

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2018-19

Description of Sampling Station: Rever Narmada At Amarkantak origin point dist.Anuppur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	4.4.18	5.5.18	6.6.18	5.7.18	6.8.18	4.9.18	5.10.18	9.11.18	5.12.18	5.1.19	04.02.20	2.3.19	--	--	--
2	Appearance	--	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	--	--	--
3	Temperature	oC	23.4	28.2	27.6	27.8	26.4	25.4	28.5	24.8	24.6	19.4	22.5	22.5	25.1	28.5	19.4
4	Turbidity	NTU	2.9	3.4	2.9	3.6	8.9	7.7	4.2	3.4	3.3	3.5	3.8	3.8	4.3	8.9	2.9
5	Colour	PCS	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	--	--	--
6	Odour	T. No	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	--	--	--
7	pH	pH Unit	7.15	7.98	7.43	7.92	7.36	7.86	7.83	7.79	7.79	7.8	7.79	7.79	7.7	7.98	7.15
8	Sp. Conductivity	µMhos/cm.	226.3	283.7	182.3	288.9	359.1	311.6	215.8	198.3	221.3	245.6	229.6	246	250.7	359.1	182.3
9	T. Solids	mg/l	167	161	128	171	142	157	148	152	159	168	186	181	160.0	186	128
10	D. Solids	mg/l	159	151	121	159	134	151	139	142	149	160	176	171	151.0	176	121
11	S. Solids	mg/l	8	10	7	12	8	6	9	10	10	8	10	10	9.0	12	6
12	Amm. Nitrogen	mg/l	Trace	0.012	Trace	0.01	0.021	Trace	BDL	BDL	0.01	Trace	0.01	0.011	0.0	0.021	0.01
13	Nitrite Nitrogen	mg/l	Trace	0.002	Trace	0.002	BDL	Trace	BDL	BDL	0.002	Trace	0.004	0.002	0.0	0.004	0.002
14	Nitrate Nitrogen	mg/l	0.36	0.46	0.2	0.28	0.12	0.16	0.24	0.32	0.28	0.29	0.22	0.44	0.3	0.46	0.12
15	Phosphate (PO <sub>4</sub> )	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	--	--	--
16	Chloride	mg/l	24.6	14.7	14.7	19.7	14.7	19.7	14.7	19.5	19.5	14.7	19.7	24.4	18.4	24.6	14.7
17	Sulphate (SO <sub>4</sub> )	mg/l	3.6	4.2	2.8	5	2.1	2.6	2.1	2.3	2.8	3	4.2	4.8	3.3	5	2.1
18	T. Alkalinity	mg/l	28	32	24	40	36	32	36	32	40	44	40	44	35.7	44	24
19	T. Hardness	mg/l	80	76	76	88	92	88	80	84	92	88	96	100	86.7	100	76
20	CalciumHardness	mg/l	48	52	52	56	52	52	48	48	52	52	56	56	52.0	56	48
21	Magnesium H.	mg/l	32	24	24	32	40	36	32	36	40	36	40	44	34.7	44	24
22	D. Oxygen	mg/l	7	6.9	6.2	6.6	6.7	6.6	7.1	7.4	7.2	7.4	7.2	7	6.9	7.4	6.2
23	B.O.D.	mg/l	1.1	0.9	0.2	0.8	1.3	0.8	0.3	0.4	0.4	0.6	0.5	0.7	0.7	1.3	0.2
24	C.O.D.	mg/l	5	4.8	5	4.8	5	4.8	5	4.8	5	4.8	5	4.8	4.9	5	4.8
25	Sodium	mg/l	6.25	7.12	4.16	9.21	10.25	13.2	12.61	11.89	13.81	12.87	11.98	12.65	10.5	13.81	4.16
26	Potassium	mg/l	1.98	1.88	0.82	1.82	2.01	1.82	2.01	1.98	1.26	1.64	1.97	1.87	1.8	2.01	0.82
27	T. Coliform	MPN/100ml	3.6	6	1.8	4	1.8	<1.8	<1.8	3.6	5.5	1.8	<1.8	1.8	3.3	6	1.8
28	F. Coliform	MPN/100ml	<1.8	<1.8	<1.8	<1.8	<1.8	ND	ND	ND	<1.8	<1.8	ND	<1.8	<1.8	<1.8	<1.8
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	CATEGORY		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2018-19

Description of Sampling Station: : Rever Narmada At Puskar Dam Amarkantak

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	4.4.18	5.5.18	6.6.18	5.7.18	6.8.18	4.9.18	5.10.18	9.11.18	5.12.18	5.1.19	4.2.19	2.3.19	--	--	--
2	Appearance	--	Clear	Clear	Clear	s.turbid	Sl turbid	Sl turbid	Clear	Clear	Clear	Clear	Clear	Clear	--	--	--
3	Temperature	oC	23.6	29	28.8	28	26.6	25.2	29	25.4	24.8	19.5	23	23.2	25.5	29	19.5
4	Turbidity	NTU	5.2	6.4	6.2	7.4	14.8	18.4	5.2	4	4.2	5.1	5.1	5.6	7.3	18.4	4
5	Colour	PCS	Colourless	Colourless	Colourless	slt.muddy	light muddy	light muddy	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	--	--	--
6	Odour	T. No	Odourless	Odourless	Odourless	odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	--	--	--
7	pH	pH Unit	7.98	8.02	7.96	7.89	7.46	7.87	7.92	7.81	7.81	7.79	7.8	7.97	7.9	8.02	7.46
8	Sp. Conductivity	µMhos/cm.	411.2	486.3	442.1	484.6	484.6	426.9	291.6	279.7	362.9	378.4	389.7	395.6	402.8	486.3	279.7
9	T. Solids	mg/l	219	225	206	225	231	215	195	189	211	219	206	211	212.7	231	189
10	D. Solids	mg/l	205	209	188	205	213	203	186	179	199	208	194	197	198.8	213	179
11	S. Solids	mg/l	14	16	18	20	18	12	9	10	12	11	12	14	13.8	20	9
12	Amm. Nitrogen	mg/l	0.018	0.024	0.018	0.016	0.024	0.012	0.02	0.024	0.016	0.014	0.017	0.014	0.0	0.024	0.012
13	Nitrite Nitrogen	mg/l	0.011	0.016	0.008	0.004	0.012	0.008	0.012	0.013	0.013	0.011	0.013	0.011	0.0	0.016	0.004
14	Nitrate Nitrogen	mg/l	0.82	1.24	0.88	0.64	0.46	0.28	0.36	0.48	0.49	0.49	0.54	0.64	0.6	1.24	0.28
15	Phosphate (PO <sub>4</sub> )	mg/l	0.024	0.012	0.14	0.024	0.018	0.016	0.02	0.026	0.018	0.018	0.015	0.013	0.0	0.14	0.012
16	Chloride	mg/l	34.4	39.4	34.4	24.4	19.7	19.7	24.5	29.5	29.5	24.5	34.4	44.4	29.9	44.4	19.7
17	Sulphate (SO <sub>4</sub> )	mg/l	5.2	6.4	8.8	9.4	4.8	4.2	4.1	5.6	5.3	6.2	7.2	8.2	6.3	9.4	4.1
18	T. Alkalinity	mg/l	36	44	48	52	48	44	48	52	52	48	52	56	48.3	56	36
19	T. Hardness	mg/l	120	124	128	116	112	108	112	116	120	124	120	128	119.0	128	108
20	CalciumHardness	mg/l	84	80	80	68	64	64	72	72	72	72	68	76	72.7	84	64
21	Magnesium H.	mg/l	36	44	48	48	48	44	40	44	48	52	52	52	46.3	52	36
22	D. Oxygen	mg/l	7.3	6.8	6.6	7.4	6.9	6.7	7.5	7.7	7.6	7.7	7.5	7.7	7.3	7.7	6.6
23	B.O.D.	mg/l	1.9	2	1.9	2.5	2.4	2.1	1.8	1.9	2	1.8	1.7	1.8	2.0	2.5	1.7
24	C.O.D.	mg/l	20	28.8	15	14.4	15	14.4	10	9.6	20	14.4	10	14.4	15.5	28.8	9.6
25	Sodium	mg/l	11.24	12.36	13.62	14.26	15.21	18.26	17.26	18.2	18.32	17.52	16.34	17.24	15.8	18.32	11.24
26	Potassium	mg/l	3.12	3.24	2.96	3.02	3.26	3.16	2.97	2.87	3.09	3.24	3.09	3.12	3.1	3.26	2.87
27	T. Coliform	MPN/100ml	84	50	48	63	79	84	50	48	63	50	46	50	59.6	84	46
28	F. Coliform	MPN/100ml	6	4	3.6	6.1	4	5.5	1.8	1.8	2	1.8	1.8	1.8	3.4	6.1	1.8
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
	CATEGORY		AB	A	A	AB	AB	B	A	A	A	A	A	A	AB	AB	AB

Classification of River water based on IS - 2296 - 1992





Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada At Dindori U/S

Description of Sampling Station: water sample near Intek well point dist. Dindori

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	4.04.18	05.05.18	1.6.18	5.7.18	6.8.18	4.9.18	5.10.18	9.11.18	5.12.18	5.1.19	5.2.19	7.3.19	--	--	--
2	Appearance	--	Clear	Clear	Clear	s.turbid	Sl turbid	Sl turbid	Clear	Clear	Clear	Clear	Clear	Clear	--	--	--
3	Temperature	oC	24.6	28.8	29.1	27.8	25.8	25.2	28	25	25.4	20.5	23	23.4	25.6	29.1	20.5
4	Turbidity	NTU	3.8	4.1	3.2	7.2	19.4	18.3	6.2	3.4	3.6	3.8	4.1	3.8	6.7	19.4	3.2
5	Colour	PCS	Colourless	Colourless	Colourless	slt.muddy	light muddy	light muddy	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	--	--	--
6	Odour	T. No	Odourless	Odourless	Odourless	odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	--	--	--
7	pH	pH Unit	8.12	8.09	7.85	7.98	7.86	7.69	7.86	7.9	7.9	7.82	7.88	7.95	7.9	8.12	7.69
8	Sp. Conductivity	µMhos/cm.	342.6	356.8	383.3	469.2	549.8	513.9	315.6	278.3	303.8	315.9	237.8	261	360.7	549.8	237.8
9	T. Solids	mg/l	195	184	191	291	301	295	195	181	186	179	186	179	213.6	301	179
10	D. Solids	mg/l	172	169	178	269	276	276	184	172	177	169	175	170	198.9	276	169
11	S. Solids	mg/l	9	15	13	22	25	19	11	9	9	10	11	9	13.5	25	9
12	Amm. Nitrogen	mg/l	0.026	0.014	0.012	0.02	0.018	0.012	Trace	0.02	0.016	0.018	0.013	0.011	0.0	0.026	0.011
13	Nitrite Nitrogen	mg/l	0.012	0.008	0.004	0.014	BDL	0.006	Trace	0.012	0.01	0.012	0.008	0.01	0.0	0.014	0.004
14	Nitrate Nitrogen	mg/l	0.46	0.64	0.66	0.48	0.32	0.28	0.46	0.52	0.38	0.41	0.38	0.4	0.4	0.66	0.28
15	Phosphate (PO <sub>4</sub> )	mg/l	0.014	0.022	0.02	0.024	0.016	0.01	Trace	0.01	Trace	Trace	Trace	0.002	0.0	0.024	0.002
16	Chloride	mg/l	34.4	29.5	34.4	39.4	29.5	24.4	19.7	24.4	24.4	19.5	24.5	29.5	27.8	39.4	19.5
17	Sulphate (SO <sub>4</sub> )	mg/l	5.2	6.4	8.4	10.4	6.8	4.8	4.2	5.2	5.1	6.4	7.2	6.8	6.4	10.4	4.2
18	T. Alkalinity	mg/l	44	48	52	64	48	44	48	52	52	48	52	48	50.0	64	44
19	T. Hardness	mg/l	120	116	120	120	116	112	108	112	112	116	112	116	115.0	120	108
20	CalciumHardness	mg/l	84	80	88	84	76	76	68	68	72	72	64	72	75.3	88	64
21	Magnesium H.	mg/l	36	36	32	36	40	36	40	44	40	44	48	44	39.7	48	32
22	D. Oxygen	mg/l	7.9	7.8	7.6	7.8	7.7	7.2	8.1	8	8.2	7.9	8.1	8.2	7.9	8.2	7.2
23	B.O.D.	mg/l	1.6	1.8	1.6	1.8	2	1.8	1.6	1.1	1.3	1.1	0.9	0.8	1.5	2	0.8
24	C.O.D.	mg/l	10	9.6	5	4.8	10	9.6	5	4.8	10	4.8	5	9.6	7.4	10	4.8
25	Sodium	mg/l	12.24	14.26	15.23	16.32	15.32	16.39	15.26	14.36	13.26	14.32	13.78	14.025	14.6	16.39	12.24
26	Potassium	mg/l	1.12	1.86	1.69	2.12	2.38	2.28	3.01	2.84	3.02	2.98	2.78	3.01	2.4	3.02	1.12
27	T. Coliform	MPN/100ml	41	33	40	40	63	50	33	27	33	27	25	27	36.6	63	25
28	F. Coliform	MPN/100ml	2	<1.8	1.8	6	3.6	2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	3.1	6	1.8
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
	CATEGORY		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada At Dindori

Description of Sampling Station: Dindori River Narmada At D/S after mixing to city domestic Dindori Near Jogotikaria Ghat Dist. Dindori

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	4.04.18	05.5.18	1.6.18	5.7.18	6.8.18	4.9.18	5.10.18	9.11.18	5.12.18	5.1.19	5.2.19	7.3.19	--	--	--
2	Appearance	--	Clear	Clear	Clear	s.turbid	Sl turbid	Sl turbid	Clear	Clear	Clear	Clear	Clear	Clear	--	--	--
3	Temperature	oC	24.4	28.8	29.2	27.8	25.8	25.2	28.2	25.2	25.4	20.6	22.8	23.4	25.6	29.2	20.6
4	Turbidity	NTU	5.1	5.6	4.9	8.4	20.6	18.7	6.8	4	4.3	4.6	4.9	5	7.7	20.6	4
5	Colour	PCS	Colourless	Colourless	Colourless	slt.muddy	light muddy	light muddy	Colourless	Colourless	Colourless	Colourless	Colourless	Colourless	--	--	--
6	Odour	T. No	Odourless	Odourless	Odourless	odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	--	--	--
7	pH	pH Unit	8.18	8.21	8.02	8.12	7.92	7.71	8.02	8.03	7.86	7.96	7.9	8.01	8.0	8.21	7.71
8	Sp. Conductivity	µMhos/cm.	411.6	461.9	472.3	486.2	551.3	529.3	342.2	305.7	331.9	359.6	365.4	349.1	413.9	551.3	305.7
9	T. Solids	mg/l	221	219	212	312	312	301	218	201	211	209	201	197	234.5	312	197
10	D. Solids	mg/l	209	203	197	289	291	281	206	191	200	197	188	186	219.8	291	186
11	S. Solids	mg/l	12	16	15	23	21	20	12	10	11	12	13	11	14.7	23	10
12	Amm. Nitrogen	mg/l	0.028	0.024	0.022	0.024	0.02	0.016	0.012	0.04	0.018	0.019	0.015	0.016	0.0	0.04	0.012
13	Nitrite Nitrogen	mg/l	0.014	0.018	0.006	0.018	0.014	0.008	0.004	0.021	0.012	0.014	0.012	0.013	0.0	0.021	0.004
14	Nitrate Nitrogen	mg/l	0.84	1.22	1	0.64	0.38	0.3	0.62	0.81	0.54	0.48	0.58	0.64	0.7	1.22	0.3
15	Phosphate (PO <sub>4</sub> )	mg/l	0.026	0.046	0.062	0.028	0.015	0.012	0.01	0.022	0.016	0.014	0.011	0.004	0.0	0.062	0.004
16	Chloride	mg/l	39.4	34.4	39.5	44.3	34.4	29.5	24.4	29.5	29.5	29.5	34.4	39.5	34.0	44.3	24.4
17	Sulphate (SO <sub>4</sub> )	mg/l	6	7.4	10.2	10.4	8.6	5.1	4.8	5.8	5.8	6.9	8	7.4	7.2	10.4	4.8
18	T. Alkalinity	mg/l	52	56	56	68	52	44	52	56	56	52	56	56	54.7	68	44
19	T. Hardness	mg/l	124	120	124	128	116	116	128	132	124	128	120	128	124.0	132	116
20	CalciumHardness	mg/l	84	76	92	88	72	72	84	84	76	80	68	76	79.3	92	68
21	Magnesium H.	mg/l	40	44	32	40	44	44	44	48	48	48	52	52	44.7	52	32
22	D. Oxygen	mg/l	8	7.7	7.8	7.9	7.8	7.1	8.2	8.1	8.1	8.2	7.9	8.1	7.9	8.2	7.1
23	B.O.D.	mg/l	2	2	1.9	2.2	2.5	2	1.8	2	1.7	1.6	1.7	1.9	1.9	2.5	1.6
24	C.O.D.	mg/l	20	19.2	10	9.6	15	14.4	15	9.6	20	14.4	15	19.2	15.1	20	9.6
25	Sodium	mg/l	13.21	16.24	18.26	19.26	18.39	19.26	18.36	17.25	15.95	14.86	15.26	16.024	16.9	19.26	13.21
26	Potassium	mg/l	1.46	1.96	2.12	2.26	2.47	2.87	3.29	3.05	3.18	3.08	3.24	3.48	2.7	3.48	1.46
27	T. Coliform	MPN/100ml	70	84	70	84	94	84	47	50	50	48	50	47	64.8	94	47
28	F. Coliform	MPN/100ml	9.3	6	6.1	8.3	5.5	6	2	2	4	2	1.8	1.8	4.6	9.3	1.8
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	-	--	--	--
	CATEGORY		AB	AB	AB	AB	AB	A	A	A	A	A	A	A	AB	AB	AB

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.

Water Quality during Year - 2018-19

Natural Water Resource : Rever Narmada

Description of Sampling Station: Rever Narmada At Mandla Near Shamshanghat.

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	2.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-		--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-		--	--	--
4	Turbidity	NTU	1	1	5	54	37	3	2	3	3	2	5	1	9.8	54	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	....	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	....	--	--	--
7	pH	pH Unit	8.46	7.3	8.36	7.64	8.1	7.36	7.83	8.32	7.6	8.38	8.34	8.38	8.0	8.46	7.3
8	Sp. Conductivity	µMhos/cm.	196	322	37	159	265	374	385	265	380	276	250	256	263.8	385	37
9	T. Solids	mg/l	198	262	384	161	256	352	342	244	368	2480	258	234	461.6	2480	161
10	D. Solids	mg/l	172	222	368	127	208	306	324	226	312	234	242	218	246.6	368	127
11	S. Solids	mg/l	26	40	16	34	48	46	18	18	56	14	16	16	29.0	56	14
12	Amm. Nitrogen	mg/l	0.14	0.7	0.44	BDL	0.32	0.32	0.35	BDL	0.09	BDL	0.4	BDL	0.3	0.7	0.09
13	Nitrite Nitrogen	mg/l	0.34	0.13	0.25	BDL	0.1	0.06	0.2	0.26	0.8	0.24	0.21	0.12	0.2	0.8	0.06
14	Nitrate Nitrogen	mg/l	0.42	1.2	0.36	1.7	0.8	0.34	0.8	0.82	0.15	0.76	0.34	0.5	0.7	1.7	0.15
15	Phosphate (PO <sub>4</sub> )	mg/l	0.16	0.56	0.12	BDL	0.03	0.04	BDL	BDL	0.02	BDL	0.112	BDL	0.1	0.56	0.02
16	Chloride	mg/l	8	16	15	7.92	12.49	22.49	6	7	19.89	8	15	5	11.9	22.49	5
17	Sulphate (SO <sub>4</sub> )	mg/l	4.5	7.7	10	2.9	4.4	6.4	5.5	6	7.6	4	10	5	6.2	10	2.9
18	T. Alkalinity	mg/l	24	28	12	16	52	38	62	32	46	62	12	36	35.0	62	12
19	T. Hardness	mg/l	54	110	164	76	86	110	74	72	112	74	156	68	96.3	164	54
20	CalciumHardness	mg/l	30	72	128	60	46	70	52	48	70	56	124	46	66.8	128	30
21	Magnesium H.	mg/l	24	36	36	16	40	40	22	24	42	18	32	22	29.3	42	16
22	D. Oxygen	mg/l	8	7.4	7	7.6	7.6	7.6	7.7	7.5	7.7	7.6	7.4	7.5	7.6	8	7
23	B.O.D.	mg/l	1.2	1.6	1	1.3	1.8	1.7	1.6	1.2	1.7	1.2	1.6	1.1	1.4	1.8	1
24	C.O.D.	mg/l	4	12	24	9	12.8	12	9	12	10	12	32	16	13.7	32	4
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	...	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	...	--	--	--
27	T. Coliform	MPN/100ml	41	38	40	47	46	43	47	39	43	41	41	32	41.5	47	32
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	1.8	<1.8	<1.8	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station: Rever Narmada At Near road bridge, Mandla.**

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	2.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	...	--	--	--
4	Turbidity	NTU	1	5	5	55.6	57	4	2	4	3	4	4	3	12.3	57	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	...	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	...	--	--	--
7	pH	pH Unit	7.73	7.5	8.33	7.47	8.3	7.45	7.8	8.28	8.8	8.31	8.34	8.31	8.1	8.8	7.45
8	Sp. Conductivity	µMhos/cm.	312	651	380	161	244	380	397	316	386	310	250	295	340.2	651	161
9	T. Solids	mg/l	288	317	388	160	236	370	355	292	367	282	268	274	299.8	388	160
10	D. Solids	mg/l	252	262	366	129	198	318	332	268	316	262	248	252	266.9	366	129
11	S. Solids	mg/l	36	55	22	37	38	52	23	24	51	20	16	22	33.0	55	16
12	Amm. Nitrogen	mg/l	0.32	0.38	0.44	BDL	0.32	0.44	0.36	0.32	0.4	0.2	0.44	0.21	0.3	0.44	0.2
13	Nitrite Nitrogen	mg/l	0.09	0.44	0.2	BDL	0.06	0.02	0.2	0.28	0.1	0.22	0.21	0.32	0.2	0.44	0.02
14	Nitrate Nitrogen	mg/l	0.5	1.38	0.3	1.4	0.34	0.3	0.2	0.94	1.34	0.8	0.31	0.85	0.7	1.4	0.2
15	Phosphate (PO <sub>4</sub> )	mg/l	0.023	0.72	0.11	BDL	0.05	0.021	BDL	0.13	0.04	0.132	0.112	0.132	0.1	0.72	0.021
16	Chloride	mg/l	14.99	16	15	10.3	17.49	12.49	7	9	19.94	8	15	8	12.8	19.94	7
17	Sulphate (SO <sub>4</sub> )	mg/l	6.4	7.7	10	2.8	10	11	12	8	6.4	6	10	6	8.0	12	2.8
18	T. Alkalinity	mg/l	28	68	12	20	58	20	68	42	42	64	12	58	41.0	68	12
19	T. Hardness	mg/l	106	200	168	80	96	90	78	16	11	96	164	86	99.3	200	11
20	CalciumHardness	mg/l	72	156	132	68	74	70	56	50	72	74	128	62	84.5	156	50
21	Magnesium H.	mg/l	34	44	36	12	22	20	22	26	38	22	36	24	28.0	44	12
22	D. Oxygen	mg/l	7.6	7.8	7	7.4	7.5	7.5	7.5	7.5	7.8	7.6	7.4	7.8	7.5	7.8	7
23	B.O.D.	mg/l	1.6	1.7	1.4	1.6	1.7	1.6	1.7	1.5	1.6	1.6	1.6	1.4	1.6	1.7	1.4
24	C.O.D.	mg/l	12	7.5	20	10	13	16	14	18	12	18	32	21	16.1	32	7.5
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	39	48	41	46	40	41	48	41	48	43	43	43	43.4	48	39
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	1.8	<1.8	2	-	-	-
<b>Cat.</b>			<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>

**Classification of River water based on IS - 2296 - 1992**



MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2018-19

Natural Water Resource : Rever Narmada

Narmada near Bhairav Temple at Shhastradhar Mandla

Description of Sampling Station:

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	1	1	5	56	28.9	8	2	4	3	4	5	4	10.2	56	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	7.29	7.3	8.32	7.94	8.37	7.7	8.31	8.3	7.31	8.3	8.35	8.24	8.0	8.37	7.29
8	Sp. Conductivity	µMhos/cm.	273	300	370	163	290	378	368	318	392	315	280	324	314.3	392	163
9	T. Solids	mg/l	290	280	382	164	282	340	318	294	368	286	318	296	301.5	382	164
10	D. Solids	mg/l	252	248	368	130	241	305	298	268	316	264	276	276	270.2	368	130
11	S. Solids	mg/l	38	32	14	34	41	35	20	26	52	22	42	20	31.3	52	14
12	Amm. Nitrogen	mg/l	0.8	0.3	0.44	BDL	0.64	0.6	0.3	0.36	0.64	0.2	0.4	0.22	0.4	0.8	0.2
13	Nitrite Nitrogen	mg/l	0.12	0.02	0.2	BDL	0.12	0.04	0.02	0.32	0.1	0.24	0.21	0.34	0.2	0.34	0.02
14	Nitrate Nitrogen	mg/l	1.1	0.6	0.3	2.6	0.8	0.35	1.4	1	1.1	0.84	0.34	0.95	0.9	2.6	0.3
15	Phosphate (PO <sub>4</sub> )	mg/l	0.054	0.025	0.11	BDL	0.04	0.95	0.033	0.132	0.05	0.132	0.112	0.265	0.2	0.95	0.025
16	Chloride	mg/l	12.49	14	15	10	94.96	14.49	7	12	22.49	8	15	7	19.4	94.96	7
17	Sulphate (SO <sub>4</sub> )	mg/l	7.6	6.6	10	3.8	10	10	7	8	5.4	5.5	10	8.5	7.7	10	3.8
18	T. Alkalinity	mg/l	26	26	12	18	72	30	70	46	36	62	12	62	39.3	72	12
19	T. Hardness	mg/l	104	108	156	82	90	110	74	82	98	86	172	88	104.2	172	74
20	CalciumHardness	mg/l	70	72	120	72	66	80	48	54	72	62	136	62	76.2	136	48
21	Magnesium H.	mg/l	34	36	36	10	24	30	26	28	26	24	36	26	28.0	36	10
22	D. Oxygen	mg/l	7.5	7.6	7.2	7.4	7.4	7.8	7.6	7.4	7.6	7.5	7.4	7.9	7.5	7.9	7.2
23	B.O.D.	mg/l	1.5	1.7	1.4	1.5	1.9	1.7	1.6	1.6	1.7	1.7	1.6	1.5	1.6	1.9	1.4
24	C.O.D.	mg/l	10	14	24	10	14	20	12	18	12	16	32	22	17.0	32	10
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	38	40	39	42	47	43	47	48	47	-	47	48	44.2	48	38
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	1.8	1.8	1.8	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

CATEGORY

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:** Narmada near road bridge (D/S Bargi dam) Jabalpur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	5	3	6	2	2	5	2	3	5	2	3	4	3.5	6	2
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	5.33	7.4	7.98	8.25	8.25	8.36	7.35	8.34	8.13	7.11	8.32	8.27	7.8	8.36	5.33
8	Sp. Conductivity	µMhos/cm.	340	617	355	212	212	360	296	298	310	312	300	320	327.7	617	212
9	T. Solids	mg/l	348	384	360	204	204	372	234	286	288	348	336	340	308.7	384	204
10	D. Solids	mg/l	332	322	325	180	180	354	196	254	264	302	294	302	275.4	354	180
11	S. Solids	mg/l	16	62	35	24	24	18	38	32	24	46	42	38	33.3	62	16
12	Amm. Nitrogen	mg/l	0.42	0.22	0.44	0.08	0.08	0.44	0.2	0.36	0.24	0.32	0.44	0.4	0.3	0.44	0.08
13	Nitrite Nitrogen	mg/l	0.28	0.36	0.3	1.1	1.1	0.1	0.24	0.32	0.22	0.09	0.21	0.2	0.4	1.1	0.09
14	Nitrate Nitrogen	mg/l	0.36	1.4	0.2	BDL	BDL	0.34	1.3	0.86	0.58	0.8	0.34	0.3	0.6	1.4	0.2
15	Phosphate (PO <sub>4</sub> )	mg/l	0.112	0.6	0.11	0.132	0.13	0.112	0.16	0.132	BDL	0.04	0.112	0.15	0.2	0.6	0.04
16	Chloride	mg/l	14.99	11	14.98	8	8	15	8	15	12	17.49	15	12.49	12.7	17.49	8
17	Sulphate (SO <sub>4</sub> )	mg/l	10	14	10	5.2	5.25	10	14	10	6	4.4	10	6	8.7	14	4.4
18	T. Alkalinity	mg/l	12	58	20	42	42	12	12	68	54	28	12	40	33.3	68	12
19	T. Hardness	mg/l	152	192	140	62	62	168	76	72	86	86	164	90	112.5	192	62
20	CalciumHardness	mg/l	116	140	105	40	40	124	56	52	58	52	128	70	81.8	140	40
21	Magnesium H.	mg/l	36	52	35	22	22	44	20	20	28	34	36	20	30.8	52	20
22	D. Oxygen	mg/l	7.2	8	7.5	7.2	7.2	6.9	8.1	7.3	7.6	7.8	7.4	7.7	7.5	8.1	6.9
23	B.O.D.	mg/l	1.6	1.4	1.8	1.3	1.3	1.8	1.1	1.2	1.5	1.2	1.8	1.6	1.5	1.8	1.1
24	C.O.D.	mg/l	24	7	24	10	10	32	12	24	18	12	32	16	18.4	32	7
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	31	28	38	46	46	43	21	40	47	34	48	43	38.8	48	21
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	10	1.8	1.8	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2018-19

Natural Water Resource : Rever Narmada

Description of Sampling Station: Rever Narmada At JAMTARA JABLPUR.

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
4	Turbidity	NTU	1	2	1.2	1	69.8	5	3	3	2	2	5	2	8.1	69.8	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
7	pH	pH Unit	8.42	7.4	8.83	8.34	7.46	8.34	7.4	8.36	8.23	7.28	8.27	7.9	8.0	8.83	7.28
8	Sp. Conductivity	µMhos/cm.	158	508	238	205	292	350	385	268	272	328	270	288	296.8	508	158
9	T. Solids	mg/l	164	309	212	198	212	368	276	244	248	358	294	299	265.2	368	164
10	D. Solids	mg/l	141	263	191	176	178	346	235	228	232	315	268	275	237.3	346	141
11	S. Solids	mg/l	23	46	21	22	34	22	41	16	16	43	26	24	27.8	46	16
12	Amm. Nitrogen	mg/l	BDL	0.26	0.38	0.1	BDL	0.44	0.26	BDL	BDL	0.2	0.4	0.3	0.3	0.44	0.1
13	Nitrite Nitrogen	mg/l	0.24	0.48	0.41	0.2	BDL	0.21	0.22	0.21	0.32	0.1	0.21	0.1	0.2	0.48	0.1
14	Nitrate Nitrogen	mg/l	0.52	1.6	0.66	BDL	0.135	0.34	1.54	0.38	0.8	0.8	0.34	0.3	0.7	1.6	0.135
15	Phosphate (PO <sub>4</sub> )	mg/l	BDL	0.76	0.4	BDL	BDL	0.112	0.2	BDL	BDL	0.05	0.112	0.125	0.3	0.76	0.05
16	Chloride	mg/l	8	12	0.4	6	7.92	15	9	7	14	12.49	12.49	9	9.4	15	0.4
17	Sulphate (SO <sub>4</sub> )	mg/l	5.2	15	2	6	3.19	10	16	5.5	6	4.4	10	5	7.4	16	2
18	T. Alkalinity	mg/l	26	60	26	24	72	12	16	28	36	34	12	60	33.8	72	12
19	T. Hardness	mg/l	56	172	22	62	100	164	86	64	86	110	136	90	95.7	172	22
20	CalciumHardness	mg/l	32	128	16	42	76	128	58	42	54	60	104	70	67.5	128	16
21	Magnesium H.	mg/l	24	44	6	20	24	36	28	22	32	50	32	20	28.2	50	6
22	D. Oxygen	mg/l	7.9	7.8	7.8	7.6	7.3	7	7.9	7.6	7.7	7.9	7.4	7.7	7.6	7.9	7
23	B.O.D.	mg/l	0.7	1.5	1.2	1.2	1.4	1.6	1.2	1.1	1.3	1.1	1.4	1.6	1.3	1.6	0.7
24	C.O.D.	mg/l	5	14	10	10	20	32	12	14	18	8	24	14	15.1	32	5
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
27	T. Coliform	MPN/100ml	39	28	32	47	39	39	14	33	46	32	21	39	34.1	47	14
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	10	<1.8	<1.8	--	--	--
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	--	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:** Rever Narmada At Lalpur, Near water supply intake point.

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	1	2	1	1	60.4	5	2	3	3	2	3	3	7.2	60.4	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	8.38	7.4	7.6	8.32	7.62	8.31	7.5	8.3	8.34	7.36	8.31	8.18	8.0	8.38	7.36
8	Sp. Conductivity	µMhos/cm.	162	584	258	204	219	350	324	273	286	298	230	268	288.0	584	162
9	T. Solids	mg/l	168	309	266	194	205	356	258	249	258	579	236	288	280.5	579	168
10	D. Solids	mg/l	142	261	234	174	173	342	219	232	242	322	222	258	235.1	342	142
11	S. Solids	mg/l	26	48	32	20	32	14	39	17	16	57	14	30	28.8	57	14
12	Amm. Nitrogen	mg/l	0.12	0.29	0.25	0.1	BDL	0.44	0.24	0.32	0.4	0.35	0.4	0.2	0.3	0.44	0.1
13	Nitrite Nitrogen	mg/l	0.22	0.38	0.26	0.2	BDL	0.21	0.22	0.42	0.2	0.06	0.21	0.1	0.2	0.42	0.06
14	Nitrate Nitrogen	mg/l	0.45	1.34	0.15	BDL	0.136	0.34	1.52	0.74	0.5	0.34	0.34	0.15	0.5	1.52	0.136
15	Phosphate (PO <sub>4</sub> )	mg/l	BDL	0.64	0.11	BDL	BDL	0.112	0.18	BDL	BDL	0.05	0.112	0.125	0.2	0.64	0.05
16	Chloride	mg/l	5	12	10	5	7	15	11	8	8	19.99	15	12.49	10.7	19.99	5
17	Sulphate (SO <sub>4</sub> )	mg/l	4.5	16	4	4.5	3.19	10	12	6	5.25	6.4	10	5	7.2	16	3.19
18	T. Alkalinity	mg/l	28	54	25	18	15	12	12	62	42	38	8	40	29.5	62	8
19	T. Hardness	mg/l	54	176	60	64	92	136	80	68	98	246	116	85	106.3	246	54
20	CalciumHardness	mg/l	28	140	45	40	62	92	58	44	72	192	88	60	76.8	192	28
21	Magnesium H.	mg/l	26	36	15	22	30	44	22	24	26	54	28	15	28.5	54	15
22	D. Oxygen	mg/l	7.7	7.9	7.6	7.5	7.4	7.2	8	7.4	7.5	7.7	7.4	7.5	7.6	8	7.2
23	B.O.D.	mg/l	0.9	1.5	1.3	1.2	1.4	15	1.2	1.3	1.4	1.5	1.4	1.4	2.5	15	0.9
24	C.O.D.	mg/l	6	14	12	10	10	32	16	16	14	12	24	12	14.8	32	6
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	40	39	28	39	41	33	21	34	31	43	21	32	33.5	43	21
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	11	<1.8	<1.8	--	--	--
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

**Classification of River water based on IS - 2296 - 1992**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station: Rever Narmada At At Tilwaraghat**

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	15.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	1	3	2	2	63	5	3	4	5	3	5	4	8.3	63	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	8.07	7.35	7.89	8.3	7.72	8.37	7.5	8.25	8.12	7.32	8.29	7.98	7.9	8.37	7.32
8	Sp. Conductivity	µMhos/cm.	167	603	310	204	232	360	327	310	378	352	270	288	316.8	603	167
9	T. Solids	mg/l	172	361	322	198	222	368	256	288	336	398	274	310	292.1	398	172
10	D. Solids	mg/l	146	298	374	176	186	352	211	262	294	346	256	278	264.9	374	146
11	S. Solids	mg/l	26	63	48	22	36	16	45	26	32	52	18	32	34.7	63	16
12	Amm. Nitrogen	mg/l	0.18	0.2	0.4	0.15	BDL	0.44	0.32	0.24	0.26	0.32	0.44	0.35	0.3	0.44	0.15
13	Nitrite Nitrogen	mg/l	0.32	0.34	0.35	0.25	BDL	0.1	0.24	0.26	0.22	0.1	0.21	0.1	0.2	0.35	0.1
14	Nitrate Nitrogen	mg/l	0.8	1.38	0.2	BDL	0.131	0.34	1.6	0.82	0.96	1.1	0.34	0.25	0.7	1.6	0.131
15	Phosphate (PO <sub>4</sub> )	mg/l	0.13	0.76	0.2	0.132	BDL	0.112	0.21	0.32	0.13	0.05	0.112	0.1	0.2	0.76	0.05
16	Chloride	mg/l	8	13	14.98	11	7	15	10	12	16	12.49	15	14.49	12.4	16	7
17	Sulphate (SO <sub>4</sub> )	mg/l	5	14	10	5.5	2.31	10	18	9.5	5	5.4	10	6	8.4	18	2.31
18	T. Alkalinity	mg/l	28	64	30	86	70	12	14	28	36	32	12	50	38.5	86	12
19	T. Hardness	mg/l	62	180	85	68	88	176	84	98	112	98	184	90	110.4	184	62
20	CalciumHardness	mg/l	36	128	60	44	60	132	60	64	68	56	148	70	77.2	148	36
21	Magnesium H.	mg/l	26	52	15	24	28	44	24	34	44	42	36	20	32.4	52	15
22	D. Oxygen	mg/l	7.5	8	7.9	7.1	7.1	7	7.8	7.2	7.6	7.9	7.4	7.6	7.5	8	7
23	B.O.D.	mg/l	1.4	1.3	1.8	1.8	1.3	1.6	1.4	1.4	1.6	1.6	1.6	1.6	1.5	1.8	1.3
24	C.O.D.	mg/l	8	21	16	10	10	32	12	28	26	10	32	14	18.3	32	8
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	48	40	38	49	43	40	21	47	49	25	40	43	40.3	49	21
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	6.1	1.8	1.8	--	--	--
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
<b>Cat.</b>			<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station: Panchawatighat , before mixing Bawanganga river.**

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	4	2	1.4	4	12	33	6	12	6	5	8	3	8.0	33	1.4
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	7.6	7.36	8.41	8.1	7.29	7.8	7.31	8	8.1	8.33	7.89	7.23	7.8	8.41	7.23
8	Sp. Conductivity	µMhos/cm.	240	292	249	258	318	312	382	338	318	260	271	348	298.8	382	240
9	T. Solids	mg/l	285	282	230	280	360	326	374	324	308	286	289	356	308.3	374	230
10	D. Solids	mg/l	220	240	199	382	292	271	312	286	270	258	253	302	273.8	382	199
11	S. Solids	mg/l	65	42	31	42	68	51	63	38	38	28	36	54	46.3	68	28
12	Amm. Nitrogen	mg/l	0.35	0.06	0.26	0.2	0.32	0.26	0.44	0.34	0.4	0.44	0.6	0.32	0.3	0.6	0.06
13	Nitrite Nitrogen	mg/l	0.1	0.03	0.43	0.06	0.05	0.28	0.09	0.42	0.12	0.21	0.2	0.09	0.2	0.43	0.03
14	Nitrate Nitrogen	mg/l	0.35	0.1	0.68	0.34	0.34	1.56	0.8	1.2	0.8	0.34	0.35	0.8	0.6	1.56	0.1
15	Phosphate (PO <sub>4</sub> )	mg/l	0.12	0.02	0.4	0.04	0.05	0.24	0.04	0.26	0.125	0.112	0.125	0.04	0.1	0.4	0.02
16	Chloride	mg/l	14.98	12.49	8.9	9.98	12.47	12.99	22.49	15	12.49	15	14.49	19.99	14.3	22.49	8.9
17	Sulphate (SO <sub>4</sub> )	mg/l	10	20	2.4	7	11.8	16	5.4	10	6	10	12	6.4	9.8	20	2.4
18	T. Alkalinity	mg/l	40	24	26	25	25	20	28	36	28	12	20	38	26.8	40	12
19	T. Hardness	mg/l	120	110	34	100	125	90	112	74	90	164	120	116	104.6	164	34
20	CalciumHardness	mg/l	105	82	20	85	105	64	70	52	60	128	100	72	78.6	128	20
21	Magnesium H.	mg/l	15	28	14	15	20	26	42	22	30	36	20	44	26.0	44	14
22	D. Oxygen	mg/l	6.7	7.7	7.4	7.5	7.4	7.9	7.6	7.5	7.6	7.4	7.8	7.6	7.5	7.9	6.7
23	B.O.D.	mg/l	1.8	1.2	1.1	1.3	1.4	1.7	1.2	1.6	1.6	1.5	1.7	1.4	1.5	1.8	1.1
24	C.O.D.	mg/l	16	10	13	12	20	14	12	18	14	24	20	12	15.4	24	10
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	38	34	38	31	31	28	38	16	38	40	43	39	34.5	43	16
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	1.8	<1.8	1.8	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station: Rever Narmada Saraswatighat after mixing Bawanganga river.**

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	2	3	1.8	5.6	6	38	5	14	6	5	4	4	7.9	38	1.8
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	7.8	7.31	8.11	7.9	7.4	7.86	7.2	7.84	8.1	8.34	7.88	7.27	7.8	8.34	7.2
8	Sp. Conductivity	µMhos/cm.	235	298	317	290	312	320	380	342	318	260	254	322	304.0	380	235
9	T. Solids	mg/l	260	286	291	334	360	341	372	284	308	278	262	356	311.0	372	260
10	D. Solids	mg/l	230	244	254	256	270	284	308	238	270	256	234	312	263.0	312	230
11	S. Solids	mg/l	30	42	37	78	90	57	64	48	38	22	28	44	48.2	90	22
12	Amm. Nitrogen	mg/l	0.25	0.2	0.41	0.64	0.44	0.28	0.64	0.38	0.4	0.44	0.4	0.64	0.4	0.64	0.2
13	Nitrite Nitrogen	mg/l	0.1	0.6	0.49	0.12	0.25	0.3	0.12	0.42	0.12	0.21	0.15	0.1	0.2	0.6	0.1
14	Nitrate Nitrogen	mg/l	0.22	0.34	0.69	0.8	0.06	1.6	1.1	1.36	0.8	0.34	0.25	0.8	0.7	1.6	0.06
15	Phosphate (PO <sub>4</sub> )	mg/l	0.05	0.03	0.5	0.06	0.02	0.26	0.05	0.26	0.125	0.112	0.125	0.05	0.1	0.5	0.02
16	Chloride	mg/l	12.47	14.99	7.9	12.47	12.47	13.99	27.48	18	12.49	15	12.49	22.49	15.2	27.48	7.9
17	Sulphate (SO <sub>4</sub> )	mg/l	5	24	2.7	24	8.01	18	10	12	6	10	5.4	10	11.3	24	2.7
18	T. Alkalinity	mg/l	30	28	32	30	45	20	36	38	28	12	20	40	29.9	45	12
19	T. Hardness	mg/l	105	104	46	130	85	92	108	76	90	156	110	118	101.7	156	46
20	CalciumHardness	mg/l	85	72	28	110	60	64	62	52	60	124	90	74	73.4	124	28
21	Magnesium H.	mg/l	20	34	18	20	15	28	46	24	30	32	30	44	28.4	46	15
22	D. Oxygen	mg/l	7.2	7.6	7.5	7.8	7.4	7.8	7.5	7.5	7.6	7.4	7.5	7.6	7.5	7.8	7.2
23	B.O.D.	mg/l	1.6	1.3	1.2	1.7	1.7	1.8	1.6	1.8	1.6	1.4	1.5	1.5	1.6	1.8	1.2
24	C.O.D.	mg/l	12	12	12	24	20	21	10	20	14	24	16	12	16.4	24	10
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	28	47	39	40	38	39	43	48	38	38	40	44	40.2	48	28
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	1.8	1.8	1.8	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:**

Narmada near road bridge Jansighat Jabalpur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	-	-	-
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
4	Turbidity	NTU	3	3	5	6	5	36	7	4	4	6	4	4	7.3	36	3
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
7	pH	pH Unit	7.55	7.28	7.69	7.99	7.8	7.9	7.46	8.16	7.87	8.36	7.89	7.31	7.8	8.36	7.28
8	Sp. Conductivity	µMhos/cm.	306	297	340	279	311	370	378	326	312	260	258	328	313.8	378	258
9	T. Solids	mg/l	324	289	368	298	320	329	368	304	286	282	292	364	318.7	368	282
10	D. Solids	mg/l	276	240	306	254	240	285	302	276	252	258	264	312	272.1	312	240
11	S. Solids	mg/l	48	49	62	44	80	44	66	28	34	24	28	52	46.6	80	24
12	Amm. Nitrogen	mg/l	0.15	0.44	0.35	0.44	0.64	0.34	0.64	0.24	0.4	0.44	0.32	0.86	0.4	0.86	0.15
13	Nitrite Nitrogen	mg/l	0.36	0.09	0.2	0.09	0.3	0.26	0.18	0.21	0.15	0.3	0.15	0.12	0.2	0.36	0.09
14	Nitrate Nitrogen	mg/l	1.4	0.05	0.15	0.5	0.8	1.64	1.34	0.8	0.2	0.34	0.25	1.1	0.7	1.64	0.05
15	Phosphate (PO <sub>4</sub> )	mg/l	0.5	0.04	0.12	0.25	0.2	0.28	0.112	0.13	0.125	0.112	0.1	0.05	0.2	0.5	0.04
16	Chloride	mg/l	16	70.49	12	14.98	12	11.99	22.98	9	11.99	15	12.49	19.99	19.1	70.49	9
17	Sulphate (SO <sub>4</sub> )	mg/l	18	22	12	11	10	20	7.6	8	7.6	10	5	7.6	11.6	22	5
18	T. Alkalinity	mg/l	60	32	40	25	60	16	34	34	30	12	25	42	34.2	60	12
19	T. Hardness	mg/l	184	106	160	95	94	88	104	72	80	168	105	120	114.7	184	72
20	CalciumHardness	mg/l	124	74	130	17	70	62	72	50	55	132	80	78	78.7	132	17
21	Magnesium H.	mg/l	60	32	30	25	24	26	32	22	25	36	25	42	31.6	60	22
22	D. Oxygen	mg/l	8	7.5	7.9	7.7	7.6	7.9	7.4	7.6	7.2	7.4	7.5	7.5	7.6	8	7.2
23	B.O.D.	mg/l	1.5	1.8	1.6	1.4	1.6	2	1.7	1.2	1.4	1.6	1.4	1.5	1.6	2	1.2
24	C.O.D.	mg/l	10.92	14	20	20	24	7	14	16	12	24	12	10	15.3	24	7
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	..	..	-	-	-
27	T. Coliform	MPN/100ml	28	43	31	38	46	28	48	32	43	41	34	41	37.8	48	28
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	<1.8	<1.8	3.6	-	-	-
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

**Classification of River water based on IS - 2296 - 1992**



**MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:**

Narmada near N.H.44 road bridge Barman Narsingpur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	-	-	-
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	-	-	-
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	#DIV/0!	#DIV/0!	#DIV/0!
4	Turbidity	NTU	4	3	5	6	78	28	-	7.1	4	3	2	2	12.9	78	2
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	-	-	-
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	-	-	-
7	pH	pH Unit	7.6	7.41	8.35	7.86	8.32	7.6	8.3	8.32	7.92	7.8	7.69	7.76	7.9	8.35	7.41
8	Sp. Conductivity	µMhos/cm.	346	302	360	380	171	348	350	478	358	268	268	298	327.3	478	171
9	T. Solids	mg/l	355	290	374	350	214	360	358	437	322	278	298	312	329.0	437	214
10	D. Solids	mg/l	310	230	352	308	145	302	336	375	304	236	242	268	284.0	375	145
11	S. Solids	mg/l	45	60	22	42	69	58	22	62	18	42	56	44	45.0	69	18
12	Amm. Nitrogen	mg/l	0.44	0.9	0.4	0.6	BDL	0.44	0.44	0.43	0.24	0.6	0.8	0.44	0.5	0.9	0.24
13	Nitrite Nitrogen	mg/l	0.2	0.18	0.25	0.12	BDL	0.06	0.21	0.42	0.32	0.12	0.12	0.02	0.2	0.42	0.02
14	Nitrate Nitrogen	mg/l	0.34	1.6	0.3	0.1	0.8	0.8	0.34	2.39	0.75	0.34	0.7	0.3	0.7	2.39	0.1
15	Phosphate (PO <sub>4</sub> )	mg/l	0.25	0.25	0.11	0.05	BDL	0.05	0.112	0.7	BDL	0.05	0.04	0.125	0.2	0.7	0.04
16	Chloride	mg/l	14.98	27.48	15	17	8	12.47	17.49	28.71	15	14.47	14.98	12.49	16.5	28.71	8
17	Sulphate (SO <sub>4</sub> )	mg/l	10	20	10	10	4.5	20	10	6.3	5.5	5	7	5.6	9.5	20	4.5
18	T. Alkalinity	mg/l	40	36	12	20	70	30	12	72	64	20	30	20	35.5	72	12
19	T. Hardness	mg/l	130	98	156	140	88	110	156	202	102	90	110	110	124.3	202	88
20	CalciumHardness	mg/l	110	64	124	110	70	90	124	162	64	70	90	90	97.3	162	64
21	Magnesium H.	mg/l	20	34	32	30	18	20	32	40	38	20	20	20	27.0	40	18
22	D. Oxygen	mg/l	7.8	7.4	7	7.8	7.2	7.5	7	7.3	7.6	7.7	8.3	7.8	7.5	8.3	7
23	B.O.D.	mg/l	1.8	1.2	1.4	1.5	1.2	1.6	1.6	1.8	1.7	1.4	1.5	1.5	1.5	1.8	1.2
24	C.O.D.	mg/l	20	12	24	20	17.6	20	32	17	20	16	20	12	19.2	32	12
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	-	-	-
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	-	-	-
27	T. Coliform	MPN/100ml	39	39	39	47	41	39	40	24	43	<1.8	34	43	38.9	47	24
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	<1.8	<1.8	1.8	-	-	-
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

**Classification of River water based on IS - 2296 - 1992**

MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.

Water Quality during Year - 2018-19

Description of Sampling Station: narmada, Barmanghat, 100, d/s. Of mainghat, Narsingpur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	1	3	3	5	78	22	6	4	5	5	3	5	11.7	78	1
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	7.5	7.45	8.39	7.8	8.01	7.51	8.32	8.16	7.92	7.8	7.58	7.28	7.8	8.39	7.28
8	Sp. Conductivity	µMhos/cm.	318	288	360	385	211	249	270	286	412	283	310	352	310.3	412	211
9	T. Solids	mg/l	330	278	368	415	256	258	286	278	374	298	324	358	318.6	415	256
10	D. Solids	mg/l	282	236	352	338	180	198	21.8	246	348	270	266	304	253.5	352	21.8
11	S. Solids	mg/l	48	42	16	77	76	60	18	32	26	28	58	54	44.6	77	16
12	Amm. Nitrogen	mg/l	0.4	0.44	0.35	0.4	BDL	0.8	0.41	0.34	0.3	0.32	0.64	1.34	0.5	1.34	0.3
13	Nitrite Nitrogen	mg/l	0.25	0.1	0.2	0.1	BDL	0.1	0.21	0.26	0.3	0.05	0.12	0.18	0.2	0.3	0.05
14	Nitrate Nitrogen	mg/l	0.35	1.6	0.25	0.25	0.55	0.34	0.34	0.92	0.9	0.4	0.6	1.6	0.7	1.6	0.25
15	Phosphate (PO <sub>4</sub> )	mg/l	0.12	0.2	0.1	0.012	BDL	0.05	0.112	0.13	0.132	0.05	0.04	0.11	0.1	0.2	0.012
16	Chloride	mg/l	14.98	22.49	14.98	12.47	8	12.47	15	10	26	12.47	9	27.48	15.4	27.48	8
17	Sulphate (SO <sub>4</sub> )	mg/l	5	7.4	10	6	4	11.6	10	12	6.5	6	11	4.4	7.8	12	4
18	T. Alkalinity	mg/l	25	42	12	30	70	20	12	42	78	25	25	44	35.4	78	12
19	T. Hardness	mg/l	110	104	152	140	94	95	152	78	124	90	90	114	111.9	152	78
20	CalciumHardness	mg/l	80	68	116	115	70	80	124	52	72	75	75	70	83.1	124	52
21	Magnesium H.	mg/l	30	36	36	25	24	15	28	26	52	15	15	44	28.8	52	15
22	D. Oxygen	mg/l	8	7.4	7.2	7.6	7.4	7.6	7	7.5	7.5	7.8	7.9	7.3	7.5	8	7
23	B.O.D.	mg/l	1.8	1.8	1.6	1.3	1.3	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.8	1.3
24	C.O.D.	mg/l	14	16	20	12	8.8	16	32	18	20	12	16	14	16.6	32	8.8
25	Sodium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	39	48	27	38	47	43	31	47	48	39	41	48	41.3	48	27
28	F. Coliform	MPN/100ml	-	-	-	-	-	-	-	-	-	<1.8	1.8	5.5	--	--	--
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
<b>Cat.</b>			A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:** Narmada S.H 44 near road bridge Near Jhikoli Vill. Narsingpur

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	3.4.18	2.5.18	1.6.18	2.7.18	2.8.18	4.9.18	1.10.18	16.11.18	3.12.18	2.1.19	1.2.19	1.3.19	--	--	--
2	Appearance	--	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
3	Temperature	oC	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
4	Turbidity	NTU	4	3	6	6	8	28	6	6	4	6	4	4	7.1	28	3
5	Colour	PCS	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
6	Odour	T. No	-	-	-	-	-	-	-	-	-	-	-	..	--	--	--
7	pH	pH Unit	7.6	7.89	7.8	7.54	7.3	7.49	8.33	8.21	7.92	8.37	7.75	7.18	7.8	8.37	7.18
8	Sp. Conductivity	µMhos/cm.	418	298	380	396	299	359	350	438	358	260	290	328	347.8	438	260
9	T. Solids	mg/l	377	282	428	430	310	366	364	403	322	284	296	352	351.2	430	282
10	D. Solids	mg/l	321	236	358	370	250	304	338	349	304	252	234	316	302.7	370	234
11	S. Solids	mg/l	56	46	70	60	60	62	26	54	18	32	62	36	48.5	70	18
12	Amm. Nitrogen	mg/l	0.2	0.64	0.4	0.06	0.4	0.64	0.44	BDL	0.24	0.44	0.4	0.9	0.4	0.9	0.06
13	Nitrite Nitrogen	mg/l	0.38	0.1	0.25	0.08	0.25	0.09	0.25	0.64	0.32	0.3	0.06	0.15	0.2	0.64	0.06
14	Nitrate Nitrogen	mg/l	1.48	0.8	0.2	0.15	0.6	0.5	0.34	3	0.75	0.34	0.8	1.34	0.9	3	0.15
15	Phosphate (PO <sub>4</sub> )	mg/l	0.6	0.05	0.2	0.1	0.015	0.04	0.112	0.8	BDL	0.112	0.03	0.03	0.2	0.8	0.015
16	Chloride	mg/l	21	19.99	16	14.49	14.49	14.98	17.49	29.7	15	15	12.49	22.49	17.8	29.7	12.49
17	Sulphate (SO <sub>4</sub> )	mg/l	20	24	10	12	8	24	10	7.8	5.5	10	7	5.4	12.0	24	5.4
18	T. Alkalinity	mg/l	64	34	60	40	65	25	12	72	64	12	25	44	43.1	72	12
19	T. Hardness	mg/l	190	104	170	160	90	105	164	158	102	184	115	114	138.0	190	90
20	CalciumHardness	mg/l	152	68	125	130	70	85	128	120	64	148	90	72	104.3	152	64
21	Magnesium H.	mg/l	38	36	35	30	20	20	36	38	38	36	25	42	32.8	42	20
22	D. Oxygen	mg/l	7.9	7.4	7.8	7.7	7.5	7.5	6.8	7.6	7.6	7.4	8.1	7.4	7.6	8.1	6.8
23	B.O.D.	mg/l	1.6	1.6	1.4	1.5	1.8	1.4	1.8	1.9	1.7	1.8	1.6	1.6	1.6	1.9	1.4
24	C.O.D.	mg/l	11.76	16	16	20	16	12	32	20	20	32	12	12	18.3	32	11.76
25	Sodium	mg/l	--	-	-	-	-	-	-	-	-	-	-	..	--	--	--
26	Potassium	mg/l	--	-	-	-	-	-	-	-	-	-	-	..	--	--	--
27	T. Coliform	MPN/100ml	39	46	38	39	46	41	41	41	43	46	39	34	41.1	46	34
28	F. Coliform	MPN/100ml	--	-	-	-	-	-	-	-	-	<1.8	<1.8	3.6	--	--	--
29	T.K.N.	mg/l	--	-	-	-	-	-	-	-	-	-	-	..	--	--	--
	CATEGORY		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
<b>Classification of River water based on IS - 2296 - 1992</b>																	

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada.**

**Description of Sampling Station : River Narmada at near Road Bridge, Sandia Cat.- A**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	7.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	13.2.19	15.3.19	-	-	-
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	clear	Clear	Clear	Clear	-	-	-
3	Temperature	oC	23	-	29	29°C	28	29	-	-	23	19°C	21 °C	23 °C	26.4	29.0	23.0
4	Turbidity	NTU	18.2	-	6.4	6.9	278	268	7.02	13.8	6.9	9.8	6	8.23	57.2	278.0	6.0
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	colourless	Colorless	Colourles	Colourles	-	-	-
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	odourless	Odourless	Odourles	Odourless	-	-	-
7	pH	pH Unit	7.87	7.81	7.94	8.27	7.93	7.82	8.06	7.93	8.12	8.09	7.03	8.2	7.9	8.3	7.0
8	Sp. Conductivity	µMhos/cm.	329	272	264	215	204.6	216.06	219	217.5	218.8	172.1	214.8	298	236.7	329.0	172.1
9	T. Solids	mg/l	246	194	180	154	348	217	156	178	192	160	160	226	200.9	348.0	154.0
10	D. Solids	mg/l	222	164	156	134	Instrument	133	136	164	164	124	132	182	155.5	222.0	124.0
11	S. Solids	mg/l	24	30	24	20	220	84	20	14	28	36	28	44	47.7	220.0	14.0
12	Amm. Nitrogen	mg/l	--	0.13	BDL	0.07	0.125	0.175	0.050	BDL	BDL	BDL	BDL	0.12	0.1	0.2	0.1
13	Nitrite Nitrogen	mg/l	0.02	0.14	0.13	0.085	0.125	0.165	0.055	0.5	0.02	0.05	0.06	0.05	0.1	0.5	0.0
14	Nitrate Nitrogen	mg/l	2.89	1.8	1.0	1.1	2.9	1.85	0.70	3.98	2.02	3.94	1.85	4.08	2.3	4.1	0.7
15	Phosphate (PO <sub>4</sub> )	mg/l	0.04	0.363	0.6	0.264	0.825	1.12	0.297	0.06	0.07	0.06	0.49	0.627	0.4	1.1	0.0
16	Chloride	mg/l	18	18.99	16.75	15.76	15.76	14.78	11.82	11.82	14.99	12.81	9.85	17.73	14.9	19.0	9.9
17	Sulphate (SO <sub>4</sub> )	mg/l	1.87	7.5	6.0	5.75	11.25	11.25	6.0	3.08	3.04	3.58	10	3.4	6.1	11.3	1.9
18	T. Alkalinity	mg/l	152	132	124	92	124	128	104	108	102	112	122	128	119.0	152.0	92.0
19	T. Hardness	mg/l	170	116	114	82	118	122	94	134	118	144	148	166	127.2	170.0	82.0
20	CalciumHardness	mg/l	90	94	98	64	94	98	82	88	80	84	92	88	87.7	98.0	64.0
21	Magnesium H.	mg/l	80	22	16	18	24	24	12	46	38	60	56	78	39.5	80.0	12.0
22	D. Oxygen	mg/l	7.5	7.4	7.8	8.0	7.8	7.8	8.1	9.6	7.8	9.8	8.9	7.6	8.2	9.8	7.4
23	B.O.D.	mg/l	0.9	1.1	1.3	1	1.2	1.3	1.1	1.2	14	1.6	1.4	1.6	2.3	14.0	0.9
24	C.O.D.	mg/l	20	29.64	9.6	10	9.6	9.6	9.88	20	10	10	9.6	9.6	13.1	29.6	9.6
25	Sodium	mg/l	8.38	19.1	21.4	14.2	13.56	13.56	15.11	13.18	13.71	13.18	12.46	16.43	14.5	21.4	8.4
26	Potassium	mg/l	1.23	2.1	1.8	1.3	1.20	1.20	1.87	1.56	1.56	1.46	1.23	3.14	1.6	3.1	1.2
27	T. Coliform	MPN/100ml	2	33	27	27	224	220	14	4900	2400	2800	280	240	930.6	4900.0	2.0
28	F. Coliform	MPN/100ml	0	<2	<2	<2	<2	<2	<2	130	140	110	<2	<2	95.0	140.0	0.0
29	Boron	mg/l	--	-	0.2	-	-	-	-	-	BDL	BDL	BDL	-	0.2	0.2	0.2
30	FLURIDE	meq/l	-	-	0.14	-	-	-	-	-	BDL	BDL	BDL	-	0.1	0.1	0.1
31	P-Alkalnity	meq/l	-	-	-	-	Absent	-	-	-	-	Absent	Absent	-	-	-	-
32	TKN	meq/l	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Cat.</b>			<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

**REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.**  
**Water Quality during Year - 2018-19**

Natural Water Resource : River Narmada.

Description of Sampling Station : River Narmada Up stream of Jait Village, Schore, Distt.- Schore

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	<b>4.2.19</b>	14.03.201	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	-	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	28	28	29	28	-	-	24	19 °C	19 °C	23	26.29	26.61	26.61
4	Turbidity	NTU	15.6	-	8.1	6.95	261	294	7.80	17.9	17.9	9.7	7.9	2	58.99	62.93	62.93
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	colourless	Colourless	Colourles	Colourles	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	7.96	7.67	7.86	8.24	7.64	7.7	8.21	8.11	7.66	8.14	8.13	8.36	7.97	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	331	248	258	238	210.4	354	229	224.9	128	178.8	203.9	225.6	235.80	354.0	128.0
9	T. Solids	mg/l	268	166	174	168	362	275	192	222	2850	187	190	188	436.83	2850.0	166.0
10	D. Solids	mg/l	248	146	152	142	Instrument	210	158	170	191	128	138	140	165.73	248.0	128.0
11	S. Solids	mg/l	20	20	22	26	224	65	34	52	59	59	52	48	56.75	224.0	20.0
12	Amm. Nitrogen	mg/l	BDL	0.07	0.1	0.08	0.145	0.14	0.090	BDL	0.004	BDL	BDL	BDL	0.09	0.1	0.0
13	Nitrite Nitrogen	mg/l	0.03	0.09	0.11	0.09	0.125	0.152	0.105	0.5	2.6	0.39	0.125	0.03	0.36	2.6	0.0
14	Nitrate Nitrogen	mg/l	3.37	1.1	1.15	1.2	2	2.24	1.30	4.03	0.02	2.04	1.5	2.76	1.89	4.0	0.0
15	Phosphate (PO <sub>4</sub> )	mg/l	0.07	0.198	0.5	0.297	1.12	0.92	0.363	0.03	0.008	0.06	0.39	0.08	0.34	1.1	0.0
16	Chloride	mg/l	15.76	15.99	14.78	16.75	15.76	15.86	12.8	12.81	11	8.86	12.81	14.99	14.01	16.8	8.9
17	Sulphate (SO <sub>4</sub> )	mg/l	1.46	5.5	6.25	6.25	9	8.26	7.25	3.79	3.08	3.84	8.5	2.62	5.48	9.0	1.5
18	T. Alkalinity	mg/l	168	118	126	102	128	132	108	114	100	134	136	102	122.33	168.0	100.0
19	T. Hardness	mg/l	162	108	130	94	108	118	102	144	164	148	152	106	128.00	164.0	94.0
20	Calcium Hardness	mg/l	90	94	108	78	84	90	82	84	122	106	100	72	92.50	122.0	72.0
21	Magnesium H.	mg/l	72	14	22	16	24	28	20	60	42	42	52	34	35.50	72.0	14.0
22	D. Oxygen	mg/l	7.8	7.8	7.9	8.3	7.5	7.9	8.1	8.8	9	9.6	7.9	8.1	8.23	9.6	7.5
23	B.O.D.	mg/l	1	1.1	1.4	1.1	1.3	1.2	1.3	1.2	1.8	1.4	1.2	1.4	1.28	1.8	1.0
24	C.O.D.	mg/l	20	19.76	9.6	10	9.6	19.2	9.88	10	10	10	9.6	9.8	12.29	20.0	9.6
25	Sodium	mg/l	25.34	12.7	20.1	14.6	12.1	13.1	18.04	13.04	15.29	17.84	14.72	16.62	16.12	25.3	12.1
26	Potassium	mg/l	4.66	1.2	1.6	1.2	1.09	1.12	2.13	1.58	1.56	1.43	1.62	1.33	1.71	4.7	1.1
27	T. Coliform	MPN/100ml	2400	34	22	31	280	230	17	2400	250	920	540	540	638.67	2400.0	17.0
28	F. Coliform	MPN/100ml	920	<2	<2	<2	<2	<2	<2	170	<2	24	<2	17	282.75	920.0	17.0
29	Boron	mg/l	0.27	-	0.14	-	-	-	-	-	BDL	BDL	BDL	BDL	-	-	-
30	fluride	meq/l	-	-	0.3	-	-	-	-	-	-	BDL	BDL	BDL	0.30	0.3	0.3
31	P-Alkalnity	meq/l	-	-	Nil	-	Absent	Absent	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
32	TKN	meq/l	4.2	-	-	-	-	-	-	-	-	-	-	-	4.20	4.2	4.2
<b>Cat.</b>			<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>A</b>	<b>A</b>	<b>A</b>

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada.**

**Description of Sampling Station : River Narmada Down stream of Jait Village, Sehore, Distt.- Sehore**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	<b>4.2.19</b>	14.03.201	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	-	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	28	28	29	28	-	-	24	19 °C	20 °C	23	26.29	26.61	26.61
4	Turbidity	NTU	16.4	-	7.6	7.2	298	372	8.14	15.5	28	11.2	8.1	1.8	70.36	75.26	75.26
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	Colorless	Colourless	Colourles	Colourles	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.01	8.02	7.96	8.29	7.76	7.84	8.27	8.09	7.77	7.66	8.29	8.51	8.04	8.5	7.7
8	Sp. Conductivity	µMhos/cm.	337	280	252	254	204.6	516	268	231.4	137	178.3	206.6	225.4	257.53	516.0	137.0
9	T. Solids	mg/l	280	188	164	188	390	392	212	188	267	206	190	214	239.92	392.0	164.0
10	D. Solids	mg/l	244	162	148	158	Instrument	312	172	152	203	140	136	156	180.27	312.0	136.0
11	S. Solids	mg/l	36	26	16	30	236	80	40	36	64	66	54	58	61.83	236.0	16.0
12	Amm. Nitrogen	mg/l	0.65	0.12	BDL	0.095	0.175	0.18	0.110	BDL	0.004	BDL	BDL	BDL	0.19	0.7	0.0
13	Nitrite Nitrogen	mg/l	0.02	0.14	0.95	0.105	0.15	0.164	0.120	0.5	0.02	0.05	0.1	0.05	0.20	1.0	0.0
14	Nitrate Nitrogen	mg/l	3.1	1.7	1.0	1.35	2.2	2.4	1.45	4.27	2.41	2.89	1.85	3.65	2.36	4.3	1.0
15	Phosphate (PO <sub>4</sub> )	mg/l	0.01	0.462	0.46	0.396	0.82	1.45	0.462	0.32	0.16	0.38	0.23	0.05	0.43	1.5	0.0
16	Chloride	mg/l	15.76	19.99	13.79	18.72	13.79	17.17	14.78	10.84	16	7.88	10.84	12.99	14.38	20.0	7.9
17	Sulphate (SO <sub>4</sub> )	mg/l	3.24	9.5	5.75	7.54	8.25	11.26	8.75	2.47	3.8	3.79	11.75	3.81	6.66	11.8	2.5
18	T. Alkalinity	mg/l	172	136	130	116	124	142	116	120	110	154	156	98	131.17	172.0	98.0
19	T. Hardness	mg/l	166	118	134	104	122	128	124	146	178	168	168	112	139.00	178.0	104.0
20	CalciumHardness	mg/l	98	98	108	86	98	96	98	90	108	98	110	76	97.00	110.0	76.0
21	Magnesium H.	mg/l	68	20	26	18	24	32	26	56	70	70	58	36	42.00	70.0	18.0
22	D. Oxygen	mg/l	8.1	7.3	8.0	8.1	7.4	7.5	7.8	8.9	8.4	9.7	8.3	8.4	8.16	9.7	7.3
23	B.O.D.	mg/l	1.3	1.2	1.2	1.4	1.3	1.5	1.6	2.5	2.8	2.8	1.6	2.4	1.80	2.8	1.2
24	C.O.D.	mg/l	20	29.64	9.6	20	9.6	19.2	19.76	30	20	20	19.2	9.8	18.90	30.0	9.6
25	Sodium	mg/l	25.12	18.9	18.2	14.9	12.91	13.4	22.25	13	14.01	14.53	16.24	17.22	16.72	25.1	12.9
26	Potassium	mg/l	6.01	2.1	1.2	1.5	1.11	1.14	2.88	1.57	1.54	1.48	1.82	1.48	1.99	6.0	1.1
27	T. Coliform	MPN/100ml	2400	38	26	39	350	250	20	3300	540	1600	920	920	866.92	3300.0	20.0
28	F. Coliform	MPN/100ml	920	<2	<2	<2	<2	<2	<2	350	<2	38	6	31	269.00	920.0	6.0
29	Boron	mg/l	0.27	-	0.2	-	-	-	-	-	-	BDL	BDL	BDL	0.24	0.22	0.22
30	FLURIDE	meq/l	-	-	0.12	-	-	-	-	-	-	BDL	BDL	BDL	0.12	0.12	0.12
31	TKN	meq/l	4.2	-	-	-	-	-	-	-	-	-	-	-	4.20	4.2	4.2
32	P-Alkality	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
	CATEGORY		E	A	A	A	B	B	A	C	C	C	C	C	A	A	A

**Water Quality during Year - 2018-19**

Natural Water Resource : River Narmada

Description of Sampling Station: At Shahaganj Rest House.

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	<b>4.2.19</b>	15.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	-	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	23	-	28	28	29	28	-	-	24	19°C	20 °C	25 °C	26.67	29.0	23.0
4	Turbidity	NTU	52.4	-	8.8	7.8	298	292	7.04	15.1	27	8.9	7.6	1.6	66.02	298.0	1.6
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	Colorless	Colorless	Colorless	Colorless	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	7.93	7.46	8.12	8.05	7.62	7.82	8.07	8.11	7.69	8.1	8.07	8.21	7.94	8.2	7.5
8	Sp. Conductivity	µMhos/cm.	335	262	276	272	216.06	518.04	214	219.9	131.4	166.1	206.1	236.4	254.42	518.0	131.4
9	T. Solids	mg/l	262	180	188	184	370	380	156	174	237	182	190	188	224.25	380.0	156.0
10	D. Solids	mg/l	236	156	164	163	Instrument out of order	310	134	138	174	122	132	152	171.00	310.0	122.0
11	S. Solids	mg/l	26	24	24	21	236	70	22	36	63	60	58	36	56.33	236.0	21.0
12	Amm. Nitrogen	mg/l	0	0.11	0.184	0.09	0.125	0.25	0.060	BDL	0.6	BDL	BDL	BDL	0.18	0.6	0.0
13	Nitrite Nitrogen	mg/l	0.08	0.12	0.15	0.08	0.1	0.12	0.065	0.5	0.03	0.05	0.06	0.04	0.12	0.5	0.0
14	Nitrate Nitrogen	mg/l	3.55	1.6	2.2	1.35	2.6	2.26	0.80	3.81	2	2.48	2.35	3.8	2.40	3.8	0.8
15	Phosphate (PO <sub>4</sub> )	mg/l	0.06	0.264	0.75	0.299	9.25	0.92	0.297	0.03	0.003	0.003	0.19	0.2	1.02	9.3	0.0
16	Chloride	mg/l	19	17.99	21.68	20.69	17.73	18.76	10.84	11.82	12	12.81	13.79	16.03	16.10	21.7	10.8
17	Sulphate (SO <sub>4</sub> )	mg/l	2.75	6.25	10.75	7.4	0.924	12.8	5.5	4.19	3.8	4.3	13.5	4.84	6.42	13.5	0.9
18	T. Alkalinity	mg/l	142	128	138	132	124	126	102	114	108	94	108	106	118.50	142.0	94.0
19	T. Hardness	mg/l	150	110	122	128	116	118	92	134	132	128	134	126	124.17	150.0	92.0
20	CalciumHardness	mg/l	96	92	92	94	98	94	78	92	80	76	78	82	87.67	98.0	76.0
21	Magnesium H.	mg/l	54	18	30	34	18	24	14	42	52	52	56	44	36.50	56.0	14.0
22	D. Oxygen	mg/l	7.5	7.9	7.4	8.4	8	7.5	8.4	8.7	9.2	9.4	7.4	8.7	8.21	9.4	7.4
23	B.O.D.	mg/l	1.4	1.2	1.7	1.9	1.5	1.6	1.1	1.2	1.9	1.2	1.4	1.6	1.48	1.9	1.1
24	C.O.D.	mg/l	20	19.76	19.2	20	19.2	19.2	9.88	10	10	10	9.6	9.8	14.72	20.0	9.6
25	Sodium	mg/l	26.15	16.2	24.1	13.6	13.25	11.26	14.56	12.93	15.34	17.43	15.72	15.5	16.34	26.2	11.3
26	Potassium	mg/l	4.86	1.8	1.6	1.4	1.16	1.18	1.79	1.56	1.53	1.84	1.72	1.8	1.85	4.9	1.2
27	T. Coliform	MPN/100ml	24000	38	40	40	210	280	15	2400	540	540	350	94	2378.92	24000.0	15.0
28	F. Coliform	MPN/100ml	1300	<2	<2	<2	<2	<2	<2	70	<2	<1.8	<2	<2	685.00	1300.0	70.0
29	Fluoride	mg/l	--	-	0.35	-	Absent	BDL	BDL	-	-	-	BDL	BDL	0.35	0.4	0.4
30	Boron	mg/l	BDL	-	0.35	-	BDL	BDL	-	-	BDL	0.2	BDL	BDL	0.18	0.18	0.18
31	Fixed Dissolve	mg/l	instrument	-	-	-	-	-	-	-	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
32	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
33	T.K.N.	meq/l	2.80	-	-	-	2.1	-	1	-	-	-	-	-	1.97	2.8	1.0
<b>Cat.</b>			<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

**REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:** Narmada At U/S befor Confluence Of River Tawa near Bandrabhan

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	<b>4.2.19</b>	14.03.201	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	29	29 °C	29	28	-	-	24	19°C	19°C	23	23.0	23	23
4	Turbidity	NTU	14.8	-	8.4	5.9	268	292	7.11	28.8	5.7	10.4	8.2	2	6.9	10.4	2
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	Colorless	Colorless	Colourles	Colourles	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.12	8.09	8.16	7.88	7.82	7.8	7.92	8.13	7.97	8.04	8.02	8.36	8.0	8.36	7.8
8	Sp. Conductivity	µMhos/cm.	336	284	272	390	216.04	256	242	225.3	258.1	180.1	195.1	225.6	256.7	390	180.1
9	T. Solids	mg/l	284	206	182	248	376	192	174	190	192	184	166	164	213.2	376	164
10	D. Solids	mg/l	260	172	162	234	Instrument	162	148	150	164	136	126	120	166.7	260	120
11	S. Solids	mg/l	24	34	20	14	228	30	26	40	28	48	42	44	48.2	228	14
12	Amm. Nitrogen	mg/l	0.26	0.12	BDL	0.11	0.175	0.165	0.070	BDL	BDL	BDL	BDL	BDL	0.2	0.26	0.07
13	Nitrite Nitrogen	mg/l	0.02	0.14	0.13	0.13	0.125	0.12	0.080	0.05	0.02	0.04	0.12	0.03	0.1	0.14	0.02
14	Nitrate Nitrogen	mg/l	4.18	2.1	1.7	1.6	1.85	2.2	0.90	3.91	1.52	2.03	1.5	2.22	2.1	4.18	0.9
15	Phosphate (PO <sub>4</sub> )	mg/l	0.02	0.594	0.49	0.428	0.891	1.42	0.396	0.02	0.01	0.08	0.49	0.03	0.4	1.42	0.01
16	Chloride	mg/l	14.78	22.99	18.72	18.72	15.76	14.79	12.80	13.79	13.99	11.82	13.79	13.99	15.5	22.99	11.82
17	Sulphate (SO <sub>4</sub> )	mg/l	1.53	11	10.0	7.85	8.25	11.28	6.25	6.11	2.92	3.48	8.25	5.62	6.9	11.28	1.53
18	T. Alkalinity	mg/l	154	132	130	122	114	126	112	110	110	144	148	108	125.8	154	108
19	T. Hardness	mg/l	168	122	130	120	110	128	106	136	126	176	164	114	133.3	176	106
20	CalciumHardness	mg/l	104	104	104	98	92	92	88	88	76	132	112	60	95.8	132	60
21	Magnesium H.	mg/l	64	18	26	22	18	36	18	48	50	44	52	54	37.5	64	18
22	D. Oxygen	mg/l	7.3	7.1	7.8	8.2	7.9	7.4	7.9	8.6	7.3	8.3	8.2	8	7.8	8.6	7.1
23	B.O.D.	mg/l	1.2	1.3	1.5	1.4	1.5	1.4	1.4	1.2	1.3	1.9	1.8	1.8	1.5	1.9	1.2
24	C.O.D.	mg/l	20	19.76	19.2	10	9.6	19.2	19.76	10.0	10	10	9.6	9.8	13.9	20	9.6
25	Sodium	mg/l	26.62	18.1	22.6	14.2	1.24	12.42	19.01	12.8	13.73	12.48	14.26	13.41	15.1	26.62	1.24
26	Potassium	mg/l	4.41	2.3	1.4	1.3	1.12	1.14	3.34	1.59	1.62	1.36	1.54	1.42	1.9	4.41	1.12
27	T. Coliform	MPN/100ml	2400	39	33	33	280	350	21	940	2400	2200	540	1600	903.0	2400	21
28	F. Coliform	MPN/100ml	920	<2	<2	<2	<2	<2	<2	33	17	40	<2	34	208.8	920	17
29	T.K.N.	mg/l	2.8	-	-	-	-	-	-	-	-	-	-	-	2.8	2.8	2.8
30	Boron	mg/l	0.03	-	0.4	-	-	-	-	-	BDL	BDL	BDL	BDL	0.2	0.4	0.03
31	FLURIDE	-	-	-	0.24	-	-	-	-	-	BDL	BDL	BDL	BDL	0.2	0.24	0.24
32	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
	CATEGORY		<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1 -



**REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:**

Narmada At D/S After Confluence Of River Tawa at Ramnagar near Bandrabhan

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	13.11.18	11.12.18	7.1.19	4.2.19	14.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	-	-	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	23	-	29	29°C	28	29	-	-	24	20°C	19°C	24	26.2	29	23
4	Turbidity	NTU	24.4	-	6.3	7.7	259	254	7.36	15.3	17.9	9.2	8.4	2	55.6	259	2
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	-	Colorless	Colorless	Colourles	Colourles	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	-	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	7.91	8.16	8.6	8.01	7.84	7.52	8.23	8.23	7.66	8.14	8.25	8.31	8.1	8.6	7.52
8	Sp. Conductivity	µMhos/cm.	345	336	262	218	224.4	232	256	216	128	178.2	267.1	225.2	240.7	345	128
9	T. Solids	mg/l	298	248	174	150	358	174	196	198	250	202	192	190	219.2	358	150
10	D. Solids	mg/l	272	208	156	132	Instrument	150	164	154	191	130	134	140	166.5	272	130
11	S. Solids	mg/l	26	40	18	18	214	24	32	44	59	72	58	50	54.6	214	18
12	Amm. Nitrogen	mg/l	0.36	0.19	BDL	0.094	0.125	0.026	0.090	BDL	0.004	BDL	BDL	BDL	0.1	0.36	0.004
13	Nitrite Nitrogen	mg/l	0.11	0.2	0.75	0.105	0.12	BDL	0.110	0.04	2.6	0.04	0.75	0.03	0.4	2.6	0.03
14	Nitrate Nitrogen	mg/l	2.66	2.9	1.4	1.32	2.25	0.46	1.0	3.82	0.02	2.88	2.2	2.73	2.0	3.82	0.02
15	Phosphate (PO <sub>4</sub> )	mg/l	BDL	0.858	0.56	0.37	1.122	1.41	0.528	0.01	0.008	0.89	0.56	0.05	0.6	1.41	0.008
16	Chloride	mg/l	15	26.99	15.76	17.73	14.78	17.7	13.79	12.81	11	10.84	11.82	12.99	15.1	26.99	10.84
17	Sulphate (SO <sub>4</sub> )	mg/l	1.53	15.5	6.75	7.5	10	11.22	9.25	2.87	3.08	3.85	8.25	3.66	7.0	15.5	1.53
18	T. Alkalinity	mg/l	158	144	126	120	110	156	122	112	100	120	138	100	125.5	158	100
19	T. Hardness	mg/l	160	158	124	122	106	170	118	148	164	182	170	108	144.2	182	106
20	CalciumHardness	mg/l	92	132	102	102	86	130	96	86	122	134	114	60	104.7	134	60
21	Magnesium H.	mg/l	68	26	22	20	20	40	22	62	42	48	56	48	39.5	68	20
22	D. Oxygen	mg/l	7.9	6.9	8.0	8.6	7.9	7.8	7.6	8.7	9	9	9	9.3	8.3	9.3	6.9
23	B.O.D.	mg/l	1.4	1.4	1.3	1.3	1.4	1.8	1.7	1.0	1.8	2.5	2.3	2.4	1.7	2.5	1
24	C.O.D.	mg/l	20	29.64	9.6	20	19.2	19.2	19.76	10.0	10	10	9.6	9.8	15.6	29.64	9.6
25	Sodium	mg/l	26.71	26.3	20.5	13.9	13.4	15.64	22.41	12.41	15.29	18.43	16.42	16.3	18.1	26.71	12.41
26	Potassium	mg/l	4.2	2.7	1.0	1.4	1.15	2.04	4.53	1.67	1.56	2.01	1.94	1.9	2.2	4.53	1
27	T. Coliform	MPN/100ml	2400	40	38	32	280	170	24	2400	350	90	220	920	580.3	2400	24
28	F. Coliform	MPN/100ml	920	<2	<2	<2	<2	<2	<2	79	<2	12	<2	70	270.3	920	12
29	T.K.N.	mg/l	2.8	-	-	-	-	-	-	-	-	-	-	-	2.8	2.8	2.8
30	Boron	mg/l	0.03	-	0.3	-	-	-	-	-	-	BDL	BDL	BDL	0.165	0.3	0.03
31	FLURIDE	mg/l	-	-	0.12	-	-	-	-	-	-	BDL	BDL	BDL	0.1	0.12	0.12
32	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
	CATEGORY		<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>C</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada.**

**Description of Sampling Station : River Narmada at near Budhni, Budhni Cat.- A**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	16.11.18	11.12.18	7.1.19	4.2.19	15.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	Clear	23	Clear	Clear	Clear	23.00	23.00	23.00
3	Temperature	oC	24	-	29	29°C	28	28	-	25	23	19 °C	20 °C	22 °C	26.2	29.0	23.0
4	Turbidity	NTU	57.8	-	7.8	4.1	294	262	8.23	5.4	21	8.6	7.5	13.8	62.7	294.0	4.1
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	Colorless	Colorless	Colourless	Colourless	Colourless	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	7.78	8.07	7.87	8.35	7.85	7.62	8.12	8.11	7.67	7.59	8.28	7.83	7.9	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	338	298	268	240	206.07	418.8	282	270.4	122.4	180.4	205.6	326	263.0	418.8	122.4
9	T. Solids	mg/l	240	210	190	165	366	298	226	216	221	186	182	248	229.0	366.0	165.0
10	D. Solids	mg/l	208	176	166	144	Instrument	268	182	180	162	132	134	224	179.6	268.0	132.0
11	S. Solids	mg/l	32	34	24	21	216	30	44	36	59	54	48	24	51.8	216.0	21.0
12	Amm. Nitrogen	mg/l	0.2	0.16	0.125	0.1	0.16	0.016	0.130	BDL	0.004	BDL	BDL	0.175	0.1	0.2	0.0
13	Nitrite Nitrogen	mg/l	0.09	0.19	0.185	0.11	0.165	0.14	0.135	0.02	0.004	0.04	0.05	0.165	0.1	0.2	0.0
14	Nitrate Nitrogen	mg/l	4.92	2.4	1.5	1.5	2.2	0.36	1.60	5.28	2.06	4.08	3.65	1.85	2.6	5.3	0.4
15	Phosphate (PO <sub>4</sub> )	mg/l	0.07	0.528	0.66	0.41	11.25	1.46	0.627	0.23	0.008	0.2	0.33	0.294	1.3	11.3	0.0
16	Chloride	mg/l	15	21.99	21.68	21.68	17.73	17.62	16.75	14.35	15	9.85	11.82	18.96	16.9	22.0	9.9
17	Sulphate (SO <sub>4</sub> )	mg/l	3.32	8	8.5	6.25	1.089	13.6	11.25	5.72	3.4	3.79	10	5.75	6.7	13.6	1.1
18	T. Alkalinity	mg/l	156	136	138	130	124	128	128	122	118	132	138	134	132.0	156.0	118.0
19	T. Hardness	mg/l	150	140	134	126	106	132	134	166	158	184	178	144	146.0	184.0	106.0
20	Calcium Hardness	mg/l	96	108	106	102	82	74	106	88	94	102	102	84	95.3	108.0	74.0
21	Magnesium H.	mg/l	54	32	28	24	24	58	28	78	64	82	76	60	50.7	82.0	24.0
22	D. Oxygen	mg/l	7.2	7.2	7.6	8.7	8.1	7.5	7.6	8.8	9.6	9.2	9	7.8	8.2	9.6	7.2
23	B.O.D.	mg/l	1.6	1.3	1.5	1.3	1.6	1.4	2.1	1.7	2	2.7	2.6	1.3	1.8	2.7	1.3
24	C.O.D.	mg/l	20	39.52	9.6	18	9.6	19.2	29.64	20	20	20	19.2	9.6	19.5	39.5	9.6
25	Sodium	mg/l	26.42	22.7	21.8	14.6	13.46	14.8	18.42	15.63	14.31	16.43	17.34	9.2	17.1	26.4	9.2
26	Potassium	mg/l	4.12	2.3	1.4	1.4	1.2	1.3	3.18	1.84	1.57	1.3	1.5	1.3	1.9	4.1	1.2
27	T. Coliform	MPN/100ml	24000	41	34	21	350	350	36	1200	350	540	350	58	2277.50	24000.0	21.0
28	F. Coliform	MPN/100ml	16000	<2	<2	<2	<2	<2	<2	48	<2	<1.8	<2	<2	8024.00	16000.0	48.0
29	Boron	mg/l	0.23	-	0.3	-	-	-	-	BDL	BDL	BDL	BDL	-	0.3	0.3	0.2
30	Fixed Dissolve	meq/l	Instrument	-	-	-	-	-	-	Instrument	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
31	FLURIDE	mg/l	-	-	0.4	-	-	-	-	BDL	BDL	BDL	BDL	-	0.4	0.4	0.4
32	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	-	#DIV/0!	#DIV/0!	#DIV/0!
<b>Cat.</b>			<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

**Classification of River water based on IS - 2296 - 1992**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada.**

**Description of Sampling Station : Near Korighat Hoshangabad. Cat.- A**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	7.6.18	4.7.18	7.8.18	17.9.18	8.10.18	16.11.18	11.12.18	7.1.19	4.2.19	15.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	Clear	clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	29	29 °C	29	27	-	25	24	19 °C	19 °C	22 °C	26.33	29.0	24.0
4	Turbidity	NTU	23.2	-	-	7	379	258	8.29	8.5	31	10.2	8.6	6.4	74.02	379.0	6.4
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	Colorless	Colorless	Colourless	Colorless	Colorless	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.03	8.14	7.76	8.38	7.95	8.2	8.14	8.16	7.97	8.19	8.24	8.49	8.14	8.5	7.8
8	Sp. Conductivity	µMhos/cm.	346	304	282	319	225.03	322	298	243.7	135	174.3	205.5	336	265.88	346.0	135.0
9	T. Solids	mg/l	290	222	196	184	378	290	234	206	298	186	192	288	247.00	378.0	184.0
10	D. Solids	mg/l	238	184	172	160	Instrument	213	188	174	237	128	138	204	185.09	238.0	128.0
11	S. Solids	mg/l	52	38	24	24	236	77	46	32	61	58	54	84	65.50	236.0	24.0
12	Amm. Nitrogen	mg/l	0.08	0.14	0.22	0.11	0.24	0.028	0.140	BDL	0.007	BDL	BDL	0.12	0.12	0.2	0.0
13	Nitrite Nitrogen	mg/l	0.04	0.17	0.165	0.14	0.25	0.16	0.150	0.03	0.02	0.03	0.125	0.16	0.12	0.3	0.0
14	Nitrate Nitrogen	mg/l	4.04	2.7	2.2	1.7	3.25	1.12	1.70	5.21	2.6	3.24	3.3	1.9	2.75	5.2	1.1
15	Phosphate (PO <sub>4</sub> )	mg/l	0.22	0.594	1.122	0.528	1.65	0.24	0.693	BDL	0.012	0.003	0.16	0.06	0.48	1.7	0.0
16	Chloride	mg/l	16	22.99	22.66	25.62	23.65	32.96	17.73	9.57	24	9.85	14.78	15	19.57	33.0	9.6
17	Sulphate (SO <sub>4</sub> )	mg/l	1.16	8.5	11.0	8.25	13.5	14.6	11.50	5.72	4.6	4.9	16.76	4.18	8.72	16.8	1.2
18	T. Alkalinity	mg/l	154	134	138	152	136	166	130	126	122	152	160	138	142.33	166.0	122.0
19	T. Hardness	mg/l	176	144	140	136	120	170	138	152	146	158	164	158	150.17	176.0	120.0
20	CalciumHardness	mg/l	94	108	108	102	88	125	108	90	96	92	96	94	100.08	125.0	88.0
21	Magnesium H.	mg/l	82	36	32	34	32	45	30	62	50	66	68	64	50.08	82.0	30.0
22	D. Oxygen	mg/l	7.1	7.4	7.4	7.8	7.8	7.8	7.4	9.1	9	9.8	7.2	8.1	7.99	9.8	7.1
23	B.O.D.	mg/l	1.2	1.4	1.6	1.7	1.8	2.2	2.2	1.7	2.7	2.3	2.4	1.8	1.92	2.7	1.2
24	C.O.D.	mg/l	20	39.52	19.2	20	19.2	19.2	29.64	10	20	20	19.2	20	21.33	39.5	10.0
25	Sodium	mg/l	24.58	24.3	22.8	16.2	14.25	15.90	19.15	16	13.8	13.4	16.72	18.2	17.94	24.6	13.4
26	Potassium	mg/l	3.68	2.4	1.8	1.8	1.16	1.8	3.56	1.72	1.59	1.34	1.56	1.34	1.98	3.7	1.2
27	T. Coliform	MPN/100ml	24000	41	40	47	430	400	27	540	1600	2100	1600	63	2574.00	24000.0	27.0
28	F. Coliform	MPN/100ml	16000	<2	<2	<2	<2	<2	<2	26	47	63	12	<2	3229.60	16000.0	12.0
29	Fluoride	mg/l		-	0.45	-	BDL	-	BDL	BDL	-	-	BDL	-	0.45	0.5	0.5
30	Boron	mg/l	BDL	-	0.2	-	BDL	BDL	-	BDL	-	BDL	BDL	-	0.20	0.2	0.2
31	Fixed Dissolve	mg/l	Instrument	-	-	-	-	-	-	Instrument	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
32	S.A.R.	meq/l	-	-	-	-	-	-	-	-	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
33	T.K.N.	mg/l	1.4	-	-	-	2.6	-	1.2	1.2	-	-	-	-	1.6	2.6	1.2
34	P-Alkalnity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	-	#DIV/0!	#DIV/0!	#DIV/0!
Cat.			E	A	A	A	B	B	A	C	C	C	C	B	A	A	A

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: Hoshangabad, Near Sethanighat**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	7.6.18	4.7.18	7.8.18	17.9.18	8.10.18	16.11.18	11.12.18	7.1.19	4.2.19	15.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	Clear	clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	28	28 °C	29	27	-	25	23	19 °C	19 °C	22 °C	26.00	29.0	23.0
4	Turbidity	NTU	24.3	-	-	7.8	367	260	8.49	6.1	20	8.4	9.2	7.2	71.85	367.0	6.1
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	Colorless	Colorless	Colourless	Colourless	Colourless	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.08	8.31	7.87	8.43	7.63	7.87	8.19	8.28	7.7	8.06	8.29	8.38	8.09	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	347	372	286	336	236.4	364	304	250.8	178	184.3	207	319	282.04	372.0	178.0
9	T. Solids	mg/l	268	282	202	218	382	293	242	256	208	196	208	192	245.58	382.0	192.0
10	D. Solids	mg/l	236	224	176	186	Instrument	205	194	186	157	134	140	138	179.64	236.0	134.0
11	S. Solids	mg/l	32	58	26	32	24	88	48	70	51	62	68	54	51.08	88.0	24.0
12	Amm. Nitrogen	mg/l	0.14	0.26	0.25	0.12	0.225	0.172	0.145	BDL	0.006	BDL	BDL	0.17	0.17	0.3	0.0
13	Nitrite Nitrogen	mg/l	0.04	0.29	0.22	0.16	0.175	0.122	0.160	0.01	0.02	0.05	0.15	0.03	0.12	0.3	0.0
14	Nitrate Nitrogen	mg/l	2.81	3.6	2.45	1.9	3.3	1.86	1.80	4.4	2.66	3.98	3.7	3.24	2.98	4.4	1.8
15	Phosphate (PO <sub>4</sub> )	mg/l	0.47	1.386	1.05	0.627	0.4	1.12	0.759	BDL	0.008	0.06	0.23	0.16	0.57	1.4	0.0
16	Chloride	mg/l	18	22.99	23.65	27.59	24.63	25.99	19.71	12.44	15	10.84	15.76	24	20.05	27.6	10.8
17	Sulphate (SO <sub>4</sub> )	mg/l	3.23	19.5	11.75	9.25	11.25	17.48	12.0	5.92	4.19	3.79	13.25	4.6	9.68	19.5	3.2
18	T. Alkalinity	mg/l	142	156	144	164	138	122	136	116	118	186	190	152	147.00	190.0	116.0
19	T. Hardness	mg/l	150	174	146	140	126	142	142	148	158	162	170	164	151.83	174.0	126.0
20	Calcium Hardness	mg/l	82	140	110	104	88	108	108	84	94	90	92	96	99.67	140.0	82.0
21	Magnesium H.	mg/l	68	34	36	36	38	34	34	64	64	72	78	68	52.17	78.0	34.0
22	D. Oxygen	mg/l	8.2	6.7	7.3	7.7	7.8	8.1	7.3	9.4	9.2	9.8	7.1	7.4	8.00	9.8	6.7
23	B.O.D.	mg/l	1.4	1.5	1.7	1.8	1.9	2.6	2.4	1.8	2.6	2.3	2.7	1.7	2.03	2.7	1.4
24	C.O.D.	mg/l	20	39.52	19.2	20	19.2	19.2	29.64	20	20	20	19.2	10	21.33	39.5	10.0
25	Sodium	mg/l	23.9	29.7	22.9	15.8	14.16	16.54	23.46	14.35	19.93	13.18	18.2	13.8	18.83	29.7	13.2
26	Potassium	mg/l	3.44	3.4	1.9	1.4	1.32	2.2	3.84	1.58	1.66	1.56	1.82	3.54	2.31	3.8	1.3
27	T. Coliform	MPN/100ml	24000	43	41	38	280	440	34	920	1600	2400	>1600	70	2715	24000	34.0
28	F. Coliform	MPN/100ml	16000	<2	<2	<2	<2	<2	<2	38	39	49	20	<2	3229	16000	20.0
29	Fluoride	mg/l		-	0.33	-	0.6	-	BDL	BDL	-	-	BDL	-	0	1	0.3
30	Boron	mg/l	BDL	-	0.3	-	BDL	BDL	-	BDL	BDL	BDL	BDL	-	0	0	0.3
31	Fixed Dissolve	mg/l	Instrument	-	-	-	-	-	-	Instrument	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
32	S.A.R.	meq/l	-	-	-	-	-	-	-	-	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
33	T.K.N.	mg/l	1.40	-	-	-	2.8	-	1.3	1.3	-	-	-	-	1.7	2.8	1.3
34	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	-	#DIV/0!	#DIV/0!	#DIV/0!
<b>Category</b>			<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: 100 mtrs. D/S after confluence of SPM nalla.**

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	8.6.18	4.7.18	7.8.18	17.9.18	8.10.18	16.11.18	11.12.18	7.1.19	12.2.19	15.03.201	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	Clear	clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	-	30	30 °C	28	29	-	25	23	20 °C	22 °C	23 °C	26.50	30.0	23.0
4	Turbidity	NTU	43.6	-	10.6	4.2	336	334	7.09	4.5	34.4	10.2	10.3	8.12	73.00	336.0	4.2
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	Colorless	Colorless	Colourless	Colorless	Colorless	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.25	7.61	7.79	7.76	7.87	7.72	7.94	8.17	7.89	8.16	8.03	8.67	7.99	8.7	7.6
8	Sp. Conductivity	µMhos/cm.	380	284	288	220	209.2	344	234	343	268.9	180.1	212.3	372	277.96	380.0	180.1
9	T. Solids	mg/l	264	196	204	204	394	308	166	242	321	210	212	293	251.17	394.0	166.0
10	D. Solids	mg/l	224	168	176	176	Instrument	212	142	220	249	132	146	205	186.36	249.0	132.0
11	S. Solids	mg/l	40	28	28	28	252	96	24	22	72	78	66	88	68.50	252.0	22.0
12	Amm. Nitrogen	mg/l	0.16	0.12	0.31	0.12	0.19	0.224	0.060	BDL	0.006	0.005	0.15	0.18	0.14	0.3	0.0
13	Nitrite Nitrogen	mg/l	0.03	0.13	0.25	0.16	0.225	0.172	0.065	0.12	0.02	0.02	0.125	0.13	0.12	0.3	0.0
14	Nitrate Nitrogen	mg/l	4.38	1.9	2.4	1.8	3.65	3.2	0.80	3.28	17.09	15.48	4.35	4.28	5.22	17.1	0.8
15	Phosphate (PO <sub>4</sub> )	mg/l	0.31	0.33	1.452	0.528	1.41	1.45	0.330	BDL	0.08	0.074	0.75	0.06	0.62	1.5	0.1
16	Chloride	mg/l	15	19.99	24.63	33.5	25.62	25.99	10.84	11.48	53	7.88	16.75	18	21.89	53.0	7.9
17	Sulphate (SO <sub>4</sub> )	mg/l	3.74	7	13.5	8.35	14.5	14.84	6.75	8.66	6.1	6.4	18.25	3.26	9.28	18.3	3.3
18	T. Alkalinity	mg/l	160	130	148	168	148	150	110	124	170	198	194	164	155.33	198.0	110.0
19	T. Hardness	mg/l	168	126	146	144	136	146	98	128	152	184	190	162	148.33	190.0	98.0
20	CalciumHardness	mg/l	90	102	114	130	96	102	82	102	102	108	108	90	102.17	130.0	82.0
21	Magnesium H.	mg/l	78	24	32	14	40	44	16	26	50	76	82	72	46.17	82.0	14.0
22	D. Oxygen	mg/l	8.7	7.6	7.3	7.6	7.6	7.8	7.7	7.4	8.1	9.8	7.5	9.2	8.03	9.8	7.3
23	B.O.D.	mg/l	2.4	1.6	1.9	1.9	1.5	2.3	1.2	1.4	2.9	2.4	2.8	2.6	2.08	2.9	1.2
24	C.O.D.	mg/l	20	29.64	19.2	30	19.2	19.2	19.76	20	20	20	19.2	20	21.35	30.0	19.2
25	Sodium	mg/l	26.69	19.4	22.8	17.2	12.46	14.62	18.32	16	24.8	26.4	18.74	23.46	20.07	26.7	12.5
26	Potassium	mg/l	3.46	2	2.1	1.9	1.21	2.2	2.27	1.76	2.2	3.3	2.1	3.34	2.32	3.5	1.2
27	T. Coliform	MPN/100ml	24000	43	43	47	430	440	20	1600	1600	2100	>1600	110	2767	24000	20.0
28	F. Coliform	MPN/100ml	16000	<2	<2	<2	<2	<2	<2	63	65	84	110	<2	3264	16000	63.0
29	Fluoride	mg/l	-	-	0.35	-	0.6	-	BDL	BDL	-	-	BDL	-	0.48	0.6	0.4
30	Boron	mg/l	BDL	-	0.4	-	BDL	BDL	-	BDL	BDL	BDL	BDL	-	0.40	0.4	0.4
31	Fixed Dissolve	mg/l	Instrument	-	-	-	-	-	-	Instrument	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
32	TKN	-	-	-	-	-	3.2	-	1.10	-	-	-	-	-	-	-	-
33	S.A.R.	meq/l	-	-	-	-	-	-	-	-	-	-	-	-	#DIV/0!	#DIV/0!	#DIV/0!
34	P-Alkalinity	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	-	#DIV/0!	#DIV/0!	#DIV/0!
<b>Category</b>			<b>E</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>B</b>	<b>B</b>	<b>A</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

**MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL**  
**Water Quality during Year - 2018-19**

**Natural Water Resource : Rever Narmada**

**Description of Sampling Station:** Narmada At D/S of Textile unit Vill. Holipura Budni Distt.Sehore

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	9.4.18	3.5.18	7.6.18	4.7.18	7.8.18	17.9.18	8.10.18	16.11.18	11.12.19	7.1.19	12.2.19	14.03.201	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	clear	-	Clear	Clear	Turbid	Turbid	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	23	-	28	28	28	28	-	25	24	19°C	21 °C	22	25.8	28	22
4	Turbidity	NTU	23.2	-	6.2	7	284	295	7.18	6.5	8.2	8.5	5.2	2.7	59.4	295	2.7
5	Colour	PCS	colourless	Colorless	Colorless	Colorless	Muddy	Muddy	Colorless	Colorless	Colorless	Colorless	Colourles	Colourles	#DIV/0!	#DIV/0!	#DIV/0!
6	Odour	T. No	odorless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	Odourless	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.15	7.93	8.12	8.31	7.89	7.8	8.19	8.08	8.07	8.16	8.12	7.93	8.1	8.31	7.8
8	Sp. Conductivity	µMhos/cm.	349	288	258	324	214.4	335	264	275.8	221.4	181.1	203.1	224.8	261.6	349	181.1
9	T. Solids	mg/l	292	208	168	204	354	316	196	198	216	196	158	154	221.7	354	154
10	D. Solids	mg/l	240	170	152	176	Instrument	218	168	176	162	132	126	148	169.8	240	126
11	S. Solids	mg/l	52	38	16	28	216	98	28	22	54	64	32	6	54.5	216	6
12	Amm. Nitrogen	mg/l	0.2	0.12	BDL	0.1	0.075	0.142	0.10	BDL	BDL	BDL	BDL	BDL	0.1	0.2	0.075
13	Nitrite Nitrogen	mg/l	0.04	0.16	0.08	0.12	0.1	0.125	0.110	BDL	0.02	0.03	0.075	0.06	0.1	0.16	0.02
14	Nitrate Nitrogen	mg/l	3.42	2	1.60	1.6	3	1.85	1.10	5	3.14	3.84	1.4	3.54	2.6	5	1.1
15	Phosphate (PO <sub>4</sub> )	mg/l	0.11	0.462	0.72	0.429	0.924	1.56	0.462	BDL	0.08	0.84	0.33	0.61	0.6	1.56	0.08
16	Chloride	mg/l	15	24.99	13.75	24.63	14.78	27.59	15.76	11.48	14.99	8.86	9.85	11.99	16.1	27.59	8.86
17	Sulphate (SO <sub>4</sub> )	mg/l	4.66	6.5	5.5	7.25	10	18.5	9.75	4.9	5.25	6.08	8.5	5.91	7.7	18.5	4.66
18	T. Alkalinity	mg/l	162	128	126	146	116	166	114	126	106	122	128	118	129.8	166	106
19	T. Hardness	mg/l	190	132	116	130	108	170	124	150	122	148	150	134	139.5	190	108
20	CalciumHardness	mg/l	102	104	96	98	86	138	104	76	74	86	92	112	97.3	138	74
21	Magnesium H.	mg/l	88	28	20	32	22	32	20	74	48	62	58	22	42.2	88	20
22	D. Oxygen	mg/l	8.8	7.1	7.9	8.4	7.8	7.4	7.3	8.9	6.5	9.2	9	8.8	8.1	9.2	6.5
23	B.O.D.	mg/l	1.7	1.5	1.2	1.5	1.2	2.1	1.8	1.5	1.3	1.5	1.4	1.7	1.5	2.1	1.2
24	C.O.D.	mg/l	20	29.64	9.6	20	9.6	19.2	19.76	20	10	20	9.6	19.6	17.3	29.64	9.6
25	Sodium	mg/l	24.82	18.6	16.4	15.6	12.14	15.28	19.31	18.06	13.96	16.01	14.21	18.5	16.9	24.82	12.14
26	Potassium	mg/l	3.33	1.9	1.2	1.6	1.10	1.04	3.64	1.73	1.54	2.43	1.42	3.52	2.0	3.64	1.04
27	T. Coliform	MPN/100ml	24000	47	40	34	240	400	17	2100	4900	3500	220	2800	3192	24000	17
28	F. Coliform	MPN/100ml	16000	<2	<2	<2	<2	<2	<2	79	110	130	<2	120	3288	16000	79
29	T.K.N.	mg/l	2.8	-	-	-	-	-	-	-	-	-	-	-	2.8	2.8	2.8
30	Boron	mg/l	1.55	-	bdl	-	-	BDL	-	BDL	-	BDL	BDL	BDL	1.55	1.55	1.55
31	FLURIDE	mg/l	-	-	0.2	-	-	-	-	BDL	-	BDL	BDL	BDL	0.2	0.2	0.2
32	P-Alkality	meq/l	-	-	-	-	-	-	-	-	-	Absent	Absent	Absent	#DIV/0!	#DIV/0!	#DIV/0!
	CATEGORY		E	A	A	<b>A</b>	<b>B</b>	B	A	C	C	C	B	<b>B</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, DEWAS

Water Quality during Year - 2018-19

Natural Water Resource : Rever Narmada

Narmada befor Confluence of River Jamner Vill. Nemawar near

Description of Sampling Station:

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	5.4.18	5.5.18	4.6.18	4.7.18	4.8.18	6.9.18	4.10.18	6.11.18	6.12.18	4.1.19	4.2.19		#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	-	-	-	-	-	-	-	-	Clear	Clear	-		#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	23	25	-	-	-	-	24	23	-	20	-		23.0	25	20
4	Turbidity	NTU	6.9	1.9	6.8	4.4	40.5	4	3.4	3	2.8	2.4	2.3		7.2	40.5	1.9
5	Colour	PCS	5	5	5	colourless	SL.muddy	colorless	colorless	colorless	colourless	colourless	colourless		5.0	5	5
6	Odour	T. No	-	-	-	-	-	-	-	-	odourless	Odourless	odourless		#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.26	7.68	7.72	8.2	7.81	7.86	7.72	7.86	7.84	7.66	7.6		7.8	8.2	7.6
8	Sp. Conductivity	µMhos/cm.	377	352.6	530	204	211	240	254	244	364	352	350		310.2	530	204
9	T. Solids	mg/l	270	220	368	190	168	174	186	186	268	264	260		228.4	368	168
10	D. Solids	mg/l	260	210	350	182	100	158	174	176	258	252	246		210.6	350	100
11	S. Solids	mg/l	10	10	18	8	68	60	12	10	10	12	14		22.2	68	8
12	Amm. Nitrogen	mg/l	0.0614	0.006	0.542	bdl	BDL	BDL	0.026	0.024	0.018	0.02	0.024		0.1	0.542	0.006
13	Nitrite Nitrogen	mg/l	0.018	0.076	0.018	0.048	0.046	0.012	0.001	0.001	0.0035	0.001	0.006		0.0	0.076	0.001
14	Nitrate Nitrogen	mg/l	0.716	0.764	0.648	0.512	0.516	0.522	0.884	0.636	1.201	0.924	0.96		0.8	1.201	0.512
15	Phosphate (PO <sub>4</sub> )	mg/l	0.019	ND	BDL	ND	BDL	BDL	BDL	BDL	0.0034	BDL	BDL		0.0	0.0034	0.0034
16	Chloride	mg/l	38	32	48	26	22	28	38	17	56	48	46		36.1	56	17
17	Sulphate (SO <sub>4</sub> )	mg/l	8.8	8.6	22.8	8.6	9.6	10.6	10.4	9.362	7.68	0.24	12		10.0	22.8	0.24
18	T. Alkalinity	mg/l	184	140	120	90	80	90	38	106	142	136	140		108.2	142	38
19	T. Hardness	mg/l	168	92	190	102	108	118	190	138	178	172	170		145.8	190	92
20	CalciumHardness	mg/l	80	60	120	72	74	78	120	90	102	90	92		89.8	120	60
21	Magnesium H.	mg/l	88	32	70	30	34	40	70	48	76	82	78		56.0	82	30
22	D. Oxygen	mg/l	7.2	7.1	7.2	7	7	7	7.2	6.9	7.1	7.2	7		7.1	7.2	6.9
23	B.O.D.	mg/l	3.2	1.8	instrument	instrument	Instrument	Instrument	2.8	2	2	2	Instrume		2.1	2.8	1.8
24	C.O.D.	mg/l	12	10	18	9	10	10	10	10	10	12	14		11.3	18	9
25	Sodium	mg/l	48.6	18.6	24.4	12.2	13.6	16.3	12.6	11.2	19.6	16.3	20		16.5	24.4	11.2
26	Potassium	mg/l	1	1.6	1.5	1	1	1	0.8	0.8	0.5	0.6	0.8		1.0	1.6	0.5
27	T. Coliform	MPN/100ml	48	47	48	79	40	40	94	47	40	46	46		52.7	94	40
28	F. Coliform	MPN/100ml	22	17	4.5	8.1	8.1	8.1	4	4	4	4	4		6.6	17	4
29	T.K.N.	mg/l	Instrument	-	-	-	-	NA	Instrument	Instrument	instrumen	-	instrume		#DIV/0!	#DIV/0!	#DIV/0!
30	boron	mg/l	ND	BDL	-	-	-	BDL	BDL	BDL	BDL	-	-		#DIV/0!	#DIV/0!	#DIV/0!
31	fluoride	mg/l	0.464	0.215	-	-	-	0.226	0.324	0.234	0.301	-	-		0.3	0.324	0.215
32	copper	mg/l	0.0004	-	-	-	-	-	-	-	-	-	-		#DIV/0!	#DIV/0!	#DIV/0!
33	iron	mg/l	0.0031	-	-	-	-	-	-	-	-	-	-		#DIV/0!	#DIV/0!	#DIV/0!
	CATEGORY		A	B	B	B	B	B	B	B	A	A	A		B	B	B

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, DEWAS

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Nemawar W/s/ Ujjain.

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	5.4.18	4.5.18	4.6.18	4.7.18	4.8.18	7.9.18	4.10.18	6.11.18	6.12.18	4.1.19	4.2.19		#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	-	-	-	-	-	-	-	-	-	clear	-		#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	23	22	-	-	-	-	23	23	-	20	-		22.2	23.0	20.0
4	Turbidity	NTU	2.7	3.2	4.5	4.8	30.8	4.5	1.28	3.2	3.8	2	3.6		5.9	30.8	1.28
5	Colour	PCS	5	5	5	colourless	SL.muddy	colorless	colorless	colorless	colourless	colourless	colourless		5.0	5	5
6	Odour	T. No	-	-	-	-	-	-	-	-	odourless	Odourless	odourless		-	-	-
7	pH	pH Unit	8.42	7.98	7.68	7.18	7.91	8.12	7.92	7.88	8.24	7.68	8.3		7.9	8.42	7.18
8	Sp. Conductivity	µMhos/cm.	379	347	340	210	210	230	255	242	236	316	250		274.1	379	210
9	T. Solids	mg/l	236	246	242	196	172	170	150	182	180	234	188		199.6	246	150
10	D. Solids	mg/l	228	236	222	188	102	158	140	174	170	224	178		183.6	236	102
11	S. Solids	mg/l	8	10	20	8	70	12	10	8	10	10	10		16.0	70	8
12	Amm. Nitrogen	mg/l	0.649	0.762	0.446	bdl	bdl	BDL	0.036	0.026	0.228	0.06	0.232		0.3	0.762	0.026
13	Nitrite Nitrogen	mg/l	0.031	0.028	0.0016	0.018	0.016	0.012	0.0076	0.001	0.006	0.0012	0.006		0.0	0.031	0.001
14	Nitrate Nitrogen	mg/l	0.714	0.814	0.921	0.512	0.518	0.516	0.604	0.624	0.68	0.716	0.72		0.7	0.92	0.512
15	Phosphate (PO <sub>4</sub> )	mg/l	0.032	0.026	0.028	bdl	bdl	BDL	0.0036	BDL	BDL	BDL	BDL		0.0	0.032	0.0036
16	Chloride	mg/l	35	32	42	28	23	26	35	15	31	24	34		29.5	42.00	15
17	Sulphate (SO <sub>4</sub> )	mg/l	10.8	12.4	22.6	9.2	10.2	12.4	10.84	8.446	8	10.2	12		11.6	22.60	8
18	T. Alkalinity	mg/l	156	148	116	100	90		nil		110	108	118		118.3	156	90
19	T. Hardness	mg/l	180	176	160	106	118	160	144	136	118	156	126		143.6	180	106
20	CalciumHardness	mg/l	56	152	100	68	68	90	78	92	70	96	74		85.8	152	56
21	Magnesium H.	mg/l	124	24	60	38	50	70	66	44	48	60	52		57.8	124	24
22	D. Oxygen	mg/l	7.2	7.2	7	7.2	7.2	7.5	6.9	7	7	7.1	7.2		7.1	7.5	6.9
23	B.O.D.	mg/l	1.8	2	instrument	instrument	Instrument	Instrument	1.9	1.8	2	1.6	Instrument		1.9	2	1.6
24	C.O.D.	mg/l	8	10	18	10	10	8	10	10	10	10	12		10.5	18	8
25	Sodium	mg/l	14.8	16.2	24.8	10.2	12.4	14.6	10.24	10.2	12	14.6	16		14.2	24.8	10.2
26	Potassium	mg/l	0.8	1	0.9	0.8	0.8	0.9	0.4	0.6	0.8	0.8	0.9		0.79	1	0.4
27	T. Coliform	MPN/100ml	48	46	40	63	63	70	43	49	40	46	40		49.82	70	40
28	E. Coliform	MPN/100ml	22	6.1	6.1	12	12	12	4	4	4	4	4		8.20	22	4
29	T.K.N.	mg/l	Instrument	-	instrument	instrument		NA	instrument	instrument	instrument	-	instrument		#DIV/0!	#DIV/0!	#DIV/0!
30	S.A.R.	mg/l	0.47	0.53	0.85	0.51	0.51	0.5	0.74	0.3	0.47	0.5	0.61		0.54	0.9	0.3
31	boron	mg/l	BDL	BDL	BDL	BDL		BDL	BDL	BDL	BDL	BDL	BDL		#DIV/0!	#DIV/0!	#DIV/0!
32	fluoride	mg/l	0.314	0.298	NIL	0.258	0.261	0.246	0.264	0.262	0.272	0.274	0.278		0.27	0.314	0.246
33	copper	mg/l	0.004	-	-	-	-	-	-	-	-	-	-		0.00	0.004	0.004
34	iron	mg/l	0.0018	-	-	-	-	-	-	-	-	-	-		0.00	0.0018	0.0018
35	zinc	mg/l	ND	-	-	-	-	-	-	-	-	-	-		#DIV/0!	#DIV/0!	#DIV/0!
36	lead	mg/l	ND	-	-	-	-	-	-	-	-	-	-		#DIV/0!	#DIV/0!	#DIV/0!
37	nickle	mg/l	0.001	-	-	-	-	-	-	-	-	-	-		0.00	0.001	0.001
38	arsenic	mg/l	0.002	-	-	-	-	-	-	-	-	-	-		0.00	0.002	0.002
Cat.			A	A	A	A	A	A	A	A	A	A	A		A	A	A

Classification of River water based on IS - 2296 - 1992



MADHYA PRADESH POLLUTION CONTROL BOARD, DEWAS

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: River Narmada 500 m. D/S Jain mandir Village Nemawar

S.No.	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling	--	5.4.18	5.5.18	4.6.18	4.7.18	4.8.18	6.9.18	4.10.18	6.11.18	6.12.18	4.1.19	4.2.19		#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	-	-	-	-	-	-	-	-	Clear	Clear	-		#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	24	25	-	-	-	-	23	23	-	-	-		23.75	23.69	23.36
4	Turbidity	NTU	3.8	1.7	5	3.2	40.1	7.2	2.3	3.6	4.76	3.6	1.62		7.0	40.1	1.62
5	Colour	PCS	5	5	-	colourless	SL.muddy	colourless	colorless	colorless	colourless	Colorless	colourless		5.00	5.00	5.00
6	Odour	T. No	-	-	-	-	-	-	-	-	odourless	Odourless	odourless		#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.36	7.69	7.86	8.1	7.96	8.07	7.77	7.98	7.56	7.68	7.78		7.9	8.36	7.56
8	Sp. Conductivity	uMhos/cm.	439	321.7	320	209	240	258	260	252	408	362	360		311.8	439	209
9	T. Solids	mg/l	252	206	236	194	192	194	190	190	346	286	280		233.3	346	190
10	D. Solids	mg/l	238	198	224	186	144	176	180	180	332	270	270		218.0	332	144
11	S. Solids	mg/l	14	8	12	8	48	18	10	10	14	16	10		15.3	48	8
12	Amm. Nitrogen	mg/l	0.69	0.059	0.078	bdl	bdl	BDL	0.046	0.032	0.024	0.036	0.0348		0.1	0.69	0.024
13	Nitrite Nitrogen	mg/l	0.039	0.061	0.0018	0.018	0.016	0.014	0.001	0.001	0.0037	0.002	0.008		0.0	0.061	0.001
14	Nitrate Nitrogen	mg/l	0.814	0.617	0.828	0.52	0.522	0.528	0.582	0.654	1.209	1.124	0.92		0.8	1.21	0.52
15	Phosphate (PO <sub>4</sub> )	mg/l	0.064	0.0014	bdl	bdl	bdl	1	BDL	BDL	0.0039	0.003	BDL		0.2	1	0.0014
16	Chloride	mg/l	49	35	38	26	14	30	26	20	68	54	54		37.6	68.00	14
17	Sulphate (SO <sub>4</sub> )	mg/l	10.6	10.2	20.2	8.2	14.2	18.1	8.4	10.4	11.72	10.43	18		12.8	20.20	8.2
18	T. Alkalinity	mg/l	158	140	110	100	60	92	NIL	112	164	148	138		122.2	164	60
19	T. Hardness	mg/l	192	128	120	110	90	158	178	146	190	186	180		152.5	192	90
20	CalciumHardness	mg/l	76	50	78	70	60	98	110	96	124	100	100		87.5	124	50
21	Magnesium H.	mg/l	116	78	42	40	30	60	68	50	66	86	80		65.1	116	30
22	D. Oxygen	mg/l	7	7.1	7.2	7	7	7.2	6.4	6.8	6.9	7	7.1		7.0	7.2	6.4
23	B.O.D.	mg/l	1.6	2	instrument out of order	instrument out of order	Instrument out of order	Instrument out of order	2	2	2.9	2.6	Instrume nt out of		2.2	2.9	1.6
24	C.O.D.	mg/l	11	8	14	10	10	10	10	10	12	14	14		11.2	14	8
25	Sodium	mg/l	15.8	17.6	24.6	10.2	16.4	22.2	10.2	132	20.1	18.4	26		28.5	132	10.2
26	Potassium	mg/l	1	1.2	0.8	0.8	0.8	1	0.6	0.8	0.6	0.8	1		0.85	1.2	0.6
27	T. Coliform	MPN/100ml	40	40	58	70	33	63	84	58	47	48	48		53.55	84	33
28	F. Coliform	MPN/100ml	11	11	9.1	6.8	6.8	9.2	4	6	4	4	4		6.90	11	4
29	T.K.N.	mg/l	Instrument	-	-	-	-	NA	Instrument	Instrument	instrumen	-	instrume		0.00	0	0
30	S.A.R.	mg/l		0.67	-	-	-	0.76	0.3	NIL	-	-	-		0.58	0.76	0.3
31	boron	mg/l	BDL	BDL	-	-	-	BDL	BDL	NA	-	-	-		0.00	0	0
32	fluoride	mg/l	0.346	0.201	-	-	-	0.262	0.274	NA	-	-	-		0.27	0.346	0.201
33	copper	mg/l	0.0007	-	-	-	-	-	-	-	-	-	-		0.00	0	0
34	iron	mg/l	0.0009	-	-	-	-	-	-	-	-	-	-		0.00	0	0
35	lead	mg/l	ND	-	-	-	-	-	-	-	-	-	-		0.00	0	0
36	nickle	mg/l	0.0018	-	-	-	-	-	-	-	-	-	-		0.00	0.0018	0.0018
37	arsenic	mg/l	0.0001	-	-	-	-	-	-	-	-	-	-		0.00	0	0
	Cat.		A	A	A	A	A	B	B	B	A	A	A		A	A	A

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE**

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: Narmada River at Hanuwantia (Indera Sager Reg.) Distt.Khandwa

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Av.	Maxi.	Mini.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	oC	29	28	27	24	26	23	24	24	23	17	20	20	23.8	29.0	17.0
4	Turbidity	NTU	1.6	8.49	1.6	7.9	4.4	4.2	1.6	3.6	1.2	1.4	2.2	2.5	3.4	8.49	1.2
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1	1
6	Odour	T. No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.8	0.9	8.22	7.8	8.14	8.37	8.68	8.06	8.46	8.56	8.76	8.29	7.8	8.8	0.9
8	Sp. Conductivity	µMhos/cm.	580	353	430.32	400	457	354.83	356	335	302	273	270.12	274	365.4	580	270.12
9	T. Solids	mg/l	386	220	274	279	258	241	223	200	200	178	176	176	234.3	386	176
10	D. Solids	mg/l	373	212	268	272	250	229	216	190	192	172	170	169	226.1	373	169
11	S. Solids	mg/l	13	8	6	7.0	8	12	7	10	8	6	6	7	8.2	13	6
12	Amm. Nitrogen	mg/l	ND	0.019	0.008	0.012	0.018	0.018	0.012	0.019	0.008	0.008	0.009	0.008	0.0	0.019	0.008
13	Nitrite Nitrogen	mg/l	0.002	0.003	0.001	0.003	0.004	0.005	0.003	0.003	0.002	0.002	0.007	0.005	0.0	0.007	0.001
14	Nitrate Nitrogen	mg/l	1.19	0.88	0.703	0.73	0.556	0.645	0.665	0.658	0.68	1.021	0.515	1.308	0.8	1.31	0.515
15	Phosphate (PO <sub>4</sub> )	mg/l	0.03	0.015	0.032	0.019	0.032	1.076	0.015	0.014	0.011	0.009	0.034	0.019	0.1	1.076	0.009
16	Chloride	mg/l	24.63	34.71	24.1	12.8	34.24	27.39	52.64	29.56	25.99	21.68	26.8	29.56	28.7	52.64	12.8
17	Sulphate (SO <sub>4</sub> )	mg/l	3	3.9	3.44	4.32	8.28	5.74	3.58	3.92	3.24	3.97	2.24	6.08	4.3	8.28	2.24
18	T. Alkalinity	mg/l	160	160	152	136	120	148	124	124	112	148	120	152	138.0	160	112
19	T. Hardness	mg/l	130	144	136	188	170	136	128	128	96	132	108	144	136.7	188	96
20	CalciumHardness	mg/l	120	128	112	132	140	128	96	96	72	100	80	116	110.0	140	72
21	Magnesium H.	mg/l	10	16	24	56	30	8	32	32	24	32	28	28	26.7	56	8
22	D. Oxygen	mg/l	7	7.3	6.8	7.2	6.5	7	7	7.2	7.4	7.9	7.7	7.6	7.2	7.9	6.5
23	B.O.D.	mg/l	1.19	1	1.1	1.2	1.1	1.3	1	1.2	1	1.1	1.1	0.9	1.1	1.3	0.9
24	C.O.D.	mg/l	13.55	11	14	8.82	9.68	12.84	11.76	20	9	9	8.71	10.86	11.6	20	8.71
25	Sodium	mg/l	18.64	15.09	15	15	17.68	16	15.02	16.8	16.2	17	11.4	16.2	15.8	18.64	11.4
26	Potassium	mg/l	2.46	1.06	1.4	1.4	1.6	1.6	1.42	1.52	1.4	1.8	0.8	1.64	1.51	2.46	0.8
27	T. Coliform	MPN/100ml	40	40	32	49	40	40	40	48	46	46	38	47	42.17	49	32
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	1.80	1.8	1.8
29	T.K.N.	mg/l	2.8	2.8	3.36	0.78	0.62	0.69	0.62	0.68	0.62	0.73	0.62	0.68	1.3	3.36	0.62
30	FDS	mg/l	186	130	180	176	170	140	129	134	118	104	104	106	139.75	186.0	104.0
31	Fluoride	mg/l	0.68	0.4	0.63	4.48	2.8	4.48	3.08	3.36	3.36	4.2	2.24	3.36	2.76	4.48	0.4
32	Boron	mg/l	0.002	0.008	0.003	0.003	0.003	0.004	0.003	0.004	0.002	0.004	0.002	0.004	0.00	0.008	0.002
Cat.			"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE

Water Quality during Year - 2018-19

Natural Water Resource : Narmada River at Punasa Dam

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	°C	29	29	27	24	26	23	24	24	23	17	20	20	23.83	29.00	17.00
4	Turbidity	NTU	1.2	8.32	1.3	10.1	4.6	5.7	1.7	1.2	1	1.9	0.8	1.7	3.29	10.10	0.80
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.84	0.7	8.19	7.87	8.18	8.16	8.65	8.67	8.48	8.6	8.57	8.08	7.75	8.84	0.7
8	Sp. Conductivity	µMhos/cm.	588	353	447.54	416.64	438	337.01	342	322	300	286	304	296	369.18	588	286
9	T. Solids	mg/l	390	218	273	288	252	234	227	187	196	180	178	183	233.83	390	178
10	D. Solids	mg/l	378	212	266	280	244	223	220	180	188	172	170	174	225.58	378	170
11	S. Solids	mg/l	196	6	7	8	8	11	7	7	8	8	8	9	23.58	196	6
12	Amm. Nitrogen	mg/l	ND	0.018	0.008	0.011	0.019	0.019	0.014	0.016	0.011	0.009	0.007	0.008	0.01	0.019	0.007
13	Nitrite Nitrogen	mg/l	0.002	0.3005	0.004	0.004	0.003	0.006	0.004	0.002	0.003	0.004	ND	0.006	0.03	0.3005	0.002
14	Nitrate Nitrogen	mg/l	1.18	0.864	0.68	0.83	0.485	1.038	0.87	0.628	0.74	1.032	0.794	0.98	0.84	1.18	0.485
15	Phosphate (PO <sub>4</sub> )	mg/l	ND	0.012	0.028	0.021	0.031	0.029	0.012	0.011	0.008	0.008	0.008	0.018	0.02	0.031	0.008
16	Chloride	mg/l	44.34	30.85	33.74	10.97	29.93	25.43	26.25	24.36	23.94	25.6	39.98	29.56	28.75	44.34	10.97
17	Sulphate (SO <sub>4</sub> )	mg/l	2	4.9	3.122	3.96	9.69	6.075	4.559	3.28	4.46	3.96	2.24	3.38	4.30	9.69	2
18	T. Alkalinity	mg/l	200	160	160	132	140	136	116	124	116	144	120	136	140.33	200	116
19	T. Hardness	mg/l	180	152	140	184	180	120	120	104	96	136	100	128	136.67	184	96
20	CalciumHardness	mg/l	150	120	112	128	130	108	88	80	68	108	80	104	106.33	150	68
21	Magnesium	mg/l	30	32	28	56	50	12	32	24	28	28	20	24	30.33	56	12
22	D. Oxygen	mg/l	7.2	7.5	6.9	7.3	6.5	6.9	7.2	7.2	7.3	7.5	7.9	7.6	7.25	7.9	6.5
23	B.O.D.	mg/l	1.6	1.1	1.2	1	1.2	1.2	1.1	1.1	1	1.2	0.8	1	1.13	1.6	0.8
24	C.O.D.	mg/l	12.58	10	20	9.8	9.68	11.85	9.8	16	12	10	8	8.89	11.55	20	8
25	Sodium	mg/l	18.88	15	14	16	16.8	17	14.08	15.08	14.6	16	12.06	16.42	15.49	18.88	12.06
26	Potassium	mg/l	2.56	1.6	1.3	1.5	1.42	1.7	1.28	1.46	1.3	1.6	0.78	0.98	1.46	2.56	0.78
27	T. Coliform	MPN/100ml	40	34	40	49	40	34	39	34	43	47	38	39	39.75	49	34
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.64	0.66	0.76	0.68	0.7	0.63	0.56	0.6	0.69	0.7	0.52	0.68	0.65	0.76	0.52
30	FDS	mg/l	196	138	180	174	168	160	132	128	114	108	112	110	143.33	196	108
31	T.K.N.	mg/l	2.8	2.8	3.64	4.2	2.8	3.92	3.36	3.92	3.36	5.88	2.8	2.8	3.52	5.88	2.8
32	Boron	mg/l	0.003	0.003	0.008	0.004	0.004	0.003	0.003	0.002	0.002	0.004	0.004	0.004	0.00	0.008	0.002
	CATEGORY		"A "	"A "	A	A	A	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At U/S Omkarehwar Dam

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Sl.Mudd	Clear
3	Temperature	°C	20	29	27	24	26	23	24	24	23	17	20	20	23.08	29.00	17.00
4	Turbidity	NTU	3.3	8.49	1.6	8.23	2.1	4.9	1.2	1.9	0.9	1.3	1.4	1	3.03	8.49	0.90
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	0.00	0.00	0.00
7	pH	pH Unit	8.52	0.8	8.03	7.84	8.08	8.22	8.3	8.25	8.4	8.52	8.47	8.3	7.64	8.52	0.80
8	Sp. Conductivity	µMhos/cm.	476	382	428	464	466	373.03	219	320	308	280	280.12	300	358.01	476.00	219.00
9	T. Solids	mg/l	232	226	296	336	260	254	220	188	193	186	188	206	232.08	336.00	186.00
10	D. Solids	mg/l	223	220	290	324	252	244	213	180	186	178	180	200	224.17	324.00	178.00
11	S. Solids	mg/l	9	6	6	1.0	8	10	7	8	7	8	8	6	7.00	10.00	1.00
12	Amm. Nitrogen	mg/l	0.02	0.016	0.011	0.016	0.02	0.019	0.012	0.013	0.014	0.014	0.008	0.011	0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.007	0.003	0.003	0.004	0.003	0.004	ND	0.008	0.006	0.001	0.004	0.003	0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.644	0.79	0.503	0.807	0.424	0.738	0.982	0.99	0.83	1.014	0.589	0.9	0.77	1.01	0.42
15	Phosphate (PO <sub>4</sub> )	mg/l	0.016	0.014	0.036	0.016	0.025	0.031	0.012	0.01	0.012	0.015	0.012	0.012	0.02	0.04	0.01
16	Chloride	mg/l	32.01	38.56	24.1	14.63	19.56	28.17	13.4	25.6	25.99	23.65	21.05	33.5	25.02	38.56	13.40
17	Sulphate (SO <sub>4</sub> )	mg/l	8.24	4.01	3.77	5.93	5.7	7.94	4.2	4.6	4.14	4.19	3.52	3.02	4.94	8.24	3.02
18	T. Alkalinity	mg/l	152	180	156	152	150	152	116	132	120	120	112	124	138.83	180.00	112.00
19	T. Hardness	mg/l	120	156	160	144	160	144	148	128	100	112	108	116	133.00	160.00	100.00
20	CalciumHardness	mg/l	88	130	112	120	124	116	100	100	72	96	84	96	103.17	130.00	72.00
21	M.Hardness	mg/l	32	26	48	24	36	28	48	28	28	16	24	20	29.83	48.00	16.00
22	D. Oxygen	mg/l	7.6	7.4	7.3	7.4	7.6	6.8	7.6	6.9	7.3	7.9	8	7.2	7.42	8.00	6.80
23	B.O.D.	mg/l	1.4	1.1	1.2	1.4	1.2	1.1	0.9	1.1	1.2	1.2	1.1	1	1.16	1.40	0.90
24	C.O.D.	mg/l	18.39	11	16	13.72	9.68	8.89	7.84	13	14	11	13.55	12.84	12.49	18.39	7.84
25	Sodium	mg/l	17.4	16.12	20	14	16.64	14	12	16.1	14.9	15	13	14.01	15.26	20.00	12.00
26	Potassium	mg/l	1.8	1.9	1.5	1.3	1.4	1.2	1.9	1.6	1.2	1.9	1.4	1.4	1.54	1.90	1.20
27	T. Coliform	MPN/100ml	47	40	47	49	40	34	49	47	41	49	38	40	43.42	49.00	34.00
28	F. Coliform	MPN/100ml	<1.8	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.73	0.68	0.61	0.72	0.67	0.62	0.59	0.8	0.7	0.51	0.65	0.6	0.66	0.80	0.51
30	FDS	mg/l	156	140	182	190	172	148	122	120	112	102	130	150	143.67	190.00	102.00
31	T.K.N.	mg/l	3.36	2.8	2.8	5.88	2.8	3.92	5.32	3.92	3.92	4.2	2.24	2.8	3.66	5.88	2.24
32	Boron	mg/l	0.004	0.004	0.002	0.003	0.003	0.002	0.003	0.008	0.002	0.004	0.003	0.003	0.003	0.008	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Omkarewhwar d/s.

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Sl.Mudd	Clear
3	Temperature	°C	29	29	27	24	26	23	25	24	23	17	20	20	23.92	29.00	17.00
4	Turbidity	NTU	1.4	8.33	1.8	12.2	2.7	5.2	1.4	2.8	1.2	1.7	1.5	2.4	3.55	12.20	1.20
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	0.00	0.00	0.00
7	pH	pH Unit	8.78	0.8	7.78	7.9	8.06	7.76	8.2	8.18	8.56	8.4	8.55	7.98	7.58	8.78	0.80
8	Sp. Conductivity	µMhos/cm.	612	382	467	506	452	469.3	336	328	329	285	292.08	284	395.20	612.00	284.00
9	T. Solids	mg/l	412	236	307	366	298	284	231	202	199	189	201	188	259.42	412.00	188.00
10	D. Solids	mg/l	398	230	300	352	248	272	222	194	190	182	192	180	246.67	398.00	180.00
11	S. Solids	mg/l	14	6	7	14	10	12	9	8	9	7	9	8	9.42	14.00	6.00
12	Amm. Nitrogen	mg/l	ND	0.019	0.012	0.021	0.022	0.022	0.012	0.015	0.016	0.016	0.009	0.012	0.02	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.003	0.005	0.012	0.006	0.004	0.005	ND	0.003	0.004	0.002	0.004	0.004	0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	1.42	0.9	0.673	0.969	0.416	0.987	1.017	0.682	0.59	1.012	0.594	0.508	0.81	1.42	0.42
15	Phosphate (PO <sub>4</sub> )	mg/l	0.03	0.019	0.023	0.018	0.025	0.044	0.014	0.012	0.008	0.017	0.014	0.016	0.02	0.04	0.01
16	Chloride	mg/l	34.49	38.56	28.92	16.46	19.56	33.26	15.31	29.56	27.99	29.56	22.97	34.49	27.59	38.56	15.31
17	Sulphate (SO <sub>4</sub> )	mg/l	4	4.2	4.231	6.22	6.09	8.635	4.589	3.92	4.86	4.59	3.64	3.26	4.85	8.64	3.26
18	T. Alkalinity	mg/l	180	200	210	160	110	156	120	132	128	128	120	128	147.67	210.00	110.00
19	T. Hardness	mg/l	160	152	148	152	170	168	156	140	104	120	116	120	142.17	170.00	104.00
20	CalciumHardness	mg/l	140	120	112	124	130	140	120	80	72	100	88	98	110.33	140.00	72.00
21	M.Hardness	mg/l	20	32	36	28	40	28	36	60	32	20	28	22	31.83	60.00	20.00
22	D. Oxygen	mg/l	6.9	7.3	7.2	7.6	7.5	6.9	6.9	7.4	7.2	7.7	8.2	7.8	7.38	8.20	6.90
23	B.O.D.	mg/l	1.8	1.3	1.4	1.6	1.3	1.2	1.1	1.4	1.3	1.4	1.2	1.1	1.34	1.80	1.10
24	C.O.D.	mg/l	14.52	12	18	17.67	13.55	11.85	10.78	20	18	12	15.48	13.83	14.81	20.00	10.78
25	Sodium	mg/l	18.68	17.62	23	17	17.82	16	16	16.04	15.8	18	13.4	14.04	16.95	23.00	13.40
26	Potassium	mg/l	2.84	1.01	1.6	1.8	1.64	1.4	2	1.92	1.9	2	1.6	1.82	1.79	2.84	1.01
27	T. Coliform	MPN/100ml	50	47	49	50	48	40	49	48	43	49	40	49	46.83	50.00	40.00
28	F. Coliform	MPN/100ml	<2	2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.78	0.7	0.62	0.88	0.72	0.69	0.62	0.66	0.79	0.54	0.67	0.62	0.69	0.88	0.54
30	FDS	mg/l	210	144	200	210	169	160	138	16	116	128	134	118	145.25	210.00	16.00
31	T.K.N.	mg/l	2.8	3.08	3.92	6.12	3.36	4.48	5.88	5.04	4.48	5.04	2.8	2.8	4.15	6.12	2.80
32	Boron	mg/l	0.004	0.006	0.002	0.004	0.004	0.003	0.004	0.003	0.003	0.005	0.004	0.004	0.004	0.006	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE**  
Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: Barwaha near Mortakka Bridge

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	°C	25	29	27	24	26	23	25	24	24	17	20	20	23.7	29.00	17.00
4	Turbidity	NTU	3.12	8.28	1.5	8.1	1.2	3.9	1.2	0.6	1.1	1.7	1	2	2.8	8.28	0.60
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	0.0	0.00	0.00
7	pH	pH Unit	6.58	1.2	8.37	8.06	8.26	8.27	8.34	7.97	8.22	8.73	8.27	8.31	7.5	8.73	1.20
8	Sp. Conductivity	µMhos/cm.	576.39	397	453	445	445	482.8	389	304.41	314.17	306	304	302	393.2	576.39	302.00
9	T. Solids	mg/l	353	246	277	260	258	280	251	189	196	240	190	194	244.5	353.00	189.00
10	D. Solids	mg/l	342	240	269	253	246	269	243	180	188	233	180	186	235.8	342.00	180.00
11	S. Solids	mg/l	11	6	8	7	12	11	8	9	8	7	10	8	8.8	12.00	6.00
12	Amm. Nitrogen	mg/l	0.001	0.011	0.008	0.018	0.023	0.016	0.011	0.019	0.018	0.009	0.014	0.012	0.0	0.02	0.00
13	Nitrite Nitrogen	mg/l	0.004	0.008	0.006	0.006	0.004	0.005	0.002	0.004	0.007	0.002	0.003	0.006	0.0	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.955	0.78	0.809	0.83	0.34	0.65	1.098	0.73	0.493	0.849	0.425	0.532	0.7	1.10	0.34
15	Phosphate (PO <sub>4</sub> )	mg/l	0.027	0.019	0.021	0.014	0.019	0.022	0.009	0.016	0.027	0.008	0.015	0.008	0.0	0.03	0.01
16	Chloride	mg/l	44.34	40.49	38.56	12	44.02	31.3	19.14	27.59	21.99	21.68	19.99	19.71	28.4	44.34	12.00
17	Sulphate (SO <sub>4</sub> )	mg/l	7.12	4.19	4.6	4.03	5.69	5.162	3.406	4.1	7.82	3.34	2.46	4.08	4.7	7.82	2.46
18	T. Alkalinity	mg/l	160	1984	160	164	140	156	152	116	128	140	120	128	295.7	0.00	116.00
19	T. Hardness	mg/l	150	160	140	156	150	168	184	100	124	160	100	124	143.0	184.00	100.00
20	CalciumHardness	mg/l	100	120	112	132	120	140	120	80	104	130	72	100	110.8	140.00	72.00
21	Magnesium	mg/l	50	40	28	24	30	28	64	20	20	30	28	24	32.2	64.00	20.00
22	D. Oxygen	mg/l	6.7	7.3	7.2	7.6	7.6	7.3	7.1	7.2	7.3	7.9	8.4	7.6	7.4	8.40	6.70
23	B.O.D.	mg/l	1.5	1.3	1.3	1.4	1.4	1.1	1.2	1.1	1.4	1.2	1	1.2	1.3	1.50	1.00
24	C.O.D.	mg/l	6.77	12	14	12.8	11.62	9.88	7.85	12	12	10	10	11.85	10.9	14.00	6.77
25	Sodium	mg/l	15.61	16.98	15	19	18.02	16	15	16	16	15	12	12.08	15.6	19.00	12.00
26	Potassium	mg/l	1.12	1.04	1.6	1.7	1.4	1.2	1.4	1.8	1.4	1.6	1.3	1.26	1.4	1.80	1.04
27	T. Coliform	MPN/100ml	50	47	40	70	48	40	40	48	40	41	47	40	45.9	70.00	40.00
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.64	0.64	0.72	0.82	0.73	0.52	0.56	0.71	0.72	0.54	0.52	0.58	0.6	0.82	0.52
30	FDS	mg/l	195	148	182	162	169	158	142	104	122	128	128	118	146.3	195.00	104.00
31	T.K.N.	mg/l	5.6	3.08	3.36	6.18	3.92	2.8	5.88	4.48	5.04	5.88	4.2	2.8	4.4	6.18	2.80
32	Boron	mg/l	0.005	0.004	0.004	0.005	0.004	0.002	0.003	0.002	0.005	0.003	0.002	0.002	0.0	0.005	0.002
	CATEGORY		"A "	"A "	"A "	B	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Dhareshwar Khargon

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
3	Temperature	°C	25	28	27	25	26	23	25	24	23	18	19	20	23.58	28.00	18.00
4	Turbidity	NTU	2.61	8.47	1	6.8	2.6	6.1	1.2	1.9	1.2	1.8	1.3	1.7	3.06	8.47	1.00
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	0.00	0.00
7	pH	pH Unit	7.86	0.8	8.37	8.19	8.62	8.33	8.28	8.3	8.25	8.7	8.25	8.47	7.70	8.70	0.80
8	Sp. Conductivity	µMhos/cm.	426.4	368	403	380	447	335.26	361	291.74	264	275.28	282.7	282	343.03	447.00	264.00
9	T. Solids	mg/l	288	220	262	278	256	222	239	177	186	176	179	178	221.75	288.00	176.00
10	D. Solids	mg/l	278	221	256	270	248	213	232	170	180	168	173	170	214.92	278.00	168.00
11	S. Solids	mg/l	10	8	6	8	8	9	7	7	6	8	6	8	7.58	10.00	6.00
12	Amm. Nitrogen	mg/l	ND	0.018	0.006	0.018	0.016	0.021	0.008	0.011	0.008	0.008	0.008	0.008	0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.006	0.002	0.003	0.003	0.002	0.005	0.004	0.002	0.014	0.003	ND	ND	0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.589	0.78	0.685	0.78	0.353	0.632	1.073	0.69	0.321	1.024	0.217	0.508	0.64	1.07	0.22
15	Phosphate (PO <sub>4</sub> )	mg/l	0.061	0.016	0.017	0.016	0.016	0.036	0.007	0.009	ND	0.004	0.007	0.007	0.02	0.06	0.00
16	Chloride	mg/l	44.34	34.71	28.92	27.43	24.46	29.35	17.22	17.73	17.99	19.71	25.99	24.63	26.04	44.34	17.22
17	Sulphate (SO <sub>4</sub> )	mg/l	6.11	3.9	3.678	3.6	4.72	6.109	3.77	3.13	2.718	3.12	6.86	3.08	4.23	6.86	2.72
18	T. Alkalinity	mg/l	160	152	156	152	150	140	144	132	120	140	132	136	142.83	160.00	120.00
19	T. Hardness	mg/l	150	140	140	132	170	140	132	120	128	128	116	124	135.00	170.00	116.00
20	CalciumHardness	mg/l	100	112	120	100	130	116	96	92	104	100	92	108	105.83	130.00	92.00
21	M.Hardness	mg/l	50	28	20	32	40	24	36	28	24	28	24	16	29.17	50.00	16.00
22	D. Oxygen	mg/l	6.8	7.1	7.3	7.5	8	6.7	6.8	7.3	7.2	7.6	8	7.9	7.35	8.00	6.70
23	B.O.D.	mg/l	1	1.1	1.4	0.9	1.1	1	0.6	1	1.1	0.9	1.2	1.2	1.04	1.40	0.60
24	C.O.D.	mg/l	6.77	11	10	10.78	7.74	9.88	7.84	8	12	7	8	8.89	8.99	12.00	6.77
25	Sodium	mg/l	16.18	15.08	14	16.08	16.08	16	14	16	13.8	14	11.6	12.84	14.64	16.18	11.60
26	Potassium	mg/l	1.02	1.8	1.6	1.4	1.3	1.3	1.4	1.4	1.2	1.5	0.8	1.24	1.33	1.80	0.80
27	T. Coliform	MPN/100ml	40	34	34	40	40	40	40	40	33	40	38	48	38.92	48.00	33.00
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.61	0.4	0.62	0.69	0.62	0.69	0.69	0.62	0.56	0.69	0.62	0.56	0.61	0.69	0.40
30	FDS	mg/l	152	136	152	136	166	140	140	102	108	112	112	108	130.33	166.00	102.00
31	T.K.N.	mg/l	5.04	308	3.36	2.24	2.8	3.92	2.8	3.92	3.08	3.92	2.8	2.8	28.72	308.00	2.24
32	Boron	mg/l	0.004	0.002	0.002	0.004	0.002	0.004	ND	0.004	0.002	0.003	0.003	0.002	0.003	0.004	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Mandleshwar near w/s. Jallod intake

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	0.0	0.00	0.00
3	Temperature	°C	29	28	27	24	26	23	24	24	23	17	19	20	23.67	29.00	17.00
4	Turbidity	NTU	1.2	8.4	1.1	7.4	9.2	5.9	1.8	1.6	1.6	0.84	1	1.9	3.50	9.20	0.84
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	0.0	0.00	0.00
7	pH	pH Unit	8.74	0.8	8.37	8.25	8.4	8.81	8.2	8.03	8.4	8.66	8.31	7.96	7.74	8.81	0.80
8	Sp. Conductivity	µMhos/cm.	568	366	389	387	364.34	357.7	344	291.23	275	360	278.99	306.7	357.33	568.00	275.00
9	T. Solids	mg/l	377	218	226	232	221	218	212	182	209	208	183	191	223.08	377.00	182.00
10	D. Solids	mg/l	364	212	219	224	213	210	206	174	200	202	176	183	215.25	364.00	174.00
11	S. Solids	mg/l	13	6	7	8	8	8	6	8	9	6	7	8	7.83	13.00	6.00
12	Amm. Nitrogen	mg/l	ND	0.018	0.19	0.01	0.021	0.016	0.009	0.011	0.007	0.022	0.019	0.01	0.03	0.19	0.01
13	Nitrite Nitrogen	mg/l	0.001	0.002	BDL	0.006	0.005	0.004	0.002	0.002	0.001	0.002	ND	0.002	0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	1.23	0.977	1.007	0.8	0.82	0.953	0.95	0.62	0.82	0.486	0.52	0.705	0.82	1.23	0.49
15	Phosphate (PO <sub>4</sub> )	mg/l	ND	0.014	0.014	0.018	0.01	0.056	0.014	0.008	0.01	0.0319	0.016	0.016	0.02	0.06	0.01
16	Chloride	mg/l	19.79	36.54	30.85	25.6	48.92	25.43	25	17.739	30	34.49	23.99	19.71	28.17	48.92	17.74
17	Sulphate (SO <sub>4</sub> )	mg/l	3	3.7	4.8	3.92	17.3	6.051	3.731	3.1	3.01	3.12	5.82	3.308	5.07	17.30	3.00
18	T. Alkalinity	mg/l	160	152	152	152	140	144	140	136	112	150	124	120	140.17	160.00	112.00
19	T. Hardness	mg/l	140	148	144	140	150	132	132	124	100	130	120	120	131.67	150.00	100.00
20	CalciumHardness	mg/l	120	120	116	112	100	104	104	92	80	110	84	68	100.83	120.00	68.00
21	Magnesium	mg/l	10	28	28	28	50	28	28	32	20	20	36	52	30.00	52.00	10.00
22	D. Oxygen	mg/l	7.1	7.4	7.2	7.4	6.8	7.2	7.1	7.4	7.4	8.5	8	7.8	7.44	8.50	6.80
23	B.O.D.	mg/l	1.4	1.1	1	1	1.2	1.1	0.8	1.1	1.2	1.2	0.8	1	1.08	1.40	0.80
24	C.O.D.	mg/l	11.61	8	11	10.78	7.74	9.88	8.82	10	11	11	8	7.9	9.64	11.61	7.74
25	Sodium	mg/l	16.88	36.54	14.09	18	16.11	15	14.5	15	16.8	12	10.7	15	16.72	36.54	10.70
26	Potassium	mg/l	2.7	3.7	1.06	1.6	1.08	1.2	1.7	1.3	1.9	1.2	0.7	1.6	1.65	3.70	0.70
27	T. Coliform	MPN/100ml	40	40	34	49	40	40	36	34	41	40	34	40	39.00	49.00	34.00
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.76	0.49	0.66	0.72	0.68	0.62	0.55	0.58	0.59	0.78	0.67	0.6	0.64	0.78	0.49
30	FDS	mg/l	196	132	146	132	121	130	128	102	100	131	114	110	128.50	196.00	100.00
31	T.K.N.	mg/l	2.8	2.802	2.8	3.92	5.6	4.48	2.8	3.36	2.8	2.8	3.36	2.8	3.36	5.60	2.80
32	Boron	mg/l	0.003	0.009	0.002	0.006	0.004	0.003	0.002	0.003	0.002	0.002	0.002	0.002	0.00	0.01	0.00
	CATEGORY		"A "	"A "	"A "	"A "	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992



## MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Mandleshwar d/s

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	0.00	0.00
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	0.00	0.00	0.00
3	Temperature	°C	29	28	27	24	26	23	25	24	23	17	19	20	23.75	29	17
4	Turbidity	NTU	3.1	8.44	1.2	8.2	2.6	6	1.7	1.4	1.2	2	0.9	2	3.2	8.44	0.9
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Odour	T.No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	0.00	0.00	0.00
7	pH	pH Unit	8.66	0.7	8.7	8.43	8.81	8.24	8.54	8.31	8.48	8.86	8.4	8.04	7.848	8.86	0.7
8	Sp. Conductivity	µMhos/cm.	388	372	398	404	367.01	389	385.63	282.27	306	282.16	285.68	320.03	348.32	404	282.16
9	T. Solids	mg/l	220	224	227	220	225	261	237	174	200	179	187	202	213.00	261	174
10	D. Solids	mg/l	388	216	220	210	210	249	231	169	192	169	179	192	218.75	388	169
11	S. Solids	mg/l	6	8	7	10	15	12	6	5	8	10	8	10	8.75	15	5
12	Amm. Nitrogen	mg/l	0.012	0.018	0.014	0.012	0.023	0.008	0.009	0.018	0.009	0.019	0.008	0.012	0.014	0.023	0.008
13	Nitrite Nitrogen	mg/l	0.008	0.002	0.002	0.008	0.006	0.003	0.009	0.003	0.007	0.001	ND	0.005	0.005	0.009	0.001
14	Nitrate Nitrogen	mg/l	0.92	0.78	0.94	0.9	0.99	0.967	0.834	0.68	0.491	0.625	0.621	0.812	0.797	0.99	0.491
15	Phosphate (PO <sub>4</sub> )	mg/l	0.032	0.016	0.01	0.016	0.02	0.027	0.018	0.019	0.022	0.028	0.012	0.119	0.028	0.119	0.01
16	Chloride	mg/l	22.86	34.71	21.21	21.95	58.72	28.92	28.71	21.68	27.44	21.68	23.99	21.68	27.80	58.72	21.21
17	Sulphate (SO <sub>4</sub> )	mg/l	3.96	3.9	4.1	4.96	18.7	8.01	3.51	3.72	3.345	3.021	4.94	4.201	5.53	18.7	3.021
18	T. Alkalinity	mg/l	160	152	157	156	120	140	148	124	140	124	136	128	140.42	160	120
19	T. Hardness	mg/l	104	140	148	152	180	120	140	116	152	120	112	124	134.00	180	104
20	CalciumHardness	mg/l	72	112	116	120	120	696	108	92	120	88	84	84	151.00	696	72
21	Magnesium	mg/l	32	28	32	32	60	24	32	24	32	32	28	40	33.00	60	24
22	D. Oxygen	mg/l	7.6	7.4	7.3	7.5	6.9	7.3	7.3	7.5	7.2	8.6	7.8	7.6	7.50	8.6	6.9
23	B.O.D.	mg/l	1.2	1.1	1.2	1	1.5	1.2	1.2	1.2	1	1.2	1.1	1.2	1.18	1.5	1
24	C.O.D.	mg/l	22.86	12	16	12.74	8.71	9.8	9.8	12	10	10	10	8.8	11.89	22.86	8.71
25	Sodium	mg/l	15.6	15.08	14.98	20.16	18.11	17.02	15	15	14	11.2	12	18	15.51	20.16	11.2
26	Potassium	mg/l	1.4	1.8	1.6	2	1.91	1.4	1.4	1.2	1.4	1.6	0.8	2	1.54	2	0.8
27	T. Coliform	MPN/100ml	47	34	40	49	49	34	40	40	34	40	40	50	41.42	50	34
28	F. Coliform	MPN/100ml	<1.8	1.8	<2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.62	0.4	0.58	0.82	0.71	0.58	0.61	0.68	0.66	0.62	0.69	0.68	0.64	0.82	0.4
30	FDS	mg/l	148	138	140	138	125	164	136	110	118	100	116	126	129.92	164	100
31	T.K.N.	mg/l	3.361	3.08	2.8	3.92	5.88	36.36	3.92	4.48	4.48	2.8	3.92	3.92	6.58	36.36	2.8
32	Boron	mg/l	0.002	0.002	0.002	0.007	0.005	0.003	0.003	0.002	0.004	0.002	0.003	0.003	0.00	0.01	0.00
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

Water Quality during Year - 2018-19

Natural Water Resource : River Narmada

Description of Sampling Station: At Maheshwar D/s.

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	0.00	0.00
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	0.00	0.00
3	Temperature	°C	29	28	27	24	26	23	25	24	23	18	19	20	23.8	29	18
4	Turbidity	NTU	2.61	8.15	1.7	9.2	1.1	8.9	2.8	1.4	1.4	2	1.5	1.2	3.5	9.2	1.1
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1	1
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	0.00	0.00
7	pH	pH Unit	7.86	1.2	8.4	8.38	8.56	8.15	8.46	8.28	8.54	8.34	8.08	8.04	7.7	8.56	1.2
8	Sp. Conductivity	µMhos/cm.	426.2	391	451	399	357	407	384	299.87	352	310.21	309.52	310.12	366.4	451	299.87
9	T. Solids	mg/l	288	254	252	232	226	273	249	185	224	182	195	200	230.0	288	182
10	D. Solids	mg/l	278	244	244	220	216	260	241	179	212	173	185	190	220.2	278	173
11	S. Solids	mg/l	10	10	8	12	10	13	8	6	12	9	10	10	9.8	13	6
12	Amm. Nitrogen	mg/l	ND	0.002	0.002	0.018	0.011	0.018	0.014	0.019	0.014	0.024	0.009	0.019	0.0	0.024	0.002
13	Nitrite Nitrogen	mg/l	0.006	0.003	0.01	0.004	0.006	0.004	0.003	0.005	0.006	0.015	ND	0.004	0.0	0.015	0.003
14	Nitrate Nitrogen	mg/l	0.589	0.731	0.97	0.72	0.96	0.904	0.833	0.72	0.791	0.869	0.64	0.82	0.8	0.97	0.589
15	Phosphate (PO <sub>4</sub> )	mg/l	0.061	0.016	0.002	0.018	0.012	0.046	0.024	0.011	0.021	0.018	0.017	0.062	0.0	0.062	0.002
16	Chloride	mg/l	44.34	23.14	30.85	23.77	27.39	33.74	40.2	13.79	27.99	29.56	27.99	21.68	28.7	44.34	13.79
17	Sulphate (SO <sub>4</sub> )	mg/l	6.11	4.344	4.38	4.1	5.67	8.58	7.116	4.11	7.622	2.984	3.74	4.756	5.3	8.58	2.984
18	T. Alkalinity	mg/l	160	128	160	168	164	144	140	120	160	128	124	128	143.7	168	120
19	T. Hardness	mg/l	150	132	140	152	144	128	140	112	168	120	128	124	136.5	168	112
20	CalciumHardness	mg/l	100	116	120	116	108	100	108	84	128	88	88	80	103.0	128	80
21	Magnesium	mg/l	50	12	20	36	36	28	132	28	40	32	40	44	41.5	132	12
22	D. Oxygen	mg/l	6.8	7.2	7.3	7.4	7.5	7.4	7.2	7.4	7.3	8.6	8	7.5	7.5	8.6	6.8
23	B.O.D.	mg/l	1	1.3	1.3	1.4	1.3	1.3	1.2	1	1.2	1.2	1.2	1.3	1.2	1.4	1
24	C.O.D.	mg/l	6.77	16	18	19.6	15.48	13.72	9.8	10	16	12	16	9.88	13.6	19.6	6.77
25	Sodium	mg/l	16.18	16	16.01	19.1	18.9	18.06	16	16	15.5	12	13	16	16.1	19.1	12
26	Potassium	mg/l	1.02	1.5	1.9	1.4	1.3	1.68	1.8	1.4	1.6	1.9	1	1.8	1.5	1.9	1
27	T. Coliform	MPN/100ml	40	50	47	49	49	40	49	40	49	49	49	49	46.7	50	40
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.61	0.72	0.7	0.82	0.89	0.62	0.58	0.72	0.69	0.68	0.72	0.64	0.7	0.89	0.58
30	FDS	mg/l	152	148	140	130	150	168	140	116	128	106	122	118	134.83	168	106
31	T.K.N.	mg/l	5.04	4.48	4.48	5.04	4.48	3.92	3.92	3.92	4.28	3.92	4.48	3.36	4.28	5.04	3.36
32	Boron	mg/l	0.004	0.002	0.006	0.006	0.006	0.002	0.006	0.003	0.004	0.004	0.004	0.003	0.004	0.006	0.002
	<b>CATEGORY</b>		"A "	"A "	"A "	"A "	"A "	A	"A "	"A "	"A "	"A "	"A "	"A "	A	A	A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Shahastradhara ( Jalkoti )**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	0.00	0.00
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Sl.Mudd	Clear
3	Temperature	°C	29	28	27	24	26	23	25	24	23	18	19	20	23.83	29.00	18.00
4	Turbidity	NTU	2.7	8.24	1	8.6	2.7	5.7	1.7	2.4	1.1	0.84	0.9	1.2	3.09	8.60	0.84
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	0.00	0.00
7	pH	pH Unit	8.67	0.8	8.29	8.12	8.78	8.49	8.49	8.31	8.74	8.55	8.42	8.26	7.83	8.78	0.80
8	Sp. Conductivity	µMhos/cm.	406	350	430	428	432	372	316.84	301.06	304.91	355	292.81	312.02	358.39	432.00	292.81
9	T. Solids	mg/l	224	244	251	244	265	258	195	188	197	217	184	194	221.75	265.00	184.00
10	D. Solids	mg/l	218	238	244	232	252	248	189	180	188	209	176	187	213.42	252.00	176.00
11	S. Solids	mg/l	6	6	7	12	13	10	6	8	9	8	8	7	8.33	13.00	6.00
12	Amm. Nitrogen	mg/l	0.012	0.008	0.014	0.012	0.016	0.011	0.008	0.016	0.016	0.019	0.008	0.018	0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.006	0.001	BDL	0.003	0.007	0.003	0.002	0.003	0.004	0.002	ND	0.003	0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.589	0.649	0.892	0.698	1.07	0.734	0.684	0.69	0.623	0.552	0.724	0.698	0.72	1.07	0.55
15	Phosphate (PO <sub>4</sub> )	mg/l	0.034	0.014	0.018	0.017	0.018	0.035	0.019	0.007	ND	0.034	0.011	0.079	0.03	0.08	0.01
16	Chloride	mg/l	27.43	28.92	34.71	23.77	33.26	28.92	26.8	13.79	21.99	29.56	27.99	19.71	26.40	34.71	13.79
17	Sulphate (SO <sub>4</sub> )	mg/l	5.418	4.73	4.9	3.92	4.36	4.47	3.207	3.14	3.09	3.037	4.13	2.002	3.87	5.42	2.00
18	T. Alkalinity	mg/l	144	140	160	180	180	128	132	120	140	150	108	124	142.17	180.00	108.00
19	T. Hardness	mg/l	104	124	152	156	152	120	108	120	144	140	120	116	129.67	156.00	104.00
20	CalciumHardness	mg/l	76	104	128	132	106	88	92	84	100	110	88	72	98.33	132.00	72.00
21	M.Hardness	mg/l	28	20	24	24	46	32	16	36	44	30	32	44	31.33	46.00	16.00
22	D. Oxygen	mg/l	7.5	7.3	7.4	7.2	7.1	7.4	7.4	7.4	7.4	8.6	8.2	7.7	7.55	8.60	7.10
23	B.O.D.	mg/l	1.3	1.1	0.8	1.2	1.9	1	0.8	1	1.1	1.1	0.9	0.8	1.08	1.90	0.80
24	C.O.D.	mg/l	13.55	10	10	14.7	10	9.8	7.84	12	12	8	8	7.9	10.32	14.70	7.84
25	Sodium	mg/l	16.5	15	15.9	15.1	19.1	18.02	14	16	14	14	12.8	14	15.37	19.10	12.80
26	Potassium	mg/l	1.4	1.4	1.61	1.9	1.8	1.36	1.6	1.3	1.6	1.6	1	1.4	1.50	1.90	1.00
27	T. Coliform	MPN/100ml	43	40	34	49	49	40	36	50	33	40	41	39	41.17	50.00	33.00
28	F. Coliform	MPN/100ml	<1.8	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.68	0.66	0.78	0.72	0.81	0.72	0.56	0.66	0.74	0.8	0.56	0.6	0.69	0.81	0.56
30	FDS	mg/l	130	140	150	140	142	159	110	118	116	132	118	112	130.58	159.00	110.00
31	T.K.N.	mg/l	2.801	2.8	3.36	5.04	5.04	5.6	2.24	4.48	4.2	2.8	3.92	2.8	3.76	5.60	2.24
32	Boron	mg/l	0.002	0.002	0.004	0.005	0.008	0.004	0.002	0.002	0.005	0.003	0.003	0.002	0.004	0.008	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Khalghat**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	0.00	0.00
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
3	Temperature	°C	29	29	27	25	26	23	25	24	24	18	20	20	24.2	29.00	18.00
4	Turbidity	NTU	3.8	8.38	1.5	2.5	1.9	1.8	1.4	3.6	0.9	2.3	1.6	1.2	2.6	8.38	0.90
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.0	1.00	1.00
6	Odour	T. No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	#DIV/0!	0.00	0.00
7	pH	pH Unit	8.7	0.9	8.38	8.31	8.47	8.3	8.6	8.11	8.67	8.36	8.67	7.16	7.7	8.7	0.9
8	Sp. Conductivity	µMhos/cm.	390	414.43	450	409.54	381.42	455.91	363	320.83	298.29	309	343	352	374.0	455.91	298.29
9	T. Solids	mg/l	264	258	285	273	239	295	230	202	196	190	215	235	240.2	295	190
10	D. Solids	mg/l	257	250	270	265	228	282	22	192	188	182	207	228	214.3	282	22
11	S. Solids	mg/l	7	8	8	8	11	13	8	10	8	8	8	7	8.7	13	7
12	Amm. Nitrogen	mg/l	0.014	0.012	0.009	0.019	0.02	0.019	0.018	0.016	0.024	0.012	0.012	0.011	0.0	0.024	0.009
13	Nitrite Nitrogen	mg/l	0.005	0.002	0.004	0.008	0.003	0.008	0.004	0.003	0.005	0.003	0.003	0.005	0.0	0.008	0.002
14	Nitrate Nitrogen	mg/l	0.59	0.421	0.69	0.576	1.026	1.03	1.017	0.724	0.883	0.62	0.592	0.453	0.7	1.03	0.421
15	Phosphate (PO <sub>4</sub> )	mg/l	0.028	0.014	0.014	0.022	0.014	0.02	0.028	0.008	0.023	0.008	0.014	0.017	0.0	0.028	0.008
16	Chloride	mg/l	22.865	25.99	101.24	27.43	27.59	33.26	67	15.76	19.99	31.99	23.99	19.71	34.7	101.24	15.76
17	Sulphate (SO <sub>4</sub> )	mg/l	9.04	4.527	3.04	7.24	8.085	7.09	2.408	2.16	4.67	3.24	2.94	8.21	5.2	9.04	2.16
18	T. Alkalinity	mg/l	156	144	160	164	136	168	124	116	132	144	168	152	147.0	168	116
19	T. Hardness	mg/l	112	136	152	152	124	160	128	112	120	152	160	160	139.0	160	112
20	CalciumHardness	mg/l	88	104	120	112	96	130	96	80	92	112	128	112	105.8	130	80
21	Magnesium	mg/l	-	32	32	40	28	30	32	32	28	40	32	48	34.0	48	28
22	D. Oxygen	mg/l	7.5	7.1	7.2	7.4	7.7	6.5	7.1	7.5	7.4	8.6	8.3	7.9	7.5	8.6	6.5
23	B.O.D.	mg/l	1.2	1.2	1.1	1.4	1.1	1.3	1.2	1.1	1	1.1	1.1	1.3	1.2	1.4	1
24	C.O.D.	mg/l	12.58	12	10	13.72	10.64	14.82	13.74	14	14	14.28	9	11.85	12.6	14.82	9
25	Sodium	mg/l	16.4	16	16.04	17	19	16	16.08	17	15	10.9	14	18	16.0	19	10.9
26	Potassium	mg/l	1.6	1.8	1.48	1.6	1.2	2	1.32	1.4	2	1.4	1.4	1.7	1.6	2	1.2
27	T. Coliform	MPN/100ml	48	50	40	49	49	49	48	40	47	37	48	47	46.0	50	37
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.72	0.88	0.68	0.86	0.69	1.04	0.52	0.62	0.82	0.46	0.56	0.71	0.7	1.04	0.46
30	FDS	mg/l	168	148	178	158	148	169	136	124	122	108	168	162	149.08	178	108
31	T.K.N.	mg/l	3.361	3.36	4.48	3.92	2.8	5	3.92	3.92	2.8	3.08	3.92	5.6	3.847	5.6	2.8
32	Boron	mg/l	0.004	0.003	0.003	0.006	0.006	0.004	0.003	0.002	0.006	0.002	0.003	0.003	0.004	0.006	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Dharampuri (before mixing domestic nalla)**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	°C	30	29	27	25	26	23	25	24	23	18	19	20	24.08	30.00	18.00
4	Turbidity	NTU	4.1	8.25	2.5	3	0.7	1.8	3.6	1.9	1.4	3.2	1.2	1.1	2.73	8.25	0.70
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.41	1	7.82	8.3	8.39	8.1	8.38	8.23	8.64	8.28	8.71	8.51	7.731	8.71	1
8	Sp. Conductivity	µMhos/cm.	463	370	431	408.37	540.97	410.6	422	310	283.09	303.11	287	370	383.26	540.97	283.09
9	T. Solids	mg/l	342	230	288	272	234	262	263	195	203	181	172	240	240.17	342	172
10	D. Solids	mg/l	328	222	280	262	308	249	253	186	196	174	164	232	237.83	328	164
11	S. Solids	mg/l	14	8	8	10	16	13	10	9	7	7	8	8	9.83	16	7
12	Amm. Nitrogen	mg/l	0.018	0.012	0.014	0.016	0.019	0.0143	0.01	0.011	0.011	0.014	0.005	0.013	0.01	0.019	0.005
13	Nitrite Nitrogen	mg/l	0.004	0.002	0.004	0.007	0.009	0.002	0.005	0.003	0.008	0.004	0.002	0.012	0.01	0.012	0.002
14	Nitrate Nitrogen	mg/l	1.068	2.8	0.675	0.727	2.101	0.924	2.925	0.72	0.48	0.73	0.61	1.038	1.23	2.925	0.48
15	Phosphate (PO <sub>4</sub> )	mg/l	0.014	0.012	0.011	0.02	0.021	0.016	0.012	0.008	0.016	0.009	0.008	0.028	0.01	0.028	0.008
16	Chloride	mg/l	34.49	28.92	43.39	29.26	39.42	31.3	30.62	29.56	23.99	27.99	39.98	39.42	33.20	43.39	23.99
17	Sulphate (SO <sub>4</sub> )	mg/l	6.26	4.96	2.85	6.32	10.12	3.08	4.4	3.82	4.789	3.36	3.16	9.42	5.21	10.12	2.85
18	T. Alkalinity	mg/l	160	148	152	156	168	144	192	128	128	152	120	160	150.67	192	120
19	T. Hardness	mg/l	116	120	140	160	200	160	160	108	120	148	100	140	139.33	200	100
20	CalciumHardness	mg/l	84	84	108	112	120	132	112	88	88	128	76	104	106.660	132	76
21	Magnesium	mg/l	32	36	32	48	80	28	48	20	32	20	24	36	36.33	80	20
22	D. Oxygen	mg/l	6.5	7	7.3	7.5	7.8	7.3	7.2	7.5	7.3	7.7	7.6	7.8	7.38	7.8	6.5
23	B.O.D.	mg/l	0.8	1.2	1.2	1.4	0.8	1.2	1.6	1.1	1.4	1.1	1	1.4	1.18	1.6	0.8
24	C.O.D.	mg/l	13.44	19	14	12.74	10.64	10.86	16.66	12	14	14.28	6	14.82	13.20	19	6
25	Sodium	mg/l	24.8	26	15.04	16	16	15	15.12	16.04	14.7	12.6	16.14	20	17.29	26	12.6
26	Potassium	mg/l	1.6	1.5	1.3	1.5	1.2	1.4	1.3	1.4	1.4	1.8	1.28	1.9	1.47	1.9	1.2
27	T. Coliform	MPN/100ml	50	47	49	49	40	40	49	40	41	40	33	43	43.417	50	33
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	1.8	1.8
29	Fluoride	mg/l	0.86	0.68	0.59	0.79	0.8	0.9	0.52	0.68	0.68	0.48	0.48	0.85	0.69	0.9	0.48
30	FDS	mg/l	210	138	182	156	224	157	150	130	118	104	102	134	150.42	224	102
31	T.K.N.	mg/l	2.24	2.8	2.8	4.48	5.04	4.2	5.04	3.36	4.2	4.2	1.12	4.48	3.66	5.04	1.12
32	Boron	mg/l	0.006	0.006	0.004	0.005	0.004	0.003	0.002	0.003	0.003	0.002	0.002	0.006	0.0038	0.006	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Dharampuri d/s.**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Sl.	Clear
3	Temperature	°C	30	29	27	25	26	23	25	24	23	18	19	20	24.08	30.00	18.00
4	Turbidity	NTU	6.1	8.26	2.7	3.2	1.7	2	4.8	2.1	1.2	3.8	1.2	1	3.17	8.26	1.00
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	o. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.52	1.4	8.04	8.24	8.4	8.3	8.37	8.38	8.19	8.32	8.78	8.58	7.79	8.78	1.4
8	Sp. Conductivity	µMhos/cm.	614	289.72	509	431.92	583.42	417	421	338	292	350	306	386	411.51	614	289.72
9	T. Solids	mg/l	442	250	312	284	363	272	264	198	214	192	184	245	268.33	442	184
10	D. Solids	mg/l	426	240	300	272	349	257	252	140	206	183	174	236	252.92	426	140
11	S. Solids	mg/l	16	10	12	12	14	15	12	12	8	9	10	9	11.58	16	8
12	Amm. Nitrogen	mg/l	0.024	0.018	0.018	0.02	0.022	0.022	0.02	0.014	0.012	0.016	0.008	0.015	0.017	0.024	0.008
13	Nitrite Nitrogen	mg/l	0.006	0.022	0.006	0.011	0.01	0.004	0.004	0.003	0.009	0.005	ND	0.014	0.009	0.022	0.003
14	Nitrate Nitrogen	mg/l	1.084	0.728	0.977	0.851	2.329	0.102	5.05	0.69	0.495	0.82	0.892	1.048	1.256	5.05	0.102
15	Phosphate (PO <sub>4</sub> )	mg/l	0.018	0.016	0.016	0.026	0.03	0.02	0.015	0.011	0.014	0.01	0.006	0.022	0.02	0.03	0.006
16	Chloride	mg/l	49.27	32.78	48.21	32.92	43.36	35.22	36.37	39.42	25.99	31.99	49.98	43.36	39.07	49.98	25.99
17	Sulphate (SO <sub>4</sub> )	mg/l	8.04	5.229	3.82	8.04	10.484	3.89	6.24	4.6	6.223	3.96	3.86	9.94	6.19	10.484	3.82
18	T. Alkalinity	mg/l	192	152	168	168	168	152	200	140	132	156	128	164	160.00	200	128
19	T. Hardness	mg/l	128	128	148	192	212	168	156	120	124	152	108	148	148.67	212	108
20	CalciumHardness	mg/l	88	96	112	120	144	132	116	88	92	132	80	112	109.33	144	80
21	Magnesium	mg/l	40	32	36	72	68	36	40	32	32	20	28	36	39.33	72	20
22	D. Oxygen	mg/l	6	6.9	6.9	7.3	7.7	7.2	7	7.4	7.4	7.9	7.8	7.6	7.26	7.9	6
23	B.O.D.	mg/l	1.4	1.4	1.6	1.6	1	1.4	1.5	1.3	1.5	1.2	1.2	1.5	1.38	1.6	1
24	C.O.D.	mg/l	16.32	20	20	15.68	12.58	15.8	18.62	18	15	15.23	8	15.8	15.92	20	8
25	Sodium	mg/l	26.14	28	16.08	20	18	16	16.12	17.02	14.9	13.4	17.62	22	18.77	28	13.4
26	Potassium	mg/l	1.86	1.7	1.84	2	1.4	1.7	1.8	1.84	1.4	1.9	1.68	1.7	1.74	2	1.4
27	T. Coliform	MPN/100ml	50	50	49	70	49	49	49	48	43	41	38	47	48.58	70	38
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.89	0.72	0.72	0.89	0.83	1.02	0.72	0.69	0.72	0.5	0.46	0.85	0.75	1.02	0.46
30	FDS	mg/l	289	144	189	162	230	163	134	140	124	102	110	140	160.6	289	102
31	T.K.N.	mg/l	2.8	3.36	4.48	5.6	5.04	5.6	6.16	5.04	4.48	5.04	1.68	5.04	4.53	6.16	1.68
32	Boron	mg/l	0.008	0.008	0.008	0.004	0.004	0.003	0.003	0.004	0.003	0.003	0.004	0.004	0.00	0.003	0.008
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>B</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Semalda U/S of Barwani**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Sl.Mudd	Clear
3	Temperature	°C	29	28	27	25	26	23	25	24	23	18	19	20	23.92	29.00	18.00
4	Turbidity	NTU	2.7	8.42	1.8	8	4.7	4.6	2.4	1.1	1.3	4.9	1.2	1	3.51	8.42	1.00
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1.00	1.00	1.00
6	Odour	T. No	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.67	2.3	8.66	8.66	8.88	8.5	8.64	8.29	8.52	8.52	8.62	8.69	8.08	8.88	2.30
8	Sp. Conductivity	µMhos/cm.	406	178	646	646	396.98	418	349	272	268	304	314	314	376.00	646.00	178.00
9	T. Solids	mg/l	224	296	351	351	245	278	216	190	194	190	195	189	243.25	351.00	189.00
10	D. Solids	mg/l	218	285	340	340	237	269	210	180	186	182	188	182	234.75	340.00	180.00
11	S. Solids	mg/l	6	11	11	11	8	9	6	10	8	8	7	7	8.50	11.00	6.00
12	Amm. Nitrogen	mg/l	0.012	0.48	0.018	0.018	0.02	0.017	0.018	0.48	0.014	0.012	0.014	0.013	0.09	0.48	0.01
13	Nitrite Nitrogen	mg/l	0.006	0.002	0.007	0.965	0.003	0.004	0.008	0.002	0.003	0.004	0.006	0.004	0.08	0.97	0.00
14	Nitrate Nitrogen	mg/l	0.589	3.9	0.965	4.48	1.26	1.032	0.93	1.38	0.72	0.77	0.895	0.885	1.48	4.48	0.59
15	Phosphate (PO <sub>4</sub> )	mg/l	0.034	0.02	0.022	0.022	0.019	0.012	0.006	0.02	0.011	0.01	0.016	0.01	0.02	0.03	0.01
16	Chloride	mg/l	27.43	34.24	57.85	57.85	31.53	33.74	38.28	19.71	26	39.98	39.98	39.42	37.17	57.85	19.71
17	Sulphate (SO <sub>4</sub> )	mg/l	5.418	8	3.82	3.82	7.62	5.62	3.02	12.44	3.42	2.79	3.28	3.02	5.19	12.44	2.79
18	T. Alkalinity	mg/l	144	110	200	200	128	196	172	90	120	160	116	148	148.67	200.00	90.00
19	T. Hardness	mg/l	104	120	188	188	144	164	140	120	112	144	120	144	140.67	188.00	104.00
20	CalciumHardness	mg/l	76	100	140	140	104	136	108	80	80	108	92	104	105.67	140.00	76.00
21	M.Hardness	mg/l	28	20	48	48	40	28	32	40	32	36	28	4	32.00	48.00	4.00
22	D. Oxygen	mg/l	7.5	8.2	6.6	6.6	7.8	7.3	7.4	6.7	7.3	8.7	8	8	7.51	8.70	6.60
23	B.O.D.	mg/l	1.3	1.4	1.4	1.4	1.2	1.3	0.8	1.2	1.2	1.1	0.8	1.2	1.19	1.40	0.80
24	C.O.D.	mg/l	13.55	14	20	20	10.64	11.61	9.8	16	16	10.47	8	10.86	13.41	20.00	8.00
25	Sodium	mg/l	16.5	14	18.02	18.02	20	16.6	14.03	18.46	14.6	12	16.48	13	15.98	20.00	12.00
26	Potassium	mg/l	1.4	2.28	2.06	2.06	1.4	1.8	1.3	1.24	1.3	1.4	1.68	1.3	1.60	2.28	1.24
27	T. Coliform	MPN/100ml	43	30	43	40	40	46	40	50	43	40	38	41	41.17	50.00	30.00
28	F. Coliform	MPN/100ml	<1.8	2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.68	0.68	0.72	0.72	0.77	0.72	0.62	0.04	0.72	0.67	0.48	0.58	0.62	0.77	0.04
30	FDS	mg/l	130	149	212	212	234	162	120	86	114	102	112	162	149.58	234.00	86.00
31	T.K.N.	mg/l	2.801	2.8	4.48	4.48	3.92	2.241	3.36	2.8	3.36	4.2	1.68	4.2	3.36	4.48	1.68
32	Boron	mg/l	0.002	0.002	0.006	0.006	0.003	0.003	0.002	0.001	0.003	0.004	0.004	0.004	0.003	0.006	0.001
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Rajghat Badwani.**

S.No.	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	°C	30	29	27	25	26	23	25	24	24	18	19	20	24.17	30	18
4	Turbidity	NTU	6.8	2.1	1.8	2.3	4.6	5.6	2.9	2	2.4	3.5	0.8	1.2	3.00	6.8	0.8
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Odour	T. No	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.81	8.71	8.62	8.46	8.4	8.42	7.88	8.5	8.57	8.51	8.48	8.2	8.46	8.81	7.88
8	Sp. Conductivity	µMhos/cm.	468	175	427	556	385.62	430	335.7	310	285.34	276	312	320	356.72	556	175
9	T. Solids	mg/l	344	292	245	346	244	284	228	192	179	179	190	260	248.58	346	179
10	D. Solids	mg/l	332	280	237	334	231	272	221	185	171	172	183	250	239.0	334	171
11	S. Solids	mg/l	206	12	8	12	13	12	7	7	8	7	7	10	25.8	206	7
12	Amm. Nitrogen	mg/l	0.021	0.56	0.01	0.001	0.016	0.016	0.009	0.012	0.016	0.009	0.016	0.02	0.06	0.56	0.001
13	Nitrite Nitrogen	mg/l	0.006	0.002	BDL	0.006	0.004	0.004	ND	0.009	0.005	0.004	ND	0.008	0.01	0.009	0.002
14	Nitrate Nitrogen	mg/l	1.086	3.5	1.9	1.86	0.798	0.809	0.911	0.98	0.807	0.68	0.861	0.9	1.26	3.5	0.68
15	Phosphate (PO <sub>4</sub> )	mg/l	0.016	0.018	0.017	0.81	0.008	0.022	0.086	0.018	0.053	0.014	0.02	0.019	0.09	0.81	0.008
16	Chloride	mg/l	29.56	44.02	30.85	32.01	27.59	33.74	28.71	25.62	11.99	31.99	49.98	37.44	31.96	49.98	11.99
17	Sulphate (SO <sub>4</sub> )	mg/l	7.84	8.2	6.9	9.65	8.342	5.16	4.221	4.01	11.623	3.14	3.48	7.01	6.63	11.623	3.14
18	T. Alkalinity	mg/l	168	120	160	110	128	168	160	168	120	136	120	148	142.17	168	110
19	T. Hardness	mg/l	116	140	136	410	120	176	128	136	112	140	98	148	155.00	410	98
20	CalciumHardness	mg/l	88	110	96	140	108	144	100	108	92	112	68	120	107.17	144	68
21	Magnesium	mg/l	28	30	40	270	12	32	28	28	20	28	30	28	47.83	270	12
22	D. Oxygen	mg/l	5.9	8.4	6.8	7.5	8	7.2	6.8	7.2	7.3	8.6	8	7.1	7.40	8.6	5.9
23	B.O.D.	mg/l	1.2	1.6	1.2	1.5	1.2	1.2	0.9	1.1	1.8	1.4	1.8	1.2	1.34	1.8	0.9
24	C.O.D.	mg/l	12.48	16	18	12.74	13.55	12.58	8.82	11	14	9.52	8	14.82	12.63	18	8
25	Sodium	mg/l	23.08	15	15.99	26.2	18	15.2	15.8	16.18	14	12.6	16.28	14.6	16.91	26.2	12.6
26	Potassium	mg/l	1.68	2.25	1.9	2	1.4	1.5	1.4	1.8	1.6	1.8	1.8	1.8	1.74	2.25	1.4
27	T. Coliform	MPN/100ml	50	30	34	50	49	49	40	49	46	49	38	48	44.33	50	30
28	F. Coliform	MPN/100ml	<2	2	<1.8	2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	2	<2
29	Fluoride	mg/l	0.85	0.72	0.66	0.99	0.73	0.63	0.62	0.68	0.74	0.58	0.48	0.5	0.682	0.99	0.48
30	FDS	mg/l	206	138	180	NA	168	182	132	130	112	104	110	150	146.55	206	104
31	T.K.N.	mg/l	2.24	2.8	2.8	2.8	3.92	3.92	2.8	3.92	5.04	5.04	1.4	3.92	3.38	5.04	1.4
32	Boron	mg/l	0.006	0.002	0.004	NA	0.004	0.003	0.002	0.003	0.004	0.003	ND	0.004	0.004	0.006	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD, INDORE**



**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Koteswar, Nisarpur, Dhar.**

S.No.	Characteristic	Unit	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	4.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	#DIV/0!	#DIV/0!	#DIV/0!
3	Temperature	°C	30	29	27	24	26	23	25	24	23	18	19	20	24.00	30	18
4	Turbidity	NTU	5.3	8.68	1.2	2.3	5.6	5.2	2.4	1.9	1.2	2.1	1.1	1.2	3.18	8.68	1.1
5	Colour	PCS	1	0.1	1	1	1	1	1	1	1	1	1	1	0.925	1	0.1
6	Odour	T. No	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	O. less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.99	1	8.42	8.46	8.47	8.56	8.44	8.58	8.38	8.33	8.58	8.3	7.876	8.99	1
8	Sp. Conductivity	µMhos/cm.	552	405.55	418	513	408.81	462	336	300	318	310	316	300	386.6	552	300
9	T. Solids	mg/l	3392	277	250	320	231	295	212	196	208	188	198	228	499.6	3392	188
10	D. Solids	mg/l	378	266	242	308	220	282	205	190	200	180	190	220	240.08	378	180
11	S. Solids	mg/l	14	10	8	12	11	13	7	6	8	8	8	8	9.42	14	6
12	Amm. Nitrogen	mg/l	0.028	0.021	0.019	0.002	0.014	0.014	0.013	0.011	0.019	0.008	0.018	0.018	0.02	0.028	0.002
13	Nitrite Nitrogen	mg/l	0.008	0.003	0.002	0.009	0.003	0.003	0.003	0.003	0.008	0.003	0.006	0.003	0.00	0.009	0.002
14	Nitrate Nitrogen	mg/l	1.808	0.853	0.9	1.84	2.199	0.82	1.09	0.98	0.81	0.64	1.084	0.7	1.14	2.199	0.64
15	Phosphate (PO <sub>4</sub> )	mg/l	0.02	0.014	0.019	0.801	0.059	0.032	0.016	0.01	0.011	0.012	0.008	0.01	0.08	0.801	0.008
16	Chloride	mg/l	29.56	21.21	23.14	36.5	31.53	28.92	22.97	21.68	30	29.99	59.98	27.59	30.26	59.98	21.21
17	Sulphate (SO <sub>4</sub> )	mg/l	6.89	4.755	5.1	11.89	10.683	4.74	4.78	3.99	3.92	2.72	3.68	5.2	5.7	11.89	2.72
18	T. Alkalinity	mg/l	156	132	148	180	128	164	180	160	140	136	124	128	148.0	180	124
19	T. Hardness	mg/l	156	124	128	210	132	156	140	140	120	152	128	120	142.2	210	120
20	CalciumHardness	mg/l	108	96	100	90	100	128	100	112	92	120	112	96	104.5	128	90
21	Magnesium	mg/l	20	28	28	120	32	28	40	28	28	32	16	24	35.33	120	16
22	D. Oxygen	mg/l	6.7	6.8	7.2	7.6	7.3	7.3	7.3	7.2	7.3	8.7	7.6	7.3	7.36	8.7	6.7
23	B.O.D.	mg/l	1.8	1.3	1.2	1.4	1.1	1.1	1.4	0.8	1	1.1	1	1	1.18	1.8	0.8
24	C.O.D.	mg/l	13.44	16	16	11.76	10.64	11.61	12.74	10	11	9.52	10	12.84	12.13	16	9.52
25	Sodium	mg/l	24.06	25	15.01	26.8	17	15	16.01	15.01	14.1	11.6	18.14	16.12	17.82	26.8	11.6
26	Potassium	mg/l	1.56	1.4	1.4	2.1	1.2	1.4	1.8	1.6	1.6	1.6	1.86	1.4	1.58	2.1	1.2
27	T. Coliform	MPN/100ml	50	40	40	50	49	46	49	48	38	40	48	46	45.33	50	38
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	2	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.82	0.79	0.62	0.96	0.7	0.74	0.73	0.69	0.6	0.54	0.58	0.3	0.67	0.96	0.3
30	FDS	mg/l	224	160	180	NA	162	192	104	140	130	106	118	150	151.45	224	104
31	T.K.N.	mg/l	2.8	3.36	3.36	2.8	4.48	2.241	5.04	3.92	3.36	5.04	1.96	2.8	3.43	5.04	1.96
32	Boron	mg/l	0.008	0.007	0.004	0.002	0.003	0.003	0.003	0.002	0.003	0.002	0.006	0.003	0.004	0.008	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992

**MADHYA PRADESH POLLUTION CONTROL BOARD,INDORE**

**Water Quality during Year - 2018-19**

**Natural Water Resource : River Narmada**

**Description of Sampling Station: At Kakrana, interstate boundry, Alirajpur.**

S.No.	Characteristic	Unit	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling	--	5.4.18	5.5.18	5.6.18	5.7.18	5.8.18	5.9.18	5.10.18	4.11.18	5.12.18	4.1.19	2.2.19	5.3.19	#DIV/0!	#DIV/0!	#DIV/0!
2	Appearance	--	Clear	clear	clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
3	Temperature	°C	30	29	27	25	26	23	25	24	23	18	20	21	24.25	30	18
4	Turbidity	NTU	1.4	8.62	2.6	20	3.3	8.7	1.9	2.11	1.6	0.9	1.1	1.3	4.46	20	0.9
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	Odour	T. No	O. less	O.less	o.less	O. less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	O.less	#DIV/0!	#DIV/0!	#DIV/0!
7	pH	pH Unit	8.66	1.4	8.3	7.86	8.26	8.54	8.45	8.36	8.52	8.61	8.56	7.95	7.79	8.66	1.4
8	Sp. Conductivity	µMhos/cm.	742	450	470	425.81	508	476	363	330	332	398.4	339	305	428.27	742	305
9	T. Solids	mg/l	435	305	292	281	313	331	222	203	221	252	218	239	276.00	435	203
10	D. Solids	mg/l	419	295	282	255	303	316	218	196	212	242	210	230	264.83	419	196
11	S. Solids	mg/l	16	10	10	26	10	15	6	7	9	10	8	9	11.33	26	6
12	Amm. Nitrogen	mg/l	0.58	0.05	0.2	0.025	0.019	0.011	0.018	0.013	0.018	0.022	0.022	0.019	0.083	0.58	0.011
13	Nitrite Nitrogen	mg/l	0.004	0.004	BDL	0.004	0.008	0.002	0.004	0.009	0.006	0.021	0.003	0.004	0.01	0.021	0.002
14	Nitrate Nitrogen	mg/l	1.26	0.825	0.88	0.726	1.24	0.962	1.08	1.06	0.9	0.555	0.732	0.8	0.92	1.26	0.555
15	Phosphate (PO <sub>4</sub> )	mg/l	0.02	0.02	0.02	0.019	0.018	0.031	0.011	0.019	0.01	0.0327	0.018	0.02	0.02	0.0327	0.01
16	Chloride	mg/l	34.49	36.64	34.71	36.58	39.13	33.74	28.71	33.5	34	39.42	29.56	33.5	34.50	39.42	28.71
17	Sulphate (SO <sub>4</sub> )	mg/l	6	5.69	5.21	6.16	8.1	5.06	4.39	4.01	3.21	8.62	3.73	4.3	5.37	8.62	3.21
18	T. Alkalinity	mg/l	160	156	160	200	200	172	20	140	140	160	128	148	148.67	200	20
19	T. Hardness	mg/l	210	160	164	150	160	184	180	140	132	180	112	140	159.33	210	112
20	CalciumHardness	mg/l	90	100	100	80	100	156	140	116	108	130	84	100	108.67	156	80
21	Magnesium	mg/l	110	60	64	70	60	28	40	24	24	50	28	40	49.833	110	24
22	D. Oxygen	mg/l	7.3	7	6.7	NA	7.2	7.1	7.4	7.2	7	8	8.2	7.4	7.32	8.2	6.7
23	B.O.D.	mg/l	1.7	1.8	1.9	2	1.9	1.2	1.2	1.2	1.4	1.4	1.1	1.1	1.492	2	1.1
24	C.O.D.	mg/l	15.48	16	18	9.8	12.58	13.55	13.72	11	13	14	12	13.83	13.58	18	9.8
25	Sodium	mg/l	17.62	18.01	17.01	18	19.2	17	16.8	15.09	17.8	12	15.1	18.01	16.80	19.2	12
26	Potassium	mg/l	2.84	1.5	1.97	2	2.01	1.8	1.6	1.6	1.9	1.21	1.1	1.5	1.65	2.01	1.1
27	T. Coliform	MPN/100ml	50	50	47	50	49	49	49	49	41	50	46	48	48.17	50	41
28	F. Coliform	MPN/100ml	<2	1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2	<2	<2
29	Fluoride	mg/l	0.76	0.81	0.7	0.78	0.8	0.84	0.82	0.7	0.6	0.84	0.68	0.4	0.73	0.84	0.4
30	FDS	mg/l	234	168	192	NA	140	206	112	138	130	138	133	170	160.09	234	112
31	T.K.N.	mg/l	5.6	4.48	4.2	NA	2.8	2.801	5.04	5.6	5.6	4.2	3.361	3.36	4.28	5.6	2.8
32	Boron	mg/l	0.002	0.006	0.006	0.004	0.005	0.006	0.002	0.004	0.002	0.004	0.004	0.007	0.004	0.007	0.002
	<b>CATEGORY</b>		<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>"A "</b>	<b>A</b>	<b>"A"</b>	<b>"A"</b>	<b>"A"</b>	<b>"A"</b>	<b>"A"</b>	<b>"A"</b>	<b>A</b>	<b>A</b>	<b>A</b>

Classification of River water based on IS - 2296 - 1992