

**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh- Year -2011**  
**Regional Office - Bilaspur**

1. Comparative Statement of River Mahanadi at Kharod. U/s of Kharod  
(NWMP Code No. 1100)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	25.0	30.0	30.0	33.0	29.0	33.0	30.0	30.0	29.0			
2.	Appearance	-	Clear	Clear	Clear	Clear	Clear	Clear	Turbid	H. T.	S. Turbid			
3.	Odour		OL	OL	OL	OL	OL	OL	OL	OL	OL			
4.	pH	pH Units	7.5	7.5	8.0	7.50	7.50	8.53	7.5	7.5	7.5			
5.	Turbidity	NTU/JTU	12.1	8.0	7.0	6.0	12.0	11.3	9.0	115.0	41.0			
6.	Specific Conductivity	µS/cm	366.0	240.0	250.0	203.0	203.0	233.0	185.2	182.0	223.0			
7.	Total Solids	Mg/L	168.0	134.0	184.0	152.0	117.0	199.0	207.0	202.0	126.0			
8.	Dissolved Solids	Mg/L	135.0	103.0	162.0	126.0	92.0	166.0	73.0	72.0	58.0			
9.	Suspended Solids	Mg/L	33.0	31.0	22.0	26.0	25.0	33.0	134.0	130.0	68.0			
10.	Fixed Diss.Solids	Mg/L	-	-	-	68.0	52.0	-	40.0	40.0	40.0			
11.	Ammonical Nitrogen	Mg/L	1.11	1.10	1.0	1.11	0.958	0.995	1.05	1.05	1.05			
12.	Nitrate Nitrogen	Mg/L	2.61	2.41	2.42	2.22	1.46	1.30	1.47	1.48	1.48			
13.	Nitrite Nitrogen	Mg/L	0.046	0.036	0.039	0.042	0.051	0.046	0.05	0.05	0.05			
14.	Phosphate	Mg/L	1.34	1.30	1.31	1.34	1.30	1.31	1.28	1.28	1.28			
15.	Chloride	Mg/L	29.0	17.0	18.0	29.0	30.0	53.0	25.0	26.0	25.0			
16.	Sulphate(as SO <sub>4</sub> <sup>-</sup> )	Mg/L	45.8	44.9	44.0	44.5	44.3	44.3	45.15	45.10	0.40			
17.	Coliform	MPN/100ml	14.0	12.0	14.0	17.0	-	13.0	120.0	115.0	115.0			
18.	Dissolved Oxygen	Mg/L	6.8	6.9	6.7	7.1	6.4	6.9	6.8	6.8	6.8			
19.	B.O.D.(3 day 27°C)	Mg/L	1.4	1.3	1.4	*	*	*	*	*	*			
20.	C.O.D.	Mg/L	40.0	**	*	30.0	25.0	30.0	43.6	40.0	16.0			
21.	P Alkalinity	Mg/L	-	-	-	12.0	16.0	6.0	Nil	-	-			
22.	Total Alkalinity	Mg/L	176.0	124.0	148.0	80.0	86.0	82.0	84.0	82.0	58.0			
23.	Total Hardness	Mg/L	126.0	102.0	124.0	82.0	84.0	84.0	70.0	70.0	96.0			
24.	Calcium Hardness	Mg/L	78.0	60.0	72.0	60.0	66.0	56.0	58.0	54.0	92.0			
25.	Magnesium Hardness	Mg/L	48.0	42.0	52.0	22.0	18.0	28.0	12.0	16.0	4.0			
26.	Calcium	Mg/L	31.2	24.2	28.8	24.0	26.4	22.4	23.2	21.6	36.8			
27.	Magnesium	Mg/L	11.7	10.2	12.6	5.36	4.3	6.8	2.9	3.90	0.97			
28.	Fluoride	Mg/L	-	-	-	0.03	-	-	-	0.09	0.09			

**2. Comparative Statement of River hasdeo at Champa  
(NWMP Code No. 1106)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	25.0	25.0	30.0	34.0	34.0	30.0	34.0	28.0	30.0			
2.	Appearance	-	S. T.	S. T.	S. T.	S. T.	S. T.	S. T.	H.T.	S. T.	Muddy			
3.	Odour		OL	OL	OL	OL	OL	OL	OL	OL	OL			
4.	pH	pH Units	7.5	7.5	8.5	8.5	8.5	7.5	7.5	7.5	7.5			
5.	Turbidity	NTU/JTU	6.4	16.7	11.3	8.8	8.0	10.5	56.0	80.0	242.0			
6.	Specific Conductivity	µS/cm	232.0	215.0	272.0	263.0	264.0	274.0	193.2	276	160.0			
7.	Total Solids	Mg/L	238.0	166.0	148.0	196.0	132.0	207.0	136.0	252.0	725.6			
8.	Dissolved Solids	Mg/L	163.0	92.0	107.0	160.0	107	174.0	75.0	121.0	56.0			
9.	Suspended Solids	Mg/L	75.0	74.0	41.0	36.0	25.0	33.0	61.0	131.0	669.6			
10.	Fixed Diss.Solids	Mg/L	-	-	-	51.0	78.0	-	48.0	80.0	48.0			
11.	Ammonical Nitrogen	Mg/L	1.11	1.10	1.20	1.20	1.12	1.05	1.06	1.06	1.01			
12.	Nitrate Nitrogen	Mg/L	1.31	1.62	1.50	1.64	1.95	1.5	1.04	1.05	1.00			
13.	Nitrite Nitrogen	Mg/L	0.04	0.08	0.060	0.090	0.05	0.05	0.05	0.06	0.08			
14.	Phosphate	Mg/L	2.31	1.29	1.06	1.39	1.3	1.250	1.28	1.28	1.08			
15.	Chloride	Mg/L	19.0	18.0	25.0	28.0	29.0	24.0	28.0	34.0	34.0			
16.	Sulphate(as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	37.0	35.0	40.0	39.0	33.0	46.6	33.8	32.8	28.8			
17.	Coliform	MPN/100ml	15.0	15.0	13.0	18.0	7.0	15.0	230.0	-	-			
18.	Dissolved Oxygen	Mg/L	7.0	6.9	6.3	7.1	6.8	6.6	6.7	6.9	6.4			
19.	B.O.D.(3 day 27°C)	Mg/L	1.4	1.8	1.6	*	*	*	*	*	*			
20.	C.O.D.	Mg/L	40.0	**	**	27.0	30.0	30.0	34.8	18.4	17.06			
21.	P Alkalinity	Mg/L	-	-	-	20.0	22.0	8.0	Nil	-	-			
22.	Total Alkalinity	Mg/L	94.0	84.0	108.0	90.0	94.0	112.0	108.0	128.0	92.0			
23.	Total Hardness	Mg/L	78.0	100.0	76.0	74.0	92.0	100.0	68.0	114.0	64.0			
24.	Calcium Hardness	Mg/L	64.0	52.0	60.0	46.0	68.0	80.0	48.0	100.0	56.0			
25.	Magnesium Hardness	Mg/L	14.0	48.0	16.0	28.0	24.0	20.0	19.2	14.0	8.0			
26.	Calcium	Mg/L	25.6	20.8	24.0	18.4	27.2	32	8.0	40.0	22.4			
27.	Magnesium	Mg/L	3.41	11.71	3.40	6.82	5.85	4.88	4.6	3.41	1.95			
28.	Fluoride	Mg/L	-	-	-	0.06	0.08	0.08	0.09	0.08	0.08			

**3. Comparative Statement of River Mahanadi at Balpur**  
**(NWMP Code No. 1467)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1)	Temperature	°C	25.0	28.0	30.0	33.0	33.0	32.0	34.0	30.0	30.0			
2)	Appearance	-	Clear	Clear	Clear	Clear	Clear	Clear	Turbid	Turbid	S. Turbid			
3)	Odour		OL	OL	OL	OL	OL	OL	OL	OL	OL			
4)	pH	pH Units	7.5	8.5	8.5	8.20	8.20	8.0	7.0	7.5	7.5			
5)	Turbidity	NTU/JTU	8.2	11.7	8.0	11.9	14.1	7.0	71.0	174.0	35.0			
6)	Specific Conductivity	µS/cm	232.0	284.0	230.0	282.0	282.0	229.0	85.7	88.7	127.6			
7)	Total Solids	Mg/L	147.0	158.0	140.0	206.0	109.0	177.0	107.0	204.0	95.0			
8)	Dissolved Solids	Mg/L	108.0	127.0	109.0	176.0	104.0	148.0	34.0	82.0	56.0			
9)	Suspended Solids	Mg/L	39.0	31.0	31.0	30.0	5.0	29.0	73.0	122.0	39.0			
10)	Fixed Diss.Solids	Mg/L	-	-	-	80.0	80.0	-	20.0	20.0	20.0			
11)	Ammonical Nitrogen	Mg/L	0.95	0.93	0.93	0.94	0.940	1.04	0.98	0.99	0.99			
12)	Nitrate Nitrogen	Mg/L	1.60	1.40	1.50	1.39	1.450	1.31	1.47	149.0	1.49			
13)	Nitrite Nitrogen	Mg/L	0.04	0.05	0.04	0.060	0.050	0.060	0.05	0.05	0.05			
14)	Phosphate	Mg/L	1.10	1.11	1.1	1.13	1.32	1.33	1.24	1.25	0.32			
15)	Chloride	Mg/L	20.0	20.0	21.0	28.0	35.0	18.0	15.0	16.0	30.0			
16)	Sulphate(as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	44.0	45.0	42.0	42.0	40.5	40.1	38.1	39.2	39.2			
17)	Coliform	MPN/100ml	21.0	18.0	20.0	10.0	-	14.0	129.0	120.0	120.0			
18)	Dissolved Oxygen	Mg/L	6.7	6.8	6.9	6.9	6.5	6.9	6.9	7.0	6.0			
19)	B.O.D.(3 day 27°C)	Mg/L	1.2	1.1	1.3	*	*	*	*	*	*			
20)	C.O.D.	Mg/L	33.0	**	**	30.0	30.0	30.0	40.0	40.0	16.0			
21)	P Alkalinity	Mg/L	-	-	-	14.0	18.0	6.0	Nil	Nil	NIL			
22)	Total Alkalinity	Mg/L	90.0	126.0	172.0	122.0	80.0	88.0	54.0	56.0	58.0			
23)	Total Hardness	Mg/L	92.0	102.0	128.0	106.0	78.0	92.0	40.0	50.0	60.0			
24)	Calcium Hardness	Mg/L	68.0	84.0	78.0	80.0	50.0	68.0	24.0	35.0	42.0			
25)	Magnesium Hardness	Mg/L	24.0	18.0	50.0	26.0	28.0	24.0	16.0	15.0	18.0			
26)	Calcium	Mg/L	27.2	33.0	31.2	32.0	20.0	27.2	9.6	14.0	16.8			
27)	Magnesium	Mg/L	5.8	4.93	12.2	7.8	6.8	5.8	3.9	3.65	4.39			
28)	Fluoride	Mg/L	-	-	-	0.08	0.07	0.07	0.06	0.07	0.08			

4. Comparative Statement of River Mahanadi at Sheorinarayan  
(NWMP Code No. 1282)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	25.0			33.0			30.0					
2.	Appearance	-	Clear			Clear			Turbid					
3.	Odour		OL			OL			OL					
4.	pH	pH Units	7.5			7.50			7.0					
5.	Turbidity	NTU/JTU	12.9			10.3			169.0					
6.	Specific Conductivity	µS/cm	375.0			265.0			187.4					
7.	Total Solids	Mg/L	169.0			188.0			210.0					
8.	Dissolved Solids	Mg/L	141.0			161.0			94.0					
9.	Suspended Solids	Mg/L	28.0			27.0			116.0					
10.	Fixed Diss.Solids	Mg/L	-			76.0			64.0					
11.	Ammonical Nitrogen	Mg/L	1.14			1.12			1.04					
12.	Nitrate Nitrogen	Mg/L	2.64			2.24			1.29					
13.	Nitrite Nitrogen	Mg/L	0.047			0.043			0.06					
14.	Phosphate	Mg/L	1.36			1.34			1.30					
15.	Chloride	Mg/L	28.0			30.0			25.0					
16.	Sulphate(as SO <sub>4</sub> <sup>-</sup> )	Mg/L	46.8			45.4			42.13					
17.	Coliform	MPN/100ml	18.0			17.0			120.0					
18.	Dissolved Oxygen	Mg/L	7.3			7.1			6.8					
19.	B.O.D.(3 day 27°C)	Mg/L	1.4			*			*					
20.	C.O.D.	Mg/L	40.0			30.0			43.6					
21.	P Alkalinity	Mg/L	-			12.0			Nil					
22.	Total Alkalinity	Mg/L	174.0			100.0			80.0					
23.	Total Hardness	Mg/L	128.0			80.0			58.0					
24.	Calcium Hardness	Mg/L	84.0			50.0			50.0					
25.	Magnesium Hardness	Mg/L	44.0			30.0			8.0					
26.	Calcium	Mg/L	33.0			20.0			20.0					
27.	Magnesium	Mg/L	10.7			7.3			1.9					
28.	Fluoride	Mg/L	-			0.04			0.05					

**5. Comparative Statement of River Bore well near I/A Tifra Bilaspur**  
**(NWMP Code No. 1622)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C				31.0								
2.	Appearance	-				Clear								
3.	Odour					OL								
4.	pH	pH Units				7.50								
5.	Turbidity	NTU/JTU				2.0								
6.	Specific Conductivity	µS/cm				789.0								
7.	Total Solids	Mg/L				542.0								
8.	Dissolved Solids	Mg/L				532.0								
9.	Suspended Solids	Mg/L				10.0								
10.	Fixed Diss.Solids	Mg/L				280.0								
11.	Ammonical Nitrogen	Mg/L				1.22								
12.	Nitrate Nitrogen	Mg/L				1.81								
13.	Nitrite Nitrogen	Mg/L				0.073								
14.	Phosphate	Mg/L				2.50								
15.	Chloride	Mg/L				140.0								
16.	Sulphate(as SO <sub>4</sub> <sup>-</sup> )	Mg/L				50.0								
17.	Coliform	MPN/100ml				Nil								
18.	Dissolved Oxygen	Mg/L				3.1								
19.	B.O.D.(3 day 27°C)	Mg/L				*								
20.	C.O.D.	Mg/L				25.0								
21.	P Alkalinity	Mg/L				22.0								
22.	Total Alkalinity	Mg/L				370.0								
23.	Total Hardness	Mg/L				374.0								
24.	Calcium Hardness	Mg/L				260.0								
25.	Magnesium Hardness	Mg/L				114.0								
26.	Calcium	Mg/L				104.0								
27.	Magnesium	Mg/L				27.8								
28.	Fluoride	Mg/L				0.09								

6. Comparative Statement of River Bore well near Bannak Chowk I/A Sirgitti Bilaspur  
(NWMP Code No. 1623)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C				31.0								
2.	Appearance	-				Clear								
3.	Odour					OL								
4.	pH	pH Units				7.5								
5.	Turbidity	NTU/JTU				3.0								
6.	Specific Conductivity	µS/cm				1789.0								
7.	Total Solids	Mg/L				1307.0								
8.	Dissolved Solids	Mg/L				1294.0								
9.	Suspended Solids	Mg/L				13.0								
10.	Fixed Diss.Solids	Mg/L				760.0								
11.	Ammonical Nitrogen	Mg/L				1.56								
12.	Nitrate Nitrogen	Mg/L				3.70								
13.	Nitrite Nitrogen	Mg/L				0.090								
14.	Phosphate	Mg/L				3.8								
15.	Chloride	Mg/L				350.0								
16.	Sulphate (as SO <sub>4</sub> <sup>''</sup> )	Mg/L				80.0								
17.	Coliform	MPN/100ml				Nil								
18.	Dissolved Oxygen	Mg/L				3.5								
19.	B.O.D.(3 day 27°C)	Mg/L				*								
20.	C.O.D.	Mg/L				28.0								
21.	P Alkalinity	Mg/L				20.0								
22.	Total Alkalinity	Mg/L				500.0								
23.	Total Hardness	Mg/L				532.0								
24.	Calcium Hardness	Mg/L				330.0								
25.	Magnesium Hardness	Mg/L				202.0								
26.	Calcium	Mg/L				132.0								
27.	Magnesium	Mg/L				49.2								
28.	Fluoride	Mg/L				0.51								

7. Comparative Statement of River Sheonnath at Dagori Village Near Sati Ghat  
(NWMP Code No. New)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C				33.0								
2.	Appearance	-				Clear								
3.	Odour					OL								
4.	pH	pH Units				7.50								
5.	Turbidity	NTU/JTU				10.3								
6.	Specific Conductivity	µS/cm				265.0								
7.	Total Solids	Mg/L				198.0								
8.	Dissolved Solids	Mg/L				167.0								
9.	Suspended Solids	Mg/L				31.0								
10.	Fixed Diss.Solids	Mg/L				96.0								
11.	Ammonical Nitrogen	Mg/L				1.30								
12.	Nitrate Nitrogen	Mg/L				1.50								
13.	Nitrite Nitrogen	Mg/L				0.08								
14.	Phosphate	Mg/L				1.22								
15.	Chloride	Mg/L				30.0								
16.	Sulphate(as SO <sub>4</sub> <sup>-</sup> )	Mg/L				40.0								
17.	Coliform	MPN/100ml				10.0								
18.	Dissolved Oxygen	Mg/L				7.0								
19.	B.O.D.(3 day 27°C)	Mg/L				*								
20.	C.O.D.	Mg/L				30.0								
21.	P Alkalinity	Mg/L				12.0								
22.	Total Alkalinity	Mg/L				140.0								
23.	Total Hardness	Mg/L				120.0								
24.	Calcium Hardness	Mg/L				84.0								
25.	Magnesium Hardness	Mg/L				36.0								
26.	Calcium	Mg/L				33.6								
27.	Magnesium	Mg/L				8.78								
28.	Fluoride	Mg/L				0.09								

**Year -2011**  
**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh-**  
**Regional Office – Durg-Bhilai**

1. Comparative Statement Of River Sheonath At Rajanandgaon Near W/S Intake Well Point  
(NWMP Code No. -1107)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	-	-	-	-	-	21	-	20	20			
2.	Appearance	NTU	Clear	clear	clear	clear	clear	clear	clear	clear	clear			
3.	Odour	Threshold No.	OL	OL	OL	OL	OL	OL	OL	OL	OL			
4.	pH	pH Units	7.6	7.5	7.6	7.7	7.4	7.5	7.6	7.6	7.5			
5.	Turbidity	NTU/JTU	-	-	-	-	-	-	-	-	-			
6.	Specific Conductivity	Micro Mhos	-	-	-	-	-	317.0	-	332.0	324.0			
7.	Coliform	MPN/100ml	210.0	210.0	150.0	150.0	120.0	240.0	240.0	240.0	110.0			
8.	Total Solid	Mg/L	330.0	310.0	290.0	270.0	250.0	270.0	310.0	330.0	310.0			
9.	Dissolved Solids	Mg/L	290.0	280.0	260.0	240.0	220.0	230.0	260.0	270.0	50.0			
10.	Suspended Solids	Mg/L	40.0	30.0	30.0	30.0	30.0	40.0	50.0	60.0	260.0			
11.	Dissolved Oxygen	Mg/L	7.5	7.3	7.5	7.4	7.2	7.4	7.8	8.1	7.8			
12.	B.O.D.(3 day 27°C)	Mg/L	1.4	1.2	1.1	1.3	1.4	1.6	1.7	2.1	1.8			
13.	C O D	Mg/L	19.6	19.2	18.8	19.04	19.04	19.2	28.56	29.4	19.36			
14.	Chloride	Mg/L	24.0	22.0	20.0	22.0	20.0	23.0	24.0	30.0	27.0			
15.	Total Alkalinity	Mg/L	98.0	92.0	88.0	90.0	94.0	104.0	106.0	118.0	112.0			
16.	Total Hardness	Mg/L	84.0	76.0	74.0	78.0	76.0	82.0	84.0	90.0	84.0			
17.	Calcium Hardness	Mg/L	40.0	34.0	30.0	34.0	38.0	44.0	46.0	52.0	48.0			
18.	Magnesium Hardness	Mg/L	44.0	42.0	44.0	44.0	38.0	38.0	38.0	38.0	36.0			
19.	Ammonical Nitrogen	Mg/L	0.40	0.45	0.50	0.45	0.50	0.55	0.55	0.60	0.55			
20.	Nitrate Nitrogen	Mg/L	0.35	0.40	0.45	0.40	0.45	0.50	0.50	0.55	0.50			
21.	Nitrite Nitrogen	Mg/L	0.16	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.02			
22.	Phosphate	Mg/L	1.1	1.0	1.2	1.0	0.9	1.3	1.2	1.4	1.3			
23.	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	14.0	12.0	11.0	10.0	10.0	12.0	12.0	16.0	14.0			
24.	Calcium	Mg/L	16.0	13.6	12.0	13.6	15.2	17.6	18.4	20.8	19.2			
25.	Magnesium	Mg/L	10.73	10.24	10.73	10.73	9.26	9.26	9.26	9.26	8.78			
26.	Any Other Test	Mg/L	-	-	-	-	-	-	-	-	-			



**2. Comparative Statement Of River Sheonath At Durg Near W/S Intake Well Point**  
**(NWMP Code No.-1845)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
29.	Temperature	°C	-	-	-	-	-	-	-					
30.	Appearance	NTU	Clear	Clear	Clear	clear	clear	clear	clear					
31.	Odour	Threshold No.	OL	OL	OL	OL	OL	OL	OL					
32.	pH	pH Units	7.5	7.4	7.3	7.4	7.4	7.4	7.3					
33.	Turbidity	NTU/JTU	-	-	-	-	-	-	-					
34.	Specific Conductivity	Micro Mhos	-	-	-	-	-	-	-					
35.	Coliform	MPN/100ml	240.0	210.0	210.0	210.0	120.0	240.0	240.0					
36.	Total Solid	Mg/L	360.0	350.0	330	310.0	290.0	290.0	330.0					
37.	Dissolved Solids	Mg/L	290.0	290.0	280.0	270.0	250.0	250.0	270.0					
38.	Suspended Solids	Mg/L	70.0	60.0	50.0	40.0	40.0	40.0	60.0					
39.	Dissolved Oxygen	Mg/L	7.4	7.3	7.2	7.3	7.2	7.3	7.7					
40.	B.O.D.(3 day 27°C)	Mg/L	1.5	1.4	1.2	1.4	1.4	1.7	1.9					
41.	C O D	Mg/L	29.4	28.8	28.2	28.56	29.04	28.8	38.08					
42.	Chloride	Mg/L	25.0	23.0	20.0	24.0	26.0	26.0	34.0					
43.	Total Alkalinity	Mg/L	98.0	94.0	88.0	102.0	106.0	110.0	118.0					
44.	Total Hardness	Mg/L	84.0	78.0	72.0	84.0	88.0	92.0	96.0					
45.	Calcium Hardness	Mg/L	40.0	36.0	30.0	38.0	42.0	50.0	50.0					
46.	Magnesium Hardness	Mg/L	44.0	42.0	42.0	46.0	46.0	42.0	46.0					
47.	Ammonical Nitrogen	Mg/L	0.50	0.45	0.40	0.35	0.30	0.55	0.45					
48.	Nitrate Nitrogen	Mg/L	0.40	0.35	0.35	0.30	0.25	0.55	0.35					
49.	Nitrite Nitrogen	Mg/L	0.16	0.16	0.16	0.16	0.16	0.30	0.20					
50.	Phosphate	Mg/L	1.3	1.3	1.0	1.2	1.0	1.5	1.4					
51.	Sulphate(as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	14.0	15.0	11.0	11.0	10.0	14.0	13.0					
52.	Calcium	Mg/L	16.0	42.0	12.0	15.2	16.8	20.0	20.0					
53.	Magnesium	Mg/L	10.73	10.24	10.24	11.21	11.21	10.24	11.21					
54.	Any Other Test	Mg/L	-	-	-	-	-	-	-					

**3. Comparative Statement Of River Kharoon At Kumhari Near D/S After Confluence Of Khapri Nalla (NWMP Code No.-1846)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	-	-	-	-	-	-	-					
2.	Appearance	NTU	Clear	clear	-	clear	Clear	clear	Clear					
3.	Odour	Threshold No.	OL	OL	-	OL	OL	OL	OL					
4.	pH	pH Units	7.6	7.5	-	7.5	7.4	7.5	7.5					
5.	Turbidity	NTU/JTU	-	-	-	-	-	-	-					
6.	Specific Conductivity	Micro Mhos	-	-	-	-	-	-	-					
7.	Coliform	MPN/100ml	240.0	240.0	-	240	150.0	210.0	240.0					
8.	Total Solid	Mg/L	360.0	350.0	-	310.0	310.0	360.0	380.0					
9.	Dissolved Solids	Mg/L	310.0	300.0	-	270.0	270.0	300.0	310.0					
10.	Suspended Solids	Mg/L	50.0	50.0	-	40.0	40.0	60.0	70.0					
11.	Dissolved Oxygen	Mg/L	7.3	7.2	-	7.1	7.4	7.4	7.8					
12.	B.O.D.(3 day 27°C)	Mg/L	1.8	1.7	-	1.6	1.5	1.8	2.2					
13.	C O D	Mg/L	49.0	38.4	-	38.08	29.04	38.4	47.6					
14.	Chloride	Mg/L	43.0	41.0	-	41.0	36.0	36.0	39.0					
15.	Total Alkalinity	Mg/L	140.0	136.0	-	126.0	122.0	124.0	130.0					
16.	Total Hardness	Mg/L	120.0	116.0	-	108.0	104.0	106.0	116.0					
17.	Calcium Hardness	Mg/L	52.0	46.0	-	54.0	42.0	52.0	68.0					
18.	Magnesium Hardness	Mg/L	68.0	70.0	-	54.0	62.0	54.0	48.0					
19.	Ammonical Nitrogen	Mg/L	0.65	0.55	-	0.50	0.40	0.40	0.60					
20.	Nitrate Nitrogen	Mg/L	0.55	0.50	-	0.45	0.35	0.35	0.55					
21.	Nitrite Nitrogen	Mg/L	0.24	0.02	-	0.03	0.01	0.02	0.04					
22.	Phosphate	Mg/L	1.5	1.3	-	1.5	1.0	1.4	1.8					
23.	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	17.0	15.0	-	15.0	13.0	15.0	19.0					
24.	Calcium	Mg/L	20.0	18.4	-	-	16.8	20.8	27.2					
25.	Magnesium	Mg/L	16.58	17.07	-	-	15.12	13.17	11.70					
26.	Any Other Test	Mg/L	-	-	-	-	-	-	-					

**4. Comparative Statement Of River Kharoon At Kumhari Before Confluence Of Khapri Nalla At Durg-Raipur Road Bridge (NWMP Code No.-1847)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1.	Temperature	°C	-	-	-	-	-	-	-					
2.	Appearance	NTU	Clear	clear	clear	clear	clear	clear	Clear					
3.	Odour	Threshold No.	OL	OL	OL	OL	OL	OL	OL					
4.	pH	pH Units	7.5	7.4	7.4	7.5	7.5	7.5	7.5					
5.	Turbidity	NTU/JTU	-	-	-	-	-	-	-					
6.	Specific Conductivity	Micro Mhos	-	-	-	-	-	-	-					
7.	Coliform	MPN/100ml	210.0	210.0	150.0	210	210.0	150.0	240.0					
8.	Total Solid	Mg/L	350.0	330.0	300.0	280.0	340.0	320.0	360.0					
9.	Dissolved Solids	Mg/L	310.0	290.0	270.0	250.0	290.0	280.0	310.0					
10.	Suspended Solids	Mg/L	40.0	40.0	30.0	30.0	50.0	40.0	50.0					
11.	Dissolved Oxygen	Mg/L	7.4	7.3	7.3	7.3	7.3	7.5	7.9					
12.	B.O.D.(3 day 27°C)	Mg/L	1.6	1.5	1.3	1.4	1.7	1.6	1.9					
13.	C O D	Mg/L	29.4	28.8	28.2	28.56	38.72	28.8	38.08					
14.	Chloride	Mg/L	40.0	38.0	38.0	36.0	38.0	33.0	37.0					
15.	Total Alkalinity	Mg/L	134.0	130.0	126.0	122.0	128.0	118.0	126.0					
16.	Total Hardness	Mg/L	116.0	110.0	106.0	102.0	110.0	100.0	108.0					
17.	Calcium Hardness	Mg/L	46.0	42.0	46.0	50.0	48.0	44.0	62.0					
18.	Magnesium Hardness	Mg/L	70.0	68.0	60.0	52.0	62.0	56.0	46.0					
19.	Ammonical Nitrogen	Mg/L	0.60	0.50	0.45	0.50	0.45	0.35	0.50					
20.	Nitrate Nitrogen	Mg/L	0.50	0.45	0.40	0.40	0.40	0.30	0.45					
21.	Nitrite Nitrogen	Mg/L	0.16	0.01	0.01	0.07	0.02	0.02	0.03					
22.	Phosphate	Mg/L	1.3	1.1	1.1	1.3	1.2	1.2	1.6					
23.	Sulphate(as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	15.0	13.0	12.0	13.0	14.0	13.0	16.0					
24.	Calcium	Mg/L	18.4	16.8	18.4	20.0	19.2	17.6	24.8					
25.	Magnesium	Mg/L	17.7	16.58	14.6	12.8	15.12	13.65	11.21					
26.	Any Other Test	Mg/L	-	-	-	-	-	-	-					

**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh- Year -2011**  
**Regional Office - Jagdalpur**

1. Comparative Statement of Indravati River at Nelashnar, Dantewada. After confluence of Dantewada River at Village-Nelashnar, Dantewada (NWMP Code No. 1854)

S.N.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	AVRG	Range	
1.	Temperature	°C	19			30			28							Min	Max
2.	Appearance	-	Clear			Clear			Muddy								
3.	Odour	Threshold	OL			OL			OL								
4.	pH	pH unit	7.80			7.45			7.5								
5.	Total Solids	Mg/L	298.0			228.0			792.0								
6.	Dissolved Solids	Mg/L	256.0			186.0			604.0								
7.	Suspended Solids	Mg/L	42.0			42.0			188.0								
8.	Chloride (as Cl)	Mg/L	26.0			24.0			40.0								
9.	Total Alkalinity	Mg/L	46.0			44.0			52.0								
10.	Total Hardness	Mg/L	52.0			58.0			60.0								
11.	Calcium Hardness	Mg/L	34.0			38.0			42.0								
12.	Magnesium Hardness	Mg/L	18.0			20.0			18.0								
13.	D.O	Mg/L	7.6			7.7			7.8								
14.	BOD (3 days 27° C)	Mg/L	0.8			1.1			1.2								
15.	COD	Mg/L	44.0			44.0			48.0								
16.	Coliform	MPN/100ml	8.0			08.0			08.0								
17.	Calcium	Mg/L	13.6			15.2			16.8								
18.	Magnesium	Mg/L	4.39			4.87			4.39								

**2. Comparative Statement of Dantewada River. A/C of River Shankni & Dankni at Dantewada  
(NWMP Code No. 1856)**

S.N.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	AVRG	Range	
																Min	Max
1.	Temperature	°C	19			30			28								
2.	Appearance	-	Clear			Clear			Muddy								
3.	Odour	Threshold	OL			OL			OL								
4.	pH	pH unit	7.75			7.75			7.7								
5.	Total Solids	Mg/L	207.0			236.0			874.0								
6.	Dissolved Solids	Mg/L	259.0			198.0			680.0								
7.	Suspended Solids	Mg/L	48.0			38.0			194.0								
8.	Chloride (as Cl)	Mg/L	28.0			24.0			42.0								
9.	Total Alkalinity	Mg/L	56.0			46.0			56.0								
10.	Total Hardness	Mg/L	64.0			58.0			64.0								
11.	Calcium Hardness	Mg/L	42.0			38.0			42.0								
12.	Magnesium Hardness	Mg/L	22.0			20.0			22.0								
13.	D.O	Mg/L	7.7			7.7			7.6								
14.	BOD (3 days 27° C)	Mg/L	1.0			0.9			1.4								
15.	COD	Mg/L	44.0			40.0			48.0								
16.	Coliform	MPN/100ml	12.0			12.0			12								
17.	Calcium	Mg/L	16.8			15.2			16.8								
18.	Magnesium	Mg/L	5.36			4.87			5.36								

**3. Comparative Statement of Indravati River B/C Godawari at Village-BhopalPattanam, Dantewada**  
**(NWMP Code No. 1855)**

<b>S.N.</b>	<b>Characteristics</b>	<b>Unit</b>	<b>Jan.</b>	<b>Feb.</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>	<b>Aug.</b>	<b>Sep.</b>	<b>Oct.</b>	<b>Nov.</b>	<b>Dec.</b>
1.	Temperature	°C												
2.	Appearance	-												
3.	Odour	Threshold												
4.	pH	pH unit												
5.	Dissolved Oxy.	Mg/L												
6.	BOD (3 days 27° C)	Mg/L												
7.	COD	Mg/L												
8.	Coliform	MPN/ 100ml												

**Year-2011**  
**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh State**  
**Regional Office – Korba**

**1. Comparative Statement of Hasdeo River - U/S of Hasdeo Bango Hydel Power Station, Machadoli, Korba (NWMP Code No. 1105)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug	Sep	Oct	Nov	Dec.
1.	Temperature	<sup>o</sup> C	26.0	26.4	26.9	26.8	27.0	26.8	26.0	26.1	26.2			
2.	Appearance	-	Clear	Clear	Clear	Clear	Clear	Turbid	Turbid	Turbid	Turbid			
3.	Odour	Threshold	OL	OL	OL	OL	OL	OL	OL	OL	OL			
4.	pH	pH unit	7.12	7.14	7.16	7.18	7.22	7.05	7.08	7.11	7.13			
5.	Dissolved Solids	Mg/L	260	264	258	308	302	352	360.0	361.0	368.0			
6.	Suspended Solids	Mg/L	44	42	44	40	42	59	62.0	68.0	65.0			
7.	Ammonical Nitrogen	Mg/L	1.2	1.3	1.4	1.3	1.2	1.5	1.4	1.6	1.8			
8.	Nitrate Nitrogen	Mg/L	1.0	1.1	1.2	1.1	1.0	1.3	1.2	1.3	1.5			
9.	Nitrite Nitrogen	Mg/L	0.06	0.05	0.06	0.07	0.05	0.07	0.06	0.05	0.07			
10.	Phosphate	Mg/L	1.2	1.1	1.2	1.0	0.9	1.0	0.8	0.6	0.7			
11.	Chloride	Mg/L	18.99	20.99	18.99	19.99	21.99	18.99	15.99	17.99	16.99			
12.	Sulphate	Mg/L	42	38	34	32	30	34	30.0	28.0	24.0			
13.	Dissolved Oxy.	Mg/L	6.8	6.9	6.8	6.9	6.7	5.8	5.5	5.6	5.9			
14.	BOD (3 days 27 <sup>o</sup> C)	Mg/L	1.1	0.9	1.0	0.9	1.0	2.3	2.2	2.1	1.8			
15.	COD	Mg/L	20.0	18	20	18	22	30	28.0	26.0	28.0			
16.	Total Hardness	Mg/L	42	44	46	48	46	38	40.0	44.0	48.0			
17.	Coliform	MPN/ 100ml	140	110	70	80	70	210	230.0	180.0	160.0			

**Year -2011**  
**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh-**  
**Regional Office – Raigarh**

1. Comparative Statement Of River Mahanadi At Surajgarh Village, District- Raigarh, State Boundary, Near Surajgarh Village  
(NWMP Code No. -1101)

S. No	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	AVRG.	Range	
																Min	Min
1.	Temperature	°C	24	26		30	32	26	30	28	27						
2.	pH	pH unit	7.70	7.6		7.60	7.5	7.5	7.5	7.5	7.4						
3.	Turbidity	NTU	-	-		18.00	-	-	-	-	-						
4.	Specific Conductivity	Micro Mhos	248.00	264.00		259.00	262	301.0	296.0	292	290.5						
5.	Total Dissolved Solids	Mg/L	7.30	7.4		131.00	-	-	-	-	-						
6.	Total Suspended Solids	Mg/L	-	-		64.00	-	-	-	-	-						
7.	Ammonical nitrogen	Mg/L	-	-		1.29	1.22	1.31	1.29	1.31	1.26						
8.	Nitrate nitrogen	Mg/L	-	-		1.16	1.12	1.2	1.88	1.22	1.18						
9.	Nitrite nitrogen	Mg/L	0.24	0.24		0.23	0.22	0.25	0.25	0.27	0.25						
10.	Phosphate	Mg/L	1.10	1.0		1.0	-	-	-	-	-						
11.	Chloride	Mg/L	1.16	1.16		28.00	-	-	-	-	-						
12.	Sulphates	Mg/L	-	-		36.00	-	-	-	-	-						



13.	Total Coliform	MPN/ 100ml				75.00	43.0	210.0	210.0	240.0	240.0						
14.	Dissolved Oxygen	Mg/L				7.3	7.4	7.3	7.3	7.1	7.2						
15.	BOD (3 days 27 <sup>o</sup> C)	Mg/L	1.26	1.29		*	*	1.8	1.6	*	*						
16.	C.O.D.	Mg/L	64.00	64		19.84	-	-	-	-	-						
17.	Total Alkalinity	Mg/L	-	-		129.00	-	-	-	-	-						
18.	Total Hardness	Mg/L	-	-		102.00	-	-	-	-	-						
19.	Calcium	Mg/L	-	-		28.0	-	-	-	-	-						
20.	Magnesium	Mg/L	-	-		7.80	-	-	-	-	-						

**2. Comparative Statement Of Kelo River Up Stream Raigarh City**  
**(NWMP Code No. -1849)**

S. No	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	AVRG.	Range	
																Min	Min
1.	Temperature	°C	24	27		30	32	26	30	28							
2.	pH	pH unit	7.60	7.5		7.6	7.5	7.5	7.5	7.5							
3.	Turbidity	NTU	-	-		24.00	-	-	-	-							
4.	Specific Conductivity	Micro Mhos	247.00	269.00		256.0	250.0	292.0	282.0	288							
5.	Total Dissolved Solids	Mg/L	7.30	7.4		139.00	-	-	-	-							

6.	Total Suspended Solids	Mg/L	-	-	68.00	-	-	-	-								
7.	Ammonical nitrogen	Mg/L	1.24	1.31	1.29	1.24	1.34	1.31	1.34								
8.	Nitrate nitrogen	Mg/L	1.12	1.18	1.18	1.14	1.22	1.2	1.24								
9.	Nitrite nitrogen	Mg/L	0.23	0.24	0.23	0.22	0.26	0.25	0.27								
10.	Phosphate	Mg/L	1.10	1.0	1.0	-	-	-	-								
11.	Chloride	Mg/L	1.16	1.16	29.00	-	-	-	-								
12.	Sulphates	Mg/L	-	-	42.00	-	-	-	-								
13.	Total Coliform	MPN/100ml	75.00	93	93	64	240.0	240.0	240.0								
14.	Dissolved Oxygen	Mg/L	7.30	7.3	7.3	7.5	7.3	7.3	7.1								
15.	BOD (3 days 27° C)	Mg/L	1.10	1.3	*	*	1.9	1.7	*								
16.	C.O.D.	Mg/L	64.00	64	23.82	-	-	-	-								
17.	Total Alkalinity	Mg/L	-	-	133.00	-	-	-	-								
18.	Total Hardness	Mg/L	-	-	107.00	-	-	-	-								
19.	Calcium	Mg/L	-	-	27.6	-	-	-	-								
20.	Magnesium	Mg/L	-	-	9.26	-	-	-	-								

3. Comparative Statement Of Kelo River Down Stream District-Raigarh City  
(NWMP Code No. -1850)

S. No	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	AVRG.	Range	
																Min	Min
1.	Temperature	°C	24	27		30	32	26	30	28							
2.	pH	pH unit	7.70	7.6		7.7	7.6	7.5	7.5	7.6							
3.	Turbidity	NTU	-	-		36.00	-	-	-	-							
4.	Specific Conductivity	Micro Mhos	258.00	282.00		264.00	278.0	298.0	295.0	298							
5.	Total Dissolved Solids	Mg/L	7.30	7.4		153.00	-	-	-	-							
6.	Total Suspended Solids	Mg/L	-	-		72.00	-	-	-	-							
7.	Ammonical nitrogen	Mg/L	1.26	1.34		1.34	1.39	1.36	1.36	1.39							
8.	Nitrate nitrogen	Mg/L	1.14	1.2		1.2	1.24	1.24	1.22	1.3							
9.	Nitrite nitrogen	Mg/L	0.24	0.25		0.24	0.25	0.26	0.26	0.28							
10.	Phosphate	Mg/L	1.10	1.0		1.1	-	-	-	-							
11.	Chloride	Mg/L	1.16	1.16		32.00	-	-	-	-							
12.	Sulphates	Mg/L	-	-		46.00	-	-	-	-							
13.	Total Coliform	MPN/100ml	150.00	120		210	150	460.0	460.0	460.0							
14.	Dissolved Oxygen	Mg/L	7.20	7.2		7.2	7.3	7.2	7.2	7.0							

15.	BOD (3 days 27° C)	Mg/L	1.80	1.6		*	*	2.6	2.8	*							
16.	C.O.D.	Mg/L	64.00	64		31.74	-	-	-	-							
17.	Total Alkalinity	Mg/L	-	-		138.00	-	-	-	-							
18.	Total Hardness	Mg/L	-	-		112.00	-	-	-	-							
19.	Calcium	Mg/L	-	-		28.8	-	-	-	-							
20.	Magnesium	Mg/L	-	-		9.75	-	-	-	-							

**Location of National Water Monitoring Programme (NWMP) of Chhattisgarh- Year -2011**  
**Regional Office – Raipur**

(1) Comparative Statement of Rivers Mahanadi at Rajim, D/S , Near Nawapara Rajim Road Bridge  
(NWMP Code No. 1099)

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25	28	26.5	33	33	32						
2.	Appearance	-	Clear	Clear	Clear	Clear	Clear	Clear						
3.	Odour	Threshold No.	OL	OL	OL	OL	OL	OL						
4.	pH	pH Units	7.75	7.85	7.78	7.75	7.45	7.26						
5.	Specific Conductivity	Micro Mhos	275.0	570.0	308.0	305.0	310.0	291.0						
6.	Turbidity	NTU/JTU	14.0	63.0	18.0	20.0	26.0	22.0						
7.	Total Solids	Mg/L	118.0	450.0	222.0	228.0	259.0	168.0						
8.	Dissolved Solids	Mg/L	92.0	360.0	184.0	187.0	205.0	126.0						
9.	Suspended Solids	Mg/L	26.0	90.0	38.0	41.0	54.0	42.0						
10.	Fixed Diss.Solids	Mg/L	90.0	210.0	110.0	136.0	173.0	94.0						
11.	Nitrite Nitrogen	Mg/L	0.2	2.5	1.3	1.1	1.2	1.0						
12.	Dissolved Oxygen	Mg/L	7.4	8.2	8.2	7.9	7.6	7.8						
13.	B.O.D.(3 day 27°C)	Mg/L	-	-	-	-	-	-						
14.	C.O.D.	Mg/L	19.6	23.52	19.6	20.6	15.84	22.56						
15.	Total Alkalinity	Mg/L	70.0	65.0	78.0	77.0	82.0	96.0						
16.	Total Hardness	Mg/L	66.0	86.0	82.0	86.0	92.0	76.0						
17.	Calcium Hardness	Mg/L	42.0	54.0	56.0	58.0	68.0	52.0						
18.	Magnesium Hardness	Mg/L	24.0	32.0	26.0	28.0	24.0	24.0						
19.	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	15.43	10.79	16.68	15.68	12.67	12.67						
20.	Ammonical Nitrogen	Mg/L	0.2	0.16	0.28	0.26	0.11	0.16						
21.	Phosphate	Mg/L	0.73	1.3	1.06	1.05	1.84	1.03						
22.	Chloride	Mg/L	19.99	26.99	25.99	23.99	34.0	24.99						
23.	Calcium	Mg/L	16.8	21.6	22.4	23.2	27.2	20.8						

24.	Magnesium	Mg/L	5.85	7.80	6.34	6.82	5.85	5.85						
25.	Sodium	Mg/L	10.0	21.0	11.0	12.0	8.0	11.0						
26.	Potassium	Mg/L	4.0	8.0	5.0	6.0	3.0	5.0						
27.	Coliform	MPN/100ml	11.0	210.0	220.0	90.0	80.0	27.0						

**(2) Comparative Statement of Rivers Mahanadi at Rudri Dame , U/S of Dhamtari Reservoir**  
**(NWMP Code No. 1264)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25		26	33								
2.	Appearance	-	Clear		Clear	Clear								
3.	Odour	-	OL		OL	OL								
4.	pH	pH Units	7.57		7.92	7.75								
5.	Specific Conductivity	µMicro/cm	340.0		296.0	295.0								
6.	Turbidity	NTU/JTU	28.0		16.0	15.0								
7.	Total Solids	Mg/L	240.0		216.0	204.0								
8.	Dissolved Solids	Mg/L	203.0		184.0	175.0								
9.	Suspended Solids	Mg/L	37.0		32.0	29.0								
10.	Fixed Diss.Solids	Mg/L	105.0		108.0	132.0								
11.	Nitrite Nitrogen	Mg/L	1.0		1.2	1.2								
12.	Dissolved Oxygen	Mg/L	8.0		7.9	7.5								
13.	B.O.D.(3 day 27°C)	Mg/L	-		-	-								
14.	C.O.D.	Mg/L	9.6		19.6	19.6								
15.	Total Alkalinity	Mg/L	86.0		74.0	75.0								
16.	Total Hardness	Mg/L	82.0		80.0	82.0								
17.	Calcium Hardness	Mg/L	58.0		56.0	56.0								
18.	Magnesium Hardness	Mg/L	24.0		24.0	26.0								
19.	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	15.87		14.67	12.67								

20.	Fluoride(as F <sup>-</sup> )	Mg/L	0.26		0.26	0.23								
21.	Phosphate	Mg/L	1.07		0.83	0.84								
22.	Chloride	Mg/L	20.99		20.99	15.0								
23.	Calcium	Mg/L	23.2		22.4	22.4								
24.	Magnesium	Mg/L	5.85		5.85	6.34								
25.	Sodium	Mg/L	9.0		10.0	11.0								
26.	Potassium	Mg/L	2.0		4.0	5.0								
27.	Coliform	MPN/100 ml	35.0		110	60.0								
28.														

**(3) Comparative Statement of Rivers Kharun At Bhatagoan, U/S Near W/S Intakewell,  
(NWMP Code No. 1265)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25			34								
2.	Appearance	-	Clear			Clear								
3.	Odour	-	OL			OL								
4.	pH	pH Units	7.76			7.75								
5.	Specific Conductivity	µMicro/cm	264.0			262.0								
6.	Turbidity	NTU/JTU	24.0			23.0								
7.	Total Solids	Mg/L	200.0			192.0								
8.	Dissolved Solids	Mg/L	153.0			148.0								
9.	Suspended Solids	Mg/L	47.0			44.0								
10.	Fixed Diss.Solids	Mg/L	104.0			98.0								
11.	Nitrite Nitrogen	Mg/L	1.1			1.2								
12.	Dissolved Oxygen	Mg/L	8.7			8.5								
13.	B.O.D.(3 day 27°C)	Mg/L	-			-								
14.	C.O.D.	Mg/L	19.6			20.52								
15.	Total Alkalinity	Mg/L	105.0			100.0								
16.	Total Hardness	Mg/L	96.0			94.0								
17.	Calcium Hardness	Mg/L	68.0			68.0								

18.	Magnesium Hardness	Mg/L	28.0			26.0								
19.	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	15.31			13.61								
20.	Fluoride(as F <sup>-</sup> )	Mg/L	0.2			0.3								
21.	Phosphate	Mg/L	1.03			1.04								
22.	Chloride	Mg/L	23.99			23.99								
23.	Calcium	Mg/L	27.2			27.2								
24.	Magnesium	Mg/L	6.82			6.34								
25.	Sodium	Mg/L	12.0			11.0								
26.	Potassium	Mg/L	7.0			6.0								
27.	Coliform	MPN/100m 1	34.0			30.0								

**(4) Comparative Statement of Rivers Shivnath at Simga, Near Simga Bemetara Road Bridge, (NWMP Code No. 1266)**

S. No.	Characteristics	Unit	Jan.	Feb	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25			30								
2.	Appearance	-	Clear			Clear								
3.	Odour	-	OL			OL								
4.	pH	pH Units	7.80			7.74								
5.	Specific Conductivity	µMicro/cm	390.0			380.0								
6.	Turbidity	NTU/JTU	28.0			30.0								
7.	Total Solids	Mg/L	250.0			261.0								
8.	Dissolved Solids	Mg/L	208.0			213.0								
9.	Suspended Solids	Mg/L	42.0			48.0								
10.	Fixed Diss.Solids	Mg/L	115.0			172.0								
11.	Nitrite Nitrogen	Mg/L	1.2			1.1								
12.	Dissolved Oxygen	Mg/L	8.2			7.6								
13.	B.O.D.(3 day 27°C)	Mg/L	-			-								



14.	C.O.D.	Mg/L	23.53			24.54								
15.	Total Alkalinity	Mg/L	150.0			155.0								
16.	Total Hardness	Mg/L	100.0			98.0								
17.	Calcium Hardness	Mg/L	70.0			68.0								
18.	Magnesium Hardness	Mg/L	30.0			30.0								
19.	Sulphate (as SO <sub>4</sub> <sup>2-</sup> )	Mg/L	16.50			17.53								
20.	Fluoride (as F <sup>-</sup> )	Mg/L	0.26			0.24								
21.	Phosphate	Mg/L	1.05			1.06								
22.	Chloride	Mg/L	23.52			28.0								
23.	Calcium	Mg/L	28.0			27.2								
24.	Magnesium	Mg/L	7.31			7.31								
25.	Sodium	Mg/L	11.0			10.0								
26.	Potassium	Mg/L	5.0			4.0								
27.	Coliform	MPN/100m l	70.0			80.0								

**(5) Comparative Statement of Rivers Kharun at Bendri Village , U/S Near CSIDC W/S Intekewell, (NWMP Code No. 1853)**

S. No.	Characteristics	Unit	Jan.	Feb	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25			34								
2.	Appearance	-	Clear			Clear								
3.	Odour	-	OL			OL								
4.	pH	pH Units	7.82			7.75								
5.	Specific Conductivity	µMicro/cm	196.0			270.0								
6.	Turbidity	NTU/JTU	28.0			30.0								
7.	Total Solids	Mg/L	210.0			220.0								
8.	Dissolved Solids	Mg/L	163.0			168.0								
9.	Suspended Solids	Mg/L	47.0			52.0								
10.	Fixed Diss.Solids	Mg/L	105.0			114.0								

11.	Nitrite Nitrogen	Mg/L	1.5			1.3								
12.	Dissolved Oxygen	Mg/L	8.5			7.8								
13.	B.O.D.(3 day 27°C)	Mg/L	-			-								
14.	C.O.D.	Mg/L	23.52			22.53								
15.	Total Alkalinity	Mg/L	80.0			82.0								
16.	Total Hardness	Mg/L	90.0			110.0								
17.	Calcium Hardness	Mg/L	66.0			70.0								
18.	Magnesium Hardness	Mg/L	24.0			40.0								
19.	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	15.33			15.30								
20.	Fluoride (as F <sup>-</sup> )	Mg/L	0.23			0.22								
21.	Phosphate	Mg/L	1.08			1.05								
22.	Chloride	Mg/L	22.94			23.94								
23.	Calcium	Mg/L	26.4			28.0								
24.	Magnesium	Mg/L	5.85			9.75								
25.	Sodium	Mg/L	11.0			12.0								
26.	Potassium	Mg/L	3.0			4.0								
27.	Coliform	MPN/100ml	46.0			50.0								

**(6) Comparative Statement of Rivers Mahanadi at Sihawa Origin Point of River Mahandi**  
**(NWMP Code No. 1851)**

S. No.	Characteristics	Unit	Jan.	Feb	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
2.	Temperature	°C	25		26.5	33								
3.	Appearance	-	Clear		Clear	Clear								
4.	Odour	-	OL		OL	OL								
5.	pH	pH Units	7.75		7.68	7.75								
6.	Specific Conductivity	µMicro/cm	275.0		284.0	175.0								

7.	Turbidity	NTU/JTU	14.0		12.0	14.0								
8.	Total Solids	Mg/L	118.0		128.0	118.0								
9.	Dissolved Solids	Mg/L	92.0		100.0	92.0								
10.	Suspended Solids	Mg/L	26.0		28.0	26.0								
11.	Fixed Diss.Solids	Mg/L	90.0		86.0	65.0								
12.	Nitrite Nitrogen	Mg/L	0.2		1.2	0.2								
13.	Dissolved Oxygen	Mg/L	7.4		7.2	8.6								
14.	B.O.D.(3 day 27°C)	Mg/L	-		-	-								
15.	C.O.D.	Mg/L	19.6		15.84	16.6								
16.	Total Alkalinity	Mg/L	70.0		66.0	70.0								
17.	Total Hardness	Mg/L	66.0		70.0	66.0								
18.	Calcium Hardness	Mg/L	42.0		46.0	42.0								
19.	Magnesium Hardness	Mg/L	24.0		24.0	24.0								
20.	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	15.43		0.78	15.43								
21.	Fluoride (as F <sup>-</sup> )	Mg/L	0.2		0.24	0.2								
22.	Phosphate	Mg/L	0.73		18.99	0.73								
23.	Chloride	Mg/L	19.99		9.0	19.99								
24.	Calcium	Mg/L	16.8		18.4	16.8								
25.	Magnesium	Mg/L	5.85		5.85	5.85								
26.	Sodium	Mg/L	10.0		9.0	10.0								
27.	Potassium	Mg/L	4.0		4.0	4.0								
28.	Coliform	MPN/100m l	11.0		30.0	11.0								

**(7) Comparative Statement of Rivers Mahanadi at Arang Near Gandhi Setu NH No. 06**  
**(NWMP Code No. 1852)**

S. No.	Characteristics	Unit	Jan.	Feb.	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25		34									
2.	Appearance	-	Clear		Clear									
3.	Odour	-	OL		OL									
4.	pH	pH Units	7.74		7.76									

5.	Specific Conductivity	μMicro/cm	325.0		330.0									
6.	Turbidity	NTU/JTU	35.0		31.0									
7.	Total Solids	Mg/L	320.0		215.0									
8.	Dissolved Solids	Mg/L	260.0		170.0									
9.	Suspended Solids	Mg/L	60.0		45.0									
10.	Fixed Diss.Solids	Mg/L	140.0		114.0									
11.	Nitrite Nitrogen	Mg/L	1.3		1.3									
12.	Dissolved Oxygen	Mg/L	8.5		8.2									
13.	B.O.D.(3 day 27°C)	Mg/L	-		-									
14.	C.O.D.	Mg/L	17.6		16.6									
15.	Total Alkalinity	Mg/L	74.0		77.0									
16.	Total Hardness	Mg/L	80.0		84.0									
17.	Calcium Hardness	Mg/L	54.0		56.0									
18.	Magnesium Hardness	Mg/L	26.0		28.0									
19.	Sulphate(as SO <sub>4</sub> <sup>-</sup> )	Mg/L	15.43		15.40									
20.	Fluoride(as F <sup>-</sup> )	Mg/L	0.22		0.23									
21.	Phosphate	Mg/L	1.02		1.03									
22.	Chloride	Mg/L	21.97		21.0									
23.	Calcium	Mg/L	21.6		22.4									
24.	Magnesium	Mg/L	6.34		6.82									
25.	Sodium	Mg/L	11.0		10.0									
26.	Potassium	Mg/L	5.0		4.0									
27.	Coliform	MPN/100m l	39.0		40.0									

**(8) Comparative Statement of Bore well Water New H.I.G. 11, Tatibandh, Office Premises RO, CECB, Raipur  
(NWMP Code No. 1620)**

S. No.	Characteristics	Unit	Jan.	Feb	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1	Temperature	°C	25			30								
2	Appearance	-	Clear			Clear								
3	Odour	-	OL			OL								
4	pH	pH Units	7.96			7.94								
5	Specific Conductivity	µMicro/cm	690.0			695.0								
6	Turbidity	NTU/JTU	6.0			7.0								
7	Total Solids	Mg/L	470.0			480.0								
8	Dissolved Solids	Mg/L	457.0			464.0								
9	Suspended Solids	Mg/L	13.0			16.0								
10	Fixed Diss.Solids	Mg/L	362.0			334.0								
11	Nitrite Nitrogen	Mg/L	1.4			1.3								
12	Dissolved Oxygen	Mg/L	2.6			2.4								
13	B.O.D.(3 day 27°C)	Mg/L	-			-								
14	C.O.D.	Mg/L	11.76			12.67								
15	Total Alkalinity	Mg/L	96.0			94.0								
16	Total Hardness	Mg/L	398.0			396.0								
17	Calcium Hardness	Mg/L	276.0			276.0								
18	Magnesium Hardness	Mg/L	122.0			120.0								
19	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	32.56			30.34								
20	Fluoride (as F <sup>-</sup> )	Mg/L	0.1			0.2								
21	Phosphate	Mg/L	0.38			0.35								
22	Chloride	Mg/L	18.96			18.90								
23	Calcium	Mg/L	110.4			110.4								
24	Magnesium	Mg/L	29.75			29.26								
25	Sodium	Mg/L	24.0			23.0								
26	Potassium	Mg/L	12.0			11.0								
27	Coliform	MPN/100m l	4.0			4.0								

**(9) Comparative Statement of Bore well M/s Prakriti Industries, Rawabhata, Raipur  
(NWMP Code No. 1621)**

S. No.	Characteristics	Unit	Jan.	Feb	March	April	May	June	July	Aug.	Sep.	Oct.	Nov	Dec.
1.	Temperature	°C	25			29								
2.	Appearance	-	Clear			Clear								
3.	Odour	-	OL			OL								
4.	pH	pH Units	7.84			7.85								
5.	Specific Conductivity	µMicro/cm	865.0			943.0								
6.	Turbidity	NTU/JTU	9.0			8.0								
7.	Total Solids	Mg/L	615.0			660.0								
8.	Dissolved Solids	Mg/L	600.0			644.0								
9.	Suspended Solids	Mg/L	15.0			16.0								
10.	Fixed Diss.Solids	Mg/L	415.0			456.0								
11.	Nitrite Nitrogen	Mg/L	2.5			2.4								
12.	Dissolved Oxygen	Mg/L	1.6			1.5								
13.	B.O.D.(3 day 27°C)	Mg/L	-			-								
14.	C.O.D.	Mg/L	19.6			18.68								
15.	Total Alkalinity	Mg/L	192.0			190.0								
16.	Total Hardness	Mg/L	356.0			352.0								
17.	Calcium Hardness	Mg/L	228.0			226.0								
18.	Magnesium Hardness	Mg/L	128.0			126.0								
19.	Sulphate (as SO <sub>4</sub> <sup>-</sup> )	Mg/L	33.34			31.43								
20.	Fluoride (as F <sup>-</sup> )	Mg/L	0.5			0.4								
21.	Phosphate	Mg/L	0.42			0.40								
22.	Chloride	Mg/L	164.94			143.95								
23.	Calcium	Mg/L	91.2			90.4								
24.	Magnesium	Mg/L	31.21			30.73								
25.	Sodium	Mg/L	36.0			35.0								
26.	Potassium	Mg/L	16.0			5.0								
27.	Coliform	MPN/100m l	7.0			6.0								

