14.0	
26	Phosphate(mg/l)	-	-		BDL	0.04	0.10	0.04	BDL	BDL	2.34	0.04	0.02	
27	Boron(mg/l)	-	-		BDL	0.2	BDL	0.3	1.8	0.7	1.31	1.27	0.36	Max 2mg/l
28	Potassium(mg/l)	-	-		30.5	8.6	2.7	1.1	1.8	4.9	2.5	4.0	5.9	
29	Flouride(mg/l)	-	-	**DRY**	BDL	0.5	BDL	0.467	BDL	BDL	BDL	1.87	0.22	
30	Arsenic(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-		-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-		-	-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	-	-		-	-	-	0.013	-	-	-	-	-	
35	Nickel(mg/l)	-	-		-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-		-	-	-	0.77	-	-	-	-	-	
38	Mercury (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-		-	-	-	BDL	-	-	-	-	-	

TARVALE (MOIGAL) LAKE, SHIRODA, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	27	26	28	28	27	28	30	27	29	29	
2	Dissolved Oxygen(mg/l)	-	-	5.9	5.5	6.3	6.6	6.2	4.9	7.9	7.1	7.2	4.2	
3	pH	-	-	6.4	5.21	5.53	5.7	5.47	5.53	6	6.73	6.64	5.29	6-8.5
4	Conductivity(µs/cm)	-	-	78.44	28.45	31	40.89	32	27	32	72.88	44	12	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	1.67	BDL	BDL	BDL	BDL	BDL	BDL	0.3	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	790	1300	9200	2200	1700	490	1300	1400	1700	220	
9	Fecal Coliform(MPN/100ml)	-	-	490	790	3500	1700	1400	330	490	490	490	130	
10	Fecal Streptococci (MPN/100ml)	-	-	110	140	540	220	94	70	140	170	210	70	
11	Turbidity(NTU)	-	-	3.34	1.67	0.99	1.44	BDL	1.3	1.96	5.4	2.25	1.2	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	30.0	10.0	18	20.0	14.0	20.0	12.0	10.0	32	20.0	
14	Chlorides(mg/l)	-	-	9.2	4.0	6.5	6.0	4.99	4.5	5.5	6.99	7.5	6.0	
15	COD(mg/l)	-	-	4.0	6.0	10.0	14.0	8.0	8.0	2.0	8.0	4.0	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	12.3	1.12	3.9	1.68	0.56	3.36	0.56	0.56	0.56	0.56	
17	Ammonia (mg/l)	-	-	0.16	BDL	BDL	BDL	BDL	BDL	0.05	0.06	BDL	BDL	
18	Total Hardness(mg/l)	-	-	26.0	10.0	32.0	20.0	18.0	20.0	14.0	18.0	18.0	10.0	
19	Calcium(mg/l)	-	-	4.0	2.4	4	3.2	BDL	4.81	2.4	3.2	3.2	1.6	
20	Magnesium(mg/l)	-	-	3.8	BDL	5.3	2.9	3.89	BDL	1.94	2.43	2.4	1.46	
21	Sulphate(mg/l)	-	-	6.1	BDL	BDL	BDL	1.085	BDL	BDL	2.79	3.6	3.63	
22	Sodium(mg/l)	-	-	BDL	2.0	18.2	8.8	1.4	3.8	4.2	12.6	5.2	2.2	
23	Total Dissolved Solids(mg/l)	-	-	50.0	19.0	20.0	25.0	20.0	20.0	21.0	43.0	28.0	8.0	
24	Total Fixed Solids(mg/l)	-	-	20.0	15.0	13.0	10.0	12.0	12.0	14.0	26.0	19.0	5.0	
25	Total Suspended Solids(mg/l)	-	-	25.0	3.0	2.0	4.0	2.0	4.0	3.0	11.0	5.0	6.0	
26	Phosphate(mg/l)	-	-	0.09	0.06	0.03	0.08	0.026	BDL	BDL	1.1	0.04	BDL	
27	Boron(mg/l)	-	-	BDL	0.3	BDL	BDL	0.338	0.7	0.8	0.7	1.09	0.93	Max 2mg/l
28	Potassium(mg/l)	-	-	BDL	0.6	8.3	6	0.6	0.1	5.1	0.7	3.6	0.3	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	BDL	0.398	BDL	BDL	0.3	0.46	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.011	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.35	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

TALAULIM (TALSAL) LAKE, PONDA														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	28	28	27	27	29	28	28	30	30	29	
2	Dissolved Oxygen(mg/l)	-	-	4.8	5.3	5.8	6.8	5.7	6.7	6.8	4.7	5.1	4.7	
3	pH	-	-	6.81	6.99	5.63	6.28	6.02	6.05	6.44	6.15	6.21	6.31	6-8.5
4	Conductivity(µs/cm)	-	-	53.18	34.63	45	42.87	36	34	41	38.73	38	75	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	7.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	2.29	0.15	0.295	0.1	2.517	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	0.005	0.013	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	1700	2200	1700	2200	5400	1100	1300	5400	3500	2200	
9	Fecal Coliform(MPN/100ml)	-	-	1400	1400	1300	1700	2400	790	790	2400	1700	1300	
10	Fecal Streptococci (MPN/100ml)	-	-	110	920	240	350	23	220	140	540	280	240	
11	Turbidity(NTU)	-	-	3.96	10.09	2.65	3.64	3.82	3.48	1.89	2.95	2.68	2.71	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	20.0	16.0	18	14.0	16.0	16.0	12.0	12.0	12	14.0	
14	Chlorides(mg/l)	-	-	16.14	6	9.99	2935.2	4.99	6	11.99	5.99	7.0	2249.3	
15	COD(mg/l)	-	-	6.0	30.0	10.0	-	10.0	6.0	6.0	4.0	4.0	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	5.0	1.7	1.68	1.12	1.12	0.56	1.68	3.30	1.12	1.70	
17	Ammonia (mg/l)	-	-	0.21	0.05	BDL	BDL	0.446	BDL	BDL	0.06	0.078	BDL	
18	Total Hardness(mg/l)	-	-	14.0	20.0	18.0	8.0	10.0	50.0	22.0	10.0	14.0	14.0	
19	Calcium(mg/l)	-	-	2.4	4.01	4.81	1.6	2.405	7.2	5.61	2.40	2.4	400.8	
20	Magnesium(mg/l)	-	-	2.0	2.43	1.46	0.97	0.792	7.8	1.944	0.97	BDL	1.0	
21	Sulphate(mg/l)	-	-	3.83	5.3	8.77	357.36	2.756	3.00	3.016	BDL	2.5	402.5	
22	Sodium(mg/l)	-	-	12.2	3.4	4.1	97.50	1.80	14.30	16.80	3.40	4.0	12.2	
23	Total Dissolved Solids(mg/l)	-	-	33.0	24.0	30.0	27.0	19.0	22.0	23.0	23.0	24.0	45.0	
24	Total Fixed Solids(mg/l)	-	-	17.0	20.0	10.0	16.0	11.4	14.0	13.0	9.0	17.0	18.0	
25	Total Suspended Solids(mg/l)	-	-	4.0	33.0	18.0	20.0	8.0	7.0	8.0	4.0	5.0	4.0	
26	Phosphate(mg/l)	-	-	BDL	0.11	0.02	0.07	0.091	BDL	0.035	0.040	0.02	BDL	
27	Boron(mg/l)	-	-	2.32	0.54	BDL	0.34	1.273	0.99	0.991	BDL	1.22	BDL	Max 2mg/l
28	Potassium(mg/l)	-	-	7.7	1.8	6.7	85.5	0.8	12.3	13.8	3.4	3.8	9.2	
29	Flouride(mg/l)	-	-	0.66	BDL	BDL	2.18	0.013	BDL	BDL	0.02	0.58	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.006	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.03	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.012	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.029	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	1.17	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

MACASANA LAKE, MACASANA, CURTORIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	28	26	28	29	31	29	29	28	29	28	
2	Dissolved Oxygen(mg/l)	-	-	4.7	4.5	5.5	6.5	4.8	4.1	1.3	3.8	2.5	4.5	
3	pH	-	-	6.87	6.55	6.77	7.5	7.42	6.9	7.41	6.51	6.7	6.54	6-8.5
4	Conductivity(µs/cm)	-	-	66.13	73.45	100	120.4	90	91	92	100.60	106	116	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	5.6	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.38	BDL	BDL	BDL	BDL	0.22	BDL	BDL	BDL	1.2	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.008	BDL	0.005	BDL	BDL	BDL	BDL	BDL	0.005	BDL	
8	Total Coliform(MPN/100ml)	-	-	3500	3500	790	490	400	1700	2200	1400	1700	1500	
9	Fecal Coliform(MPN/100ml)	-	-	2200	1700	490	330	330	1100	1700	1100	790	1200	
10	Fecal Streptococci (MPN/100ml)	-	-	280	120	220	94	84	94	120	170	110	130	
11	Turbidity(NTU)	-	-	14.81	3.80	6.68	11.72	2.08	9.60	4.90	6.41	11.59	5.49	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	16.0	26.0	30	30.0	30.0	32.0	40.0	44.0	46	42.0	
14	Chlorides(mg/l)	-	-	8.81	6.00	7.49	9.99	5.99	4.00	8.31	9.29	31.99	12.50	
15	COD(mg/l)	-	-	6.0	6.0	14.0	4.0	2.0	6.0	18.0	16.0	20.0	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.8	2.24	2.24	0.56	1.121	1.68	1.68	2.24	2.80	1.1	
17	Ammonia (mg/l)	-	-	0.18	0.09	BDL	0.06	BDL	BDL	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	26.0	14.0	72.0	24.0	26.0	46.0	50.0	34.0	34.0	36.0	
19	Calcium(mg/l)	-	-	5.60	4.0	4.01	5.61	4.809	9.62	6.41	6.41	8.02	6.4	
20	Magnesium(mg/l)	-	-	2.92	BDL	15.066	2.43	3.402	5.35	8.26	4.37	3.402	4.9	
21	Sulphate(mg/l)	-	-	54.7	6.6	3.86	7.29	6.36	7.53	7.70	7.92	7.65	4.3	
22	Sodium(mg/l)	-	-	50.5	0.5	17.6	95.8	5.2	6.4	4.3	5.5	15.7	11.3	
23	Total Dissolved Solids(mg/l)	-	-	40.0	52.0	61.0	69.0	52.0	50.0	59.0	67.0	59.0	70.0	
24	Total Fixed Solids(mg/l)	-	-	19.0	18.0	37.0	43.0	32.0	30.0	35.0	40.0	35.0	28.0	
25	Total Suspended Solids(mg/l)	-	-	13.0	12.0	9.0	20.0	7.0	10.0	16.0	16.0	17.0	6.0	
26	Phosphate(mg/l)	-	-	0.057	0.04	0.853	0.11	0.065	0.1	BDL	BDL	0.028	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	1.367	0.3	0.367	0.8	1.33	1.33	1.38	BDL	Max 2mg/l
28	Potassium(mg/l)	-	-	44.3	0.4	8.4	85.9	2.3	4.7	4.0	5.0	13.6	15.1	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	0.45	BDL	BDL	0.601	0.2	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.011	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	1.289	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

MAIMOLLEM LAKE, VASCO														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	30	28	28	29	31	28	30	29	29	30	
2	Dissolved Oxygen(mg/l)	-	-	7.3	2.7	6.8	5	6.8	5.7	7.0	13.0	10.8	8.0	
3	pH	-	-	7.0	6.9	6.63	8.09	7.96	7.8	6.96	7.74	9.37	8.35	6-8.5
4	Conductivity(µs/cm)	-	-	3124	593.5	722	774.1	514	1433	1948	1773	2924	6036	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	6.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	1.79	1.3	1.0	0.6	1.0	0.3	0.128	0.119	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.065	0.034	0.13	0.51	0.025	0.01	0.015	0.007	0.158	0.01	
8	Total Coliform(MPN/100ml)	-	-	1100	2800	490	1700	3500	2400	790	1500	3500	2400	
9	Fecal Coliform(MPN/100ml)	-	-	700	2200	350	1300	1300	1300	490	1200	2400	1300	
10	Fecal Streptococci (MPN/100ml)	-	-	220	540	130	79	46	79	33	84	150	140	
11	Turbidity(NTU)	-	-	7.69	5.44	5.17	5	9.52	17.87	26.8	13.25	257.0	22.3	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	24	8.0	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	76.0	96	82	106.0	92.0	52.0	28.0	70.0	102	112.0	
14	Chlorides(mg/l)	-	-	1076.3	402.71	249.9	293.5	499.8	342.4	899.72	499.845	999.69	20.05	
15	COD(mg/l)	-	-	10.0	20	10.0	14.0	8.0	6.0	10.0	6.0	10.0	20.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.9	4.48	2.8	2.8	2.8	2.8	2.24	0.56	3.92	2.24	
17	Ammonia (mg/l)	-	-	0.88	1.862	0.2	BDL	0.29	0.55	0.068	0.274	2.8	1.22	
18	Total Hardness(mg/l)	-	-	404.0	152.0	180.0	126.0	108.0	228.0	254.0	2260.0	2400.0	660.0	
19	Calcium(mg/l)	-	-	41.7	76.0	31.26	22.44	31.30	64.13	47.29	432.864	480.96	6.41	
20	Magnesium(mg/l)	-	-	72.9	18.46	24.79	17.01	7.29	16.52	33.05	286.74	291.6	121.5	
21	Sulphate(mg/l)	-	-	60.48	41.77	23.54	30.34	43.41	81.92	63.34	63.125	78.97	253.75	
22	Sodium(mg/l)	-	-	74.8	121.1	54.4	37.4	37.8	97.8	42.9	80.4	1300	190	
23	Total Dissolved Solids(mg/l)	-	-	1791.0	635.0	428.0	49.0	320.0	917.0	1168.0	1134.0	1914.0	3863.0	
24	Total Fixed Solids(mg/l)	-	-	1060.0	285.0	171.2	28.0	124.0	550.0	700.0	680.0	1149.0	2317.0	
25	Total Suspended Solids(mg/l)	-	-	34.00	14.0	12.0	42.0	12.0	16.0	35.0	8.0	101.0	34.0	
26	Phosphate(mg/l)	-	-	0.026	0.02	0.03	0.13	0.05	0.06	0.082	0.048	0.1	0.03	
27	Boron(mg/l)	-	-	BDL	1.75	BDL	0.09	0.2	1.2	1.154	0.980	1.400	1.42	Max 2mg/l
28	Potassium(mg/l)	-	-	37.0	73.9	20.9	14.7	4.4	33.3	16.6	28.5	1025	61.4	
29	Flouride(mg/l)	-	-	0.28	BDL	BDL	BDL	0.2	0.45	0.259	0.161	BDL	1.52	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.008	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.008	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.236	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BANDOLEM LAKE, SANCOALE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	28	27	30	30	31	30	29	29	29	29	
2	Dissolved Oxygen(mg/l)	-	-	4.7	2.5	4.7	4.9	4.2	2.5	4.4	4.7	4.2	4.4	
3	pH	-	-	7.5	7.25	6.3	6.6	7.11	7.32	7.4	6.62	6.63	6.84	6-8.5
4	Conductivity(µs/cm)	-	-	4383.0	278.8	366	388.6	240	4495	1814	6148.0	1928	2790	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	4.7	BDL	BDL	BDL	3.4	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	2.25	0.238	0.9	0.6	0.5	0.5	1.05	0.632	0.21	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.115	0.02	0.019	0.016	0.013	0.01	0.006	0.011	0.013	BDL	
8	Total Coliform(MPN/100ml)	-	-	1700	2500	2400	5400	3500	3500	3500	3500	3500	2400	
9	Fecal Coliform(MPN/100ml)	-	-	1100	1700	1300	1300	790	1300	1100	2400	1300	330	
10	Fecal Streptococci (MPN/100ml)	-	-	220	240	240	920	540	220	540	240	240	220	
11	Turbidity(NTU)	-	-	5.96	2.87	5.31	6.64	3.15	6.34	BDL	3.68	6.11	5.86	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	88.0	34.0	28	26.0	34.0	44.0	34.0	50.0	46	62.0	
14	Chlorides(mg/l)	-	-	1516.0	55.4	72.87	83.97	39.2	1661.2	549.83	2249	684.89	904.72	
15	COD(mg/l)	-	-	18.0	18.0	6.0	4.0	8.0	12.0	6.0	-	2.0	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	5.05	1.1	1.12	1.12	2.8	2.8	2.8	1.12	0.56	2.24	
17	Ammonia (mg/l)	-	-	0.02	0.34	0.24	BDL	0.02	0.2	0.1	0.17	0.19	0.09	
18	Total Hardness(mg/l)	-	-	700.0	240.0	52.0	44.0	36.0	446.0	180.0	700.0	198.0	300.0	
19	Calcium(mg/l)	-	-	39.0	12.8	8.81	8.01	8	16.8	17.63	56.11	22.44	25.65	
20	Magnesium(mg/l)	-	-	146.0	50.5	7.29	5.83	3.8	98.2	33.04	136.1	34.5	57.35	
21	Sulphate(mg/l)	-	-	619.0	12.16	11.72	8.63	8.07	75.3	53.23	130	59.54	75.03	
22	Sodium(mg/l)	-	-	88.9	25.4	24.3	110.9	14.6	190	98.3	640	114.1	96.0	
23	Total Dissolved Solids(mg/l)	-	-	2805.0	176.0	237.0	244.0	158.0	2902.0	1129.0	3996.0	1233.0	1625.0	
24	Total Fixed Solids(mg/l)	-	-	1120.0	124.0	180.0	103.0	53.0	974.0	465.0	2717.0	740.0	975.0	
25	Total Suspended Solids(mg/l)	-	-	47.0	6.0	9.0	15.0	5.0	12.0	2.0	7.0	20.0	12.0	
26	Phosphate(mg/l)	-	-	0.09	0.08	0.09	0.104	0.06	0.07	0.02	0.083	0.052	0.02	
27	Boron(mg/l)	-	-	BDL	1.01	1.0	0.48	0.20	0.09	0.20	1.41	1.33	1.4	Max 2mg/l
28	Potassium(mg/l)	-	-	92.6	11.8	7.5	86.8	6.6	40	29.8	480	17.7	29.6	
29	Flouride(mg/l)	-	-	0.25	0.12	0.7	1.1	0.3	0.3	0.3	0.47	0.591	0.3	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.475	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

DURGA LAKE, CHINCHINIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	29	27	28	30	30	29	30	30	29	29	
2	Dissolved Oxygen(mg/l)	-	-	4.3	6.9	7.2	6.6	5.4	4.8	5.7	7	6.2	3.7	
3	pH	-	-	7.34	6.53	7.04	7.02	7.22	7.43	7.04	7.31	6.86	6.81	6-8.5
4	Conductivity(µs/cm)	-	-	713.5	111.8	658	3715	140	4336	20930	10100	5357	766	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.5	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	BDL	BDL	0.42	0.1	0.21	BDL	0.12	0.4	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.015	BDL	0.006	BDL	0.005	BDL	0.013	BDL	0.007	BDL	
8	Total Coliform(MPN/100ml)	-	-	2200	3300	940	220	790	230	1100	540	2400	2200	
9	Fecal Coliform(MPN/100ml)	-	-	1100	2700	700	170	330	130	700	240	1100	940	
10	Fecal Streptococci (MPN/100ml)	-	-	350	540	540	70	79	49	140	70	110	140	
11	Turbidity(NTU)	-	-	42.9	11.24	4.45	5.87	7.84	2.58	1.03	0.44	7.37	17.36	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	30.0	18.0	44	64	68	66	56	18	42	34	
14	Chlorides(mg/l)	-	-	856.1	24.2	342.44	151	293.52	1399.6	8397.4	3423.05	2568.3	86.97	
15	COD(mg/l)	-	-	12.0	4.0	24.0	10.0	14.0	4.0	-	-	4.0	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.4	3.4	1.12	5	2.24	2.24	2.8	2.8	2.8	0.56	
17	Ammonia (mg/l)	-	-	BDL	0.08	0.081	BDL	0.12	0.09	0.54	0.09	0.23	BDL	
18	Total Hardness(mg/l)	-	-	80.0	16.0	16.0	360.0	154.0	420.0	2440.0	5800.0	1400.0	100.0	
19	Calcium(mg/l)	-	-	10.4	3.2	4.01	24	14.43	48.09	108.22	1282.5	240.48	8.0	
20	Magnesium(mg/l)	-	-	13.12	2.0	1.5	72.9	28.67	72.9	252.72	631.80	194.4	19.44	
21	Sulphate(mg/l)	-	-	47.2	9.8	21.1	94.2	38.25	72.5	21.07	6.20	491.72	8.8	
22	Sodium(mg/l)	-	-	60.0	60.7	42.8	216.2	4.3	1850.0	3160.0	830.0	232.4	39.9	
23	Total Dissolved Solids(mg/l)	-	-	429.0	70.0	421.0	2317.0	89.0	2717.0	13696.0	6733.0	3428.0	475.0	
24	Total Fixed Solids(mg/l)	-	-	319.0	59.0	252.0	754.0	53.0	1653.0	5825.0	2246.0	2056.0	328.0	
25	Total Suspended Solids(mg/l)	-	-	51.0	22.0	19.0	37.0	18.0	7.0	2.0	7.0	11.0	36.0	
26	Phosphate(mg/l)	-	-	0.014	0.02	0.078	0.12	0.053	0.02	0.32	0.07	0.05	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	BDL	0.2	BDL	1.1	BDL	0.4	1.44	1.1	Max 2mg/l
28	Potassium(mg/l)	-	-	47.5	21.9	12.3	107.9	1.9	1025	1380	380	61.7	10.2	
29	Flouride(mg/l)	-	-	BDL	BDL	0.64	0.8	0.69	0.4	1.1	1.3	0.46	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.006	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.055	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.78	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

SAPU TOLLEM (TOLLEA BANDAR), VELIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	30	27	28	30	30	29	29	30	29	29	
2	Dissolved Oxygen(mg/l)	-	-	4.5	4.7	4.1	7.6	6.6	5.5	4.8	5.7	4.7	5.5	
3	pH	-	-	7.1	6.4	6.7	6.91	6.91	7.33	6.63	7.19	6.73	6.56	6-8.5
4	Conductivity(µs/cm)	-	-	79.38	55.01	98	99.2	102	115	116	119.2	102	104	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.1	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	1.86	0.1	0.363	0.1	0.17	BDL	BDL	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.03	BDL	0.005	BDL	0.005	0.03	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	1700	260	270	1400	1100	45	220	330	840	700	
9	Fecal Coliform(MPN/100ml)	-	-	1400	210	170	700	450	20	170	230	330	490	
10	Fecal Streptococci (MPN/100ml)	-	-	110	130	33	70	170	17	79	24	79	79	
11	Turbidity(NTU)	-	-	7.68	7.80	7.30	24.1	12.1	17.12	3.97	1.27	4.65	4.83	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	24.0	18.0	26	24	30	24	30	16	30	32	
14	Chlorides(mg/l)	-	-	88.0	7.0	8.8	11.5	8.31	14	13.49	46.3	15.83	14.99	
15	COD(mg/l)	-	-	20.0	2.0	18.0	8.0	4.0	10	9	16	8.0	8.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	5.6	4.5	1.68	2.2	1.6	1.12	0.56	3.4	3.9	1.7	
17	Ammonia (mg/l)	-	-	0.33	0.20	0.11	BDL	BDL	0.33	0.3	0.05	0.6	BDL	
18	Total Hardness(mg/l)	-	-	140.0	12.0	28.0	22.0	36.0	24	272	56	24.0	24.0	
19	Calcium(mg/l)	-	-	4.0	4.0	6.41	6.40	5.61	6.41	99.39	9.6	5.611	6.41	
20	Magnesium(mg/l)	-	-	32.0	BDL	2.91	1.5	5.34	1.95	5.83	7.8	2.43	1.944	
21	Sulphate(mg/l)	-	-	11.3	5.4	4.2	3.6	4.99	9.17	BDL	2.8	2.8	6.53	
22	Sodium(mg/l)	-	-	BDL	47.3	6.0	78.9	3.3	5.8	8.7	4.7	8.9	9.0	
23	Total Dissolved Solids(mg/l)	-	-	50.0	38.0	61.0	66.0	66.0	71	75	74	63.0	58.0	
24	Total Fixed Solids(mg/l)	-	-	22.0	22.0	36.0	21.0	39.0	42	30	27	26	34.0	
25	Total Suspended Solids(mg/l)	-	-	11.0	16.0	27.0	20.0	37.0	40	6	3.0	9.0	11.0	
26	Phosphate(mg/l)	-	-	0.03	BDL	0.132	0.02	0.06	0.051	0.08	0.03	0.04	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	BDL	0.1	BDL	BDL	BDL	0.2	BDL	1.28	Max 2mg/l
28	Potassium(mg/l)	-	-	BDL	17.8	2.3	67.9	1.9	2.3	7.6	4.6	1.7	4.9	
29	Flouride(mg/l)	-	-	BDL	BDL	0.81	0.8	BDL	0.48	0.2	0.9	BDL	1.575	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.056	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	1.316	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

ORLIM LAKE, ORLIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	28	29	28	29	30	30	29	29	28	30	
2	Dissolved Oxygen(mg/l)	-	-	4.1	6.0	6.0	4.1	8.6	6.2	3.1	4.8	4.1	7.8	
3	pH	-	-	7.05	7.19	6.8	7.31	7.17	7.04	7.61	7.04	6.76	6.8	6-8.5
4	Conductivity(µs/cm)	-	-	218.6	82.53	306	182.2	167	167	225	225.4	165	181	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	3.2	3.3	3.4	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.11	0.13	0.19	BDL	0.9	BDL	0.382	0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.011	0.008	0.006	BDL	0.077	BDL	0.006	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	1400	1400	1700	5400	790	1300	1100	2200	170	210	
9	Fecal Coliform(MPN/100ml)	-	-	490	1100	110	3500	490	790	490	1100	78	110	
10	Fecal Streptococci (MPN/100ml)	-	-	110	220	130	940	170	330	40	94	58	63	
11	Turbidity(NTU)	-	-	38.4	7.53	5.06	13.26	6.19	6.6	25.7	2.53	8.44	6.86	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	14.0	24.0	38	44.0	62.0	38.0	44.0	50.0	58	56.0	
14	Chlorides(mg/l)	-	-	20.6	8.56	22.0	15.49	15.90	45.98	28.49	29.50	20.0	20.99	
15	COD(mg/l)	-	-	8.0	8.0	12.0	4.0	12.0	10.0	20.0	14.0	14.0	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.4	3.36	2.2	0.56	1.12	2.24	0.56	0.56	0.56	1.68	
17	Ammonia (mg/l)	-	-	BDL	BDL	0.05	0.019	BDL	BDL	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	62.0	22.0	56.0	46.0	40.0	64.0	66.0	50.0	46.0	52.0	
19	Calcium(mg/l)	-	-	20.0	6.413	12.8	12.82	12.83	12.83	12.83	12.02	15.2	15.23	
20	Magnesium(mg/l)	-	-	2.92	BDL	5.83	3.402	BDL	7.77	8.262	4.86	BDL	3.402	
21	Sulphate(mg/l)	-	-	28.8	17.52	10.5	9.52	3.99	8.11	8.18	8.18	4.4	8.23	
22	Sodium(mg/l)	-	-	52.1	51.1	15.2	96.5	5.1	11.4	7.8	8.5	8.9	9.2	
23	Total Dissolved Solids(mg/l)	-	-	124.0	50.0	189.0	114.0	109.0	115.0	143.0	149.0	104.0	101.0	
24	Total Fixed Solids(mg/l)	-	-	80.0	20.0	162.0	67.0	45.0	69.0	85.0	89.0	64.0	60.0	
25	Total Suspended Solids(mg/l)	-	-	49.0	9.0	73.0	18.0	13.0	44.0	9.0	20.0	15.0	15.0	
26	Phosphate(mg/l)	-	-	0.041	0.07	0.02	0.208	0.29	0.020	0.065	BDL	0.04	BDL	
27	Boron(mg/l)	-	-	BDL	BDL	0.78	0.55	BDL	0.62	0.92	0.9	1.32	1.12	Max 2mg/l
28	Potassium(mg/l)	-	-	48.6	44.0	4.4	89.5	2.0	8.8	2.3	4.7	3.0	3.2	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	0.064	0.1	BDL	BDL	0.66	0.20	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.05	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

VODLE TOLLEM, BENAULIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	29	29	28	29	30	29	29	30	27	29	
2	Dissolved Oxygen(mg/l)	-	-	4.2	0.8	4.0	4.4	4.3	1.2	BDL	BDL	2.1	1.8	
3	pH	-	-	6.49	7.31	6.73	7.74	7.07	6.91	8.17	7.04	6.62	6.58	6-8.5
4	Conductivity(µs/cm)	-	-	580.0	66.12	221	211.5	206	185	233	225.4	224	258	Max 2250 µs/cm
5	BOD(mg/l)	-	-	BDL	6.0	BDL	BDL	BDL	4.0	4.3	4.4	5.0	6.0	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.08	0.1	0.11	BDL	0.1	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.015	0.012	BDL	BDL	BDL	BDL	0.009	BDL	BDL	0.011	
8	Total Coliform(MPN/100ml)	-	-	2200	790	9400	1700	700	2200	790	1700	1700	220	
9	Fecal Coliform(MPN/100ml)	-	-	1700	490	4900	940	330	1400	330	790	700	130	
10	Fecal Streptococci (MPN/100ml)	-	-	540	170	220	350	94	490	39	79	280	49	
11	Turbidity(NTU)	-	-	40.0	11.41	7.46	6.44	12.77	10.33	71.40	6.90	22.7	36.5	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	24.0	26.0	52	52.0	62.0	56.0	64.0	84.0	78	82.0	
14	Chlorides(mg/l)	-	-	79.2	7.05	21.0	21.5	28.9	19.6	9.5	10.5	27.5	34.48	
15	COD(mg/l)	-	-	22.0	10.0	10.0	8.0	10.0	18.0	18.0	18.0	18.0	20.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	BDL	3.92	0.56	0.56	1.68	2.8	1.12	1.12	1.12	2.24	
17	Ammonia (mg/l)	-	-	0.09	BDL	0.05	0.07	BDL	BDL	BDL	BDL	0.066	BDL	
18	Total Hardness(mg/l)	-	-	122.0	24.0	60.0	50.0	46.0	62.0	70.0	62.0	54.0	70.0	
19	Calcium(mg/l)	-	-	26.5	6.413	14.4	13.63	14.43	13.63	14.43	18.4	16.8	19.24	
20	Magnesium(mg/l)	-	-	13.6	BDL	5.83	3.89	2.43	6.8	8.262	3.89	2.92	5.346	
21	Sulphate(mg/l)	-	-	93.7	8.53	10.0	4.97	7.30	8.28	8.27	8.27	5.70	10.25	
22	Sodium(mg/l)	-	-	142.3	51.7	14.0	100.0	10.6	12.7	9.7	16.1	12.1	13.8	
23	Total Dissolved Solids(mg/l)	-	-	5567.0	38.0	131.0	126.0	141.0	73.0	149.0	144.0	143.0	144.0	
24	Total Fixed Solids(mg/l)	-	-	3020	12.0	113.0	78.0	58.0	44.0	89.0	86.0	102.0	86.0	
25	Total Suspended Solids(mg/l)	-	-	78.0	24.0	7.0	7.0	26.0	77.0	13.0	28.0	36.0	45.0	
26	Phosphate(mg/l)	-	-	1.07	0.38	0.09	0.17	0.2	0.04	0.13	BDL	0.02	BDL	
27	Boron(mg/l)	-	-	0.38	BDL	0.42	0.3	0.05	0.43	1.24	1.2	1.63	1.28	Max 2mg/l
28	Potassium(mg/l)	-	-	177.2	43.8	4.9	98	5.9	10.4	5.8	9.7	5.5	6.8	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	BDL	0.4	0.66	0.24	0.76	BDL	1.1	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.77	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

DHAKTE (DIULER) TOLLEM, BENAULIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-		29	28			29					
2	Dissolved Oxygen(mg/l)	-	-		4.5	7.6			4.2					
3	pH	-	-		7.26	6.10			6					6-8.5
4	Conductivity(µs/cm)	-	-		166.1	353			119					Max 2250 µs/cm
5	BOD(mg/l)	-	-		2.5	BDL			2.1					
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-		1.36	1.75			BDL					
7	Nitrite Nitrogen as NO_2-N mg/l	-	-		0.014	0.012			0.01					
8	Total Coliform(MPN/100ml)	-	-		1300	1400			1700					
9	Fecal Coliform(MPN/100ml)	-	-		790	1100			790					
10	Fecal Streptococci (MPN/100ml)	-	-		140	140			210					
11	Turbidity(NTU)	-	-		6.62	6.08			28.90					
12	Phenolphthalein Alkalinity(mg/l)	-	-		BDL	BDL			BDL					
13	Total Alkalinity(mg/l)	-	-		24	20			22.0					
14	Chlorides(mg/l)	-	-		21.64	30.0			3.91					
15	COD(mg/l)	-	-		BDL	10.0			14.0					
16	Total Kjeldahl Nitrogen(mg/l)	-	-		8.97	3.4			0.56					
17	Ammonia (mg/l)	-	-		BDL	0.19			BDL					
18	Total Hardness(mg/l)	-	-		36.0	48.0			36.0					
19	Calcium(mg/l)	-	-		8.016	11.2			4.81					
20	Magnesium(mg/l)	-	-		3.89	4.86			5.83					
21	Sulphate(mg/l)	-	-		26.92	8.46			14.21					
22	Sodium(mg/l)	-	-		70.2	21.2			11.6					
23	Total Dissolved Solids(mg/l)	-	-		100.0	209.0			111.0					
24	Total Fixed Solids(mg/l)	-	-		40.0	189.0			67.0					
25	Total Suspended Solids(mg/l)	-	-		6.0	51.0			18.0					
26	Phosphate(mg/l)	-	-		0.232	0.06			0.14					
27	Boron(mg/l)	-	-		BDL	0.40			0.03					Max 2mg/l
28	Potassium(mg/l)	-	-	**DRY**	63.7	19.0	**DRY**	**DRY**	7.7	**DRY**	**DRY**	**DRY**	**DRY**	
29	Flouride(mg/l)	-	-		BDL	0.29			0.14					
30	Arsenic(mg/l)	-	-		-	-			-					
31	Cadmium(mg/l)	-	-		-	-			-					
32	Copper(mg/l)	-	-		-	-			-					
33	Lead(mg/l)	-	-		-	-			-					
34	Chromium(mg/l)	-	-		-	-			-					
35	Nickel(mg/l)	-	-		-	-			-					
36	Zinc(mg/l)	-	-		-	-			-					
37	IronTotal(mg/l)	-	-		-	-			-					
38	Mercury (mg/l)	-	-		-	-			-					
39	Alpha BHC (mg/l)	-	-		-	-			-					
40	Hexachlorobenzene (mg/l)	-	-		-	-			-					
41	Beta BHC (mg/l)	-	-		-	-			-					
42	Gamma BHC (mg/l)	-	-		-	-			-					
43	Heptachlor (mg/l)	-	-		-	-			-					
44	Aldrin (mg/l)	-	-		-	-			-					
45	Heptachlor endo-epoxide (mg/l)	-	-		-	-			-					
46	Alpha Endosulfan (mg/l)	-	-		-	-			-					
47	p,p'-DDE (mg/l)	-	-		-	-			-					
48	Dieldrin (mg/l)	-	-		-	-			-					
49	Eldrin (mg/l)	-	-		-	-			-					
50	Beta Endosulphan (mg/l)	-	-		-	-			-					
51	o,p'-DDD (mg/l)	-	-		-	-			-					
52	o,p'-DDT (mg/l)	-	-		-	-			-					
53	p,p'-DDT (mg/l)	-	-		-	-			-					
54	Methoxychlor (mg/l)	-	-		-	-			-					
55	Malathion (mg/l)	-	-		-	-			-					
56	Chlorpyrifos (mg/l)	-	-		-	-			-					

KAMALA LAKE (KOMOLLAM TOLLEM), BENAULIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB classification based on designated best use**
1	Temperature°C	-	-	30	30	27	29	29	29	29	29	30	29	
2	Dissolved Oxygen(mg/l)	-	-	BDL	4.9	5.4	0.4	6.7	BDL	1.5	BDL	0.9	0.7	
3	pH	-	-	6.75	6.7	6.81	6.81	7.33	7.8	7.64	7.12	6.65	6.71	6-8.5
4	Conductivity(µs/cm)	-	-	392.40	237.0	358	315.6	284	478	411	382.7	280	399	Max 2250 µs/cm
5	BOD(mg/l)	-	-	5.3	BDL	BDL	4.8	BDL	4.6	5.8	6.8	5.6	6.6	
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.69	0.23	1.7	BDL	0.3	0.2	BDL	BDL	2.08	0.5	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	0.059	0.026	BDL	0.109	BDL	BDL	0.005	0.007	0.149	
8	Total Coliform(MPN/100ml)	-	-	2400	17000	130	22000	2600	1700	3300	3500	2200	1700	
9	Fecal Coliform(MPN/100ml)	-	-	790	11000	49	17000	2200	1400	2300	2400	1700	1100	
10	Fecal Streptococci (MPN/100ml)	-	-	350	9200	49	5400	330	140	920	170	280	170	
11	Turbidity(NTU)	-	-	20.2	15.47	6.45	1.94	4.8	3.75	46.5	0.99	7.02	5.66	
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	62.00	58.0	106	94.0	86.00	164.0	90.0	92.0	122	66.0	
14	Chlorides(mg/l)	-	-	34.0	26.67	65.48	27.90	38.9	58.48	34.00	48.48	66.53	50.97	
15	COD(mg/l)	-	-	14.0	8.0	8.0	40.0	4.00	18.0	18.0	20.0	20.0	22.0	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	3.9	14.01	2.80	1.70	1.12	1.12	2.24	3.36	1.16	2.20	
17	Ammonia (mg/l)	-	-	BDL	1.18	0.399	0.2	0.08	0.07	2.03	2.26	BDL	0.97	
18	Total Hardness(mg/l)	-	-	100.0	66.0	126.0	880.0	102.00	104.0	108.0	100.0	126.0	100.0	
19	Calcium(mg/l)	-	-	34.50	23.2	36.87	264.50	22.40	27.25	35.30	28.06	33.67	30.46	
20	Magnesium(mg/l)	-	-	3.4	1.94	8.26	53.46	11.18	8.748	4.9	7.29	48.6	5.8	
21	Sulphate(mg/l)	-	-	67.3	29.65	18.07	9.40	14.15	3.17	12.30	12.62	11.67	4.10	
22	Sodium(mg/l)	-	-	289.9	52.1	20.7	32.3	19.8	9.8	43.4	16.4	45.5	19.6	
23	Total Dissolved Solids(mg/l)	-	-	940.0	217.0	238.0	189.0	191.0	298.0	258.0	256.0	188.0	253.0	
24	Total Fixed Solids(mg/l)	-	-	492.0	83.0	88.0	75.0	116.0	123.0	167.0	153.0	112.0	130.0	
25	Total Suspended Solids(mg/l)	-	-	118.0	33.0	11.0	3.0	11.0	7.0	46.0	8.0	22.0	12.0	
26	Phosphate(mg/l)	-	-	0.097	0.60	0.34	0.39	0.11	1.49	0.934	0.760	1.01	0.06	
27	Boron(mg/l)	-	-	0.39	BDL	BDL	0.33	0.30	0.5	1.1	1.46	1.25	0.1	Max 2mg/l
28	Potassium(mg/l)	-	-	299.2	45.1	10.9	22.4	7.2	1840	22	7.1	31.9	7.5	
29	Flouride(mg/l)	-	-	BDL	BDL	BDL	0.2	BDL	0.2	BDL	0.56	BDL	0.5	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.008	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	2.97	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

AGRICULTURAL CANAL UPSTREAM OF CUNCOLIM INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	29	29		27	27		30			29	29	28	
2	Dissolved Oxygen(mg/l)	7.4	6.8		6.0	5.4		7.1			8.0	5.5	6.6	
3	pH	7.11	7.17		5.65	7.0		7.27			7.22	6.82	6.9	6-8.5
4	Conductivity(µs/cm)	57.03	68.04		94.85	111.7		129			92.21	112	89	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL		BDL	BDL		BDL			BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.1	BDL		0.767	0.375		BDL			BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.01	0.007		BDL	0.007		BDL			BDL	0.005	BDL	
8	Total Coliform(MPN/100ml)	1400	2200		2800	9200		2300			2400	2400	2200	
9	Fecal Coliform(MPN/100ml)	1100	1700		2200	1700		1300			1300	790	460	
10	Fecal Streptococci (MPN/100ml)	140	210		540	540		210			49	33	23	
11	Turbidity(NTU)	3	1.65		3.6	3.03		2.72			0.44	1.44	BDL	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL		BDL	BDL		BDL			BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	20.0	26.0		14.0	28		32			14	18	58	
14	Chlorides(mg/l)	7.3	7.5		16.6	8.8		9.78			5.5	17.6	11.0	
15	COD(mg/l)	12.0	4.0		6.0	26.0		12.0			6	4.0	6.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.12	0.6		1.12	1.68		1.6			2.2	1.12	0.56	
17	Ammonia (mg/l)	BDL	0.09		0.08	0.069		BDL			2.2	0.09	BDL	
18	Total Hardness(mg/l)	30	20.0		16.0	24.0		42.0			40	38	22.0	
19	Calcium(mg/l)	BDL	4.8		3.2	5.61		15.23			9.6	4.01	4.0	
20	Magnesium(mg/l)	6.8	BDL		BDL	2.43		BDL			3.9	6.8	2.92	
21	Sulphate(mg/l)	2.2	3.4		4.0	3.84		3.71			2.2	6.2	3.95	
22	Sodium(mg/l)	7.6	13.1		45.5	7.7		31.2			3.1	20	4.3	
23	Total Dissolved Solids(mg/l)	33	43.0		62.0	70.0		79.0			60	71.0	57.0	
24	Total Fixed Solids(mg/l)	19.0	29.0		44.0	42.0		47.0			19	43	41.0	
25	Total Suspended Solids(mg/l)	20.0	4.0		9.0	22.0		6.0			2.0	17.0	3.0	
26	Phosphate(mg/l)	0.06	BDL		BDL	0.067		0.020			BDL	0.056	BDL	
27	Boron(mg/l)	BDL	BDL	**DRY**	0.32	0.20	**DRY**	BDL	**DRY**	**DRY**	0.3	1.01	0.79	Max 2mg/l
28	Potassium(mg/l)	12.2	0.3		7.3	4.4		11.9			2.9	12.3	3.0	
29	Flouride(mg/l)	BDL	0.57		0.16	BDL		0.98			0.2	BDL	BDL	
30	Arsenic(mg/l)	BDL						BDL			-	-	-	
31	Cadmium(mg/l)	BDL						BDL			-	-	-	
32	Copper(mg/l)	BDL						0.001			-	-	-	
33	Lead(mg/l)	BDL						0.001			-	-	-	
34	Chromium(mg/l)	BDL						0.003			-	-	-	
35	Nickel(mg/l)	BDL						0.002			-	-	-	
36	Zinc(mg/l)	BDL						0.001			-	-	-	
37	IronTotal(mg/l)	0.01						0.263			-	-	-	
38	Mercury (mg/l)	BDL						BDL			-	-	-	
39	Alpha BHC (mg/l)	BDL	-		-	-		BDL			-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-		-	-		BDL			-	-	-	
41	Beta BHC (mg/l)	BDL	-		-	-		BDL			-	-	-	
42	Gamma BHC (mg/l)	BDL	-		-	-		BDL			-	-	-	
43	Heptachlor (mg/l)	BDL	-		-	-		BDL			-	-	-	
44	Aldrin (mg/l)	BDL	-		-	-		BDL			-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-		-	-		BDL			-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-		-	-		BDL			-	-	-	
47	p,p'-DDE (mg/l)	BDL	-		-	-		BDL			-	-	-	
48	Dieldrin (mg/l)	BDL	-		-	-		BDL			-	-	-	
49	Eldrin (mg/l)	BDL	-		-	-		BDL			-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-		-	-		BDL			-	-	-	
51	o,p'-DDD (mg/l)	BDL	-		-	-		BDL			-	-	-	
52	o,p'-DDT (mg/l)	BDL	-		-	-		BDL			-	-	-	
53	p,p'-DDT (mg/l)	BDL	-		-	-		BDL			-	-	-	
54	Methoxychlor (mg/l)	BDL	-		-	-		BDL			-	-	-	
55	Malathion (mg/l)	BDL	-		-	-		BDL			-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-		-	-		BDL			-	-	-	

AGRICULTURAL CANAL DOWNSTREAM OF CUNCOLIM INDUSTRIAL ESTATE													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class E as per CPCB**
1	Temperature°C	29	29	28	26	27	30	30	28		30	29	28	
2	Dissolved Oxygen(mg/l)	7.3	6.6	6.3	4.8	5.3	4.4	6.4	6.8		7.6	8.0	8.0	
3	pH	7.29	7.27	7.1	5.89	7.18	6.78	6.33	7		7.25	7.61	7.4	6-8.5
4	Conductivity(µs/cm)	71.71	78.16	749.8	407.70	320	357.5	659	327		77.92	84	68	Max 2250 µs/cm
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	BDL	1.19	1.592	1.14	0.1	1.45	BDL		0.1	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.008	0.065	0.007	0.009	0.018	0.005	0.011		BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1700	3400	2000	2200	7900	2400	1700	400		3500	3500	2800	
9	Fecal Coliform(MPN/100ml)	1400	2700	1700	1700	2300	790	780	200		2400	240	700	
10	Fecal Streptococci (MPN/100ml)	210	270	280	350	920	490	220	78		79	79	70	
11	Turbidity(NTU)	3.30	1.13	1.82	7.59	6.94	4.32	1.40	2.01		0.73	1.91	BDL	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	20.0	26.0	52.0	24.0	46	56	26	40		18	18	24	
14	Chlorides(mg/l)	11.30	10.50	391.0	24.70	37.17	956.4	45.98	64.48		7.6	12.2	8.0	
15	COD(mg/l)	14.0	4.0	4.0	4.0	26.0	8.0	10.0	8		10	2.0	4.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.24	0.60	4.48	1.68	2.24	4.4	3.3	1.12		1.7	2.24	0.56	
17	Ammonia (mg/l)	BDL	0.09	0.07	0.13	BDL	BDL	0.07	0.313		0.05	0.06	BDL	
18	Total Hardness(mg/l)	28.0	24.0	260.0	160.0	288.0	94.0	680.0	258		44	26	18.0	
19	Calcium(mg/l)	3.20	6.4	37.0	12.0	20.84	19.2	144.29	16.83		10.2	8.82	4.0	
20	Magnesium(mg/l)	4.86	BDL	40.0	31.60	57.34	11.2	77.76	52.5		4.4	0.97	BDL	
21	Sulphate(mg/l)	2.70	3.00	33.0	17.3	28.64	12.7	80.29	19.74		2.7	3.36	3.95	
22	Sodium(mg/l)	7.7	12.5	45.3	72.9	17.7	98.8	5.5	12.5		3.4	19.9	3.8	
23	Total Dissolved Solids(mg/l)	49.0	49.0	479.0	253.0	201.0	234.0	408.0	183		49	53.0	46.0	
24	Total Fixed Solids(mg/l)	25.0	33.0	190.0	176.0	120.0	78.0	244.0	109		17	32.0	31.0	
25	Total Suspended Solids(mg/l)	22.0	4.0	13.0	11.0	17.0	28.0	3.0	10		1.0	4.0	2.0	
26	Phosphate(mg/l)	0.240	0.020	BDL	0.027	0.067	0.02	0.09	0.089		0.02	0.038	BDL	
27	Boron(mg/l)	0.30	BDL	0.59	0.68	0.28	BDL	0.09	1.315		0.3	1.14	0.97	Max 2mg/l
28	Potassium(mg/l)	12.2	0.3	0.6	54.3	7.0	86.5	2.3	9.3	**DRY**	3.3	11.4	2.8	
29	Flouride(mg/l)	BDL	0.2	BDL	0.18	BDL	1.2	0.910	BDL		0.4	BDL	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL			-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.046			-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.044			-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001			-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.006			-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	15.03			-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.252			-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.189			-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL			-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-		-	-	-	

RIVER MAPUSA ON CULVERT ON HIGHWAY MAPUSA-PANAJI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	32	29	29	30	28	28	29	28	30	35	35	30	
2	Dissolved Oxygen(mg/l)	4.5	6.4	4.0	4.0	4.1	1.8	2.1	4.3	4.2	BDL	4.2	4.9	4 mg/l or more
3	pH	6.86	7.27	7.2	7.26	6.60	7.10	6.68	6.99	7.04	6.61	6.55	6.73	6.5 - 8.5
4	Conductivity(µs/cm)	79.3	67.4	242.9	144.80	151.1	184.2	141.5	158.5	8089.0	782.5	138.8	232	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	4.8	4.7	BDL	1.7	4.0	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.12	BDL	0.36	0.47	0.12	0.20	BDL	0.40	1.51	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.005	BDL	0.023	0.02	0.012	0.007	0.009	0.012	0.03	BDL	BDL	
8	Total Coliform(MPN/100ml)	3100	2200	6300	4600	7000	7900	7000	5800	3900	4900	3300	3400	
9	Fecal Coliform(MPN/100ml)	2300	1300	4600	2300	4600	3300	2300	3100	3300	3300	1300	1700	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	330	170	790	410	490	220	330	320	490	490	170	140	
11	Turbidity(NTU)	8.64	7.10	9.49	15.44	9.97	7	5.52	5.45	4.02	8.11	5.18	4.33	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	36.0	34.0	46.0	22.00	34.0	46.00	48.00	58.00	40.00	42.0	34.0	38.0	
14	Chlorides(mg/l)	20.1	8.0	67.5	14.5	4278.7	19.5	13.0	21.0	71.9	349.9	23.0	45.99	
15	COD(mg/l)	8.0	4.0	8.0	12.0	-	16.0	18.0	8.0	12.0	18.00	6.0	12	
16	Total Kjeldahl Nitrogen(mg/l)	1.1	1.68	5.00	6.20	1.68	1.12	4.48	1.12	3.90	3.36	1.12	2.80	
17	Ammonia (mg/l)	BDL	BDL	0.20	0.3	0.2	BDL	0.1	0.2	0.3	0.1	BDL	0.05	
18	Total Hardness(mg/l)	38.0	30.0	290.0	42.00	800.0	46.00	32.00	32.0	64.0	114.0	72.0	52.0	
19	Calcium(mg/l)	7.20	8.0	24.8	10.4	160.32	15.20	8.82	6.40	13.60	304.60	6.40	10.4	
20	Magnesium(mg/l)	4.9	2.0	55.4	3.90	97.2	1.90	2.43	3.89	7.30	18.47	13.60	6.30	
21	Sulphate(mg/l)	3.48	2.0	12.5	11.5	9.1	8.4	8.4	2.2	13.0	19.5	8.6	27.30	
22	Sodium(mg/l)	8.0	17.3	23.7	42.6	8.2	24.8	36.1	12.1	40.7	33.1	10.4	17.2	
23	Total Dissolved Solids(mg/l)	51.0	40.0	146.0	87.0	95.0	119.0	85.0	95.0	5278.0	479.0	83.0	142.0	
24	Total Fixed Solids(mg/l)	37.0	20.0	33.0	61.0	57.0	92.0	34.0	38.0	1760.0	199.0	33.0	58.0	
25	Total Suspended Solids(mg/l)	11.0	22.0	8.0	12	5	14	10	8	8	16	6	14.0	
26	Phosphate(mg/l)	0.054	BDL	BDL	0.09	0.10	0.15	0.08	0.07	0.02	0.12	BDL	BDL	
27	Boron(mg/l)	0.21	0.14	0.4	0.44	BDL	0.98	BDL	BDL	BDL	0.15	0.579	BDL	
28	Potassium(mg/l)	12.2	14.7	10.4	32.4	4.8	15.9	52.9	4.4	14.8	9.4	5.7	3.7	
29	Flouride(mg/l)	BDL	0.17	0.4	0.27	BDL	BDL	BDL	0.05	0.3	0.37	0.275	0.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	0.002	-	-	-	-	-	0.006	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.014	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	0.02	-	-	-	-	-	0.013	-	-	-	-	-	
37	IronTotal(mg/l)	0.12	-	-	-	-	-	2.63	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

CUMBHARJUA CANAL, CORLIM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	36	29	29	27	27	27	30	29	29	26	33	30	
2	Dissolved Oxygen(mg/l)	4.6	4.4	4.2	7.1	6.6	6.3	6.3	5.7	7.5	4.7	6.3	4.5	4 mg/l or more
3	pH	7.60	7.47	7.76	6.94	6.66	7.1	7.1	7.3	7.4	7.31	7.3	7.21	6.5 - 8.5
4	Conductivity(µs/cm)	51.5	52430.0	45230.0	468.5	335.9	4582.0	4348.0	10600.0	28670.0	31530.0	40280.0	43440	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.21	BDL	BDL	0.62	0.33	0.09	0.200	0.150	0.56	0.100	BDL	0.145	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.017	BDL	0.006	0.018	0.0056	0.006	0.009	0.107	0.035	0.015	0.063	
8	Total Coliform(MPN/100ml)	790	1100	1300	2200	2100	3400	920	2400	3500	2100	230	260	
9	Fecal Coliform(MPN/100ml)	490	450	790	1400	1400	2700	140	790	1100	780	130	170	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	130	170	170	140	120	210	110	79	110	93	70	84	
11	Turbidity(NTU)	2.95	5.1	6.24	8	7.74	4.23	1.92	11.53	3.55	7.05	6.53	64.50	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	80.0	80.0	92.0	22	26.0	10.0	60.00	50	74	100	104.0	106.0	
14	Chlorides(mg/l)	17494.6	17709.4	16633	124.9	69.5	1349.6	1249.6	3522.3	4448.62	12621.1	12621.1	11496.4	
15	COD(mg/l)	-	-	-	2	4	8	4	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	0.6	3.96	2.24	0.56	0.60	0.56	1.12	1.10	0.56	1.12	0.56	2.24	
17	Ammonia (mg/l)	0.14	BDL	0.080	0.1	BDL	0.1	0.1	BDL	BDL	0.1	0.1	0.05	
18	Total Hardness(mg/l)	2600.0	7000.0	12000.0	58.0	44.0	460.0	460.0	1160.0	3640.0	4400.0	8800.0	7400.0	
19	Calcium(mg/l)	320.6	440.9	501.00	12.0	8.0	48.1	8.0	104.2	216.4	320.64	721.4	400.8	
20	Magnesium(mg/l)	437.40	1433.7	2612.00	6.8	5.8	108.9	106.9	218.7	753.30	874.80	1701.0	1555.2	
21	Sulphate(mg/l)	1752.4	2856.1	2534	23.4	13	82.135	75.4	217.0	1417.0	2128.8	2267.2	2431.30	
22	Sodium(mg/l)	2213	1997	363.2	87.8	28.4	258.6	143.5	650.0	34.0	2725.0	8100.0	3925.0	
23	Total Dissolved Solids(mg/l)	29515.0	36646.0	27590.0	330.0	231.0	2749.0	2617.0	6784.0	18348.0	18197.0	25779.0	24326.0	
24	Total Fixed Solids(mg/l)	22004.0	26963.0	18309.0	234.0	185.0	1099.0	1750.0	4070.0	11008.0	10920.0	15467.0	14595.0	
25	Total Suspended Solids(mg/l)	7.0	194.0	54.0	15.000	17.00	9.00	8.00	22.00	5.00	19.00	3.00	40.0	
26	Phosphate(mg/l)	0.380	0.280	BDL	0.09	0.02	0.09	0.13	0.06	0.05	0.04	0.1	0.04	
27	Boron(mg/l)	0.39	0.20	0.62	0.34	0.35	BDL	0.4	1.3	1.9	1.9	1.8	1.489	
28	Potassium(mg/l)	405.4	252.6	147.7	48.60	9.60	131.20	38.20	550.00	8.90	1450.00	6350.0	1650.0	
29	Flouride(mg/l)	0.95	1.00	0.74	0.27	0.46	0.8745	0.3	0.48	1.317	0.8	2.983	0.709	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.023	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI NEAR MANDOVI BRIDGE,													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	32	29	28	30	28	30	30	29	30	35	31	30	
2	Dissolved Oxygen(mg/l)	6.2	7	7.1	5.9	6.2	6.5	6	5.0	4.8	6.1	6.8	5.2	4 mg/l or more
3	pH	7.9	7.90	7.99	8.24	7.5	6.97	7.25	8.1	7.77	7.84	7.90	7.90	6.5 - 8.5
4	Conductivity(µs/cm)	24050.0	47550.0	58390.0	24890.0	23850.0	40530.0	3671.0	43130.0	39110.0	46980.0	41990.0	51400	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.14	0.24	0.38	0.26	BDL	0.20	BDL	0.82	0.60	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.007	BDL	0.016	0.013	0.01	BDL	BDL	0.009	0.007	0.02	BDL	BDL	
8	Total Coliform(MPN/100ml)	210	130	540	540	330	1100	490	230	4900	2200	450	330	
9	Fecal Coliform(MPN/100ml)	130	78	350	350	230	490	220	130	2300	1700	200	170	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	46	23	240	140	110	330	110	94	430	230	110	94	
11	Turbidity(NTU)	4.63	5.3	14.35	6.9	10.6	8.3	6.4	4.3	2.0	2.8	3.7	3.67	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	6.0	6.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	14.0	2.0	
13	Total Alkalinity(mg/l)	96.0	106.0	118.0	80.0	86.0	122.0	34.0	144.0	84.0	86.0	102.00	116.0	
14	Chlorides(mg/l)	16633.1	17734.0	17489.3	12746.05	40221.32	14495.5	1199.6	15495.2	16755.4	17369.6	15370.2	17244.70	
15	COD(mg/l)	-	-	-	-	-	-	14	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.2	1.12	2.2	4.50	1.12	1.12	5.04	1.12	2.24	2.8	1.68	0.56	
17	Ammonia (mg/l)	BDL	BDL	0.15	0.2	0.1	BDL	BDL	0.1	BDL	0.1	BDL	BDL	
18	Total Hardness(mg/l)	5800.0	8800.0	8000.0	3500.0	3800.0	7400.0	336.0	4800.0	6600.0	7000.0	5800.0	7200.0	
19	Calcium(mg/l)	1362.7	561.0	801.6	360.7	56.1	320.6	64.9	400.8	400.8	721.4	320.6	641.28	
20	Magnesium(mg/l)	583.2	1798.0	1458.0	631.8	583.2	1603.80	42.3	923.4	1360.8	1263.6	1215.00	1360.8	
21	Sulphate(mg/l)	2113.1	2685.0	2371.4	1412.18	733.46	911.4	71.8	211.6	1291.1	3361.7	5.7	2957.50	
22	Sodium(mg/l)	1533	1740	484.5	389.6	378.7	836.0	172.8	2800.0	4014.0	3525.0	5825.0	4600.0	
23	Total Dissolved Solids(mg/l)	15478.0	29006.0	35021.0	15100.0	15025.0	25364.0	2203.0	25877.0	24524.0	30168.0	25194.0	34952.0	
24	Total Fixed Solids(mg/l)	10499.0	15403.0	15211.0	10592.0	9015.0	17248.0	881.2	10351.0	14714.0	12445.0	10078.0	20971.0	
25	Total Suspended Solids(mg/l)	16.0	16.0	11.0	110	108	58.0	10.000	6.000	8.00	4.00	4.000	17.0	
26	Phosphate(mg/l)	0.088	0.02	0.095	0.052	0.08	0.164	0.031	0.06	0.073	0.12	BDL	0.020	
27	Boron(mg/l)	0.26	0.35	5.9	2.24	0.52	1.67	BDL	BDL	2	2.2	1.82	1.24	
28	Potassium(mg/l)	200.5	331.2	207.2	209.0	147.9	353.30	103.40	1500.00	2514.00	1225.00	1950.00	675	
29	Flouride(mg/l)	0.20	0.72	2.27	1.4	BDL	1.05	BDL	1.4	1.88	0.9	1.24	1.76	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.014	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.17	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI AT TONCA MARCELA													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	34	29	29	28	28	28	30	29	28	28	33	28	
2	Dissolved Oxygen(mg/l)	4.4	5.9	5.8	7.0	7.2	6.8	6.5	5.8	5.4	5.0	6.0	5.7	4 mg/l or more
3	pH	7.61	7.44	7.79	6.9	6.75	7.23	7.26	7.5	7.28	7.21	7.21	7.23	6.5 - 8.5
4	Conductivity(µs/cm)	46.9	44110.0	43650.0	288.40	178.20	757.00	2176.00	10300.0	21900.0	26620.0	32560.0	38360	
5	BOD(mg/l)	2.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.44	BDL	BDL	0.22	0.21	0.09	0.100	0.218	0.52	0.100	BDL	0.16	
7	Nitrite Nitrogen as NO_2-N mg/l	0.005	0.006	BDL	BDL	0.02	BDL	BDL	BDL	0.088	0.045	0.014	0.031	
8	Total Coliform(MPN/100ml)	1300	110	490	1100	700	3300	3500	1700	580	330	1300	320	
9	Fecal Coliform(MPN/100ml)	790	110	330	700	490	2200	1300	1100	310	260	780	220	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	140	49	33	79	110	110	17	70	82	94	200	79	
11	Turbidity(NTU)	2.68	4.6	3.43	6.92	5.14	3.92	1.55	4.89	3.05	3.8	13.83	5.5	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	68.0	78.0	100.0	16.0	22.0	28.0	42.00	36.00	50.00	82.00	98.0	98.0	
14	Chlorides(mg/l)	16994.70	16095.0	17367.00	69.9	34.0	179.9	599.8	3669.1	4348.7	11346.5	16120.0	13745.7	
15	COD(mg/l)	-	-	-	4	4	6	4	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	0.6	3.36	2.801	0.56	0.60	0.56	1.12	1.70	1.68	1.12	0.56	2.240	
17	Ammonia (mg/l)	BDL	0.02	0.06	BDL	BDL	0.0	BDL	0.1	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	5400.0	6000.0	10000.0	26.0	34.00	76.0	200.00	1140.00	2680.0	8200.0	6200.0	6600.0	
19	Calcium(mg/l)	801.6	240.5	541.0	4.00	5.6	8.0	15.23	120.24	152.3	400.80	400.8	480.96	
20	Magnesium(mg/l)	826.20	1312.00	2102.00	3.90	4.90	13.60	39.30	204.1	558.90	1749.60	1263.6	1312.20	
21	Sulphate(mg/l)	966.4	2192.7	2344.00	10	4.8	20.18	63.5	210.49	805.1	1360.6	1249.0	2337.50	
22	Sodium(mg/l)	1890	1644	417.4	67.8	17.3	136.0	86.7	660.0	25.8	2425.0	9500.0	3350.0	
23	Total Dissolved Solids(mg/l)	29440.0	30022.0	26190.0	160.0	109.0	453.0	1194.0	6386.0	13578.0	14711.0	20838.0	21481.0	
24	Total Fixed Solids(mg/l)	21786.0	20962.0	15238.0	96.0	86.0	181.0	720.0	3831.0	8146.0	8825.0	12502.0	12888.0	
25	Total Suspended Solids(mg/l)	6.0	102.0	30.0	6.00	12.00	7.00	5.00	17.00	4.00	15.00	7.00	11.0	
26	Phosphate(mg/l)	0.03	0.230	0.04	0.05	0.02	BDL	0.12	0.02	0.06	0.02	0.05	BDL	
27	Boron(mg/l)	0.53	0.20	0.59	0.31	0.31	BDL	0.9	2.0	2.0	1.2	1.8	1.623	
28	Potassium(mg/l)	354	213.6	175.5	44.8	6.4	104.6	22.1	540	7.8	1350	6350	1525.0	
29	Flouride(mg/l)	0.97	1	1.11	BDL	0.26	0.4	0.4	0.41	1.21	0.9	3.441	0.773	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI NEAR HOTEL MARIOTT													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	29	28	28	30	28	29	29	30	29	30	30	
2	Dissolved Oxygen(mg/l)	4.2	6.0	6.1	6.5	6.9	6.7	5.3	5.6	5.6	6.5	6.2	6.4	4 mg/l or more
3	pH	7.97	7.97	7.4	7.81	6.69	7.91	8.2	8.27	7.87	7.94	7.97	7.96	6.5 - 8.5
4	Conductivity(µs/cm)	50490.0	48510.0	53520.0	30300.0	9933.0	45290.0	43640.0	46660.0	48910.0	49920.0	49130.0	69820	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.16	0.54	0.23	0.2	BDL	0.16	0.15	BDL	BDL	0.20	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.084	BDL	0.012	0.008	0.006	0.005	0.005	0.013	0.038	0.01	BDL	BDL	
8	Total Coliform(MPN/100ml)	220	230	280	350	280	470	2400	920	6300	7000	1200	140	
9	Fecal Coliform(MPN/100ml)	170	130	170	220	79	330	230	170	3300	4600	680	92	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	110	79	79	120.0	34.0	110	20	24	330	330	140	79	
11	Turbidity(NTU)	2.57	13.80	22.10	6.1	9.5	11.3	6.1	1.9	2.6	4.1	4.8	7.79	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	12.0	14.0	BDL	BDL	BDL	BDL	10.0	18.0	20.0	16.0	BDL	
13	Total Alkalinity(mg/l)	98.0	92.0	116.0	BDL	46.0	100.00	144.0	98.00	80.00	96.0	110.0	120.0	
14	Chlorides(mg/l)	17905.0	16927.0	17890.0	17619.54	3124.03	16495	17244.7	17744.5	17611.0	17494.5	16994.7	17367.00	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.68	1.12	7.8	2.8	0.56	0.56	1.12	1.12	3.36	3.4	0.6	1.12	
17	Ammonia (mg/l)	BDL	BDL	0.07	0.2	BDL	0.1	0.1	0.1	0.1	0.2	0.1	BDL	
18	Total Hardness(mg/l)	8000.0	8800.0	8500.0	4800.0	2400.0	7800.0	4600.0	6400.0	7800.0	8000.0	6600.0	3000.0	
19	Calcium(mg/l)	521.0	561.0	601.2	881.8	80.2	400.8	1000.0	721.4	561.1	1042.0	481.0	561.12	
20	Magnesium(mg/l)	1628.1	1798.0	1701.0	631.8	534.6	1652.4	874.8	1117.8	1555.2	1312.2	1312.20	388.80	
21	Sulphate(mg/l)	2509.70	2424.0	3436.40	2161.5	623.88	1763.0	5.8	1627.5	1773.9	2202.5	425.3	3115.0	
22	Sodium(mg/l)	1895	2983	428.3	272.1	380.3	674.8	607.8	6875.0	7075.0	5150.0	9425.0	7525.0	
23	Total Dissolved Solids(mg/l)	30022.0	28135.0	32115.0	18534.0	5917.0	29720.0	26180.0	27996.0	31427.0	30619.0	29478.0	46779.0	
24	Total Fixed Solids(mg/l)	22124.0	16881.0	13688.0	11120.0	5142.0	20804.0	10472.0	11198.0	18942.0	12715.0	11791.0	28067.0	
25	Total Suspended Solids(mg/l)	149.0	25.0	13.0	19	46	22	10	2	11	9	6	12.0	
26	Phosphate(mg/l)	0.05	0.02	0.125	0.066	0.02	0.115	0.1173	0.023	0.135	0.1	0.15	BDL	
27	Boron(mg/l)	1.7	0.43	4.46	3.12	1.8	0.88	BDL	0.85	3	0.3	1.1	1.56	
28	Potassium(mg/l)	241.8	566	184	52.6	119.3	303.3	290.5	3050	3098	1700	2400	2575	
29	Flouride(mg/l)	1.30	0.4	1.1	1.495	0.5	1.1	1.23	1.79	2.11	1.5	1.8	1.02	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.122	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI AT IFFI JETTY														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	29	28	28	30	28	29	29	30	29	30	30	
2	Dissolved Oxygen(mg/l)	6.0	6.0	6.5	6.2	6.8	6.6	5.6	5.8	4.4	5.1	6.1	5.2	4 mg/l or more
3	pH	7.74	7.32	7.4	7.61	7.44	7.83	8.07	8.26	7.9	7.92	7.98	7.94	6.5 - 8.5
4	Conductivity(µs/cm)	48570.0	48630.0	53280.0	25100.0	9461.0	40640.0	42850.0	49260.0	49500.0	48550.0	49420.0	69020	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.17	0.31	0.20	0.20	BDL	0.18	0.01	BDL	0.10	0.20	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.113	BDL	0.012	0.005	0.006	BDL	BDL	0.167	0.010	0.04	0.01	0.010	
8	Total Coliform(MPN/100ml)	110	460	220	280	240	490	790	340	3500	5400	1100	230	
9	Fecal Coliform(MPN/100ml)	79	230	130	170	130	330	230	130	1300	1400	450	130	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	49	94	70	130	22	140	11	17	110	110	93	84	
11	Turbidity(NTU)	2.87	12.1	17.86	7.1	8.7	12.6	5.1	1.5	1.4	2.0	6.7	8.70	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	10.0	12.0	BDL	BDL	BDL	BDL	8.0	10.0	18.0	10	BDL	
13	Total Alkalinity(mg/l)	92.0	80.0	122.0	46.0	44.0	96.00	140.0	90.00	90.00	114.0	110.00	122.0	
14	Chlorides(mg/l)	17758.3	16829.0	17733.8	16244.9	2999	15495.2	16120	17244.65	17367.0	17369.6	16494.9	16877.70	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.68	1.12	3.4	1.4	0.56	0.56	1.7	1.68	1.10	2.20	1.10	0.56	
17	Ammonia (mg/l)	BDL	BDL	0.10	0.1	0.1	0.1	0.1	0.1	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	16000.0	9000.0	8500.0	3800.0	4400.0	7000.0	5400.0	7000.0	7400.0	7000.0	6200.0	7000.0	
19	Calcium(mg/l)	961.9	641.0	601.2	320.6	64.1	376.70	400.8	1200.00	480.96	641.30	400.8	641.28	
20	Magnesium(mg/l)	3304.8	1798.0	1701.0	729.0	1030.3	1472.60	1069.2	1409.40	1506.60	1312.20	1263.60	1312.2	
21	Sulphate(mg/l)	2621.90	3002.0	3358.30	1412.2	618.45	1041.6	4.8	1611.2	2018.1	2164.6	461.7	2982.0	
22	Sodium(mg/l)	1837	2863	473.9	163.5	371.5	680.5	617.4	7800.0	8802.0	5000.0	9575.0	6900.0	
23	Total Dissolved Solids(mg/l)	30027.0	28206.0	31901.0	13891.0	6119.0	26649.0	25710.0	29556.0	33166.0	30271.0	29650.0	46243.0	
24	Total Fixed Solids(mg/l)	23953.0	16752.0	14549.0	12790.0	5342.0	19720.0	10284.0	11822.0	19714.0	12587.0	11860.0	27745.0	
25	Total Suspended Solids(mg/l)	147.0	20.0	10.0	6.00	41.00	25.00	8.00	2.000	7.000	5.00	10.000	19.0	
26	Phosphate(mg/l)	0.19	BDL	0.12	0.09	0.17	0.269	0.27	0.29	0.06	0.1	BDL	0.020	
27	Boron(mg/l)	1.8	0.45	8.25	BDL	1.23	0.56	BDL	0.586	1.87	0.7	1.4	1.91	
28	Potassium(mg/l)	229.9	539.4	201.8	30.3	117.2	308	295.90	3375.00	3477.00	1725.00	2375.00	2375.0	
29	Flouride(mg/l)	1.30	0.39	2.17	0.4	0.5	0.93	1.37	1.77	2.3	1.3	1.6	1.72	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.011	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.013	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.129	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI AT RIBANDAR-CHODAN FERRY, PANAJI													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	32	29	28	30	28	30	30	29	29	35	31	30	
2	Dissolved Oxygen(mg/l)	6.8	6.6	5.9	6.6	6.6	6.7	7.3	5.8	6.1	6.8	7.0	6.4	4 mg/l or more
3	pH	7.88	7.8	7.36	7	7.3	6.93	7.24	8.08	7.65	7.82	7.77	7.81	6.5 - 8.5
4	Conductivity(µs/cm)	25320.0	45860.0	57260.0	14180.0	9163.0	35970.0	1283.0	35250.0	40760.0	46980.0	36670.0	48650	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.14	0.27	0.47	0.22	BDL	0.20	BDL	0.16	0.30	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.02	0.02	BDL	BDL	BDL	0.007	0.020	0.01	BDL	BDL	
8	Total Coliform(MPN/100ml)	330	1100	920	1100	790	490	230	220	2300	7900	780	230	
9	Fecal Coliform(MPN/100ml)	230	790	540	700	490	230	130	140	1300	3300	200	130	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	79	140	350	170	140	330	120	110	330	140	100	79	
11	Turbidity(NTU)	4.51	5.46	14.48	10.27	10.29	7.1	6.65	5.97	1.39	4.1	7.3	3.49	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	4.0	6.0	BDL	BDL	BDL	BDL	BDL	BDL	8.0	8.0	BDL	BDL	
13	Total Alkalinity(mg/l)	100.0	104.0	78.0	48.0	74.0	112.0	36.0	124.0	74.0	74.0	96.00	118.0	
14	Chlorides(mg/l)	13942.5	17245.0	17611.5	5373.33	3565.58	12996.0	599.8	11996.3	16388.5	17244.6	15745.1	17611.6	
15	COD(mg/l)	-	-	-	-	-	-	12.00	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.2	1.12	6.2	3.90	3.36	1.12	2.80	1.70	2.80	2.80	1.12	1.12	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.3	0.1	BDL	BDL	BDL	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	5600.0	9200.0	9000.0	1700.0	2800.0	5600.0	128.0	4600.0	5800.0	6000.0	5200.0	6800.0	
19	Calcium(mg/l)	1202.4	481.0	1202.4	120.2	3.2	264.5	22.4	320.6	480.9	881.7	240.5	480.96	
20	Magnesium(mg/l)	631.8	1944.0	1458.0	340.2	486.0	1200.40	17.5	923.4	1117.8	923.4	1117.80	1360.8	
21	Sulphate(mg/l)	1584.00	3198.00	2761.90	497.15	175.77	662	48.5	59.7	1339.9	3928.1	4.5	20821.2	
22	Sodium(mg/l)	1521	1798	471.6	259.5	221.4	768.3	109.6	2380.0	2217.0	3050.0	5150.0	6175.0	
23	Total Dissolved Solids(mg/l)	15334.0	27056.0	34337.0	8510.0	5131.0	19757.0	770.0	21150.0	27428.0	28772.0	22002.0	32595.0	
24	Total Fixed Solids(mg/l)	10602.0	14823.0	14131.0	5935.0	3078.0	15608.0	308.0	8460.0	16342.0	11869.0	8801.0	19557.0	
25	Total Suspended Solids(mg/l)	12.0	18.0	14.0	148	68	44	11	10	4	9	8	15.0	
26	Phosphate(mg/l)	0.024	BDL	0.094	0.045	0.04	0.157	0.04	0.14	0.48	0.2	0.122	0.02	
27	Boron(mg/l)	0.25	0.39	6.6	0.89	BDL	1.61	BDL	BDL	2.7	2.2	1.84	1.89	
28	Potassium(mg/l)	198.7	327.4	201.3	137.7	74.4	726.90	77.20	1400.00	2038.00	1175.00	1925.00	1150	
29	Flouride(mg/l)	0.20	0.73	2.00	1.06	BDL	1	BDL	0.025	2.205	1	1.138	1.5	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	0.007	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
36	Zinc(mg/l)	0.05	-	-	-	-	-	0.01	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.30	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER MANDOVI AT AMONA													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	35	29	29	28	28	28	30	29	28	28	33	30	
2	Dissolved Oxygen(mg/l)	6.9	5.3	5.2	6.6	7.1	7.3	7.1	5.8	6.3	6.0	6.0	5.9	4 mg/l or more
3	pH	7.53	7.6	7.9	6.98	6.81	7.29	7.37	7.30	7.25	7.31	7.32	7.17	6.5 - 8.5
4	Conductivity(µs/cm)	43.2	43600.0	41630.0	460.30	232.80	254.40	689.50	7008.0	20260.0	23890.0	29540.0	34070	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.28	BDL	BDL	0.30	0.17	0.05	0.20	BDL	0.79	0.10	BDL	0.243	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.005	0.017	BDL	BDL	BDL	0.105	0.057	0.040	0.102	
8	Total Coliform(MPN/100ml)	790	940	230	3500	1300	4000	1400	1300	450	310	230	170	
9	Fecal Coliform(MPN/100ml)	490	700	170	1700	790	3300	330	780	200	170	130	78	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	110	49	23	540	220	460	240	92	68	79	68	63	
11	Turbidity(NTU)	6.62	7.65	8.12	9.2	4.5	3.8	2.5	3.9	3.4	2.8	13.8	8.71	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	66.0	110.0	94.0	24.00	20.00	70.0	46.00	34.00	60.00	82.0	90.0	86.0	
14	Chlorides(mg/l)	12496.10	15410.00	16389.00	114.9	48.0	48.0	199.9	2299.3	2549.2	9247.1	11246.5	11746.4	
15	COD(mg/l)	-	-	-	6	4	6	2	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	0.6	0.56	3.36	0.56	0.60	0.56	1.68	2.20	2.24	0.56	1.12	1.68	
17	Ammonia (mg/l)	0.21	0.16	0.06	0.1	BDL	0.0	0.1	0.1	BDL	BDL	0.1	BDL	
18	Total Hardness(mg/l)	6000.0	5600.0	11000.0	50.0	40.0	34.0	86.0	820.00	2480.00	3800.00	6600.0	4400.0	
19	Calcium(mg/l)	811.6	561.0	401.0	8.0	8.8	4.8	9.6	64.1	176.4	240.5	641.3	320.64	
20	Magnesium(mg/l)	923.40	1020.00	2102.0	7.3	4.4	5.4	15.1	160.4	495.7	777.6	1215.0	874.80	
21	Sulphate(mg/l)	708.70	2517.0	1970.00	27.2	5.9	4.8	26.5	156.2	681.4	729.1	1110.5	1375.00	
22	Sodium(mg/l)	1744	1568	341.9	88.4	23.7	104.0	35.3	480.0	26.3	2150.0	9000.0	3075.0	
23	Total Dissolved Solids(mg/l)	29140.0	30520.0	24561.0	320.0	136.0	153.0	391.0	4625.0	13371.0	13981.0	18905.0	19079.0	
24	Total Fixed Solids(mg/l)	20840.0	12208.0	15318.0	192.0	115.0	61.0	236.0	2775.0	8022.0	8388.0	11343.0	11447.0	
25	Total Suspended Solids(mg/l)	13.0	115.0	40.0	32.00	10.00	6.00	11.000	26.000	5.000	13.000	7.00	17.0	
26	Phosphate(mg/l)	0.60	0.06	BDL	0.05	BDL	0.02	0.10	0.02	0.09	BDL	0.06	0.08	
27	Boron(mg/l)	0.66	1.32	0.60	0.36	0.57	BDL	1.1	1.2	2.0	0.8	1.8	1.393	
28	Potassium(mg/l)	327.1	418.8	139.5	49.8	8.8	100.3	8.4	410	8.2	1325	3100	1425.0	
29	Flouride(mg/l)	0.9	3.88	1.1	0.27	BDL	BDL	BDL	0.38	1.246	0.5	3.407	0.657	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER TIRACOL AT KERI, PERNEM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	31	28	28	28	29	29	29	30	29	29	29	29	
2	Dissolved Oxygen(mg/l)	6.4	8.0	4.1	6.7	7.3	7.3	6.6	6.5	6.0	7.6	5.2	7.1	4 mg/l or more
3	pH	7.91	8.08	7.66	7.40	7.08	7.60	7.14	7.94	7.84	7.65	7.78	7.92	6.5 - 8.5
4	Conductivity(µs/cm)	30450.0	46970.0	62530.0	12780.0	5609.0	24510.0	6988.0	24310.0	32000.0	44040.0	41170.0	42070	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	BDL	0.26	0.30	0.13	BDL	0.12	0.79	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.009	BDL	0.014	0.014	0.006	BDL	BDL	BDL	0.01	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	700	220	4902	14000	14000	170	3500	1300	1700	2100	450	490	
9	Fecal Coliform(MPN/100ml)	490	94	330	9400	7900	140	1700	450	790	1300	200	230	100 or less MPN/100 ml
10	Fecal Streptococci(MPN/100ml)	40	49	70	3500	920	110	220	220	170	200	93	110	
11	Turbidity(NTU)	6.59	3.36	11.48	11.9	11.2	4.6	4.1	2.5	2.3	3.3	20.2	2.16	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	4.0	4.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	6.0	4.0	6.0	
13	Total Alkalinity(mg/l)	104.0	92.0	138.0	60.0	32.0	62.0	40.00	86.0	72.0	48.0	110.0	104.0	
14	Chlorides(mg/l)	17745.0	18212.4	17744.5	5411.4	2249.3	9097.1	2499.2	8347.4	13595.8	18021.4	17994.4	15870.10	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.7	2.8	1.7	12.33	2.80	1.12	1.12	1.68	0.56	3.40	1.12	0.56	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.3	0.1	BDL	BDL	0.1	0.1	0.1	0.1	BDL	
18	Total Hardness(mg/l)	10400.0	5300.0	9400.0	2800.0	600.0	6600.0	680.0	2700.0	3820.0	2000.0	6000.0	4760.0	
19	Calcium(mg/l)	697.4	320.6	545.0	400.0	40.1	240.5	46.5	184.4	240.5	480.9	320.6	1202.4	
20	Magnesium(mg/l)	2104.4	1093.5	1953.7	437.40	121.50	1458.0	137.1	544.3	782.5	194.40	1263.6	427.70	
21	Sulphate(mg/l)	1289.0	935.5	1193.4	806.9	164.92	1288.9	219.2	900.6	786.6	644.5	1708.9	2537.50	
22	Sodium(mg/l)	7456	2719	2338	99.6	164.9	593.4	147.7	1875.0	10350.0	2880.0	4475.0	4020.0	
23	Total Dissolved Solids(mg/l)	17965.0	29121.0	38143.0	9214.0	3362.0	14413.0	4503.0	13613.0	17920.0	29306.0	23055.0	27346.0	
24	Total Fixed Solids(mg/l)	16766.0	16576.0	37943.0	7377.0	1345.0	8695.0	2792.0	8167.0	10752.0	9775.0	13833.0	19142.0	
25	Total Suspended Solids(mg/l)	132.0	12.0	134.0	85	24	8	9	11	9	6	30	6.0	
26	Phosphate(mg/l)	0.03	0.05	0.11	0.05	0.02	0.14	0.022	0.054	0.053	0.03	0.066	BDL	
27	Boron(mg/l)	2.39	0.9	4.79	0.5	0.08	1.8	1.61	2.672	3.69	0.1	1.542	1.290	
28	Potassium(mg/l)	555.2	521.6	584	68.20	49.80	201.00	65.00	1400.0	3750.0	750.00	1275.00	860.00	
29	Flouride(mg/l)	0.98	1.04	1.31	0.6	0.38	BDL	0.29	0.791	1.083	0.2	1.237	0.88	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	0.004	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.016	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.036	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.25	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER CHAPORA NEAR SIOLIM BRIDGE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	28	28	27	29	29	30	30	29	29	29	30	
2	Dissolved Oxygen(mg/l)	6.2	6.6	7.4	7.1	7.8	6.0	6.8	6.3	5.0	6.7	7.9	6.0	4 mg/l or more
3	pH	7.95	8.04	7.21	8.00	7.18	6.90	7.28	7.87	7.71	7.80	7.81	7.90	6.5 - 8.5
4	Conductivity(µs/cm)	30090.0	40270.0	59960.0	48300.0	2917.00	41560.0	8349.0	22440.0	33630.0	43290.0	28850.0	30850	
5	BOD(mg/l)	BDL	2.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.11	0.2	0.14	BDL	0.12	0.11	BDL	0.40	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.005	0.033	BDL	BDL	BDL	0.0072	0.013	BDL	0.007	0.008	
8	Total Coliform(MPN/100ml)	1300	220	1100	2800	2800	3300	2400	780	2200	2600	1300	170	
9	Fecal Coliform(MPN/100ml)	790	170	700	1700	1300	2300	790	450	1700	1700	450	130	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	280	26	140	350	540	330	540	170	230	240	210	70	
11	Turbidity(NTU)	2.95	4.28	7.01	9.9	10.7	3.6	4.9	3.3	4.0	4.2	3.2	15.34	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	4.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.0	BDL	BDL	
13	Total Alkalinity(mg/l)	104.0	90.0	126.0	114.0	26.0	86.0	44.00	62.0	72.0	42.0	98.0	84.0	
14	Chlorides(mg/l)	17745.0	18819.5	17744.5	16486	1124.7	14870.3	2749.2	8297.42	14245.6	18247.9	11246.5	10621.70	
15	COD(mg/l)	-	-	-	-	6	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.7	2.2	1.7	11.76	2.20	0.56	1.12	1.12	1.12	3.40	0.56	1.12	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.1	BDL	BDL	BDL	BDL	0.1	0.1	0.1	BDL	
18	Total Hardness(mg/l)	11400.0	4420.0	9400.0	11800.0	1200.0	5000.0	880.0	2520.0	2840.0	3500.0	3260.0	3220.0	
19	Calcium(mg/l)	881.8	264.5	376.8	800.0	21.6	721.4	58.5	184.4	240.5	801.6	224.4	841.70	
20	Magnesium(mg/l)	2235.6	913.7	2055.8	2381.40	278.50	777.6	178.4	500.6	544.3	364.50	656.1	272.20	
21	Sulphate(mg/l)	1486.5	1015.3	1556.0	2291.2	54.25	1584.10	240.9	850.6	868.0	949.4	3618.5	1382.50	
22	Sodium(mg/l)	7366	2396	2360	159.5	107.4	860.2	240.7	1625.0	9675.0	3075.0	6000.0	3120.0	
23	Total Dissolved Solids(mg/l)	17753.0	23759.0	35376.0	30228.0	1732.0	24191.0	5207.0	12566.0	18832.0	27945.0	16156.0	19127.0	
24	Total Fixed Solids(mg/l)	16994.0	10839.0	34174.0	26425.0	693.0	14614.0	3385.0	7539.0	11299.0	9310.0	9693.0	12433.0	
25	Total Suspended Solids(mg/l)	125.0	8.0	147.0	252	15	6	10	12	12	9	8	28.0	
26	Phosphate(mg/l)	0.03	1.12	0.08	0.11	0.11	0.3	BDL	0.059	0.059	0.03	0.045	BDL	
27	Boron(mg/l)	2.87	0.65	4.99	1.8	0.03	1.7	0.97	2.22	2.429	0.2	1.629	1.220	
28	Potassium(mg/l)	545.6	457.2	600.2	102.00	31.00	329.20	75.00	1375.00	3575.00	1175.00	1475.00	680.0	
29	Flouride(mg/l)	0.92	0.41	1.41	1.3	0.3	0.7	0.43	0.979	1.185	0.5	1.093	1.1	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.023	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
36	Zinc(mg/l)	0.03	-	-	-	-	-	0.029	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.3	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SINQUERIM, CANDOLIM SIDE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	31	28	28	27	28	29	29	30	29	30	32	29	
2	Dissolved Oxygen(mg/l)	6.5	5.0	5.2	5.3	5.8	5.4	5.3	4.6	6.4	4.4	4.7	4.5	4 mg/l or more
3	pH	7.9	7.89	7.65	7.00	7.60	7.70	7.95	7.89	7.52	7.66	7.32	7.60	6.5 - 8.5
4	Conductivity(µs/cm)	30790.0	48760.0	50780.0	20980.0	25770.0	46270.0	36160.0	40990.0	43850.0	48220.0	48050.0	55020	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.20	0.01	BDL	0.2	0.20	BDL	0.12	0.28	BDL	0.11	0.0	0.1000	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.006	0.005	BDL	0.006	0.006	0.007	0.008	0.01	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	2400	5400	3500	2800	2200	3300	940	4900	1100	4900	1400	1100	
9	Fecal Coliform(MPN/100ml)	2100	2200	1300	1700	1300	2300	700	1700	780	2300	680	450	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	340	220	79	350	240	490	350	490	130	130	110	140	
11	Turbidity(NTU)	4.47	5.12	5.83	12.1	9.7	4.7	3.2	5.1	4.7	9.7	16.7	6.34	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	8.0	10.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.0	10.0	BDL	
13	Total Alkalinity(mg/l)	90.0	90.0	128.0	12.0	8.0	110.0	134.00	86.0	100.0	134.0	106.0	118.0	
14	Chlorides(mg/l)	18576.7	16926.7	17370.0	14432	8683.5	16994.7	12121.2	14845.39	17119.7	17869.5	17744.5	15495.19	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.8	3.4	1.1	1.68	12.33	1.12	1.12	1.68	1.12	1.121	3.4	3.40	
17	Ammonia (mg/l)	0.11	0.08	0.01	1.2	BDL	BDL	BDL	BDL	BDL	0.2	0.1	BDL	
18	Total Hardness(mg/l)	6500.0	6400.0	8600.0	2400.0	5000.0	6000.0	3920.0	4600.0	6000.0	9400.0	7500.0	7200.0	
19	Calcium(mg/l)	400.8	641.3	537.0	721.0	1603.2	480.9	24.0	336.7	641.3	1282.6	400.8	641.30	
20	Magnesium(mg/l)	1336.5	1166.3	1764.2	145.8	243.0	1166.4	938.0	913.7	1069.2	1506.6	1579.5	1360.80	
21	Sulphate(mg/l)	837.5	2315.3	2316.0	1524	1014.5	1703.5	906.0	2250.3	1638.4	2077.8	2308.8	2556.30	
22	Sodium(mg/l)	7.7	1035	2600	324.4	433.9	561.7	548.7	2450.0	10300.0	30860.0	3975.0	7300.0	
23	Total Dissolved Solids(mg/l)	18474.0	29257.0	29960.0	14442.0	15330.0	25903.0	18610.0	22954.0	23753.0	30860.0	31504.0	37713.0	
24	Total Fixed Solids(mg/l)	11064.0	15811.0	28953.0	8371.0	15280.0	20204.0	12654.0	13772.0	14261.0	18516.0	10571.0	15796.0	
25	Total Suspended Solids(mg/l)	24.0	15.0	127.0	88	90	22	9.00	16.00	7.00	7.00	20.00	20.0	
26	Phosphate(mg/l)	0.05	2.11	0.05	0.2	0.1	0.08	0.052	0.077	0.12	0.093	0.032	BDL	
27	Boron(mg/l)	0.70	0.24	4.82	1.42	1.18	1.5	1.5	3.9	1.2	2.0	0.9	0.2	
28	Potassium(mg/l)	12.2	111.4	665	173.9	180.90	223.70	209.7	1550.0	4225.00	1200.0	700.00	2675.0	
29	Flouride(mg/l)	1.40	0.4	1.4	1.69	2.8	0.97	1	1.069	0.9	1.337	1.5	0.9	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.082	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SINQUERIM, NEAR GANPATI TEMPLE													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	31	28	28	27	28	29	29	29	29	30	32	29	
2	Dissolved Oxygen(mg/l)	6.8	5.0	5.2	6.4	5.3	5.5	5.4	4.7	7.8	6.6	5.5	4.5	4 mg/l or more
3	pH	7.94	7.9	7.62	7	7.61	7.66	7.93	7.88	7.64	7.65	8	7.74	6.5 - 8.5
4	Conductivity(µs/cm)	30720.0	48630.0	50950.0	22510.0	29880.0	47810.0	40030.0	41490.0	43090.0	48990.0	48710.0	55990	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.18	0.1	BDL	0.17	0.2	BDL	0.11	0.138	BDL	BDL	0.37	0.10	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.006	0.005	BDL	0.006	0.01	0.01	0.008	0.011	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	3200	490	790	3500	2800	940	490	3300	13000	3100	1700	1500	
9	Fecal Coliform(MPN/100ml)	2600	490	490	2400	2200	700	330	1300	4900	1300	780	680	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	380	140	220	540	350	170	240	460	110	230	140	170	
11	Turbidity(NTU)	3.18	5.2	6.56	13.2	9.5	7.8	3.6	7.1	4.2	5.0	0.1	6.20	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	12.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	80.0	100.0	124.0	26.0	74.0	110.0	134.00	92.0	92.0	142.0	106.0	118.0	
14	Chlorides(mg/l)	15638.4	16828.8	17370.0	2935	12710.6	17244.7	14120.6	16144.99	16869.8	17619.5	17366.9	17119.70	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2	3.4	1.1	2.2	7.3	1.12	1.12	2.24	1.68	0.114	3.9	2.2	
17	Ammonia (mg/l)	0.09	BDL	BDL	1.0	BDL	BDL	BDL	0.2	0.1	0.1	0.1	BDL	
18	Total Hardness(mg/l)	7500.0	6400.0	7600.0	2600.0	5000.0	7200.0	4520.0	4980.0	6200.0	8800.0	6000.0	7400.0	
19	Calcium(mg/l)	561.1	481.0	537.0	240.5	1402.8	480.9	30.5	336.7	641.3	1042.1	400.8	480.90	
20	Magnesium(mg/l)	1482.3	1263.6	1521.2	486.0	364.5	1506.6	1079.0	1006.0	1117.8	1506.6	1215.0	1506.60	
21	Sulphate(mg/l)	742.2	2162.7	1854.5	1778.2	1231.5	1844.5	1139.3	2380.5	1719.7	1969.3	2276.3	3337.50	
22	Sodium(mg/l)	839.1	632.9	2528	318.0	486.9	622.3	593.0	2975.0	10125.0	3250.0	3900.0	7150.0	
23	Total Dissolved Solids(mg/l)	18162.0	29133.0	30061.0	14698.0	19278.9	28785.0	22430.0	21989.0	24142.0	30373.0	30461.0	38365.0	
24	Total Fixed Solids(mg/l)	10567.0	14117.0	29055.0	8531.0	19246.0	21031.0	16150.0	13193.0	14485.0	18223.0	10252.0	14065.0	
25	Total Suspended Solids(mg/l)	27.0	14.0	117.0	112.00	146.00	25.00	9.00	20.00	6.00	4.00	10.00	10.0	
26	Phosphate(mg/l)	0.07	1.92	0.02	0.3	0.3	0.1	0.1	0.1	0.09	0.1	0.13	BDL	
27	Boron(mg/l)	0.65	0.2	4.71	2.8	1.24	1.9	1.9	3.4	1.3	1.9	0.8	BDL	
28	Potassium(mg/l)	392.7	73.9	664	182.7	206.10	242.2	225.3	1650.0	4225.0	1325.0	750.00	2675.0	
29	Flouride(mg/l)	0.95	0.5	1.3	1.5	1.9	0.96	1.12	1.054	0.9	1.381	1.7	0.9	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.07	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SAL AT RUMDER, NUVEM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	29	29	28	27	29	29	31	30	29	28	29	29	
2	Dissolved Oxygen (mg/l)	3.7	3.1	4.5	4.0	5.8	5.8	6.1	2.8	1.4	1.8	4.4	2.5	4 mg/l or more
3	pH	6.4	6.80	7.25	7.19	6.52	6.78	7.29	7.35	7.49	6.57	6.50	6.71	6.5 - 8.5
4	Conductivity µs/cm	92.82	276.50	139.20	121.40	115	110.6	123	114	117	102.2	112	126	
5	BOD(mg/l)	4.8	8.0	BDL	BDL	BDL	BDL	BDL	2.8	3.6	6.3	BDL	5.4	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	1.04	1.31	0.49	0.8	0.22	0.4	BDL	0.12	BDL	BDL	0.2	
7	Nitrite Nitrogen as NO_2-N mg/l	0.057	BDL	0.033	0.02	0.01	0.01	0.007	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	1700	2200	2700	3100	5400	35000	700	230	1700	400	23×10^2	26×10^2	
9	Fecal Coliform(MPN/100ml)	1300	1700	2200	2300	1300	13000	490	130	450	200	13×10^2	17×10^2	100 or less MPN/100 ml
10	Fecal Streptococci(MPN/100ml)	220	94	210	330	490	330	330	140	330	230	330	320	
11	Turbidity(NTU)	28.5	617.00	26.20	24.70	11.92	12.15	18.90	10.65	BDL	3.87	5.40	20.60	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	22.2	16.0	34.0	30.0	28	24	36	34	40	54	42	44	
14	Chloride mg/l	12.0	10.00	36.20	13.60	11.99	22.99	12.1	12.10	11.99	13.0	14.0	32.99	
15	COD(mg/l)	16.0	46.0	8.0	8.0	6.0	14.0	8.0	20.0	14.0	26.0	14.0	18.0	
16	Total Kjeldhal Nitrogen(mg/l)	3.36	1.1	5.0	1.7	0.56	3.36	3.90	2.20	1.68	1.68	0.6	1.68	
17	Ammonia mg/l	0.7	0.45	BDL	0.41	0.11	BDL	BDL	0.10	0.05	0.235	0.140	0.05	
18	Hardness(mg/l)	26.0	36.0	62.0	48.0	40.0	24.0	190.0	30.0	38.0	36.0	32.0	44.0	
19	Calcium(mg/l)	5.6	6.4	4.8	22.0	7.2	6.41	9.60	11.22	12.00	8.0	9.6	9.62	
20	Magnesium(mg/l)	2.9	4.86	8.3	6.32	5.35	BDL	40.3	0.50	BDL	3.90	1.90	4.86	
21	Sulphate(mg/l)	19.0	7.60	31.9	13.49	6.51	4.01	7.20	6.10	4.60	3.00	1.30	8.83	
22	Sodium(mg/l)	7.6	8.4	27.6	11.1	25.1	86.7	4.9	4.5	25.0	5.6	15.1	7.9	
23	Total Dissolved Solids(mg/l)	63.0	172.0	84.0	70.0	75.0	68.0	80.0	77.0	71.0	68.0	72.0	81.0	
24	Total Fixed Solids(mg/l)	25.0	68.0	29.0	49.0	59.0	28.0	29.0	28.0	29.0	40.0	43.0	45.0	
25	Total Suspended Solid (mg/l)	18.0	560.0	19.0	22.0	36.0	27.0	29.0	19.0	2.0	12.0	2.0	15.0	
26	Phosphate(mg/l)	0.04	1.29	0.10	0.088	0.08	0.02	0.11	0.09	0.02	0.063	0.070	BDL	
27	Boron(mg/l)	0.37	BDL	1.7	1.36	0.5	2.29	0.10	0.10	BDL	1.03	1.18	1.1	
28	Potassium(mg/l)	12.2	4.3	25.60	4.50	11.2	81.2	4.5	5.4	11.2	5.0	14.0	5.0	
29	Fluoride(mg/l)	BDL	BDL	0.20	0.17	0.7	1.86	0.10	0.20	0.20	BDL	0.60	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.010	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	0.01	-	-	-	-	-	0.010	-	-	-	-	-	
37	IronTotal(mg/l)	0.52	-	-	-	-	-	0.82	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SAL AT PAZORCONI, CUNCOLIM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	28	29	30	26	27	30	30	29	29	29	29	28	
2	Dissolved Oxygen(mg/l)	7.0	5.5	5.2	5.5	6.3	6.3	7.0	5	5.6	4.7	5.1	7.5	4 mg/l or more
3	pH	6.88	7.48	7.1	6.29	6.85	6.9	6.99	7.18	6.52	7.0	6.51	6.45	6.5 - 8.5
4	Conductivity(µs/cm)	63.42	72.35	64.74	78.87	96	94.0	110	80	100	168.9	75	64	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3.8	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.49	0.134	0.418	BDL	0.54	0.562	0.6	0.4	0.3	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.009	BDL	0.013	BDL	BDL	0.006	0.0078	BDL	0.011	0.016	BDL	
8	Total Coliform(MPN/100ml)	1700	2600	2200	2800	9200	9400	3300	1300	2300	2400	3300	39×10^2	
9	Fecal Coliform(MPN/100ml)	1300	1700	1700	1700	1300	4900	1700	780	1300	790	1300	21×10^2	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	130	230	220	350	540	790	330	92	150	94	130	170	
11	Turbidity(NTU)	5.99	7.41	14.54	25.7	4.49	5.95	5.09	9.92	1.99	2.4	7.96	2.94	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	30.0	22.0	32.0	14.0	20	20	20	24	18	20	28	24	
14	Chlorides(mg/l)	14.68	30	147.0	18.6	7.33	12.1	7.82	8.99	14.49	21.1	8.41	6.49	
15	COD(mg/l)	6.0	4.0	12.0	4.0	12.0	6.0	4.0	2	10	12	12.0	10.0	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	0.6	3.36	2.24	0.56	2.8	1.12	0.56	1.68	2.2	2.2	2.24	
17	Ammonia (mg/l)	BDL	0.07	BDL	0.21	0.054	BDL	0.08	0.065	0.21	BDL	0.11	BDL	
18	Total Hardness(mg/l)	26.0	20.0	32.0	14.0	32.0	18.0	36.0	26	218	50	24.0	20.0	
19	Calcium(mg/l)	4.8	5.6	4.8	3.2	4.01	4.0	9.62	5.61	86.57	11.2	5.6	5.61	
20	Magnesium(mg/l)	3.4	BDL	4.86	BDL	5.34	1.9	2.91	2.916	BDL	5.3	2.4	1.458	
21	Sulphate(mg/l)	3.68	4.7	11.3	16.1	6.27	3.3	7.5	9.071	4.8	2.8	5.1	5.53	
22	Sodium(mg/l)	7.6	1.4	1.8	41.9	9.6	88.1	1.2	189.1	11.7	6.1	5.8	3.9	
23	Total Dissolved Solids(mg/l)	39.0	41.0	41.0	46.0	60.0	60.0	75.0	49	61	107	47.0	36.0	
24	Total Fixed Solids(mg/l)	16.0	28.0	15.0	32.0	36.0	18.9	44.0	30	25	36	19.0	21.0	
25	Total Suspended Solids(mg/l)	12.0	15.0	19.0	20.0	23.0	2.0	20.0	25	3	3.0	15.0	6.0	
26	Phosphate(mg/l)	0.032	0.02	0.03	0.08	0.044	BDL	0.039	0.086	0.02	0.02	0.06	BDL	
27	Boron(mg/l)	BDL	BDL	BDL	0.44	0.20	0.1	BDL	1.246	BDL	0.1	BDL	1.079	
28	Potassium(mg/l)	12.2	14.9	0.2	5.8	3.2	85.3	0.8	51.7	6.7	4.8	0.8	3.4	
29	Flouride(mg/l)	BDL	BDL	BDL	0.07	0.73	1.2	0.596	BDL	0.2	1.2	BDL	0.236	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.389	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.026	-	-	-	-	-	
37	IronTotal(mg/l)	0.06	-	-	-	-	-	0.676	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SAL AT MOBOR														
Sr. No		**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	32	29	29	28	29	30	30	29	29	27	29	
2	Dissolved Oxygen(mg/l)	6.5	6.5	4.8	4.5	6.3	4.8	6.3	5.0	5.1	6.0	5.9	6.6	4 mg/l or more
3	pH	7.96	7.98	7.25	7.60	7.95	7.96	7.22	8.36	7.44	7.72	7.84	7.69	6.5 - 8.5
4	Conductivity(µs/cm)	31470.0	49500.0	6441.0	608.20	39010	50580.0	49860	50770	45830	46370.0	40370	38010	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.12	0.73	0.245	0.1	BDL	0.1	BDL	BDL	BDL	0.139	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.006	0.067	0.055	0.027	BDL	0.071	0.035	BDL	0.007	0.006	0.01	0.006	
8	Total Coliform(MPN/100ml)	1300	790	1400	2800	3500	4700	2200	230	2100	1300	780	1300	
9	Fecal Coliform(MPN/100ml)	790	490	790	1700	1700	3300	1300	78	1100	780	200	450	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	110	70	79	210	350	700	230	71	170	140	110	110	
11	Turbidity(NTU)	6.90	3.19	128.00	15.48	11.20	8.82	6.50	1.05	2.19	2.89	8.07	12.62	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	8.0	20.0	BDL	BDL	BDL	BDL	BDL	16	BDL	4.0	10.0	BDL	
13	Total Alkalinity(mg/l)	92.0	80.0	48.0	34.0	96	116.0	166.0	84.0	102.0	120.0	112	104	
14	Chlorides(mg/l)	17483.90	17024.50	2201.50	251.69	15870.1	17869.4	18369.3	17495.0	17619.5	17495.0	15995.0	14620.46	
15	COD(mg/l)	-	-	-	BDL	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	3.9	3.9	10.09	1.12	0.56	3.36	0.56	0.56	0.56	1.12	1.68	
17	Ammonia (mg/l)	0.14	BDL	0.05	BDL	0.10	0.047	0.07	0.066	0.150	0.140	0.089	0.08	
18	Total Hardness(mg/l)	7300.0	6400.0	1000.0	76.0	5000.0	7200.0	6200.0	6600.0	7600.0	7200.0	5200.0	5000.0	
19	Calcium(mg/l)	160.30	481.0	240.5	11.22	4.0	801.6	2404.8	481.0	721.4	641.28	480.96	320.64	
20	Magnesium(mg/l)	1676.10	1263.60	97.2	11.66	1212.6	1263.6	874.8	1312.2	1409.4	1360.8	972.0	1020.6	
21	Sulphate(mg/l)	909.70	2110.0	987.8	77.82	20.5	1931.3	1468.8	1546.0	1101.3	1101.28	1519.0	2325.0	
22	Sodium(mg/l)	889.3	672.4	986.0	98.2	537.8	747.8	732.8	5250.0	90.8	3775.0	3825.0	3550.0	
23	Total Dissolved Solids(mg/l)	19826.0	29419.0	3797.0	36.0	23406.0	31864.0	35518.0	33000.0	29331.0	29676.0	25029.0	21651.0	
24	Total Fixed Solids(mg/l)	13812.0	15499.0	2620.0	15.0	9360.0	19118.0	14769.0	20480.0	17598.0	17805.0	18771.0	12982.0	
25	Total Suspended Solids(mg/l)	28.0	9.0	66.0	17.0	19.0	12.0	14.0	5.0	4.0	16.0	16.0	33.0	
26	Phosphate(mg/l)	0.040	0.145	0.155	0.314	0.08	0.221	0.15	0.020	0.372	0.090	0.13	0.03	
27	Boron(mg/l)	0.60	0.28	0.26	BDL	0.47	1.517	1.8	0.970	2.240	1.0	1.87	1.8	
28	Potassium(mg/l)	405.6	69.5	434.6	58.8	222.3	304.4	329.7	2225.0	16.9	925.0	850.0	775.0	
29	Flouride(mg/l)	BDL	0.41	0.29	BDL	0.9	1.49	1.6	1.10	0.93	1.18	1.12	1.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER ZUARI AT PANCHAWADI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	29	31	29	27	29	28	30	27	30	28	29	29	
2	Dissolved Oxygen(mg/l)	7.0	4.3	5.3	6.2	7.0	6.9	6.8	4.6	5.4	4.8	5.6	4.7	4 mg/l or more
3	pH	6.86	6.94	7.10	6.50	6.68	7.32	7.11	7.11	6.89	6.96	6.85	6.85	6.5 - 8.5
4	Conductivity(µs/cm)	10.86	21090.00	952.00	80.71	130	168.6	484	9658	12370	15760.0	15220	23200	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	2.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.39	0.2	0.19	0.24	0.3	1.4	0.107	0.1	1.7	0.172	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.059	0.020	0.005	BDL	0.033	BDL	BDL	0.041	0.073	0.059	0.020	
8	Total Coliform(MPN/100ml)	1100	330	3300	3500	9200	5400	3300	5400	3500	5400	1200	3200	
9	Fecal Coliform(MPN/100ml)	780	230	2300	1700	3500	2200	2300	430	490	700	610	780	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	110	14	330	540	920	920	400	240	220	350	200	230	
11	Turbidity(NTU)	5.12	6.53	105.0	20.9	8.06	18.23	4.15	7.08	BDL	26.1	3.39	1.9	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	38.0	48.0	34.0	24.0	24	30	20	34	42	52.0	56	70.0	
14	Chlorides(mg/l)	4498.6	4745.3	734.0	13.0	25.7	59.0	114.96	3498.9	4698.5	5919.4	5798.2	8497.4	
15	COD(mg/l)	-	-	6.0	8.0	20.0	14.0	8.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	2.8	7.84	12.3	2.2	5.6	0.56	1.7	3.3	1.12	0.56	1.68	
17	Ammonia (mg/l)	0.10	BDL	0.22	0.06	BDL	BDL	BDL	0.21	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	2400.0	3100.0	158.0	24.0	22.0	52.0	74.0	2400.0	1480.0	1840.0	1820.0	4360.0	
19	Calcium(mg/l)	320.60	200.4	10.4	3.2	4.0	5.61	3.20	400.80	96.19	120.24	160.3	36.1	
20	Magnesium(mg/l)	388.80	631.8	32.0	3.9	2.9	9.23	16.04	340.20	301.30	374.2	345.1	622.1	
21	Sulphate(mg/l)	451.00	1017.0	41.00	8.70	3.00	12.07	16.93	211.60	512.10	546.84	600.2	706.25	
22	Sodium(mg/l)	500.3	923.7	231.4	7.7	26.4	14.1	27.5	2100.0	2500.0	836.0	922.0	1825.0	
23	Total Dissolved Solids(mg/l)	6600.0	13120.0	604.0	49.0	85.0	105.0	290.0	5795.0	7713.0	10716.0	9588.0	14848.0	
24	Total Fixed Solids(mg/l)	4290.0	10176.0	240.0	22.0	53.9	44.0	174.0	2318.0	3180.0	6429.0	6040.0	8908.0	
25	Total Suspended Solids(mg/l)	11.0	121.0	147.0	20.0	20.0	30.0	11.0	10.0	BDL	37.0	7.0	17.0	
26	Phosphate(mg/l)	0.04	0.37	0.05	0.04	0.04	0.11	0.086	BDL	0.04	0.07	0.05	BDL	
27	Boron(mg/l)	0.5	0.2	BDL	0.016	0.27	0.20	0.323	0.92	BDL	1.61	1.79	2.06	
28	Potassium(mg/l)	96.5	131.3	92.50	6.0	10.5	5.0	6.2	2350.0	1750.0	160.0	206.0	675.0	
29	Flouride(mg/l)	0.59	0.80	BDL	BDL	0.2	BDL	0.3	0.5	0.6	0.63	1.49	0.39	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	0.004	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	0.028	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	0.09	-	-	-	-	-	0.37	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER ZUARI AT CORTALIM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	30	29	27	30	30	31	30	30	30	30	29	
2	Dissolved Oxygen(mg/l)	6.0	4.7	5.0	4.6	6.6	6.1	5.3	4.8	5.5	5.2	5.6	6.1	4 mg/l or more
3	pH	6.72	7.41	7.94	7.72	7.40	7.53	7.74	7.78	7.25	7.42	7.63	7.53	6.5 - 8.5
4	Conductivity(µs/cm)	44630.00	50860.00	57490.0	7976.00	3513	28680	16410	35100	36940	37890	42880	37180	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.1	0.16	0.48	0.414	0.3	0.4	0.3	0.2	1.39	BDL	0.1	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.07	0.007	0.045	0.016	0.01	0.01	BDL	0.009	0.05	0.072	0.01	0.021	
8	Total Coliform(MPN/100ml)	2700	1700	3300	3300	7900	3500	330	450	1300	780	2300	22×10^2	
9	Fecal Coliform(MPN/100ml)	2200	1100	2300	2300	4900	1300	230	200	780	450	780	11×10^2	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	310	210	430	490	940	940	140	45	110	79	140	120	
11	Turbidity(NTU)	31.40	20.50	1.49	2.37	33.20	16.02	15.78	4.09	1.95	7.88	25.9	16.76	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	32.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	150.0	86.0	122.0	48.0	36	80	56	72	80	102	108	100	
14	Chlorides(mg/l)	17122.35	17244.70	17489.20	2919.70	100.0	12246.2	5637.9	13465.7	15545.2	14995.3	15958.8	16869.7	
15	COD(mg/l)	-	-	-	-	4.0	-	-			-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.4	0.6	6.2	2.802	0.56	6.72	2.8	3.4	1.68	0.56	3.4	1.12	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.015	0.05	BDL	0.14	0.1	0.06	0.085	0.42	BDL	
18	Total Hardness(mg/l)	8500.0	9800.0	7500.0	820.0	38.0	8500.0	2800.0	5400.0	4320.0	6600.0	6400.0	5400.0	
19	Calcium(mg/l)	1803.6	1362.7	1202.4	56.112	12.02	1803.6	320.6	561.1	336.67	561.1	801.6	320.64	
20	Magnesium(mg/l)	972.0	1555.2	1093.5	165.24	1.94	972.0	486.0	972.0	845.64	1117.8	1069.2	1117.8	
21	Sulphate(mg/l)	3150.62	1919.90	2399.8	20.75	60.76	412.3	1736	1166.4	1111.04	1508.2	1367.1	2425.0	
22	Sodium(mg/l)	1497.0	1403.0	468.20	275.30	182.5	495.8	339.7	3175.0	5820.0	3225.0	4450.0	3875.0	
23	Total Dissolved Solids(mg/l)	26683.0	32000.0	34049.0	4809.0	2041.0	17882.0	10921.0	23382.0	24129.0	24249.0	28233.0	20820.0	
24	Total Fixed Solids(mg/l)	14030.0	22400.0	13939.0	2773.0	1571.0	7373.0	958.0	7844.0	9954.0	16489.0	11647.0	12492.0	
25	Total Suspended Solids(mg/l)	26.0	44.0	4.0	16.0	90.0	35.0	28.0	7.0	3.0	15.0	43.0	25.0	
26	Phosphate(mg/l)	0.256	0.070	0.25	0.485	0.48	0.07	0.16	0.1	0.02	0.083	0.53	0.02	
27	Boron(mg/l)	0.20	0.31	0.9	1.77	0.9	2.7	0.5	0.7	2.9	1.14	BDL	1.99	
28	Potassium(mg/l)	195.2	174.8	199.7	59.7	56.2	201.2	126.2	1625.0	2420.0	1375.0	525.0	1200.0	
29	Flouride(mg/l)	1.85	1.03	1.83	0.27	0.4	3.94	0.90	0.7	1.1	1.44	0.91	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.012	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	0.06	-	-	-	-	-	0.003	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.026	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SAL AT ORLIM BRIDGE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	29	31	29	29	28	29	29	30	30	29	28	29	
2	Dissolved Oxygen(mg/l)	6.2	6.5	2.7	4.8	4.4	4.2	5.4	3.5	3.5	3.6	3.8	2.3	4 mg/l or more
3	pH	7.31	7.89	6.05	7.52	6.89	7.31	7.19	7.24	7.83	7.18	7.13	6.93	6.5 - 8.5
4	Conductivity(µs/cm)	8590.00	20240.0	109.7	183.4	506	2214.0	1918	8080	9977	15200.0	1173	10490	
5	BOD(mg/l)	BDL	BDL	5.5	BDL	BDL	BDL	BDL	2.4	2.5	2.6	2.2	5.6	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.07	BDL	0.82	0.317	0.59	0.157	0.5	0.166	0.226	1.6	0.325	0.23	
7	Nitrite Nitrogen as NO_2-N mg/l	0.022	BDL	0.042	0.026	0.14	0.032	0.028	0.027	0.037	0.068	0.060	0.035	
8	Total Coliform(MPN/100ml)	1100	1100	1400	2200	2200	4600	2300	5400	4600	4900	1300	1700	
9	Fecal Coliform(MPN/100ml)	680	790	930	1700	1700	3300	1300	790	1700	2300	780	790	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	170	70	220	240	240	330	220	79	170	230	490	170	
11	Turbidity(NTU)	22.60	26.20	27.50	11.61	10.08	11.18	3.32	8.84	8.26	1.27	7.26	7.23	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	80.0	90.0	44.0	30.0	44	58.0	68.0	52.0	72.0	94.0	90	94	
14	Chlorides(mg/l)	7576.40	9392.80	856.10	32.22	116.0	749.7	699.8	2349.3	4948.5	2349.1	3873.8	3298.98	
15	COD(mg/l)	-	-	12.0	14.0	12.0	6.0	16.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	2.8	3.9	8.41	2.8	1.12	3.36	2.24	2.24	2.24	1.68	0.56	
17	Ammonia (mg/l)	0.16	BDL	BDL	BDL	0.18	0.213	0.15	0.244	0.240	0.850	0.773	1.651	
18	Total Hardness(mg/l)	2500.0	5800.0	92.0	38.0	140.0	240.0	174.0	920.0	980.0	1680.0	1340.0	1140.0	
19	Calcium(mg/l)	160.30	561.0	16.8	8.82	12.8	27.25	20.84	64.1	120.24	120.24	88.18	88.18	
20	Magnesium(mg/l)	510.30	1069.2	12.15	3.89	26.2	41.796	29.65	184.7	165.24	335.34	276.16	223.56	
21	Sulphate(mg/l)	675.20	436.70	311.00	17.75	17.6	71.76	138.2	208.30	208.30	208.30	347.2	478.0	
22	Sodium(mg/l)	391.2	453.1	876.0	61.1	41.6	193.5	79.1	1225.0	25.6	2230.0	1150.0	101.0	
23	Total Dissolved Solids(mg/l)	5160.0	12137.0	66.0	109.0	301.0	1394.0	1339.0	5414.0	6185.0	9424.0	703.0	5874.0	
24	Total Fixed Solids(mg/l)	3047.0	4015.0	32.0	55.0	268.0	836.0	556.0	3465.0	3711.0	5654.0	456.0	3524.0	
25	Total Suspended Solids(mg/l)	25.0	11.0	36.0	8.0	16.0	19.0	8.0	15.0	6.0	10.0	14.0	17.0	
26	Phosphate(mg/l)	0.03	0.351	0.204	0.232	0.17	0.164	0.08	0.132	0.159	0.130	0.23	0.18	
27	Boron(mg/l)	0.46	BDL	BDL	BDL	0.43	0.496	0.2	1.220	3.580	1.2	1.79	0.35	
28	Potassium(mg/l)	117.0	22.3	421.0	46.4	15.6	113.4	20.7	725.0	4.9	880.0	250.0	57.0	
29	Flouride(mg/l)	0.78	0.35	BDL	BDL	BDL	1.343	0.2	0.530	0.500	0.99	0.51	0.345	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.04	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER SAL AT KHAREBAND, MARGAO														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	29	29	29	29	28	29	30	29	29	30	27	30	
2	Dissolved Oxygen(mg/l)	BDL	6.0	1.2	3.2	4.1	4.3	4.9	BDL	BDL	BDL	BDL	BDL	4 mg/l or more
3	pH	6.59	7.94	7.04	7.32	6.83	7.09	7.11	6.86	7.65	7.19	6.6	6.54	6.5 - 8.5
4	Conductivity(µs/cm)	88.05	49290.0	263.6	99.53	149	182.1	142	195	57	225.4	276	286	
5	BOD(mg/l)	5.4	BDL	4.8	5.0	BDL	BDL	BDL	5.3	4.8	5.3	6.0	4.5	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.1	4.39	0.49	0.87	0.178	1.2	0.243	2.440	0.8	0.129	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	0.008	0.045	0.014	0.071	0.02	0.03	BDL	0.066	0.039	0.013	0.018	0.028	
8	Total Coliform(MPN/100ml)	7900	22000	7000	6300	7000	12000	4900	9200	9400	8400	280×10^2	170×10^2	
9	Fecal Coliform(MPN/100ml)	4900	11000	4600	4600	4900	4600	3300	2400	3300	4600	140×10^2	79×10^2	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	630	1400	840	630	790	1300	490	920	700	790	1700	460	
11	Turbidity(NTU)	51.9	4.82	31.7	14.04	19.10	29.1	35.6	31.4	39.1	3.04	14.15	15.09	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	20.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	38.0	90.0	78.0	30.0	36	36.0	42.0	48.0	60.0	80.0	86	74	
14	Chlorides(mg/l)	57.80	16926.60	29.60	10.068	17.5	26.49	16.5	20.50	18.99	20.50	34.50	34.49	
15	COD(mg/l)	16.0	-	16.0	10.0	16.0	4.0	16.0	24.0	20.0	24.0	20.0	14.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.70	4.50	6.20	2.80	3.4	1.681	3.92	3.36	3.36	3.36	2.24	2.80	
17	Ammonia (mg/l)	0.18	BDL	3.46	BDL	0.11	0.607	0.34	1.705	2.04	3.15	2.25	2.19	
18	Total Hardness(mg/l)	64.0	6800.0	42.0	30.0	54.0	36.0	32.0	50.0	50.0	54.0	58.0	76.0	
19	Calcium(mg/l)	6.40	400.80	12.0	8.016	9.62	8.82	7.21	14.40	12.02	12.02	18.40	13.63	
20	Magnesium(mg/l)	11.70	1409.40	2.9	2.43	7.29	3.402	3.40	3.4	4.9	5.83	2.92	10.21	
21	Sulphate(mg/l)	1291.10	2273.1	15.4	12.68	8.25	10.22	4.82	12.1	10.2	10.2	8.96	12.97	
22	Sodium(mg/l)	9.7	687.5	320.3	53.0	13.2	97.10	6.2	4.90	16.40	17.20	12.80	14.4	
23	Total Dissolved Solids(mg/l)	53.0	29549.0	236.0	61.0	90.0	114.00	93.0	121.0	35.0	149.0	185.0	184.0	
24	Total Fixed Solids(mg/l)	20.0	16407.0	136.0	25.0	79.0	68.0	98.0	81.0	21.0	89.0	129.0	110.0	
25	Total Suspended Solids(mg/l)	18.0	7.0	45.0	14.0	32.0	33.0	68.0	45.0	11.0	26.0	25.0	43.0	
26	Phosphate(mg/l)	0.05	0.11	0.18	0.274	0.17	0.423	0.28	0.372	0.959	0.58	0.78	0.26	
27	Boron(mg/l)	0.55	0.29	0.35	2.25	0.61	0.518	BDL	1.12	1.22	1.1	1.25	0.9	
28	Potassium(mg/l)	32.1	78.1	308.40	45.00	4.0	93.9	3.5	2.9	4.3	6.8	5.0	5.7	
29	Flouride(mg/l)	BDL	0.46	0.20	BDL	BDL	0.938	0.7	0.30	BDL	0.76	BDL	0.3	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	0.02	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	0.18	-	-	-	-	-	0.54	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER ZUARI AT MADKAI JETTY														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	30	29	30	28	27	29	28	28	30	29	29	
2	Dissolved Oxygen(mg/l)	4.8	4.5	4.4	5.9	6.3	4.6	6.2	5	5.6	5	5.4	4.5	4 mg/l or more
3	pH	7.19	7.54	7.98	7.11	7.47	7.42	7.40	7.71	7.62	7.51	7.6	7.4	6.5 - 8.5
4	Conductivity(µs/cm)	44860.0	28000.0	55450.0	2136.0	9965	28180.0	6917	34610	44640	43670.0	42750	48600	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.1	BDL	0.54	0.22	0.733	0.12	0.164	BDL	0.3	2	0.2	2.4	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.048	0.01	0.012	0.012	0.012	0.008	BDL	0.04	0.084	0.1	
8	Total Coliform(MPN/100ml)	780	780	1400	2400	3500	5400	7900	780	490	5400	120	240	
9	Fecal Coliform(MPN/100ml)	450	450	1100	1300	1700	2200	3300	450	230	2400	68	93	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	170	110	230	350	540	280	170	230	170	540	23	49	
11	Turbidity(NTU)	34.20	5.18	50.40	31.60	29.70	7.61	5.68	7.98	1.96	1.99	6.60	3.84	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	90.0	50.0	122.0	30.0	58	54.0	44.0	118.0	78.0	64.0	108	110	
14	Chlorides(mg/l)	17758.30	11447.50	17366.90	609.80	4123.70	11251.8	2949.08	12696.0	13339.8	16869.7	16869.8	15745.12	
15	COD(mg/l)	-	-	-	6.0	-	-	-		-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	0.50	3.4	6.70	1.70	1.40	2.2	1.68	1.12	5.00	3.90	2.2	1.7	
17	Ammonia (mg/l)	BDL	BDL	0.13	0.18	0.212	0.06	0.088	0.055	0.060	0.100	0.110	BDL	
18	Total Hardness(mg/l)	6900.0	4800.0	7500.0	188.0	1020.0	4600.0	1600.00	4800.0	5680.0	5680.0	6600.0	6000.0	
19	Calcium(mg/l)	440.9	961.90	1402.80	15.20	64.13	3.21	43.286	481.00	120.24	368.70	641.3	481.0	
20	Magnesium(mg/l)	1409.4	583.2	972.0	36.5	208.98	923.40	362.5	874.80	1307.30	1156.70	1215.0	1166.4	
21	Sulphate(mg/l)	2091.7	1618.0	3322.8	38.0	260.4	1233.4	160.58	742.0	674.9	2892.1	1291.2	2293.8	
22	Sodium(mg/l)	1588.0	651.2	521.90	85.00	253.50	562.9	201.7	6550.0	3475.0	3025.0	5475.0	5300.0	
23	Total Dissolved Solids(mg/l)	30046.0	16789.0	33176.0	1513.0	6826.0	17753.0	3873.0	23188.0	29711.0	27230.0	28215.0	29160.0	
24	Total Fixed Solids(mg/l)	20100.0	6339.0	16591.0	1200.0	5590.0	10521.0	2323.0	15535.0	9968.0	11234.0	16929.0	11664.0	
25	Total Suspended Solids(mg/l)	116.0	8.0	28.0	75.0	104.0	75.0	12.00	15.0	1.0	30.0	12.0	6.0	
26	Phosphate(mg/l)	0.22	0.02	0.231	0.230	0.22	0.40	0.169	0.049	0.120	0.200	0.16	BDL	
27	Boron(mg/l)	1.80	BDL	6.44	1.89	4.06	0.64	1.0	2.13	1.20	1.1	1.97	0.2	
28	Potassium(mg/l)	206.2	36.4	229.5	15.8	83.1	240.5	59.1	3225.0	1350.0	1150.0	3700.0	2300.0	
29	Flouride(mg/l)	1.10	0.34	1.96	0.18	0.71	BDL	0.3	0.93	0.80	0.70	1.4	0.9	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.021	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.025	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.25	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

RIVER ZUARI AT BORIM BRIDGE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	29	31	28	26	29	28	30	28	29	27	29	28	
2	Dissolved Oxygen(mg/l)	4.40	5.20	4.7	5.90	6.70	7.10	5.0	4.30	5.60	8.0	6.2	4.6	4 mg/l or more
3	pH	6.74	7.23	7.01	6.55	6.41	6.97	7.38	7.30	7.18	7.33	7.26	7.25	6.5 - 8.5
4	Conductivity(µs/cm)	26.99	36650.0	7875.0	370.5	295	11730.0	13730	21770	27820	28070.0	29980	35350	
5	BOD(mg/l)	2.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.52	0.40	0.305	0.31	0.5	0.2	0.192	0.1	1.4	0.3	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.051	0.05	0.007	BDL	BDL	BDL	0.008	0.037	0.107	0.059	0.074	
8	Total Coliform(MPN/100ml)	2100	780	4900	1400	1700	3200	2200	3500	5400	9200	3500	3900	
9	Fecal Coliform(MPN/100ml)	1700	450	3300	1100	490	2100	1700	490	700	940	700	920	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	170	68	220	350	280	400	460	120	490	790	540	240	
11	Turbidity(NTU)	6.59	16.53	13.94	22.70	7.95	13.99	3.73	4.90	1.42	1.80	2.46	2.1	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	54.0	68.0	72.0	24.0	36	50.0	64.0	60.0	64.0	80.0	84	92	
14	Chlorides(mg/l)	10996.6	15312.3	3179.0	249.9	66.4	4648.5	6098.11	7997.52	5848.20	10946.60	11246.50	13370.85	
15	COD(mg/l)	-	-	-	10.0	12.0	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	0.60	3.36	7.28	9.0	2.2	4.48	2.24	1.12	2.80	2.80	1.12	0.56	
17	Ammonia (mg/l)	0.27	BDL	0.23	0.100	BDL	0.050	0.530	0.250	BDL	BDL	0.062	BDL	
18	Total Hardness(mg/l)	9200.0	5000.0	800.0	40.0	30.0	2800.0	7000.0	3400.0	1780.0	3620.0	4600.0	2800.0	
19	Calcium(mg/l)	1362.70	360.7	40.0	5.6	6.4	480.96	80.16	400.80	224.40	280.60	480.9	14.4	
20	Magnesium(mg/l)	1409.40	996.3	170.0	6.32	3.4	388.8	1652.4	583.2	296.5	709.6	826.2	505.44	
21	Sulphate(mg/l)	1030.80	1976.00	112.00	22.30	5.7	282.1	338.52	585.9	1657.9	1195.7	1888.1	1312.5	
22	Sodium(mg/l)	1257.0	1114.0	71.3	33.4	37.7	302.4	300.0	3975.0	4025.0	2510.0	2380.0	3225.0	
23	Total Dissolved Solids(mg/l)	17010.0	23459.0	5040.0	224.0	189.0	7184.0	7963.0	13062.0	17035.0	1796.4	18588.0	22624.0	
24	Total Fixed Solids(mg/l)	1275.0	17659.0	2014.0	190.0	119.0	262.0	4777.0	5225.0	7028.0	1980.0	12640.0	13574.0	
25	Total Suspended Solids(mg/l)	14.0	134.0	72.0	15.0	14.0	22.0	9.0	6.0	2.0	6.0	5.0	7.0	
26	Phosphate(mg/l)	0.08	0.30	0.08	0.05	0.09	0.20	0.200	0.064	0.102	0.080	0.07	BDL	
27	Boron(mg/l)	0.59	0.20	BDL	BDL	0.6	0.2	0.535	1.4	BDL	1.7	1.9	3.1	
28	Potassium(mg/l)	246.9	155.5	8.10	14.3	12.80	88.5	105.2	2650.0	2075.0	380.0	650.0	825.0	
29	Flouride(mg/l)	0.67	0.90	0.96	BDL	0.3	0.5	0.8	1.03	1.20	1.10	1.86	0.60	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.17	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

TIRACOL BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	28	29	27	29	29	30	29	29	29	30	29	
2	Dissolved Oxygen(mg/l)	6.2	5.9	5.6	5.7	6.5	6.5	6.8	5.7	6.5	6.6	6.9	6.8	4 mg/l or more
3	pH	8.04	8.10	7.84	7.00	7.80	7.93	8.17	8.18	8.02	8.01	8.00	8.04	6.5 - 8.5
4	Conductivity(µs/cm)	31560.0	49580.0	61750.0	47190.0	39710.0	51860.0	44410.0	51730.0	46620.0	50430.0	48330.0	50320	
5	BOD(mg/l)	BDL	2.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.16	0.20	0.16	BDL	BDL	BDL	BDL	0.10	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.008	BDL	0.008	0.029	0.01	BDL	0.009	0.006	BDL	BDL	0.005	BDL	
8	Total Coliform(MPN/100ml)	70	220	46	540	920	170	240	240	280	280	130	140	
9	Fecal Coliform(MPN/100ml)	49	94	33	350	350	130	130	130	140	120	79	79	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	33	14	22	79	130	79	79	49	79	70	33	46	
11	Turbidity(NTU)	9.95	6.12	15.69	21.4	21.9	8.7	7.4	1.2	4.9	5.2	4.6	4.16	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	4.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	12.0	30.0	12.0	8.0	
13	Total Alkalinity(mg/l)	106.0	82.0	132.0	110.0	94.0	128.0	108.00	158.0	76.0	108.0	120.0	108.0	
14	Chlorides(mg/l)	17994.0	18450.0	17994.4	17996.1	15620.1	17494.6	15995	17244.7	17494.6	18877.1	17494.6	16633.14	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.2	2.2	3.4	14.57	0.56	1.68	0.56	1.68	0.56	4.4	1.12	1.12	
17	Ammonia (mg/l)	BDL	BDL	0.11	0.1	BDL	BDL	BDL	0.1	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	13200.0	4580.0	9400.0	7400.0	5200.0	7200.0	5400.0	7000.0	6040.0	7000.0	7000.0	6800.0	
19	Calcium(mg/l)	761.5	489.0	424.9	800.0	1362.7	721.4	400.8	480.9	360.7	1603.2	320.6	480.96	
20	Magnesium(mg/l)	2745.9	816.5	2026.6	1312.2	388.8	1312.2	1069.2	1409.4	1249.0	729.00	1506.6	1360.8	
21	Sulphate(mg/l)	1500.0	992.2	1181.7	2060.63	6.2	1996.4	1877.0	2099.5	1817.4	2191.7	2202.6	2075.00	
22	Sodium(mg/l)	8565	3269	1994	162.4	538.0	1182.0	649.5	3400.0	8400.0	3475.0	4725.0	4800.0	
23	Total Dissolved Solids(mg/l)	17358.0	31235.0	34580.0	31716.0	23826.0	29589.0	29107.0	28157.0	27972.0	33009.0	27064.0	34217.0	
24	Total Fixed Solids(mg/l)	16340.0	22463.0	33480.0	24593.0	9529.0	17491.0	20375.0	16619.0	16783.0	10933.0	16238.0	20530.0	
25	Total Suspended Solids(mg/l)	174.0	13.0	135.0	307	30	23	25	19.00	14.00	10.00	10.00	8.0	
26	Phosphate(mg/l)	0.07	0.65	0.1	0.13	0.27	0.3	0.041	BDL	0.062	0.06	0.046	0.070	
27	Boron(mg/l)	4.62	0.63	4.25	1.5	1.29	1.7	1.66	2.8	1.536	0.1	1.472	1.62	
28	Potassium(mg/l)	630	617.9	495.7	103.40	210.80	466.90	259.80	1800.00	3300.00	4.90	156.32	1050.00	
29	Flouride(mg/l)	1.10	0.37	1.3	1.4	0.7	0.9	1.21	1.1	2.511	0.6	1.265	0.291	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.03	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.029	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.3	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

MIRAMAR BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	30	29	29	28	30	28	29	29	30	28	30	30	
2	Dissolved Oxygen(mg/l)	6.3	5.6	6.1	6.9	6.3	7.2	6.9	6.4	6.7	6.2	8.1	6.8	4 mg/l or more
3	pH	7.79	8.00	7.85	7	7.59	7.99	8.25	7.98	7.96	8.02	8.02	7.96	6.5 - 8.5
4	Conductivity(µs/cm)	48750.0	48330.0	53340.0	26120.0	30180.0	48970.0	47050.0	46170.0	50180.0	49440.0	49850.0	52810	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.14	2	0.33	0.2	BDL	0.2	0.2	BDL	BDL	0.2	0.9	
7	Nitrite Nitrogen as NO_2-N mg/l	0.19	BDL	0.014	0.009	0.007	BDL	0.0	0.009	0.010	BDL	0.01	BDL	
8	Total Coliform(MPN/100ml)	140	170	110	540	920	350	540	350	130	170	140	79	
9	Fecal Coliform(MPN/100ml)	110	110	79	240	170	280	240	130	79	79	110	49	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	94	84	33	130	49	120	140	14	49	70	49	23	
11	Turbidity(NTU)	5.8	9.4	24.2	7.1	14.5	9.2	5.2	5.9	7.0	5.4	11.6	13.05	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	10.0	10.0	BDL	BDL	BDL	BDL	BDL	12.0	BDL	18.0	6.0	
13	Total Alkalinity(mg/l)	98.0	84.0	116.0	70.0	78.00	94.00	144.0	150.0	80.00	114.00	116.0	110.0	
14	Chlorides(mg/l)	17807.2	17122.0	17733.9	17119.7	12458.9	17370	17869.5	17856	17856.2	17618.0	17494.6	17869.5	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.24	1.68	6.2	1.4	5.1	0.56	1.12	2.24	2.8	4.40	1.70	3.4	
17	Ammonia (mg/l)	BDL	BDL	0.07	0.1	BDL	0.1	0.2	0.1	0.1	0.1	0.1	0.07	
18	Total Hardness(mg/l)	7200.0	8800.0	9000.0	4400.0	4200.0	7000.0	5800.0	7200.0	8400.0	7000.0	7200.0	7000.0	
19	Calcium(mg/l)	481.0	561.0	400.8	480.9	22.4	480.9	400.8	481.0	481.0	801.6	561.1	801.6	
20	Magnesium(mg/l)	1458.0	1798.0	1944.0	777.60	884.52	1409.40	1166.4	1458.0	1749.00	1215.00	1409.4	1215.0	
21	Sulphate(mg/l)	2690.20	2812.0	2591.50	1916.5	661.8	1774.00	2.8	2712.0	2452.1	1529.9	516.4	1818.80	
22	Sodium(mg/l)	1748	3116.3	406.9	911.1	603.3	642.7	656.8	3475.0	6885.5	5600.0	9600.0	2725.0	
23	Total Dissolved Solids(mg/l)	30046.0	28514.0	7790.0	17611.0	17937.0	29990.0	28230.0	30922.0	33620.0	32955.0	29910.0	35755.0	
24	Total Fixed Solids(mg/l)	23027.0	17109.0	14741.0	14085.0	11918.0	21293.0	11292.0	18553.0	20140.0	11091.0	11964.0	11843.0	
25	Total Suspended Solids(mg/l)	145.0	25.0	13.0	8.00	99.00	16.00	10.00	27.00	25.000	8.00	15.00	132.0	
26	Phosphate(mg/l)	0.14	BDL	0.19	0.1	0.13	0.085	0.086	0.08	0.18	0.1	0.04	0.06	
27	Boron(mg/l)	2.2	0.46	5.33	BDL	1.5	0.52	BDL	0.38	1.43	1.0	0.6	1.2	
28	Potassium(mg/l)	219.9	689.2	173.8	173.4	228.30	291.50	308.50	1875.00	2378.00	4400.00	2425.0	1850.0	
29	Flouride(mg/l)	1.2	0.36	1.25	0.9	0.9	0.95	1.35	5.228	2.18	1.5	1.6	0.7	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.016	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.012	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.138	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

CALANGUTE BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	32	28	29	27	29	30	29	30	29	30	32	30	
2	Dissolved Oxygen(mg/l)	7.4	6.7	5.6	5.2	7.1	6.4	6.6	7.4	7.3	6.3	5.4	6.1	4 mg/l or more
3	pH	8.08	8.1	8.09	7	7.81	7.91	8.25	8.3	8.08	8.05	7.53	8.01	6.5 - 8.5
4	Conductivity(µs/cm)	31380.0	50080.0	59470.0	52810.0	36090.0	48350.0	50040.0	50530.0	49170.0	49970.0	50160.0	58420	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.13	BDL	BDL	0.2	0.73	0.348	0.35	0.16	0.30	0.6	0.2	0.3	
7	Nitrite Nitrogen as NO_2-N mg/l	0.009	0.005	BDL	BDL	0.006	BDL	BDL	0.008	0.05	BDL	BDL	0.013	
8	Total Coliform(MPN/100ml)	130	350	540	540	350	280	350	49	130	350	33	79	
9	Fecal Coliform(MPN/100ml)	79	240	350	240	240	220	240	4.5	79	140	23	49	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	46	94	130	130	170	170	130	4.5	49	79	13	23.0	
11	Turbidity(NTU)	6.39	6.72	7.38	48.0	8.6	3.1	1.6	6.3	5.2	2.3	BDL	9.32	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	14.0	BDL	BDL	2.0	BDL	BDL	BDL	BDL	20.0	14.0	16.0	BDL	
13	Total Alkalinity(mg/l)	84.0	100.0	130.0	54.0	92.0	112.0	166.00	170.0	102.0	124.0	100.0	120.0	
14	Chlorides(mg/l)	18940.00	17122.30	17745.0	15899.3	13395.8	17494.6	15745	17978	16744.8	17744.5	17366.9	17294.6	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	3.4	4.5	2.2	1.60	0.56	0.56	0.56	3.36	0.56	0.56	4.40	1.1	
17	Ammonia (mg/l)	0.06	BDL	BDL	0.2	0.1	BDL	BDL	0.0	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	6400.0	7400.0	9000.0	6000.0	4500.0	7600.0	7600.0	6600.0	6200.0	6000.0	6000.0	8200.0	
19	Calcium(mg/l)	400.8	481.0	657.3	400.8	801.6	480.9	480.9	961.9	1442.8	320.6	601.2	561.1	
20	Magnesium(mg/l)	1312.2	1506.6	1788.5	1215.0	607.5	1555.2	1555.5	1020.6	631.8	1263.6	729.0	1652.4	
21	Sulphate(mg/l)	1322.0	1967.9	1509.3	2245	884.3	1758.0	2072.4	3808.4	1839.1	1388.8	1150.1	2693.8	
22	Sodium(mg/l)	914.7	744.1	2490	480.7	556.7	640.7	667.1	662.7	10775.0	4700.0	2575.0	6775.0	
23	Total Dissolved Solids(mg/l)	18521.0	30048.0	32114.0	31983.0	21292.0	28822.0	28480.0	32338.0	26320.0	31980.0	33384.0	38239.0	
24	Total Fixed Solids(mg/l)	12945.0	16685.0	31108.0	19182.0	11892.0	21328.0	21644.0	19500.0	15790.0	19188.0	10864.0	14004.0	
25	Total Suspended Solids(mg/l)	43.0	18.0	126.0	231	116	106	30	44	9	4	8	12.0	
26	Phosphate(mg/l)	0.06	0.052	0.04	0.1	0.1	BDL	0.043	0.12	0.06	0.04	0.05	BDL	
27	Boron(mg/l)	0.79	0.26	4.16	3.9	0.75	1.8	0.79	0.87	1.18	2.0	0.6	0.2	
28	Potassium(mg/l)	422.4	99.5	629.1	259	243.7	255.1	251.3	268.5	4375.00	2350	1350	2600.0	
29	Flouride(mg/l)	BDL	0.82	1.27	2.6	0.61	0.89	0.97	4.95	1	1.307	1.6	0.9	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.074	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

MORJIM BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	31	29	29	27	29	29	29	30	29	29	30	30	
2	Dissolved Oxygen(mg/l)	6.6	6.3	5.5	5.7	6.9	6.5	6.8	6.9	6.2	5.6	6.6	6.5	4 mg/l or more
3	pH	7.99	8.1	8.02	8.1	7.83	7.9	8.15	8.29	8.09	8.05	7.98	8.05	6.5 - 8.5
4	Conductivity(µs/cm)	31300.0	49490.00	62680.0	48520.0	36100.0	52040.0	47650.0	50650.0	48880.0	50140.0	41280.0	48290	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.24	0.20	0.12	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.013	0.033	0.01	0.005	0.011	0.011	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	110	210	49	1200	350	130	130	23	49	33	23	84	
9	Fecal Coliform(MPN/100ml)	79	140	33	700	240	79	79	5	17	23	13	33	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	46	94	23	220.0	220.0	110	49	4	6	8	11	11	
11	Turbidity(NTU)	5.56	7	33.9	24.9	22.2	6.3	11.8	3.7	3.4	6.3	3.6	4.25	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	4.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	10.0	28.0	8.0	12.0	
13	Total Alkalinity(mg/l)	110.0	92.0	132.0	116.0	88.0	108.0	110.00	162.0	74.0	118.0	114.0	104.0	
14	Chlorides(mg/l)	17994.0	18576.7	17994.4	18122.04	13870.7	17744.5	16995	17494	16994.7	18499.6	17994.4	16388.53	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.2	2.8	2.2	12.32	1.12	1.12	0.56	1.12	1.68	5	0.56	2.24	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.1	0.1	BDL	BDL	BDL	BDL	0.1	BDL	BDL	
18	Total Hardness(mg/l)	10800.0	5880	7800.0	7800.0	4400.0	7400.0	6000.0	7400.00	7000.0	7500.0	5000.0	6600.0	
19	Calcium(mg/l)	801.6	392.8	561.1	1040.0	4.0	641.3	480.9	1042.1	376.8	1603.2	400.8	400.80	
20	Magnesium(mg/l)	2138.4	1190.7	1555.0	1263.6	1066.8	1409.4	1166.4	1166.4	1472.6	850.50	972.0	1360.80	
21	Sulphate(mg/l)	1342.0	1028.2	1450.8	2521.8	4.6	2094.0	1975.0	1817.0	1557.0	2414.1	2305.6	2231.50	
22	Sodium(mg/l)	7287	3257.0	2415	162.3	538.0	1172.0	654.9	7925.0	1622.0	34000.0	4200.0	5000.0	
23	Total Dissolved Solids(mg/l)	18467.0	29694	36981.0	32222.0	20910.0	32641.0	28114.0	33935.0	27372.0	33538.0	23116.0	33253.0	
24	Total Fixed Solids(mg/l)	17451.0	18091.0	35999.0	27128.0	8364.0	19697.0	17712.0	23754.0	16423.0	11257.0	13869.0	19951.0	
25	Total Suspended Solids(mg/l)	178.0	15.0	177.0	262	34	18	30	25	12	12	9	9.0	
26	Phosphate(mg/l)	0.1	0.1	0.1	0.12	0.26	0.22	0.043	0.065	0.073	0.07	0.08	0.04	
27	Boron(mg/l)	4.33	0.77	4.11	1.26	0.27	1.9	1.53	1.97	3.02	0.2	1.437	1.90	
28	Potassium(mg/l)	525.1	615.4	591.7	103.60	208.90	467.10	249.60	2850.00	442.8	1225.0	975.00	1050.0	
29	Flouride(mg/l)	1.15	0.98	1.46	1.22	0.87	0.7	1.32	1.12	1.44	0.7	1.219	0.251	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.02	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.022	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.45	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

VAGATOR BEACH													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	32	28	29	27	29	30	29	30	29	29	32	30	
2	Dissolved Oxygen(mg/l)	6.7	6	5.9	6.1	7.1	6.3	6.2	5.8	7.9	6.2	7.8	6.2	4 mg/l or more
3	pH	8.05	7.95	7.91	7	7.76	7.94	8.23	8.32	8.13	8.02	8.62	8.09	6.5 - 8.5
4	Conductivity(µs/cm)	31460.0	49530.0	58380.0	49120.0	36660.0	51370.0	51310.0	51540.0	49260.0	49880.0	50240.0	52060	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.150	0.3	0.58	0.1	0.1	BDL	0.10	0.30	BDL	0.13	0.20	0.2	
7	Nitrite Nitrogen as NO_2-N mg/l	0.008	0.038	0.033	0.006	0.011	0.01	0.009	0.011	0.024	BDL	0.01	0.008	
8	Total Coliform(MPN/100ml)	79	84	2200	220	170	130	79	79	110	540	130	140	
9	Fecal Coliform(MPN/100ml)	46	63	1300	140	110	79	49	44	70	240	79	79	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	23	21	240	110	79	110	46	7.8	49	130	46	49	
11	Turbidity(NTU)	3.72	6.14	9.44	12.1	20.1	3.2	2.2	2.3	6.2	3.0	9.6	8.61	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	12.0	10.0	BDL	4.0	BDL	BDL	BDL	BDL	18.0	12.0	20.0	8.0	
13	Total Alkalinity(mg/l)	80.0	80.0	128.0	58.0	92.0	124.0	178.00	160.0	104.0	130.0	100.0	98.0	
14	Chlorides(mg/l)	17969.60	17024.50	17745.0	14676.3	13945.7	17744.5	16245	17744.5	17494.6	17494.6	17618.7	16869.80	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	2.8	4.5	2.2	2.8	0.56	0.56	0.56	1.12	1.12	1.121	3.9	2.2	
17	Ammonia (mg/l)	0.05	0.1	BDL	0.2	0.1	BDL	BDL	BDL	BDL	BDL	0.1	BDL	
18	Total Hardness(mg/l)	7200.0	8200.0	8600.0	5600.0	6000.0	7800.0	7000.0	6400.0	7200.0	8000.0	6000.0	6200.0	
19	Calcium(mg/l)	601.2	481.0	465.0	400.8	801.6	480.9	480.9	961.9	961.9	801.6	400.8	320.60	
20	Magnesium(mg/l)	1385.1	1701.0	1808.0	1117.8	972.0	1603.8	1409.0	972.0	1166.4	1458.0	972.0	1312.2	
21	Sulphate(mg/l)	1226.6	2715.2	1322.0	1951.1	716.1	2083.0	2289.4	2316.5	1768.6	2007.3	1453.9	2406.25	
22	Sodium(mg/l)	926.1	856.9	2493	490.1	579.9	663.9	677.2	10500.0	10725.0	4900.0	2725.0	5750.0	
23	Total Dissolved Solids(mg/l)	18876.0	29611.0	34444.0	31629.0	20163.0	31973.0	29925.0	28631.0	26797.0	31923.0	31779.0	34076.0	
24	Total Fixed Solids(mg/l)	11427.0	16442.0	33442.0	18978.0	10694.0	23020.0	21247.0	17203.0	16075.0	19153.0	10568.0	11453.0	
25	Total Suspended Solids(mg/l)	12.0	17.0	151.0	249	135	110	25	23	8	4	15.00	11.0	
26	Phosphate(mg/l)	0.07	0.194	0.03	0.1	0.23	0.131	0.078	0.04	0.08	0.147	0.2	BDL	
27	Boron(mg/l)	0.89	0.28	4.11	1.2	1.33	1.87	1.36	2.9	1.35	1.884	0.8	BDL	
28	Potassium(mg/l)	410.6	99.5	599.3	265.8	249.60	267.9	252.4	4850.0	4275.00	2500.0	1350.00	2425.0	
29	Flouride(mg/l)	BDL	0.75	1.36	2.7	0.9	0.98	0.97	1.1	1.2	1.119	1.4	0.9	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.077	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

ARAMBOL BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	-	-	29	28	29	29	30	30	29	29	31	30	
2	Dissolved Oxygen(mg/l)	-	-	6.2	6.6	6.7	6.3	6.4	6.7	5.2	6.9	6.7	7.1	4 mg/l or more
3	pH	-	-	8.04	8.1	7.8	7.94	8.18	8.37	8.07	8.06	8.02	8.03	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	62290.0	47490.0	36860.0	52100.0	50280.0	50850.0	49680.0	50210.0	50280.0	53210	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	BDL	0.410	0.170	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.005	0.031	0.012	BDL	BDL	0.01	BDL	BDL	BDL	0.010	
8	Total Coliform(MPN/100ml)	-	-	70	700	920	130	33	920	170	130	240	280	
9	Fecal Coliform(MPN/100ml)	-	-	49	230	350	79	23	49	79	49	79	110	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	33	220	280	49	14	79	34	23	49	70	
11	Turbidity(NTU)	-	-	17.86	22.2	25.0	4.7	5.5	3.1	4.6	5.3	3.1	8.01	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	4.0	32.0	16.0	8	
13	Total Alkalinity(mg/l)	-	-	132.0	106.00	90.00	120.0	120.00	162.0	86.0	122.0	110.0	110	
14	Chlorides(mg/l)	-	-	17994.42	18499.6	13870.7	17744.5	17744	17619.5	16744.8	18751.3	17744.5	17611.56	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.2	12.9	1.68	1.68	1.68	1.12	1.12	4.5	1.68	2.8	
17	Ammonia (mg/l)	-	-	0.01	0.2	0.1	BDL	BDL	BDL	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	-	-	8400.0	5800.0	5000.0	6600.0	5800.0	8200.0	6260.0	6500.0	8800.0	7200	
19	Calcium(mg/l)	-	-	352.7	640.00	4.01	881.7	400.8	641.3	384.8	1202.4	400.8	561.12	
20	Magnesium(mg/l)	-	-	1827.40	1020.60	1212.60	1069.2	1166.4	1603.8	1287.9	850.5	1895.4	1409.4	
21	Sulphate(mg/l)	-	-	655.20	2276	6.4	1953.00	2040.0	1893.30	1828.2	2500.9	2170.0	2325	
22	Sodium(mg/l)	-	-	2623	161.6	527.9	1168.0	699.8	5525.0	10675.0	3175.0	4975.0	5075	
23	Total Dissolved Solids(mg/l)	-	-	36751.0	32534.0	22119.0	32154.0	31174.0	31527.0	29808.0	32865.0	28156.0	35650.0	
24	Total Fixed Solids(mg/l)	-	-	35251.0	26765.0	8846.0	19189.0	21198.0	20492.0	17884.0	10896.0	16893.0	21390.0	
25	Total Suspended Solids(mg/l)	-	-	141.0	218.000	39.000	16.00	23.00	22.00	15.00	5.00	7.00	16	
26	Phosphate(mg/l)	-	-	0.08	0.10	0.30	0.28	0.05	0.02	0.04	0.05	0.14	0.04	
27	Boron(mg/l)	-	-	4.08	1.5	0.35	1.7	1.3	1.6	3.3	0.3	1.5	1.923	
28	Potassium(mg/l)	-	-	665.2	104.8	212.3	463	279.4	1625	3475	1175	1275	1100	
29	Flouride(mg/l)	-	-	1.38	1.4	0.8	1.03	1.38	1.13	1.429	0.7	1.293	0.277	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.023	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.007	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.019	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	1.19	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BAGA BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	-	-	29	27	29	30	29	30	29	30	32	30	
2	Dissolved Oxygen(mg/l)	-	-	6.1	6.4	6.7	5.9	6.5	6.7	6.7	5.8	5.8	6.1	4 mg/l or more
3	pH	-	-	8.02	7	7.75	7.84	8.12	8.26	7.81	7.95	7.99	7.94	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	59760.0	43030.0	35800.0	48920.0	51580.0	50740.0	45670.0	49970.0	49270.0	57060	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	BDL	0.200	0.150	0.10	0.14	0.11	0.10	BDL	0.1	0.4	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	BDL	0.01	0.009	BDL	BDL	0.012	0.027	BDL	0.013	0.014	
8	Total Coliform(MPN/100ml)	-	-	110	540	350	350	350	110	540	540	220	140	
9	Fecal Coliform(MPN/100ml)	-	-	79	350	170	170	170	13	110	240	140	94	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	15	94	140	140	110	7.8	70	140	79	70	
11	Turbidity(NTU)	-	-	10.32	30.1	10.5	5.6	2.7	5.1	7.0	1.5	BDL	6.33	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	4.0	BDL	4.0	BDL	BDL	12.0	12.0	12.0	BDL	
13	Total Alkalinity(mg/l)	-	-	126.0	48.00	102.00	112.0	168.00	160.0	92.0	122.0	108.0	118.0	
14	Chlorides(mg/l)	-	-	17994.00	15654.7	12746.1	16633.14	15995	17367	17244.7	17244.7	17115.3	16244.96	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	0.6	2.8	0.56	1.6	0.56	2.24	1.68	1.681	3.9	2.8	
17	Ammonia (mg/l)	-	-	BDL	0.1	0.1	0.1	BDL	0.0	0.1	0.1	0.3	0.06	
18	Total Hardness(mg/l)	-	-	7200.0	5600.0	6000.0	6600.0	7400.0	6800.0	6200.0	7600.0	7000.0	6600	
19	Calcium(mg/l)	-	-	625.3	320.60	601.20	4.0	480.9	481.0	1202.4	641.3	601.2	801.6	
20	Magnesium(mg/l)	-	-	1370.50	1166.40	1093.50	1360.8	1507.0	1360.8	777.6	1458.0	1336.5	1117.8	
21	Sulphate(mg/l)	-	-	1170.00	2354.5	878.9	391.95	2072.4	3797.50	1519.0	2126.6	1312.9	3375	
22	Sodium(mg/l)	-	-	2074	450.9	574.7	754.1	688.6	597.9	10475.0	5550.0	4250.0	7750.0	
23	Total Dissolved Solids(mg/l)	-	-	36454.0	28201.0	20048.0	33754.0	28950.0	31458.0	24691.0	31852.0	32593.0	37004.0	
24	Total Fixed Solids(mg/l)	-	-	35447.0	16607.0	9807.0	20247.0	21712.0	18874.0	14814.0	19111.0	10940.0	15267.0	
25	Total Suspended Solids(mg/l)	-	-	136.0	272.000	120.000	19.00	26.00	26.00	13.00	2.00	11.00	22.0	
26	Phosphate(mg/l)	-	-	BDL	0.10	0.14	0.22	0.04	0.07	0.10	0.10	0.08	0.02	
27	Boron(mg/l)	-	-	4.27	2.9	1.26	1.4	1.3	2.3	1.4	1.9	0.9	0.2	
28	Potassium(mg/l)	-	-	317.5	241.5	244.2	308.7	252.7	246.8	4400	2600	1600	2725	
29	Flouride(mg/l)	-	-	1.44	2.3	0.53	BDL	0.95	4.937	1	1.599	1.6	0.9	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.076	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BAMBOLIM BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	-	-	28	27	28	29	29	30	29	29	30	30	
2	Dissolved Oxygen(mg/l)	-	-	7.1	6.9	7.1	7.0	6.8	6.4	6.5	6.1	6.6	6.5	4 mg/l or more
3	pH	-	-	7.37	7.7	8.01	7.95	8.48	8.12	7.8	7.88	7.86	8.07	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	49580.0	26390.0	30880.0	41110.0	49080.0	49180.0	49290.0	49430.0	47920.0	51380	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	2.0	BDL	BDL	2.7	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.22	0.300	0.110	0.68	BDL	0.11	0.80	BDL	0.2	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.41	0.008	0.02	0.012	BDL	0.009	BDL	0.01	0.019	0.008	
8	Total Coliform(MPN/100ml)	-	-	540	1400	920	170	140	23	350	140	170	140	
9	Fecal Coliform(MPN/100ml)	-	-	220	790	280	79	79	13	140	94	84	94	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	130	280	140	23	33	12	110	49	33	49	
11	Turbidity(NTU)	-	-	52.70	27.7	37.2	8.0	19.0	6.9	7.9	BDL	10.0	15.06	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	8.0	BDL	16.0	
13	Total Alkalinity(mg/l)	-	-	104.0	64.00	78.00	108.0	150.00	158.0	92.0	122.0	122.0	106	
14	Chlorides(mg/l)	-	-	17611.60	15856.79	11246.5	18994.1	18122	17611.56	17744.5	16994.7	15620.2	17244.65	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.8	2.8	1.7	3.92	2.2	1.68	3.4	1.68	2.8	0.56	
17	Ammonia (mg/l)	-	-	BDL	0.2	0.2	BDL	BDL	0.1	BDL	0.1	0.1	BDL	
18	Total Hardness(mg/l)	-	-	6400.0	2600.0	4000.0	5500.0	5800.0	8400.0	7000.0	8000.0	6400.0	7400.0	
19	Calcium(mg/l)	-	-	481.0	400.80	320.60	200.4	480.9	481.0	721.4	801.6	961.9	480.96	
20	Magnesium(mg/l)	-	-	1263.60	388.80	777.60	1215.0	1117.8	1749.6	1263.6	1458.0	972.0	1506.6	
21	Sulphate(mg/l)	-	-	2364.50	2198.28	1208.7	1410.50	2880.6	2543.24	1128.4	1345.4	1330.4	2581.25	
22	Sodium(mg/l)	-	-	1994	389.5	798.3	684.6	2840.0	6725.0	4150.0	4350.0	8700.0	7100.0	
23	Total Dissolved Solids(mg/l)	-	-	29128.0	15801.0	17912.0	23021.0	32665.0	32950.0	31545.0	28175.0	30790.0	27789.0	
24	Total Fixed Solids(mg/l)	-	-	26789.0	9295.0	8967.0	13812.0	10960.0	19770.0	18927.0	16905.0	12701.0	16670.0	
25	Total Suspended Solids(mg/l)	-	-	12.0	110.000	107.000	15.00	27.00	67.00	21.00	6.00	20.00	15.0	
26	Phosphate(mg/l)	-	-	0.118	0.60	0.45	0.50	0.13	0.10	0.02	1.34	0.04	0.04	
27	Boron(mg/l)	-	-	1.06	BDL	0.91	1.3	3.2	0.8	0.9	2.2	1.4	1.9	
28	Potassium(mg/l)	-	-	450	189.4	230	300.2	620	2475	2350	1600	2150	3175.0	
29	Flouride(mg/l)	-	-	0.44	0.61	0.47	0.561	1.2	4.8	0.75	1.34	1.28	BDL	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

MOBOR BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	30	32	28	29	28	29	30	30	29	29	27	29	
2	Dissolved Oxygen(mg/l)	6.5	6.0	6.0	5.8	6.7	7.0	6.8	5.3	6.9	6.8	6.6	6.7	4 mg/l or more
3	pH	8.11	7.94	8.07	7.68	7.97	8.08	8.35	8.30	7.85	7.93	7.97	8.08	6.5 - 8.5
4	Conductivity(µs/cm)	31980.00	49290.0	50850.0	38640.0	35920	52030.0	49550	50680	49660	49870.0	49180	53410	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.2	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.10	0.59	0.205	0.13	BDL	0.2	0.10	0.12	BDL	BDL	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	0.009	0.045	0.012	0.082	0.008	0.006	BDL	BDL	BDL	BDL	0.006	0.007	
8	Total Coliform(MPN/100ml)	110	240	110	350	280	170	110	23	170	240	33	49	
9	Fecal Coliform(MPN/100ml)	70	130	79	240	170	130	70	13	110	130	17	33	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	33	79	49	140	140	110	33	11	79	79	11	17	
11	Turbidity(NTU)	9.45	4.82	19.9	134.0	12.17	19.2	6.82	5.94	0.7	3.55	4.79	8.07	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	10.0	20.0	6.0	BDL	BDL	BDL	BDL	16.0	14.0	22.0	10.0	BDL	
13	Total Alkalinity(mg/l)	86.0	90.0	102.0	96.0	94	126.0	160.0	162.0	88.0	110.0	120	114	
14	Chlorides(mg/l)	18819.50	16926.60	18834.60	14850.00	12946.0	18994.1	17869.4	18877.1	20743.6	18744.2	17494.6	16994.73	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.4	4.5	3.9	3.92	0.56	0.56	2.24	3.4	0.56	0.56	0.56	0.56	
17	Ammonia (mg/l)	0.12	BDL	BDL	0.44	0.23	0.057	BDL	0.07	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	6800.0	6800.0	7800.0	5000.0	6000	8500	7200	7200	7400	6600	7400	7200	
19	Calcium(mg/l)	480.9	400.8	721.4	1202.4	1002.0	200.4	961.9	641.3	561.12	400.8	561.1	480.96	
20	Magnesium(mg/l)	1360.8	1409.4	1458.0	486.0	850.0	1944.0	1166.4	1360.8	1458.0	1360.80	1458.0	1458.0	
21	Sulphate(mg/l)	1855.40	2273.10	3409.90	2262.40	678.1	1258.6	1058.4	1014.4	1074.2	1074.15	2012.7	2431.25	
22	Sodium(mg/l)	898.4	687.5	1652.0	599.6	542.0	786.8	729.9	5575.0	72.8	6250.0	3850.0	5075.0	
23	Total Dissolved Solids(mg/l)	19024.0	29549.0	2891.0	23184.0	21193.0	29136.0	34611.0	34053.0	31782.0	31916.0	30491.0	29157.0	
24	Total Fixed Solids(mg/l)	10965.0	16407.0	1750.0	13910.0	9967.0	17418.0	14259.0	12482.0	19069.0	19149.0	19819.0	17490.0	
25	Total Suspended Solids(mg/l)	45.0	7.0	48.0	90.0	89.0	24.0	14.0	13.0	BDL	20.0	15.0	14.0	
26	Phosphate(mg/l)	0.080	0.108	0.066	1.440	0.21	0.241	0.02	0.030	0.059	0.10	0.11	0.02	
27	Boron(mg/l)	0.74	0.29	0.70	2.65	1.18	0.55	1.5	2.30	4.07	4.1	1.91	1.7	
28	Potassium(mg/l)	400.3	78.1	480.3	315.6	206.7	318.6	283.7	3050.0	13.2	2500.0	725.0	1075.0	
29	Flouride(mg/l)	1.33	0.46	0.63	0.575	0.6	3.9	1.2	1.2	1.1	1.22	1.39	1.2	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BAINA BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	30	30	29	28	28	29	31	30	30	29	28	29	
2	Dissolved Oxygen(mg/l)	6.0	7.1	6.4	6.8	6.6	7.4	6.7	6.6	6.70	6.9	6.5	6.2	4 mg/l or more
3	pH	7.69	7.92	7.0	7.90	7.75	8.14	8.08	8.27	7.97	7.83	8.09	7.85	6.5 - 8.5
4	Conductivity(µs/cm)	47480.00	56150.00	54960.0	63790.00	37240	48770.0	43890	50960	49050	47430.0	49880	52970	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.4	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.38	1.83	0.4	0.3	0.28	0.90	BDL	0.226	0.219	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.008	0.010	0.026	0.007	0.02	0.01	0.022	BDL	0.014	0.015	BDL	BDL	
8	Total Coliform(MPN/100ml)	220	540	540	920	540	540	540	540	350	170	240	140	
9	Fecal Coliform(MPN/100ml)	170	350	350	350	350	350	240	110	170	110	130	110	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	79	110	170	140	120	240	170	94	94	79	79	79	
11	Turbidity(NTU)	22.3	3.67	23.8	9.84	12.46	4.12	0.16	1.0	1.2	2.59	1.73	2.59	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	36.0	BDL	8.0	BDL	BDL	BDL	BDL	BDL	16.0	20.0	BDL	2.0	
13	Total Alkalinity(mg/l)	160.0	98.0	102.0	64.0	94	124.0	172.0	166.0	88.0	112.0	110	72	
14	Chlorides(mg/l)	17489.3	17494.6	17122.4	16486.0	15245.3	17000.04	17119.7	17744.49	16244.96	17994.42	17244.65	17869.45	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.9	0.6	3.4	2.8	0.6	3.3	3.4	1.12	0.56	1.121	1.68	2.8	
17	Ammonia (mg/l)	BDL	BDL	0.06	0.09	0.05	0.17	0.4	0.093	BDL	0.072	BDL	0.14	
18	Total Hardness(mg/l)	10500.0	6800.0	7800.0	4400.0	6400.0	7600.0	5400.0	7200.0	7200.0	7600.0	8200.0	7200.0	
19	Calcium(mg/l)	2004.0	801.6	1122.2	641.0	481.0	561.12	400.80	480.96	561.12	641.28	561.12	641.3	
20	Magnesium(mg/l)	1336.5	1166.4	1215.0	680.4	1263.6	1506.6	1069.2	1458.0	1409.4	1458.0	1652.4	1360.8	
21	Sulphate(mg/l)	4347.73	1687.90	2905.9	1506.36	5582.30	3524.60	6667.30	2050.65	1247.75	943.95	2308.50	2418.8	
22	Sodium(mg/l)	1641.0	1327.0	956.0	486.0	606.9	738.8	535.4	3700.0	10475.0	8350.0	5150.0	6800.0	
23	Total Dissolved Solids(mg/l)	28490.0	32110.0	32797.0	24363.0	22340.0	30238.0	30378.0	27518.0	28449.0	30355.0	27682.0	32312.0	
24	Total Fixed Solids(mg/l)	12102.0	21513.0	26810.0	20980.0	8936.0	18142.0	12708.0	16510.0	17069.0	18213.0	16610.0	13248.0	
25	Total Suspended Solids(mg/l)	24.0	9.0	32.0	138.0	20.0	125.0	3.0	12.0	10.0	4.0	27.0	5.0	
26	Phosphate(mg/l)	0.617	0.080	0.069	0.3	0.14	0.188	0.160	0.041	0.088	0.055	0.03	0.04	
27	Boron(mg/l)	BDL	0.50	1.1	1.2	BDL	0.5	0.8	2.591	1.379	2.046	1.9	1.7	
28	Potassium(mg/l)	217.0	159.2	255.6	239.200	220.5	244.6	229.2	1825.0	4050.0	2900.0	1925.0	3900.0	
29	Flouride(mg/l)	1.50	1.06	1.006	0.49	0.98	2.70	1.8	1.154	1.251	1.106	1.4	0.8	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	0.002	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.031	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.086	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

GALGIBAG BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	31	29	29	28	30	29	30	28	29	31	29	29	
2	Dissolved Oxygen(mg/l)	5.8	7.2	5.9	6.9	7.0	6.4	6.2	5.9	7.0	6.6	6.5	6.4	4 mg/l or more
3	pH	8.0	8.00	8.26	8.09	7.67	8.27	8.35	8.20	8.15	8.02	8.05	8.06	6.5 - 8.5
4	Conductivity(µs/cm)	50820	59010.0	60850.0	54780.0	47720	50000.0	50400	52430	49500	50020.0	50020	53070	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.9	2.1	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.15	BDL	0.72	0.113	0.5	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	BDL	0.02	0.008	0.008	BDL	0.009	0.009	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	33	23	110	280	430	350	130	49	70	130	140	79	
9	Fecal Coliform(MPN/100ml)	23	13	79	220	280	220	79	11	49	79	110	49	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	13	13	23	110.0	130	21	17	6	15	23	49	17	
11	Turbidity(NTU)	4.79	6.35	72.80	71.8	8.74	1.44	BDL	2.0	2.5	1.6	3.98	4.99	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	2.0	BDL	14	22	30	10	
13	Total Alkalinity(mg/l)	104	118.0	126.0	82.0	114	124.0	168.0	172.0	82.0	116.0	100	114.0	
14	Chlorides(mg/l)	18345.0	27594.0	18590.0	11578.0	14870.0	17492.8	17120.0	17994.42	17494.60	16995.0	17494.575	15245.273	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.24	2.24	2.24	2.8	1.7	0.44	1.12	1.12	3.36	0.56	1.12	2.802	
17	Ammonia (mg/l)	0.06	BDL	BDL	0.10	0.078	0.070	BDL	0.079	0.050	BDL	0.072	BDL	
18	Total Hardness(mg/l)	8400.0	8000.00	12000.00	4400.0	7400.0	10200.0	6400.0	7800.0	7400.0	6400.0	8200.0	7400.0	
19	Calcium(mg/l)	561.0	1282.0	601.0	962.00	721.4	480.9	641.3	480.96	561.12	481.0	480.96	561.12	
20	Magnesium(mg/l)	1701.0	1166.0	2552.0	486.0	1360.8	2187.0	1166.4	1603.8	1458.0	1263.6	1701.0	1458.0	
21	Sulphate(mg/l)	3498.0	3327.0	2405.0	734.9	2094.0	1264.0	1899.0	1160.95	770.35	1839.0	1453.9	2393.75	
22	Sodium(mg/l)	1671.0	1692.0	393.7	548.5	598.8	731.0	694.9	4175.0	11650.0	5225.0	6600.0	5700.0	
23	Total Dissolved Solids(mg/l)	35574.0	41307.0	35293.0	31772.0	24592.0	30728.0	31248.0	28312.0	32670.0	31512.0	31012.0	33964.0	
24	Total Fixed Solids(mg/l)	14229.0	16522.0	21847.0	19063.2	17216.0	10219.0	19374.0	16987.0	19602.0	21743.0	18607.0	20378.0	
25	Total Suspended Solids(mg/l)	128.0	156.0	116.0	74.00	169.0	26.0	18.0	12.0	13.0	18.0	2.0	2.0	
26	Phosphate(mg/l)	0.02	0.05	1.15	0.26	0.221	0.149	0.097	BDL	0.080	0.050	0.233	BDL	
27	Boron(mg/l)	3.37	2.99	1.54	0.98	2.36	0.25	1.71	2.03	0.53	1.15	1.867	1.92	
28	Potassium(mg/l)	214.2	448.00	168.5	285.40	238.3	235.7	314.9	1900.0	4150.0	2200.0	2700.0	1275.0	
29	Flouride(mg/l)	2.26	3.75	1.48	0.89	1.41	1.055	1.17	1.093	1.150	1.18	1.542	0.674	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

COLVA BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	32	31	31	30	26	28	29	30	29	29	29	29	
2	Dissolved Oxygen(mg/l)	6.7	6.8	5.5	5.8	6.5	6.8	5.1	6.3	5.8	6.2	4.6	6.7	4 mg/l or more
3	pH	8.04	7.01	8.29	7.00	7.84	7.66	8.09	8.34	7.71	7.95	8.03	8.07	6.5 - 8.5
4	Conductivity(µs/cm)	31540.00	47.53	59170.00	49500.00	42460	52180.0	48160	51030	46420	50290.0	50560	53310	
5	BOD(mg/l)	BDL	2.3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.28	0.20	0.4	BDL	0.1	BDL	BDL	0.03	0.069	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.014	0.049	0.006	BDL	0.01	0.015	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	130	33	920	1400	140	920	350	920	920	240	130	140	
9	Fecal Coliform(MPN/100ml)	79	33	220	460	110	350	130	350	350	130	79	94	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	49	17	110	280	170	170	110	140	240	79	49	70	
11	Turbidity(NTU)	2.65	1.7	62.7	29.7	14.28	4.51	4.01	6.08	9.19	0.03	8.08	4.33	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	2.0	8.0	BDL	BDL	BDL	BDL	14.0	BDL	8.0	16.0	14.0	BDL	
13	Total Alkalinity(mg/l)	110.0	88.0	132.0	114.0	114	126.0	96.0	164.0	80.0	90.0	112	122	
14	Chlorides(mg/l)	17994.00	18455.30	17994.00	18122.04	15620.1	15745.1	16863.6	17744.0	17244.7	17995.0	14598.3	16454.83	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.2	2.2	1.1	11.21	0.56	1.68	3.9	1.12	0.56	1.12	2.8	1.7	
17	Ammonia (mg/l)	BDL	BDL	BDL	BDL	0.05	0.13	0.109	0.05	0.16	0.07	BDL	BDL	
18	Total Hardness(mg/l)	12200.0	4460.0	6800.0	7000	5400	4600	12800	8800.0	6600.0	8400.0	7400.0	7000.0	
19	Calcium(mg/l)	921.80	312.60	400.8	801.6	561.1	400.8	801.6	721.4	561.1	561.12	721.4	561.1	
20	Magnesium(mg/l)	2405.7	894.2	1409.4	1215.0	972.0	874.8	2624.4	1701.0	1117.8	1701.0	1360.8	1360.8	
21	Sulphate(mg/l)	1736.50	956.10	1369.0	1953.2	1790.3	1236.9	2001.8	1964.0	2094.1	2153.7	1980.1	2937.5	
22	Sodium(mg/l)	9866.0	3426.0	2520.0	167.2	536.2	848.6	571.9	8250.0	10175.0	4275.0	7600.0	4900.0	
23	Total Dissolved Solids(mg/l)	18608.0	28043.0	37869.0	34661.0	23980.0	31312.0	31091.0	31638.0	29709.0	34197.0	32421.0	30386.0	
24	Total Fixed Solids(mg/l)	17610.0	11437.0	36850.0	28712.0	19180.0	12524.0	10433.0	21513.0	19310.0	20518.0	13374.0	12154.0	
25	Total Suspended Solids(mg/l)	189.0	17.0	157.0	215.0	24.0	10.0	5.0	20.0	19.0	5.0	17.0	14.0	
26	Phosphate(mg/l)	BDL	0.15	0.07	0.07	0.04	0.28	0.09	0.039	0.038	0.07	0.016	0.03	
27	Boron(mg/l)	4.3	0.53	4.52	1.80	1.98	1.80	0.30	2.53	1.42	1.44	2.52	1.1	
28	Potassium(mg/l)	733.1	636.4	632.00	106.60	222.0	366.00	266.90	3050.0	4150.0	4050.0	2625.0	825.0	
29	Flouride(mg/l)	1.2	0.44	1.46	1.10	BDL	1.05	0.80	1.09	1.26	2.53	1.18	BDL	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.002	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.02	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.013	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.519	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

VELSAO BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	30	29	28	26	29	29	31	30	30	29	30	28	
2	Dissolved Oxygen(mg/l)	5.5	5.6	5.6	6.2	6.8	5.2	5.8	6.9	6.7	5.6	6.0	6.9	4 mg/l or more
3	pH	8.30	6.98	8.30	7.82	7.65	7.72	8.23	7.93	7.69	8.03	8.10	8.06	6.5 - 8.5
4	Conductivity(µs/cm)	49430.0	57650.0	62050.0	44600.0	42930	50310	49450	50850	49680	50800.0	50680	51920	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.23	0.51	3.64	0.372	1.5	1.7	3.4	BDL	BDL	0.597	BDL	0.1	
7	Nitrite Nitrogen as NO_2-N mg/l	0.04	0.009	0.239	0.030	0.03	0.047	0.086	0.005	0.007	BDL	BDL	0.014	
8	Total Coliform(MPN/100ml)	70	240	280	350	540	540	79	240	23	240	240	170	
9	Fecal Coliform(MPN/100ml)	49	130	220	240	170	240	49	49	7.8	79	79	70	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	23	79	130	79	79	33	23	23	6.8	49	49	40	
11	Turbidity(NTU)	2.74	12.47	2.51	2.66	19.20	5.57	14.90	6.04	4.44	3.73	5.20	3.52	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	40.0	BDL	BDL	BDL	BDL	BDL	20.0	BDL	18.0	10.0	8.0	BDL	
13	Total Alkalinity(mg/l)	170.0	126.0	128.0	108.0	100	124	108	158	84	120	114	112	
14	Chlorides(mg/l)	17611.56	17494.60	18834.0	18877.0	15870.0	18369.0	17241.1	16994.7	18369.3	16995.0	17119.7	16744.8	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.4	0.6	7.28	3.36	0.56	6.16	4.4	0.56	2.24	1.12	3.4	0.6	
17	Ammonia (mg/l)	0.52	0.18	0.162	0.007	0.35	0.06	0.02	BDL	0.15	0.127	0.130	BDL	
18	Total Hardness(mg/l)	11000.0	8200.0	2000.0	6500.0	7600.0	11500.0	3400.0	6400.0	8200.0	8000.0	7000.0	7400.0	
19	Calcium(mg/l)	2605.2	1122.2	440.8	352.7	400.8	2004.0	240.4	641.3	561.12	641.30	561.10	881.76	
20	Magnesium(mg/l)	1093.0	1312.20	219.00	1635.70	1603.80	1579.5	680.4	1166.4	1652.4	1555.2	1360.0	1263.6	
21	Sulphate(mg/l)	4466.12	2512.6	3724.0	1621.72	1264.02	1236.9	685.7	1654.6	4361.7	3570.0	1698.0	2700.0	
22	Sodium(mg/l)	1674.0	1459.0	722.5	832.7	759.7	682.8	667.5	8675.0	8540.0	4325.0	6175.0	5225.0	
23	Total Dissolved Solids(mg/l)	30774.0	32323.0	43194.0	25621.0	26843.0	33125.0	31285.0	27562.0	30976.0	32512.0	32435.0	27983.0	
24	Total Fixed Solids(mg/l)	15925.0	25211.0	17270.0	17918.0	20474.0	14090.0	10811.0	16550.0	12778.8	20807.0	19461.0	16792.0	
25	Total Suspended Solids(mg/l)	6.0	25.0	147.0	34.0	49.0	11.0	20.0	31.0	5.0	16.0	6.0	19.0	
26	Phosphate(mg/l)	0.493	0.080	0.64	0.193	0.67	0.34	0.14	BDL	0.13	0.16	0.21	0.16	
27	Boron(mg/l)	0.20	0.59	1.81	2.71	1.5	1.56	1.40	2.60	2.60	0.89	2.06	2.0	
28	Potassium(mg/l)	216.7	172.8	330.0	300.5	285.7	274.7	256.1	4250.0	2780.0	1650.0	3375.0	1550.0	
29	Flouride(mg/l)	1.70	1.04	2.66	1.107	BDL	1.1	1.3	1.1	1.5	1.28	1.40	1.1	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.002	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.056	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOGMALO BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	30	28	28	29	31	30	30	28	28	29	
2	Dissolved Oxygen(mg/l)	-	-	6.7	6.6	6.2	6.6	6.7	7.4	7.5	6.5	6.4	5.4	4 mg/l or more
3	pH	-	-	7.01	7.96	7.72	8.19	8.08	8.25	8.01	7.88	8.5	7.73	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	54490	42070	42100	50100	50950	52620	50650	50800	50650	70800	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	1.42	0.14	0.4	0.33	0.3	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.02	0.007	0.02	BDL	0.007	BDL	BDL	BDL	0.007	BDL	
8	Total Coliform(MPN/100ml)	-	-	350	540	220	540	540	240	49	94	49	79	
9	Fecal Coliform(MPN/100ml)	-	-	240	350	170	350	170	79	33	70	23	49	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	130	220	110	70	220	33	22	49	13	23	
11	Turbidity(NTU)	-	-	7.98	6.44	3.76	4.7	0.01	1.37	1.26	1.8	1.54	1.21	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	12.0	BDL	BDL	BDL	BDL	BDL	16	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	108.0	106.0	104	126.0	188.0	150.0	88.0	118.0	102	116.0	
14	Chlorides(mg/l)	-	-	17611.6	16245.0	16369.9	10762.6	18244.3	17994.4	17494.6	18494.27	16494.88	17856.2	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	4.5	1.7	3.3	1.6	4.5	2.24	1.12	0.56	0.56	0.56	
17	Ammonia (mg/l)	-	-	0.06	BDL	0.08	0.1	0.2	0.06	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	7200.0	6200	6200	7800	6200	7200	7800	7600	7600	7000	
19	Calcium(mg/l)	-	-	1523.0	4.81	400.8	801.6	641.3	961.9	721.44	561.12	641.28	801.6	
20	Magnesium(mg/l)	-	-	826.2	1215.0	1263.6	1409.4	1117.8	1166.4	1458.0	1506.6	1458.0	1215.0	
21	Sulphate(mg/l)	-	-	3150.7	1641.6	7318.32	4438.2	8191.8	2370.7	1377.95	401.45	2824.8	3257.5	
22	Sodium(mg/l)	-	-	988.5	586.2	643.6	735.2	556.9	9400.0	11300.0	8400.0	5575.0	4925.0	
23	Total Dissolved Solids(mg/l)	-	-	30966.0	28640.0	25259.0	34569.0	35132.0	31947.0	28364.0	32512.0	26323.0	46728.0	
24	Total Fixed Solids(mg/l)	-	-	27020.0	11064.0	10104.0	20741.0	17566.0	19219.0	17018.0	19507.0	15795.0	28461.0	
25	Total Suspended Solids(mg/l)	-	-	35.00	107.0	7.0	89.0	1.0	9.00	9.00	2.00	31.0	16.0	
26	Phosphate(mg/l)	-	-	0.074	0.10	0.10	0.07	0.14	0.02	BDL	0.017	0.03	0.02	
27	Boron(mg/l)	-	-	1.02	1.18	0.4	0.53	1.8	2.9	1.281	1.791	1.7	1.91	
28	Potassium(mg/l)	-	-	262.40	219.2	234.1	238.8	235.5	4375	4150	3350	2000	925.0	
29	Flouride(mg/l)	-	-	1.39	1.09	0.8	2.78	1.9	1.1	1.459	1.288	1.5	1.75	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.082	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BETALBATIM BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	30	28	26	28	30	29	29	30	29	29	
2	Dissolved Oxygen(mg/l)	-	-	5.8	6.3	7.1	6.5	6.5	6.5	7.2	6.3	6	6.4	4 mg/l or more
3	pH	-	-	8.33	8.5	7.60	7.97	8.10	8.14	7.99	7.97	8.02	8.02	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	56280	51860.0	45780	52360.0	47980.0	51090	49540	50180.0	50910	53240	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	2	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.24	0.16	BDL	BDL	0.1	0.1	BDL	0.041	0.153	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.01	0.052	0.006	0.009	BDL	0.022	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	170	540	540	170	140	170	350	220	49	46	
9	Fecal Coliform(MPN/100ml)	-	-	79	220	33	110	110	79	240	130	33	23	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	33	170	350	46	79	17	170	79	17	13	
11	Turbidity(NTU)	-	-	31.5	42.2	28.2	39	4.77	13.23	8.77	1.51	4.33	3.91	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	16	BDL	12.0	8.0	BDL	10.0	
13	Total Alkalinity(mg/l)	-	-	110.0	102.0	114	126.0	108.0	156.0	80.0	88.0	116	116.0	
14	Chlorides(mg/l)	-	-	18576.7	18499.58	16494.8	17869.5	17115.3	15745.1	17245	17995	17856.16	16331.12	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.2	10.65	1.12	1.12	3.4	2.8	0.56	1.12	1.12	0.6	
17	Ammonia (mg/l)	-	-	0.06	BDL	0.10	0.06	0.08	0.07	0.1	0.1	0.1	BDL	
18	Total Hardness(mg/l)	-	-	6880.0	8000.0	6000	6400	6800	7400.0	7000.0	7800.0	8800.0	6800.0	
19	Calcium(mg/l)	-	-	416.8	1442.8	400.8	480.96	561.12	480.9	561.1	480.96	561.12	481	
20	Magnesium(mg/l)	-	-	1419.1	1069.2	1215.0	1263.6	1312.0	1506.6	1360.8	1603.8	1798.2	1360.8	
21	Sulphate(mg/l)	-	-	3258.9	2479.0	1660.1	1719.72	1567.00	1470.2	2300.2	2419.5	1616.6	2743.8	
22	Sodium(mg/l)	-	-	6935.0	173.2	579.1	899.4	657.2	6025	11525.0	4275.0	7075.0	4325.0	
23	Total Dissolved Solids(mg/l)	-	-	36473.0	34223.0	27906.0	31409.0	33366.0	31297.0	31210.0	33620.0	34618.0	31582.0	
24	Total Fixed Solids(mg/l)	-	-	3633.0	1073.0	21446.0	12563.0	11518.0	12911.0	19350.0	20172.0	20770.0	14893.0	
25	Total Suspended Solids(mg/l)	-	-	48.0	302.0	88.0	48.0	7.0	23.0	17.0	15.0	10.0	11.0	
26	Phosphate(mg/l)	-	-	0.37	0.12	0.09	1.40	0.07	0.36	0.208	0.023	0.190	BDL	
27	Boron(mg/l)	-	-	0.96	1.5	2.1	1.4	0.2	2.3	1.1	1.16	3.08	0.9	
28	Potassium(mg/l)	-	-	613.5	109.8	237.4	379.2	257.5	2200	4400	3650.0	5125.0	600.0	
29	Flouride(mg/l)	-	-	BDL	1.3	BDL	1.13	0.9	1.35	1.19	2.18	2.9	1.14	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.009	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.39	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

BENAULIM BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	31	28	27	28	29	28	29	29	30	29	
2	Dissolved Oxygen(mg/l)	-	-	5.8	6.4	6.6	6.4	5.9	6.6	6.6	6.7	6.8	6.0	4 mg/l or more
3	pH	-	-	8.31	8.6	7.78	7.89	8.13	8.15	7.97	7.98	8.02	8.09	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	57390	51930.0	45650	52320.0	49480.0	51330	49460	50310.0	50740	53510	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.1	0.1	0.14	BDL	0.2	0.1	BDL	0.02	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.02	0.05	BDL	BDL	0.042	0.015	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	130	920	79	920	220	49	49	330	70	79	
9	Fecal Coliform(MPN/100ml)	-	-	49	350	79	540	170	6.8	33	23	46	49	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	33	280	130	110	140	2	14	22	21	23	
11	Turbidity(NTU)	-	-	40.4	31.0	18.8	10.31	12.12	4.31	12.51	0.01	5.95	4.66	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	16	12	12	20.0	BDL	BDL	
13	Total Alkalinity(mg/l)	-	-	114.0	134.0	114	134.0	102.0	174.0	86.0	82.0	110	118.0	
14	Chlorides(mg/l)	-	-	18819.5	18247.88	17494.6	17994.42	17870	17115.2	16995	17244.6	17611.56	16702.27	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	1.7	10.65	2.24	1.12	2.8	3.9	1.12	0.56	0.56	1.1	
17	Ammonia (mg/l)	-	-	0.06	BDL	0.09	0.062	0.08	0.13	0.93	BDL	0.08	BDL	
18	Total Hardness(mg/l)	-	-	7100.0	8600.0	6400.0	6600.0	8800.0	8600.0	6800.0	7400.0	8400.0	7000.0	
19	Calcium(mg/l)	-	-	561.1	801.6	641.3	400.8	641.3	561.1	480.9	561.1	961.92	481	
20	Magnesium(mg/l)	-	-	1385.1	1603.8	1166.4	1360.8	1749.6	1749.6	1360.8	1458	1458	1409.4	
21	Sulphate(mg/l)	-	-	3251.8	2630.7	1426.8	1443.0	5153.7	960.2	2674.5	2690.8	1215.2	2237.5	
22	Sodium(mg/l)	-	-	7562.0	174.1	574.8	899.8	677.8	5750.0	11350.0	4275.0	6950.0	4550.0	
23	Total Dissolved Solids(mg/l)	-	-	40350.0	34486.0	30585.0	31392.0	34416.0	32520.0	31654.0	33707.0	33995.0	34519.0	
24	Total Fixed Solids(mg/l)	-	-	5112.0	29792.0	178.63	12555.00	12132.00	11967.0	22474.0	20224.0	20397.0	13808.0	
25	Total Suspended Solids(mg/l)	-	-	22.0	270.0	44.0	21.0	13.0	8.0	24.0	2.0	12.0	12.0	
26	Phosphate(mg/l)	-	-	0.30	0.09	0.07	0.2	0.11	0.24	0.155	BDL	0.38	0.03	
27	Boron(mg/l)	-	-	0.87	1.5	1.15	1.7	BDL	2.7	1.08	1.27	1.42	1.0	
28	Potassium(mg/l)	-	-	675.4	110.6	222.0	378.8	261.7	3025.0	4400.0	4350.0	4925.0	775.0	
29	Flouride(mg/l)	-	-	BDL	1.3	2.69	0.277	BDL	1.1	1.17	1.4	2.6	0.9	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.24	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

VARCA BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	31	29	27	29	29	28	29	29	30	30	
2	Dissolved Oxygen(mg/l)	-	-	6.0	6.9	6.6	6.5	6.5	6.9	7.2	6.7	7.1	6.3	4 mg/l or more
3	pH	-	-	8.26	8.5	7.85	7.84	8.15	8.11	7.99	7.95	8.04	8.07	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	55840	52630.0	45660	52600.0	48980.00	52010	49530	50270.0	50110	53400	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.1	0.1	0.148	BDL	0.3	BDL	BDL	0.02	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.03	0.055	BDL	BDL	0.036	BDL	BDL	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	170	350	33	350	540	23	240	140	33	32	
9	Fecal Coliform(MPN/100ml)	-	-	130	170	11	240	350	2	130	79	17	14	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	79	140	34	170	130	2	21	49	7.8	6.8	
11	Turbidity(NTU)	-	-	61.9	47.3	12.07	12.91	4.28	19.49	11.06	0.73	6.56	4.27	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	10	20.0	BDL	10.0	
13	Total Alkalinity(mg/l)	-	-	126.0	134.0	176	122.0	118	150.0	84.0	78.0	104	116.0	
14	Chlorides(mg/l)	-	-	19062.4	18625.4	16744.8	7797.58	16869.8	18369.3	17245	17744.4	17122.35	17244.65	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.2	8.96	2.24	0.56	2.24	3.4	0.56	0.56	1.12	3.4	
17	Ammonia (mg/l)	-	-	0.07	BDL	0.09	0.03	0.1	BDL	BDL	0.05	BDL	BDL	
18	Total Hardness(mg/l)	-	-	16500.0	7600.0	8000.0	7000.0	6400	6800.0	7000.0	6600.0	8200.0	6400.0	
19	Calcium(mg/l)	-	-	601.2	641.3	721.4	480.96	480.9	480.9	480.9	561.12	400.8	561.1	
20	Magnesium(mg/l)	-	-	3645.0	1458.0	1506.6	1409.4	1263.6	1360.8	1409.4	1263.6	1749.6	1215.0	
21	Sulphate(mg/l)	-	-	3344.1	2313.6	1660.0	1757.7	1085.8	1399.70	2039.40	1877.05	1573.25	2556.30	
22	Sodium(mg/l)	-	-	6509.0	73.9	601.7	875.8	650.2	6400.0	11050.0	4300.0	7250.0	4000.0	
23	Total Dissolved Solids(mg/l)	-	-	37152.0	35005.0	31551.0	31565.0	26512.0	31848.0	32689.0	33680.0	33573.0	36598.0	
24	Total Fixed Solids(mg/l)	-	-	5614.0	29551.0	20015.0	12626.0	16112.0	13138.0	22228.0	20208.0	20143.0	15099.0	
25	Total Suspended Solids(mg/l)	-	-	26.0	262.0	26.0	23.0	9	32.0	22.0	7.0	16.0	15.0	
26	Phosphate(mg/l)	-	-	0.69	0.13	0.07	0.208	0.15	0.24	0.055	0.049	0.14	BDL	
27	Boron(mg/l)	-	-	0.90	1.80	1.46	0.80	1.9	2.1	1.08	1.15	2.62	0.7	
28	Potassium(mg/l)	-	-	537.7	110.9	235.7	369.9	261.6	2540.0	4300.0	3675.0	4775.0	425.0	
29	Flouride(mg/l)	-	-	0.87	1.2	2.01	1	1.1	1.4	1.16	2.08	2.80	1.0	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	0.009	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	1.33	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

AGONDA BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	30	28	30	30	31	30	29	32	29	29	
2	Dissolved Oxygen(mg/l)	-	-	4.6	6.5	4.3	6.8	6.1	5.8	6.5	6.3	6.6	6.9	4 mg/l or more
3	pH	-	-	8.37	8.46	7.83	8.17	8.42	8.21	7.96	8.05	8.03	8.15	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	60770.0	58140.0	48590	49350.0	50190.0	51670	49470	50230.0	50080	51130	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	2.6	2.2	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.83	0.46	BDL	0.3	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.012	0.05	0.008	0.007	BDL	0.008	0.043	BDL	BDL	BDL	
8	Total Coliform(MPN/100ml)	-	-	130	110	280	280	49	130	79	130	79	94	
9	Fecal Coliform(MPN/100ml)	-	-	79	79	220	94	33	23	33	79	49	70	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	33	63	170	79	7.8	21	6.1	23	17	49	
11	Turbidity(NTU)	-	-	8.16	12.45	11.74	1.12	1.35	2.55	6.05	2.82	3.11	7.05	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	12	20	28	14	
13	Total Alkalinity(mg/l)	-	-	134.0	106.0	126	120.0	168.0	172.0	82.0	114.0	106	112.0	
14	Chlorides(mg/l)	-	-	18590.0	16108.0	15245.0	14220.7	16619.8	17744.49	17994.40	17245.00	17244.65	17494.575	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.24	2.24	2.2	0.39	1.12	2.24	0.56	0.56	0.56	1.40	
17	Ammonia (mg/l)	-	-	0.16	0.26	0.06	0.06	BDL	0.059	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	11000.0	4800.0	7200	5600	7200	6600	6400	6800	8200	7000	
19	Calcium(mg/l)	-	-	942.0	1603.0	1763.5	561.12	801.60	641.28	561.12	481.0	721.44	561.12	
20	Magnesium(mg/l)	-	-	2102.0	194.0	680.4	1020.6	1263.6	1215.0	1215.0	1360.8	1555.2	1360.8	
21	Sulphate(mg/l)	-	-	2736.0	1224.85	2165.0	1101.3	2045.2	1947.57	618.45	2604.0	1367.1	2450.0	
22	Sodium(mg/l)	-	-	435.1	637.1	611.1	734.6	700.4	9225	12450	5875.0	6600.0	6075.0	
23	Total Dissolved Solids(mg/l)	-	-	36462.0	34302.0	29575.0	30328.0	27871.0	28935.0	31660.0	32147.0	33553.0	32723.0	
24	Total Fixed Solids(mg/l)	-	-	17324.0	16464.0	20702.0	10052.0	16832.0	17361.0	18996.0	20885.0	20131.0	19633.0	
25	Total Suspended Solids(mg/l)	-	-	107.0	59.0	170.0	26.0	33.0	13.0	15.0	21.0	2.0	3.0	
26	Phosphate(mg/l)	-	-	0.10	0.91	0.143	0.140	0.15	0.064	0.130	0.131	0.09	BDL	
27	Boron(mg/l)	-	-	1.45	0.60	2.36	0.34	3.4	3.11	0.47	1.36	1.855	1.94	
28	Potassium(mg/l)	-	-	190.0	327.9	245.9	267.1	319.3	5100.0	4550.0	2375.0	2650.0	1350.0	
29	Flouride(mg/l)	-	-	1.55	0.50	1.41	1.10	1.2	1.186	0.950	1.03	1.247	1.258	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.027	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

PALOLEM BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	29	28	30	29	31	30	29	32	29	29	
2	Dissolved Oxygen(mg/l)	-	-	6.0	6.6	5.1	6.4	5.8	6.4	6.0	6.8	6.4	6.1	4 mg/l or more
3	pH	-	-	8.34	8.67	7.81	8.24	8.4	8.24	7.94	8.0	8.0	8.1	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	60310.0	53640.0	47860	46950.0	49500.0	51370	48900	50320.0	48670	52000	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	2.5	2	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	0.95	0.52	BDL	0.1	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.006	0.05	0.008	BDL	BDL	BDL	BDL	BDL	BDL	0.006	
8	Total Coliform(MPN/100ml)	-	-	220	280	350	1400	130	130	170	79	1300	84	
9	Fecal Coliform(MPN/100ml)	-	-	170	220	280	790	79	79	130	49	780	63	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	79	140	220	540	33	70	110	33	140	33	
11	Turbidity(NTU)	-	-	72.3	48.12	26.9	1.26	1.03	BDL	6.92	2.69	9.55	4.75	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	14	16	24	12	
13	Total Alkalinity(mg/l)	-	-	124.0	106.0	130	44.0	174.0	174.0	88.0	118.0	108	108.0	
14	Chlorides(mg/l)	-	-	18835.0	14850.0	15370.0	11007.0	16369.9	17494.58	17494.60	17245.00	17494.575	16994.73	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.24	3.9	1.7	2.8	0.56	3.36	1.12	1.12	1.121	2.80	
17	Ammonia (mg/l)	-	-	0.16	0.22	0.06	0.4	BDL	0.088	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	14000.0	4600.0	7800.0	7800.0	7400.0	6000.0	8200.0	6800.0	7400.0	6600.0	
19	Calcium(mg/l)	-	-	721.0	1603.0	1763.5	641.28	1202.70	561.12	480.96	481.00	160.32	480.96	
20	Magnesium(mg/l)	-	-	2965.0	146.0	826.2	1506.6	1069.2	1117.8	1701.0	1360.8	1701.0	1312.2	
21	Sulphate(mg/l)	-	-	2347.0	1801.3	2257.0	3141.3	2245.9	2012.67	846.30	2083.00	1508.15	2381.25	
22	Sodium(mg/l)	-	-	418.0	643.8	625.0	720.9	699.5	3225.0	12350.0	5450.0	6650.0	5450.0	
23	Total Dissolved Solids(mg/l)	-	-	36186.0	31647.0	31920.0	33567.0	27449.0	27226.0	31296.0	30695.0	34069.0	33280.0	
24	Total Fixed Solids(mg/l)	-	-	19279.0	14241.0	22345.0	297.0	16495.0	16335.0	18778.0	21793.0	20441.0	19968.0	
25	Total Suspended Solids(mg/l)	-	-	133.0	88.0	156.0	45.0	27.0	7.0	19.0	22.0	4.0	2.0	
26	Phosphate(mg/l)	-	-	0.13	0.85	0.273	0.07	0.22	BDL	0.1	0.052	0.136	BDL	
27	Boron(mg/l)	-	-	1.58	0.63	2.72	0.41	3.9	2.544	0.570	1.330	1.745	1.96	
28	Potassium(mg/l)	-	-	190.0	327.8	243.3	263.5	320.2	1650.0	4600.0	2350.0	2850.0	1225.0	
29	Flouride(mg/l)	-	-	1.11	0.36	1.73	1.33	1.1	1.073	0.930	1.0	1.295	0.750	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	0.002	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.016	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

RAJBHAG BEACH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	-	-	29	28	30	29	31	29	29	32	29	29	
2	Dissolved Oxygen(mg/l)	-	-	6.5	6.7	6.5	6.5	6.4	6.1	6.8	6.3	6.0	6.4	4 mg/l or more
3	pH	-	-	8.35	8.78	7.64	8.19	8.51	8.04	8.03	8.07	7.87	8.07	6.5 - 8.5
4	Conductivity(µs/cm)	-	-	60770.0	37260.0	47050	49220.0	50370.0	51550	48630	49880.0	48760	52910	
5	BOD(mg/l)	-	-	BDL	BDL	BDL	BDL	BDL	BDL	2.1	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	-	-	BDL	0.33	0.117	0.35	BDL	BDL	BDL	BDL	BDL	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	-	-	0.008	0.02	0.011	0.01	BDL	0.011	0.02	BDL	BDL	0.005	
8	Total Coliform(MPN/100ml)	-	-	79	220	280	280	33	33	79	110	79	110	
9	Fecal Coliform(MPN/100ml)	-	-	49	170	220	220	23	17	49	70	49	79	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	-	-	22	94	94	11	13	12	46	49	23	49	
11	Turbidity(NTU)	-	-	111.0	103.0	15.61	1.29	3.39	1.80	2.24	2.47	2.98	4.93	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	-	-	BDL	BDL	BDL	BDL	10.0	BDL	12	20	16	10.0	
13	Total Alkalinity(mg/l)	-	-	128.0	84.0	106	120.0	154.0	142.0	82.0	118.0	114	106.0	
14	Chlorides(mg/l)	-	-	18835.0	12081.0	15495.0	15353.4	17720.0	16994.73	16994.70	16495.00	16994.73	17244.70	
15	COD(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	-	-	2.24	3.9	0.6	0.5	1.12	1.68	1.12	0.56	1.121	0.56	
17	Ammonia (mg/l)	-	-	0.18	0.12	0.060	0.068	BDL	0.039	BDL	BDL	BDL	BDL	
18	Total Hardness(mg/l)	-	-	20000.0	3600.0	6400.0	8000.0	6800.0	6800.0	8000.0	6200.0	8400.0	8000.0	
19	Calcium(mg/l)	-	-	601.0	1202.0	641.28	801.60	721.4	480.96	480.96	400.8	480.96	2004.00	
20	Magnesium(mg/l)	-	-	4496.0	146.0	1166.4	1458.0	1215.0	1360.8	1652.4	1263.6	1749.6	729.0	
21	Sulphate(mg/l)	-	-	2506.0	706.1	1920.0	1041.6	1969.0	1112.12	1085.00	1709.0	1302.0	2543.8	
22	Sodium(mg/l)	-	-	422.5	548.6	612.9	753.1	696.2	3675.0	12100.0	5350.0	7150.0	5400.0	
23	Total Dissolved Solids(mg/l)	-	-	35886.0	21983.0	26710.0	32231.0	32237.0	28868.0	31123.0	33520.0	34132.0	33333.0	
24	Total Fixed Solids(mg/l)	-	-	18532.0	8793.0	18698.0	10815.0	20309.0	17320.0	18673.0	20112.0	20479.0	23999.0	
25	Total Suspended Solids(mg/l)	-	-	235.0	98.0	159.0	28.0	20.0	10.0	8.0	20.0	2.0	14.0	
26	Phosphate(mg/l)	-	-	0.39	0.24	0.15	0.14	0.175	0.034	0.100	0.033	0.219	0.02	
27	Boron(mg/l)	-	-	1.86	0.87	2.86	0.36	1.76	1.623	0.340	1.41	1.803	1.27	
28	Potassium(mg/l)	-	-	179.5	292.4	247.5	247.8	317.6	1775.0	4350.0	2225.0	3250.0	1200.0	
29	Flouride(mg/l)	-	-	1.40	0.47	1.58	1.23	1.25	1.183	0.750	1.12	1.311	1.1	
30	Arsenic(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	-	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	-	-	-	-	-	-	0.011	-	-	-	-	-	
38	Mercury (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	-	-	-	-	-	-	BDL	-	-	-	-	-	

UPSTREAM OF RIVER MANDOVI, M/S VEDANTA PVT. LTD.														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	34	29	29	28	29	29	29	28	29	29	29	28	
2	Dissolved Oxygen(mg/l)	5.4	4.8	5.7	6.8	7.2	7.4	7.1	5.8	5.6	5.9	7.5	6.0	4 mg/l or more
3	pH	6.7	7.2	7.89	6.91	7.11	6.39	7.09	7.29	7.12	7.10	7.31	7.29	6.5 - 8.5
4	Conductivity(µs/cm)	21950.0	40290.0	41560.0	204.2	162.60	54.08	193.90	5725.0	1981.0	21790.0	25860.0	30050	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.1	0.31	0.2	BDL	0.2	0.1	0.20	0.20	2.000	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	0.007	BDL	BDL	0.007	BDL	0.080	BDL	BDL	0.099	0.045	0.860	0.04	
8	Total Coliform(MPN/100ml)	170	790	220	1100	1700	1700	92000	450	490	450	170	200	
9	Fecal Coliform(MPN/100ml)	130	330	170	700	790	1300	35000	200	230	200	130	110	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	94	79	79	140	170	790	3500	140	120	140	68	68	
11	Turbidity(NTU)	3.34	8.14	3.23	14.5	11.63	2.72	4.36	3.55	7.28	2.99	3.51	4.00	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	74.0	90.0	108.0	20	20.0	28.0	28.0	44.0	50.0	76.0	74.00	76.0	
14	Chlorides(mg/l)	15068	15165	18576.7	42.5	150.0	42.5	31.5	1799.4	7698	7698	11121.6	11246.51	
15	COD(mg/l)	-	-	-	10	14	4	6	2	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.68	0.56	3.4	3.36	4.48	1.12	1.12	1.12	0.56	0.56	2.2	5.604	
17	Ammonia (mg/l)	0.25	0.21	0.1	0.1	BDL	BDL	BDL	0.1	BDL	0.2	0.4	BDL	
18	Total Hardness(mg/l)	4240.0	5800.0	6000.0	28	238	34	40	800	2420	2720	3400	4600.0	
19	Calcium(mg/l)	272	641	401.8	4.8	81.76	5.61	4	56.11	152.3	168.34	240.48	400.80	
20	Magnesium(mg/l)	865	1020	1215	BDL	8.26	4.86	7.3	160.4	495.7	558.9	680.40	874.80	
21	Sulphate(mg/l)	2191.0	2485.0	1662.8	10.05	23.91	4.40	3.4	77.3	302.0	85.9	623.9	1118.75	
22	Sodium(mg/l)	1183	1597	4281	65.9	21.1	83.5	11.9	2056.0	2290.0	1670.0	3725.0	3425.0	
23	Total Dissolved Solids(mg/l)	14681.0	28203.0	30520.0	140.0	92.0	34.0	123.0	3244.0	1248.0	13945.0	15516.0	19232.0	
24	Total Fixed Solids(mg/l)	5872.0	11281.0	10685.0	112.0	35.0	140.0	79.0	1944.0	811.0	8367.0	6206.0	11539.0	
25	Total Suspended Solids(mg/l)	82.0	119.0	143.0	150.00	20.00	10.00	13.00	6.00	14.00	11.00	5.000	2.0	
26	Phosphate(mg/l)	BDL	0.05	0.12	0.03	0.03	0.03	0.08	BDL	0.03	0.07	0.0300	BDL	
27	Boron(mg/l)	1.41	1.05	0.92	0.92	BDL	BDL	0.6	1.2	1.6	1.6	0.60	1.968	
28	Potassium(mg/l)	161.7	418.1	305.3	44.70	3.80	80.70	2.60	1650.00	650.00	700.00	550.00	1450.0	
29	Flouride(mg/l)	2.8	3.71	0.83	BDL	0.6	BDL	BDL	0.4	1.41	0.95	1.049	0.924	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.006	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.007	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.146	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

DOWNSTREAM OF RIVER MANDOVI, M/S VEDANTA PVT. LTD.														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB**
1	Temperature°C	34	29	29	28	29	30	29	28	29	29	29	28	5.7
2	Dissolved Oxygen(mg/l)	4.7	4.7	5.3	6.7	7.4	6.6	7.2	5.9	5.6	6.1	6.5	6.0	4 mg/l or more
3	pH	7.30	7.20	7.88	6.81	7.38	7.03	7.11	7.34	7.18	7.06	7.30	7.32	6.5 - 8.5
4	Conductivity(µs/cm)	21600.0	43600.0	41200.0	211.50	654.00	225.50	186.0	5329.0	1992.0	21850.0	25790.0	31050	
5	BOD(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	2.1	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	BDL	0.1	0.32	1	BDL	0.2	BDL	0.136	0.2	2.4	0.102	
7	Nitrite Nitrogen as NO_2-N mg/l	0.007	BDL	BDL	0.005	0.005	0.006	BDL	BDL	0.1	0.053	0.102	0.035	
8	Total Coliform(MPN/100ml)	220	78	330	1400	9200	7000	3100	1300	1300	1300	220	230	
9	Fecal Coliform(MPN/100ml)	170	45	230	940	1700	4900	2300	780	490	200	170	130	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	110	7.8	130	220	220	170	700	210	220	110	92	93	
11	Turbidity(NTU)	3.87	7.26	2.77	11.75	53.2	2.74	4.58	3.13	6.68	2.49	3.48	2.13	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	78.0	74.0	94.0	18	28	30	26	58	52	72	80	86.0	
14	Chlorides(mg/l)	15068	15410	17241	46.5	349.9	41.5	31.0	1799.4	7748.0	7748.0	11496.4	10996.59	
15	COD(mg/l)	-	-	-	10	14	10	4	4	-	-	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.68	1.12	9.5	2.8	4.48	1.7	1.12	1.68	0.56	0.56	2.24	4.20	
17	Ammonia (mg/l)	0.07	BDL	BDL	0.1	BDL	BDL	BDL	0.1	BDL	0.1	0.5	BDL	
18	Total Hardness(mg/l)	4400.0	5200.0	6000.0	30	298	30	40	620	2180	2500.0	3200	4200.0	
19	Calcium(mg/l)	192	481	805.6	4.01	99.39	5.6	4.8	40.08	144.3	208.4	400.80	240.48	
20	Magnesium(mg/l)	952	972	972	4.86	12.15	3.9	6.8	126.36	442.3	481.14	534.6	874.80	
21	Sulphate(mg/l)	2096	2569	1793.5	10.92	30.68	4.4	3.52	74.24	362	57.5	585.9	1006.25	
22	Sodium(mg/l)	1212	1516	4762	66.9	50.3	81.8	11.5	1925.0	1940.0	1690.0	3900.0	3275.0	
23	Total Dissolved Solids(mg/l)	14688.0	30324.0	28702.0	140.0	415.0	140.0	112.0	3369.0	1254.0	13984.0	15474.0	19872.0	
24	Total Fixed Solids(mg/l)	5875.0	12129.0	2820.0	121.0	137.0	56.0	64.0	2018.0	802.0	8390.0	6189.0	11923.0	
25	Total Suspended Solids(mg/l)	89.0	114.0	109.0	140.00	59.00	8.00	18.00	9.00	13.000	13.000	4.000	2.0	
26	Phosphate(mg/l)	BDL	0.05	0.16	BDL	0.08	0.04	0.07	BDL	0.05	0.04	0.09	BDL	
27	Boron(mg/l)	1.5	1.25	0.90	1.04	0.2	0.40	1.1	0.7	1.6	1.6	0.9	1.208	
28	Potassium(mg/l)	164	395.7	358.1	45.20	14.60	78.50	2.60	1125.00	600.00	690.00	675.00	1400.0	
29	Flouride(mg/l)	2.82	3.88	1.42	BDL	0.6	BDL	0.20	0.5	0.99	0.98	1.181	0.712	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	0.02	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.00	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
36	Zinc(mg/l)	0.03	-	-	-	-	-	0.21	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.13	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

ST.INEZ CREEK UPSTREAM													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class B river as per CPCB**
1	Temperature°C		28	28	28	28	28	29	30	30	29	29		
2	Dissolved Oxygen(mg/l)		BDL	BDL	0.7	BDL	1.1	0.6	1.8	2.2	2.4	1.4		≥ 5.0
3	pH		7.29	7.49	7.16	6.60	7.24	7.24	7.14	7.07	6.96	7.42		6.5-8.5
4	Conductivity(µs/cm)		8190.0	12810	496.5	279.2	770.9	4750	851.1	10290	396.7	435.1		
5	BOD(mg/l)		6.6	4.4	4.8	4	5.7	5.6	5.7	5.2	6.1	5.2		≤ 3.0
6	Nitrate Nitrogen as NO_3-N(mg/l)		0.27	6.56	0.11	0.10	BDL	6.50	6.28	4.40	2.100	2.9		
7	Nitrite Nitrogen as NO_2-N mg/l		0.02	0.014	0.083	BDL	0.019	0.21	0.21	0.20	0.100	0.14		
8	Total Coliform(MPN/100ml)		3300	4600	2100	54000	9400	470	5400	7000	6300	5800		
9	Fecal Coliform(MPN/100ml)		2600	2300	1300	22000	4600	340	2400	4900	4600	4300		
10	Fecal Streptococci (MPN/100ml)		630	240	350	9200	400	240	170	490	330	310		
11	Turbidity(NTU)		41.6	49.9	14.51	12.07	16.14	10.64	10.46	16.15	85.7	2.92		
12	Phenolphthalein Alkalinity(mg/l)		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
13	Total Alkalinity(mg/l)		160.0	180.0	120	96	176	204	130.0	88	138	150.0		
14	Chlorides(mg/l)		54.9	4305.1	70.0	24.2	140.0	1399.6	150.0	342.4	45.3	48.0		
15	COD(mg/l)		22.0	-	22	14	22	20	18	22	18	20		
16	Total Kjeldahl Nitrogen(mg/l)		2.8	7.8	2.8	2.8	1.12	2.2	2.2	1.68	3.4	0.6		
17	Ammonia (mg/l)		BDL	2.37	1.5	BDL	0.7	0.9	0.7	BDL	BDL	0.3		
18	Total Hardness(mg/l)		412.0	2200.0	172	86.0	160.0	680	180.0	260	110	120		
19	Calcium(mg/l)		76.95	400.8	36.9	29.7	41.7	48.096	40.1	24.05	27.3	36.9		
20	Magnesium(mg/l)		53.5	291.6	19.4	2.9	13.6	136.08	19.4	48.6	25.1	6.8		
21	Sulphate(mg/l)		94.3	298.2	29.9	5.7	32	BDL	48.8	217	1.5	10.25		
22	Sodium(mg/l)		392.8	205.5	14.9	27.4	77.8	161.4	80.5	84.8	21.1	38.0		
23	Total Dissolved Solids(mg/l)		4914.0	7790.0	315.0	177.0	437.0	2850.0	511.0	6895.0	244.0	262.0		
24	Total Fixed Solids(mg/l)		1985.0	2031.0	240.0	31.9	306.0	1140.0	204.0	4137.0	87.0	105.0		
25	Total Suspended Solids(mg/l)		46.0	22.0	22.00	30.000	31.000	16.00	18.00	35.000	41.00	32.00		
26	Phosphate(mg/l)		7.25	69.90	1.81	0.19	0.15	0.15	2.66	3.92	0.20	0.06		
27	Boron(mg/l)		BDL	1195.50	BDL	0.7	0.34	BDL	0.2	2.7	0.4	0.2		
28	Potassium(mg/l)	**DRY**	77.4	1000	6.10	8.90	32.50	49.40	38.30	37.60	0.10	14.1	**DRY**	
29	Flouride(mg/l)		0.23	1.14	0.24	0.2	BDL	0.47	1.11	1.03	0.3	BDL		
30	Arsenic(mg/l)		-	-	-	-	-	BDL	-	-	-	-		
31	Cadmium(mg/l)		-	-	-	-	-	BDL	-	-	-	-		
32	Copper(mg/l)		-	-	-	-	-	0.003	-	-	-	-		
33	Lead(mg/l)		-	-	-	-	-	0.004	-	-	-	-		
34	Chromium(mg/l)		-	-	-	-	-	0.021	-	-	-	-		
35	Nickel(mg/l)		-	-	-	-	-	0.008	-	-	-	-		
36	Zinc(mg/l)		-	-	-	-	-	0.025	-	-	-	-		
37	IronTotal(mg/l)		-	-	-	-	-	1.2	-	-	-	-		
38	Mercury (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
39	Alpha BHC (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
40	Hexachlorobenzene (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
41	Beta BHC (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
42	Gamma BHC (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
43	Heptachlor (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
44	Aldrin (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
45	Heptachlor endo-epoxide (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
46	Alpha Endosulfan (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
47	p,p'-DDE (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
48	Dieldrin (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
49	Eldrin (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
50	Beta Endosulphan (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
51	o,p'-DDD (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
52	o,p'-DDT (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
53	p,p'-DDT (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
54	Methoxychlor (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
55	Malathion (mg/l)		-	-	-	-	-	BDL	-	-	-	-		
56	Chlorpyrifos (mg/l)		-	-	-	-	-	BDL	-	-	-	-		

ST.INEZ CREEK DOWNSTREAM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class B river as per CPCB**
1	Temperature°C	30	29		28	28	29	29	29	30	27	29	29	
2	Dissolved Oxygen(mg/l)	3.4	1.2		5.9	BDL	0.5	0	0.6	1.3	1.8	1.3	1.7	≥ 5.0
3	pH	7.1	7.27		7.14	7.03	6.96	6.8	7.04	7.16	7.22	7.32	7.32	6.5-8.5
4	Conductivity(µs/cm)	22590	710.2		251.1	682.6	284.7	241.2	310.3	6909	9475	9961	16070	
5	BOD(mg/l)		5.7		BDL	4.79	6.8	4.2	4.2	5.4	6.7	6.4	6.4	≤ 3.0
6	Nitrate Nitrogen as NO_3-N(mg/l)	6	0.23		BDL	1.74	BDL	0.14	0.11	5.760	5.60	0.4	4.4	
7	Nitrite Nitrogen as NO_2-N mg/l	0.242	0.02		0.03	0.102	BDL	BDL	0.025	3.47	0.2	0.019	0.006	
8	Total Coliform(MPN/100ml)	2200	4700		1700	54000	2700	470	5400	7900	7000	6300	5800	
9	Fecal Coliform(MPN/100ml)	1700	4000		1100	24000	1700	390	2200	4900	4900	4600	4300	
10	Fecal Streptococci (MPN/100ml)	490	790		170	5400	260	110	140	400	430	460	700	
11	Turbidity(NTU)	12	17.05		10.2	19.0	22.2	15.9	24.7	18.1	33.7	21.3	25.5	
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	108	188.0		72.0	144.0	100.0	120.0	92.0	96.0	240.00	258	224.0	
14	Chlorides(mg/l)	9539.6	50		23.5	88.09	41.5	27.99	30.49	244.6	3272.0	3498.92	5498.3	
15	COD(mg/l)	-	19.0		6.00	16	20	14	14	18	21	20		
16	Total Kjeldahl Nitrogen(mg/l)	0.56	2.2		1.4	3.4	0.6	0.6	0.6	1.7	3.9	1.7	3.9	
17	Ammonia (mg/l)	BDL	BDL		0.24	BDL	0.1	0.054	0.1	BDL	3.4	2.79	2.9	
18	Total Hardness(mg/l)	4600	272.0		96	154	84	76	96.0	160.0	3000.0	1200	1400	
19	Calcium(mg/l)	200.4	77.95		25.7	40.1	24.1	480.96	24.05	24.05	601.20	240.5	240.5	
20	Magnesium(mg/l)	996.3	19.4		7.8	13.1	5.8	3.89	8.7	24.3	634.50	145.8	194.4	
21	Sulphate(mg/l)	1597.6	66.2		14.6	28.9	3.8	BDL	3.2	167.1	217.0	162.8	818.8	
22	Sodium(mg/l)	755.1	318.5		5.6	51.9	24.1	10.8	31.9	34.7	1275.0	5725	5975.0	
23	Total Dissolved Solids(mg/l)	15020	440.0		134.0	402.0	168.0	145.0	186.0	4629.0	5898.0	5977	10712.0	
24	Total Fixed Solids(mg/l)	11020	236.0		94	263.000	126.000	58.00	74.00	2777.00	1895.0	2390	3574.0	
25	Total Suspended Solids(mg/l)	52	40.0		14	22.00	41.00	25.00	40.00	46.00	24.00	24	128.0	
26	Phosphate(mg/l)	0.19	0.33		0.29	1.85	0.26	0.3	0.4	1.0	3.70	0.21	1.2	
27	Boron(mg/l)	0.69	BDL		BDL	0.60	0.37	BDL	BDL	1.80	0.8	0.7	0.5	
28	Potassium(mg/l)	119.3	43.2	**DRY**	3.5	25.4	17.5	5.5	33.4	33.2	2550.00	1900	3625.0	
29	Flouride(mg/l)	0.9	BDL		0.29	0.4	BDL	0.32	BDL	0.92	0.5	0.5	0.50	
30	Arsenic(mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-		-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	BDL	-		-	-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-		-	-	-	0.016	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-		-	-	-	0.007	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-		-	-	-	0.022	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-		-	-	-	2.783	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-		-	-	-	BDL	-	-	-	-	-	

COLVA CREEK UPSTREAM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	32	31	31	29	26	28	29	30	29	29	29	29	
2	Dissolved Oxygen(mg/l)	6.1	2.7	8.6	4.9	4.4	4.3	4.3	4.3	5.3	6.8	9.4	7.1	4 mg/l or more
3	pH	8.98	6.92	8.76	6.80	6.09	6.93	7.16	7.89	7.41	7.20	7.95	7.33	6.5 - 8.5
4	Conductivity(µs/cm)	13200.0	23020.0	18890.0	623.0	275	315.9	272	3771	3602	7052.0	7944	10780	
5	BOD(mg/l)	BDL	3.8	BDL	2.1	BDL	BDL	BDL	2.3	2.3	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	0.23	0.58	0.1	0.3	BDL	0.3	BDL	BDL	0.17	0.074	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.019	0.031	0.023	0.008	BDL	0.128	0.008	0.006	0.08	0.022	0.005	
8	Total Coliform(MPN/100ml)	1700	330	4600	7000	540	7000	9400	54000	220×10^2	240×10^2	13000	11000	
9	Fecal Coliform(MPN/100ml)	1100	170	3300	4600	350	4600	7000	24000	170×10^2	79×10^2	7900	7000	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	210	70	920	790	170	940	1300	1300	2400	490	460	490	
11	Turbidity(NTU)	4.94	2.59	21.70	10.67	23.90	7.33	3.15	12.31	17.82	2.02	2.92	10.91	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	30.0	34.0	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	12.0	
13	Total Alkalinity(mg/l)	84.0	70.0	76.0	46.0	64	64	68	100	52	70	112	122	
14	Chlorides(mg/l)	8247.00	18333.90	2124.00	140.90	38.9	42.2	30.7	1600.0	1149.6	2749.1	3272.0	4330.22	
15	COD(mg/l)	-	-	-	10.0	10.0	12.0	4.0	12.0	12.0	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.40	3.40	1.70	16.30	1.12	2.2	4.5	2.24	1.12	2.8	2.24	1.1	
17	Ammonia (mg/l)	BDL	BDL	0.10	0.27	0.07	BDL	0.02	0.494	0.420	0.98	0.127	BDL	
18	Total Hardness(mg/l)	7000.0	3080.0	1200.0	94.0	152.0	82.0	60.0	1640.0	400.0	1100.0	2400.0	1000.0	
19	Calcium(mg/l)	336.7	200.4	56.11	17.6	23.2	19.2	19.2	72.1	56.1	64.14	320.6	81.8	
20	Magnesium(mg/l)	1496.9	626.9	257.0	12.15	22.84	8.3	2.9	354.8	63.2	228.42	388.8	193.4	
21	Sulphate(mg/l)	368.00	780.80	58.50	44.80	22.1	16.5	15.0	78.0	95.1	99.82	124.78	300.00	
22	Sodium(mg/l)	3200.0	1414.0	58.0	58.0	41.7	28.8	16.1	3100.0	2680.0	4075.0	2550.0	975.0	
23	Total Dissolved Solids(mg/l)	8052.0	13812.0	1077.0	2771.0	167.0	201.0	170.0	2451.0	2377.0	4724.0	4961.0	6577.0	
24	Total Fixed Solids(mg/l)	7787.0	7253.0	976.4	367.0	130.0	65.0	55.0	1764.0	1545.0	2834.0	2046.0	3846.0	
25	Total Suspended Solids(mg/l)	70.0	14.0	47.0	27.0	62.0	15.0	3.0	24.0	34.0	18.0	6.0	20.0	
26	Phosphate(mg/l)	0.05	0.47	0.05	0.26	0.16	0.33	0.07	0.125	0.051	0.12	0.108	0.05	
27	Boron(mg/l)	2.55	0.43	1.76	BDL	0.6	BDL	BDL	0.96	1.28	1.32	0.62	1.9	
28	Potassium(mg/l)	254.5	262.0	23.00	45.40	13.5	13.4	5.5	2400.0	1470.0	1075.0	1875.0	300.0	
29	Flouride(mg/l)	0.85	0.72	0.61	1.00	0.4	0.2	BDL	0.21	0.51	0.77	0.50	0.64	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.004	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	2.07	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

COLVA CREEK DOWNSTREAM														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for SW II river as per CPCB classification based on designated best use of rivers**
1	Temperature°C	32	31	30	29	26	29	29	29	29	30	29	29	
2	Dissolved Oxygen(mg/l)	1.2	3.2	4.5	4.9	4.2	4.5	4.6	4.1	5.1	4.0	9.7	6.8	4 mg/l or more
3	pH	8.85	6.73	9.20	7.00	7.05	6.89	7.11	7.79	7.52	7.24	7.93	7.26	6.5 - 8.5
4	Conductivity(µs/cm)	13090.00	22700.00	2241.00	244.20	270	311.4	270	6166	5274	9837.0	7821	11010	
5	BOD(mg/l)	-	3.6	2.5	BDL	BDL	2.2	BDL	2.6	2.6	BDL	BDL	BDL	3 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.10	0.20	0.32	BDL	0.3	BDL	0.3	0.103	0.119	0.2	0.299	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	0.019	0.03	0.012	0.007	BDL	0.1	0.006	0.024	0.06	0.068	0.005	
8	Total Coliform(MPN/100ml)	2200	140	6300	9400	170	17000	21000	35000	540×10^2	350×10^2	22000	21000	
9	Fecal Coliform(MPN/100ml)	1700	110	3300	4900	130	7000	11000	21000	240×10^2	130×10^2	17000	14000	100 or less MPN/100 ml
10	Fecal Streptococci (MPN/100ml)	700	110	350	490	240	220	790	2400	2200	580	1100	940	
11	Turbidity(NTU)	5.05	2.96	23.3	13.26	14.58	8.53	3.65	11.97	18.8	0.37	2.99	10.72	30 NTU
12	Phenolphthalein Alkalinity(mg/l)	20	24	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	24.0	
13	Total Alkalinity(mg/l)	96.0	78.0	76.0	44.0	70	62	66	108	54	68	86	72.0	
14	Chlorides(mg/l)	8997.00	17483.90	3302.50	377.54	35.5	42.3	29.2	1799.0	1699.0	3498.91	3146.2	4206.5	
15	COD(mg/l)	-	-	-	22.0	6.0	16.0	6.0	12.0	14.0	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	3.9	2.8	0.6	12.9	1.68	3.4	5.0	2.24	0.56	2.80	2.24	1.1	
17	Ammonia (mg/l)	BDL	BDL	0.73	0.39	0.10	BDL	BDL	0.602	0.350	0.92	0.36	BDL	
18	Total Hardness(mg/l)	7000.0	3260.0	320.0	64.0	164.0	82.0	68.0	800.0	560.0	1180.0	2800.0	1400.0	
19	Calcium(mg/l)	384.8	240.5	72.9	20.04	52.1	18.4	18.4	96.2	64.1	88.18	480.9	88.2	
20	Magnesium(mg/l)	1467.7	646.4	33.50	3.40	8.26	8.70	5.30	136.1	97.2	233.28	388.8	286.7	
21	Sulphate(mg/l)	368.00	757.60	195.70	18.85	19.2	16.0	17.4	78.00	112.80	115.01	103.08	356.30	
22	Sodium(mg/l)	3105.0	1397.0	6.2	52.3	16.0	30.2	15.4	3250.0	3520.0	4100.0	2650.0	1025.0	
23	Total Dissolved Solids(mg/l)	7723.0	13166.0	1548.0	150.0	184.0	186.0	177.0	4069.0	3270.0	6614.0	4876.0	6969.0	
24	Total Fixed Solids(mg/l)	7622.0	6941.0	862.0	50.0	144.0	63.0	57.0	2970.0	2354.0	3968.0	2012.0	4046.0	
25	Total Suspended Solids(mg/l)	70.0	10.0	30.0	47.0	37.0	2.0	5.0	37.0	37.0	8.0	7.0	18.0	
26	Phosphate(mg/l)	0.07	0.48	0.16	0.19	0.20	0.26	0.06	0.117	0.062	0.110	0.089	0.06	
27	Boron(mg/l)	2.71	0.29	BDL	0.1	1.6	BDL	BDL	1.19	1.45	1.82	0.834	0.8	
28	Potassium(mg/l)	214.7	266.5	130.0	44.0	5.9	14.2	5.4	2500.0	1610.0	725.0	2000.0	350.0	
29	Flouride(mg/l)	0.80	0.63	BDL	0.1	BDL	BDL	BDL	0.44	0.65	1.0	0.65	0.50	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.002	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.016	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	1.99	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

UPSTREAM OF BETHORA NALLAH														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class B river as per CPCB**
1	Temperature°C				29	28	27	29	28	28	29	29		
2	Dissolved Oxygen(mg/l)				5.9	4.6	5.6	5.5	3.6	3.7	BDL	1.7		≥ 5.0
3	pH				5.75	5.56	6.91	6.04	5.46	6.16	7.38	5.7		6.5-8.5
4	Conductivity(µs/cm)				551.5	187	370.5	295	2421	13800	4228.0	47350		
5	BOD(mg/l)				BDL	BDL	2.3	BDL	8.0	8.3	4.0	66.7		≤ 3.0
6	Nitrate Nitrogen as NO_3-N(mg/l)				1.06	0.873	BDL	0.909	0.320	0.9	2.2	BDL		
7	Nitrite Nitrogen as NO_2-N mg/l				BDL	0.005	0.048	BDL	0.024	0.022	0.040	0.012		
8	Total Coliform(MPN/100ml)				17000	14000	17000	35000	3300	4900	3500	17000		
9	Fecal Coliform(MPN/100ml)				14000	11000	14000	17000	2300	3300	2400	11000		
10	Fecal Streptococci (MPN/100ml)				940	790	940	1700	840	790	540	840		
11	Turbidity(NTU)				3.84	1.96	30.7	2.17	11.44	1.89	1.15	53.4		
12	Phenolphthalein Alkalinity(mg/l)				BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
13	Total Alkalinity(mg/l)				12.0	26	56	20.0	26	30	48	54		
14	Chlorides(mg/l)				155	39.99	244.6	73.8	680	6040.7	1449.5	20618.6		
15	COD(mg/l)				10	14.0	34.0	6.0	40.0	26.0	20.0	-		
16	Total Kjeldahl Nitrogen(mg/l)				1.7	2.80	3.36	2.24	1.12	3.40	3.90	3.90		
17	Ammonia (mg/l)				BDL	0.06	0.187	0.064	0.05	0.06	0.1	1.56		
18	Total Hardness(mg/l)				102.0	52.0	54.0	82.0	940.0	5240.0	5240.0	8400.0		
19	Calcium(mg/l)				33.7	13.63	12.02	20.84	248.5	368.7	180.4	1923.8		
20	Magnesium(mg/l)				4.4	4.374	5.83	7.29	77.8	1049.7	1168.9	874.8		
21	Sulphate(mg/l)				17.2	13.74	112.39	12.93	52	46.3	214.2	108.5		
22	Sodium(mg/l)				17.8	8.6	109.6	12.2	98.2	2050	490	4175		
23	Total Dissolved Solids(mg/l)				357	115.0	233.0	183.0	1476.0	9185.0	2590.0	30304.0		
24	Total Fixed Solids(mg/l)				290	65.0	139.0	109.0	900.0	3054.0	1068.0	18182.0		
25	Total Suspended Solids(mg/l)				14	5.0	578.0	6.0	40.0	1.0	2.0	91.0		
26	Phosphate(mg/l)				0.07	0.02	0.96	0.138	0.163	0.23	0.06	0.59		
27	Boron(mg/l)				0.41	2.66	0.29	1.328	2.35	0.1	BDL	4.06		
28	Potassium(mg/l)	**DRY**	**DRY**	**DRY**	3.1	3.3	103.3	3.9	60.5	1925	370	2525	**DRY**	
29	Flouride(mg/l)				BDL	BDL	1.26	0.038	0.35	BDL	0.4	1.3		
30	Arsenic(mg/l)							BDL						
31	Cadmium(mg/l)							0.001						
32	Copper(mg/l)							0.005						
33	Lead(mg/l)							0.003						
34	Chromium(mg/l)							0.025						
35	Nickel(mg/l)							0.030						
36	Zinc(mg/l)							0.269						
37	IronTotal(mg/l)							0.33						
38	Mercury (mg/l)							BDL						
39	Alpha BHC (mg/l)				-	-	-	BDL	-	-				
40	Hexachlorobenzene (mg/l)				-	-	-	BDL	-	-				
41	Beta BHC (mg/l)				-	-	-	BDL	-	-				
42	Gamma BHC (mg/l)				-	-	-	BDL	-	-				
43	Heptachlor (mg/l)				-	-	-	BDL	-	-				
44	Aldrin (mg/l)				-	-	-	BDL	-	-				
45	Heptachlor endo-epoxide (mg/l)				-	-	-	BDL	-	-				
46	Alpha Endosulfan (mg/l)				-	-	-	BDL	-	-				
47	p,p'-DDE (mg/l)				-	-	-	BDL	-	-				
48	Dieldrin (mg/l)				-	-	-	BDL	-	-				
49	Eldrin (mg/l)				-	-	-	BDL	-	-				
50	Beta Endosulphan (mg/l)				-	-	-	BDL	-	-				
51	o,p'-DDD (mg/l)				-	-	-	BDL	-	-				
52	o,p'-DDT (mg/l)				-	-	-	BDL	-	-				
53	p,p'-DDT (mg/l)				-	-	-	BDL	-	-				
54	Methoxychlor (mg/l)				-	-	-	BDL	-	-				
55	Malathion (mg/l)				-	-	-	BDL	-	-				
56	Chlorpyrifos (mg/l)				-	-	-	BDL	-	-				

DOWNSTREAM OF BETHORA NALLAH													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for Class B river as per CPCB**
1	Temperature°C	30	29	30	29	28	27	29	28	28	29	29		
2	Dissolved Oxygen(mg/l)	2.2	2.0	4.3	5.1	4.4	5.9	5.5	5.5	4.2	BDL	BDL		≥ 5.0
3	pH	7.38	7.64	7.43	6.71	6.33	6.83	6.84	6.72	6.82	7.62	6.3		6.5-8.5
4	Conductivity(µs/cm)	2210.0	2418.0	2599.0	981.1	1010	458.5	263	1152	2262	4499.0	6054		
5	BOD(mg/l)		3.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL	4.68	90.0		≤ 3.0
6	Nitrate Nitrogen as NO_3-N(mg/l)	1.0	BDL	6.6	1.5	1.248	0.45	1.441	1.142	2.284	2.4	BDL		
7	Nitrite Nitrogen as NO_2-N mg/l	3.294	0.006	0.130	0.020	0.019	0.027	0.028	0.042	0.043	0.04	0.03		
8	Total Coliform(MPN/100ml)	4600	17000	4900	54000	22000	21000	540000	9400	7900	9200	24000		
9	Fecal Coliform(MPN/100ml)	3300	11000	3300	22000	17000	17000	220000	7000	4900	3500	13000		
10	Fecal Streptococci (MPN/100ml)	490	460	700	1300	1400	1200	35000	3500	1100.00	350.00	1100		
11	Turbidity(NTU)	5.68	6.11	6.50	6.24	2.55	7.72	2.27	2.11	BDL	2.46	55.2		
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
13	Total Alkalinity(mg/l)	166.0	36.0	180.0	50.0	52	40	40.0	70	58	58	170		
14	Chlorides(mg/l)	270.50	1076.0	880.60	349.90	649.79	122.30	39.49	280	1439.55	1549.50	2149.3		
15	COD(mg/l)	8.0	12.0	10.0	20.0	16.0	20.0	10.0	6.0	6.0	18.0	-		
16	Total Kjeldahl Nitrogen(mg/l)	1.68	2.8	4.5	3.4	1.96	2.80	2.80	2.24	3.36	4.48	3.40		
17	Ammonia (mg/l)	BDL	0.05	BDL	0.91	0.839	0.23	0.303	0.523	0.555	0.800	0.62		
18	Total Hardness(mg/l)	548.0	34.0	3000.0	152.0	400.0	160.0	66.0	580.0	6800.0	734.0	1060.0		
19	Calcium(mg/l)	129.1	8.0	241.0	47.3	96.19	24.05	7.29	104.2	2252.49	225.20	128.3		
20	Magnesium(mg/l)	54.9	3.4	583.0	8.3	38.88	24.3	14.43	77.8	286.74	44.71	179.8		
21	Sulphate(mg/l)	47.8	218.4	54.3	23.2	19.18	31.702	10.48	52.0	221.34	238.70	470.9		
22	Sodium(mg/l)	72.6	127.5	92.5	34.4	39.9	103.6	13.3	61.0	62.5	480.0	1710.0		
23	Total Dissolved Solids(mg/l)	1340.0	1452.0	1536.0	542.0	658.0	288.0	160.0	737.0	1266.0	2754.0	3753.0		
24	Total Fixed Solids(mg/l)	843.0	538.0	434.0	470.0	252.0	172.0	96.0	442.0	759.0	1136.0	2251.0		
25	Total Suspended Solids(mg/l)	14.0	14.0	5.0	39.0	17.0	66.0	7.0	9.0	4.0	4.0	140.0		
26	Phosphate(mg/l)	0.04	0.037	0.261	0.250	0.21	0.204	0.189	0.421	0.454	0.400	2.88		
27	Boron(mg/l)	2.6	BDL	1.81	0.42	BDL	0.28	2.821	1.99	0.794	BDL	2.39		
28	Potassium(mg/l)	43.7	18.7	42.3	6.6	19.3	96.1	4.90	38.2	40.2	380.0	540.0		
29	Flouride(mg/l)	0.30	0.20	1.14	BDL	0.33	2.21	BDL	0.37	BDL	1	1.0	**DRY**	
30	Arsenic(mg/l)	BDL						BDL						
31	Cadmium(mg/l)	BDL						0.001						
32	Copper(mg/l)	0.005						0.007						
33	Lead(mg/l)	0.004						0.005						
34	Chromium(mg/l)	0.004						0.023						
35	Nickel(mg/l)	0.023						0.023						
36	Zinc(mg/l)	0.027						0.067						
37	IronTotal(mg/l)	0.26						0.9						
38	Mercury (mg/l)	BDL						BDL						
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-		

BOREWELL/ TUBE WELL/ OPEN WELL KUNDAIM INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB**
1	Temperature°C	36	-	-	-	-	-	30	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	7.6	-	-	-	-	-	7.9	-	-	-	-	-	6 mg/l or more
3	pH	7.6	-	-	-	-	-	7.38	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	57.32	-	-	-	-	-	63.18	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.21	-	-	-	-	-	0.13	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	-	-	-	-	-	0.013	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	NIL	-	-	-	-	-	NIL	-	-	-	-	-	
10	Fecal Streptococci MPN/100ml	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	1.76	-	-	-	-	-	0.92	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	44.0	-	-	-	-	-	30.00	-	-	-	-	-	
14	Chlorides(mg/l)	7.5	-	-	-	-	-	9.0	-	-	-	-	-	
15	COD(mg/l)	6.0	-	-	-	-	-	4.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	-	-	-	-	-	2.20	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
18	Total Hardness(mg/l)	50.0	-	-	-	-	-	24.00	-	-	-	-	-	
19	Calcium(mg/l)	13.6	-	-	-	-	-	4.8	-	-	-	-	-	
20	Magnesium(mg/l)	3.9	-	-	-	-	-	2.92	-	-	-	-	-	
21	Sulphate(mg/l)	2.60	-	-	-	-	-	BDL	-	-	-	-	-	
22	Sodium(mg/l)	9.9	-	-	-	-	-	0.8	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	38.0	-	-	-	-	-	37.0	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	28.0	-	-	-	-	-	15.0	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	4.0	-	-	-	-	-	3.000	-	-	-	-	-	
26	Phosphate(mg/l)	0.05	-	-	-	-	-	BDL	-	-	-	-	-	
27	Boron(mg/l)	0.11	-	-	-	-	-	BDL	-	-	-	-	-	
28	Potassium(mg/l)	14.9	-	-	-	-	-	1.20	-	-	-	-	-	
29	Flouride(mg/l)	0.3	-	-	-	-	-	BDL	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
34	Chromium(mg/l)	0.0	-	-	-	-	-	BDL	-	-	-	-	-	
35	Nickel(mg/l)	0.0	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.001	-	-	-	-	-	BDL	-	-	-	-	-	
37	IronTotal(mg/l)	0.16	-	-	-	-	-	0.082	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BORE WELL/ TUBE WELL / OPENWELL IN CORLIM INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB**
1	Temperature°C	36	-	-	-	-	-	30	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	7.9	-	-	-	-	-	6.6	-	-	-	-	-	6 mg/l or more
3	pH	6.98	-	-	-	-	-	5.83	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	101.60	-	-	-	-	-	74.77	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.2	-	-	-	-	-	1.67	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	31	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	13	-	-	-	-	-	NIL	-	-	-	-	-	
10	Fecal Streptococci MPN/100ml	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	2.44	-	-	-	-	-	0.23	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	14.0	-	-	-	-	-	12.00	-	-	-	-	-	
14	Chlorides(mg/l)	11	-	-	-	-	-	10.5	-	-	-	-	-	
15	COD(mg/l)	4.0	-	-	-	-	-	10.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	0.6	-	-	-	-	-	1.70	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
18	Total Hardness(mg/l)	24.0	-	-	-	-	-	14.0	-	-	-	-	-	
19	Calcium(mg/l)	5.6	-	-	-	-	-	2.4	-	-	-	-	-	
20	Magnesium(mg/l)	2.4	-	-	-	-	-	BDL	-	-	-	-	-	
21	Sulphate(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
22	Sodium(mg/l)	11	-	-	-	-	-	4.1	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	70.0	-	-	-	-	-	45.0	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	49.0	-	-	-	-	-	18.0	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	7.0	-	-	-	-	-	2	-	-	-	-	-	
26	Phosphate(mg/l)	0.15	-	-	-	-	-	BDL	-	-	-	-	-	
27	Boron(mg/l)	0.16	-	-	-	-	-	0.84	-	-	-	-	-	
28	Potassium(mg/l)	15	-	-	-	-	-	2.30	-	-	-	-	-	
29	Flouride(mg/l)	0.2	-	-	-	-	-	BDL	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.004	-	-	-	-	-	0.009	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
36	Zinc(mg/l)	0.03	-	-	-	-	-	0.021	-	-	-	-	-	
37	IronTotal(mg/l)	0.038	-	-	-	-	-	0.024	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOREWELL/TUBE WELL/OPEN WELL IN PILERNE INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB**
1	Temperature°C	32	-	-	-	-	-	28	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	5.7	-	-	-	-	-	5.8	-	-	-	-	-	6 mg/l or more
3	pH	7.08	-	-	-	-	-	7.28	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	212.30	-	-	-	-	-	349.50	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.1	-	-	-	-	-	BDL	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	NIL	-	-	-	-	-	NIL	-	-	-	-	-	
10	Fecal Streptococci(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	2.31	-	-	-	-	-	BDL	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	106.0	-	-	-	-	-	168.00	-	-	-	-	-	
14	Chlorides(mg/l)	34.9	-	-	-	-	-	63.0	-	-	-	-	-	
15	COD(mg/l)	12.0	-	-	-	-	-	4.0	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	1.70	-	-	-	-	-	0.56	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
18	Total Hardness(mg/l)	112.0	-	-	-	-	-	124.00	-	-	-	-	-	
19	Calcium(mg/l)	24.0	-	-	-	-	-	31.3	-	-	-	-	-	
20	Magnesium(mg/l)	12.6	-	-	-	-	-	11.20	-	-	-	-	-	
21	Sulphate(mg/l)	4.0	-	-	-	-	-	35.1	-	-	-	-	-	
22	Sodium(mg/l)	30.4	-	-	-	-	-	18.6	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	132.0	-	-	-	-	-	228.0	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	53.0	-	-	-	-	-	171.0	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	12.0	-	-	-	-	-	2	-	-	-	-	-	
26	Phosphate(mg/l)	BDL	-	-	-	-	-	0.08	-	-	-	-	-	
27	Boron(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
28	Potassium(mg/l)	29.4	-	-	-	-	-	9.20	-	-	-	-	-	
29	Flouride(mg/l)	0.34	-	-	-	-	-	BDL	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.119	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOREWELL/TUBE WELL/OPEN WELL AT SANCOALE INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB classification based on designated best use**
1	Temperature°C	30	-	-	-	-	-	31	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	6.0	-	-	-	-	-	4.3	-	-	-	-	-	6 mg/l or more
3	pH	7.2	-	-	-	-	-	7.37	-	-	-	-	-	6.5-8.5
4	Conductivity (µs/cm)	248.6	-	-	-	-	-	269.5	-	-	-	-	-	
5	BOD(mg/l)(mg/l)	BDL	-	-	-	-	-	2.1	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	-	-	-	-	-	0.1	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	NIL	-	-	-	-	-	Nil	-	-	-	-	-	
10	Fecal Streptococci MPN/100ml	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	1.0	-	-	-	-	-	1.18	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	60.0	-	-	-	-	-	90	-	-	-	-	-	
14	Chlorides(mg/l)	25.44	-	-	-	-	-	21.6	-	-	-	-	-	
15	COD(mg/l)	8.0	-	-	-	-	-	6	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.8	-	-	-	-	-	3.4	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
18	Total Hardness(mg/l)	128.0	-	-	-	-	-	82	-	-	-	-	-	
19	Calcium(mg/l)	30.50	-	-	-	-	-	12.8	-	-	-	-	-	
20	Magnesium(mg/l)	12.64	-	-	-	-	-	12.2	-	-	-	-	-	
21	Sulphate(mg/l)	2.74	-	-	-	-	-	2.4	-	-	-	-	-	
22	Sodium(mg/l)	8.0	-	-	-	-	-	9.1	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	149.0	-	-	-	-	-	174	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	40.0	-	-	-	-	-	59	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	3.0	-	-	-	-	-	2	-	-	-	-	-	
26	Phosphate(mg/l)	0.042	-	-	-	-	-	0.02	-	-	-	-	-	
27	Boron(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
28	Potassium(mg/l)	12.2	-	-	-	-	-	6.7	-	-	-	-	-	
29	Flouride(mg/l)	0.47	-	-	-	-	-	0.1	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	0.001	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.040	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOREWELL/TUBE WELL/ OPEN WELL AT VERNA INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB classification based on designated best use**
1	Temperature°C	32	-	-	-	-	-	29	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	6.5	-	-	-	-	-	7.1	-	-	-	-	-	6 mg/l or more
3	pH	6.71	-	-	-	-	-	6.78	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	221.0	-	-	-	-	-	15.63	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	-	-	-	-	-	6.6	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	7.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	NIL	-	-	-	-	-	4.5	-	-	-	-	-	
10	Fecal Streptococci MPN/100ml	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	2.6	-	-	-	-	-	BDL	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	46.0	-	-	-	-	-	46	-	-	-	-	-	
14	Chlorides(mg/l)	51.5	-	-	-	-	-	40.5	-	-	-	-	-	
15	COD(mg/l)	12.0	-	-	-	-	-	8	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.8	-	-	-	-	-	0.56	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
18	Total Hardness(mg/l)	148.0	-	-	-	-	-	90	-	-	-	-	-	
19	Calcium(mg/l)	38.48	-	-	-	-	-	21.6	-	-	-	-	-	
20	Magnesium(mg/l)	12.6	-	-	-	-	-	8.75	-	-	-	-	-	
21	Sulphate(mg/l)	22.60	-	-	-	-	-	17.25	-	-	-	-	-	
22	Sodium(mg/l)	9.3	-	-	-	-	-	17.7	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	139.0	-	-	-	-	-	10	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	124.0	-	-	-	-	-	6	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	3.0	-	-	-	-	-	6	-	-	-	-	-	
26	Phosphate(mg/l)	0.02	-	-	-	-	-	0.12	-	-	-	-	-	
27	Boron(mg/l)	0.35	-	-	-	-	-	0.2	-	-	-	-	-	
28	Potassium(mg/l)	0.7	-	-	-	-	-	5.1	-	-	-	-	-	
29	Flouride(mg/l)	0.6	-	-	-	-	-	BDL	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	0.005	-	-	-	-	-	0.003	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.009	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.007	-	-	-	-	-	
36	Zinc(mg/l)	0.01	-	-	-	-	-	0.024	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.25	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BORE WELL/TUBE WELL/ OPEN WELL IN CUNCOLIM INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB classification based on designated best use**
1	Temperature°C	29	-	-	-	-	-	30	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	4.7	-	-	-	-	-	7.7	-	-	-	-	-	6 mg/l or more
3	pH	6.0	-	-	-	-	-	7.69	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	1416.0	-	-	-	-	-	65.32	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.23	-	-	-	-	-	0.842	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	0.162	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	130	-	-	-	-	-	79	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	23	-	-	-	-	-	49	-	-	-	-	-	
10	Fecal Streptococci(MPN/100ml)	<1.8	-	-	-	-	-	4.5	-	-	-	-	-	
11	Turbidity(NTU)	1.56	-	-	-	-	-	1.89	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	52.0	-	-	-	-	-	24	-	-	-	-	-	
14	Chlorides(mg/l)	25.0	-	-	-	-	-	6.35	-	-	-	-	-	
15	COD(mg/l)	12.0	-	-	-	-	-	12	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	2.24	-	-	-	-	-	2.8	-	-	-	-	-	
17	Ammonia (mg/l)	0.88	-	-	-	-	-	0.13	-	-	-	-	-	
18	Total Hardness(mg/l)	480.0	-	-	-	-	-	78	-	-	-	-	-	
19	Calcium(mg/l)	67.0	-	-	-	-	-	18.44	-	-	-	-	-	
20	Magnesium(mg/l)	76.0	-	-	-	-	-	7.77	-	-	-	-	-	
21	Sulphate(mg/l)	66.0	-	-	-	-	-	0.95	-	-	-	-	-	
22	Sodium(mg/l)	64.3	-	-	-	-	-	62.2	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	962.0	-	-	-	-	-	44	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	385.0	-	-	-	-	-	26	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	6.0	-	-	-	-	-	6	-	-	-	-	-	
26	Phosphate(mg/l)	0.02	-	-	-	-	-	BDL	-	-	-	-	-	
27	Boron(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
28	Potassium(mg/l)	24.7	-	-	-	-	-	18.2	-	-	-	-	-	
29	Flouride(mg/l)	0.34	-	-	-	-	-	BDL	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.003	-	-	-	-	-	
36	Zinc(mg/l)	0.004	-	-	-	-	-	0.006	-	-	-	-	-	
37	IronTotal(mg/l)	BDL	-	-	-	-	-	0.212	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOREWELL/TUBE WELL/OPEN WELL IN BETHORA INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB classification based on designated best use**
1	Temperature°C	30	-	-	-	-	-	29	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	5.6	-	-	-	-	-	6	-	-	-	-	-	6 mg/l or more
3	pH	6.24	-	-	-	-	-	6.34	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	1016.0	-	-	-	-	-	109.9	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	BDL	-	-	-	-	-	1.904	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	0.006	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	Nil	-	-	-	-	-	Nil	-	-	-	-	-	
10	Fecal Streptococci(MPN/100ml)	Absent	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	1.19	-	-	-	-	-	0.76	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	22.0	-	-	-	-	-	18	-	-	-	-	-	
14	Chlorides(mg/l)	20.0	-	-	-	-	-	12.99	-	-	-	-	-	
15	COD(mg/l)	6.0	-	-	-	-	-	8	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	1.12	-	-	-	-	-	0.56	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	0.061	-	-	-	-	-	
18	Total Hardness(mg/l)	42.0	-	-	-	-	-	22	-	-	-	-	-	
19	Calcium(mg/l)	6.4	-	-	-	-	-	4.01	-	-	-	-	-	
20	Magnesium(mg/l)	63.0	-	-	-	-	-	2.916	-	-	-	-	-	
21	Sulphate(mg/l)	5.20	-	-	-	-	-	1.628	-	-	-	-	-	
22	Sodium(mg/l)	8.1	-	-	-	-	-	6.2	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	624.0	-	-	-	-	-	58	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	414.0	-	-	-	-	-	35	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	12.0	-	-	-	-	-	3	-	-	-	-	-	
26	Phosphate(mg/l)	BDL	-	-	-	-	-	0.084	-	-	-	-	-	
27	Boron(mg/l)	BDL	-	-	-	-	-	2.753	-	-	-	-	-	
28	Potassium(mg/l)	12.2	-	-	-	-	-	1.7	-	-	-	-	-	
29	Flouride(mg/l)	BDL	-	-	-	-	-	0.055	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	0.001	-	-	-	-	-	0.034	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.005	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.025	-	-	-	-	-	
35	Nickel(mg/l)	0.003	-	-	-	-	-	0.021	-	-	-	-	-	
36	Zinc(mg/l)	0.006	-	-	-	-	-	0.146	-	-	-	-	-	
37	IronTotal(mg/l)	0.14	-	-	-	-	-	0.31	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

BOREWELL/ TUBEWELL/OPENWELL IN MADKAI INDUSTRIAL ESTATE														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit for class A as per CPCB classification based on designated best use**
1	Temperature°C	30	-	-	-	-	-	29	-	-	-	-	-	
2	Dissolved Oxygen(mg/l)	7.0	-	-	-	-	-	6.2	-	-	-	-	-	6 mg/l or more
3	pH	6.20	-	-	-	-	-	6.17	-	-	-	-	-	6.5-8.5
4	Conductivity(µs/cm)	114.8	-	-	-	-	-	116.4	-	-	-	-	-	
5	BOD(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	2 mg/l or less
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.20	-	-	-	-	-	0.276	-	-	-	-	-	
7	Nitrite Nitrogen as NO_2-N mg/l	0.009	-	-	-	-	-	BDL	-	-	-	-	-	
8	Total Coliform(MPN/100ml)	<1.8	-	-	-	-	-	<1.8	-	-	-	-	-	50 or less MPN/100ml
9	Fecal Coliform(MPN/100ml)	NIL	-	-	-	-	-	Nil	-	-	-	-	-	
10	Fecal Streptococci(MPN/100ml)	Absent	-	-	-	-	-	<1.8	-	-	-	-	-	
11	Turbidity(NTU)	2.14	-	-	-	-	-	0.54	-	-	-	-	-	
12	Phenolphthalein Alkalinity(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
13	Total Alkalinity(mg/l)	22.0	-	-	-	-	-	18	-	-	-	-	-	
14	Chlorides(mg/l)	20.1	-	-	-	-	-	12.49	-	-	-	-	-	
15	COD(mg/l)	8.0	-	-	-	-	-	10	-	-	-	-	-	
16	Total Kjeldahl Nitrogen(mg/l)	1.12	-	-	-	-	-	1.68	-	-	-	-	-	
17	Ammonia (mg/l)	BDL	-	-	-	-	-	0.029	-	-	-	-	-	
18	Total Hardness(mg/l)	40.0	-	-	-	-	-	16	-	-	-	-	-	
19	Calcium(mg/l)	5.6	-	-	-	-	-	3.206	-	-	-	-	-	
20	Magnesium(mg/l)	6.3	-	-	-	-	-	1.944	-	-	-	-	-	
21	Sulphate(mg/l)	1.80	-	-	-	-	-	0.586	-	-	-	-	-	
22	Sodium(mg/l)	7.8	-	-	-	-	-	7.2	-	-	-	-	-	
23	Total Dissolved Solids(mg/l)	77.0	-	-	-	-	-	68	-	-	-	-	-	
24	Total Fixed Solids(mg/l)	53.0	-	-	-	-	-	40	-	-	-	-	-	
25	Total Suspended Solids(mg/l)	23.0	-	-	-	-	-	2	-	-	-	-	-	
26	Phosphate(mg/l)	0.03	-	-	-	-	-	0.08	-	-	-	-	-	
27	Boron(mg/l)	BDL	-	-	-	-	-	0.884	-	-	-	-	-	
28	Potassium(mg/l)	12.2	-	-	-	-	-	3.3	-	-	-	-	-	
29	Flouride(mg/l)	BDL	-	-	-	-	-	0.351	-	-	-	-	-	
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
32	Copper(mg/l)	0.004	-	-	-	-	-	0.004	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.004	-	-	-	-	-	
34	Chromium(mg/l)	0.103	-	-	-	-	-	0.025	-	-	-	-	-	
35	Nickel(mg/l)	0.04	-	-	-	-	-	0.015	-	-	-	-	-	
36	Zinc(mg/l)	0.017	-	-	-	-	-	0.044	-	-	-	-	-	
37	IronTotal(mg/l)	0.4	-	-	-	-	-	0.18	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

SALMONA SPRING													
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Permissible Limits**
1	Temperature°C	31	27	27	26	28	29	28	29	28	29	32	26	
2	Dissolved Oxygen(mg/l)	8.3	7.5	4.8	7.0	6.9	7.3	7.2	7.2	7.2	7.7	6.6	7.2	
3	pH	6.11	7.89	6.54	5.9	5.45	5.57	5.7	6.18	6.31	6.32	7.95	6.76	6.5-8.5
4	Conductivity(µs/cm)	55.44	47.77	54.03	63.10	11.80	111.20	121.20	9260.00	77.78	76.76	76.80	92	
5	BOD(mg/l)	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6	Nitrate Nitrogen as NO_3-N(mg/l)	0.065	BDL	0.21	0.6	0.09	1	2.78	0.152	0.1	0.232	0.12	BDL	
7	Nitrite Nitrogen as NO_2-N mg/l	BDL	BDL	0.011	BDL	BDL	BDL	BDL	BDL	0.007	BDL	0.06	BDL	
8	Total Coliform(MPN/100ml)	920	540	920	1100	490	1100	540	540	220	350	540	350	
9	Fecal Coliform(MPN/100ml)	540	140	540	700	330	790	350	140	170	240	350	240	
10	Fecal Streptococci (MPN/100ml)	140	110	240	280	170	540	240	110	130	110	140	110	
11	Turbidity(NTU)	4.37	1.25	6.24	2.5	0.31	BDL	BDL	0.45	1.02	1.37	1.28	2.10	1 NTU
12	Phenolphthalein Alkalinity(mg/l)	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
13	Total Alkalinity(mg/l)	18.0	20.0	18.0	32.0	12.0	12.0	26.00	102.0	10.00	26.0	16.0	14.0	200 mg/l
14	Chlorides(mg/l)	35.90	13.21	22.00	19.1	16.5	15.0	26.5	17.5	18.0	23.5	73.0	11.00	250 mg/l
15	COD(mg/l)	8.0	6.0	4.0	4.00	2.00	4.00	2.00	2.00	2.00	BDL	4.00	2.0	
16	Total Kjeldahl Nitrogen(mg/l)	1.10	1.70	0.6	1.7	0.56	0.56	0.56	0.56	0.56	0.56	2.2	1.10	
17	Ammonia (mg/l)	BDL	BDL	BDL	0.2	BDL	BDL	BDL	BDL	BDL	0.1	0.1	BDL	0.5 mg/l
18	Total Hardness(mg/l)	94.0	66.0	56.0	14.00	28.0	28.0	34.0	22.0	82.0	30.0	20.0	14.0	200 mg/l
19	Calcium(mg/l)	3.2	4.00	2.40	1.6	4.8	5.6	7.2	40.08	8.81	14	4.008	2.400	75 mg/l
20	Magnesium(mg/l)	20.9	13.61	12.2	2.4	3.9	3.4	3.9	2.9	14.58	3.645	2.43	BDL	30 mg/l
21	Sulphate(mg/l)	2.29	2	5.41	9.1	1.2	6	BDL	2.213	BDL	2.539	2	5.4	200 mg/l
22	Sodium(mg/l)	13.2	13.3	8.2	47.3	18.0	67.4	62.7	13.8	33.1	10.9	4.5	11.9	
23	Total Dissolved Solids(mg/l)	18521.0	29.0	30.0	40.0	BDL	76.0	106.0	5.0	47.0	50.0	32.0	57.0	500 mg/l
24	Total Fixed Solids(mg/l)	12945.0	13.0	24.0	17.0	BDL	56.0	76.0	3.0	28.0	30.0	11.0	23.0	
25	Total Suspended Solids(mg/l)	7.0	4.0	3.0	19	7	5	2	5	1	2	3	7.0	
26	Phosphate(mg/l)	BDL	BDL	0.04	0.04	BDL	BDL	BDL	0.047	0.05	0.09	0.05	BDL	
27	Boron(mg/l)	BDL	BDL	0.91	1.4	0.55	0.29	0.28	1.171	1.13	0.986	0.2	BDL	
28	Potassium(mg/l)	33	0.1	3.8	43.5	9.4	64.7	24.7	13	16.2	9.7	1.7	8.3	
29	Flouride(mg/l)	BDL	BDL	BDL	BDL	0.2	BDL	BDL	0.188	0.7	BDL	0.1	BDL	1 mg/l
30	Arsenic(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
31	Cadmium(mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
32	Copper(mg/l)	BDL	-	-	-	-	-	0.001	-	-	-	-	-	
33	Lead(mg/l)	BDL	-	-	-	-	-	0.002	-	-	-	-	-	
34	Chromium(mg/l)	BDL	-	-	-	-	-	0.01	-	-	-	-	-	
35	Nickel(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
36	Zinc(mg/l)	BDL	-	-	-	-	-	0.008	-	-	-	-	-	
37	IronTotal(mg/l)	0.06	-	-	-	-	-	0.078	-	-	-	-	-	
38	Mercury (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
39	Alpha BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
40	Hexachlorobenzene (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
41	Beta BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
42	Gamma BHC (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
43	Heptachlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
44	Aldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
45	Heptachlor endo-epoxide (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
46	Alpha Endosulfan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
47	p,p'-DDE (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
48	Dieldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
49	Eldrin (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
50	Beta Endosulphan (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
51	o,p'-DDD (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
52	o,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
53	p,p'-DDT (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
54	Methoxychlor (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
55	Malathion (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	
56	Chlorpyrifos (mg/l)	BDL	-	-	-	-	-	BDL	-	-	-	-	-	

INLET STP TONCA-PANAJI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit**
1	Temp (°C)	-	-	-	-	-								-
2	pH	6.9	6.7	6.45	7.01	6.36	5.6	7.07	6.63	6.90	6.28	7.92	6.84	-
3	BOD(mg/l)	720	141	123	420	143.6	210	1600	156.3	120	287.5	306.4	650.00	-
4	Total Coliform(MPN/100ml)	9200000	22000000	14000000	28000000	2200000	9400000	35000	54000	54000000	5400000	24000000	28000000	-
5	Fecal Coliform(MPN/100ml)	5400000	14000000	11000000	22000000	1400000	4600000	13000	35000	13000000	22000000	7900000	22000000	-
6	Fecal Streptococci(MPN/100ml)	920000.0	1100000	1700000	1700000	110000	1700000	240	540	540	1700000	240	1400000	-
7	E.coli	-	-	-	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	
8	COD(mg/l)	1000.00	240.0	400.0	780.0	320.0	500.0	3000.0	320.0	280.0	620.0	800.0	1320.0	-
9	Ammonia (mg/l)	0.17	0.49	3.64		38.4	39.58	15.3	12.3					-
10	Total Suspended Solids(mg/l)	3790	1828.0	180	218.0	175.0	380.0	3400.0	118.0	113.0	163.0	290.0	340.0	-
11	Phosphate(mg/l)	4.8	1	59.1		15.97	49.37	36.4	14.9					-
12	Oil & Grease (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
13	MLSS (mg/l	1830.0	1828.0	180.0	520.0	172.0	390.0	2660.0		196.0	163.0	290.0	340	-
14	Residual Chlorine (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
15	Boron (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
16	Arsenic(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
17	Cadmium(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
18	Copper(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
19	Lead(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
20	Chromium(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
21	Nickel(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
22	Zinc(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
23	IronTotal(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-
24	Manganese (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	-

OUTLET STP TONCA -PANAJI														
Sr. No	**Parameters**	**Apr-23**	**May-23**	**Jun-23**	**Jul-23**	**Aug-23**	**Sep-23**	**Oct-23**	**Nov-23**	**Dec-23**	**Jan-24**	**Feb-24**	**Mar-24**	**Limit**
1	Temp (°C)	-	-											
2	pH	7.2	7.08	7.85	7.50	7.80	7.33	7.02	7.49	7.10	7.07	7.25	7.34	5.5-9.0
3	BOD(mg/l)	5.6	17	7.6	6.0	7.2	8.4	8.0	40.0	7.0	15.2	8.9	9.5	10.0
4	Total Coliform(MPN/100ml)	<1.8	130	<1.8	540	<1.8	<1.8	5400	540	920	540	350	170	
5	Fecal Coliform(MPN/100ml)	Nil	49	NIL	350	NIL	NIL	2400	220	280	170	130	110	
6	Fecal Streptococci(MPN/100ml)	<1.8	<1.8	<1.8	170	<1.8	<1.8	350	140	240	110	94	70	
7	E.coli	-	-	-	PRESENT	ABSENT	ABSENT	PRESENT	PRESENT	PRESENT	Present	PRESENT	PRESENT	
8	COD(mg/l)	20	30.0	20	20.0	20.0	20.0	20.0	100.0	30.0	40.0	30.0	30.0	50.0
9	Ammonia (mg/l)	BDL	BDL	BDL	BDL	0.6	0.73	10.3	0.1	-	-	-	-	5.0
10	Total Suspended Solids(mg/l)	14.0	15.0	3.0	2.0	8.0	9.0	12.0	27.0	6.0	11.0	8.0	8.0	20.0
11	Phosphate(mg/l)	0.59	0.59	1.55	0.18	0.59	0.65	2.6	0.75					
12	Oil & Grease (mg/l)	-	<10.0	<10.0	-	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	10.0
13	MLSS (mg/l	-	-	-	-	-	-	-	-	-	-	-	-	
14	Residual Chlorine (mg/l)	3.5	2.65	2.5	-	BDL	BDL	0.8	BDL	BDL	BDL	1.50	2.12	1.0
15	Boron (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
16	Arsenic(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
17	Cadmium(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
18	Copper(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
19	Lead(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
20	Chromium(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
21	Nickel(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
22	Zinc(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
23	IronTotal(mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	
24	Manganese (mg/l)	-	-	-	-	-	-	-	-	-	-	-	-	

BDL- BELOW DETECTION LIMIT

ANNEXURE-VI

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 1: Near Shree Mahalaxmi Ravalnath Temple						**City: Amona**	
Duration:- April/May-2023 (13 Days)							
Sr. No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**		
1	25.04.2023	63	14	8	11	**63**	Satisfactory
2	27.04.2023	67	15	6	11	**67**	Satisfactory
3	29.04.2023	66	15	6	11	**66**	Satisfactory
4	01.05.2023	71	14	7	10	**71**	Satisfactory
5	03.05.2023	72	15	9	11	**72**	Satisfactory
6	05.03.2023	69	17	6	9	**69**	Satisfactory
7	08.05.2023	73	17	7	10	**73**	Satisfactory
8	10.05.2023	75	18	7	11	**75**	Satisfactory
9	12.05.2023	67	16	6	11	**67**	Satisfactory
10	15.05.2023	69	18	6	10	**69**	Satisfactory
11	17.05.2023	71	17	7	10	**71**	Satisfactory
12	19.05.2023	73	19	7	10	**73**	Satisfactory
13	22.05.2023	71	18	6	11	**71**	Satisfactory

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 2: Shree Shantadurga Amriteshwar Temple						**City: Amona**	
Duration:- April/May-2023 (13 Days)							
Sr. No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**		
1	25.04.2023	61	12	6	11	**61**	Satisfactory
2	27.04.2023	63	13	7	10	**63**	Satisfactory
3	29.04.2023	63	13	7	10	**63**	Satisfactory

4	01.05.2023	67	14	7	10	**67**	Satisfactory
5	03.05.2023	73	17	7	11	**73**	Satisfactory
6	05.03.2023	72	18	7	10	**72**	Satisfactory
7	08.05.2023	69	17	7	10	**69**	Satisfactory
8	10.05.2023	70	18	8	10	**70**	Satisfactory
9	12.05.2023	67	16	7	12	**67**	Satisfactory
10	15.05.2023	70	19	7	10	**70**	Satisfactory
11	17.05.2023	71	19	6	13	**71**	Satisfactory
12	19.05.2023	69	17	7	14	**69**	Satisfactory
13	22.05.2023	72	20	6	13	**72**	Satisfactory

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 3: Govt. High School, Betalwada							**City: Amona**
Duration:- April/May-2023 (13 Days)							
Sr. No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**		
1	25.04.2023	64	14	6	12	**64**	Satisfactory
2	27.04.2023	61	14	6	10	**61**	Satisfactory
3	29.04.2023	63	14	6	9	**63**	Satisfactory
4	01.05.2023	68	17	7	12	**68**	Satisfactory
5	03.05.2023	69	17	8	12	**69**	Satisfactory
6	05.03.2023	75	16	7	10	**75**	Satisfactory
7	08.05.2023	66	17	7	10	**66**	Satisfactory
8	10.05.2023	72	18	6	10	**72**	Satisfactory
9	12.05.2023	70	17	7	10	**70**	Satisfactory
10	15.05.2023	69	18	7	10	**69**	Satisfactory
11	17.05.2023	67	17	7	10	**67**	Satisfactory
12	19.05.2023	66	16	6	11	**66**	Satisfactory
13	22.05.2023	71	19	8	11	**71**	Satisfactory

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 4: Govt. Primary School, Kharwada							**City: Amona**
Duration:- April/May-2023 (13 Days)							
Sr.No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM10**	**PM2.5**	**SO2**	**NO2**		
1	25.04.2023	69	15	7	11	**69**	Satisfactory
2	27.04.2023	66	16	8	10	**66**	Satisfactory
3	29.04.2023	65	15	8	10	**65**	Satisfactory
4	01.05.2023	71	18	6	10	**71**	Satisfactory
5	03.05.2023	70	18	7	12	**70**	Satisfactory
6	05.03.2023	71	19	8	10	**71**	Satisfactory
7	08.05.2023	71	18	7	11	**71**	Satisfactory
8	10.05.2023	66	18	8	10	**66**	Satisfactory
9	12.05.2023	68	16	9	10	**68**	Satisfactory
10	15.05.2023	69	18	7	10	**69**	Satisfactory
11	17.05.2023	71	20	6	11	**71**	Satisfactory
12	19.05.2023	69	15	7	12	**69**	Satisfactory
13	22.05.2023	68	17	6	13	**68**	Satisfactory

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 5: Shree Betal Temple							**City: Amona**
Duration:- April/May-2023(13 Days)							
Sr.No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM10**	**PM2.5**	**SO2**	**NO2**		
1	25.04.2023	65	15	6	14	**65**	Satisfactory
2	27.04.2023	62	15	7	14	**62**	Satisfactory
3	29.04.2023	56	14	7	14	**56**	Satisfactory
4	01.05.2023	66	15	6	12	**66**	Satisfactory
5	03.05.2023	68	14	9	12	**68**	Satisfactory
6	05.03.2023	70	17	7	12	**70**	Satisfactory
7	08.05.2023	73	20	9	11	**73**	Satisfactory
8	10.05.2023	70	17	7	13	**70**	Satisfactory
9	12.05.2023	69	18	6	12	**69**	Satisfactory
10	15.05.2023	73	19	9	10	**73**	Satisfactory
11	17.05.2023	67	17	7	12	**67**	Satisfactory
12	19.05.2023	62	18	7	13	**62**	Satisfactory
13	22.05.2023	71	17	6	13	**71**	Satisfactory

VEDANTA COMPLAINT MONITORING FROM APRIL 2023 /MAY 2023							
Station 6: Shree Rampurush Temple, Betki							**City: Amona**
Duration:- April/May-2023 (13 Days)							
Sr.No		**Time Weighted Average (TWA)**				**AQI**	**AIR QLTY**
	Parameters	**24-Hr**	**24-Hr**	**24-Hr**	**24-Hr**		
		Pollutants concentration in µg/m3					
	Date	**PM10**	**PM2.5**	**SO2**	**NO2**		
1	25.04.2023	68	16	7	10	**68**	Satisfactory
2	27.04.2023	68	15	6	10	**68**	Satisfactory
3	29.04.2023	68	14	6	10	**68**	Satisfactory
4	01.05.2023	70	15	7	10	**70**	Satisfactory

5	03.05.2023	69	15	9	11	**69**	Satisfactory
6	05.03.2023	69	19	6	10	**69**	Satisfactory
7	08.05.2023	73	18	7	11	**73**	Satisfactory
8	10.05.2023	72	18	7	10	**72**	Satisfactory
9	12.05.2023	72	20	6	9	**72**	Satisfactory
10	15.05.2023	72	17	6	9	**72**	Satisfactory
11	17.05.2023	73	20	9	10	**73**	Satisfactory
12	19.05.2023	69	18	6	10	**69**	Satisfactory
13	22.05.2023	73	21	7	10	**73**	Satisfactory

ANNEXURE-VII

AAQM DATA FOR DEEPAWALI 2023

Ambient Air Quality during Deepawali Festival was monitored from 05.11.2023 to 19.11.2023. The AAQM data during the said period is placed in the table below.

Name of the Location: Patto, Panaji-Goa										
Date	Regulatory parameters							New parameters		
					Metals in PM_{10}			Metals/Elements in $PM_{2.5}$		
	SO_2 ($\mu g/m^3$)	NO_2 ($\mu g/m^3$)	PM_{10} ($\mu g/m^3$)	$PM_{2.5}$ ($\mu g/m^3$)	Pb ($\mu g/m^3$)	Ni (ng/m^3)	As (ng/m^3)	Al ($\mu g/m^3$)	Ba ($\mu g/m^3$)	Fe ($\mu g/m^3$)
05-11-2023	BDL	9.18	74.22	21.64	<0.10	<5.00	<5.0	0.36	<1.00	<1.00
06-11-2023	4.52	18.11	62.65	19.89	<0.10	<5.00	<5.0	0.78	<1.00	1.19
07-11-2023	3.76	12.52	56.13	14.44	<0.10	<5.00	<5.0	0.53	1.09	<1.00
08-11-2023	BDL	BDL	43.95	12.02	<0.10	<5.00	<5.0	0.09	<1.00	<1.00
09-11-2023	BDL	17.88	64.50	23.39	<0.10	5.12	<5.0	0.32	<1.00	<1.00
10-11-2023	4.94	17.54	78.35	21.60	<0.10	<5.00	<5.0	<0.01	<1.00	<1.00
11-11-2023	5.09	22.07	54.16	14.38	<0.10	<5.00	5.85	<0.01	<1.00	<1.00
12-11-2023	5.84	13.98	83.73	27.18	<0.10	<5.00	9.95	0.16	<1.00	<1.00
13-11-2023	5.17	23.03	58.69	23.63	<0.10	<5.00	<5.0	0.07	<1.00	<1.00
14-11-2023	2.65	23.87	67.83	21.96	<0.10	6.53	<5.0	0.53	<1.00	<1.00
15-11-2023	5.29	21.41	82.14	32.08	<0.10	<5.00	<5.0	1.25	<1.00	<1.00
16-11-2023	4.98	21.61	89.45	22.20	<0.10	<5.00	<5.0	0.33	<1.00	<1.00
17-11-2023	4.84	18.33	92.18	29.54	<0.10	<5.00	<5.0	0.55	<1.00	<1.00

18-11-2023	4.04	22.21	84.79	32.75	<0.10	<5.00	<5.0	0.08	<1.00	<1.00
19-11-2023	4.77	15.12	66.53	26.85	<0.10	<5.00	<5.0	0.23	<1.00	<1.00
NAAQS (24 hrly Avg)	**80**	**80**	**100**	**60**	**1.0**	Annual Standard (20 ng/m^3)	Annual Standard (6 ng/m^3)	NA	NA	NA

INTERPRETATION OF AMBIENT AIR QUALITY DATA/RESULT:

Field Observations reported during monitoring days: Low to high density Light Motor Vehicular movement & Heavy Motor Vehicular movement observed during Monitoring. Bursting of fire crackers was observed on Deepawali day 12/11/2023

No exceedence observed with respect to any of the parameters monitored all the monitoring days including 12-11-2023 (Deepawali Day)

AAQM- was carried out for continuous 15 days, starting from 05.11.2023 to 19.11.2023. Along with criteria pollutants i.e. SO2, NO2, PM10, PM2.5 Metals in PM10 (Pb, Ni, As) and Metals/Elements in PM2.5 (Al, Ba, Fe) were also monitored. No exceedence observed for any of these monitored parameters.

ANNEUXRE-VIII

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024										
Station:-At Open Space in front of Govt. Primary School Fanaswadi Naveli City:-Bicholim										
		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	58	11	6	11	0.8	13	0.07	**58**	Satisfactory
2	21.04.2023	60	11	7	13	0.6	13	0.09	**60**	Satisfactory
3	24.04.2023	59	11	6	11	0.8	11	0.09	**59**	Satisfactory
4	27.04.2023	61	10	7	14	0.8	13	0.07	**61**	Satisfactory
5	01.05.2023	62	15	6	11	0.7	15	0.10	**62**	Satisfactory
6	04.05.2023	63	16	7	10	0.5	13	0.11	**63**	Satisfactory
7	08.05.2023	61	16	6	10	0.4	11	0.09	**61**	Satisfactory
8	11.05.2023	68	18	6	10	0.6	13	0.07	**68**	Satisfactory
9	15.05.2023	64	16	7	11	0.5	15	0.07	**64**	Satisfactory
10	18.05.2023	68	17	6	13	0.7	12	0.06	**68**	Satisfactory
11	22.05.2023	68	17	8	12	0.4	13	0.09	**68**	Satisfactory
12	25.05.2023	66	16	6	13	0.7	15	0.12	**66**	Satisfactory
13	29.05.2023	67	17	6	13	0.5	12	0.09	**67**	Satisfactory
14	06-06-2023	53	15	4	15	0.7	15	0.11	**53**	Satisfactory
15	09-06-2023	58	10	2	14	0.5	11	0.10	**58**	Satisfactory
16	12-06-2023	53	12	4	13	0.7	12	0.15	**53**	Satisfactory
17	15-06-2023	57	14	6	12	0.5	13	0.10	**57**	Satisfactory
18	19-06-2023	50	11	2	10	0.4	11	0.09	**50**	Satisfactory
19	22-06-2023	53	13	4	12	0.8	10	0.10	**53**	Satisfactory
20	26-06-2023	46	9	2	5	0.5	10	0.08	**46**	Good
21	29-06-2023	56	13	4	11	0.4	11	0.07	**56**	Satisfactory
22	08-08-2023	47	9	4	11	0.6	12	0.10	**47**	Good
23	11-08-2023	46	13	2	5	0.7	13	0.16	**46**	Good
24	15-08-2023	51	11	2	12	0.5	11	0.22	**51**	Satisfactory
25	18-08-2023	55	11	2	14	0.5	10	0.08	**55**	Satisfactory
26	22-08-2023	57	14	2	13	0.5	14	0.19	**57**	Satisfactory
27	25-08-2023	54	12	2	11	0.6	10	0.06	**54**	Satisfactory
28	29-08-2023	59	12	2	11	0.7	13	0.16	**59**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the Open tarrace of Residential house of shri shrikant B. Shetker
City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	70	16	7	13	0.8	12	0.08	**70**	Satisfactory
2	21.04.2023	73	15	6	12	0.5	11	0.08	**73**	Satisfactory
3	24.04.2023	71	15	8	10	0.7	13	0.07	**71**	Satisfactory
4	27.04.2023	74	16	9	11	0.5	14	0.08	**74**	Satisfactory
5	01.05.2023	66	15	6	9	0.9	15	0.09	**66**	Satisfactory
6	04.05.2023	63	16	8	10	0.8	13	0.07	**63**	Satisfactory
7	08.05.2023	69	18	6	9	0.5	12	0.09	**69**	Satisfactory
8	11.05.2023	74	18	6	9	0.8	14	0.11	**74**	Satisfactory
9	15.05.2023	71	18	6	9	0.7	12	0.07	**71**	Satisfactory
10	18.05.2023	64	17	7	11	0.5	15	0.14	**64**	Satisfactory
11	22.05.2023	72	19	6	11	0.4	13	0.13	**72**	Satisfactory
12	25.05.2023	64	17	7	10	0.7	12	0.15	**64**	Satisfactory
13	29.05.2023	69	17	7	10	0.4	15	0.08	**69**	Satisfactory
14	15-06-2023	56	17	2	12	0.6	12	0.15	**56**	Satisfactory
15	15-06-2023	60	13	2	11	0.4	10	0.06	**60**	Satisfactory
16	15-06-2023	57	12	4	12	0.7	13	0.13	**57**	Satisfactory
17	15-06-2023	49	14	6	11	0.6	13	0.09	**49**	Good
18	15-06-2023	51	11	4	12	0.8	10	0.07	**51**	Satisfactory
19	15-06-2023	45	11	2	11	0.4	10	0.10	**45**	Good
20	15-06-2023	40	12	4	10	0.8	12	0.12	**40**	Good
21	15-06-2023	51	10	2	12	0.5	10	0.07	**51**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On The Open Terrace Of Residential House of Mr.Manoj Ganphule at Bimbal City:-Sattari

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	53	9	8	12	0.9	13	0.10	**53**	Satisfactory
2	21.04.2023	54	10	6	13	0.7	12	0.12	**54**	Satisfactory
3	24.04.2023	56	9	7	11	0.5	13	0.03	**56**	Satisfactory
4	27.04.2023	56	10	6	11	0.9	12	0.13	**56**	Satisfactory
5	01.05.2023	63	16	7	14	0.6	13	0.07	**63**	Satisfactory
6	04.05.2023	66	17	6	12	0.4	12	0.06	**66**	Satisfactory
7	08.05.2023	64	15	7	14	0.5	15	0.11	**64**	Satisfactory
8	11.05.2023	68	18	6	11	0.7	13	0.13	**68**	Satisfactory
9	15.05.2023	64	17	7	11	0.9	16	0.07	**64**	Satisfactory
10	18.05.2023	63	17	7	11	0.5	12	0.13	**63**	Satisfactory
11	22.05.2023	64	17	6	11	0.8	15	0.13	**64**	Satisfactory
12	25.05.2023	66	16	8	11	0.5	13	0.13	**66**	Satisfactory
13	29.05.2023	70	18	7	12	0.8	15	0.10	**70**	Satisfactory
14	06-06-2023	58	13	6	11	0.7	13	0.12	**58**	Satisfactory
15	09-06-2023	56	11	2	12	0.8	12	0.07	**56**	Satisfactory
16	12-06-2023	60	14	6	11	0.6	14	0.03	**60**	Satisfactory
17	15-06-2023	51	9	2	11	0.8	10	0.08	**51**	Satisfactory
18	19-06-2023	41	11	4	12	0.6	12	0.07	**41**	Good
19	22-06-2023	52	8	2	11	0.8	13	0.12	**52**	Satisfactory
20	26-06-2023	44	12	4	10	0.4	11	0.17	**44**	Good
21	29-06-2023	50	12	2	12	0.8	12	0.10	**50**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On The Open Terrace OF Residential House of Mr. Sahil Gaonkar at Dhamse City:-Sattari

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	54	10	7	10	0.4	11	0.08	**54**	Satisfactory
2	21.04.2023	53	10	6	9	0.8	13	0.13	**53**	Satisfactory
3	24.04.2023	58	9	7	10	0.4	11	0.13	**58**	Satisfactory
4	27.04.2023	57	10	6	10	0.7	13	0.08	**57**	Satisfactory
5	01.05.2023	68	17	7	10	0.8	12	0.10	**68**	Satisfactory
6	04.05.2023	66	16	6	10	0.9	11	0.06	**66**	Satisfactory
7	08.05.2023	68	16	6	9	0.7	13	0.08	**68**	Satisfactory
8	11.05.2023	72	18	7	10	0.4	11	0.12	**72**	Satisfactory
9	15.05.2023	73	17	6	10	0.5	13	0.07	**73**	Satisfactory
10	18.05.2023	65	18	6	11	0.8	15	0.12	**65**	Satisfactory
11	22.05.2023	72	18	6	12	0.4	14	0.10	**72**	Satisfactory
12	25.05.2023	70	17	6	11	0.6	16	0.12	**70**	Satisfactory
13	29.05.2023	67	18	6	10	0.7	12	0.09	**67**	Satisfactory
14	06-06-2023	57	16	2	12	0.5	13	0.12	**57**	Satisfactory
15	09-06-2023	54	11	4	13	0.7	12	0.10	**54**	Satisfactory
16	12-06-2023	55	15	2	13	0.5	13	0.04	**55**	Satisfactory
17	15-06-2023	62	10	4	12	0.8	11	0.13	**62**	Satisfactory
18	19-06-2023	52	12	2	12	0.5	10	0.09	**52**	Satisfactory
19	22-06-2023	47	10	4	10	0.6	11	0.13	**47**	Good
20	26-06-2023	52	12	2	11	0.4	10	0.05	**52**	Satisfactory
21	29-06-2023	60	13	4	13	0.6	11	0.07	**60**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station: On The Open Terrace Of Residential House Of Shri Tuisidas Parab, Kotambi
City: Pale

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	04.04.2023	61	15	6	10	0.6	12	0.07	**61**	Satisfactory
2	07.04.2023	60	15	6	9	0.4	13	0.08	**60**	Satisfactory
3	10.04.2023	61	14	6	10	0.6	12	0.10	**61**	Satisfactory
4	13.04.2023	64	14	6	11	0.8	11	0.10	**64**	Satisfactory
5	17.04.2023	67	15	7	16	0.9	12	0.04	**67**	Satisfactory
6	20.04.2023	62	15	7	16	0.6	11	0.15	**62**	Satisfactory
7	24.04.2023	65	15	7	15	0.8	12	0.10	**65**	Satisfactory
8	27.04.2023	64	15	6	13	0.8	11	0.07	**64**	Satisfactory
9	01.05.2023	69	16	7	15	0.9	13	0.10	**69**	Satisfactory
10	04.05.2023	65	15	7	12	1.1	15	0.06	**65**	Satisfactory
11	08.05.2023	67	15	6	9	1.0	13	0.14	**67**	Satisfactory
12	11.05.2023	73	18	6	12	0.4	12	0.08	**73**	Satisfactory
13	15.05.2023	64	15	6	14	0.5	13	0.10	**64**	Satisfactory
14	18.05.2023	67	18	6	12	0.5	14	0.09	**67**	Satisfactory
15	22.05.2023	65	18	7	13	0.8	12	0.09	**65**	Satisfactory
16	25.05.2023	69	16	6	12	0.5	15	0.11	**69**	Satisfactory
17	29.05.2023	65	15	6	12	0.7	13	0.10	**65**	Satisfactory
18	06-06-2023	65	15	6	12	0.8	12	0.13	**65**	Satisfactory
19	09-06-2023	61	13	6	11	0.4	13	0.06	**61**	Satisfactory
20	12-06-2023	59	13	7	12	0.7	14	0.07	**59**	Satisfactory
21	15-06-2023	60	13	7	12	0.4	11	0.15	**60**	Satisfactory
22	19-06-2023	54	11	6	12	0.6	12	0.06	**54**	Satisfactory
23	22-06-2023	53	12	6	14	0.7	13	0.1	**53**	Satisfactory
24	26-06-2023	52	12	6	11	0.4	11	0.1	**52**	Satisfactory
25	29-06-2023	46	12	4	10	0.8	13	0.1	**46**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station: On The Open Terrace OF Residential House of Mr.Vishnu Gawas, Ambegal City: Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	58	10	7	9	0.4	11	0.08	**58**	Satisfactory
2	21.04.2023	59	11	6	11	0.7	12	0.10	**59**	Satisfactory
3	24.04.2023	58	10	6	14	0.8	13	0.11	**58**	Satisfactory
4	27.04.2023	59	11	6	15	0.6	12	0.08	**59**	Satisfactory
5	01.05.2023	66	16	6	13	0.4	13	0.09	**66**	Satisfactory
6	04.05.2023	65	15	6	11	0.6	14	0.04	**65**	Satisfactory
7	08.05.2023	64	15	7	12	0.8	13	0.07	**64**	Satisfactory
8	11.05.2023	68	18	7	12	0.7	12	0.13	**68**	Satisfactory
9	15.05.2023	66	17	7	12	0.8	14	0.06	**66**	Satisfactory
10	18.05.2023	65	17	6	10	0.5	12	0.08	**65**	Satisfactory
11	22.05.2023	56	18	6	13	0.8	15	0.10	**56**	Satisfactory
12	25.05.2023	67	15	6	12	0.4	12	0.13	**67**	Satisfactory
13	29.05.2023	67	18	8	10	0.8	14	0.09	**67**	Satisfactory
14	06-06-2023	61	12	6	12	0.8	12	0.08	**61**	Satisfactory
15	09-06-2023	52	15	2	13	0.6	13	0.09	**52**	Satisfactory
16	12-06-2023	45	8	2	10	0.4	11	0.05	**45**	Good
17	15-06-2023	52	13	4	12	0.7	14	0.09	**52**	Satisfactory
18	19-06-2023	45	11	6	14	0.7	10	0.09	**45**	Good
19	22-06-2023	54	12	2	12	0.5	13	0.11	**54**	Satisfactory
20	26-06-2023	41	7	4	5	0.8	12	0.09	**41**	Good
21	29-06-2023	49	9	2	11	0.5	13	0.04	**49**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within the premises of Village Panchayat Pissurlem
City:-Pissurlem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	26.04.2023	59	12	7	11	0.8	14	0.09	**59**	Satisfactory
2	29.04.2023	56	12	8	13	0.8	13	0.08	**56**	Satisfactory
3	01.05.2023	67	13	7	10	0.4	12	0.05	**67**	Satisfactory
4	04.05.2023	68	14	9	10	0.8	16	0.01	**68**	Satisfactory
5	08.05.2023	67	15	8	10	0.9	11	0.04	**67**	Satisfactory
6	11.05.2023	69	15	6	10	0.8	11	0.02	**69**	Satisfactory
7	15.05.2023	66	16	7	11	0.7	17	0.04	**66**	Satisfactory
8	18.05.2023	64	15	7	10	0.6	10	0.04	**64**	Satisfactory
9	22.05.2023	68	16	8	11	0.7	15	0.02	**68**	Satisfactory
10	25.05.2023	64	15	6	11	0.8	15	0.05	**64**	Satisfactory
11	29.05.2023	69	16	9	9	1.0	11	0.06	**69**	Satisfactory
12	06-06-2023	50	15	9	11	0.8	12	0.05	**50**	Satisfactory
13	09-06-2023	51	13	7	11	0.4	13	0.06	**51**	Satisfactory
14	12-06-2023	51	13	8	11	0.7	14	0.06	**51**	Satisfactory
15	15-06-2023	45	13	6	11	0.4	11	0.05	**45**	Good
16	19-06-2023	50	11	7	10	0.6	12	0.07	**50**	Good
17	22-06-2023	51	12	7	12	0.7	13	0.05	**51**	Satisfactory
18	26-06-2023	49	12	6	11	0.4	11	0.04	**49**	Good
19	29-06-2023	45	12	7	11	0.8	13	0.07	**45**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of Shri. Hanumant Hoble, H.No. 937/1,Haladanwada City:-Mayem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	02.05.2023	69	16	6	13	0.9	11	0.09	**69**	Satisfactory
2	04.05.2023	64	16	6	11	0.8	13	0.13	**64**	Satisfactory
3	08.05.2023	68	18	7	13	0.9	15	0.09	**68**	Satisfactory
4	11.05.2023	64	17	6	10	0.8	14	0.09	**64**	Satisfactory
5	15.05.2023	69	18	7	10	0.8	12	0.10	**69**	Satisfactory
6	18.05.2023	64	15	8	11	0.5	16	0.11	**64**	Satisfactory
7	22.05.2023	71	17	6	12	0.7	11	0.09	**71**	Satisfactory
8	25.05.2023	67	17	8	11	0.5	13	0.10	**67**	Satisfactory
9	29.05.2023	65	17	6	12	0.6	12	0.10	**65**	Satisfactory
10	06-06-2023	51	15	2	13	0.8	15	0.10	**51**	Satisfactory
11	09-06-2023	53	12	4	14	0.5	13	0.04	**53**	Satisfactory
12	12-06-2023	61	15	6	13	0.8	12	0.07	**61**	Satisfactory
13	15-06-2023	52	8	2	11	0.6	13	0.09	**52**	Satisfactory
14	22-06-2023	51	10	2	5	0.5	10	0.10	**51**	Satisfactory
15	26-06-2023	53	12	4	10	0.7	12	0.11	**53**	Satisfactory
16	29-06-2023	47	13	2	12	0.5	10	0.07	**47**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within the premises of residential house of Mr. Devendra N. Sawant
City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	12-12-2023	53	13	6	17	0.5	11	0.17	**53**	Satisfactory
2	15-12-2023	63	11	7	14	0.4	12	0.15	**63**	Satisfactory
3	19-12-2023	57	11	8	12	0.5	11	0.13	**57**	Satisfactory
4	22-12-2023	49	11	6	12	0.5	12	0.09	**49**	Good
5	26-12-2023	45	10	6	11	0.4	10	0.16	**45**	Good
6	29-12-2023	50	10	8	10	0.5	8	0.11	**50**	Satisfactory
7	02-01-2024	50	13	6	13	0.5	10	0.10	**50**	Satisfactory
8	05-01-2024	42	13	8	12	0.5	11	0.13	**42**	Good
9	09-01-2024	57	15	9	<9.0	0.5	13	0.12	**57**	Satisfactory
10	12-01-2024	56	11	8	12	0.6	12	0.11	**56**	Satisfactory
11	16-01-2024	54	13	6	13	0.5	11	0.19	**54**	Satisfactory
12	19-01-2024	55	11	8	14	0.5	12	0.15	**55**	Satisfactory
13	23-01-2024	53	9	9	13	0.7	12	0.19	**53**	Satisfactory
14	26-01-2024	57	12	9	11	0.8	14	0.19	**57**	Satisfactory
15	30-01-2024	54	10	7	10	0.6	13	0.10	**54**	Satisfactory
16	02-02-2024	55	11	8	13	0.6	12	0.11	**55**	Satisfactory
17	06-02-2024	53	12	11	14	0.6	11	0.14	**53**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On Open Terrace Of Shri. Chandudas Madhudar Satodkar
City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	29-04-2023	61	13	6	9	0.7	14	0.10	**61**	Satisfactory
2	01-05-2023	65	14	8	11	0.7	13	0.13	**65**	Satisfactory
3	04-05-2023	68	17	8	10	0.4	11	0.09	**68**	Satisfactory
4	08-05-2023	66	18	6	10	0.7	13	0.09	**66**	Satisfactory
5	11-05-2023	69	19	7	11	0.4	11	0.12	**69**	Satisfactory
6	15-05-2023	67	17	6	10	0.5	14	0.11	**67**	Satisfactory
7	18-05-2023	65	17	6	12	0.8	12	0.13	**65**	Satisfactory
8	22-05-2023	64	18	6	10	0.4	15	0.11	**64**	Satisfactory
9	25-05-2023	66	18	6	12	0.7	12	0.15	**66**	Satisfactory
10	29-05-2023	68	17	8	11	0.5	14	0.12	**68**	Satisfactory
11	06-06-2023	50	12	4	10	0.7	13	0.12	**50**	Satisfactory
12	09-06-2023	56	14	2	11	0.5	13	0.07	**56**	Satisfactory
13	12-06-2023	58	12	4	12	0.7	14	0.09	**58**	Satisfactory
14	15-06-2023	54	12	2	11	0.5	12	0.13	**54**	Satisfactory
15	22-06-2023	49	11	2	10	0.8	13	0.05	**49**	Good
16	26-06-2023	37	11	4	11	0.5	10	0.14	**37**	Good
17	29-06-2023	57	12	2	12	0.7	11	0.04	**57**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-open terrace of residential house shrimati Subhada Suralkar, Tarwado City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	13-09-2023	47	14	2	11	0.7	10	0.11	**47**	Good
2	16-09-2023	55	12	2	10	0.7	11	0.12	**55**	Satisfactory
3	19-09-2023	44	10	2	10	0.6	11	0.07	**44**	Good
4	22-09-2023	50	12	2	12	0.7	12	0.12	**50**	Satisfactory
5	26-09-2023	45	12	2	10	0.6	10	0.07	**45**	Good
6	29-09-2023	49	10	2	10	0.6	9	0.16	**49**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-open terrace of residential house shri Ritesh Malik, house no. 81, Satyakade City:-

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	13-09-2023	52	11	2	11	0.7	11	0.16	**52**	Satisfactory
2	16-09-2023	56	12	2	18	0.6	12	0.16	**56**	Satisfactory
3	19-09-2023	51	11	2	10	0.6	10	0.13	**51**	Satisfactory
4	22-09-2023	55	9	2	10	0.6	10	0.17	**55**	Satisfactory
5	26-09-2023	44	9	2	9	0.6	11	0.08	**44**	Good
6	29-09-2023	52	10	2	10	0.6	12	0.07	**52**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of residential house of Mr. Sunil Satoskar, Sankaili City:-Surla

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	12-12-2023	60	10	10	15	0.5	12	0.16	**60**	Satisfactory
2	15-12-2023	53	13	8	13	0.5	10	0.11	**53**	Satisfactory
3	19-12-2023	56	13	8	11	0.5	12	0.11	**56**	Satisfactory
4	22-12-2023	61	11	8	11	0.5	10	0.08	**61**	Satisfactory
5	26-12-2023	58	11	8	12	0.5	11	0.11	**58**	Satisfactory
6	29-12-2023	47	9	9	11	0.5	9	0.18	**47**	Good
7	02-01-2024	49	13	8	12	0.5	12	0.07	**49**	Good
8	05-01-2024	53	13	6	11	0.5	11	0.14	**53**	Satisfactory
9	09-01-2024	49	9	8	15	0.5	12	0.10	**49**	Good
10	12-01-2024	54	10	8	12	0.5	11	0.19	**54**	Satisfactory
11	16-01-2024	51	11	8	13	0.5	12	0.22	**51**	Satisfactory
12	19-01-2024	56	9	10	12	0.6	12	0.16	**56**	Satisfactory
13	23-01-2024	59	8	9	11	0.5	12	0.12	**59**	Satisfactory
14	26-01-2024	57	9	8	10	0.5	13	0.16	**57**	Satisfactory
15	30-01-2024	58	10	8	11	0.5	12	0.10	**58**	Satisfactory
16	02-02-2024	60	13	11	11	0.5	12	0.11	**60**	Satisfactory
17	06-02-2024	63	15	15	12	0.5	11	0.16	**63**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of shop of Mrs. Vanika Samir K, Gokulwadi
City:-Sanquelim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	12-12-2023	63	12	7	15	0.4	12	0.19	**63**	Satisfactory
2	15-12-2023	66	13	6	12	0.5	11	0.13	**66**	Satisfactory
3	19-12-2023	63	14	6	11	0.5	12	0.23	**63**	Satisfactory
4	22-12-2023	64	15	8	12	0.5	10	0.09	**64**	Satisfactory
5	26-12-2023	64	14	8	12	0.5	11	0.11	**64**	Satisfactory
6	29-12-2023	65	15	8	12	0.5	11	0.19	**65**	Satisfactory
7	02-01-2024	51	12	6	13	0.5	12	0.14	**51**	Satisfactory
8	05-01-2024	53	12	8	13	0.5	12	0.19	**53**	Satisfactory
9	09-01-2024	55	14	9	13	0.4	12	0.12	**55**	Satisfactory
10	12-01-2024	45	11	9	10	0.5	13	0.10	**45**	Good
11	16-01-2024	47	12	6	11	0.5	12	0.18	**47**	Good
12	19-01-2024	51	13	8	9	0.5	11	0.07	**51**	Satisfactory
13	23-01-2024	56	11	9	<9.0	0.5	11	0.16	**56**	Satisfactory
14	26-01-2024	54	12	9	10	0.7	11	0.21	**54**	Satisfactory
15	30-01-2024	55	13	8	13	0.6	12	0.11	**55**	Satisfactory
16	02-02-2024	51	12	6	13	0.5	12	0.14	**51**	Satisfactory
17	06-02-2024	53	12	8	13	0.5	12	0.19	**53**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of residential house of Mr. Pundalik Tukaram Gauns
City:-Naveli

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	12-12-2023	54	15	7	17	0.5	13	0.16	**54**	Satisfactory
2	15-12-2023	47	12	8	15	0.5	12	0.16	**47**	Good
3	19-12-2023	52	10	9	12	0.5	10	0.14	**52**	Satisfactory
4	22-12-2023	61	14	9	11	0.5	11	0.10	**61**	Satisfactory
5	26-12-2023	56	13	8	13	0.5	12	0.12	**56**	Satisfactory
6	29-12-2023	50	11	8	10	0.5	10	0.11	**50**	Good
7	02-01-2024	58	12	6	13	0.5	11	0.07	**58**	Satisfactory
8	05-01-2024	54	13	8	12	0.5	10	0.15	**54**	Satisfactory
9	09-01-2024	58	12	9	10	0.5	10	0.10	**58**	Satisfactory
10	12-01-2024	52	14	9	13	0.5	11	0.15	**52**	Satisfactory
11	16-01-2024	53	13	8	12	0.5	10	0.15	**53**	Satisfactory
12	19-01-2024	62	14	9	14	0.5	1	0.09	**62**	Satisfactory
13	23-01-2024	59	11	11	15	0.7	11	0.15	**59**	Satisfactory
14	26-01-2024	58	13	8	12	0.7	11	0.19	**58**	Satisfactory
15	30-01-2024	52	11	10	12	0.6	11	0.11	**52**	Satisfactory
16	02-02-2024	51	13	13	14	0.6	11	0.09	**51**	Satisfactory
17	06-02-2024	53	10	11	16	0.6	11	0.08	**53**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On The Open Terrace Of Residential House Of Mr. Smit Ghatwal , Mayem
City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	30-01-2024	50	8	6	5	2.0	11	0.10	**100**	Satisfactory
2	02-02-2024	54	11	8	5	0.5	11	0.14	**54**	Satisfactory
3	06-02-2024	57	13	9	5	0.5	10	0.10	**57**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within The Premises Of New Village Panchayat Building , Mayem Vaiguiner
City:-Bicholim

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	30-01-2024	58	15	2	5	0.5	12	0.11	**58**	Satisfactory
2	02-02-2024	57	13	2	5	0.5	12	0.13	**57**	Satisfactory
3	06-02-2024	59	16	6	5	0.5	11	0.14	**59**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Residential Premises of Mr. Simon Diniz, Kakumodi, Xeldem City:-Curchorem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	65	13	7	11	0.5	11	0.07	**65**	Satisfactory
2	21.04.2023	64	13	7	10	0.4	13	0.04	**64**	Satisfactory
3	24.04.2023	65	13	7	9	0.8	13	0.10	**65**	Satisfactory
4	27.04.2023	66	13	6	10	0.9	12	0.07	**66**	Satisfactory
5	01-05-2023	69	17	7	10	0.7	13	0.11	**69**	Satisfactory
6	04-05-2023	72	17	6	10	0.4	11	0.07	**72**	Satisfactory
7	08-05-2023	68	16	7	10	0.7	14	0.09	**68**	Satisfactory
8	11-05-2023	69	17	7	11	0.5	13	0.06	**69**	Satisfactory
9	15-05-2023	71	18	6	13	0.6	15	0.09	**71**	Satisfactory
10	18-05-2023	67	16	7	15	0.4	14	0.08	**67**	Satisfactory
11	22-05-2023	70	18	6	11	0.8	12	0.12	**70**	Satisfactory
12	25-05-2023	67	19	6	13	0.6	13	0.13	**67**	Satisfactory
13	29-05-2023	64	17	6	11	0.8	13	0.09	**64**	Satisfactory
14	06-06-2023	60	14	7	10	0.7	13	0.08	**60**	Satisfactory
15	09-06-2023	61	14	6	11	0.5	15	0.08	**61**	Satisfactory
16	12-06-2023	59	14	6	12	0.7	12	0.05	**59**	Satisfactory
17	15-06-2023	51	13	2	13	0.5	10	0.10	**51**	Satisfactory
18	19-06-2023	58	12	4	11	0.8	12	0.08	**58**	Satisfactory
19	22-06-2023	51	13	2	12	0.5	13	0.13	**51**	Satisfactory
20	26-06-2023	42	9	4	9	0.7	10	0.13	**42**	Good
21	29-06-2023	50	12	2	11	0.4	9.9	0.09	**50**	Good

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024										
Station: On the open Terrance of M/s. Mallikarjun Store near Village Panchayat City: Sanvordem										
		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	75	15	7	13	0.5	13	0.10	**75**	Satisfactory
2	21.04.2023	75	15	8	15	0.7	11	0.04	**75**	Satisfactory
3	24.04.2023	76	15	6	13	0.4	13	0.13	**76**	Satisfactory
4	27.04.2023	78	17	9	12	0.8	14	0.08	**78**	Satisfactory
5	01-05-2023	77	20	6	13	0.9	11	0.07	**77**	Satisfactory
6	04-05-2023	80	19	7	12	0.8	13	0.07	**80**	Satisfactory
7	08-05-2023	81	18	9	12	0.6	15	0.12	**81**	Satisfactory
8	11-05-2023	83	20	8	10	0.9	13	0.12	**83**	Satisfactory
9	15-05-2023	81	20	6	10	0.8	16	0.07	**81**	Satisfactory
10	18-05-2023	81	18	7	11	0.5	13	0.08	**81**	Satisfactory
11	22-05-2023	81	20	6	10	0.7	15	0.07	**81**	Satisfactory
12	25-05-2023	82	21	5	10	0.5	13	0.12	**82**	Satisfactory
13	29-05-2023	83	20	6	10	0.7	16	0.10	**83**	Satisfactory
14	06-06-2023	54	10	2	9	0.5	13	0.14	**54**	Satisfactory
15	09-06-2023	60	14	6	11	0.4	11	0.11	**60**	Satisfactory
16	12-06-2023	55	10	4	5	0.7	13	0.12	**55**	Satisfactory
17	15-06-2023	60	13	6	10	0.4	12	0.08	**60**	Satisfactory
18	19-06-2023	54	10	4	11	0.6	12	0.08	**54**	Satisfactory
19	22-06-2023	57	13	2	10	0.4	13	0.14	**57**	Satisfactory
20	26-06-2023	43	9	4	12	0.6	12	0.12	**43**	Good
21	29-06-2023	50	11	2	5	0.8	10	0.12	**50**	Satisfactory
22	27-10-2023	47	10	7	12	0.5	10	0.15	**47**	Good
23	31-10-2023	56	12	6	10	0.5	10	0.15	**56**	Satisfactory
24	03-11-2023	62	10	4	12	0.5	10	0.20	**62**	Satisfactory
25	07-11-2023	64	18	6	9	0.6	11	0.15	**64**	Satisfactory
26	10-11-2023	58	14	7	10	0.5	11	0.13	**58**	Satisfactory
27	14-11-2023	51	10	6	10	0.5	12	0.22	**51**	Satisfactory
28	17-11-2023	60	16	7	14	0.6	11	0.17	**60**	Satisfactory
29	21-11-2023	54	13	6	15	0.5	11	0.18	**54**	Satisfactory
30	24-11-2023	59	13	<4.0	13	0.6	12	0.16	**59**	Satisfactory
31	28-11-2023	55	14	8	15	0.6	11	0.21	**55**	Satisfactory
32	12-12-2023	67	13	7	13	0.5	12	0.20	**67**	Satisfactory
33	15-12-2023	56	11	8	14	0.5	12	0.14	**56**	Satisfactory

34	19-12-2023	52	11	11	12	0.5	10	0.18	**52**	Satisfactory
35	22-12-2023	62	13	9	12	0.5	11	0.11	**62**	Satisfactory
36	26-12-2023	65	13	9	13	0.5	12	0.12	**65**	Satisfactory
37	29-12-2023	60	12	8	12	0.5	11	0.10	**60**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the Open terrace of residential of Ramnath B. Naik, Ambaulim, Gudumol City:-Quepem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	65	13	6	9	0.7	13	0.08	**65**	Satisfactory
2	21.04.2023	63	13	8	13	0.5	12	0.05	**63**	Satisfactory
3	24.04.2023	61	13	6	14	0.4	11	0.11	**61**	Satisfactory
4	27.04.2023	67	14	7	15	0.9	13	0.06	**67**	Satisfactory
5	01-05-2023	67	17	6	15	0.8	14	0.06	**67**	Satisfactory
6	04-05-2023	64	15	7	11	0.8	13	0.05	**64**	Satisfactory
7	08-05-2023	69	18	7	10	0.6	11	0.05	**69**	Satisfactory
8	11-05-2023	67	17	7	12	0.8	12	0.10	**67**	Satisfactory
9	15-05-2023	70	18	6	12	0.7	14	0.01	**70**	Satisfactory
10	18-05-2023	66	17	6	13	0.8	12	0.09	**66**	Satisfactory
11	22-05-2023	68	17	5	10	0.7	13	0.10	**68**	Satisfactory
12	25-05-2023	62	16	6	12	0.8	12	0.12	**62**	Satisfactory
13	29-05-2023	63	15	7	11	0.4	15	0.10	**63**	Satisfactory
14	06-06-2023	60	13	7	12	0.6	14	0.12	**60**	Satisfactory
15	09-06-2023	59	13	6	13	0.8	12	0.08	**59**	Satisfactory
16	12-06-2023	58	13	6	11	0.4	14	0.04	**58**	Satisfactory
17	15-06-2023	54	13	4	5	0.8	11	0.08	**54**	Satisfactory

18	19-06-2023	60	10	6	10	0.6	13	0.08	**60**	Satisfactory
19	22-06-2023	51	13	2	40	..75	10	0.09	**51**	Satisfactory
20	26-06-2023	47	8	2	9	0.5	11	0.12	**47**	Good
21	29-06-2023	49	10	4	10	0.7	12	0.07	**49**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within Premisise of Shree Sateri Temple, Bag Xelvona
City:-Quepem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	68	14	6	9	0.6	11	0.06	**68**	Satisfactory
2	21.04.2023	67	14	7	10	0.8	12	0.10	**67**	Satisfactory
3	24.04.2023	69	14	6	10	0.5	12	0.05	**69**	Satisfactory
4	27.04.2023	68	15	7	10	0.7	11	0.06	**68**	Satisfactory
5	01-05-2023	63	15	7	10	0.8	13	0.10	**63**	Satisfactory
6	04-05-2023	67	17	6	10	0.5	15	0.04	**67**	Satisfactory
7	08-05-2023	64	17	7	11	0.8	13	0.08	**64**	Satisfactory
8	11-05-2023	68	17	6	10	0.7	15	0.14	**68**	Satisfactory
9	15-05-2023	66	17	6	11	0.8	12	0.07	**66**	Satisfactory
10	18-05-2023	69	18	6	13	0.6	14	0.08	**69**	Satisfactory
11	22-05-2023	69	19	6	14	0.7	12	0.12	**69**	Satisfactory
12	25-05-2023	70	16	8	13	0.8	14	0.11	**70**	Satisfactory
13	29-05-2023	67	18	6	14	0.4	13	0.10	**67**	Satisfactory
14	06-06-2023	56	19	2	13	0.7	15	0.11	**56**	Satisfactory
15	09-06-2023	62	14	4	11	0.5	14	0.10	**62**	Satisfactory

16	12/006/2023	57	11	6	10	0.7	12	0.07	**57**	Satisfactory
17	15-06-2023	57	11	2	11	0.5	13	0.11	**57**	Satisfactory
18	19-06-2023	47	13	4	14	0.6	14	0.06	**47**	Good
19	22-06-2023	50	12	2	12	0.8	13	0.09	**50**	Good
20	26-06-2023	51	13	4	5	0.6	11	0.03	**51**	Satisfactory
21	29-06-2023	57	10	2	12	0.5	13	0.03	**57**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the Open terrace of residential of Mr. Ramakant Karapurkar, Capxem City:-Quepem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	75	15	7	10	0.7	12	0.06	**75**	Satisfactory
2	21.04.2023	75	16	6	13	0.8	11	0.06	**75**	Satisfactory
3	24.04.2023	74	15	7	15	0.6	13	0.13	**74**	Satisfactory
4	27.04.2023	75	16	6	14	0.4	11	0.06	**75**	Satisfactory
5	01-05-2023	78	20	7	15	0.5	14	0.10	**78**	Satisfactory
6	04-05-2023	80	18	8	13	0.7	13	0.07	**80**	Satisfactory
7	08-05-2023	81	19	9	11	0.5	12	0.07	**81**	Satisfactory
8	11-05-2023	82	19	5	13	0.8	14	0.12	**82**	Satisfactory
9	15-05-2023	64	16	7	15	0.7	12	0.07	**64**	Satisfactory
10	18-05-2023	65	17	6	13	0.6	13	0.08	**65**	Satisfactory
11	22-05-2023	78	20	9	11	0.9	16	0.11	**78**	Satisfactory
12	25-05-2023	76	17	7	12	0.8	15	0.10	**76**	Satisfactory
13	29-05-2023	80	19	8	11	0.5	12	0.11	**80**	Satisfactory

14	06-06-2023	55	13	4	13	0.8	15	0.12	**55**	Satisfactory
15	09-06-2023	59	16	2	12	0.7	12	0.07	**59**	Satisfactory
16	12-06-2023	51	12	4	13	0.5	13	0.08	**51**	Satisfactory
17	15-06-2023	60	15	2	11	0.7	11	0.08	**60**	Satisfactory
18	19-06-2023	50	12	4	13	0.5	10	0.13	**50**	Satisfactory
19	22-06-2023	53	10	2	14	0.7	13	0.12	**53**	Satisfactory
20	26-06-2023	39	11	4	12	0.4	11	0.17	**39**	Good
21	29-06-2023	50	14	2	11	0.6	13	0.19	**50**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station: On the Open terrace of residential house of Mr. Anil alias shaba Faldessai City: Cavrem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	60	11	7	10	0.8	11	0.07	**60**	Satisfactory
2	21.04.2023	60	11	6	11	0.7	11	0.02	**60**	Satisfactory
3	24.04.2023	60	11	7	11	0.5	13	0.13	**60**	Satisfactory
4	27.04.2023	57	12	6	12	0.7	14	0.05	**57**	Satisfactory
5	01-05-2023	67	18	7	14	0.5	12	0.06	**67**	Satisfactory
6	04-05-2023	68	17	6	12	0.7	12	0.06	**68**	Satisfactory
7	08-05-2023	73	18	6	13	0.8	13	0.11	**73**	Satisfactory
8	11-05-2023	71	17	7	11	0.6	15	0.08	**71**	Satisfactory
9	15-05-2023	70	18	6	13	0.6	16	0.09	**70**	Satisfactory
10	18-05-2023	68	18	8	11	0.8	13	0.09	**68**	Satisfactory
11	22-05-2023	73	18	6	11	0.5	15	0.07	**73**	Satisfactory

12	25-05-2023	70	19	6	11	0.7	16	0.11	**70**	Satisfactory
13	29-05-2023	73	19	9	12	0.8	14	0.10	**73**	Satisfactory
14	06-06-2023	60	14	6	11	0.5	12	0.13	**60**	Satisfactory
15	09-06-2023	61	14	7	11	0.8	14	0.06	**61**	Satisfactory
16	12-06-2023	59	13	6	12	0.6	11	0.05	**59**	Satisfactory
17	15-06-2023	53	15	2	10	0.8	13	0.09	**53**	Satisfactory
18	19-06-2023	45	12	4	13	0.4	14	0.08	**45**	Good
19	22-06-2023	52	10	2	14	0.6	11	0.08	**52**	Satisfactory
20	26-06-2023	45	12	4	11	0.7	12	0.08	**45**	Good
21	29-06-2023	40	9	2	11	0.5	13	0.12	**40**	Good

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the Open terrace of residential of Mr. Dilip Raikar, Ambeudok City:-Sanguem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	65	13	7	10	0.4	14	0.08	**65**	Satisfactory
2	21.04.2023	63	13	6	9	0.8	13	0.08	**63**	Satisfactory
3	24.04.2023	64	14	6	11	0.7	11	0.10	**64**	Satisfactory
4	27.04.2023	67	14	6	11	0.8	13	0.11	**67**	Satisfactory
5	01-05-2023	63	15	6	10	0.5	13	0.09	**63**	Satisfactory
6	04-05-2023	59	13	6	10	0.7	15	0.05	**59**	Satisfactory
7	08-05-2023	64	17	7	10	0.8	12	0.05	**64**	Satisfactory
8	11-05-2023	66	17	6	9	0.9	15	0.10	**66**	Satisfactory
9	15-05-2023	68	17	6	10	0.8	13	0.09	**68**	Satisfactory

10	18-05-2023	66	17	6	10	0.4	11	0.11	**66**	Satisfactory
11	22-05-2023	64	17	7	10	0.6	13	0.10	**64**	Satisfactory
12	25-05-2023	64	17	6	13	0.4	15	0.13	**64**	Satisfactory
13	29-05-2023	63	16	7	11	0.6	11	0.07	**63**	Satisfactory
14	06-06-2023	56	18	6	13	0.8	14	0.10	**56**	Satisfactory
15	09-06-2023	56	13	2	12	0.6	12	0.06	**56**	Satisfactory
16	12-06-2023	45	10	4	13	0.4	15	0.12	**45**	Good
17	15-06-2023	52	12	2	10	0.8	13	0.08	**52**	Satisfactory
18	19-06-2023	56	12	4	12	0.4	12	0.12	**56**	Satisfactory
19	22-06-2023	54	11	2	10	0.7	12	0.13	**54**	Satisfactory
20	26-06-2023	44	9	4	12	0.5	11	0.05	**44**	Good
21	29-06-2023	59	12	2	13	0.8	10	0.16	**59**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of residential house of Shri. Suresh Kapekar, Talpar City:-Sanguem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	67	15	6	11	0.8	11	0.09	**67**	Satisfactory
2	21.04.2023	65	15	7	12	0.8	14	0.11	**65**	Satisfactory
3	24.04.2023	66	15	7	11	0.5	13	0.10	**66**	Satisfactory
4	27.04.2023	68	15	7	12	0.9	11	0.08	**68**	Satisfactory
5	01-05-2023	63	14	7	11	0.8	11	0.11	**63**	Satisfactory
6	04-05-2023	66	15	6	11	0.4	13	0.07	**66**	Satisfactory
7	08-05-2023	69	17	6	11	0.7	12	0.07	**69**	Satisfactory

8	11-05-2023	62	17	7	10	0.5	13	0.10	**62**	Satisfactory
9	15-05-2023	68	17	6	11	0.6	15	0.09	**68**	Satisfactory
10	18-05-2023	64	17	7	13	0.8	13	0.13	**64**	Satisfactory
11	22-05-2023	66	17	6	11	0.8	14	0.11	**66**	Satisfactory
12	25-05-2023	66	15	7	11	0.5	12	0.15	**66**	Satisfactory
13	29-05-2023	66	15	6	11	0.7	15	0.12	**66**	Satisfactory
14	06-06-2023	57	9	4	5	0.5	13	0.09	**57**	Satisfactory
15	09-06-2023	50	14	6	12	0.8	12	0.07	**50**	Good
16	12-06-2023	51	12	4	10	0.5	13	0.04	**51**	Satisfactory
17	15-06-2023	58	14	6	12	0.7	11	0.11	**58**	Satisfactory
18	19-06-2023	52	12	4	13	0.7	13	0.10	**52**	Satisfactory
19	22-06-2023	45	9	6	12	0.6	11	0.08	**45**	Good
20	26-06-2023	53	13	4	10	0.4	13	0.08	**53**	Satisfactory
21	29-06-2023	43	10	2	12	0.7	11	0.11	**43**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the Open terrace of residential house of Shri. Jesmon Simous, Kevona City:-Sanguem

		Time Weighted Average (TWA)							**AQI**	**AIR QLTY**
		24 - Hour	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**		
	Parameters	**Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)**								
Sr.No	**Date**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**	***CO**	**O_3**	**Pb**		
1	18.04.2023	59	13	6	13	0.8	13	0.12	**59**	Satisfactory
2	21.04.2023	59	14	7	12	0.5	12	0.05	**59**	Satisfactory
3	24.04.2023	62	14	6	10	0.8	11	0.10	**62**	Satisfactory
4	27.04.2023	63	14	6	10	0.6	12	0.09	**63**	Satisfactory
5	01-05-2023	70	17	9	10	0.4	13	0.10	**70**	Satisfactory

6	04-05-2023	70	18	6	9	0.8	12	0.04	**70**	Satisfactory
7	08-05-2023	69	17	6	10	0.9	15	0.06	**69**	Satisfactory
8	11-05-2023	69	17	7	11	0.7	13	0.10	**69**	Satisfactory
9	15-05-2023	70	18	6	10	0.6	15	0.10	**70**	Satisfactory
10	18-05-2023	67	17	6	10	0.8	11	0.13	**67**	Satisfactory
11	22-05-2023	73	19	7	11	0.7	15	0.11	**73**	Satisfactory
12	25-05-2023	69	18	6	11	0.9	15	0.13	**69**	Satisfactory
13	29-05-2023	64	15	8	11	0.4	11	0.06	**64**	Satisfactory
14	06-06-2023	42	12	6	13	0.7	14	0.11	**42**	Good
15	09-06-2023	52	17	4	13	0.4	10	0.09	**52**	Satisfactory
16	12-06-2023	60	14	2	11	0.6	12	0.16	**60**	Satisfactory
17	15-06-2023	53	11	4	9	0.4	10	0.11	**53**	Satisfactory
18	19-06-2023	58	11	6	11	0.5	11	0.11	**58**	Satisfactory
19	22-06-2023	52	10	2	5	0.4	10	0.08	**52**	Satisfactory
20	26-06-2023	44	12	4	9	0.7	12	0.15	**44**	Good
21	29-06-2023	52	12	2	12	0.5	12	0.09	**52**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of residence of Shri Diago Pereira, Uguem
City:-Sanguem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	07-10-2023	58	12	6	10	0.6	11	0.15	**58**	Satisfactory
2	10-10-2023	52	10	6	11	0.5	11	0.12	**52**	Satisfactory
3	13-10-2023	45	12	6	10	0.6	11	0.13	**45**	Good

4	17-10-2023	55	14	7	13	0.5	10	0.09	**55**	Satisfactory
5	20-10-2023	47	9	7	10	0.6	11	0.11	**47**	Good
6	24-10-2023	52	10	4	12	0.6	10	0.17	**52**	Satisfactory
7	27-10-2023	56	11	7	10	0.6	11	0.05	**56**	Satisfactory
8	31-10-2023	50	9	6	11	0.6	12	0.10	**50**	Satisfactory
9	03-11-2023	51	10	7	10	0.6	11	0.15	**51**	Satisfactory
10	07-11-2023	58	10	8	9	0.5	10	0.18	**58**	Satisfactory
11	10-11-2023	49	12	7	9	0.5	10	0.12	**49**	Good
12	14-11-2023	61	15	7	12	0.6	12	0.20	**61**	Satisfactory
13	17-11-2023	55	11	6	12	0.6	10	0.14	**55**	Satisfactory
14	21-11-2023	57	13	7	10	0.5	12	0.13	**57**	Satisfactory
15	24-11-2023	51	10	7	13	0.5	11	0.15	**51**	Satisfactory
16	28-11-2023	63	15	8	12	0.5	12	0.17	**63**	Satisfactory
17	01-12-2023	50	14	8	10	0.5	11	0.02	**50**	Good
18	05-12-2023	55	12	7	10	0.4	12	0.07	**55**	Satisfactory
19	08-12-2023	58	14	8	11	0.5	11	0.06	**58**	Satisfactory
20	12-12-2023	47	15	9	10	0.4	11	0.15	**47**	Good
21	15-12-2023	61	13	7	11	0.5	12	0.17	**61**	Satisfactory
22	19-12-2023	48	14	8	13	0.5	11	0.16	**48**	Good
23	22-12-2023	47	12	9	12	0.5	12	0.12	**47**	Good
24	26-12-2023	43	11	9	11	0.5	10	0.11	**43**	Good
25	29-12-2023	48	10	8	10	0.5	11	0.19	**48**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024										
Station:-On the open terrace of godown owned by Shri Sidhivinayak Sausthan temple City:-Sanguem										
		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	07-10-2023	46	9	7	5	0.6	10	0.15	**46**	Good
2	10-10-2023	35	9	8	10	0.5	10	0.10	**35**	Good
3	13-10-2023	55	13	7	14	0.7	10	0.16	**55**	Satisfactory
4	17-10-2023	45	11	6	12	0.7	12	0.18	**45**	Good
5	20-10-2023	60	13	8	10	0.6	12	0.13	**60**	Satisfactory
6	24-10-2023	56	13	6	12	0.6	11	0.18	**56**	Satisfactory
7	27-10-2023	54	11	7	11	0.5	10	0.07	**54**	Satisfactory
8	31-10-2023	48	11	8	13	0.5	11	0.10	**48**	Good
9	03-11-2023	51	10	6	9	0.5	11	0.12	**51**	Satisfactory
10	07-11-2023	46	13	7	11	0.6	10	0.16	**46**	Good
11	10-11-2023	54	14	6	11	0.5	11	0.14	**54**	Satisfactory
12	14-11-2023	61	16	7	14	0.6	10	0.12	**61**	Satisfactory
13	17-11-2023	51	9	7	15	0.7	12	0.16	**51**	Satisfactory
14	21-11-2023	53	12	4	13	0.6	11	0.12	**53**	Satisfactory
15	24-11-2023	58	11	7	15	0.5	12	0.18	**58**	Satisfactory
16	28-11-2023	64	14	7	12	0.5	11	0.22	**64**	Satisfactory
17	01-12-2023	59	12	7	11	0.4	10	0.02	**59**	Satisfactory
18	05-12-2023	56	11	6	13	0.5	12	0.04	**56**	Satisfactory
19	08-12-2023	62	12	8	11	0.5	13	0.06	**62**	Satisfactory
20	12-12-2023	55	14	8	13	0.5	11	0.14	**55**	Satisfactory
21	15-12-2023	61	13	8	14	0.5	11	0.19	**61**	Satisfactory

22	19-12-2023	50	15	9	11	0.5	11	0.13	**50**	Satisfactory
23	22-12-2023	45	12	8	13	0.5	12	0.09	**45**	Good
24	26-12-2023	50	13	9	13	0.5	11	0.10	**50**	Satisfactory
25	29-12-2023	56	11	8	12	0.5	11	0.20	**56**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within the premises of M/s Vedanta Ltd., Andrem Waddo, Khamomole City:-Curchorem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	07-10-2023	55	10	6	10	0.6	12	0.14	**55**	Satisfactory
2	10-10-2023	45	12	6	5	0.6	10	0.07	**45**	Good
3	13-10-2023	46	13	7	9	0.6	10	0.13	**46**	Good
4	17-10-2023	60	15	7	10	0.5	9	0.16	**60**	Satisfactory
5	20-10-2023	45	8	4	10	0.5	10	0.13	**45**	Good
6	24-10-2023	54	12	8	11	0.5	12	0.10	**54**	Satisfactory
7	27-10-2023	52	13	7	5	0.6	10	0.07	**52**	Satisfactory
8	31-10-2023	60	11	7	9	0.5	10	0.14	**60**	Satisfactory
9	03-11-2023	62	15	7	12	0.6	12	0.14	**62**	Satisfactory
10	07-11-2023	51	11	6	12	0.5	11	0.16	**51**	Satisfactory
11	10-11-2023	61	15	6	13	0.6	12	0.12	**61**	Satisfactory
12	14-11-2023	52	12	7	11	0.5	11	0.21	**52**	Satisfactory
13	17-11-2023	57	14	7	13	0.5	12	0.16	**57**	Satisfactory
14	21-11-2023	50	12	8	11	0.5	12	0.12	**50**	Satisfactory
15	24-11-2023	62	11	7	13	0.6	13	0.19	**62**	Satisfactory

16	28-11-2023	52	10	7	10	0.5	12	0.20	**52**	Satisfactory
17	01-12-2023	63	16	8	11	0.6	12	0.02	**63**	Satisfactory
18	05-12-2023	53	15	6	14	0.5	11	0.11	**53**	Satisfactory
19	08-12-2023	59	15	7	12	0.6	10	0.06	**59**	Satisfactory
20	12-12-2023	56	12	8	14	0.5	12	0.12	**56**	Satisfactory
21	15-12-2023	47	16	7	12	0.4	13	0.16	**47**	Good
22	19-12-2023	53	13	8	12	0.5	12	0.09	**53**	Satisfactory
23	22-12-2023	50	11	9	13	0.5	10	0.10	**50**	Satisfactory
24	26-12-2023	51	9	9	12	0.5	10	0.12	**51**	Satisfactory
25	29-12-2023	51	11	11	9	0.5	11	0.21	**51**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-M/s. Acm Jetty At Xirford Bagawada **City:-Curchorem**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	03.04.2023	64	15	8	10	0.7	12	0.06	**64**	Satisfactory
2	06.04.2023	60	13	7	12	0.8	13	0.06	**60**	Satisfactory
3	10.04.2023	59	14	6	13	0.9	12	0.08	**59**	Satisfactory
4	13.04.2023	65	15	7	16	0.8	13	0.05	**65**	Satisfactory
5	17.04.2023	63	14	6	14	0.6	12	0.05	**63**	Satisfactory
6	20.04.2023	62	15	6	15	0.8	13	0.14	**62**	Satisfactory
7	24.04.2023	62	15	7	16	0.4	12	0.08	**62**	Satisfactory
8	27.04.2023	66	15	7	14	0.6	13	0.06	**66**	Satisfactory
9	01-05-2023	73	17	6	13	0.8	12	0.08	**73**	Satisfactory
10	04-05-2023	76	19	7	11	0.5	13	0.06	**76**	Satisfactory

11	08-05-2023	68	17	8	10	0.4	12	0.08	**68**	Satisfactory
12	11-05-2023	73	19	6	12	0.7	14	0.07	**73**	Satisfactory
13	15-05-2023	74	18	7	13	0.5	15	0.03	**74**	Satisfactory
14	18-05-2023	70	17	7	11	0.7	16	0.09	**70**	Satisfactory
15	22-05-2023	67	15	6	13	0.8	14	0.09	**67**	Satisfactory
16	25-05-2023	66	16	7	11	0.7	12	0.11	**66**	Satisfactory
17	29-05-2023	69	18	6	13	0.5	14	0.11	**69**	Satisfactory
18	06-06-2023	64	14	6	11	0.6	15	0.06	**64**	Satisfactory
19	09-06-2023	67	14	7	11	0.4	13	0.08	**67**	Satisfactory
20	12-06-2023	62	14	8	11	0.8	14	0.08	**62**	Satisfactory
21	15-06-2023	60	13	7	11	0.5	12	0.08	**60**	Satisfactory
22	19-06-2023	56	12	6	10	0.7	10	0.07	**56**	Satisfactory
23	22-06-2023	57	12	7	11	0.4	11	0.13	**57**	Satisfactory
24	26-06-2023	48	14	2	10	0.6	10	0.06	**48**	Good
25	29-06-2023	42	8	4	10	0.4	11	0.07	**42**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station: Within The Premises Of Shree Lailesh Gaounkar, Kevona — **City: Sanguem**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	58	11	6	12	0.8	12	0.08	**58**	Satisfactory
2	21.04.2023	60	11	6	10	0.4	11	0.09	**60**	Satisfactory
3	24.04.2023	58	11	7	14	0.7	12	0.11	**58**	Satisfactory
4	27.04.2023	59	11	6	12	0.8	13	0.07	**59**	Satisfactory

5	01-05-2023	68	17	6	13	0.9	11	0.06	**68**	Satisfactory
6	04-05-2023	69	16	7	10	0.7	12	0.09	**69**	Satisfactory
7	08-05-2023	68	16	7	10	0.8	13	0.08	**68**	Satisfactory
8	11-05-2023	66	14	6	11	0.7	15	0.11	**66**	Satisfactory
9	15-05-2023	68	17	7	10	0.6	16	0.07	**68**	Satisfactory
10	18-05-2023	68	17	6	12	0.8	14	0.09	**68**	Satisfactory
11	22-05-2023	69	18	6	11	0.5	11	0.07	**69**	Satisfactory
12	25-05-2023	73	16	6	11	0.8	15	0.13	**73**	Satisfactory
13	29-05-2023	68	18	7	9	0.6	12	0.11	**68**	Satisfactory
14	06-06-2023	58	15	4	11	0.4	15	0.09	**58**	Satisfactory
15	09-06-2023	59	16	2	12	0.8	13	0.13	**59**	Satisfactory
16	12-06-2023	55	11	4	13	0.5	13	0.06	**55**	Satisfactory
17	15-06-2023	57	14	2	12	0.8	10	0.11	**57**	Satisfactory
18	19-06-2023	52	12	2	13	0.5	11	0.07	**52**	Satisfactory
19	22-06-2023	49	9	4	13	0.6	10	0.11	**49**	Good
20	26-06-2023	53	12	2	12	0.7	8	0.09	**53**	Satisfactory
21	29-06-2023	55	13	4	13	0.5	10	0.05	**55**	Satisfactory

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-Within the premises of Shri Dinesh Rivonkar, H. No- 363, Deulawada **City:-Rivona**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	58	11	6	10	0.5	13	0.09	**58**	Satisfactory
2	21.04.2023	57	10	7	13	0.7	13	0.07	**57**	Satisfactory
3	24.04.2023	56	10	8	14	0.8	11	0.11	**56**	Satisfactory

4	27.04.2023	58	11	6	13	0.6	12	0.07	**58**	Satisfactory
5	01-05-2023	65	14	7	14	0.4	14	0.11	**65**	Satisfactory
6	04-05-2023	64	15	6	12	0.8	13	0.04	**64**	Satisfactory
7	08-05-2023	66	15	7	10	0.4	11	0.08	**66**	Satisfactory
8	11-05-2023	63	16	7	11	0.9	15	0.09	**63**	Satisfactory
9	15-05-2023	70	18	6	10	0.8	13	0.09	**70**	Satisfactory
10	18-05-2023	68	17	6	10	0.8	15	0.05	**68**	Satisfactory
11	22-05-2023	64	16	7	11	0.7	13	0.11	**64**	Satisfactory
12	25-05-2023	64	17	6	12	0.5	12	0.14	**64**	Satisfactory
13	29-05-2023	66	15	7	11	0.8	13	0.08	**66**	Satisfactory
14	06-06-2023	53	12	2	12	0.6	14	0.06	**53**	Satisfactory
15	09-06-2023	55	14	4	12	0.4	15	0.10	**55**	Satisfactory
16	12-06-2023	44	12	2	12	0.7	13	0.09	**44**	Good
17	15-06-2023	52	15	4	12	0.5	14	0.08	**52**	Satisfactory
18	19-06-2023	57	9	4	12	0.7	10	0.08	**57**	Satisfactory
19	22-06-2023	51	10	2	11	0.8	11	0.14	**51**	Satisfactory
20	26-06-2023	46	8	4	5	0.4	12	0.08	**46**	Good
21	29-06-2023	57	10	2	11	0.6	10	0.05	**57**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of Residence of Shri Budnesab Vatnal, Gandhinagar City:-Sanvordem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	65	13	7	10	0.7	11	0.08	**65**	Satisfactory
2	21.04.2023	62	13	6	10	0.8	13	0.11	**62**	Satisfactory

3	24.04.2023	64	14	7	10	0.5	14	0.06	**64**	Satisfactory
4	27.04.2023	64	13	6	10	0.4	12	0.06	**64**	Satisfactory
5	01-05-2023	79	18	7	9	0.8	15	0.11	**79**	Satisfactory
6	04-05-2023	77	19	9	9	0.6	11	0.07	**77**	Satisfactory
7	08-05-2023	81	18	7	9	0.8	14	0.04	**81**	Satisfactory
8	11-05-2023	79	19	7	10	0.4	13	0.12	**79**	Satisfactory
9	15-05-2023	82	18	6	10	0.5	13	0.09	**82**	Satisfactory
10	18-05-2023	79	19	6	12	0.4	15	0.10	**79**	Satisfactory
11	22-05-2023	80	20	6	13	0.6	12	0.11	**80**	Satisfactory
12	25-05-2023	83	19	7	12	0.8	15	0.13	**83**	Satisfactory
13	29-05-2023	80	19	7	13	0.6	12	0.13	**80**	Satisfactory
14	06-06-2023	52	10	6	14	0.4	11	0.15	**52**	Satisfactory
15	09-06-2023	56	14	2	11	0.6	13	0.09	**56**	Satisfactory
16	12-06-2023	47	9	4	12	0.4	14	0.07	**47**	Good
17	15-06-2023	55	15	2	13	0.6	10	0.13	**55**	Satisfactory
18	19-06-2023	51	12	4	14	0.8	11	0.08	**51**	Satisfactory
19	22-06-2023	43	11	2	11	0.5	12	0.14	**43**	Good
20	26-06-2023	53	8	4	9	0.6	10	0.06	**53**	Satisfactory
21	29-06-2023	56	12	2	13	0.4	12	0.04	**56**	Satisfactory
22	27-10-2023	51	14	7	10	0.6	12	0.16	**51**	Satisfactory
23	31-10-2023	56	11	6	5	0.5	10	0.10	**56**	Satisfactory
24	03-11-2023	58	15	4	10	0.6	13	0.18	**58**	Satisfactory
25	07-11-2023	55	11	7	10	0.5	11	0.11	**55**	Satisfactory
26	10-11-2023	66	15	7	12	0.6	12	0.16	**66**	Satisfactory
27	14-11-2023	54	12	7	10	0.5	11	0.12	**54**	Satisfactory
28	17-11-2023	59	15	8	11	0.5	12	0.14	**59**	Satisfactory
29	21-11-2023	53	15	7	10	0.6	11	0.14	**53**	Satisfactory
30	24-11-2023	53	11	8	12	0.5	10	0.14	**53**	Satisfactory

31	28-11-2023	53	14	7	14	0.5	12	0.17	**53**	Satisfactory
32	12-12-2023	52	12	8	11	0.4	11	0.13	**52**	Satisfactory
33	15-12-2023	57	14	7	13	0.5	12	0.15	**57**	Satisfactory
34	19-12-2023	59	13	9	11	0.5	11	0.19	**59**	Satisfactory
35	22-12-2023	46	11	8	10	0.5	11	0.10	**46**	Good
36	26-12-2023	52	12	9	12	0.5	11	0.05	**52**	Satisfactory
37	29-12-2023	50	11	9	12	0.5	10	0.19	**50**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of residential house Shri Caitano D. Costa, Capxem City:-Sanvordem

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	27-10-2023	47	10	7	9	0.6	11	0.06	**47**	Good
2	31-10-2023	41	7	6	10	0.6	11	0.13	**41**	Good
3	03-11-2023	50	13	4	10	0.6	11	0.19	**50**	Satisfactory
4	07-11-2023	60	13	7	11	0.5	12	0.16	**60**	Satisfactory
5	10-11-2023	54	14	6	10	0.6	11	0.22	**54**	Satisfactory
6	14-11-2023	63	11	7	10	0.6	10	0.17	**63**	Satisfactory
7	17-11-2023	52	12	8	11	0.5	11	0.12	**52**	Satisfactory
8	21-11-2023	61	11	7	13	0.6	12	0.20	**61**	Satisfactory
9	24-11-2023	53	12	6	10	0.5	11	0.18	**53**	Satisfactory
10	28-11-2023	48	10	4	13	0.5	12	0.19	**48**	Good
11	12-12-2023	60	17	8	14	0.4	10	0.14	**60**	Satisfactory
12	15-12-2023	51	11	9	13	0.5	12	0.12	**51**	Satisfactory

13	19-12-2023	64	11	9	12	0.5	11	0.12	**64**	Satisfactory
14	22-12-2023	66	13	8	11	0.5	10	0.08	**66**	Satisfactory
15	26-12-2023	60	11	9	12	0.5	10	0.17	**60**	Satisfactory
16	29-12-2023	54.4	12.1	7.7	12.5	0.5	11	0.13	**54**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of Residence of Shri Shailesh Ramnath Naik **City:-Uguem**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	18.04.2023	60	11	7	11	0.8	13	0.10	**60**	Satisfactory
2	21.04.2023	60	12	7	14	0.6	12	0.13	**60**	Satisfactory
3	24.04.2023	62	11	6	15	0.8	13	0.06	**62**	Satisfactory
4	27.04.2023	59	11	7	14	0.8	15	0.08	**59**	Satisfactory
5	01-05-2023	63	12	6	15	0.6	12	0.07	**63**	Satisfactory
6	04-05-2023	67	15	8	12	0.8	15	0.04	**67**	Satisfactory
7	08-05-2023	65	12	6	10	0.6	12	0.03	**65**	Satisfactory
8	11-05-2023	64	15	7	11	0.8	15	0.13	**64**	Satisfactory
9	15-05-2023	67	13	7	10	0.4	13	0.08	**67**	Satisfactory
10	18-05-2023	67	12	6	11	0.7	12	0.08	**67**	Satisfactory
11	22-05-2023	67	15	8	12	0.8	15	0.12	**67**	Satisfactory
12	25-05-2023	64	12	6	13	0.4	12	0.12	**64**	Satisfactory
13	29-05-2023	65	15	8	10	0.8	15	0.09	**65**	Satisfactory
14	06-06-2023	57	52	4	14	0.6	13	0.13	**86**	Satisfactory
15	09-06-2023	49	12	6	12	0.8	11	0.06	**49**	Good
16	12-06-2023	53	14	2	12	0.6	12	0.08	**53**	Satisfactory

17	15-06-2023	58	10	4	10	0.4	13	0.13	**58**	Satisfactory
18	19-06-2023	51	12	2	12	0.6	10	0.09	**51**	Satisfactory
19	22-06-2023	46	8	4	5	0.7	11	0.11	**46**	Good
20	26-06-2023	52	10	2	11	0.5	12	0.05	**52**	Satisfactory
21	29-06-2023	43	11	4	12	0.8	10	0.06	**43**	Good
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On The Open Terrace Of Shri Aniket Desai Vansaiwada **City:-Collem**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr. No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	28.04.2023	61	14	6	10	0.5	12	0.09	**61**	Satisfactory
2	01-05-2023	67	18	8	10	0.9	13	0.08	**67**	Satisfactory
3	04-05-2023	66	17	7	10	0.6	11	0.03	**66**	Satisfactory
4	08-05-2023	65	17	7	10	0.4	13	0.10	**65**	Satisfactory
5	11-05-2023	67	15	6	9	0.8	15	0.11	**67**	Satisfactory
6	15-05-2023	65	17	6	10	0.7	12	0.09	**65**	Satisfactory
7	18-05-2023	65	15	6	12	0.9	15	0.13	**65**	Satisfactory
8	22-05-2023	67	17	6	10	0.5	12	0.10	**67**	Satisfactory
9	25-05-2023	65	15	6	12	0.8	14	0.13	**65**	Satisfactory
10	29-05-2023	68	17	6	13	0.8	15	0.09	**68**	Satisfactory
11	06-06-2023	61	13	2	10	0.4	12	0.09	**61**	Satisfactory
12	09-06-2023	47	10	6	12	0.8	14	0.03	**47**	Good
13	12-06-2023	58	13	2	13	0.7	11	0.17	**58**	Satisfactory
14	15-06-2023	51	10	4	12	0.4	12	0.11	**51**	Satisfactory
15	19-06-2023	42	12	2	10	0.7	10	0.08	**42**	Good

16	22-06-2023	55	9	4	5	0.6	10	0.06	**55**	Satisfactory
17	26-06-2023	41	12	2	10	0.5	11	0.10	**41**	Good
18	29-06-2023	51	13	4	11	0.6	12	0.04	**51**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On The Open Terrace Of Shri Ulhas R. Naik, Tionimoil, Karmane **City:-Dudhal**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	08-06-2023	62	18	6	12	0.6	13	0.13	**62**	Satisfactory
2	12-06-2023	56	13	2	13	0.4	11	0.10	**56**	Satisfactory
3	15-06-2023	37	10	6	12	0.6	13	0.13	**37**	Good
4	19-06-2023	45	13	2	11	0.8	13	0.05	**45**	Good
5	22-06-2023	51	12	4	5	0.4	12	0.06	**51**	Satisfactory
6	26-06-2023	42	12	2	10	0.8	13	0.14	**42**	Good
7	29-06-2023	53	14	4	12	0.5	12	0.09	**53**	Satisfactory
8	27-10-2023	57	8	6	11	0.7	11	0.16	**57**	Satisfactory
9	31-10-2023	52	10	7	10	0.6	10	0.16	**52**	Satisfactory
10	03-11-2023	52	10	7	10	0.6	10	0.18	**52**	Satisfactory
11	07-11-2023	56	13	8	12	0.7	11	0.17	**56**	Satisfactory
12	10-11-2023	53	12	4	11	0.6	10	0.10	**53**	Satisfactory
13	14-11-2023	59	10	8	13	0.7	12	0.14	**59**	Satisfactory
14	17-11-2023	52	12	7	14	0.5	11	0.15	**52**	Satisfactory
15	21-11-2023	52	12	7	14	0.4	11	0.13	**52**	Satisfactory
16	24-11-2023	64	11	7	13	0.6	12	0.16	**64**	Satisfactory
17	28-11-2023	56	9	8	14	0.6	11	0.19	**56**	Satisfactory
* No Monitoring										

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024

Station:-On the open terrace of Residence of Shri Prakash Desai **City:-Shigao**

		Time Weighted Average (TWA)							AQI	AIR QLTY
		24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour	24 - Hour		
	Parameters	Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)								
Sr.No	Date	PM_{10}	$PM_{2.5}$	SO_2	NO_2	*CO	O_3	Pb		
1	27-10-2023	49	12	7	9	0.5	10	0.15	**49**	Good
2	31-10-2023	52	11	6	12	0.5	11	0.14	**52**	Satisfactory
3	03-11-2023	58	13	7	11	0.5	11	0.17	**58**	Satisfactory
4	07-11-2023	54	9	4	10	0.5	10	0.17	**54**	Satisfactory
5	10-11-2023	46	13	7	13	0.6	12	0.16	**46**	Good
6	14-11-2023	42	9	6	11	0.5	10	0.13	**42**	Good
7	17-11-2023	53	13	6	12	0.6	12	0.14	**53**	Satisfactory
8	21-11-2023	60	14	7	11	0.5	12	0.14	**60**	Satisfactory
9	24-11-2023	51	14	8	12	0.6	11	0.13	**51**	Satisfactory
10	28-11-2023	55	12	8	10	0.5	10	0.20	**55**	Satisfactory

* No Monitoring

ANNUAL AAQM DATA OF MINING TRANSPORTATION STATION FROM APRIL 2023 TO MARCH 2024										
Station:-On nthe open terrac of Shri Venus Mascarenhas									**City:-**	
		Time Weighted Average (TWA)							**AQI**	**AIR QLTY**
		24 - Hour	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**	**24 - Hour**		
	Parameters	**Pollutants concentration in µg/m3 (except for *CO which is in mg/m3)**								
Sr.No	**Date**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_2**	***CO**	**O_3**	**Pb**		
1	08-06-2023	58	15	2	11	0.4	12	0.10	**58**	Satisfactory
2	12-06-2023	56	10	4	12	0.5	11	0.15	**56**	Satisfactory
3	15-06-2023	47	14	2	10	0.8	12	0.13	**47**	Good
4	19-06-2023	52	13	4	12	0.5	10	0.09	**52**	Satisfactory
5	22-06-2023	45	9	2	5	0.7	11	0.05	**45**	Good
6	26-06-2023	37	10	4	11	0.6	12	0.11	**37**	Good
7	29-06-2023	49	12	2	12	0.4	10	0.08	**49**	Good
* No Monitoring										

ANNEXURE-IX

List of units conducted EA as on date 7th February 2024

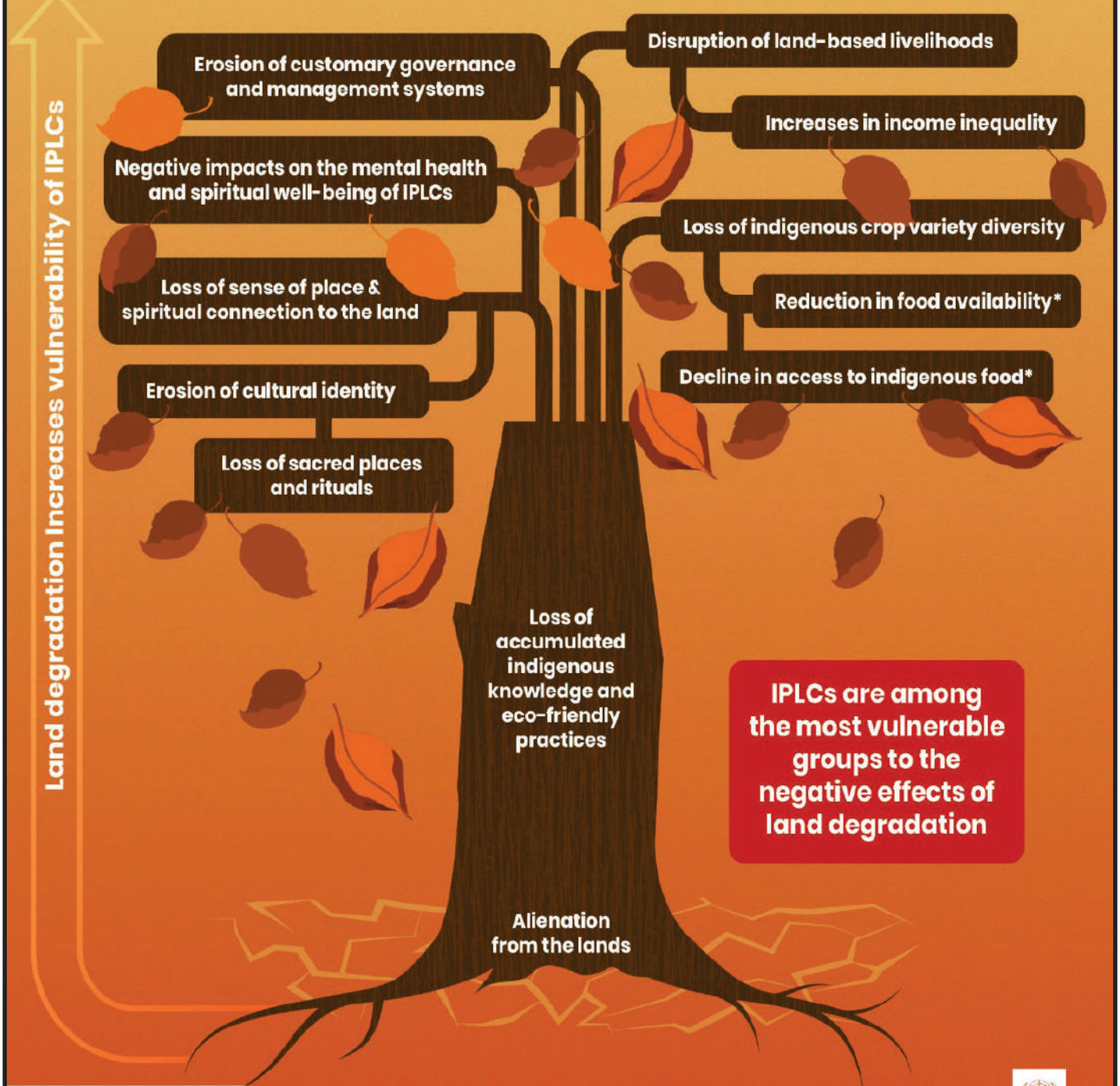
Sr. No.	Unit Name
01-03-2023 (Cuncolim IDC & Verna IDC)	
1	Shraddha Ispat
2	Lupin Limited
3	Ion Exchange India Ltd
4	Berger india Pvt Ltd
5	Ganesh Benzoplast Limited
01-04-2023 (Margao IDC & Mormugao)	
1	Seahath Canning Company
2	Mormugao Port Authority
3	Goa Shipyard Limited
01-05-2023 (Cuncolim IDC)	
1	united Marine Products
2	Sagar Feeds and Food Processing Industries
3	Indotech Ice and Cold Storage
4	Joecons Marine Exports Pvt Ltd
5	Malco Energy Limited
01-06-2023 (Margoa IDC & Panjim)	
1	Goa Carbon limited
2	M/S. Highstreet Casinos And Entertainment Pvt. Ltd. (M.V. Casino Royale)
3	M/S. Golden Peace Infrastructure Pvt Ltd (M.V. Argosy Iv)
4	M/S. Goa Coastal Resorts & Recreation Pvt. Ltd. (M.V. Pride Of Goa)
5	M/S. Worldwide Resorts And Entertainment Private Limited (M.V. Lucky Seven)
6	M/S. Highstreet Cruises And Entertainment Pvt. Ltd (M.V. Royale Flotel)
7	M/s. Delta Corp. Limited (M.V. Horseshoe Casino)
01-07-2023 (Kakoda IDC and Cuncolim IDC)	
1	M/S MARPOL PVT LTD
2	Trimurthi Industries
3	Global Ispaat Limited
4	Orange Fox Steels Pvt Ltd

5	Karthik Alloys Limited
6	Sunrise Electromelt Ltd
7	Shri Balaji Rollings Pvt Ltd
8	Shraddha Ispat Pvt Ltd
9	Quality Exports
10	Quality Foods
11	Pioneer Alloys And Steel India Pvt. Ltd.
12	Shirdi Steel Re-Rollers Pvt. Ltd.
01-10-2023 (Ponda Taluka)	
1	Finolex Cables Ltd,usgaon
2	Devyani Foods Limited
3	Procter & Gamble,usgaon
4	Hindustan Waste Treatment Pvt Ltd
5	unichem Industries Ltd
6	Nestle India Ltd,Bicholim
7	Finolex Cables Ltd,Verna
8	Crompton Greaves Ltd,Bethoda
9	Biotic Waste Solutions Pvt Ltd
10	Cadila Healthcare Ltd
11	united Spirits
12	MRF unit I
13	Mrf unit II
14	Crompton Greaves Ltd,Kundaim
15	Procter & Gamble,Kundaim
16	Nestle India Ltd,usgaon
01-11-2023 (Pilerne Idc)	
1	Sandhu Pharmaceuticals
2	Gumtree Traps Pvt Ltd
3	Chandra Cleaners
4	Surekleen Services Pvt Ltd
5	Berger Beckers Coating Pvt Ltd
6	Gkb Vision Pvt Ltd
7	Launderaids

01-12-2023 (Verna IDC)	
1	Abbott India Limited
2	Commscope India Pvt Ltd
3	Aryavaan Pharmaceuticals Pvt Ltd
4	Birla Furukawa Fibre Optics Pvt ltd
5	Betts India Private Limited
6	Bharat Petroleum Corporation Ltd
7	Bisleri International Pvt Ltd
8	Indoco Remedies Ltd
9	Britacel Silicones Ltd. unit III, unit IV
10	Cipla Ltd
11	Colorcon Asia Private Limited
12	IFB Industries Ltd.
13	Marine Electricals (I) Pvt. Ltd. unit I
14	Cipla Ltd
15	Himachal Futuristic Communications Ltd
16	Lok-Beta Pharmaceuticals (I) Pvt. Ltd.
17	M\s New Millennium Bakers
18	Putzmeister Concrete Machines Private Limited
19	Rosenberger ElectronicCo(I)PvtLtd
20	Indoco Remedies Ltd.(PlantI)
21	M\s. Jimcap Electronics Pvt. Ltd.
22	Medizest Pharmaceuticals Pvt.Ltd
23	Micro Labs Ltd
24	Pentair Water India Pvt.Ltd
25	Sanofi India Limited
26	Nestor Pharmaceuticals Ltd
27	Hindustan Coca-Cola Beverages Pvt Ltd
28	FDC Limited (unit-III)
29	Molbio Diagnostics Pvt. Ltd.
30	M/s. Pfizer Limited
31	Blue Cross Laboratories Pvt. Ltd.

32	M\s Perfect Laundry & Dry Cleaners
33	universal Cables Ltd
34	M/s.IFB INDuSTRIES LIMITED
35	Siemens Ltd Energy Automation
36	Siemens Ltd
37	FDC Limited (unit-I & II)
38	Vergo Pharma Research Laboratories Pvt Ltd
39	M/s. Cisen Pharmaceuticals India Private limited
40	M/s Teknopaints
41	Goa Thermopack Pvt Ltd
42	M\s Schiffer & Menezes Pvt. Ltd.
43	M\s Marksans Pharma Ltd. Goa-North
44	Watson Pharma Private Limited
45	M\s Marksans PharmaLtd.
46	M/s.Tulip Diagnostics Pvt Ltd.
47	Ion Exchange (India) Ltd
48	Duraline India Pvt Ltd
49	BLS Polymers
50	Syntegon Technology Pvt Ltd

How does Land Degradation Impact Indigenous Peoples and Local Communities?



BESNet
Biodiversity and Ecosystem Services Network

Derived from SPM of IPBES assessment on Land Degradation and Restoration (LDR)
* Derived from LDR Technical Report

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GOA
GOA STATE POLLUTION CONTROL BOARD
Yield to the cry of Goa....
Protect her Resources,
Restore her Beauty!
Canguinim, Betul, Goa : Photo by Dhruv Prasad Bhende
Dhruv Bhende