

A STUDY ON ONLINE MONITORING OF SEWAGE TREATMENT PLANTS OF BENGALURU

Bannerghatta National Park

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Table of Contents

Page No.

1. About ActionAid	1
2. Introduction	1
3. Urbanisation and Wastewater treatment in India	1
4. Sewage Treatment Plant (STP) in India	2
5. Objectives of the Study	2
6. Standards for Waste Water Treatment	3
7. Time period	3
8. Total number of STPs	3
9. Data Source	3
10. Methodology	3
11. Definitions	4
12. Findings	5
13. Jakkur Case study	17
14. Recommendations	18

Annexure

a. Compiled Data of all STPs and parameters	19
b. Daily Average of STPs with trend max-min graphs	20 - 76

A study on

Online monitoring of sewage treatment plants of Bengaluru

1. About ActionAid Association:

ActionAid Association is an organisation working for social and ecological justice. ActionAid has been engaged with the most marginalised communities in India. Together with supporters, communities, institutions and governments, we strive for equality, fraternity and liberty of all. ActionAid Association works in 24 states and two union territories, with several partners and allied organizations.

2. Introduction:

One of the most valuable resources in the world is water. Growth of population and massive industrialization has led to maximum use of the most valuable resource while the availability of fresh water is restricted. Approximately 80% of the water used is turned to sewage.

However, although nature has an exceptional ability to deal with limited amounts of toxins, there is a need to clean the billion gallons of garbage and waste material generated daily by homes, factories, and corporate institutions before returning it to the environment. One such alternative is wastewater/sewage treatment, in which several procedures are planned and run



to replicate natural treatment processes in order to lower pollution load to a level that nature can tolerate.

In order to meet the water demand, water is tapped for domestic and industrial uses from rivers, streams, wells and lakes and groundwater resources are also explored. Approximately 80% of the water supplied for domestic uses, comes out as wastewater. In different regions of urban centers, wastewater is let out untreated due to the lack/unavailability of sewerage network and discharged into the natural drainage system causing pollution in downstream areas.

3. Urbanisation & Wastewater Treatment in India:

Decadal assessment revealed an increasing trend in urban population, sewage generation and treatment capacity as depicted in figure 1.1. Since 1971, the urban population of India increased 3 times thereby impacting sewage generation which also increased at a rapid pace. However, the rate of development of treatment facilities happened to be much slower as compared to sewage generation and urban growth. The sewage generation increased from 7,067 MLD in 1978 -79 to 62,000 MLD in 2014-15 whereas treatment capacity augmented from 2,758 MLD to 23,277 MLD only.

Presently, STPs are designed on conventional technologies which can treat the wastewater to meet the non-potable requirement. Sequential Batch Reactor (SBR) and Activated Sludge Process (ASP) are the prevalent and adopted technologies all across the country. Oxidation Ponds are used for treatment of sewage in the areas especially where adequate lands are available for their installation.



Figure 2 Decadal trend of sewage generation and treatment capacity in Class-I cities and Class-II towns.

4. Sewage Treatment Plants(STP) in India:

As per Government records- December 2021, India generates a sewage of 72,368 MLD of which 26,869 MLD is treated, while Karnataka generates a sewage of 4,458 MLD and treats 1,922 MLD through its STPs.

	Sewage Generation		Operational Capacity	No. of STPs	
India	72,368 MLD	31,841 MLD	26,869 MLD	1,469	
Karnataka	4,458 MLD	2,712 MLD	1,922 MLD	140	
Eigung 2 Sources https://wik.com/in/Prosperlage.ophane.gom/2DPID=1770700					

Figure 3 Source: <u>https://pib.gov.in/Pressreleaseshare.aspx?PRID=1779799</u>,

5. Objectives of the Study:

- Analyze the performance of Online monitoring of Sewage Treatment Plant in Bengaluru.
- To improve Sewage Treatment Plants' online monitoring systems using the research's findings.

6. Standards for Wastewater Treatment:

Parameter standards issued by Karnataka State Pollution Control Board (KSPCB) as per the office Memorandum No. KSPCB/SEO-INFRA/STP-GUIDELINES/2020_21/5446 dated 1st March 2021 was referred which is as below;

Sr. No.	Parameter	Limits
1	Chemical Oxygen Demand (COD)	<50mg/l
2	Biochemical Oxygen Demand (BOD)	<10mg/l
3	pH	6.5-8.5
4	Suspended Solids	<10mg/l
5	Ammonical Nitrogen	<5mg/l
6	Total Nitrogen	<10mg/l
7	Faecal Coliform	<100 MPN/100 ml

Figure 4 Reference: <u>https://kspcb.karnataka.gov.in/sites/default/files/inline-files/new%20stp%20G.pdf</u>

- 7. Time Period: 45 days (1st Nov. 2022 15th Dec. 2022)
- 8. Total number of STPs: 31 STPs with total treatment capacity of 1,042.5 MLD
- **9. Data Source:** Bangalore Water Supply & amp; Sewerage Board (BWSSB) monitoring dashboard (<u>http://stpp.bwssb.gov.in/default.aspx</u>)

10. Methodology:

The data was available at the BWSSB website for each of the STPs, and for convenience of calculation the last 45 days data was downloaded. Online monitoring captures water quality data once in every five minutes, in a day it captures data for 288 times for each parameter which calculated for a period of 45 days across 6 parameters amounts to 77,760 data points for an STP. 24,10,560 data points for 31 STPs were consolidated and summarized as daily average/min/max values for each parameter & STP and further categorized as Wrong/Missing Data & Limits breaching Data for each parameter which was further consolidated as Average days & Maximum days across 6 parameters for each STP.

11. Definitions:

- Wrong/missing data:
 - Parameter data is not configured (NC) or
 - No variation within the day (maximum value = minimum value) & barely no variation from previous / next day (avg value of day - avg value of previous / next day < 0.01)
 - Dashboard often has constant data where there is no variation for the entire day and from the previous/next day as well. This is clearly an error in the monitoring equipment/reporting error and is considered as "wrong data".

• Limits breaching:

- Source of min & max limits: BWSSB monitoring dashboard
- Daily average parameter value is less than Min limit OR greater than Max. limit

Sr. No.	Parameter	Min limit	Max limit
1	Chemical Oxygen Demand (COD)	0	50 mg/l
2	Biochemical Oxygen Demand (BOD)	0	10 mg/l
3	рН	6.5	9
4	Total Suspended Solids (TSS)	0	20 mg/l
5	Ammonical Nitrogen	0	5 ppm
6	Total Nitrogen	0	10 ppm

- Avg wrong/missing data days: Take the total no. of days over the time period for each parameter with wrong/missing data as defined above. Take the mean/average across all 6 parameters.
- Avg limits breaching days: Take the total no. of days over the time period for each parameter with limits breaching as defined above. Take the mean/average across all 6 parameters.
- Max wrong/missing data days: Take the total no. of days over the time period for each parameter with wrong/missing data as defined above. Take the maximum across all 6 parameters.
- Max limits breaching days: Take the total no. of days over the time period for each parameter with limits breaching as defined above. Take the maximum across all 6 parameters.

12.Findings:

a. Discrepancy in limits set by BWSSB:

The limits set by KPSCB are different from those set by BWSSB for online monitoring for some parameters.

- TSS limit is <10 mg/l as prescribed by KPSCB, but BWSSB has set the limit to <20 mg/l
- pH limit is 6.5-8.5 as prescribed by KPSCB, but BWSSB has set the limit to 6.5-9
- Fecal / Total Coliform limits have been prescribed by KSPCB but this parameter is missing from BWSSB monitoring dashboard

No. of STPs with maximum missing / wrong data			
< 33% days	13		
33 - 66% days	5		
66-90% days	0		
>90% days	13		

b. Wrong/Missing Data:

No. of STPs with average missing / wrong data				
< 33% days	17			
33 - 66% days	5			
66-90% days	1			
>90% days	8			



STPs with Avg missing/wrong data



- 13 STPs were found with wrong/missing data for at least 1 parameter for greater than 90% days.
- 8 STPs were found with average wrong/missing data greater than 90% days across all parameters.

c. Limits breaching:

No. of STPs with max limits breaching				
< 33% days	22			
33 - 66% days	7			
>66% days	2			

No. of STPs with avg limits breaching				
< 33% days	30			
33 - 66% days	1			
>66% days	0			



- There are only 2 STPs with limits breaching > 66% days for at least 1 parameter.
- There is only 1 STP with avg limits breaching > 33% days (Jakkur) across all parameters.

d. STP Rankings:

The below table shows a comparative performance of STPs considering average wrong/missing days and limits breaching days. "Score" is an ad hoc metric (Avg wrong/missing data days + Avg limits breaching days) created to help quantize & compare the overall monitoring quality of the STPs. We see that in most cases Avg wrong/missing data days is much greater than Avg limits breaching days, which implies that the Score reflects more of the wrong/missing data than limits breaching instances as wrong/missing data is the bigger problem with most STPs. Lower Score implies correct data & parameters within limits on average, so those are the better working STPs like: Doddabele 40, Cubbon Park, Yelemellappa Chetti, etc. Max possible Score is 45 & towards the bottom of the table, the score reaches the max possible value because those STPs are **not configured** like: K&C Valley 218, Hebbal, Rajacanal(o), etc

Ra nk	STP	Max wrong/mis sing data days	Max limits breaching days	Avg wrong/mis sing data days	Avg limits breaching days	Score
1	Doddabele 40	4	0	1.17	0	1.17
2	Cubbon Park	4	0	3.17	0	3.17
3	Yelemallappa Chetti	7	0	7	0	7

4	Mailasandra Ph-I	7	1	7	0.33	7.33
5	Kempambudhi	12	0	7.83	0	7.83
5	Rajacanal(n)	12	0	7.83	0	7.83
7	Agaram	8	2	7.5	0.5	8
8	Chikkabanavara	17	0	8.67	0	8.67
9	K&C Valley 60	17	4	8.67	0.67	9.33
10	V.Valley	7	15	7	3.5	10.5
10	Lalbagh	8	18	7.5	3	10.5
12	K.R.Puram	17	6	9	1.67	10.67
12	Hulimavu	13	12	10.33	0.33	10.67
14	Nagasandra(n)	7	24	7	7.17	14.17
15	Chickbeggur	45	14	11.5	3	14.5
16	Nagasandra(o)	11	27	8.83	9.33	18.17
17	Horamavu Agara	20	15	17.33	2.5	19.83
18	Kadabeesanahalli	12	26	12	8	20
19	Kadugodi	42	25	16.5	5	21.5
20	Doddabele 20	27	0	22.33	0	22.33
21	Sarakki	45	42	17	8.17	25.17
22	Mallathahalli	45	0	37.5	0	37.5
23	Jakkur	45	34	22.83	17	39.83
24	Bellandur Amani kere	42	0	41.17	0	41.17
25	Halasuru	43	2	42	0.67	42.67
26	Yelahanka TTP	45	0	43.67	0	43.67
27	Kengeri	45	0	45	0	45
27	K&C Valley 30	45	0	45	0	45
27	Rajacanal(o)	45	0	45	0	45
27	Hebbal	45	0	45	0	45
27	K&C Valley 218	45	0	45	0	45

Table : Rank STPs by "Score" which is Avg wrong/missing data days + Avg limits breaching days. Highlighted cells: Any cell value >= 15 days

- 5 of 31 STPs, namely Kengeri, K&C Valley-30 & 218, Rajacanal(o), Hebbal have not configured any parameters for monitoring, hence they have a max possible score of 45.
- 3 STPs, namely Yelahanka TTP, Halasuru and Bellandur Amani kere have marginal data for monitoring as we can see they have very high values for Avg wrong/missing data days (> 40 days).
- Jakkur has highest Avg limits breaching days by far (17 days) which means that limits were breaching for multiple parameters (COD & BOD).
- Sarakki has highest Max limits breaching days of 42 days (> 90% days pH was breaching • limits).

STPs Score

Score (Avg wrong/mis ays + Avg limits breac	sing data hing days)	>30 32.3%		-15
<15 (< 33% days)	15			48.4%
5-30 (33 - 66% days)	6	<u>15-30</u>		
>30 (> 66% days)	10	13.770		

- 10 STPs have either wrong/missing data or limits branching for > 66% days on avg across all parameters (Score > 30)
- 6 STPs have either wrong/missing data or limits branching for 33% 66% days on avg across all parameters (15 < Score < 30)
- 15 STPs have either wrong/missing data or limits branching for <33% days on avg across all parameters (Score < 15)



e. Parameter-wise performance of STPs:

In this section we look at wrong/missing data & limit breaches separately for each parameter and a consolidated average of all parameters together.

Criteria for COD/BOD/pH/TSS/Ammonical Nitrogen/Total Nitrogen:

- Limits Breaching: Parameter breaching limits > 33% days (> 15 days)
- Wrong/missing data: Parameter has wrong/missing data > 33% days (>15 days).
 - Almost all data is wrong/missing: Wrong/missing data days > 90% days (> 40.5 days)

Criteria for All Parameters:

- Limits Breaching: At least 1 parameter is breaching limits > 33% days (> 15 days)
- Wrong/missing data: At least 1 parameter has wrong/missing data > 33% days (> 15 days)
 - Almost all data is wrong/missing: Avg wrong/missing data days > 90% days (> 40.5 days)

STPs are divided into 4 quadrants (+1 subsection):

- 1. Wrong/missing data + Limits breaching
- 2. Wrong/missing data + Within limits
 - a. Subsection Almost all data is wrong/missing + Within limits
- 3. Correct data + Within limits
- 4. Correct data + Limits breaching



e.1. Chemical Oxygen Demand (COD)

			COD	
	Almost all data is wrong/missing.	Hebbəl Rajacanal(o) Yelahanka TTP K&C Valley 218 Bellandur Amani kere K&C Valley 30 Halasuru Kengeri Mallathahalli	Wrong/missing data	Kadugodi
Wit	hin lim	Horamavu Agara Doddabele 20 its		Limits breaching
		Rajacanal(n) K&C Valley 60 Agaram K.R.Puram Yelemallappa Chetti Hulimavu Sarakki Chickbeggur Cubbon Park Lalbagh Mailasandra Ph-I V.Valley Doddabele 40 Chikkabanavara Kempambudhi	Correct data	Jakkur Kadabeesanahalli Nagasandra(o) Nagasandra(n)

- 12 STPs have wrong/missing data > 15 days
 - Out of these, 9 STPs have wrong/missing data on almost all (> 90%) days
- 5 STPs have have limit beaches > 15 days
- 1 STP (Kadugodi) has both wrong/missing data & limit breaches
- 15 STPs have correct data & within limits

e.2. Biochemical Oxygen Demand:

	ВС	סכ
Almost all data is wrong/missing.	Hebbəl Rajacanal(o) Yelahanka TTP K&C Valley 218 Bellandur Amani kere K&C Valley 30 Kadugodi Halasuru Kengeri Mallathahalli	Wrong/missing data
Within limit	Horamavu Agara K&C Valley 60 K.R.Puram Doddabele 20 ts	Limits breaching
	Rajacanal(n) Agaram Yelemallappa Chetti Hulimavu Sarakki Chickbeggur Cubbon Park Lalbagh Mailasandra Ph-I V.Valley Doddabele 40 Nagasandra(o) Nagasandra(n) Chikkabanavara Kempambudhi	Jakkur Kadabeesanahalli

- 14 STPs have wrong/missing data > 15 days
 - Out of these, 10 STPs have wrong/missing data on almost all (> 90%) days
- 2 STPs have have limit beaches > 15 days
- 15 STPs have correct data & within limits.

e.3. Potential Hydrogen (pH)

					р	н	
	Almost all data is wrong/missing.		Hebba Rajaca Yelaha K&C V Bellan K&C V Halasu Kenge	al anal(o) anka TTP 'alley 218 dur Amani ker 'alley 30 ıru ri	re	Wrong/missing data	
N	Vithin lim	its	Hora Dodo	mavu Agara Jabele 20			Limits breaching
	1.Rajacanal 2.Jakkur 3.K&C Valle 4. Kadabees 5. Agaram 6. K.R.Purar 7. Yelemalla Chetti 8. Hulimavu 9. Kadugodi	(n) y 60 sanahalli m appa i	10. 11. 12. 13. 14. 15. 16. 17. 18. 19.	Chickbeggu Cubbon Par Mailasandr V.Valley Doddabele Nagasandra Nagasandra Chikkabana Mallathaha Kempambu	r k a Ph-I 40 a(o) a(n) vara Ili Ili	Correct data	Sarakki Lalbagh

- 10 STPs have wrong/missing data > 15 days
 - Out of these, 8 STPs have wrong/missing data on almost all (> 90%) days
- 2 STPs has have limit beaches > 15 days.
- 19 STPs have correct data & within limits.

e.4. Total Suspended Solids (TSS):



- 12 STPs have wrong/missing data > 15 days
 - \circ Out of these, 9 STPs have wrong/missing data on almost all (> 90%) days
- 3 STPs have have limit beaches > 15 days.
- 1 STP (Horamavu Agara) has both wrong/missing data & limit breaches.
- 17 STPs have correct data & within limits.

e.5. Ammonical Nitrogen:

Ammonical Nitrogen

Almost all data is wrong/missing.	Hebbal Rajacanal(o) Jakkur Yelahanka TTP K&C Valley 218 Bellandur Amani kere K&C Valley 30 Sarakki Halasuru Kengeri Mallathahalli	Wrong/missing data
Within limits	Horamavu Agara Doddabele 20	Limits breaching
1.Rajacanal(n) 2.K&C Valley 60 3.Kadabeesanahalli 4.Agaram 5.K.R.Puram 6.Yelemallappa Chetti 7.Hulimavu 8.Kadugodi 9.Chickbegur	 Cubbon Park Lalbagh Mailasandra Ph-I V.Valley Doddabele 40 Nagasandra(o) Nagasandra(n) Chikkabanavara Kempambudhi 	Correct data

- 13 STPs have wrong/missing data > 15 days
 - \circ Out of these, 11 STPs have wrong/missing data on almost all (> 90%) days
- 0 STPs have limit beaches > 15 days
- 18 STPs have correct data & within limits.

e.6. Total Nitrogen:

Total Nitrogen

Almost all data is wrong/missing.	Hebbal Rajacanal(o) Jakkur Yelahanka TTP K&C Valley 218 Bellandur Amani kere K&C Valley 30 Sarakki Chickbeggur Halasuru Kengeri Mallathahalli	Wrong/missing data
Within limits	Horamavu Agara Doddabele 20 Chikkabanavara	Limits breaching
	Rajacanal(n) K&C Valley 60 Kadabeesanahalli Agaram K.R.Puram Yelemallappa Chetti Hulimavu Kadugodi Cubbon Park Lalbagh Mailasandra Ph-I Doddabele 40 Nagasandra(o) Nagasandra(n) Kempambudhi	V.Valley

- 15 STPs have wrong/missing data > 15 days
 - Out of these, 12 STPs have wrong/missing data on almost all (> 90%) days
- 1 STP has have limit beaches > 15 days.
- 15 STPs have correct data & within limits.

e.8. All Parameters:

All Parameters

Almost all data is wrong/missing.	Hebbal Rajacanal(o) Bellandur Amani kere K&C Valley 30 Halasuru Kengeri Yelahanka TTP K&C Valley 218	Krong Jakkur Horamavu Agara Kadugodi
Within lim	K&C Valley 60 K.R.Puram Chickbeggur Doddabele 20 Chikkabanavara Mallathahalli	Sarakki Limits breaching
	Rajacanal(n) Cubbon Park Agaram Yelemallappa Chetti Hulimavu Mailasandra Ph-I Kempambudhi Doddabele 40	Lalbagh Nagasandra(o) Nagasandra(n) Kadabeesanahalli V.Valley

Observations:

• Parameters:

0

- Most limit breaches are for COD
 - 5 STPs have COD limit breaches > 15 days
 - Most wrong/missing data is for Total Nitrogen
 - 15 STPs have wrong/missing data for Total Nitrogen > 15 days
- Best maintained parameter in STPs is pH
 - 19 STPs have wrong/missing data & limit breaches < 15 days
- STPs:
 - \circ 18 STPs have wrong/missing data for at least 1 parameter > 15 days
 - Out of these, 8 STPs have wrong/missing data for all parameters on almost all (> 90%) days
 - \circ 9 STPs have have limit beaches for at least 1 parameter > 15 days
 - o 4 STPs have both wrong/missing data & limit breaches for at least 1 parameter
 - 8 STPs have all parameters good monitoring & within limits

13. Jakkur Case Study:

	avg_COD	avg_BOD	avg_pH	avg_TSS	avg_Ammonical Nitrogen	avg_Total Nitrogen
Date						
2022-11-01	287.63	44.82	8.97	0.90	nan	nan
2022-11-02	289.84	40.42	8.97	0.91	nan	nan
2022-11-03	287.92	39.58	8.97	0.90	nan	nan
2022-11-04	282.13	42.33	8.97	0.90	nan	nan
2022-11-05	277.03	45.16	8.97	0.90	nan	nan
2022-11-06	281.74	47.43	8.97	0.90	nan	nan
2022-11-07	282.61	48.94	8.97	0.90	nan	nan
2022-11-08	285.23	48.71	8.97	0.90	nan	nan
2022-11-09	283.80	49.12	8.97	0.90	nan	nan
2022-11-10	284.98	48.40	8.97	0.90	nan	nan
2022-11-11	288.10	46.66	8.97	0.90	nan	nan
2022-11-12	291.35	45.21	8.97	0.91	nan	nan
2022-11-13	287.36	46.90	8.97	0.91	nan	nan
2022-11-14	285.52	47.54	8.97	0.90	nan	nan
2022-11-15	288.75	45.15	8.97	0.90	nan	nan
2022-11-16	275.97	42.09	8.96	0.90	nan	nan
2022-11-17	254.12	37.08	8.97	0.90	nan	nan
2022-11-18	259.79	37.75	8.97	0.91	nan	nan
2022-11-19	262.90	37.98	8.97	0.91	nan	nan
2022-11-20	266.92	38.10	8.97	0.91	nan	nan
2022-11-21	271.74	38.20	8.97	0.91	nan	nan
2022-11-22	272.03	38.27	8.97	0.90	nan	nan
2022-11-23	270.88	38.34	8.97	0.90	nan	nan
2022-11-24	269.64	38.29	8.97	0.90	nan	nan
2022-11-25	269.64	38.23	8.97	0.90	nan	nan
2022-11-26	269.63	37.76	8.97	0.90	nan	nan
2022-11-27	269.68	37.82	8.96	0.90	nan	nan
2022-11-28	269.28	37.72	8.96	0.90	nan	nan
2022-11-29	269.93	37.77	8.96	0.90	nan	nan
2022-11-30	273.10	37.83	8.97	0.91	nan	nan
2022-12-01	276.18	37.90	8.97	0.90	nan	nan
2022-12-02	277.48	38.03	8.97	0.91	nan	nan
2022-12-03	276.54	37.92	8.97	0.90	nan	nan
2022-12-04	276.45	37.78	8.97	0.90	nan	nan
2022-12-05	276.48	37.78	8.97	0.90	nan	nan
2022-12-06	276.48	37.78	8.97	0.90	nan	nan
2022-12-07	276.48	37.78	8.97	0.90	nan	nan
2022-12-08	276.48	37.78	8.97	0.90	nan	nan
2022-12-09	276.48	37.78	8.9/	0.90	nan	nan
2022-12-10	276.48	37.78	0.9/	0.90	nan	nan
2022-12-11	276.48	37.78	0.97	0.90	nan	nan
2022-12-12	270.40	37.78	8.97	0.90	nan	nan
2022-12-13	276.48	37.78	8.97	0.90	nan	nan
2022-12-14	276.48	37.78	8.97	0.90	nan	nan
				· · / ·		

Jakkur

- This is one of the most worrisome/problematic STPs as it has the highest avg limits breaching days (17) & is breaching limits by a large extent.
- COD & BOD values are continuously 4-6 times the max permissible limit (50 & 10 mg/l respectively)
- Ammonical Nitrogen & Total Nitrogen are not even configured.

14.Recommendations:

- Online monitoring system should alert BWSSB & KSPCB, if any parameter is breaching or is stagnant for too long.
- All parameters prescribed by National Green Tribunal, Chennai and KSPCB should be measured by BWSSB monitoring dashboard.
 - Fecal / Total Coliform measurement is missing in the dashboard, Samples need to be tested atleast once a day and updated along with the concerned day data.
 - All parameters should be configured, especially Ammonical & Total Nitrogen are not configured for 7 STPs (Hebbal, Rajacanal(o), Jakkur, K&C Valley 218, K&C Valley 30, Kengeri, Mallathahalli).
- TSS & pH limits should be updated on the BWSSB monitoring dashboard to match the recommendations by KSPCB.
- Limit breaches should be minimized, especially for Chemical Oxygen Demand (COD) and not let to last for continuous days.
- STPs like Jakkur with extremely high levels of limit breaches should be dealt with on a priority basis.
- KSPCB needs to have a check on the Online STP dashboard data.

The study is an effort by the organisation to understand the online monitoring system in a holistic way and address the lacunae arising. I sincerely thank Ms. Kavya Bhandari, IIT Bombay and a volunteer at ActionAid Association; without her rich experience of handling the large data set the report would not be complete.

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15.Annexure:

a) Compiled Data of all STPs and parameters

			Y	Valle	abha	Vrish				Hebb al Valle Valle y					Valley																	
Kempambudhi	Mallathahalli	Chikkabanavara	Doddabele 20	Nagasandra(n)	Nagasandra(o)	Doddabele 40	Kengeri	V.Valley	Mailasandra Ph-I	Lalbagh	Halasuru	Cubbon Park	Chickbeggur	Sarakki	Kadugodi	Hulimavu	Yelemallappa Chetti	K.R.Puram	K&C Valley 30	Agaram	Kadabeesanahalli	K&C Valley 60	Bellandur Amani kere	K&C Valley 218	Yelahanka TTP	Jakkur	Horamavu Agara	Rajacanal(n)	Rajacanal(o)	Hebbal	STP	
	თ	თ	20	20	20	40	60	60	75	1.5	2	4	ъ	5	6	10	15	20	30	35	50	60	90	218	10	15	20	40	40	60	y (in MLD)	Canacit
7	45	7	21	7	11	0	NC	7	7	7	41	ω	2	з	15	10	7	7	45	7	12	7	41	NC	43	11	20	7	45	NC	Missing / constant (wrong data) days	0
0	0	0	0	24	27	0	NC	0	-1	0	0	0	14	0	25	2	0	0	0	0	18	4	0	NC	0	34	0	0	0	NC	Limits beaching days	8
7	45	7	22	7	11	0	NC	7	7	8	43	ω	13	ω	42	11	7	17	45	7	12	17	41	NC	43	11	20	7	45	NC	Missing / constant (wrong data) days	BO
0	0	0	0	0	0	0	NC	0		0	0	0	0	2	0	0	0	0	0	0	26	0	0	NC	0	34	0	0	0	NC	Limits beaching days	ŏ
12	0	7	21	7	7	-1	NC	7	7	8	41	ы	2	3	7	13	7	9	45	8	12	7	41	NC	43	11	16	7	45	NC	Missing / constant (wrong data) days	q
0	0	0	0	0	0	0	NC	0	0	0	0	0	0	25	0	0	0	4	0	0	0	0	0	NC	0	0	0	0	0	NC	Limits beaching days	т
7	45	7	21	7	10	2	NC	7	7	7	41	4	2	ω	17	9	7	7	45	7	12	7	41	NC	43	14	16	7	45	NC	Missing / constant (wrong data) days	7
0	0	0	0	19	26	0	NC	0	0	0	0	0	0	5	თ	0	0	0	0	4	4	0	0	NC	0	0	15	0	0	NC	Limits beaching days	SS
7	NC	7	27	7	7	4	NC	7	7	8	43	ω	5	45	11	9	7	8	NC	8	12	7	41	NC	45	NC	16	7	NC	NC	Missing / constant (wrong data) days	Ammonic
0	NC	0	0	0	2	0	NC	сл	0	0	2	0	4	0	0	0	0	0	NC	0	0	0	0	NC	0	NC	0	0	NC	NC	Limits beaching days	al Nitrogen
7	NC	17	22	7	7	0	NC	7	7	7	43	ω	45	45	7	10	7	6	NC	8	12	7	42	NC	45	NC	16	12	NC	NC	Missing / constant (wrong data) days	Total N
0	NC	0	0	0	1	0	NC	15	0	0	2	0	0	0	0	0	0	4	NC	2	0	0	0	NC	0	NC	0	0	NC	NC	Limits beaching days	litrogen
7.833333333	37.5	8.666666667	22.33333333	7	8.833333333	1.166666667	45	7	7	7.5	42	3.166666667	11.5	17	16.5	10.33333333	7	9	45	7.5	12	8.666666667	41.16666667	45	43.66666667	22.83333333	17.33333333	7.833333333	45	45	Avg wrong data days	
15	4	17	21		11		4				4		4	4	4	15		11	4	~	15	1	42	4	45	4	26	15	4	45	Max wrong data days	
0	0	0	0	7.16666666	9.333333333	0	0	3.333333333	0.333333333	0	0.66666666	0	3	5.333333333	5	0.333333333	0	1.333333333	0	0.5	8	0.66666666	0	0	0	17	2.5	0	0	0	days	Avn limite
0	0	0	0	24	27	0	0	15	_	0	2	0	14	25	25	2	0	4	0	2	26	4	0	0	0	34	15	0	0	0	breaching days	May limite

a) Daily Average of STPs with trend max-min graphs

i) Agaram

	COD	BOD		Agara	m	T-4-1 Ni4
Date	avg_COD	avg_bod	avg_pH	avg_155	avg_Ammonical Nitrogen	avg_10tai Nitrogen
Date 2022-11-01	20.90	4.40	7.03	3 80	1.88	7.71
2022-11-01 2022-11-02	20.90	4.40	7.03	3.80	1.00	7.71
2022-11-02	20.90	4.40	7.03	3.80	1.88	7.71
2022-11-03	20.90	4 40	7.03	3.80	1.88	7.71
2022-11-04	20.90	4 40	7.03	3.80	1.88	7.71
2022-11-06	20.90	4 40	7.03	3.80	1.88	7.71
2022-11-07	20.90	4 40	7.03	3.80	1.88	7.71
2022-11-08	21.19	4.42	7.03	3.95	1.88	7.71
2022-11-09	26.78	4.89	7.39	7.11	1.15	4.71
2022-11-10	30.13	6.01	7.68	8.58	0.54	2.23
2022-11-11	25.74	4.72	7.69	7.22	0.64	2.64
2022-11-12	22.69	3.89	7.72	5.55	0.47	1.93
2022-11-13	26.66	4.18	7.69	8.50	0.22	0.91
2022-11-14	26.36	3.68	7.64	10.22	0.29	1.18
2022-11-15	21.60	3.36	7.66	5.67	0.38	1.58
2022-11-16	24.40	3.61	7.66	7.55	0.54	2.22
2022-11-17	24.46	3.64	7.63	7.69	1.10	4.51
2022-11-18	29.39	3.65	7.70	11.48	1.19	4.88
2022-11-19	24.61	3.56	7.69	8.42	0.62	2.56
2022-11-20	22.58	4.33	7.71	5.06	1.71	7.01
2022-11-21	22.83	4.37	7.68	5.38	1.31	5.36
2022-11-22	22.43	3.71	7.66	6.09	0.73	3.01
2022-11-23	24.51	3.06	7.71	8.38	0.46	1.89
2022-11-24	32.53	3.07	7.69	14.82	0.49	2.00
2022-11-25	29.42	4.18	7.70	10.32	0.53	2.18
2022-11-26	31.39	4.22	7.71	11.66	0.33	1.36
2022-11-27	37.89	3.25	7.72	19.58	0.61	2.49
2022-11-28	26.55	3.60	7.66	9.52	0.55	2.27
2022-11-29	34.35	2.93	7.70	17.57	1.14	4.68
2022-11-30	34.93	3.76	7.67	20.08	0.67	2.74
2022-12-01	27.97	3.71	7.65	10.91	0.69	2.83
2022-12-02	24.79	3.80	7.68	7.07	1.09	4.47
2022-12-03	20.60	3.91	7.68	4.05	0.95	3.89
2022-12-04	26.04	4.76	7.75	6.81	0.61	2.52
2022-12-05	23.72	4.48	7.68	5.93	0.49	1.99
2022-12-06	29.02	2.85	7.69	13.11	0.86	3.54
2022-12-07	23.90	4.47	7.77	6.42	1.21	4.95
2022-12-08	29.05	4.84	7.74	10.47	2.68	10.99
2022-12-09	26.91	4.07	7.75	9.26	3.39	13.90
2022-12-10	30.52	4.10	7.74	13.05	2.28	9.35
2022-12-11	29.49	3.95	7.63	12.06	0.37	1.52
2022-12-12	26.60	4.54	7.59	9.76	0.51	1.26
2022-12-13	27.53	5.80	7.60	8.56	0.15	0.62
2022-12-14	29.08	4.38	7.65	10.84	0.39	1.59
2022-12-15	23.84	3.15	7.67	7.95	0.24	0.99



ii) Bellandur Amani kere

Bellandur Amani kere
avg_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen

Date	02	011	-	01	0 02
2022-11-01 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-02 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-03 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-04 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-05 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-06 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-07 25.39	2.83	7.75	6.65	0.51	1.00
2022-11-08 25.43	3.03	7.71	6.31	0.49	0.94
2022-11-09 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-10 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-11 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-12 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-13 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-14 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-15 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-16 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-17 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-18 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-19 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-20 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-21 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-22 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-23 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-24 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-25 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-26 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-27 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-28 25.68	4.17	7.46	4.35	0.39	0.60
2022-11-29 25.79	4.08	7.36	4.76	0.42	0.62
2022-11-30 26.07	4.18	7.58	5.89	0.42	0.59
2022-12-01 26.09	4.20	7.56	6.05	0.43	0.60
2022-12-02 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-03 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-04 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-05 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-06 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-07 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-08 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-09 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-10 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-11 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-12 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-13 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-14 26.05	4.23	7.56	5.82	0.43	0.60
2022-12-15 26.05	4.23	7.56	5.82	0.43	0.60



iii) Chickbeggur

a	vg_COD	avg_BOD	avg_pH	avg_TSS	avg_Ammonical Nitrogen	avg_Total Nitrogen
Date						
2022-11-01 4	1.62	5.57	7.70	8.43	3.37	nan
2022-11-02 4	0.45	7.55	7.73	6.45	2.37	nan
2022-11-03 4	6.61	5.71	7.68	8.58	3.12	nan
2022-11-04 6	2.81	5.00	7.59	10.53	4.07	nan
2022-11-05 6	8.19	5.26	7.57	11.22	4.26	nan
2022-11-06 4	5.87	6.06	7.71	8.97	3.61	nan
2022-11-07 4	2.53	8.27	7.75	8.27	2.87	nan
2022-11-08 4	4.48	8.28	7.71	9.24	3.35	nan
2022-11-09 4	6.13	5.93	7.69	10.07	4.20	nan
2022-11-10 4	8.00	5.00	7.64	11.00	4.20	nan
2022-11-11 4	9.56	5.95	7.69	9.49	4.16	nan
2022-11-12 6	7.94	6.00	7.54	13.49	5.17	nan
2022-11-138	0.00	6.00	7.41	15.00	6.44	nan
2022-11-14 4	7.46	6.44	7.56	10.39	4.16	nan
2022-11-15 4	4.59	8.30	7.74	8.30	4.00	nan
2022-11-16 4	9.46	8.14	7.72	10.73	4.28	nan
2022-11-17 5	9.36	6.00	7.61	15.17	4.53	nan
2022-11-18 <mark>6</mark>	2.81	6.00	7.54	15.47	4.66	nan
2022-11-19 4	7.07	6.23	7.62	12.53	4.13	nan
2022-11-204	3.78	7.11	7.78	10.89	3.95	nan
2022-11-21 4	1.58	7.58	7.60	9.79	4.14	nan
2022-11-22 3	9.56	6.00	7.73	8.78	3.86	nan
2022-11-23 4	2.93	5.75	7.71	9.23	3.71	nan
2022-11-24 5	7.12	5.00	7.58	12.56	3.86	nan
2022-11-25 5	1.29	5.00	7.64	10.77	3.51	nan
2022-11-26 4	2.88	5.88	7.85	10.88	3.20	nan
2022-11-27 4	4.00	7.00	7.78	12.00	3.36	nan
2022-11-28 4	1.68	7.00	7.76	9.68	3.52	nan
2022-11-29 3	9.52	6.76	7.76	7.76	3.57	nan
2022-11-30 3	7.48	5.74	7.80	6.74	3.29	nan
2022-12-01 3	7.44	5.24	7.83	6.72	3.35	nan
2022-12-02 4	1.04	5.76	7.81	8.76	4.07	nan
2022-12-03 4	3.88	5.00	7.81	8.53	3.86	nan
2022-12-04 5	9.72	5.00	7.58	9.98	4.46	nan
2022-12-05 4	4.48	5.00	7.73	9.24	3.49	nan
2022-12-06 5	3.61	5.51	7.67	10.76	4.35	nan
2022-12-077	3.42	6.78	7.57	12.57	5.50	nan
2022-12-08 6	0.00	6.00	7.62	10.50	4.34	nan
2022-12-09 4	0.49	0.49	7.08	9.25	4.00	nan
2022-12-10 3	2.37	0.00 7.80	7.38	11.05	5.09	nan
2022-12-11 2	4 54	588	7.49	13.33	4.20	0.00
2022-12-12 4	1 30	5.00	7.04	0.33	T.20	0.00
2022-12-13 4	1.39	J.19	7.50	7.50	nan	0.00
2022-12-14 4	1.20	nan	7.52	7.50	nan	0.00
2022-12-15 4	1.20	nan	1.52	7.30	liali	0.00

Chickbeggur OD avg BOD avg nH avg TSS avg Ammonical Nitrogen avg Total Nitrog



iv) Chikkabanavara

avg_C	OD avg_BC	D avg_p	H avg_TS	SS avg_Ami	monical Nitrogen avg_Total
Date					
2022-11-01 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-02 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-03 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-04 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-05 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-06 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-07 38.41	7.87	7.19	10.46	0.63	3.80
2022-11-08 38.59	7.79	7.21	10.55	0.67	3.62
2022-11-09 39.63	7.30	7.35	11.04	0.92	2.59
2022-11-10 39.55	7.31	7.32	11.02	0.92	2.60
2022-11-11 39.53	7.31	7.21	11.02	0.90	2.60
2022-11-12 39.49	7.30	7.12	11.01	0.87	2.61
2022-11-13 39.49	7.30	7.11	11.02	0.89	2.60
2022-11-14 39.45	7.30	7.10	11.02	0.90	2.60
2022-11-15 39.40	7.29	7.11	11.01	0.92	2.60
2022-11-16 39.39	7.27	7.13	11.02	0.93	2.60
2022-11-17 39.37	7.28	7.17	11.01	0.93	2.60
2022-11-18 39.41	7.28	7.21	11.07	0.92	2.60
2022-11-19 39.40	7.27	7.17	11.04	0.90	2.65
2022-11-20 39.41	7.29	7.19	11.04	0.90	2.63
2022-11-21 39.44	7.30	7.19	11.08	0.88	2.70
2022-11-22 39.34	7.30	7.19	11.01	0.89	2.67
2022-11-23 39.38	7.32	7.18	11.04	0.91	2.70
2022-11-24 39.36	7.32	7.19	11.04	0.92	2.68
2022-11-25 39.39	7.34	7.19	11.04	0.93	2.62
2022-11-26 39.50	7.38	7.19	11.08	0.93	2.70
2022-11-27 39.58	7.42	7.21	11.11	0.94	2.67
2022-11-28 39.57	7.45	7.20	11.10	0.96	2.63
2022-11-29 40.25	7.50	7.21	11.52	0.95	2.70
2022-11-30 42.25	7.51	7.21	12.93	0.93	2.70
2022-12-01 41.66	7.39	7.21	12.55	0.92	2.71
2022-12-02 41.58	7.41	7.25	12.32	0.93	2.71
2022-12-03 41.92	7.58	7.26	12.40	0.93	2.73
2022-12-04 42.63	7.77	7.28	12.66	0.94	2.76
2022-12-05 42.67	7.70	7.25	12.84	0.93	2.80
2022-12-06 43.10	7.68	7.25	13.19	0.94	2.80
2022-12-07 43.09	7.77	7.25	13.18	0.93	2.80
2022-12-08 43.19	7.81	7.18	13.27	0.91	2.80
2022-12-09 44.91	8.21	7.16	13.90	0.89	2.80
2022-12-10 46.28	8.38	7.15	14.54	0.88	2.80
2022-12-11 46.76	8.47	7.08	14.73	0.91	2.57
2022-12-12 47.35	8.52	7.03	15.15	0.93	2.49
2022-12-13 47.64	8.52	7.04	15.43	0.93	2.63
2022-12-14 45.98	8.45	7.08	14.66	0.92	2.67
2022-12-15 46.13	8.49	/.11	14.85	0.90	2.72

Chikkabanavara g_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen



v) Cubbon Park

a	vg_COD	avg_BOD	avg_pH	avg_TSS	avg_Ammonical Nitrogen	avg_To
Date						
2022-11-01	7.30	1.16	7.14	0.92	3.22	4.66
2022-11-02 1	7.31	1.17	7.16	0.92	3.29	4.67
2022-11-03 1	7.31	1.17	7.11	0.92	3.40	4.67
2022-11-04 1	7.31	1.17	7.10	0.92	3.39	4.67
2022-11-05 1	7.31	1.17	7.07	0.92	3.42	4.67
2022-11-06 1	7.31	1.17	7.07	0.92	3.42	4.67
2022-11-07 l	7.31	1.17	7.07	0.92	3.42	4.67
2022-11-08 1	7.31	1.17	7.07	0.92	3.44	4.67
2022-11-09 1	7.31	1.17	7.09	0.92	3.53	4.67
2022-11-10 1	7.31	1.17	7.07	0.92	3.50	4.67
2022-11-11	7.31	1.16	7.10	0.92	3.44	4.66
2022-11-12 1	7.30	1.16	7.11	0.92	3.45	4.66
2022-11-13 l	7.31	1.17	7.10	0.92	3.45	4.67
2022-11-14 l	7.31	1.17	7.11	0.92	3.51	4.67
2022-11-15 l	7.31	1.17	7.11	0.92	3.53	4.67
2022-11-16 l	7.31	1.17	7.09	0.92	3.51	4.67
2022-11-17 l	7.31	1.17	7.08	0.92	3.51	4.67
2022-11-18 l	7.31	1.17	7.07	0.92	2.33	4.67
2022-11-19 l	7.30	1.17	7.07	0.91	0.66	4.67
2022-11-20 1	7.31	1.17	7.11	0.92	0.63	4.67
2022-11-21 l	7.31	1.17	7.10	0.92	0.61	4.67
2022-11-22 1	7.31	1.18	7.12	0.92	0.60	4.68
2022-11-23 1	7.32	1.18	7.11	0.92	0.58	4.68
2022-11-24 1	7.32	1.18	7.10	0.92	0.53	4.68
2022-11-25 1	7.32	1.18	7.10	0.92	0.46	4.68
2022-11-26 1	7.31	1.18	7.12	0.92	0.37	4.68
2022-11-27 1	7.31	1.18	7.17	0.92	0.29	4.68
2022-11-28 1	7.32	1.18	7.13	0.92	0.23	4.68
2022-11-29 1	7.32	1.18	7.09	0.92	0.21	4.68
2022-11-30 1	7.32	1.18	7.06	0.92	0.18	4.68
2022-12-01 1	7.32	1.18	7.03	0.92	0.16	4.68
2022-12-02 1	7.31	1.17	7.06	0.92	0.14	4.67
2022-12-03 1	7.31	1.17	7.05	0.92	0.12	4.67
2022-12-04 1	7.31	1.17	7.09	0.92	0.11	4.67
2022-12-05 1	7.31	1.17	7.06	0.92	0.11	4.67
2022-12-06 1	7.31	1.17	7.02	0.92	0.12	4.67
2022-12-071	7.31	1.17	7.01	0.92	0.12	4.67
2022-12-08 1	7.31	1.18	6.99	0.92	0.12	4.68
2022-12-09 1	7.31	1.18	0.9/	0.92	0.12	4.68
2022-12-10 1	7.32	1.18	7.00	0.92	0.12	4.08
2022-12-11 1	7.32	1.18	7.02	0.92	0.12	4.08
2022-12-12 1	7.31	1.18	7.05	0.92	0.12	4.08
2022-12-13 1	7.31	1.17	7.00	0.92	0.12	4.67
2022-12-14 1	7.31	1.17	7.04	0.92	0.12	4.67
2022-12-13 1	1.51	1.1/	1.05	0.92	0.12	4 .07



vi) Doddabele 20

avg_	_COD avg_BOI) avg_p	H avg_TS	SS avg_Amn	nonical Nitrogen avg_Tot
Date					
2022-11-01 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-02 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-03 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-04 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-05 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-06 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-07 37.5	0 6.96	7.11	5.13	0.14	2.50
2022-11-08 37.5	6 7.07	7.14	5.09	0.14	2.59
2022-11-09 37.9	4 7.73	7.30	4.89	0.14	3.02
2022-11-10 38.0	1 7.78	7.37	4.98	0.15	2.92
2022-11-11 38.1	1 7.81	7.31	5.13	0.14	2.90
2022-11-12 37.9	5 7.80	7.45	4.88	0.14	2.90
2022-11-13 37.9	3 7.80	7.45	4.86	0.14	2.90
2022-11-14 37.9	3 7.80	7.45	4.86	0.14	2.90
2022-11-15 38.2	0 7.90	7.27	5.17	0.15	2.63
2022-11-16 38.5	4 7.94	7.23	6.28	0.15	2.60
2022-11-17 38.4	9 8.04	7.23	5.84	0.15	2.57
2022-11-18 38.9	3 8.09	7.32	6.92	0.15	2.60
2022-11-19 39.1	4 8.06	7.29	7.63	0.14	2.61
2022-11-20 39.5	3 8.08	7.30	9.25	0.14	2.67
2022-11-21 39.4	5 8.11	7.31	8.82	0.14	2.70
2022-11-22 39.4	5 8.11	7.31	8.82	0.14	2.70
2022-11-23 38.9	5 7.81	7.36	7.50	0.14	2.66
2022-11-24 38.3	0 7.44	7.43	5.82	0.15	2.60
2022-11-25 38.3	0 7.44	7.43	5.82	0.15	2.60
2022-11-26 38.5	3 7.51	7.40	6.34	0.15	2.57
2022-11-27 38.8	6 7.71	7.27	6.87	0.17	2.50
2022-11-28 38.8	6 7.71	7.27	6.87	0.17	2.50
2022-11-29 38.8	8 7.72	7.25	6.85	0.17	2.47
2022-11-30 38.9	0 7.74	7.21	6.74	0.18	2.41
2022-12-01 38.8	0 7.77	7.31	6.52	0.17	2.47
2022-12-02 38.7	8 7.76	7.24	6.37	0.17	2.50
2022-12-03 38.9	5 7.78	7.22	6.71	0.18	2.36
2022-12-04 40.3	1 7.92	7.27	10.17	0.19	2.23
2022-12-05 40.7	3 7.95	7.31	11.30	0.20	2.20
2022-12-06 40.5	6 7.88	7.28	10.96	0.20	2.22
2022-12-07 40.4	7 7.79	7.20	10.88	0.19	2.30
2022-12-08 40.1	0 7.78	7.18	9.82	0.19	2.33
2022-12-09 40.0	4 7.75	7.25	9.78	0.17	2.40
2022-12-10 40.2	4 7.73	7.29	10.41	0.17	2.40
2022-12-11 40.2	4 7.73	7.29	10.41	0.17	2.40
2022-12-12 40.2	4 7.73	7.29	10.41	0.17	2.40
2022-12-13 40.2	4 /./5	7.29	10.41	0.17	2.40
2022-12-14 40.2	+ 1.15 A 7.72	7.29	10.41	0.17	2.40
2022-12-15 40.2	4 /./3	1.29	10.41	0.17	2.40

Doddabele 20 g_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen



vii) Doddabele 40

				Doddab	ele 40	
	avg_COD	avg_BOD) avg_pF	I avg_TS	8 avg_Ammonical Nitroger	avg_Total Nitrogen
Date						
2022-11-01	29.08	5.18	7.23	4.64	1.09	6.15
2022-11-02	32.00	5.00	7.24	5.00	0.80	5.98
2022-11-03	34.38	5.59	7.17	5.59	1.04	6.43
2022-11-04	33.62	6.00	7.10	4.81	0.96	6.24
2022-11-05	27.25	5.64	7.21	4.59	0.56	6.01
2022-11-06	21.55	5.77	7.21	4.39	0.65	5.53
2022-11-07	20.00	6.00	7.16	4.00	0.80	5.19
2022-11-08	22.40	5.88	7.14	4.00	1.04	5.72
2022-11-09	28.81	5.32	7.22	4.60	1.20	6.16
2022-11-10	34.38	5.36	7.30	4.40	0.96	6.34
2022-11-11	31.08	5.35	7.23	4.61	1.05	6.16
2022-11-12	30.40	5.68	7.27	5.60	0.96	5.92
2022-11-13	26.69	6.40	7.27	5.34	0.53	5.55
2022-11-14	26.04	6.40	7.22	5.51	0.60	5.67
2022-11-15	25.65	5.97	7.23	4.83	1.03	6.39
2022-11-16	31.21	5.56	7.33	5.20	1.32	6.88
2022-11-17	31.25	5.76	7.35	4.81	1.04	6.77
2022-11-18	25.57	5.76	7.43	4.61	1.04	6.47
2022-11-19	28.75	5.96	7.37	5.59	1.56	6.56
2022-11-20	34.46	5.95	7.34	5.39	1.19	6.29
2022-11-21	33.62	5.44	7.33	4.41	0.56	6.02
2022-11-22	36.86	5.69	7.24	4.61	0.58	6.95
2022-11-23	30.39	6.48	7.26	3.80	0.52	6.61
2022-11-24	26.35	6.45	7.39	4.17	4.23	6.53
2022-11-25	32.75	6.56	7.41	4.41	3.29	6.50
2022-11-26	28.96	6.33	7.27	5.17	0.57	6.04
2022-11-27	31.38	6.12	7.27	5.39	1.14	6.56
2022-11-28	33.68	6.43	7.27	5.58	1.37	6.77
2022-11-29	27.25	6.24	7.30	5.41	0.73	6.27
2022-11-30	21.60	6.36	7.25	5.60	0.40	5.97
2022-12-01	27.21	6.36	7.29	4.80	0.52	6.02
2022-12-02	29.65	5.85	7.34	4.00	0.72	5.99
2022-12-03	25.65	5.37	7.26	4.59	0.57	5.97
2022-12-04	28.92	5.69	7.26	5.61	1.14	6.50
2022-12-05	29.68	5.88	7.24	4.84	1.37	6.54
2022-12-06	32.71	5.68	7.33	4.00	0.96	6.68
2022-12-07	33.58	5.84	7.21	4.60	0.56	6.41
2022-12-08	27.11	5.63	7.17	3.78	0.40	5.87
2022-12-09	21.68	5.86	7.28	3.58	0.40	5.43
2022-12-10	24.78	6.08	7.35	5.19	0.88	5.54
2022-12-11	25.58	5.64	7.32	4.79	0.96	5.98
2022-12-12	21.67	5.28	7.28	4.58	0.57	5.83
2022-12-13	22.36	5.44	7.18	5.59	0.40	5.27
2022-12-14	24.00	5.36	7.18	4.79	0.40	5.42
2022-12-15	28.78	5.08	7.19	4.60	0.52	5.85



viii) Halasuru

	avg_COD	avg_BOD	avg_pH	avg_TSS	avg_Ammonical Nitrogen	avg_Total Nitrogen
Date						
2022-11-01	nan	nan	nan	nan	nan	nan
2022-11-02	nan	nan	nan	nan	nan	nan
2022-11-03	nan	nan	nan	nan	nan	nan
2022-11-04	nan	nan	nan	nan	nan	nan
2022-11-05	nan	nan	nan	nan	nan	nan
2022-11-06	nan	nan	nan	nan	nan	nan
2022-11-07	nan	nan	nan	nan	nan	nan
2022-11-08	nan	nan	nan	nan	nan	nan
2022-11-09	nan	nan	nan	nan	nan	nan
2022-11-10	nan	nan	nan	nan	nan	nan
2022-11-11	nan	nan	nan	nan	nan	nan
2022-11-12	nan	nan	nan	nan	nan	nan
2022-11-13	nan	nan	nan	nan	nan	nan
2022-11-14	nan	nan	nan	nan	nan	nan
2022-11-15	nan	nan	nan	nan	nan	nan
2022-11-16	nan	nan	nan	nan	nan	nan
2022-11-17	nan	nan	nan	nan	nan	nan
2022-11-18	nan	nan	nan	nan	nan	nan
2022-11-19	nan	nan	nan	nan	nan	nan
2022-11-20	nan	nan	nan	nan	nan	nan
2022-11-21	nan	nan	nan	nan	nan	nan
2022-11-22	nan	nan	nan	nan	nan	nan
2022-11-23	nan	nan	nan	nan	nan	nan
2022-11-24	nan	nan	nan	nan	nan	nan
2022-11-25	nan	nan	nan	nan	nan	nan
2022-11-26	nan	nan	nan	nan	nan	nan
2022-11-27	nan	nan	nan	nan	nan	nan
2022-11-28	nan	nan	nan	nan	nan	nan
2022-11-29	nan	nan	nan	nan	nan	nan
2022-11-30	nan	nan	nan	nan	nan	nan
2022-12-01	nan	nan	nan	nan	nan	nan
2022-12-02	nan	nan	nan	nan	nan	nan
2022-12-03	nan	nan	nan	nan	nan	nan
2022-12-04	nan	nan	nan	nan	nan	nan
2022-12-05	nan	nan	nan	nan	nan	nan
2022-12-06	nan	nan	nan	nan	nan	nan
2022-12-07	nan	nan	nan	nan	nan	nan
2022-12-08	nan	nan	nan	nan	nan	nan
2022-12-09	nan	nan	nan	nan	nan	nan
2022-12-10	nan	nan	nan	nan	nan	nan
2022-12-11	nan	nan	nan	nan	nan	nan
2022-12-12	33.87	2.17	7.37	5.02	1433.33	6450.00
2022-12-13	35.15	2.20	7.30	5.51	1500.00	6750.00
2022-12-14	35.15	2.20	7.32	5.43	1500.00	6750.00
2022-12-15	31.70	2.06	7.22	4.58	823.17	3704.25

Halasuru


ix) Horamavu Agara

Horamavu Agara
avg_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen

Date					
2022-11-01 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-02 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-03 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-04 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-05 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-06 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-07 28.21	5.90	7.23	10.69	0.98	2.20
2022-11-08 28.59	5.93	7.25	12.32	0.96	2.46
2022-11-09 30.69	6.41	7.35	20.70	0.87	4.06
2022-11-10 30.55	6.66	7.31	18.73	0.86	4.24
2022-11-11 30.86	6.75	7.32	20.78	0.82	4.38
2022-11-12 31.42	6.41	7.33	26.02	0.73	5.05
2022-11-13 31.89	6.20	7.29	30.72	0.68	5.38
2022-11-14 32.00	6.34	7.30	30.77	0.67	5.04
2022-11-15 29.73	5.95	7.32	33.41	0.70	6.53
2022-11-16 9.90	1.91	7.33	36.02	0.70	6.92
2022-11-17 0.00	0.00	7.33	35.84	0.71	8.33
2022-11-18 0.00	0.00	7.23	40.97	0.68	8.05
2022-11-19 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-20 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-21 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-22 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-23 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-24 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-25 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-26 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-27 0.00	0.00	7.15	45.57	0.62	7.40
2022-11-28 11.51	2.71	7.25	31.81	0.64	6.24
2022-11-29 28.48	6.91	7.40	9.53	0.64	4.86
2022-11-30 28.63	6.91	7.48	10.04	0.60	4.28
2022-12-01 28.51	6.84	7.34	9.36	0.56	3.95
2022-12-02 28.43	6.79	7.37	8.96	0.58	3.53
2022-12-03 28.71	6.83	7.48	10.68	0.61	3.22
2022-12-04 28.89	6.83	7.47	12.09	0.62	3.04
2022-12-05 28.93	6.85	7.45	12.69	0.61	3.02
2022-12-06 28.96	6.89	7.41	12.87	0.60	2.97
2022-12-07 29.03	6.89	7.38	13.20	0.60	2.99
2022-12-08 29.11	6.67	7.36	13.29	0.58	2.98
2022-12-09 29.45	6.64	7.39	13.60	0.56	3.07
2022-12-10 30.68	7.10	7.40	18.92	0.54	3.21
2022-12-11 24.24	5.30	7.34	27.98	0.53	2.66
2022-12-12 31.86	7.60	7.30	24.05	0.55	2.15
2022-12-13 23.79	5.16	7.29	27.49	0.56	1.99
2022-12-14 0.00	0.00	7.31	36.71	0.56	1.81
2022-12-15 0.00	0.00	7.26	41.53	0.56	2.03



x) Hulimavu

			Hulir	navu	
avg_CO	D avg_BO	DD avg_pl	H avg_TS	S avg_An	nmonical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 27.00	4.28	8.54	7.02	0.82	1.28
2022-11-02 27.15	4.33	8.54	7.56	1.51	1.67
2022-11-03 27.25	4.36	8.49	8.26	2.29	2.08
2022-11-04 27.22	4.34	8.45	8.39	2.35	2.10
2022-11-05 27.22	4.34	8.45	8.39	2.35	2.10
2022-11-06 27.22	4.34	8.45	8.39	2.35	2.10
2022-11-07 27.33	4.36	8.52	7.96	1.90	1.89
2022-11-08 27.36	4.36	8.59	7.62	2.11	2.01
2022-11-09 27.29	4.34	8.58	7.67	2.65	2.28
2022-11-10 27.34	4.36	8.54	7.77	2.67	2.29
2022-11-11 28.00	4.47	7.95	9.04	3.11	2.58
2022-11-12 27.49	4.36	7.94	8.37	2.83	2.45
2022-11-13 27.20	4.31	7.89	7.95	2.36	2.26
2022-11-14 27.02	4.30	7.92	7.46	1.77	2.07
2022-11-15 26.70	4.26	7.95	6.80	1.13	1.99
2022-11-16 26.20	4.18	7.99	6.67	0.86	1.82
2022-11-17 26.17	4.17	7.98	6.65	0.94	1.69
2022-11-18 26.23	4.17	7.97	6.50	1.01	1.68
2022-11-19 26.37	4.20	7.91	6.51	1.17	1.66
2022-11-20 26.60	4.25	7.86	6.60	1.31	1.52
2022-11-21 27.16	4.33	7.95	7.38	1.56	1.70
2022-11-22 27.84	4.44	8.03	8.39	2.09	2.07
2022-11-23 28.07	4.48	8.02	8.70	2.27	2.19
2022-11-24 28.01	4.47	8.00	8.75	2.32	2.21
2022-11-25 27.20	4.34	7.97	7.97	2.20	2.50
2022-11-26 26.44	4.23	7.89	7.00	1.05	2.33
2022-11-27 26.56	4.22	7.89	6.87	0.49	2.17
2022-11-28 26.55	4.22	7.90	6.95	1.04	2.47
2022-11-29 26.48	4.22	7.90	7.08	1.59	2.77
2022-11-30 26.30	4.19	7.91	7.10	1.12	2.89
2022-12-01 26.17	4.16	7.89	7.03	1.05	3.13
2022-12-02 26.59	4.22	7.88	6.94	1.46	2.91
2022-12-03 26.59	4.22	7.88	6.94	1.46	2.91
2022-12-04 26.59	4.22	7.88	6.94	1.46	2.91
2022-12-05 26.59	4.22	7.88	6.94	1.46	2.91
2022-12-06 27.43	4.36	7.74	7.93	1.76	2.65
2022-12-07 28.11	4.47	7.59	8.44	2.37	2.28
2022-12-08 27.79	4.43	7.52	7.91	2.11	2.22
2022-12-09 45.17	7.21	7.37	12.83	2.39	3.17
2022-12-10 55.04	8.81	7.31	15.44	2.34	3.67
2022-12-11 55.04	8.81	7.31	15.44	2.34	3.67
2022-12-12 58.00	9.27	7.33	16.65	2.19	3.53
2022-12-13 54.26	8.66	7.44	16.30	0.91	2.79
2022-12-14 44.49	6.37	7.38	12.52	0.24	2.78
2022-12-15 46.77	5.60	7.38	11.46	1.22	3.01



xi) Jakkur

			Jakk	ur	
avg_COI	D avg_BOD) avg_pl	H avg_TSS	S avg_Ammonical Nitroger	avg_Total Nitrogen
Date					
2022-11-01 287.63	44.82	8.97	0.90	nan	nan
2022-11-02 289.84	40.42	8.97	0.91	nan	nan
2022-11-03 287.92	39.58	8.97	0.90	nan	nan
2022-11-04 282.13	42.33	8.97	0.90	nan	nan
2022-11-05 277.03	45.16	8.97	0.90	nan	nan
2022-11-06 281.74	47.43	8.97	0.90	nan	nan
2022-11-07 282.61	48.94	8.97	0.90	nan	nan
2022-11-08 285.23	48.71	8.97	0.90	nan	nan
2022-11-09 283.80	49.12	8.97	0.90	nan	nan
2022-11-10 284.98	48.40	8.97	0.90	nan	nan
2022-11-11 288.10	46.66	8.97	0.90	nan	nan
2022-11-12 291.35	45.21	8.97	0.91	nan	nan
2022-11-13 287.36	46.90	8.97	0.91	nan	nan
2022-11-14 285.52	47.54	8.97	0.90	nan	nan
2022-11-15 288.75	45.15	8.97	0.90	nan	nan
2022-11-16 275.97	42.09	8.96	0.90	nan	nan
2022-11-17 254.12	37.08	8.97	0.90	nan	nan
2022-11-18 259.79	37.75	8.97	0.91	nan	nan
2022-11-19 262.90	37.98	8.97	0.91	nan	nan
2022-11-20 266.92	38.10	8.97	0.91	nan	nan
2022-11-21 271.74	38.20	8.97	0.91	nan	nan
2022-11-22 272.03	38.27	8.97	0.90	nan	nan
2022-11-23 270.88	38.34	8.97	0.90	nan	nan
2022-11-24 269.64	38.29	8.97	0.90	nan	nan
2022-11-25 269.64	38.23	8.97	0.90	nan	nan
2022-11-26 269.63	37.76	8.97	0.90	nan	nan
2022-11-27 269.68	37.82	8.96	0.90	nan	nan
2022-11-28 269.28	37.72	8.96	0.90	nan	nan
2022-11-29 269.93	37.77	8.96	0.90	nan	nan
2022-11-30 273.10	37.83	8.97	0.91	nan	nan
2022-12-01 276.18	37.90	8.97	0.90	nan	nan
2022-12-02 277.48	38.03	8.97	0.91	nan	nan
2022-12-03 276.54	37.92	8.97	0.90	nan	nan
2022-12-04 276.45	37.78	8.97	0.90	nan	nan
2022-12-05 276.48	37.78	8.97	0.90	nan	nan
2022-12-06 276.48	37.78	8.97	0.90	nan	nan
2022-12-07 276.48	37.78	8.97	0.90	nan	nan
2022-12-08 276.48	37.78	8.97	0.90	nan	nan
2022-12-09 276.48	37.78	8.97	0.90	nan	nan
2022-12-10 276.48	37.78	8.97	0.90	nan	nan
2022-12-11 276.48	37.78	8.97	0.90	nan	nan
2022-12-12 276.48	37.78	8.97	0.90	nan	nan
2022-12-13 276.48	37.78	8.97	0.90	nan	nan
2022-12-14 276.48	37.78	8.97	0.90	nan	nan
2022-12-15 276.48	37.78	8.97	0.90	nan	nan



xii) K.R.Puram

				K.R.Pı	ıram	
	avg_COD	avg_BOI) avg_pF	I avg_TSS	S avg_Ammonical Nitroger	avg_Total Nitrogen
Date						
2022-11-01	40.00	6.19	7.58	6.69	2.67	3.73
2022-11-02	40.00	6.19	7.58	6.69	2.67	3.73
2022-11-03	40.65	6.27	7.71	6.68	2.26	2.81
2022-11-04	41.32	6.34	7.60	6.75	2.24	2.35
2022-11-05	41.17	6.31	7.58	6.74	2.29	2.37
2022-11-06	41.18	6.31	7.59	6.73	2.19	2.23
2022-11-07	41.22	6.33	7.61	6.69	2.40	2.31
2022-11-08	40.84	6.28	7.41	6.71	3.54	3.76
2022-11-09	40.92	6.28	7.32	6.71	3.36	3.65
2022-11-10	40.92	6.28	7.32	6.71	3.36	3.65
2022-11-11	40.78	6.27	7.45	6.70	2.14	2.88
2022-11-12	41.00	6.31	8.01	6.55	0.24	0.56
2022-11-13	41.65	6.41	8.58	6.30	0.39	-1.03
2022-11-14	41.24	6.35	8.31	6.42	0.30	-0.25
2022-11-15	40.26	6.22	7.67	6.68	0.11	1.55
2022-11-16	40.84	6.30	7.90	6.56	0.10	0.44
2022-11-17	41.03	6.34	8.01	6.42	0.01	-0.47
2022-11-18	40.33	6.22	7.62	6.36	0.01	-0.78
2022-11-19	40.51	6.23	7.32	6.49	0.74	0.44
2022-11-20	41.97	6.45	6.39	6.82	3.36	4.14
2022-11-21	42.02	6.45	6.29	6.83	3.57	4.35
2022-11-22	42.09	6.46	6.90	6.83	3.68	4.32
2022-11-23	42.14	6.47	6.86	6.83	3.01	3.80
2022-11-24	42.17	6.47	7.19	6.69	2.91	3.67
2022-11-25	42.09	6.46	6.72	6.76	3.31	3.99
2022-11-26	42.13	6.47	7.47	6.83	3.09	3.87
2022-11-27	42.13	6.47	8.31	6.83	3.27	3.92
2022-11-28	42.00	6.46	8.36	6.83	3.04	3.78
2022-11-29	42.15	6.47	8.37	6.83	3.16	3.77
2022-11-30	42.08	6.47	8.33	6.83	3.54	4.16
2022-12-01	42.11	6.47	8.33	6.83	3.05	3.75
2022-12-02	42.08	6.47	8.28	6.83	4.20	4.57
2022-12-03	41.99	6.45	8.29	6.83	3.38	4.07
2022-12-04	41.98	6.46	8.29	6.83	2.96	3.81
2022-12-05	39.67	6.49	8.29	6.74	3.48	3.96
2022-12-06	34.77	6.50	8.30	6.72	3.50	3.85
2022-12-07	40.67	6.48	8.31	6.76	3.20	2.57
2022-12-08	41.87	6.44	8.56	6.84	2.66	3.46
2022-12-09	41.86	6.43	9.66	6.82	3.27	4.07
2022-12-10	41.91	6.44	9.67	6.82	4.41	4.89
2022-12-11	41.96	6.44	9.68	6.81	4.41	4.90
2022-12-12	41.96	6.44	9.68	6.81	4.41	4.90
2022-12-13	41.95	6.44	9.72	6.82	3.88	4.52
2022-12-14	41.95	6.44	9.79	6.82	2.29	3.38
2022-12-15	41.03	6.29	9.80	6.82	2.56	3.58



xiii) K&C Valley 30

avg_CO	D avg_BOI	D avg_pl	H avg_TS	SS avg_Ammo	nical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 25.05	4.53	7.75	4.11	nan	nan
2022-11-02 25.05	4.53	7.75	4.11	nan	nan
2022-11-03 25.05	4.53	7.75	4.11	nan	nan
2022-11-04 25.05	4.53	7.75	4.11	nan	nan
2022-11-05 25.05	4.53	7.75	4.11	nan	nan
2022-11-06 25.05	4.53	7.75	4.11	nan	nan
2022-11-07 25.05	4.53	7.75	4.11	nan	nan
2022-11-08 25.05	4.53	7.75	4.11	nan	nan
2022-11-09 25.05	4.53	7.75	4.11	nan	nan
2022-11-10 25.05	4.53	7.75	4.11	nan	nan
2022-11-11 25.05	4.53	7.75	4.11	nan	nan
2022-11-12 25.05	4.53	7.75	4.11	nan	nan
2022-11-13 25.05	4.53	7.75	4.11	nan	nan
2022-11-14 25.05	4.53	7.75	4.11	nan	nan
2022-11-15 25.05	4.53	7.75	4.11	nan	nan
2022-11-16 25.05	4.53	7.75	4.11	nan	nan
2022-11-17 25.05	4.53	7.75	4.11	nan	nan
2022-11-18 25.05	4.53	7.75	4.11	nan	nan
2022-11-19 25.05	4.53	7.75	4.11	nan	nan
2022-11-20 25.05	4.53	7.75	4.11	nan	nan
2022-11-21 25.05	4.53	7.75	4.11	nan	nan
2022-11-22 25.05	4.53	7.75	4.11	nan	nan
2022-11-23 25.05	4.53	7.75	4.11	nan	nan
2022-11-24 25.05	4.53	7.75	4.11	nan	nan
2022-11-25 25.05	4.53	7.75	4.11	nan	nan
2022-11-26 25.05	4.53	7.75	4.11	nan	nan
2022-11-27 25.05	4.53	7.75	4.11	nan	nan
2022-11-28 25.05	4.53	7.75	4.11	nan	nan
2022-11-29 25.05	4.53	7.75	4.11	nan	nan
2022-11-30 25.05	4.53	7.75	4.11	nan	nan
2022-12-01 25.05	4.53	7.75	4.11	nan	nan
2022-12-02 25.05	4.53	7.75	4.11	nan	nan
2022-12-03 25.05	4.53	7.75	4.11	nan	nan
2022-12-04 25.05	4.53	7.75	4.11	nan	nan
2022-12-05 25.05	4.53	7.75	4.11	nan	nan
2022-12-06 25.05	4.53	7.75	4.11	nan	nan
2022-12-07 25.05	4.53	7.75	4.11	nan	nan
2022-12-08 25.05	4.53	7.75	4.11	nan	nan
2022-12-09 25.05	4.53	7.75	4.11	nan	nan
2022-12-10 25.05	4.53	7.75	4.11	nan	nan
2022-12-11 25.05	4.53	7.75	4.11	nan	nan
2022-12-12 25.05	4.53	7.75	4.11	nan	nan
2022-12-13 nan	nan	nan	nan	nan	nan
2022-12-14 nan	nan	nan	nan	nan	nan
2022-12-15 nan	nan	nan	nan	nan	nan

K&C Valley 30 avg COD avg BOD avg pH avg TSS avg Ammonical Nitrogen avg Total Nitrogen



xiv) K&C Valley 60

avg_C	COD avg_BC	D avg_p	H avg_TS	S avg_Am	monical Nitrogen avg_Total
Date					
2022-11-01 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-02 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-03 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-04 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-05 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-06 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-07 23.38	4.11	7.30	11.13	1.66	4.10
2022-11-08 26.51	3.50	7.30	11.86	1.70	4.14
2022-11-09 47.59	0.00	7.27	17.70	1.90	4.46
2022-11-10 47.18	0.00	7.33	16.77	1.88	4.62
2022-11-11 46.13	0.00	7.32	15.80	1.91	4.58
2022-11-12 47.47	0.00	7.28	16.85	2.06	4.44
2022-11-13 50.19	0.00	7.23	17.53	2.26	4.27
2022-11-14 49.78	0.00	7.25	17.35	2.46	4.18
2022-11-15 49.58	0.00	7.36	17.34	2.12	4.64
2022-11-16 50.21	0.00	7.35	17.61	2.18	4.47
2022-11-17 50.47	0.00	7.41	17.71	1.83	4.70
2022-11-18 50.85	0.00	7.47	17.93	1.55	4.79
2022-11-19 38.31	1.96	7.49	13.12	1.60	4.57
2022-11-20 21.71	4.60	7.49	6.98	1.58	4.35
2022-11-21 21.74	4.57	7.48	7.02	1.57	4.38
2022-11-22 21.52	4.55	7.59	6.91	1.55	4.38
2022-11-23 21.81	4.50	7.61	7.07	1.58	4.37
2022-11-24 22.18	4.41	7.59	7.27	1.68	4.31
2022-11-25 22.22	4.32	7.55	7.26	1.75	4.26
2022-11-26 21.77	4.28	7.55	7.00	1.76	4.22
2022-11-27 24.33	4.06	7.51	8.39	1.80	4.19
2022-11-28 22.79	4.03	7.45	7.56	1.81	4.14
2022-11-29 27.55	3.67	7.47	10.16	1.82	4.12
2022-11-30 27.06	3.66	7.49	9.92	1.84	4.11
2022-12-01 27.61	3.54	7.49	10.18	1.78	4.16
2022-12-02 23.13	3.71	7.47	7.68	1.77	4.20
2022-12-03 23.64	3.62	7.44	7.97	1.81	4.13
2022-12-04 25.41	3.46	7.41	8.95	1.81	4.06
2022-12-05 27.48	3.22	7.40	10.12	1.75	4.02
2022-12-06 27.96	3.09	7.39	10.23	1.81	3.97
2022-12-07 25.42	3.11	7.40	8.77	1.79	4.01
2022-12-08 25.09	3.09	7.41	8.56	1.77	4.07
2022-12-09 25.36	2.97	7.41	8.67	1.71	4.15
2022-12-10 25.97	2.91	7.42	8.95	1.70	4.19
2022-12-11 25.86	2.86	7.43	8.66	1.74	4.14
2022-12-12 25.13	2.74	7.41	8.31	1.80	4.10
2022-12-13 24.74	2.70	7.41	8.01	1.85	4.10
2022-12-14 25.00	2.75	7.54	8.07	1.93	4.12
2022-12-15 25.38	2.74	7.40	8.20	2.06	4.07



xv) Kadabeesanahalli

			Kadabee	sanahalli	
avg_0	COD avg_BO	D avg_p	H avg_TS	SS avg_Amn	ionical Nitrogen avg_Total I
Date					
2022-11-01 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-02 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-03 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-04 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-05 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-06 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-07 55.94	9.50	8.07	17.38	0.85	4.25
2022-11-08 57.77	9.57	8.06	18.27	0.81	4.03
2022-11-09 65.50	10.03	7.67	22.10	0.47	2.33
2022-11-10 86.12	8.98	7.78	35.58	0.46	2.32
2022-11-11 87.71	8.59	7.87	39.53	0.48	2.40
2022-11-12 80.28	9.07	7.48	32.60	0.39	1.96
2022-11-13 48.16	9.30	7.33	15.67	1.73	8.65
2022-11-14 46.08	9.65	7.35	13.40	0.56	1.24
2022-11-15 45.14	10.10	7.47	11.23	0.13	0.65
2022-11-16 45.18	10.15	7.40	11.20	0.23	1.14
2022-11-17 45.36	10.19	7.41	11.22	0.28	1.39
2022-11-18 45.52	10.22	7.51	11.25	0.32	1.62
2022-11-19 46.80	10.19	7.71	12.10	0.34	1.69
2022-11-20 45.88	10.23	7.89	11.35	0.36	1.78
2022-11-21 53.85	10.57	7.67	15.95	0.54	2.02
2022-11-22 45.00	10.41	7.96	10.71	0.31	1.56
2022-11-23 61.65	10.79	8.03	18.75	0.32	1.61
2022-11-24 51.86	10.69	8.06	13.64	0.32	1.62
2022-11-25 49.21	10.66	8.09	12.33	0.33	1.65
2022-11-26 49.51	10.67	8.10	12.44	0.34	1.72
2022-11-27 49.98	10.72	8.11	12.57	0.35	1.77
2022-11-28 49.36	10.76	8.11	11.99	0.36	1.81
2022-11-29 50.43	10.84	8.12	12.23	0.37	1.84
2022-11-30 51.55	10.90	8.13	12.75	0.37	1.84
2022-12-01 53.79	10.95	8.16	13.87	0.37	1.83
2022-12-02 53.15	10.86	8.15	13.51	0.37	1.86
2022-12-03 54.43	10.70	8.15	13.86	0.38	1.90
2022-12-04 56.03	10.61	8.13	14.60	0.41	2.03
2022-12-05 56.35	10.79	8.11	14.68	0.43	2.15
2022-12-06 57.17	10.89	8.11	14.86	0.43	2.16
2022-12-07 55.90	10.80	8.14	14.47	0.41	2.07
2022-12-08 55.49	10.78	8.16	14.48	0.41	2.06
2022-12-09 54.98	10.80	8.16	14.19	0.41	2.05
2022-12-10 54.98	10.80	8.16	14.19	0.41	2.05
2022-12-11 54.98	10.80	8.16	14.19	0.41	2.05
2022-12-12 54.98	10.80	8.16	14.19	0.41	2.05
2022-12-13 54.98	10.80	8.16	14.19	0.41	2.05
2022-12-14 46.65	10.20	8.09	11.56	0.59	2.90
2022-12-15 40.05	9.71	8.08	9.51	0.80	3.90

Nitrogen



xvi) Kadugodi

			Kadu	igodi	
avg_CO	D avg_BO	D avg_p	H avg_TS	S avg_An	nmonical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-02 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-03 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-04 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-05 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-06 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-07 31.61	6.11	7.64	11.38	0.80	2.46
2022-11-08 26.89	5.20	7.64	9.68	0.79	2.41
2022-11-09 3.13	0.00	7.68	0.00	0.72	2.08
2022-11-10 3.04	0.00	7.73	0.00	0.77	2.07
2022-11-11 0.00	0.00	7.72	0.00	0.73	2.01
2022-11-12 0.00	0.00	7.72	0.00	0.70	1.97
2022-11-13 0.00	0.00	7.69	0.00	0.70	1.95
2022-11-14 0.00	0.00	7.67	0.00	0.70	1.93
2022-11-15 0.00	0.00	7.70	0.00	0.77	1.93
2022-11-16 0.00	0.00	7.70	0.00	0.80	1.98
2022-11-17 0.00	0.00	7.69	0.00	0.71	2.08
2022-11-18 0.00	0.00	7.68	0.00	0.70	2.04
2022-11-19 21.40	0.56	7.74	5.43	0.79	1.94
2022-11-20 53.87	0.11	7.74	14.07	0.83	2.03
2022-11-21 74 25	0.00	7.75	15.05	0.88	2.21
2022-11-22 82.75	0.00	7.70	14.95	0.80	2.37
2022-11-23 83 79	0.00	7.69	14 78	0.82	2 34
2022-11-24 77 29	0.00	7.68	13 47	1.13	2.43
2022-11-25 75 48	0.00	7.64	12.80	1.28	2 44
2022-11-26 75.10	0.00	7.67	12.50	1.20	2.46
2022-11-27 75 70	0.00	7.67	12.57	1.29	2.52
2022-11-28 77 41	0.00	7.65	12.66	1.26	2.52
2022-11-20 77.11	0.00	7.05	12.60	1.18	2.54
2022-11-20 70.39	0.00	7 70	12.09	1.10	2.58
2022-11-30 79.24	0.00	7 74	12.85	1.20	2.58
2022-12-01 79.20	0.00	7.80	13.04	1.22	2.55
2022-12-02 79.17	0.00	7.80	13.04	1.27	2.50
2022-12-03 79.80	0.00	7.07	13.62	1.31	2.50
2022-12-04 85.25	0.00	7.92	14.21	1.34	2.54
2022-12-05 87.48	0.00	7.90	14.21	1.30	2.52
2022-12-00 94.14	0.00	7.76	15.23	1.30	2.61
2022-12-07 90.84	0.00	7.70	15.25	1.20	2.08
2022-12-08 99.53	0.00	7.03	15.45	1.20	2.57
2022-12-09 99.55	0.00	7.94	17.24	1.50	2.59
2022-12-10 109.98	0.00	1.91	17.54	1.42	2.51
2022-12-11 130.95	0.00	7.88	22.47	1.58	2.52
2022-12-12 208.04	0.00	7.78	51.49	1.27	2.54
2022-12-13 203.05	0.00	7.71	51.48	1.19	2.04
2022-12-14 183.24	0.00	7.74	65.90	1.23	2.58
2022-12-15 16.59	-3.13	7.84	55.28	1.30	2.69



xvii) Kempambudhi

			Kempa	mbudhi	
avg_CO	D avg_BO	DD avg_p	H avg_T	SS avg_Amm	onical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-02 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-03 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-04 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-05 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-06 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-07 37.17	4.25	7.27	7.70	0.48	4.85
2022-11-08 34.88	4.24	7.25	7.30	0.50	4.42
2022-11-09 22.13	4.19	7.11	5.07	0.63	1.95
2022-11-10 22.38	4.18	7.11	5.14	0.63	1.95
2022-11-11 22.30	4.18	7.11	5.11	0.63	1.95
2022-11-12 22.44	4.18	7.11	5.14	0.63	1.94
2022-11-13 22.33	4.14	7.11	5.11	0.62	1.92
2022-11-14 22.37	4.10	7.11	5.10	0.62	1.91
2022-11-15 22.26	4.09	7.11	5.05	0.61	1.90
2022-11-16 22.15	4.06	7.11	5.01	0.61	1.89
2022-11-17 22.72	4.03	7.11	5.12	0.61	1.87
2022-11-18 22.57	4.04	7.11	5.08	0.61	1.88
2022-11-19 22.38	4.05	7.11	5.07	0.61	1.88
2022-11-20 22.23	4.05	7.11	5.04	0.61	1.88
2022-11-21 22.34	4.05	7.11	5.05	0.61	1.88
2022-11-22 29.61	4.20	7.10	6.34	0.63	1.94
2022-11-23 23.18	4.07	7.11	5.22	0.61	1.90
2022-11-24 22.31	4.08	7.11	5.05	0.61	1.90
2022-11-25 25.12	4.11	7.11	5.53	0.62	1.91
2022-11-26 23.34	4.10	7.11	5.25	0.61	1.90
2022-11-27 22.25	4.12	7.11	5.07	0.62	1.92
2022-11-28 22.35	4.11	7.11	5.10	0.62	1.91
2022-11-29 23.82	4.12	7.11	5.36	0.62	1.91
2022-11-30 24.77	4.09	7.11	5.50	0.62	1.91
2022-12-01 22.38	4.13	7.11	5.06	0.62	1.91
2022-12-02 23.32	4.10	7.11	5.25	0.62	1.93
2022-12-03 24.04	4.20	7.11	5.50	0.63	1.97
2022-12-04 23.83	4.21	7.11	5.51	0.63	1.96
2022-12-05 23.33	4.24	7.12	5.33	0.64	1.98
2022-12-06 23.89	4.30	7.12	5.43	0.64	2.00
2022-12-07 22.35	4.29	7.12	5.15	0.64	1.99
2022-12-08 22.56	4.29	7.12	5.22	0.64	1.99
2022-12-09 22.44	4.24	7.11	5.18	0.64	1.98
2022-12-10 22.50	4.21	7.11	5.18	0.63	1.96
2022-12-11 21.39	4.17	7.13	5.17	0.63	1.94
2022-12-12 25.69	4.16	7.11	5.76	0.63	1.94
2022-12-13 35.76	3.40	7.07	8.08	0.51	1.59
2022-12-14 38.52	3.35	7.07	8.94	0.50	1.55
2022-12-15 38.60	3.43	7.08	8.98	0.51	1.58



xviii) Lalbagh

			Lai	bagn	
avg_	COD avg_BO	DD avg_pl	H avg_T	SS avg_Am	monical Nitrogen avg_Total N
Date					
2022-11-01 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-02 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-03 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-04 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-05 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-06 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-07 17.60	0 0.93	8.31	1.02	1.20	6.00
2022-11-08 17.55	5 1.00	8.10	1.03	1.12	5.59
2022-11-09 17.32	2 1.41	7.03	1.07	0.55	2.74
2022-11-10 17.3	1 1.39	7.16	1.04	0.54	2.71
2022-11-11 17.45	5 1.46	6.70	1.11	0.44	2.21
2022-11-12 17.63	3 1.64	6.35	1.39	0.46	2.31
2022-11-13 17.57	7 1.64	6.38	1.44	0.46	2.35
2022-11-14 17.49	9 1.57	6.37	1.34	0.47	2.42
2022-11-15 17.20	0 1.35	6.45	1.01	0.56	2.83
2022-11-16 17.08	8 1.31	6.58	1.00	0.63	3.15
2022-11-17 17.03	3 1.29	6.65	0.99	0.61	3.09
2022-11-18 17.09	9 1.32	6.60	1.00	0.55	2.76
2022-11-19 17.03	3 1.29	6.72	1.00	0.55	2.76
2022-11-20 17.08	8 1.33	6.70	1.03	0.64	3.18
2022-11-21 17.3	1 1.48	6.70	1.22	0.74	3.69
2022-11-22 17.77	7 1.75	6.73	1.56	0.62	3.11
2022-11-23 17.71	1 1.72	6.73	1.52	0.66	3.30
2022-11-24 17.69	9 1.69	6.78	1.50	0.66	3.30
2022-11-25 17.85	5 1.71	6.53	1.43	0.64	3.19
2022-11-26 17.43	3 1.38	6.36	0.93	0.62	3.08
2022-11-27 17.32	2 1.34	6.34	0.92	0.62	3.10
2022-11-28 17.10	0 1.27	6.30	0.90	0.61	3.05
2022-11-29 17.05	5 1.26	6.27	0.90	0.63	3.15
2022-11-30 17.04	4 1.28	6.22	0.93	0.65	3.26
2022-12-01 17.20	6 1.44	6.25	1.13	0.68	3.42
2022-12-02 17.50	6 1.58	6.26	1.23	0.70	3.48
2022-12-03 17.32	2 1.48	6.27	1.20	0.76	3.80
2022-12-04 17.20	6 1.47	6.29	1.22	0.88	4.40
2022-12-05 17.27	7 1.47	6.33	1.22	0.92	4.61
2022-12-06 17.31	1 1.50	6.35	1.25	0.85	4.27
2022-12-07 17.29	9 1.48	6.44	1.23	0.84	4.19
2022-12-08 17.28	8 1.48	6.61	1.23	0.82	4.09
2022-12-09 17.29	9 1.48	6.74	1.24	0.73	3.68
2022-12-10 17.28	8 1.48	6.84	1.24	0.75	3.74
2022-12-11 17.29	9 1.48	6.91	1.24	0.70	3.52
2022-12-12 17.30	0 1.50	6.96	1.26	0.68	3.42
2022-12-13 17.29	9 1.49	6.32	1.25	0.66	3.30
2022-12-14 17.44	4 1.51	6.23	1.21	0.62	3.11
2022-12-15 17.35	5 1.46	6.22	1.17	0.62	3.12



xix) Mailasandra Ph-I

Mailasandra Ph-I
avg_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen

Date	0_	0_1	0_	0_	0	0_
2022-11-01 39 96	8 97	7 90	6.06	1.18		2.26
2022-11-02 39 96	8.97	7.90	6.06	1.18		2.26
2022-11-03-39-96	8 97	7.90	6.06	1.18		2.20
2022-11-04 39 96	8.97	7.90	6.06	1.18		2.26
2022-11-05 39 96	8.97	7.90	6.06	1.18		2.26
2022-11-06 39 96	8 97	7.90	6.06	1.18		2.26
2022-11-07 39 96	8.97	7.90	6.06	1.18		2.26
2022-11-08 40 38	8 78	7.83	7.00	1.17		2.12
2022-11-09 43.53	7.82	7.43	12.29	1.10		1.16
2022-11-10 44.18	7.91	7.42	12.13	1.14		1.44
2022-11-11 44.77	8.02	7.41	11.93	1.14		1.14
2022-11-12 47.30	8.75	7.41	12.10	1.12		1.18
2022-11-13 44.03	7.87	7.41	11.88	1.12		0.94
2022-11-14 44.08	7.88	7.40	11.79	1.17		0.97
2022-11-15 44.51	7.99	7.40	11.71	1.18		0.93
2022-11-16 44.57	7.99	7.42	11.63	1.15		1.00
2022-11-17 46.15	8.43	7.42	11.30	1.13		1.09
2022-11-18 46.43	8.53	7.42	11.04	1.15		1.21
2022-11-19 46.16	8.43	7.42	11.12	1.15		1.21
2022-11-20 46.05	8.39	7.44	11.24	1.07		1.17
2022-11-21 47.37	8.81	7.44	10.56	1.10		1.21
2022-11-22 52.49	10.22	7.40	8.77	1.15		1.19
2022-11-23 49.30	9.27	7.42	10.41	1.83		2.53
2022-11-24 41.44	7.20	7.51	14.70	3.25		5.03
2022-11-25 41.26	7.19	7.50	14.63	3.25		4.79
2022-11-26 41.22	7.19	7.47	14.63	3.26		4.48
2022-11-27 42.08	7.39	7.45	14.57	3.27		4.36
2022-11-28 43.24	7.68	7.42	14.49	3.33		3.87
2022-11-29 43.13	7.69	7.41	14.27	3.36		3.53
2022-11-30 44.32	8.04	7.41	14.20	3.40		2.72
2022-12-01 45.71	8.42	7.40	14.45	3.32		1.92
2022-12-02 47.90	8.99	7.41	15.19	3.37		1.80
2022-12-03 47.74	8.85	7.40	14.78	3.49		1.50
2022-12-04 46.50	8.61	7.40	14.75	3.48		1.16
2022-12-05 45.44	8.42	7.40	14.83	3.51		1.62
2022-12-06 44.26	8.08	7.40	14.79	3.51		3.50
2022-12-07 41.06	7.14	7.42	14.65	3.37		5.07
2022-12-08 41.35	7.20	7.40	14.58	3.39		4.83
2022-12-09 41.60	7.26	7.40	14.54	3.33		3.78
2022-12-10 42.22	7.38	7.41	14.37	3.44		4.48
2022-12-11 43.63	7.66	7.40	14.15	3.46		3.69
2022-12-12 43.22	7.60	7.37	14.20	3.46		3.34
2022-12-13 42.99	7.58	7.34	14.26	3.41		2.28
2022-12-14 43.03	7.61	7.34	14.34	3.43		2.37
2022-12-15 43.74	7.79	7.34	14.32	3.55		1.50



xx) Mallathahalli

				Mallath	ahalli	
	avg_COD) avg_BOI) avg_pF	I avg_TSS	8 avg_Ammonical Nitrogen	avg_Total Nitrogen
Date						
2022-11-01	18.00	3.60	7.38	4.00	nan	nan
2022-11-02	2 18.00	3.60	7.37	4.00	nan	nan
2022-11-03	8 18.00	3.60	7.36	4.00	nan	nan
2022-11-04	18.00	3.60	7.38	4.00	nan	nan
2022-11-05	518.00	3.60	7.36	4.00	nan	nan
2022-11-06	518.00	3.60	7.37	4.00	nan	nan
2022-11-07	718.00	3.60	7.44	4.00	nan	nan
2022-11-08	8 18.00	3.60	7.27	4.00	nan	nan
2022-11-09	18.00	3.60	7.46	4.00	nan	nan
2022-11-10	18.00	3.60	7.44	4.00	nan	nan
2022-11-11	18.00	3.60	7.38	4.00	nan	nan
2022-11-12	2 18.00	3.60	7.36	4.00	nan	nan
2022-11-13	8 18.00	3.60	7.39	4.00	nan	nan
2022-11-14	18.00	3.60	7.40	4.00	nan	nan
2022-11-15	518.00	3.60	7.37	4.00	nan	nan
2022-11-16	518.00	3.60	7.42	4.00	nan	nan
2022-11-17	18.00	3.60	7.38	4.00	nan	nan
2022-11-18	8 18.00	3.60	7.34	4.00	nan	nan
2022-11-19	18.00	3.60	7.42	4.00	nan	nan
2022-11-20	18.00	3.60	7.34	4.00	nan	nan
2022-11-21	18.00	3.60	7.35	4.00	nan	nan
2022-11-22	2 18.00	3.60	7.34	4.00	nan	nan
2022-11-23	8 18.00	3.60	7.33	4.00	nan	nan
2022-11-24	18.00	3.60	7.35	4.00	nan	nan
2022-11-25	518.00	3.60	7.27	4.00	nan	nan
2022-11-26	518.00	3.60	7.44	4.00	nan	nan
2022-11-27	718.00	3.60	7.49	4.00	nan	nan
2022-11-28	8 18.00	3.60	7.42	4.00	nan	nan
2022-11-29	18.00	3.60	7.43	4.00	nan	nan
2022-11-30	18.00	3.60	7.47	4.00	nan	nan
2022-12-01	18.00	3.60	7.41	4.00	nan	nan
2022-12-02	2 18.00	3.60	7.43	4.00	nan	nan
2022-12-03	8 18.00	3.60	7.43	4.00	nan	nan
2022-12-04	18.00	3.60	7.43	4.00	nan	nan
2022-12-05	518.00	3.60	7.51	4.00	nan	nan
2022-12-06	518.00	3.60	7.31	4.00	nan	nan
2022-12-07	18.00	3.60	7.48	4.00	nan	nan
2022-12-08	8 18.00	3.60	7.44	4.00	nan	nan
2022-12-09	18.00	3.60	7.43	4.00	nan	nan
2022-12-10	18.00	3.60	7.39	4.00	nan	nan
2022-12-11	18.00	3.60	7.48	4.00	nan	nan
2022-12-12	2 18.00	3.60	7.44	4.00	nan	nan
2022-12-13	8 18.00	3.60	7.42	4.00	nan	nan
2022-12-14	18.00	3.60	7.49	4.00	nan	nan
2022-12-15	518.00	3.60	7.46	4.00	nan	nan



xxi) Nagasandra(n)

			Nagasa	ndra(n)	
avg_CO	D avg_BO	D avg_p	H avg_TS	S avg_Amm	onical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-02 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-03 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-04 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-05 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-06 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-07 40.86	5.45	6.81	6.35	0.37	2.00
2022-11-08 47.78	5.30	6.84	10.70	0.42	2.35
2022-11-09 83.46	4.34	7.02	32.71	0.67	4.37
2022-11-10 67.34	4.00	7.03	24.50	0.64	4.35
2022-11-11 40.23	3.50	7.06	9.10	0.62	4.33
2022-11-12 40.86	3.61	7.05	9.22	0.64	4.31
2022-11-13 42.63	3.74	7.03	9.93	0.70	4.09
2022-11-14 44.04	3.77	7.04	10.59	0.70	4.05
2022-11-15 47.64	3.85	7.05	12.52	0.76	3.79
2022-11-16 48.74	3.87	7.07	12.82	0.74	3.77
2022-11-17 49.29	3.89	7.08	13.06	0.73	3.72
2022 11-17 49.29	3.94	7.07	14 75	0.69	3.85
2022-11-10 52.25	4.05	7.06	16.50	0.71	3.71
2022-11-19 55.41	4.11	7.00	18.23	0.72	3.60
2022-11-20 58.40	4.17	7.08	10.25	0.72	3.56
2022-11-21 02.13	4.17	7.08	25.82	0.70	3.45
2022-11-22 75.55	4.20	7.00	25.02	0.75	3.45
2022-11-23 54.18	4.14	7.07	22.80	0.75	3.02
2022-11-24 09.10	4.15	7.05	22.00	0.74	2.07
2022-11-25 09.20	4.15	7.05	25.07	0.08	2.97
2022-11-20 75.54	4.29	7.00	20.29	0.65	3.10
2022-11-27 74.30	4.30	7.05	23.72	0.00	3.09
2022-11-28 /8.30	4.50	7.00	27.98	0.68	2.18
2022-11-29 82.27	4.10	7.07	30.51	0.67	3.18
2022-11-30 85.51	4.00	7.05	32.33	0.65	3.32
2022-12-01 95.34	4.14	7.01	37.83	0.68	3.39
2022-12-02 105.65	4.41	7.05	42.21	0.69	3.37
2022-12-03 60.90	3.84	7.06	20.03	0.73	3.46
2022-12-04 42.49	3.60	7.06	10.82	0.79	3.60
2022-12-05 42.06	3.64	7.04	10.40	0.82	3.63
2022-12-06 42.98	3.69	7.05	10.87	0.85	3.65
2022-12-07 47.86	3.78	7.06	13.54	0.85	3.70
2022-12-08 54.82	4.05	7.07	16.76	0.84	3.84
2022-12-09 45.68	3.93	7.09	11.47	0.80	3.97
2022-12-10 48.41	3.95	7.12	13.14	0.69	4.05
2022-12-11 102.69	3.68	7.19	42.97	0.63	4.05
2022-12-12 128.35	3.07	7.23	63.04	0.63	4.01
2022-12-13 117.11	3.49	7.15	54.53	0.65	3.78
2022-12-14 <mark>96.48</mark>	4.56	6.94	38.14	0.76	3.21
2022-12-15 106.77	4.99	6.97	41.11	0.80	2.93



xxii) Nagasandra(o)

			Nagasa	ndra(o)	
avg_CO	D avg_BO	D avg_p	H avg_TS	S avg_Ammonic	al Nitrogen avg_Total Nitrogen
Date					
2022-11-01 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-02 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-03 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-04 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-05 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-06 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-07 49.51	7.87	6.93	10.95	1.02	1.53
2022-11-08 50.25	7.90	6.94	14.42	1.89	2.83
2022-11-09 54.45	8.07	6.98	34.20	6.85	10.27
2022-11-10 52.36	7.97	7.05	25.02	5.39	8.09
2022-11-11 48.68	7.74	7.19	9.03	1.87	2.80
2022-11-12 49.93	7.51	7.15	14.83	1.63	2.44
2022-11-13 53.28	7.15	7.04	29.20	1.38	2.07
2022-11-14 19.73	2.31	7.00	26.97	1.00	1.49
2022-11-15 30.27	3.78	6.97	27.69	0.85	1.27
2022-11-16 53.85	7.31	7.00	33.32	0.82	1.23
2022-11-17 51.33	6.67	7.18	33.98	0.60	0.90
2022-11-18 56.54	6.58	7.23	44.99	0.49	0.74
2022-11-19 53.14	6.08	7.23	44.51	0.50	0.75
2022-11-20 55.33	6.79	7.23	40.72	0.55	0.83
2022-11-21 <u>52.59</u>	7.04	7.13	33.27	0.57	0.85
2022-11-22 35.75	4.75	7.05	33.42	0.51	0.76
2022-11-23 0.00	0.00	7.03	10.04	0.49	0.73
2022-11-24 0.00	0.00	6.96	0.00	0.47	0.71
2022-11-25 0.00	0.00	6.94	0.00	0.35	0.53
2022-11-26 0.00	0.00	6.87	0.00	0.36	0.54
2022-11-27 14.30	2.00	6.92	28.51	0.24	0.36
2022-11-28 54.73	7.68	6.80	35.98	0.38	0.57
2022-11-29 53.67	7.00	6.73	30.92	0.34	0.51
2022-11-30 58.07	6.07	6.55	51.14	0.35	0.52
2022-12-01 55.71	6.59	6.59	40.68	0.34	0.50
2022-12-02 50.69	7.45	6.98	18.14	0.20	0.31
2022-12-03 48.99	7.57	7.28	10.33	0.15	0.23
2022-12-04 51.27	7.23	7.31	19.89	0.18	0.27
2022-12-05 53.93	7.11	7.28	31.18	0.16	0.25
2022-12-06 51.80	7.23	7.36	24.40	0.13	0.19
2022-12-07 51.17	7.22	7.37	20.87	0.16	0.25
2022-12-08 51.79	7.04	7.31	24.44	0.17	0.25
2022-12-09 51.64	7.07	7.23	23.87	0.18	0.26
2022-12-10 51.40	7.23	7.18	22.58	0.19	0.28
2022-12-11 51.55	7.23	6.98	23.04	0.18	0.26
2022-12-12 51.08	7.17	7.00	21.47	0.12	0.18
2022-12-13 50.63	7.33	7.10	18.60	0.10	0.15
2022-12-14 50.08	7.50	6.74	15.40	0.21	0.31
2022-12-15 54.33	7.62	6.91	31.77	0.42	0.63



xxiii) Rajacanal(n)

			Rajaca	nal(n)	
avg_C	OD avg_BO	DD avg_p	H avg_TS	S avg_An	nmonical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-02 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-03 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-04 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-05 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-06 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-07 33.05	3.49	7.02	11.40	0.87	3.50
2022-11-08 32.39	3.49	7.03	10.37	0.88	3.47
2022-11-09 28.38	3.47	7.11	4.13	0.90	3.31
2022-11-10 28.62	3.49	7.10	4.44	0.89	3.32
2022-11-11 28.51	3.50	7.10	4.25	0.88	3.33
2022-11-12 28.44	3.50	7.11	4.14	0.85	3.40
2022-11-13 28.42	3.49	7.09	4.13	0.84	3.40
2022-11-14 28.67	3.49	7.08	4.51	0.85	3.37
2022-11-15 28.47	3.50	7.08	4.18	0.87	3.35
2022-11-16 28.58	3.50	7.07	4.34	0.87	3.34
2022-11-17 28.54	3.50	7.07	4.30	0.88	3.36
2022-11-18 28.49	3.51	7.09	4.19	0.87	3.39
2022-11-19 28.49	3.51	7.09	4.18	0.86	3.40
2022-11-20 28.48	3.52	7.10	4.15	0.86	3.38
2022-11-21 28.49	3.52	7.11	4.15	0.86	3.38
2022-11-22 28.54	3.53	7.11	4.20	0.86	3.35
2022-11-23 28.53	3.53	7.10	4.18	0.87	3.33
2022-11-24 28.53	3.54	7.09	4.16	0.89	3.30
2022-11-25 28.70	3.53	7.07	4.42	0.89	3.30
2022-11-26 28.48	3.50	7.08	4.20	0.90	3.34
2022-11-27 28.28	3.46	7.09	4.01	0.90	3.30
2022-11-28 28.36	3.46	7.07	4.13	0.93	3.29
2022-11-29 28.39	3.47	7.05	4.14	0.92	3.28
2022-11-30 28.41	3.49	7.07	4.11	0.90	3.34
2022-12-01 28.50	3.54	7.12	4.13	0.88	3.41
2022-12-02 28.54	3.53	7.10	4.22	0.87	3.42
2022-12-03 28.55	3.53	7.08	4.23	0.89	3.40
2022-12-04 28.56	3.55	7.08	4.21	0.91	3.39
2022-12-05 28.69	3.55	7.09	4.40	0.92	3.34
2022-12-06 28.65	3.56	7.08	4.31	0.94	3.30
2022-12-07 28.79	3.58	7.11	4.44	0.92	3.32
2022-12-08 29.05	3.59	7.10	4.77	0.88	3.43
2022-12-09 29.24	3.61	7.11	5.03	0.86	3.49
2022-12-10 29.01	3.62	7.09	4.70	0.83	3.57
2022-12-11 28.75	3.61	7.09	4.35	0.78	3.52
2022-12-12 28.75	3.61	7.06	4.35	0.77	3.54
2022-12-13 28.68	3.62	7.08	4.26	0.79	3.51
2022-12-14 28.57	3.63	7.10	4.10	0.82	3.52
2022-12-15 28.59	3.64	7.09	4.10	0.82	3.54



xxiv) Rajacanal(o)

			Rajac	anal(o)	
avg_C	COD avg_BO	D avg_p	H avg_T	SS avg_Amm	onical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 12.84	5.10	7.46	2.05	nan	nan
2022-11-02 12.84	5.10	7.46	2.05	nan	nan
2022-11-03 12.84	5.10	7.46	2.05	nan	nan
2022-11-04 12.84	5.10	7.46	2.05	nan	nan
2022-11-05 12.84	5.10	7.46	2.05	nan	nan
2022-11-06 12.84	5.10	7.46	2.05	nan	nan
2022-11-07 12.84	5.10	7.46	2.05	nan	nan
2022-11-08 12.84	5.10	7.46	2.05	nan	nan
2022-11-09 12.84	5.10	7.46	2.05	nan	nan
2022-11-10 12.84	5.10	7.46	2.05	nan	nan
2022-11-11 12.84	5.10	7.46	2.05	nan	nan
2022-11-12 12.84	5.10	7.46	2.05	nan	nan
2022-11-13 12.84	5.10	7.46	2.05	nan	nan
2022-11-14 12.84	5.10	7.46	2.05	nan	nan
2022-11-15 12.84	5.10	7.46	2.05	nan	nan
2022-11-16 12.84	5.10	7.46	2.05	nan	nan
2022-11-17 12.84	5.10	7.46	2.05	nan	nan
2022-11-18 12.84	5.10	7.46	2.05	nan	nan
2022-11-19 12.84	5.10	7.46	2.05	nan	nan
2022-11-20 12.84	5.10	7.46	2.05	nan	nan
2022-11-21 12.84	5.10	7.46	2.05	nan	nan
2022-11-22 12.84	5.10	7.46	2.05	nan	nan
2022-11-23 12.84	5.10	7.46	2.05	nan	nan
2022-11-24 12.84	5.10	7.46	2.05	nan	nan
2022-11-25 12.84	5.10	7.46	2.05	nan	nan
2022-11-26 12.84	5.10	7.46	2.05	nan	nan
2022-11-27 12.84	5.10	7.46	2.05	nan	nan
2022-11-28 12.84	5.10	7.46	2.05	nan	nan
2022-11-29 12.84	5.10	7.46	2.05	nan	nan
2022-11-30 12.84	5.10	7.46	2.05	nan	nan
2022-12-01 12.84	5.10	7.46	2.05	nan	nan
2022-12-02 12.84	5.10	7.46	2.05	nan	nan
2022-12-03 12.84	5.10	7.46	2.05	nan	nan
2022-12-04 12.84	5.10	7.46	2.05	nan	nan
2022-12-05 12.84	5.10	7.46	2.05	nan	nan
2022-12-06 12.84	5.10	7.46	2.05	nan	nan
2022-12-07 12.84	5.10	7.46	2.05	nan	nan
2022-12-08 12.84	5.10	7.46	2.05	nan	nan
2022-12-09 12.84	5.10	7.46	2.05	nan	nan
2022-12-10 12.84	5.10	7.46	2.05	nan	nan
2022-12-11 12.84	5.10	7.46	2.05	nan	nan
2022-12-12 12.84	5.10	7.46	2.05	nan	nan
2022-12-13 12.84	5.10	7.46	2.05	nan	nan
2022-12-14 12.84	5.10	7.46	2.05	nan	nan
2022-12-15 12.84	5.10	7.46	2.05	nan	nan



xxv) Sarakki

avg_CC	DD avg_BO	D avg_pl	H avg_TS	S avg_Ammonical	Nitrogen avg_Total Nitrogen
Date					
2022-11-01 22.59	13.71	5.96	22.70	0.00	0.00
2022-11-02 23.94	12.92	5.92	22.85	0.00	0.00
2022-11-03 21.26	9.24	5.90	23.58	0.00	0.00
2022-11-04 12.95	1.13	5.88	24.98	0.00	0.00
2022-11-05 0.00	0.00	5.89	25.70	0.00	0.00
2022-11-06 0.00	0.00	5.89	25.70	0.00	0.00
2022-11-07 0.00	0.00	5.89	25.70	0.00	0.00
2022-11-08 3.24	1.40	5.86	23.51	0.00	0.00
2022-11-09 18.49	4.48	5.74	5.38	0.00	0.00
2022-11-10 18.53	4.53	5.73	5.43	0.00	0.00
2022-11-11 18.58	4.61	5.74	5.52	0.00	0.00
2022-11-12 18.63	4.69	5.76	5.67	0.00	0.00
2022-11-13 18.66	4.74	5.78	5.84	0.00	0.00
2022-11-14 18.72	4.83	5.76	6.03	0.00	0.00
2022-11-15 18.75	4.87	5.73	6.05	0.00	0.00
2022-11-16 18.70	4.80	5.73	5.89	0.00	0.00
2022-11-17 18.70	4.79	5.71	5.84	0.00	0.00
2022-11-18 18.62	4.67	5.71	5.64	0.00	0.00
2022-11-19 18.63	4.69	5.58	5.76	0.00	0.00
2022-11-20 18.60	4.65	5.53	5.61	0.00	0.00
2022-11-21 18.65	4.72	5.47	5.81	0.00	0.00
2022-11-22 18.60	4.65	5.39	5.59	0.00	0.00
2022-11-23 18.60	4.65	5.36	5.61	0.00	0.00
2022-11-24 18.61	4.66	5.32	5.67	0.00	0.00
2022-11-25 18.71	4.82	5.26	6.05	0.00	0.00
2022-11-26 18.72	4.84	5.15	6.09	0.00	0.00
2022-11-27 18.79	4.95	5.10	6.22	0.00	0.00
2022-11-28 18.77	4.91	5.11	6.13	0.00	0.00
2022-11-29 18.75	4.87	5.10	5.92	0.00	0.00
2022-11-30 18.77	4.91	5.05	5.94	0.00	0.00
2022-12-01 19.00	5.25	5.02	6.68	0.00	0.00
2022-12-02 18.79	4.94	5.01	6.01	0.00	0.00
2022-12-03 18.92	5.14	4.89	6.48	0.00	0.00
2022-12-04 19.06	5.37	4.92	7.14	0.00	0.00
2022-12-05 19.08	5.41	4.99	7.31	0.00	0.00
2022-12-06 18.93	5.17	4.93	6.68	0.00	0.00
2022-12-07 18.84	5.03	4.85	6.32	0.00	0.00
2022-12-08 18.66	4.73	4.78	5.75	0.00	0.00
2022-12-09 18.70	4.80	4.81	5.97	0.00	0.00
2022-12-10 18.79	4.94	4.79	6.29	0.00	0.00
2022-12-11 18.67	4.77	4.76	5.89	0.00	0.00
2022-12-12 18.59	4.65	4.75	5.72	0.00	0.00
2022-12-13 18.53	4.55	4.74	5.50	0.00	0.00
2022-12-14 18.58	4.62	4.70	5.57	0.00	0.00
2022-12-15 18.59	4.63	4.66	5.54	0.00	0.00



xxvi) V.Valley

			V.V	alley	
avg_CC	D avg_BC	D avg_p	H avg_TS	SS avg_Ammor	nical Nitrogen avg_Total Nitrogen
Date					
2022-11-01 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-02 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-03 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-04 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-05 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-06 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-07 21.29	1.73	7.24	4.87	1.62	5.18
2022-11-08 21.22	1.83	7.33	4.70	1.61	5.15
2022-11-09 20.76	2.06	7.85	3.94	1.45	4.63
2022-11-10 21.06	1.68	7.87	4.16	2.57	8.24
2022-11-11 20.47	2.36	7.89	3.44	3.13	10.02
2022-11-12 20.36	2.36	7.92	3.29	3.18	10.17
2022-11-13 20.37	2.27	7.92	3.43	1.39	4.44
2022-11-14 20.40	2.23	7.92	3.44	2.24	7.17
2022-11-15 20.08	2.34	7.90	3.03	3.15	10.09
2022-11-16 20.16	2.36	7.92	3.11	4.40	14.07
2022-11-17 20.11	2.29	7.92	3.03	4.36	13.94
2022-11-18 20.21	2.38	7.92	3.09	4.75	15.20
2022-11-19 20.30	2.42	7.94	3.17	4.55	14.54
2022-11-20 20.48	2.55	7.94	3.28	5.38	17.21
2022-11-21 20.82	2.63	7.94	3.54	4.89	15.63
2022-11-22 21.27	2.84	7.97	3.90	4.85	15.51
2022-11-23 20.34	2.07	7.75	3.98	4.82	15.05
2022-11-24 19.69	1.91	7.00	2.80	2.20	5.28
2022-11-25 19.81	1.96	7.03	2.87	1.59	3.80
2022-11-26 19.85	1.98	7.05	2.90	1.32	3.17
2022-11-27 19.89	1.82	7.02	2.96	0.88	2.12
2022-11-28 19.99	1.85	7.04	3.06	1.23	2.95
2022-11-29 20.09	1.91	7.05	3.15	1.56	3.75
2022-11-30 20.11	2.01	7.02	3.15	1.53	3.68
2022-12-01 20.10	2.08	7.03	3.14	0.68	1.62
2022-12-02 20.05	1.95	7.05	3.20	0.41	0.97
2022-12-03 20.03	1.95	7.03	3.13	0.35	0.84
2022-12-04 20.11	2.02	6.93	3.25	5.82	12.41
2022-12-05 20.10	2.08	6.72	3.21	7.33	17.59
2022-12-06 20.10	2.09	6.64	3.21	3.14	7.52
2022-12-0 7 20.10	2.10	6.50	3.20	2.89	6.93
2022-12-08 20.10	2.10	6.34	3.20	10.05	20.84
2022-12-09 20.02	2.32	6.64	3.01	7.70	12.25
2022-12-10 20.15	2.47	6.83	3.04	1.35	3.24
2022-12-11 20.23	2.41	6.85	3.12	1.07	2.57
2022-12-12 20.21	2.29	6.86	3.15	1.02	2.44
2022-12-13 20.39	2.27	6.82	3.31	0.65	1.55
2022-12-14 20.74	2.18	6.81	5.66	0.56	1.35
2022-12-15 20.96	1.92	6.82	3.91	0.54	1.31


xxvii) Yelahanka TTP

	avg_COD	avg_BOD	avg_pH	avg_TSS	avg_Ammonical Nitrogen	avg_Total Nitrogen
Date						
2022-11-01	12.84	5.10	7.22	2.05	nan	nan
2022-11-02	12.84	5.10	7.22	2.05	nan	nan
2022-11-03	12.84	5.10	7.22	2.05	nan	nan
2022-11-04	12.84	5.10	7.22	2.05	nan	nan
2022-11-05	12.84	5.10	7.22	2.05	nan	nan
2022-11-06	12.84	5.10	7.22	2.05	nan	nan
2022-11-07	12.84	5.10	7.22	2.05	nan	nan
2022-11-08	12.84	5.10	7.22	2.05	nan	nan
2022-11-09	12.84	5.10	7.22	2.05	nan	nan
2022-11-10	12.84	5.10	7.22	2.05	nan	nan
2022-11-11	12.84	5.10	7.22	2.05	nan	nan
2022-11-12	12.84	5.10	7.22	2.05	nan	nan
2022-11-13	12.84	5.10	7.22	2.05	nan	nan
2022-11-14	12.84	5.10	7.22	2.05	nan	nan
2022-11-15	12.84	5.10	7.22	2.05	nan	nan
2022-11-16	12.84	5.10	7.22	2.05	nan	nan
2022-11-17	12.84	5.10	7.22	2.05	nan	nan
2022-11-18	12.84	5.10	7.22	2.05	nan	nan
2022-11-19	12.84	5.10	7.22	2.05	nan	nan
2022-11-20	12.84	5.10	7.22	2.05	nan	nan
2022-11-21	12.84	5.10	7.22	2.05	nan	nan
2022-11-22	12.84	5.10	7.22	2.05	nan	nan
2022-11-23	12.84	5.10	7.22	2.05	nan	nan
2022-11-24	12.84	5.10	7.22	2.05	nan	nan
2022-11-25	12.84	5.10	7.22	2.05	nan	nan
2022-11-26	12.84	5.10	7.22	2.05	nan	nan
2022-11-27	12.84	5.10	7.22	2.05	nan	nan
2022-11-28	12.84	5.10	7.22	2.05	nan	nan
2022-11-29	12.84	5.10	7.22	2.05	nan	nan
2022-11-30	12.84	5.10	7.22	2.05	nan	nan
2022-12-01	12.84	5.10	7.22	2.05	nan	nan
2022-12-02	12.84	5.10	7.22	2.05	nan	nan
2022-12-03	12.84	5.10	7.22	2.05	nan	nan
2022-12-04	12.84	5.10	7.22	2.05	nan	nan
2022-12-05	12.84	5.10	7.22	2.05	nan	nan
2022-12-06	12.84	5.10	7.22	2.05	nan	nan
2022-12-07	12.84	5.10	7.22	2.05	nan	nan
2022-12-08	12.84	5.10	7.22	2.05	nan	nan
2022-12-09	12.84	5.10	7.22	2.05	nan	nan
2022-12-10	12.84	5.10	7.22	2.05	nan	nan
2022-12-11	12.84	5.10	7.22	2.05	nan	nan
2022-12-12	22.33	5.44	7.14	2.49	0.00	0.03
2022-12-13	42.89	6.36	6.95	4.43	0.00	0.03
2022-12-14	34.20	7.70	6.81	12.40	0.00	0.03
2022-12-15	34.20	7.70	6.81	12.40	0.00	0.03

Yelahanka TTP



Yelemallappa Chetti xxviii)

Yelemallappa Chetti avg_COD avg_BOD avg_pH avg_TSS avg_Ammonical Nitrogen avg_Total Nitrogen

Date					
2022-11-01 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-02 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-03 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-04 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-05 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-06 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-07 34.04	5.62	6.94	5.83	0.24	0.90
2022-11-08 34.10	5.66	6.94	5.89	0.28	0.87
2022-11-09 34.78	5.97	6.86	7.59	0.47	0.64
2022-11-10 34.67	5.93	6.87	7.67	0.43	0.61
2022-11-11 34.75	6.18	6.87	6.33	0.42	0.61
2022-11-12 34.96	6.25	6.87	6.90	0.40	0.61
2022-11-13 35.26	6.38	6.83	7.64	0.39	0.60
2022-11-14 35.30	6.60	6.84	7.07	0.37	0.60
2022-11-15 35.45	6.77	6.88	7.66	0.35	0.60
2022-11-16 35.58	6.77	6.88	7.65	0.34	0.60
2022-11-17 35.59	6.93	6.90	7.01	0.34	0.60
2022-11-18 35.60	7.00	6.89	6.98	0.35	0.61
2022-11-19 35.52	6.98	6.84	6.51	0.40	0.60
2022-11-20 35.75	6.98	6.84	7.55	0.41	0.54
2022-11-21 35.87	6.92	6.82	8.05	0.43	0.51
2022-11-22 35.81	6.96	6.83	7.62	0.41	0.53
2022-11-23 35.81	7.05	6.92	7.24	0.35	0.62
2022-11-24 35.83	7.12	6.95	7.43	0.32	0.69
2022-11-25 35.62	6.89	6.91	7.26	0.32	0.70
2022-11-26 35.84	6.93	6.94	7.93	0.32	0.71
2022-11-27 35.77	6.65	6.98	8.17	0.31	0.74
2022-11-28 35.68	6.48	7.03	8.35	0.30	0.79
2022-11-29 35.24	6.24	7.04	7.69	0.30	0.80
2022-11-30 35.07	6.14	7.00	7.32	0.31	0.81
2022-12-01 35.21	6.32	6.96	6.99	0.32	0.82
2022-12-02 35.25	6.41	6.94	6.86	0.31	0.89
2022-12-03 35.45	6.49	6.97	7.41	0.31	0.89
2022-12-04 35.52	6.49	7.02	7.63	0.30	0.87
2022-12-05 35.59	6.55	7.08	8.30	0.29	0.89
2022-12-06 35.29	6.06	7.06	10.37	0.29	0.90
2022-12-07 34.96	5.74	7.10	7.87	0.29	0.89
2022-12-08 34.93	5.75	7.07	8.27	0.29	0.89
2022-12-09 34.71	5.51	7.03	7.84	0.28	0.90
2022-12-10 34.59	5.45	7.03	7.55	0.28	0.90
2022-12-11 34.53	5.52	6.91	7.68	0.30	0.85
2022-12-12 34.64	5.63	6.84	6.98	0.29	0.83
2022-12-13 34.96	5.87	6.79	7.83	0.33	0.79
2022-12-14 34.90	5.99	6.78	6.84	0.34	0.80
2022-12-15 35.22	6.14	6.84	7.78	0.31	0.81



- xxix) Hebbal : All parameters not configured
- xxx) K&C Valley 218 : All parameters not configured
- xxxi) Kengeri : All parameters not configured



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ActionAid Association (India)

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ActionAid Association is an organisation working for social and ecological justice, working in 24 states and two union territories of India with several partners and allied organisations. ActionAid Association is part of a global federation and a full affiliate of ActionAid International, which has a presence in over 40 countries worldwide.

Bannerghatta National Park