

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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		12.4.17	15.5.17	20.6.17	05.7.17	19.8.17	05.9.17	24.10.17	24.11.17	15.12.17	01.1.18					
2	Appearance		Clear	Clear	Clear	Clear	Clear	clear	Clear	Clear	Clear	Clear					
3	Temperature	oC	25.8	35.2	27	26	28.4	28.8	27.2	23.4	24.6	20.2			26.7	35.2	20.2
4	Turbidity	NTU	2.5	2.9	3.2	3.4	3.6	2.2	2.9	2.5	2.8	1.7			2.8	3.6	1.7
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	7.39	7.42	7.56	7.62	7.42	7.17	7.68	7.58	7.62	6.9			7.4	7.68	6.9
8	Sp. Conductivity	µMhos/cm.	208.2	218.6	239.5	228.4	194.4	189.2	183.2	176.3	186.5	179.3			200.4	239.5	176.3
9	T. Solids	mg/l	166	146	155	168	172	183	175	161	172	165			166.3	183	146
10	D. Solids	mg/l	157	136	143	154	158	165	162	148	161	155			153.9	165	136
11	S. Solids	mg/l	9	10	12	14	14	18	13	13	11	10			12.4	18	9
12	Amm. Nitrogen	mg/l	Trace	0.02	Trace	Trace	Trace	Trace	BDL	0.06	0.04	0.12			0.1	0.12	0.02
13	Nitrite Nitrogen	mg/l	Trace	0.003	Trace	Trace	Trace	Trace	BDL	BDL	BDL	0.02			0.0	0.02	0.003
14	Nitrate Nitrogen	mg/l	0.22	0.2	0.42	0.62	0.6	0.4	0.62	0.2	0.18	0.2			0.4	0.62	0.18
15	Phosphate (PO ₄)	mg/l	ND	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL					
16	Chloride	mg/l	24.4	29.5	24.4	24.6	19.7	14.7	19.7	14.7	14.7	14.7			20.1	29.5	14.7
17	Sulphate (SO ₄)	mg/l	ND	BDL	2.2	2	Trace	Trace	2.4	3	3.8	3.6			2.8	3.8	2
18	T. Alkalinity	mg/l	20	16	20	24	28	24	32	28	24	32			24.8	32	16
19	T. Hardness	mg/l	80	88	84	88	96	92	80	80	88	92			86.8	96	80
20	CalciumHardness	mg/l	52	48	52	52	64	64	60	56	56	72			57.6	72	48
21	Magnesium H.	mg/l	58	40	32	36	32	28	20	24	32	20			32.2	58	20
22	D. Oxygen	mg/l	7	7.1	6.8	7	7.2	7	7.4	7.4	7.6	7.1			7.2	7.6	6.8
23	B.O.D.	mg/l	0.8	1.2	0.8	0.6	1.5	1.4	1.1	1.2	1.1	0.8			1.1	1.5	0.6
24	C.O.D.	mg/l	ND	BDL	5	BDL	BDL	BDL	BDL	5	4.8	4.8			4.9	5	4.8
25	Sodium	mg/l	-	-	-	-	-	-	-	8	7.4	8.8			8.1	8.8	7.4
26	Potassium	mg/l	-	-	-	-	-	-	-	1.2	1.6	1.9	-	-	1.6	1.9	1.2
27	T. Coliform	MPN/100ml	<2	2	<2	4	2	<2	2	<2	<2	<2			2.5	4	2
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	ND	ND					
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-					

CATEGORY

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Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Description of Sampling

: Rever Narmada At Puskar Dam Amarkantak

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											14.1.18					
2	Appearance											Clear					
3	Temperature	oC										20.6			20.6	20.6	20.6
4	Turbidity	NTU										2			2.0	2	2
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										7.5			7.5	7.5	7.5
8	Sp. Conductivity	μMhos/cm.										182			182.0	182	182
9	T. Solids	mg/l										171			171.0	171	171
10	D. Solids	mg/l										163			163.0	163	163
11	S. Solids	mg/l										8			8.0	8	8
12	Amm. Nitrogen	mg/l										0.014			0.0	0.014	0.014
13	Nitrite Nitrogen	mg/l										0.004			0.0	0.004	0.004
14	Nitrate Nitrogen	mg/l										0.28			0.3	0.28	0.28
15	Phosphate (PO ₄)	mg/l										0.012			0.0	0.012	0.012
16	Chloride	mg/l										34.4			34.4	34.4	34.4
17	Sulphate (SO ₄)	mg/l										3.4			3.4	3.4	3.4
18	T. Alkalinity	mg/l										26			26.0	26	26
19	T. Hardness	mg/l										108			108.0	108	108
20	CalciumHardness	mg/l										80			80.0	80	80
21	Magnesium H.	mg/l										28			28.0	28	28
22	D. Oxygen	mg/l										7.4			7.4	7.4	7.4
23	B.O.D.	mg/l										1.8			1.8	1.8	1.8
24	C.O.D.	mg/l										7.8			7.8	7.8	7.8
25	Sodium	mg/l										12.4			12.4	12.4	12.4
26	Potassium	mg/l										2	-	-	2.0	2	2
27	T. Coliform	MPN/100ml										40			40.0	40	40
28	F. Coliform	MPN/100ml										<2					
29	T.K.N.	mg/l															

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Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.
Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: : River Narmada at Amarkantat near Kapildhara 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		12.04.17	15.05.17	20.06.17	05.07.17	19.08.17	05.09.17	24.10.17	24.11.17	15.12.17	01.1.18					
2	Appearance		Clear	Clear	Clear	Slight turbid	Slight turbid	Clear	Clear	Clear	Clear	Clear					
3	Temperature	oC	26.4	34	26.8	26.2	28.6	29	27.4	23.3	24	20.4			26.6	34	20.4
4	Turbidity	NTU	2.7	3.4	3.2	3.2	6.4	3.4	2.8	3	3.8	1.8			3.4	6.4	1.8
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	7.41	7.61	7.62	7.8	7.71	7.33	7.82	7.62	7.72	7.52			7.6	7.82	7.33
8	Sp. Conductivity	µMhos/cm.	217	211.3	242.4	342.4	201.6	204.3	181.1	186.1	215.3	182.6			218.4	342.4	181.1
9	T. Solids	mg/l	176	178	187	212	196	191	188	173	189	156			184.6	212	156
10	D. Solids	mg/l	169	170	177	200	180	173	178	159	176	145			172.7	200	145
11	S. Solids	mg/l	7	8	10	12	16	18	10	14	13	11			11.9	18	7
12	Amm. Nitrogen	mg/l	Trace	Trace	0.03	0.01	0.06	0.06	0.08	0.14	0.08	0.012			0.1	0.14	0.01
13	Nitrite Nitrogen	mg/l	Trace	Trace	0.006	0.008	0.03	Trace	0.006	0.04	0.03	0.003			0.0	0.04	0.003
14	Nitrate Nitrogen	mg/l	0.4	0.22	0.4	0.64	0.6	0.6	0.8	0.48	0.62	0.24			0.5	0.8	0.22
15	Phosphate (PO ₄)	mg/l	BDL	BDL	BDL	BDL	0.2	0.24	0.04	0.16	0.12	0.1			0.1	0.24	0.04
16	Chloride	mg/l	24.4	29.5	34.4	34.4	19.7	19.7	29.5	24.6	29.5	24.4			27.0	34.4	19.7
17	Sulphate (SO ₄)	mg/l	4.4	-	3	4.6	4.2	3	4.8	4	5.2	3.8			4.1	5.2	3
18	T. Alkalinity	mg/l	24	28	28	32	32	28	36	24	20	28			28.0	36	20
19	T. Hardness	mg/l	96	92	100	112	116	124	76	116	120	88			104.0	124	76
20	CalciumHardness	mg/l	64	56	60	76	72	84	52	72	72	60			66.8	84	52
21	Magnesium H.	mg/l	32	36	40	36	44	40	24	44	48	28			37.2	48	24
22	D. Oxygen	mg/l	7.7	7.7	7.5	7.5	7.5	7.4	7.8	7.6	7.5	7.5			7.6	7.8	7.4
23	B.O.D.	mg/l	1.2	1.4	1.1	1.7	1.4	1.6	1.4	1.7	1.6	1.3			1.4	1.7	1.1
24	C.O.D.	mg/l	BDL	9.6	5	10	9.6	9.6	5	10	9.6	9.6			8.7	10	5
25	Sodium	mg/l	-	-	-	-	-	-	-	10.2	11.4	13.3			11.6	13.3	10.2
26	Potassium	mg/l	-	-	-	-	-	-	-	1.8	1.6	2.8			2.1	2.8	1.6
27	T. Coliform	MPN/100ml	27	33	34	70	70	40	22	44	40	33			41.3	70	22
28	F. Coliform	MPN/100ml	<2	<2	2	8	7	<2	<2	<2	<2	<2			5.7	8	2
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-					

CATEGORY

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Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Description of Sampling

: River Narmada At Chandanghat

Station:

Amarkantak

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											24.1.18					
2	Appearance											Clear					
3	Temperature	oC										20.5			20.5	20.5	20.5
4	Turbidity	NTU										1.7			1.7	1.7	1.7
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										7.49			7.5	7.49	7.49
8	Sp. Conductivity	µMhos/cm.										178.1			178.1	178.1	178.1
9	T. Solids	mg/l										162			162.0	162	162
10	D. Solids	mg/l										153			153.0	153	153
11	S. Solids	mg/l										9			9.0	9	9
12	Amm. Nitrogen	mg/l										0.02			0.0	0.02	0.02
13	Nitrite Nitrogen	mg/l										0.014			0.0	0.014	0.014
14	Nitrate Nitrogen	mg/l										0.36			0.4	0.36	0.36
15	Phosphate (PO ₄)	mg/l										BDL					
16	Chloride	mg/l										29.5			29.5	29.5	29.5
17	Sulphate (SO ₄)	mg/l										4.6			4.6	4.6	4.6
18	T. Alkalinity	mg/l										32			32.0	32	32
19	T. Hardness	mg/l										104			104.0	104	104
20	CalciumHardness	mg/l										80			80.0	80	80
21	Magnesium H.	mg/l										24			24.0	24	24
22	D. Oxygen	mg/l										7.7			7.7	7.7	7.7
23	B.O.D.	mg/l										1.4			1.4	1.4	1.4
24	C.O.D.	mg/l										9.6			9.6	9.6	9.6
25	Sodium	mg/l										11			11.0	11	11
26	Potassium	mg/l										1.8	-	-	1.8	1.8	1.8
27	T. Coliform	MPN/100ml										33			33.0	33	33
28	F. Coliform	MPN/100ml										<2			#DIV/0 !	#DIV/0 !	#DIV/0 !
29	T.K.N.	mg/l															

CATEGORY

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Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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		12.04.17	15.05.17	20.06.17	05.07.17	19.08.17	05.09.17	24.10.17	24.11.17	14.12.17	01.1.18					
2	Appearance		Clear	Clear	Clear	Slight turbid	Slight turbid	Clear	Clear	Clear	Clear	Clear					
3	Temperature	oC	28.5	36	27.6	26.4	29	29.4	28.2	23.5	25	20.4			27.4	36	20.4
4	Turbidity	NTU	2.8	3.4	3.8	6.4	22	6.2	3.6	5.4	4.8	1.9			6.0	22	1.9
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	7.84	8.01	7.68	7.72	7.7	8.02	7.71	7.89	7.76	8.12			7.8	8.12	7.68
8	Sp. Conductivity	µMhos/cm.	242.6	241.3	245.1	512.3	411.4	321.2	203.2	232.5	226.4	232			286.8	512.3	203.2
9	T. Solids	mg/l	204	197	200	387	390	211	196	192	213	196			238.6	390	192
10	D. Solids	mg/l	195	189	193	369	344	187	181	181	201	195			223.5	369	181
11	S. Solids	mg/l	9	8	7	18	46	24	15	11	12	10			16.0	46	7
12	Amm. Nitrogen	mg/l	Trace	0.02	0.06	0.08	0.04	0.06	0.02	0.12	0.16	0.13			0.1	0.16	0.02
13	Nitrite Nitrogen	mg/l	Trace	0.004	0.02	0.004	0.002	0.01	0.01	0.04	0.006	0.02			0.0	0.04	0.002
14	Nitrate Nitrogen	mg/l	0.61	0.68	0.8	0.82	1.2	0.6	0.62	0.48	0.62	0.32			0.7	1.2	0.32
15	Phosphate (PO ₄)	mg/l	ND	BDL	BDL	0.2	0.4	0.2	0.14	0.16	0.1	0.01			0.2	0.4	0.01
16	Chloride	mg/l	29.5	29.5	29.5	34.4	19.7	14.7	14.7	19.5	24.6	19.7			23.6	34.4	14.7
17	Sulphate (SO ₄)	mg/l	6.4	4.8	4.4	6.2	6	4.8	6	5.2	6.2	4.6			5.5	6.4	4.4
18	T. Alkalinity	mg/l	28	32	32	36	48	44	40	36	32	36			36.4	48	28
19	T. Hardness	mg/l	120	136	132	136	124	120	128	124	128	116			126.4	136	116
20	CalciumHardness	mg/l	88	76	76	88	76	76	80	76	76	92			80.4	92	76
21	Magnesium H.	mg/l	32	60	56	48	48	44	48	48	52	24			46.0	60	24
22	D. Oxygen	mg/l	8.2	7.9	7.8	7.7	7.8	8.1	8.1	8	7.9	7.8			7.9	8.2	7.7
23	B.O.D.	mg/l	1.1	1.3	0.7	1.8	1.4	1.5	1.6	1.3	1.2	1.1			1.3	1.8	0.7
24	C.O.D.	mg/l	10	9.6	5	15	19.2	9.6	10	10	9.6	4.8			10.3	19.2	4.8
25	Sodium	mg/l	-	-	-	-	-	-	-	12.4	11.6	14.2			12.7	14.2	11.6
26	Potassium	mg/l	-	-	-	-	-	-	-	2.6	2.4	2.6			2.5	2.6	2.4
27	T. Coliform	MPN/100ml	27	34	30	70	110	50	21	21	34	33			43.0	110	21
28	F. Coliform	MPN/100ml	<2	<2	<2	8	12	2	<2	<2	<2	<2			7.3	12	2
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-					

CATEGORY

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 cation of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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		12.04.17	15.05.17	20.06.17	05.07.17	19.08.17	05.09.17	24.10.17	24.11.17	14.12.17	01.1.18					
2	Appearance		Clear	Clear	Clear	Slight turbid	Slight turbid	Clear	Clear	Clear	Clear	Clear					
3	Temperature	oC	28.6	36	27.6	26.2	29	29.4	28.2	23.6	25	20.4			27.4	36	20.4
4	Turbidity	NTU	3.1	3.8	4.6	8.2	24	6.6	3.8	6	5.2	2			6.7	24	2
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	7.96	8.11	7.7	7.9	7.76	8.12	7.85	8.05	7.79	8.26			8.0	8.26	7.7
8	Sp. Conductivity	µMhos/cm.	256.4	287.3	341.4	551.6	418.6	343.2	221.5	343.2	266.4	234.6			326.4	551.6	221.5
9	T. Solids	mg/l	215	203	229	397	402	221	205	206	219	211			250.8	402	203
10	D. Solids	mg/l	204	191	218	376	354	193	189	193	205	202			232.5	376	189
11	S. Solids	mg/l	11	12	11	21	48	28	16	13	14	9			18.3	48	9
12	Amm. Nitrogen	mg/l	0.06	0.08	0.08	0.08	0.06	0.08	0.05	0.18	0.22	0.16			0.1	0.22	0.05
13	Nitrite Nitrogen	mg/l	0.008	0.006	0.04	0.006	0.004	0.02	0.02	0.06	0.04	0.042			0.0	0.06	0.004
14	Nitrate Nitrogen	mg/l	0.88	0.8	0.84	1.22	1.4	0.82	0.84	0.62	0.84	0.68			0.9	1.4	0.62
15	Phosphate (PO ₄)	mg/l	0.2	0.26	0.4	0.64	0.44	0.22	0.22	0.28	0.26	0.18			0.3	0.64	0.18
16	Chloride	mg/l	34.4	34.4	44.3	44.3	24.6	24.6	19.7	19.5	29.5	24.6			30.0	44.3	19.5
17	Sulphate (SO ₄)	mg/l	6.2	5.6	6	8.4	6.4	5	6.4	6.2	6.6	5.6			6.2	8.4	5
18	T. Alkalinity	mg/l	32	36	40	44	52	48	44	40	36	44			41.6	52	32
19	T. Hardness	mg/l	128	148	140	148	128	124	132	128	136	120			133.2	148	120
20	CalciumHardness	mg/l	88	80	80	96	84	72	84	76	80	96			83.6	96	72
21	Magnesium H.	mg/l	40	68	60	52	44	52	48	52	56	24			49.6	68	24
22	D. Oxygen	mg/l	8	8	8.2	7.9	7.6	8	8.4	8.2	8	7.9			8.0	8.4	7.6
23	B.O.D.	mg/l	1.7	2	1.6	2	1.8	2	1.8	1.8	2	1.5			1.8	2	1.5
24	C.O.D.	mg/l	20	19.2	10	20	28.8	19.2	10	20	19.2	9.6			17.6	28.8	9.6
25	Sodium	mg/l	-	-	-	-	-	-	-	14.6	15.2	16.2			15.3	16.2	14.6
26	Potassium	mg/l	-	-	-	-	-	-	-	2.8	2.6	4.8			3.4	4.8	2.6
27	T. Coliform	MPN/100ml	40	50	40	110	130	70	40	50	44	50			62.4	130	40
28	F. Coliform	MPN/100ml	<2	2	8	12	33	12	4	2	4	2			8.8	33	2
29	T.K.N.	mg/l	-	-	-	-	-	-	-	-	-	-					
	CATEGORY		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 - 2017-18

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		15.4.17	5.5.17	20.6.17	6.7.17	4.8.17	5.9.17	7.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--	--	--	--	--					
3	Temperature	oC	--	--	--	--	--	--	--	--	--	--					
4	Turbidity	NTU	1	2	6	8	6	15	1.5	2	3.2	3			4.8	15	1
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L		--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L		--	--					
7	pH	pH Unit	7.22	7.25	8.52	8.6	8.36	7.92	7.24	7.7	7.25	7.82			7.8	8.6	7.22
8	Sp. Conductivity	µMhos/cm.	186	304	203	182	370	169	245	280	339	264			254.2	370	169
9	T. Solids	mg/l	318	268	176	150	388	176	210	290	352	162			249.0	388	150
10	D. Solids	mg/l	276	236	164	124	364	132	173	244	304	148			216.5	364	124
11	S. Solids	mg/l	42	32	12	26	24	44	37	46	48	14			32.5	48	12
12	Amm. Nitrogen	mg/l	0.32	0.64	0.4	0.42	0.5	0.4	0.45	0.4	0.18	BDL			0.4	0.64	0.18
13	Nitrite Nitrogen	mg/l	1.34	0.09	0.3	0.22	0.35	0.2	0.3	0.35	0.36	0.21			0.4	1.34	0.09
14	Nitrate Nitrogen	mg/l	0.1	0.5	0.3	0.3	0.5	0.6	0.4	0.2	1.42	0.42			0.5	1.42	0.1
15	Phosphate (PO ₄)	mg/l	0.04	0.033	0.1	0.132	0.112	0.132	0.4	0.25	0.6	BDL			0.2	0.6	0.033
16	Chloride	mg/l	12.4	17.49	6	12.5	15	2.5	12	10	15	7			11.0	17.49	2.5
17	Sulphate (SO ₄)	mg/l	6.4	7.6	4.25	3.5	10	9.5	5	5	16	5			7.2	16	3.5
18	T. Alkalinity	mg/l	16	16	10	12	12	8	14	12	60	26			18.6	60	8
19	T. Hardness	mg/l	56	68	92	84	132	64	60	115	176	58			90.5	176	56
20	CalciumHardness	mg/l	48	40	80	76	104	56	45	80	132	42			70.3	132	40
21	Magnesium H.	mg/l	18	28	12	8	28	8	15	35	44	16			21.2	44	8
22	D. Oxygen	mg/l	7.9	7.8	7.7	7.8	7.2	7.8	7.4	7.5	7.4	10.4			7.9	10.4	7.2
23	B.O.D.	mg/l	1.3	1.2	0.9	0.8	1.8	1.3	1.5	1.5	1.9	0.4			1.3	1.9	0.4
24	C.O.D.	mg/l	12	12	8	8	16	8	12	12	20	7			11.5	20	7
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	36	36	34	40	49	46	31	39	41	41			39.3	49	31
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
Cat.			A	A	A	A	A	A	A	A	A	A					

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-18

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		15.4.17	5.5.17	20.6.17	6.7.17	4.8.17	4.9.17	7.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--		--	--	--					
3	Temperature	oC	--	--	--	--	--	--		--	--	--					
4	Turbidity	NTU	1		10	12	10	22	2	4.8	3.5	4			7.7	22	1
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	7.24	7.34	8.46	8.5	8.34	7.82	7.3	7.8	7.52	7.76			7.8	8.5	7.24
8	Sp. Conductivity	µMhos/cm.	368	294	226	214	370	208	252	329	382	244			288.7	382	208
9	T. Solids	mg/l	318	286	192	198	384	220	225	288	392	246			274.9	392	192
10	D. Solids	mg/l	282	251	176	154	362	164	195	253	325	218			238.0	362	154
11	S. Solids	mg/l	42	35	16	34	22	56	30	35	57	28			35.5	57	16
12	Amm. Nitrogen	mg/l	0.8	0.32	0.46	0.42	0.44	0.4	0.4	0.35	0.14	BDL			0.4	0.8	0.14
13	Nitrite Nitrogen	mg/l	1.34	0.1	0.6	0.24	0.25	0.2	0.25	0.28	0.31	0.22			0.4	1.34	0.1
14	Nitrate Nitrogen	mg/l	0.12	0.8	0.3	0.35	0.5	0.6	0.35	0.3	1.7	0.45			0.5	1.7	0.12
15	Phosphate (PO ₄)	mg/l	0.04	0.04	0.132	0.165	0.112	0.165	0.5	0.2	0.5	0.132			0.2	0.5	0.04
16	Chloride	mg/l	14.99	14.99	12	22.5	15	2.5	10	12	12	7			12.3	22.5	2.5
17	Sulphate (SO ₄)	mg/l	7.6	6.4	5.25	3.5	10	10	4	4	13	6			7.0	13	3.5
18	T. Alkalinity	mg/l	18	18	16	20	10	12	12	16	56	38			21.6	56	10
19	T. Hardness	mg/l	72	66	120	124	128	80	75	120	168	54			100.7	168	54
20	CalciumHardness	mg/l	44	42	96	96	96	64	50	80	124	42			73.4	124	42
21	Magnesium H.	mg/l	28	24	24	28	32	16	25	40	44	12			27.3	44	12
22	D. Oxygen	mg/l	7.9	7.9	7.6	7.6	7.3	7.8	7.4	7.6	7.6	7.6			7.6	7.9	7.3
23	B.O.D.	mg/l	1.4	1.2	1.1	1.2	1.6	1.2	1.4	1.8	1.8	0.6			1.3	1.8	0.6
24	C.O.D.	mg/l	12	12	8	8	24	8	10	14	13	7			11.6	24	7
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	35	39	39	46	47	46	38	40	43	40			41.3	47	35
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
Cat.			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 - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling Station:

Narmada near Bhairav Tample at Shhastradhar Mandla

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											7.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU										2			2.0	2	2
5	Colour	PCS															
6	Odour	T. No															
7	pH	pH Unit										7.61			7.6	7.61	7.61
8	Sp. Conductivity	µMhos/cm.										216			216.0	216	216
9	T. Solids	mg/l										218			218.0	218	218
10	D. Solids	mg/l										189			189.0	189	189
11	S. Solids	mg/l										29			29.0	29	29
12	Amm. Nitrogen	mg/l										BDL					
13	Nitrite Nitrogen	mg/l										0.3			0.3	0.3	0.3
14	Nitrate Nitrogen	mg/l										0.4			0.4	0.4	0.4
15	Phosphate (PO ₄)	mg/l										BDL					
16	Chloride	mg/l										7			7.0	7	7
17	Sulphate (SO ₄)	mg/l										5.25			5.3	5.25	5.25
18	T. Alkalinity	mg/l										30			30.0	30	30
19	T. Hardness	mg/l										62			62.0	62	62
20	CalciumHardness	mg/l										46			46.0	46	46
21	Magnesium H.	mg/l										16			16.0	16	16
22	D. Oxygen	mg/l										7.8			7.8	7.8	7.8
23	B.O.D.	mg/l										1.2			1.2	1.2	1.2
24	C.O.D.	mg/l										7			7.0	7	7
25	Sodium	mg/l															
26	Potassium	mg/l											-	-			
27	T. Coliform	MPN/100ml										46			46.0	46	46
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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											9.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU										1.5			1.5	1.5	1.5
5	Colour	PCS															
6	Odour	T. No															
7	pH	pH Unit										7.84			7.8	7.84	7.84
8	Sp. Conductivity	µMhos/cm.										204			204.0	204	204
9	T. Solids	mg/l										210			210.0	210	210
10	D. Solids	mg/l										180			180.0	180	180
11	S. Solids	mg/l										30			30.0	30	30
12	Amm. Nitrogen	mg/l										BDL					
13	Nitrite Nitrogen	mg/l										BDL					
14	Nitrate Nitrogen	mg/l										0.5			0.5	0.5	0.5
15	Phosphate (PO ₄)	mg/l										BDL					
16	Chloride	mg/l										10			10.0	10	10
17	Sulphate (SO ₄)	mg/l										5			5.0	5	5
18	T. Alkalinity	mg/l										30			30.0	30	30
19	T. Hardness	mg/l										80			80.0	80	80
20	CalciumHardness	mg/l										60			60.0	60	60
21	Magnesium H.	mg/l										20			20.0	20	20
22	D. Oxygen	mg/l										7.8			7.8	7.8	7.8
23	B.O.D.	mg/l										1.0			1.0	1	1
24	C.O.D.	mg/l										6.0			6.0	6	6
25	Sodium	mg/l															
26	Potassium	mg/l											-	-			
27	T. Coliform	MPN/100ml										31			31	31	31
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling Station: Rever Narmada At JAMTARA JABLPUR.

S.No	Characteristic	Unit	<i>Apr.</i>	May	June	<i>July</i>	Aug.	Sept.	<i>Oct.</i>	Nov.	Dec.	<i>Jan.</i>	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		25.4.17	15.5.17	15.6.17	4.7.17	4.8.17	5.9.17	7.10.17	10.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--		--	--	--					
3	Temperature	oC	--	--	--	--	--	--		--		--					
4	Turbidity	NTU	5	1.8	1	6	4.3	6	1.3	5	1	2			3.3	6	1
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	8.34	8.17	7.31	7.1	7.36	7.48	7.08	8.36	8.07	7.32			7.7	8.36	7.08
8	Sp. Conductivity	µMhos/cm.	311	189	354	356	814	450	218	388	216	163			345.9	814	163
9	T. Solids	mg/l	326	171	313	344	293	468	198	378	201	172			286.4	468	171
10	D. Solids	mg/l	284	145	281	292	256	436	175	352	172	146			253.9	436	145
11	S. Solids	mg/l	42	26	32	52	37	32	23	26	29	26			32.5	52	23
12	Amm. Nitrogen	mg/l	0.42	0.9	0.32	0.2	1.6	0.4	0.42	0.42	0.11	BDL			0.5	1.6	0.11
13	Nitrite Nitrogen	mg/l	0.32	0.6	0.09	0.09	0.8	0.32	0.39	0.34	0.3	0.24			0.3	0.8	0.09
14	Nitrate Nitrogen	mg/l	0.5	0.7	0.09	0.1	1	0.38	0.56	0.38	0.39	0.4			0.5	1	0.09
15	Phosphate (PO ₄)	mg/l	0.112	1	0.033	5.23	2	0.112	0.5	0.132	BDL	BDL			1.1	5.23	0.033
16	Chloride	mg/l	12	4.95	19.99	12.49	16.83	32.48	5.94	32	6	5			14.8	32.48	4.95
17	Sulphate (SO ₄)	mg/l	10	3.8	6.4	4.4	7	10	3.4	10	3.16	4			6.2	10	3.16
18	T. Alkalinity	mg/l	10	8	12	12	38	8	6	8	16	16			13.4	38	6
19	T. Hardness	mg/l	128	78	68	70	144	136	60	144	90	34			95.2	144	34
20	CalciumHardness	mg/l	96	44	46	50	108	104	36	104	62	28			67.8	108	28
21	Magnesium H.	mg/l	32	34	22	20	36	32	24	40	28	6			27.4	40	6
22	D. Oxygen	mg/l	7.4	7.3	7.7	7.9	7.8	7.2	7.6	7.4	10	9.1			7.9	10	7.2
23	B.O.D.	mg/l	1.8	1.6	1.2	1.2	1.4	1.8	1.6	1.8	1.7	1			1.5	1.8	1
24	C.O.D.	mg/l	16	13	12	12	18	16	12	12	5	4			12.0	18	4
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	25	40	39	23	40	58	31	31	33	38			35.8	58	23
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
29	T.K.N.	mg/l	--	--	--	--	--	--	--	--	--	--					

Cat.

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 - 2017-18

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		18.4.17	15.5.17	15.6.17	5.7.17	4.8.17	4.9.17	01.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--		--	--	--					
3	Temperature	oC	--	--	--	--	--	--		--	--	--					
4	Turbidity	NTU	1	1.8	5	6	6.3	1.5	1.8	1.6	0.9	0.2			2.6	6.3	0.2
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	7.35	8.13	8.33	7.12	8.63	7.36	7.61	7.4	8.04	7.93			7.8	8.63	7.12
8	Sp. Conductivity	µMhos/cm.	364	193	285	352	345	337	219	278	195	169			273.7	364	169
9	T. Solids	mg/l	343	171	298	346	316	295	203	249	175	159			255.5	346	159
10	D. Solids	mg/l	307	149	272	308	275	271	175	225	156	135			227.3	308	135
11	S. Solids	mg/l	36	22	26	38	41	24	28	24	19	24			28.2	41	19
12	Amm. Nitrogen	mg/l	0.2	0.9	0.32	0.06	1.3	0.73	0.43	0.38	0.17	BDL			0.5	1.3	0.06
13	Nitrite Nitrogen	mg/l	0.8	0.4	0.34	0.04	0.6	0.64	0.27	0.17	0.28	BDL			0.4	0.8	0.04
14	Nitrate Nitrogen	mg/l	0.09	0.5	0.32	0.26	0.8	1.73	0.63	0.62	1.21	BDL			0.7	1.73	0.09
15	Phosphate (PO ₄)	mg/l	0.04	0.8	0.112	0.023	0.7	0.68	0.4	0.7	BDL	0.4			0.4	0.8	0.023
16	Chloride	mg/l	17.49	6.93	12.49	14.99	12	7.92	6.93	6.9	5	5			9.6	17.49	5
17	Sulphate (SO ₄)	mg/l	5.4	3.9	2	5.4	8	4.13	3.6	3.2	4.3	5			4.5	8	2
18	T. Alkalinity	mg/l	16	10	10	14	30	28	8	10	6	164			31.1	164	6
19	T. Hardness	mg/l	72	76	112	76	96	120	62	126	80	92			91.2	126	62
20	CalciumHardness	mg/l	46	54	84	52	54	70	40	82	56	58			59.6	84	40
21	Magnesium H.	mg/l	26	22	128	24	42	50	22	44	24	34			41.6	128	22
22	D. Oxygen	mg/l	7.9	7.4	7.5	7.9	7.8	7.8	7.3	7.8	8	7.2			7.7	8	7.2
23	B.O.D.	mg/l	1.1	1.4	1.4	1.2	1.7	1.4	1.2	1.2	1.6	1.1			1.3	1.7	1.1
24	C.O.D.	mg/l	8	11	4	12	13	11	10	9	7	3			8.8	13	3
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	26	38	31	28	10	33	33	41	38	33			31.1	41	10
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
29	T.K.N.	mg/l	--	--	--	--	--	--	--	--	--	--					
Cat.			A	A	A	A	A	A	A	A	A	A					

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-18

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		18.4.17	15.5.17	15.6.17		4.8.17	4.9.17	01.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--		--	--	--					
3	Temperature	oC	--	--	--	--	--	--		--	--	--					
4	Turbidity	NTU	6	1.7	6	6	3.8	1.5	1.6	1.8	2	0.2			3.1	6	0.2
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	8.35	8.11	8.38	7.26	8.17	7.36	7.33	7.84	8.1	7.93			7.9	8.38	7.26
8	Sp. Conductivity	µMhos/cm.	346	178	310	368	361	361	233	247	159	160			272.3	368	159
9	T. Solids	mg/l	356	163	318	345	325	310	214	226	148	151			255.6	356	148
10	D. Solids	mg/l	338	143	284	303	283	281	187	198	136	128			228.1	338	128
11	S. Solids	mg/l	18	20	34	42	42	29	27	28	12	23			27.5	42	12
12	Amm. Nitrogen	mg/l	0.42	0.8	0.44	0.2	1.1	0.56	0.42	0.41	0.12	BDL			0.5	1.1	0.12
13	Nitrite Nitrogen	mg/l	0.5	0.7	0.36	0.1	0.8	0.43	0.39	0.51	0.25	BDL			0.4	0.8	0.1
14	Nitrate Nitrogen	mg/l	0.32	0.8	0.34	0.5	0.9	2.74	0.53	0.81	0.9	1.2			0.9	2.74	0.32
15	Phosphate (PO ₄)	mg/l	7.6	0.8	0.112	0.033	1	0.6	0.7	0.6	BDL	0.6			1.3	7.6	0.033
16	Chloride	mg/l	9.99	5.9	12.49	14.99	11	7	7.92	9	6	10.89			9.5	14.99	5.9
17	Sulphate (SO ₄)	mg/l	7.6	2.4	2.4	7.6	4.9	3.7	3	3.2	5.5	5			4.5	7.6	2.4
18	T. Alkalinity	mg/l	10	8	12	14	36	34	10	12	94	156			38.6	156	8
19	T. Hardness	mg/l	132	58	132	72	104	140	66	42	46	68			86.0	140	42
20	CalciumHardness	mg/l	96	40	100	48	60	96	40	74	36	36			62.6	100	36
21	Magnesium H.	mg/l	36	18	32	24	44	44	26	38	10	22			29.4	44	10
22	D. Oxygen	mg/l	7.6	7.8	7.5	7.9	8.3	7.8	7.4	7.4	7.7	5.8			7.5	8.3	5.8
23	B.O.D.	mg/l	1.6	1.1	1.8	1.2	1.2	1.6	1.3	1.2	0.4	0.8			1.2	1.8	0.4
24	C.O.D.	mg/l	16	10	4	12	13	9	11	10	9.8	3			9.8	16	3
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	29	34	40	39	40	43	38	40	32	26			36.1	43	26
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
29	T.K.N.	mg/l	--	--	--	--	--	--	--	--	--	--					
Cat.			A	A	A	A	A	A	A	A	A						

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-18

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		18.4.17	15.5.17	15.6.17	4.7.17	4.8.17	5.9.17	01.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--	--	--	--						
3	Temperature	oC	--	--	--	--	--	--	--	--	--	--					
4	Turbidity	NTU	1	1.7	5		4.2	1.8	2	2	2	0.1			2.2	5	0.1
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	7.31	8.04	8.32	7.23	8.11	7.83	7.4	7.5	8.02	8.11			7.8	8.32	7.23
8	Sp. Conductivity	µMhos/cm.	367	200	294	362	383	361	249	288	156	283			294.3	383	156
9	T. Solids	mg/l	337	183		349	354	319	235	268	128	254			269.7	354	128
10	D. Solids	mg/l	294	159		312	306	289	190	268	120	226			240.4	312	120
11	S. Solids	mg/l	43	24		37	48	30	45	30	8	28			32.6	48	8
12	Amm. Nitrogen	mg/l	0.64	0.8		0.2	1.7	0.63	0.5	0.3	0.12	BDL			0.6	1.7	0.12
13	Nitrite Nitrogen	mg/l	0.8	0.6		0.09	0.8	0.81	0.4	0.2	0.24	BDL			0.5	0.81	0.09
14	Nitrate Nitrogen	mg/l	0.12	0.5		0.34	1	2.71	0.5	0.4	1.4	1.1			0.9	2.71	0.12
15	Phosphate (PO ₄)	mg/l	0.033	0.4	0.112	0.04	0.8	0.34	0.5	0.35	BDL	0.4			0.3	0.8	0.033
16	Chloride	mg/l	17.49	5.94	12.49	19.99	8	7	7.8	12	6	15.84			11.3	19.99	5.94
17	Sulphate (SO ₄)	mg/l	7.6	3.4	2	6.4	6.3	5.61	5	10	5.25	5			5.7	10	2
18	T. Alkalinity	mg/l	14	10		14	24	28	12	14	96	154			40.7	154	10
19	T. Hardness	mg/l	70	82		74	136	138	80	111	48	90			92.1	138	48
20	CalciumHardness	mg/l	50	62		52	94	94	58	79	40	42			63.4	94	40
21	Magnesium H.	mg/l	20	20		22	42	44	22	32	8	48			28.7	48	8
22	D. Oxygen	mg/l	7.8	7.6	7.5	7.8	8.1	7	7.5	7.4	7.8	8.5			7.7	8.5	7
23	B.O.D.	mg/l	1.3	1.4	1.6	1.2	1.4	1.8	1.8	1.4	0.5	1			1.3	1.8	0.5
24	C.O.D.	mg/l	12	13	4	12	18	11	12	10	9.8	3			10.5	18	3
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	39	46	34	43	41	47	38	39	33	26			38.6	47	26
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
Cat.			A	A	A	A	A	A	A	A	A	A					

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-18

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		18.04.2017	15.5.17	15.6.17	4.7.17	4.8.17	4.9.17	07.10.17	8.11.17	0.12.17	1.1.18					
2	Appearance		--	--	--	--	--	--	--	--	--	--					
3	Temperature	oC	--	--	--	--	--	--	--	--	--	--					
4	Turbidity	NTU	1	2	6	6	6	2.3	1.8	4	5	0.2			3.4	6	0.2
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	7.16	8.61	8.29	7.25	8.11	7.92	7.39	7.6	8.31	7.83			7.8	8.61	7.16
8	Sp. Conductivity	µMhos/cm.	375	191	310	368	383	384	233	356	330	202			313.2	384	191
9	T. Solids	mg/l	333	169	326	354	354	350	220	312	348	180			294.6	354	169
10	D. Solids	mg/l	285	149		308	306	308	180	276	322	196			258.9	322	149
11	S. Solids	mg/l	48	20		46	48	42	40	38	26	18			36.2	48	18
12	Amm. Nitrogen	mg/l	0.9	0.5		0.32	1.7	0.83	0.5	0.4	0.42	BDL			0.7	1.7	0.32
13	Nitrite Nitrogen	mg/l	1.34	0.3		0.09	0.8	0.9	0.45	0.2	0.3	BDL			0.5	1.34	0.09
14	Nitrate Nitrogen	mg/l	0.15	0.4		0.8	1	4.19	0.48	0.5	0.36	0.88			1.0	4.19	0.15
15	Phosphate (PO ₄)	mg/l	0.054	0.6		0.057	0.8	0.55	0.4	0.5	0.112	0.5			0.4	0.8	0.054
16	Chloride	mg/l	12.44	6.93	12.49	22.49	8	7.92	7.78	10	15	10.89			11.4	22.49	6.93
17	Sulphate (SO ₄)	mg/l	4.4	3.6		6.7	6.3	6.34	4	5.01	10	6			5.8	10	3.6
18	T. Alkalinity	mg/l	14	12	10	16	24	36	10	14	12	168			31.6	168	10
19	T. Hardness	mg/l	68	86	124	78	136	142	75	120	156	102			108.7	156	68
20	Calcium Hardness	mg/l	42	60	86	46	94	100	55	100	104	76			76.3	104	42
21	Magnesium H.	mg/l	26	20	28	32	42	42	20	20	52	26			30.8	52	20
22	D. Oxygen	mg/l	7.8	7.2	7.5	7.7	8.1	6.8	7.5	7.3	7.4	6.7			7.4	8.1	6.7
23	B.O.D.	mg/l	1.3	1.6	1.5	1.3	1.4	2	1.7	1.2	1.4	0.7			1.4	2	0.7
24	C.O.D.	mg/l	8	12	4	12	18	12	10	12	24	5			11.7	24	4
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	36	34	39	46	41	48	31		27	24			36.2	48	24
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
Cat.			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 - 2017-18

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											9.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU										0.9			0.9	0.9	0.9
5	Colour	PCS															
6	Odour	T. No															
7	pH	pH Unit										8.16			8.16	8.16	8.16
8	Sp. Conductivity	μMhos/cm.										168			168	168	168
9	T. Solids	mg/l										154			154	154	154
10	D. Solids	mg/l										135			135	135	135
11	S. Solids	mg/l										19			19	19	19
12	Amm. Nitrogen	mg/l										BDL			BDL	BDL	BDL
13	Nitrite Nitrogen	mg/l										BDL			BDL	BDL	BDL
14	Nitrate Nitrogen	mg/l										0.38			0.38	0.38	0.38
15	Phosphate (PO ₄)	mg/l										BDL			BDL	BDL	BDL
16	Chloride	mg/l										6.93			6.93	6.93	6.93
17	Sulphate (SO ₄)	mg/l										19			19	19	19
18	T. Alkalinity	mg/l										72			72	72	72
19	T. Hardness	mg/l										100			100	100	100
20	CalciumHardness	mg/l										56			56	56	56
21	Magnesium H.	mg/l										44			44	44	44
22	D. Oxygen	mg/l										9.3			9.3	9.3	9.3
23	B.O.D.	mg/l										0.8			0.8	0.8	0.8
24	C.O.D.	mg/l										3.52			3.52	3.52	3.52
25	Sodium	mg/l															
26	Potassium	mg/l											-	-			
27	T. Coliform	MPN/100ml										27			27	27	27
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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											9.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU										4			4.0	4	4
5	Colour	PCS															
6	Odour	T. No															
7	pH	pH Unit										8.07			8.1	8.07	8.07
8	Sp. Conductivity	µMhos/cm.										194			194.0	194	194
9	T. Solids	mg/l										198			198.0	198	198
10	D. Solids	mg/l										176			176.0	176	176
11	S. Solids	mg/l										22			22.0	22	22
12	Amm. Nitrogen	mg/l										0.2			0.2	0.2	0.2
13	Nitrite Nitrogen	mg/l										0.2			0.2	0.2	0.2
14	Nitrate Nitrogen	mg/l										0.5			0.5	0.5	0.5
15	Phosphate (PO ₄)	mg/l										BDL					
16	Chloride	mg/l										10			10.0	10	10
17	Sulphate (SO ₄)	mg/l										5.5			5.5	5.5	5.5
18	T. Alkalinity	mg/l										68			68.0	68	68
19	T. Hardness	mg/l										62			62.0	62	62
20	CalciumHardness	mg/l										50			50.0	50	50
21	Magnesium H.	mg/l										12			12.0	12	12
22	D. Oxygen	mg/l										7.7			7.7	7.7	7.7
23	B.O.D.	mg/l										1.5			1.5	1.5	1.5
24	C.O.D.	mg/l										4.4			4.4	4.4	4.4
25	Sodium	mg/l															
26	Potassium	mg/l										-		-			
27	T. Coliform	MPN/100ml										47			47.0	47	47
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Description of Sampling Station: 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		7.4.17	13.5.17	21.6.17	4.7.17	4.8.17	4.5.17	07.10.17	10.11.17	--	1.1.18					
2	Appearance		--	--	--	--	--	--	--	--	--	--					
3	Temperature	oC	--	--	--	--	--	--	--	--	--	--					
4	Turbidity	NTU	1.3	1	1	6	8	3	6	5	2	3.7			3.7	8	1
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	--	--	--					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	--	--	--					
7	pH	pH Unit	7.78	7.21	7.63	7.26	8.38	7.14	8.31	8.33	8.31	7.93			7.8	8.38	7.14
8	Sp. Conductivity	µMhos/cm.	260	366	200	348	330	362	360	370	268	250			311.4	370	200
9	T. Solids	mg/l	228	318	186	348	368	354	382	358	258	268			306.8	382	186
10	D. Solids	mg/l	212	279	162	296	312	306	358	358	220	244			274.7	358	162
11	S. Solids	mg/l	16	39	24	52	56	48	24	28	38	24			34.9	56	16
12	Amm. Nitrogen	mg/l	0.4	0.2	0.42	0.8	0.44	0.8	0.42	0.44	0.32	0.04			0.4	0.8	0.04
13	Nitrite Nitrogen	mg/l	0.5	0.5	0.71	0.1	0.15	0.1	0.34	0.34	0.06	0.3			0.3	0.71	0.06
14	Nitrate Nitrogen	mg/l	BDL	0.8	0.13	1.34	0.24	1.34	0.5	0.38	0.05	0.36			0.6	1.34	0.05
15	Phosphate (PO ₄)	mg/l	BDL	0.03	0.6	7.7	7.2	0.057	0.112	0.112	0.1	0.11			1.8	7.7	0.03
16	Chloride	mg/l	12	12.49	6.93	296	17.49	19.99	14.99	15	12.49	12.49			42.0	296	6.93
17	Sulphate (SO ₄)	mg/l	6.25	6.4	2.7	5.4	7.2	5.4	10	10	11	11			7.5	11	2.7
18	T. Alkalinity	mg/l	12	14	8	18	10	22	8	8	15	156			27.1	156	8
19	T. Hardness	mg/l	132	56	76	76	156	82	132	136	60	124			103.0	156	56
20	CalciumHardness	mg/l	84	42	48	52	124	54	104	108	45	32			69.3	124	32
21	Magnesium H.	mg/l	48	14	28	26	32	28	28	28	15	32			27.9	48	14
22	D. Oxygen	mg/l	7.5	7.9	7.8	7.7	7.2	7.5	7.2	7.4	7.7	7.4			7.5	7.9	7.2
23	B.O.D.	mg/l	1.2	1.2	1.2	1.5	1.8	1.6	2	1.6	1.4	1.4			1.5	2	1.2
24	C.O.D.	mg/l	8	12	10	16	16	16	16	16	12	24			14.6	24	8
25	Sodium	mg/l	--	--	--	--	--	--	--	--	--	--					
26	Potassium	mg/l	--	--	--	--	--	--	--	--	--	--					
27	T. Coliform	MPN/100ml	40	39	41	39	47	46	46	29	39	27			39.3	47	27
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--	--	--	--					
29	T.K.N.	mg/l	--	--	--	--	--	--	--	--	--	--					
Cat.			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 - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada S.H 44 near road bridge Near Jhikoli Vill. Narsingpur

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											23.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU										1.5			1.5	1.5	1.5
5	Colour	PCS															
6	Odour	T. No															
7	pH	pH Unit										7.88			7.9	7.88	7.88
8	Sp. Conductivity	µMhos/cm.										222			222.0	222	222
9	T. Solids	mg/l										199			199.0	199	199
10	D. Solids	mg/l										178			178.0	178	178
11	S. Solids	mg/l										21			21.0	21	21
12	Amm. Nitrogen	mg/l										BDL					
13	Nitrite Nitrogen	mg/l										BDL					
14	Nitrate Nitrogen	mg/l										0.43			0.4	0.43	0.43
15	Phosphate (PO ₄)	mg/l										0.4			0.4	0.4	0.4
16	Chloride	mg/l										12.87			12.9	12.87	12.87
17	Sulphate (SO ₄)	mg/l										3.41			3.4	3.41	3.41
18	T. Alkalinity	mg/l										88			88.0	88	88
19	T. Hardness	mg/l										62			62.0	62	62
20	CalciumHardness	mg/l										34			34.0	34	34
21	Magnesium H.	mg/l										28			28.0	28	28
22	D. Oxygen	mg/l										7.8			7.8	7.8	7.8
23	B.O.D.	mg/l										0.5			0.5	0.5	0.5
24	C.O.D.	mg/l										3.52			3.5	3.52	3.52
25	Sodium	mg/l															
26	Potassium	mg/l												-			
27	T. Coliform	MPN/100ml										34			34.0	34	34
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-2018

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		19.04.17	3.5.17	24.6.17	12.7.17	28.08.17	04.09.17	4.10.17	30.11.17	11.12.17	5.1.18			-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Turbid	Sl. Turbid	Clear	Clear	Clear	Clear	Clear			-	-	-
3	Temperature	oC	-	28	29	23	24	23	26	18	20 °C	18			23.6	29.0	18.0
4	Turbidity	NTU	8	10	10	34	32	10	-	-	-			17.3	34.0	8.0	
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	7.96	7.78	7.82	7.74	7.68	7.58	7.69	8.23	8.47	8.38			7.9	8.5	7.6
8	Sp. Conductivity	µMhos/cm.	254	252	256	250	254	252	309	319	305	286			273.7	319.0	250.0
9	T. Solids	mg/l	222	228	230	448	458	218	304	312	140	151			271.1	458.0	140.0
10	D. Solids	mg/l	214	218	220	214	222	210	294	300	110	102			210.4	300.0	102.0
11	S. Solids	mg/l	8	10	10	234	236	8	10	12	30	49			60.7	236.0	8.0
12	Amm. Nitrogen	mg/l	0.018	0.020	0.025	0.015	0.02	0.01	BDL	BDL	0.005	0.11			0.0	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.25	0.051			0.2	0.3	0.1
14	Nitrate Nitrogen	mg/l	0.16	0.15	0.20	0.30	0.12	0.15	1.1	1.1	0.5	1.5			0.5	1.5	0.1
15	Phosphate (PO ₄)	mg/l	0.2	0.4	0.5	0.3	0.4	0.02	0.5	0.726	-				0.4	0.7	0.0
16	Chloride	mg/l	26.99	27.99	26.99	25.07	26.63	23.65	17.73	16.75	27.86	14			23.4	28.0	14.0
17	Sulphate (SO ₄)	mg/l	2.6	2.5	2.6	2.4	2.5	2.3	6.25	6.25	7.0	5.25			4.0	7.0	2.3
18	T. Alkalinity	mg/l	130	132	134	130	132	128	128	138	136	160			134.8	160.0	128.0
19	T. Hardness	mg/l	116	120	122	116	118	114	116	110	138	160			123.0	160.0	110.0
20	CalciumHardness	mg/l	94	96	98	94	96	92	160	62	110	108			101.0	160.0	62.0
21	Magnesium H.	mg/l	22	24	24	22	24	22	44	48	28	52			31.0	52.0	22.0
22	D. Oxygen	mg/l	7.9	7.7	7.6	7.8	7.8	7.8	8.4	8.7	8.2	8.6			8.0	8.7	7.6
23	B.O.D.	mg/l	1.3	1.4	1.5	1.4	1.3	1.4	1.3	1.4	1.0	1.8			1.4	1.8	1.0
24	C.O.D.	mg/l	9.88	9.68	19.36	19.36	9	10	10	9.6	19.2	9.6			12.6	19.4	9.0
25	Sodium	mg/l	13.23	14.21	14.34	13.42	13.21	13.46	9.46	9.45	8.0	7			11.6	14.3	7.0
26	Potassium	mg/l	1.03	1.04	1.04	1.02	1.01	1.02	1.36	1.48	1.0	1			1.1	1.5	1.0
27	T. Coliform	MPN/100ml	34	40	47	280	150	34	34	31	Results discarded *	<2			81.3	280.0	31.0
28	F. Coliform	MPN/100ml	<2	<2	<2	6.00	<2	<2	<2	<2	-	0.2			3.1	6.0	0.2
29	Boron	mg/l	-	-	-	-	-	-	-	-	0.2				0.2	0.2	0.2
30	S.A.R.	meq/l	0.13	-	-	-	-	-							0.1	0.1	0.1
Cat.			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 - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada At U/S Of Vill.Jait

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											10.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU															
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										7.94			7.9	7.94	7.94
8	Sp. Conductivity	µMhos/cm.										258			258.0	258	258
9	T. Solids	mg/l										174			174.0	174	174
10	D. Solids	mg/l										156			156.0	156	156
11	S. Solids	mg/l										18			18.0	18	18
12	Amm. Nitrogen	mg/l										BDL					
13	Nitrite Nitrogen	mg/l										BDL					
14	Nitrate Nitrogen	mg/l										0.15			0.2	0.15	0.15
15	Phosphate (PO ₄)	mg/l										0.099			0.1	0.099	0.099
16	Chloride	mg/l										13.99			14.0	13.99	13.99
17	Sulphate (SO ₄)	mg/l										4			4.0	4	4
18	T. Alkalinity	mg/l										114			114.0	114	114
19	T. Hardness	mg/l										102			102.0	102	102
20	CalciumHardness	mg/l										90			90.0	90	90
21	Magnesium H.	mg/l										12			12.0	12	12
22	D. Oxygen	mg/l										8.4			8.4	8.4	8.4
23	B.O.D.	mg/l										1			1.0	1	1
24	C.O.D.	mg/l										19.04			19.0	19.04	19.04
25	Sodium	mg/l															
26	Potassium	mg/l												-			
27	T. Coliform	MPN/100ml										21			21.0	21	21
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada At D/S Of Vill.Jait

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											10.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU															
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										8.09			8.1	8.09	8.09
8	Sp. Conductivity	µMhos/cm.										274			274.0	274	274
9	T. Solids	mg/l										192			192.0	192	192
10	D. Solids	mg/l										168			168.0	168	168
11	S. Solids	mg/l										24			24.0	24	24
12	Amm. Nitrogen	mg/l										0.04			0.0	0.04	0.04
13	Nitrite Nitrogen	mg/l										0.07			0.1	0.07	0.07
14	Nitrate Nitrogen	mg/l										0.5			0.5	0.5	0.5
15	Phosphate (PO ₄)	mg/l										0.452			0.5	0.452	0.452
16	Chloride	mg/l										17.99			18.0	17.99	17.99
17	Sulphate (SO ₄)	mg/l										8.5			8.5	8.5	8.5
18	T. Alkalinity	mg/l										124			124.0	124	124
19	T. Hardness	mg/l										116			116.0	116	116
20	CalciumHardness	mg/l										98			98.0	98	98
21	Magnesium H.	mg/l										18			18.0	18	18
22	D. Oxygen	mg/l										6.8			6.8	6.8	6.8
23	B.O.D.	mg/l										1.3			1.3	1.3	1.3
24	C.O.D.	mg/l										28.56			28.6	28.56	28.56
25	Sodium	mg/l															
26	Potassium	mg/l												-			
27	T. Coliform	MPN/100ml										40			40.0	40	40
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-2018

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		19.04.17	03.05.17	26.06.17	12.7.17	28.08.17	04.09.17	04.10.17	24.11.17	11.12.17	5.1.18			-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Turbid	Sl. Turbid	Clear	clear	Clear	Clear	Clear			-	-	-
3	Temperature	oC	-	-	28	24	23	23	26	19	19 °C	20			23.29	28.0	19.0
4	Turbidity	NTU	6	8	8	34	32	10	10	-	-				15.43	34.0	6.0
5	Colour	PCS	C.L	C.L	C.L	Sl muddy	Sl.muddy	C.L	C.L	C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L					
7	pH	pH Unit	8.10	7.84	7.92	7.78	7.82	7.62	7.68	8.36	8.4	8.25			7.98	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	246	248	252	244	254	246	242	312	332	317			269.30	332.0	242.0
9	T. Solids	mg/l	204	206	212	446	446	226	170	312	173	151			254.60	446.0	151.0
10	D. Solids	mg/l	196	198	202	208	212	216	162	302	153	109			195.80	302.0	109.0
11	S. Solids	mg/l	8	8	10	238	234	10	8	10	20	42			58.80	238.0	8.0
12	Amm. Nitrogen	mg/l	0.02	0.03	0.04	0.02	0.01	0.04	BDL	BDL	0.008	BDL			0.02	0.0	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.25	0.05			0.15	0.3	0.1
14	Nitrate Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3	0.7	1.5	2.5			1.93	3.0	0.7
15	Phosphate (PO ₄)	mg/l	0.11	0.12	0.15	0.10	0.2	0.25	BDL	0.495	-				0.20	0.5	0.1
16	Chloride	mg/l	25.62	26.99	27.96	24.99	22.66	23.65	24.99	15.99	29	20.4			24.23	29.0	16.0
17	Sulphate (SO ₄)	mg/l	2.9	3.0	3.5	2.5	3	3.6	8.5	6.5	20	6.5			6.00	20.0	2.5
18	T. Alkalinity	mg/l	132	134	138	128	130	132	134	130	158	150			136.60	158.0	128.0
19	T. Hardness	mg/l	124	124	130	122	128	134	130	134	164	180			137.00	180.0	122.0
20	Calcium Hardness	mg/l	104	106	110	104	108	112	106	80	138	130			109.80	138.0	80.0
21	Magnesium H.	mg/l	20	18	20	18	20	22	24	54	26	50			27.20	54.0	18.0
22	D. Oxygen	mg/l	7.7	7.8	7.7	7.9	7.8	7.8	7.8	8.8	8	8.6			7.99	8.8	7.7
23	B.O.D.	mg/l	1.4	1.3	1.4	1.4	1.5	1.3	1.4	1.4	2.6	1.6			1.53	2.6	1.3
24	C.O.D.	mg/l	9.88	10.0	9.68	9.68	9.2	10	10	9.6	19.2	9.6			10.68	19.2	9.2
25	Sodium	mg/l	14.32	14.42	15.12	14.21	14.26	15.26	16.14	9.26	8	8			12.90	16.1	8.0
26	Potassium	mg/l	1.02	1.03	1.04	1.01	1.02	1.01	1.2	1.42	1	1			1.08	1.4	1.0
27	T. Coliform	MPN/100ml	34	40	34	280	230	36	34	33	Results.discarded *	15			81.78	280.0	15.0
28	F. Coliform	MPN/100ml	<2	<2	<2	4	<2	<2	<2	<2	-	<2			4.00	4.0	4.0
29	Fluoride	mg/l	-	-	-	-	-	-	-	0.3	-				0.30	0.3	0.3
30	Boron	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.2	0.2	0.2			0.18	0.18	0.18
31	Fixed Dissolve Solid	mg/l	-	-	-	-	-	-	-	182					182.00	182.0	182.0
32	S.A.R.	meq/l	0.18	-	-	-	-	-	-	-	-				0.18	0.2	0.2
Cat.			A	A	A	B	B	A	A	A	B	A					

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada At U/S befor Confluence Of River Tawa near Bandrabhan

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											10.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU															
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										8.06			8.1	8.06	8.06
8	Sp. Conductivity	µMhos/cm.										294			294.0	294	294
9	T. Solids	mg/l										216			216.0	216	216
10	D. Solids	mg/l										184			184.0	184	184
11	S. Solids	mg/l										32			32.0	32	32
12	Amm. Nitrogen	mg/l										0.07			0.1	0.07	0.07
13	Nitrite Nitrogen	mg/l										0.12			0.1	0.12	0.12
14	Nitrate Nitrogen	mg/l										0.9			0.9	0.9	0.9
15	Phosphate (PO ₄)	mg/l										0.792			0.8	0.792	0.792
16	Chloride	mg/l										23.99			24.0	23.99	23.99
17	Sulphate (SO ₄)	mg/l										13			13.0	13	13
18	T. Alkalinity	mg/l										136			136.0	136	136
19	T. Hardness	mg/l										130			130.0	130	130
20	CalciumHardness	mg/l										106			106.0	106	106
21	Magnesium H.	mg/l										24			24.0	24	24
22	D. Oxygen	mg/l										7.1			7.1	7.1	7.1
23	B.O.D.	mg/l										1.6			1.6	1.6	1.6
24	C.O.D.	mg/l										38.08			38.1	38.08	38.08
25	Sodium	mg/l															
26	Potassium	mg/l												-			
27	T. Coliform	MPN/100ml										41			41.0	41	41
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

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

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											10.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU															
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										8.19			8.2	8.19	8.19
8	Sp. Conductivity	µMhos/cm.										282			282.0	282	282
9	T. Solids	mg/l										204			204.0	204	204
10	D. Solids	mg/l										176			176.0	176	176
11	S. Solids	mg/l										28			28.0	28	28
12	Amm. Nitrogen	mg/l										0.05			0.1	0.05	0.05
13	Nitrite Nitrogen	mg/l										0.09			0.1	0.09	0.09
14	Nitrate Nitrogen	mg/l										0.8			0.8	0.8	0.8
15	Phosphate (PO ₄)	mg/l										0.594			0.6	0.594	0.594
16	Chloride	mg/l										20.99			21.0	20.99	20.99
17	Sulphate (SO ₄)	mg/l										10.5			10.5	10.5	10.5
18	T. Alkalinity	mg/l										130			130.0	130	130
19	T. Hardness	mg/l										122			122.0	122	122
20	CalciumHardness	mg/l										102			102.0	102	102
21	Magnesium H.	mg/l										20			20.0	20	20
22	D. Oxygen	mg/l										7.4			7.4	7.4	7.4
23	B.O.D.	mg/l										1.1			1.1	1.1	1.1
24	C.O.D.	mg/l										28.56			28.6	28.56	28.56
25	Sodium	mg/l															
26	Potassium	mg/l															
27	T. Coliform	MPN/100ml										26			26.0	26	26
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

REGIONAL OFFICE, MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-2018

Natural Water Resource : River Narmada.

Description of Sampling Station : River Narmada at near Budhnighat, 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		19.04.17	3.5.17	24.6.17	12.7.17	28.08.2017	04.09.2017	NA	24.11.17	11.12.17	5.1.18			-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Turbid	Sl. Turbid	Clear		Clear	Clear	Clear			-	-	-
3	Temperature	oC	27	28	29	23	24	23		23	20	19			24.0	29.0	19.0
4	Turbidity	NTU	10	10	10	36	32	8		-	16	-			17.4	36.0	8.0
5	Colour	PCS	C.L	C.L	C.L	C.L	C.L	C.L		C.L	C.L	C.L					
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L		O.L	O.L	O.L					
7	pH	pH Unit	8.01	7.94	7.82	7.78	7.68	7.58		8.37	8.09	8.3			8.0	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	246	252	254	248	254	246		317	302	330			272.1	330.0	246.0
9	T. Solids	mg/l	228	232	240	444	552	226		320	190	131			284.8	552.0	131.0
10	D. Solids	mg/l	218	222	228	212	218	216		312	145	80			205.7	312.0	80.0
11	S. Solids	mg/l	10	10	12	232	234	10		8	45	51			68.0	234.0	8.0
12	Amm. Nitrogen	mg/l	0.042	0.055	0.045	0.035	0.03	0.02		BDL	0.008	0.01			0.0	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL		BDL	0.32	0.05			0.2	0.3	0.1
14	Nitrate Nitrogen	mg/l	0.16	0.20	0.25	0.30	0.02	0.2		1.1	1.55	3			0.8	3.0	0.0
15	Phosphate (PO ₄)	mg/l	0.0	0.03	0.04	0.2	0.4	0.02		0.561	-				0.2	0.6	0.0
16	Chloride	mg/l	28.57	26.03	26.99	25.07	24.63	26.6		15.99	29	14			24.1	29.0	14.0
17	Sulphate (SO ₄)	mg/l	2.9	2.8	2.9	2.6	2.6	2.5		8.25	10	6.5			4.6	10.0	2.5
18	T. Alkalinity	mg/l	132	136	138	128	134	132		132	156	168			139.6	168.0	128.0
19	T. Hardness	mg/l	126	130	132	120	124	124		106	160	152			130.4	160.0	106.0
20	Calcium Hardness	mg/l	106	108	110	102	104	106		54	144	114			105.3	144.0	54.0
21	Magnesium H.	mg/l	20	22	22	18	20	18		52	16	38			25.1	52.0	16.0
22	D. Oxygen	mg/l	7.8	7.7	7.6	7.8	7.7	7.8		8.9	7.8	8.4			7.9	8.9	7.6
23	B.O.D.	mg/l	1.2	1.4	1.5	1.3	1.4	1.5		1.4	2.7	1.4			1.5	2.7	1.2
24	C.O.D.	mg/l	9.88	19.36	19.36	9.68	9.6	10		9.6	19.2	9.6			12.9	19.4	9.6
25	Sodium	mg/l	13.47	14.21	14.54	13.21	14.26	13.84		10.12	8	7			12.1	14.5	7.0
26	Potassium	mg/l	1.04	1.05	1.04	1.03	1.02	1.04		1.45	1	1			1.1	1.5	1.0
27	T. Coliform	MPN/100ml	40	47	46	210	150	40		33	Results discarded *	22			73.50	210.0	22.0
28	F. Coliform	MPN/100ml	<2	<2	<2	2.00	<2	<2		<2	-	<2			2.00	2.0	2.0
29	Boron	mg/l	-	-	-	-				0.2	0.2	0.2			0.2	0.2	0.2
30	S.A.R.	meq/l	0.18							-	-				0.2	0.2	0.2
Cat.			A	A	A	A	A	A		A	B	A					

Classification of River water based on IS - 2296 - 1992

Water Quality during Year - 2017-2018

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		19.04.17	03.05.17	26.06.17	12.7.17	26.08.17	04.09.17	04.10.17	24.11.17	12.12.17	5.1.18	-	-	-	-	-
2	Appearance		Clear	Clear	Clear	Sl.Turb.	Sl. Turbid	Clear	clear	Clear	Clear	Clear	-	-	-	-	-
3	Temperature	oC	-	28	29	23	24	24	26	24	20	19	-	-	24.11	29.0	19.0
4	Turbidity	NTU	8	8	10	30	34	8	12	-	-	-	-	-	15.71	34.0	8.0
5	Colour	PCS	C.L	C.L	C.L	Sl muddy	sl. Muddy	C.L	C.L	C.L	Sl.Turbid	C.L	-	-	-	-	-
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	-	-	-	-	-
7	pH	pH Unit	8.04	7.92	7.84	7.73	7.76	7.69	7.98	8.43	8.3	8.28	-	-	8.00	8.4	7.7
8	Sp. Conductivity	µMhos/cm.	252	256	262	230	246	238	286	319	347	312	-	-	274.80	347.0	230.0
9	T. Solids	mg/l	208	202	208	430	413	202	186	316	263	194	-	-	262.20	430.0	186.0
10	D. Solids	mg/l	198	194	198	198	188	192	178	306	213	157	-	-	202.20	306.0	157.0
11	S. Solids	mg/l	10	8	10	232	228	10	8	10	50	37	-	-	60.30	232.0	8.0
12	Amm. Nitrogen	mg/l	0.03	0.02	0.04	0.01	0.02	0.01	0.07	BDL	0.06	0.015	-	-	0.03	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	0.17	BDL	0.88	0.052	-	-	0.37	0.9	0.1
14	Nitrate Nitrogen	mg/l	3.0	2.0	1.5	1.02	1.04	1.02	3.45	1.5	5.2	3	-	-	2.27	5.2	1.0
15	Phosphate (PO ₄)	mg/l	0.014	0.013	0.015	0.02	0.25	0.01	BDL	0.429	-	-	-	-	0.11	0.4	0.0
16	Chloride	mg/l	26.60	27.99	28.92	23.99	23.65	24.63	23.99	31.53	38	23.21	-	-	27.25	38.0	23.2
17	Sulphate (SO ₄)	mg/l	3.0	2.0	2.0	1.8	1.6	1.5	6.25	10	25	8.25	-	-	6.14	25.0	1.5
18	T. Alkalinity	mg/l	136	134	138	132	128	130	124	134	192	180	-	-	142.80	192.0	124.0
19	T. Hardness	mg/l	126	132	138	126	130	134	112	148	178	160	-	-	138.40	178.0	112.0
20	CalciumHardness	mg/l	108	112	116	108	110	112	106	48	152	108	-	-	108.00	152.0	48.0
21	Magnesium H.	mg/l	18	20	22	18	20	22	18	100	26	52	-	-	31.60	100.0	18.0
22	D. Oxygen	mg/l	7.9	7.7	7.8	8.0	7.8	7.7	7.8	8.9	7	8.6	-	-	7.92	8.9	7.0
23	B.O.D.	mg/l	1.6	1.4	1.5	1.3	1.4	1.3	1.3	1.1	3	2.3	-	-	1.62	3.0	1.1
24	C.O.D.	mg/l	19.76	10.0	9.68	9.68	9.28	10	20	9.6	20	19.6	-	-	13.76	20.0	9.3
25	Sodium	mg/l	15.21	14.64	15.38	14.31	13.64	12.78	14.6	9.95	16	12	-	-	13.85	16.0	10.0
26	Potassium	mg/l	1.04	1.02	1.04	1.01	1.03	1.02	1.01	1.5	4	2	-	-	1.47	4.0	1.0
27	T. Coliform	MPN/100ml	40	50	34	240	130	34	33	38	Results.discarded *	36	-	-	70.56	240.0	33.0
28	F. Coliform	MPN/100ml	<2	<2	<2	2	<2	<2	<2	<2	-	<2	-	-	2.00	2.0	2.0
29	Fluoride	mg/l	-	-	-	-	-	-	-	1.02	-				1.02	1.0	1.0
30	Boron	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.6	0.6	-	-	0.60	0.6	0.6
31	Fixed Dissolve Solid	mg/l	-	-	-	-	-	-	-	168					168.00	168.0	168.0
32	S.A.R.	meq/l	0.21			-			-	-	-	-	-	-	0.21	0.21	0.21
Cat.			A	A	A	B	B	A	A	A	B	B			A	A	A

Water Quality during Year - 2017-18
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		19.04.17	03.05.17	26.06.17	12.7.17	28.08.17	04.09.17	04.10.17	24.11.17	12.12.17	5.1.18	-	-	-	-	-
2	Appearance		Clear	Clear	Clear	Sl.Turb.	Sl. Turbid	Clear	clear	Clear	Clear	Clear	-	-	-	-	-
3	Temperature	oC	-	-	28	23	24	23	25	24	19 °C	19	-	-	23.71	28.0	19.0
4	Turbidity	NTU	8	10	10	34	32	8	8	-	-	-	-	-	15.71	34.0	8.0
5	Colour	PCS	C.L	C.L	C.L	Sl muddy	sl. Muddy	C.L	C.L	C.L	C.L	C.L	-	-	-	-	-
6	Odour	T. No	O.L	O.L	O.L	OL	Odourless	O.L	O.L	O.L	O.L	O.L	-	-	-	-	-
7	pH	pH Unit	8.12	7.94	7.84	7.74	7.68	7.68	7.83	8.43	8.33	8.36	-	-	8.00	8.4	7.7
8	Sp. Conductivity	µMhos/cm.	248	252	256	248	244	252	282	317	320	324	-	-	274.30	324.0	244.0
9	T. Solids	mg/l	218	224	228	444	444	216	196	316	248	161	-	-	269.50	444.0	161.0
10	D. Solids	mg/l	210	214	218	212	218	208	188	304	190	131	-	-	209.30	304.0	131.0
11	S. Solids	mg/l	8	10	10	232	228	8	8	12	58	60	-	-	63.40	232.0	8.0
12	Amm. Nitrogen	mg/l	0.035	0.040	0.035	0.025	0.025	0.02	BDL	-	0.06	0.004	-	-	0.03	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	-	0.85	0.055	-	-	0.45	0.9	0.1
14	Nitrate Nitrogen	mg/l	0.16	0.15	0.20	0.10	0.15	0.25	0.25	-	5	3	-	-	1.03	5.0	0.1
15	Phosphate (PO ₄)	mg/l	0.24	0.26	0.30	0.20	0.25	0.35	1.01	-	-	-	-	-	0.37	1.0	0.2
16	Chloride	mg/l	27.59	26.99	27.96	23.99	22.66	24.63	19.99	54.20	34	20.14	-	-	28.22	54.2	20.0
17	Sulphate (SO ₄)	mg/l	1.9	1.8	2.1	1.6	1.8	2.2	5	-	22	8.25	-	-	5.18	22.0	1.6
18	T. Alkalinity	mg/l	132	136	238	128	134	138	126	138	200	172	-	-	154.20	238.0	126.0
19	T. Hardness	mg/l	118	122	230	124	124	130	128	140	184	160	-	-	146.00	230.0	118.0
20	CalciumHardness	mg/l	100	102	108	106	104	112	110	48	150	104	-	-	104.40	150.0	48.0
21	Magnesium H.	mg/l	18	20	22	18	20	18	18	92	34	56	-	-	31.60	92.0	18.0
22	D. Oxygen	mg/l	7.6	7.8	7.7	7.8	7.8	7.7	7.9	8.8	6.7	7.8	-	-	7.76	8.8	6.7
23	B.O.D.	mg/l	1.4	1.5	1.6	1.5	1.4	1.3	1.3	1.3	3	2.3	-	-	1.66	3.0	1.3
24	C.O.D.	mg/l	9.88	20.0	19.36	9.68	9.6	10	10	19.2	20	19.6	-	-	14.73	20.0	9.6
25	Sodium	mg/l	14.31	15.21	15.46	14.32	15.26	14.84	13.4	9.76	16	12	-	-	14.06	16.0	9.8
26	Potassium	mg/l	1.02	1.03	1.04	1.02	1.02	1.02	1.01	1.41	2	2	-	-	1.26	2.0	1.0
27	T. Coliform	MPN/100ml	40	50	50	220	230	31	40	40	Results discarded *	40	-	-	82.33	230.0	31.0
28	F. Coliform	MPN/100ml	<2	<2	<2	4	<2	<2	<2	<2	-	<2	-	-	4.00	4.0	4.0
29	Fluoride	mg/l	-	-	-	-	-	-	-	0.75					0.75	0.8	0.8
30	Boron	mg/l	0.02	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.6	0.6	-	-	0.41	0.6	0.0
31	Fixed Dissolve Solid	mg/l	-	-	-	-	-	-	-	168					168.00	168.0	168.0
32	S.A.R.	meq/l	0.20	-	-	-		-	-	-	-	-	-	-	0.20	0.20	0.20
Category			A	A	A	B	B	A	A	A	B	B			A	A	A

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

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

S.N	Characteristic	Unit	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		19.04.17	02.05.17	26.06.2017	12.7.17	28.08.2017	04.09.17	04.10.17	24.11.17	11.12.17	5.1.18	-	-	-	-	-
2	Appearance		Clear	Clear	Clear	Sl.Turbid	Sl. Turbid	Clear	clear	Clear	Clear	Clear	-	-	-	-	-
3	Temperature	oC	-	-	28	23	22	23	25	24	21 °C	19	-	-	23.43	28.0	19.0
4	Turbidity	NTU	8	10	10	36	32	12	8	-	-	-	-	-	16.57	36.0	8.0
5	Colour	PCS	C.L	C.L	C.L	Sl muddy	sl. Muddy	C.L	C.L	C.L	Sl. Turbid	C.L	-	-	-	-	-
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	-	-	-	-	-
7	pH	pH Unit	8.26	7.89	7.78	7.69	7.86	7.62	7.84	8.38	8.41	8.33	-	-	8.01	8.4	7.6
8	Sp. Conductivity	µMhos/cm.	262	264	268	254	256	258	284	306	340	333	-	-	282.50	340.0	254.0
9	T. Solids	mg/l	226	228	232	446	448	232	178	308	208	297	-	-	280.30	448.0	178.0
10	D. Solids	mg/l	216	218	222	212	216	220	168	298	148	247	-	-	216.50	298.0	148.0
11	S. Solids	mg/l	10	10	10	234	232	12	10	10	60	20	-	-	60.80	234.0	10.0
12	Amm. Nitrogen	mg/l	0.042	0.046	0.050	0.030	0.025	0.04	BDL	0.145	0.008	0.012	-	-	0.04	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.06	0.3	0.054	-	-	0.14	0.3	0.1
14	Nitrate Nitrogen	mg/l	0.21	0.23	1.5	1.01	1.02	1.06	3.9	1.8	1.58	3	-	-	1.53	3.9	0.2
15	Phosphate (PO ₄)	mg/l	2.2	2.1	2.40	1.90	1.8	22	BDL	0.66	-	-	-	-	4.72	22.0	0.7
16	Chloride	mg/l	28.57	27.99	28.92	25.99	24.64	24.64	18.99	14.99	32.5	23.2	-	-	25.04	32.5	15.0
17	Sulphate (SO ₄)	mg/l	2.2	2.1	2.4	2.0	2	2.8	11.25	7.5	12	5.25	-	-	4.95	12.0	2.0
18	T. Alkalinity	mg/l	138	140	144	138	134	136	118	136	176	176	-	-	143.60	176.0	118.0
19	T. Hardness	mg/l	124	124	130	120	126	116	124	106	180	160	-	-	131.00	180.0	106.0
20	CalciumHardness	mg/l	102	104	108	102	1.6	114	102	60	140	94	-	-	92.76	140.0	1.6
21	Magnesium H.	mg/l	22	20	22	18	20	22	22	45	40	66	-	-	29.70	66.0	18.0
22	D. Oxygen	mg/l	7.8	7.7	7.7	7.8	7.7	7.8	7.6	8.9	7.9	8.5	-	-	7.94	8.9	7.6
23	B.O.D.	mg/l	1.6	1.7	1.6	1.4	1.5	1.4	1.5	1.3	2.6	2.4	-	-	1.70	2.6	1.3
24	C.O.D.	mg/l	19.76	20	19.36	9.68	9.6	20	20	9.6	19.6	19.2	-	-	16.68	20.0	9.6
25	Sodium	mg/l	15.38	15.49	15.52	14.27	14.36	14.18	15.7	9.91	12	18	-	-	14.48	18.0	9.9
26	Potassium	mg/l	1.06	1.05	1.06	1.02	1.03	1.08	1.6	1.46	1	1	-	-	1.14	1.6	1.0
27	T. Coliform	MPN/100ml	50	34	50	430	230	36	40	41	Results.discarded *	40	-	-	105.67	430.0	34.0
28	F. Coliform	MPN/100ml	<2	<2	<2	10	<2	<2	<2	<2	-	<2	-	-	10.00	10.0	10.0
29	Fluoride	mg/l	-	-	-	-	-	-	-	0.2	-	-	-	-	0.20	0.2	0.2
30	Boron	mg/l	0.01	BDL	BDL	BDL	BDL	BDL	BDL	0.6	0.6	0.2	-	-	0.35	0.6	0.0
31	Fixed Dissolve Solid	mg/l	-	-	-	-	-	-	-	170	-	-	-	-	170.00	170.0	170.0
32	S.A.R.	meq/l	0.20	-	-	-	-	-	-	-	-	-	-	-	0.20	0.20	0.20
Category			A	A	A	B	B	A	A	A	B	B			A	A	A

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada At D/S of Textile unit Vill. Holipura Budni Distt.Sehore

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											10.1.18					
2	Appearance																
3	Temperature	oC															
4	Turbidity	NTU															
5	Colour	PCS										C.L					
6	Odour	T. No										O.L					
7	pH	pH Unit										8.27			8.3	8.27	8.27
8	Sp. Conductivity	µMhos/cm.										328			328.0	328	328
9	T. Solids	mg/l										248			248.0	248	248
10	D. Solids	mg/l										206			206.0	206	206
11	S. Solids	mg/l										42			42.0	42	42
12	Amm. Nitrogen	mg/l										0.08			0.1	0.08	0.08
13	Nitrite Nitrogen	mg/l										0.14			0.1	0.14	0.14
14	Nitrate Nitrogen	mg/l										1.1			1.1	1.1	1.1
15	Phosphate (PO ₄)	mg/l										0.924			0.9	0.924	0.924
16	Chloride	mg/l										28.99			29.0	28.99	28.99
17	Sulphate (SO ₄)	mg/l										14.5			14.5	14.5	14.5
18	T. Alkalinity	mg/l										148			148.0	148	148
19	T. Hardness	mg/l										142			142.0	142	142
20	CalciumHardness	mg/l										114			114.0	114	114
21	Magnesium H.	mg/l										28			28.0	28	28
22	D. Oxygen	mg/l										6.9			6.9	6.9	6.9
23	B.O.D.	mg/l										2			2.0	2	2
24	C.O.D.	mg/l										38.08			38.1	38.08	38.08
25	Sodium	mg/l															
26	Potassium	mg/l															
27	T. Coliform	MPN/100ml										47			47.0	47	47
28	F. Coliform	MPN/100ml															
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : Rever Narmada

Description of Sampling

Narmada befor Confluence of River Jamner Vill. Nemawar near

Station:

S.No	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											15.1.18					
2	Appearance																
3	Temperature	oC										25			25.0	25	25
4	Turbidity	NTU										2.6			2.6	2.6	2.6
5	Colour	PCS										C.L					
6	Odour	T. No															
7	pH	pH Unit										8.02			8.0	8.02	8.02
8	Sp. Conductivity	µMhos/cm.										285			285.0	285	285
9	T. Solids	mg/l										200			200.0	200	200
10	D. Solids	mg/l										190			190.0	190	190
11	S. Solids	mg/l										10			10.0	10	10
12	Amm. Nitrogen	mg/l										0.08			0.1	0.08	0.08
13	Nitrite Nitrogen	mg/l										0.0014			0.0	0.0014	0.0014
14	Nitrate Nitrogen	mg/l										0.758			0.8	0.758	0.758
15	Phosphate (PO ₄)	mg/l										BDL					
16	Chloride	mg/l										16			16.0	16	16
17	Sulphate (SO ₄)	mg/l										10.16			10.2	10.16	10.16
18	T. Alkalinity	mg/l										180			180.0	180	180
19	T. Hardness	mg/l										146			146.0	146	146
20	CalciumHardness	mg/l										70			70.0	70	70
21	Magnesium H.	mg/l										76			76.0	76	76
22	D. Oxygen	mg/l										7			7.0	7	7
23	B.O.D.	mg/l										2			2.0	2	2
24	C.O.D.	mg/l										14			14.0	14	14
25	Sodium	mg/l										11.4			11.4	11.4	11.4
26	Potassium	mg/l										0.9	-		0.9	0.9	0.9
27	T. Coliform	MPN/100ml										50			50.0	50	50
28	F. Coliform	MPN/100ml										2			2.0	2	2
29	T.K.N.	mg/l															

CATEGORY

A

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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		23.4.17	12.5.17	12.5.17	02.7.17	21.8.17	28.9.17	9.10.17	6.11.17	16.12.17	15.1.18			-	-	-
2	Appearance		--	--	--		--	--	--	--					-	-	-
3	Temperature	oC	--	24	24	--	24	--	23	23	25	25			24.0	25.0	23.0
4	Turbidity	NTU	1.8	1.4	2.8	2.6	3.8	3.5	2.6	1.94	3	2.8			2.6	3.8	1.4
5	Colour	PCS	5	CL	5	CL	5	--	5	Clear	Clear	5			5.0	5	5
6	Odour	T. No	--	--	--	--	--	--	--	--	--						
7	pH	pH Unit	7.60	7.30	7.64	7.76	8.08	7.72	7.82	7.82	8.23	7.36			7.7	8.23	7.3
8	Sp. Conductivity	µMhos/cm.	396	342	386	292	303	290	316	318	298	294			323.5	396	290
9	T. Solids	mg/l	278	240	268	200	208	206	228	230	202	206			226.6	278	200
10	D. Solids	mg/l	268	232	256	194	198	192	218	218		196			219.1	268	192
11	S. Solids	mg/l	10	8	12	6	10	14	10	12	10	10			10.2	14	6
12	Amm. Nitrogen	mg/l	0.094	0.076	0.14	0.07	0.086	0.082	0.082	0.41	0.072	0.076			0.1	0.41	0.07
13	Nitrite Nitrogen	mg/l	0.002	0.002	0.0018	0.02	0.009	0.008	0.0011	0.007	0.022	0.0011			0.0	0.022	0.0011
14	Nitrate Nitrogen	mg/l	0.754	0.744	0.726	1.523	0.486	0.456	0.724	0.894	1.624	0.612			0.9	1.62	0.456
15	Phosphate (PO ₄)	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.031	BDL	BDL			0.0	0.031	0.031
16	Chloride	mg/l	22	20	26	10	12	14	38	39	15	14			21.0	39.00	10
17	Sulphate (SO ₄)	mg/l	10.6	10.0	10.2	7.39	10.2	12.2	8.16	15.6	8.4	9.342			10.2	15.60	7.39
18	T. Alkalinity	mg/l	110	106	100	120	92	128	90	118	128	180			117.2	180	90
19	T. Hardness	mg/l	170	166	158	126	136	140	130	144	132	144			144.6	170	126
20	CalciumHardness	mg/l	108	106	90	66	90	92	70	86	68	80			85.6	108	66
21	Magnesium H.	mg/l	62	60	68	60	46	48	60	58	64	64			59.0	68	46
22	D. Oxygen	mg/l	7.1	7	7.2	7	6.9	7	6.7	6.7	7	7			7.0	7.2	6.7
23	B.O.D.	mg/l	2	2	2.0	1.6	1.8	2	1.8	1.9	1.8	1.8			1.9	2	1.6
24	C.O.D.	mg/l	16	13	10.5	9	8	12	10	14	10	12			11.5	16	8
25	Sodium	mg/l	14.4	12.4	11.3	10.2	12.6	14.6	14.2	18.8	12.2	10.4			13.1	18.8	10.2
26	Potassium	mg/l	0.9	0.8	0.6	0.5	BDL	BDL	0.8	1.1	0.6	0.8			0.76	1.1	0.5
27	T. Coliform	MPN/100ml	50	40	50	34	40	40	34	50	34	50			42.20	50	34
28	F. Coliform	MPN/100ml	6	4	7.0	4	4	4	4	9	4	4			5.00	9	4
29	T.K.N.	mg/l	1.68	1.68	1.12	2.24	1.4	2.52	1.4	1.68	2.52				1.8	2.52	1.12
30	S.A.R.	mg/l										0.37	-	-	0.37	0.4	0.4
Cat.			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 - 2017-18

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											15.1.18			-	-	-	
2	Appearance											-			-	-	-	
3	Temperature	oC										-						
4	Turbidity	NTU										2.5			2.5	2.5	2.5	
5	Colour	PCS										C.L.						
6	Odour	T. No										-						
7	pH	pH Unit										8.28			8.3	8.28	8.28	
8	Sp. Conductivity	μMhos/cm.										285			285.0	285	285	
9	T. Solids	mg/l										200			200.0	200	200	
10	D. Solids	mg/l										190			190.0	190	190	
11	S. Solids	mg/l										10			10.0	10	10	
12	Amm. Nitrogen	mg/l										0.076			0.1	0.076	0.076	
13	Nitrite Nitrogen	mg/l										0.0012			0.0	0.0012	0.0012	
14	Nitrate Nitrogen	mg/l										0.812			0.8	0.81	0.812	
15	Phosphate (PO ₄)	mg/l										BDL						
16	Chloride	mg/l										13			13.0	13.00	13	
17	Sulphate (SO ₄)	mg/l										12.4			12.4	12.40	12.4	
18	T. Alkalinity	mg/l										170			170.0	170	170	
19	T. Hardness	mg/l										148			148.0	148	148	
20	CalciumHardness	mg/l										80			80.0	80	80	
21	Magnesium H.	mg/l										68			68.0	68	68	
22	D. Oxygen	mg/l										7			7.0	7	7	
23	B.O.D.	mg/l										1.8			1.8	1.8	1.8	
24	C.O.D.	mg/l										13			13.0	13	13	
25	Sodium	mg/l										13.6			13.6	13.6	13.6	
26	Potassium	mg/l										0.9			0.90	0.9	0.9	
27	T. Coliform	MPN/100ml										40			40.00	40	40	
28	F. Coliform	MPN/100ml										4			4.00	4	4	
29	T.K.N.	mg/l																
30	S.A.R.	mg/l											-	-				
Cat.												A						

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

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.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling											14.1.18			-	-	-
2	Appearance											Clear			-	-	-
3	Temperature	oC										21			21.0	21.0	21.0
4	Turbidity	NTU										1.1			1.1	1.1	1.1
5	Colour	PCS										1			1.0	1	1
6	Odour	T. No										O.less					
7	pH	pH Unit										8.68			8.7	8.68	8.68
8	Sp. Conductivity	µMhos/cm.										388			388.0	388	388
9	T. Solids	mg/l										249			249.0	249	249
10	D. Solids	mg/l										243			243.0	243	243
11	S. Solids	mg/l										6			6.0	6	6
12	Amm. Nitrogen	mg/l										0.018			0.0	0.018	0.018
13	Nitrite Nitrogen	mg/l										0.006			0.0	0.006	0.006
14	Nitrate Nitrogen	mg/l										2.012			2.0	2.01	2.012
15	Phosphate (PO ₄)	mg/l										1.03			1.0	1.03	1.03
16	Chloride	mg/l										29.35			29.4	29.35	29.35
17	Sulphate (SO ₄)	mg/l										4.48			4.5	4.48	4.48
18	T. Alkalinity	mg/l										172			172.0	172	172
19	T. Hardness	mg/l										160			160.0	160	160
20	CalciumHardness	mg/l										120			120.0	120	120
21	Magnesium H.	mg/l										40			40.0	40	40
22	D. Oxygen	mg/l										7.2			7.2	7.2	7.2
23	B.O.D.	mg/l										1.2			1.2	1.2	1.2
24	C.O.D.	mg/l										8.71			8.7	8.71	8.71
25	Sodium	mg/l										16.01			16.0	16.01	16.01
26	Potassium	mg/l										1.8			1.80	1.8	1.8
27	T. Coliform	MPN/100ml										40			40.00	40	40
28	F. Coliform	MPN/100ml										<1.1					
29	T.K.N.	mg/l										4.04			4.0	4.04	4.04
30	FDS	mg/l										168	-	-	168.00	168.0	168.0
31	Fluoride	mg/l										0.8			0.80	0.8	0.8
32	Boron	mg/l										0.008			0.01	0.008	0.008
Cat.												A					

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

Natural Water Resource : Narmada River at Punasa Dam

S.No	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Ave.	Max.	Min.
1	Date of Sampling		08.04.17	10.05.17	14.6.17	22.07.17	05.08.17	05.09.17	02.10.17	23.11.17	20.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	30	30	30	25	--	23	23	22	20	20			24.78	30.00	20.00
4	Turbidity	NTU	0.8	0.6	0.9	1.4	2.2	3.2	0.8	1.2	1.3	3.5			1.59	3.50	0.60
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.00	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	6.94	8.2	8.3	8.45	8.46	8.3	8.42	7.9	8.48	8.06			8.15	8.48	6.94
8	Sp. Conductivity	µMhos/cm.	272.13	288.1	282	360	2960	396	364	474	458	326.29			618.05	2960	272.13
9	T. Solids	mg/l	193	203	186	218	198	267	208	266	276	230			224.50	276	186
10	D. Solids	mg/l	187	196	178	210	190	260	200	260	269	223			217.30	269	178
11	S. Solids	mg/l	6.0	7	8	8	8	7	8	6	7	7			7.20	8	6
12	Amm. Nitrogen	mg/l	0.009	0.008	0.016	0.006	0.007	0.01	0.014	0.026	0.021	0.008			0.01	0.026	0.006
13	Nitrite Nitrogen	mg/l	0.004	0.008	BDL	0.002	0.002	0.002	0.009	0.024	0.008	0.004			0.01	0.024	0.002
14	Nitrate Nitrogen	mg/l	0.657	0.78	0.484	0.832	0.416	0.738	0.79	0.703	0.692	0.609			0.67	0.832	0.416
15	Phosphate (PO ₄)	mg/l	0.0161	0.006	0.012	0.01	0.008	0.011	0.019	0.02	0.018	0.014			0.01	0.02	0.006
16	Chloride	mg/l	21.05	26.6	18.434	24.99	20.9	64.02	24.88	33.98	31.536	21.21			28.76	64.02	18.434
17	Sulphate (SO ₄)	mg/l	3.556	1.8	2.62	2.42	2.93	2.73	2.83	8.1	4.95	8.03			4.00	8.1	1.8
18	T. Alkalinity	mg/l	164	128	132	136	120	180	152	172	180	160			152.40	180	120
19	T. Hardness	mg/l	144	108	112	108	96	164	140	164	172	168			137.60	172	96
20	CalciumHardness	mg/l	120	80	90	88	72	128	112	130	144	124			108.80	144	72
21	Mg. Hardness	mg/l	24	28	22	22	84	36	28	34	28	44			35.00	84	22
22	D. Oxygen	mg/l	7.4	7.4	7.2	6.5	6.9	6.9	7.3	7.6	8	7.5			7.27	8	6.5
23	B.O.D.	mg/l	1	1.2	1.1	1.2	1.2	1.2	1.1	1.1	12	1.3			2.24	12	1
24	C.O.D.	mg/l	8.64	9.52	12.84	15	9	12	10.78	7.84	9.52	11.61			10.68	15	7.84
25	Sodium	mg/l	14	14	16.01	16.2	14.8	14.62	15.06	20	18	15.8			15.85	20	14
26	Potassium	mg/l	1.3	1.7	1.2	1.4	1.5	1.26	1.4	1.8	1.8	1.6			1.50	1.8	1.2
27	T. Coliform	MPN/100ml	33	40	40	30	40	34	30	34	40	24			34.50	40	24
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.4	0.46	0.58	0.54	0.62	0.58	0.5	0.84	0.78	0.66			0.60	0.84	0.4
30	FDS	mg/l	136	138	118	136	120	161	124	174	170	148			142.50	174	118
31	T.K.N.	mg/l	2.8	5.04	3.36	4.2	4.4	3.92	4.48	5	5.602	3.92			4.27	5.602	2.8
32	Boron	mg/l	ND	0.004	0.006	0.002	0.002	0.003	0.004	0.006	0.004	0.002			0.00	0.006	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: At U/S Omkarewhwar Dam

S.No	Characteristic	Unit	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average	Max.	Min.
1	Date of Sampling											14.1.18			-	-	-
2	Appearance											Clear			Clear	Sl.Muddy	Clear
3	Temperature	°C										21			21.00	21.00	21.00
4	Turbidity	NTU										1.4			1.40	1.40	1.40
5	Colour	PCS										1			1.00	1.00	1.00
6	Odour	T. No										O.less					
7	pH	pH Unit										8.78			8.78	8.78	8.78
8	Sp. Conductivity	µMhos/cm.										396			396.00	396.00	396.00
9	T. Solids	mg/l										256			256.00	256.00	256.00
10	D. Solids	mg/l										249			249.00	249.00	249.00
11	S. Solids	mg/l										7			7.00	7.00	7.00
12	Amm. Nitrogen	mg/l										0.014			0.01	0.01	0.01
13	Nitrite Nitrogen	mg/l										0.005			0.01	0.01	0.01
14	Nitrate Nitrogen	mg/l										1.5			1.50	1.50	1.50
15	Phosphate (PO ₄)	mg/l										0.018			0.02	0.02	0.02
16	Chloride	mg/l										27.39			27.39	27.39	27.39
17	Sulphate (SO ₄)	mg/l										4.83			4.83	4.83	4.83
18	T. Alkalinity	mg/l										168			168.00	168.00	168.00
19	T. Hardness	mg/l										152			152.00	152.00	152.00
20	Calcium Hardness	mg/l										124			124.00	124.00	124.00
21	M. Hardness	mg/l										18			18.00	18.00	18.00
22	D. Oxygen	mg/l										7.4			7.40	7.40	7.40
23	B.O.D.	mg/l										1.3			1.30	1.30	1.30
24	C.O.D.	mg/l										14.52			14.52	14.52	14.52
25	Sodium	mg/l										15.04			15.04	15.04	15.04
26	Potassium	mg/l										1.6			1.60	1.60	1.60
27	T. Coliform	MPN/100ml										40			40.00	40.00	40.00
28	F. Coliform	MPN/100ml										<1.1			<2	<2	<2
29	Fluoride	mg/l										0.84			0.84	0.84	0.84
30	FDS	mg/l										172			172.00	172.00	172.00
31	T.K.N.	mg/l										5.04			5.04	5.04	5.04
32	Boron	mg/l										0.003			0.003	0.003	0.003
	CATEGORY											A					

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

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	Ave.	Max.	Min.
1	Date of Sampling		08.04.17	08.05.17	27.6.17	14.07.2017	04.08.17	05.09.17	20.10.17	30.11.17	07.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	30	29	30	28	24.5	23	23	22	22	20			25.15	30.00	20.00
4	Turbidity	NTU	0.9	0.4	1	4	14	3.3	3	1.5	2.6	2			3.27	14.00	0.40
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.00	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.8	8.6	8.39	8.14	7.98	8.11	7.82	8.06	8.4	8.14			8.14	8.60	7.80
8	Sp. Conductivity	µMhos/cm.	294	308	315	345	357	505	375	416.65	358.65	353.64			362.79	505.00	294.00
9	T. Solids	mg/l	223	208	216	248	262	308	284	257	252	236			249.40	308.00	208.00
10	D. Solids	mg/l	215	202	204	234	246	294	266	250	244	230			238.50	294.00	202.00
11	S. Solids	mg/l	8.0	138	12	14	16	14	18	7	8	6			24.10	138.00	6.00
12	Amm. Nitrogen	mg/l	0.02	0.011	0.012	0.024	0.018	0.009	0.016	0.008	0.019	0.011			0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.002	0.008	BDL	0.008	0.006	0.003	0.003	0.006	0.003	0.002			0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.7	0.42	0.9	0.648	0.83	0.72	0.44	0.716	1.222	0.541			0.71	1.22	0.42
15	Phosphate (PO ₄)	mg/l	0.018	0.016	0.019	0.008	0.026	0.014	0.18	0.021	0.028	0.016			0.03	0.18	0.01
16	Chloride	mg/l	24.88	26.6	27.22	34.49	28.5	114.32	23.92	19.71	26.99	25.07			35.17	114.32	19.71
17	Sulphate (SO ₄)	mg/l	6.873	1.64	1.7	3.05	6.69	4.27	6.22	6.21	8.99	6.29			5.19	8.99	1.64
18	T. Alkalinity	mg/l	152	140	148	128	168	180	160	170	120	164			153.00	180.00	120.00
19	T. Hardness	mg/l	148	124	132	140	124	168	120	150	144	184			143.40	184.00	120.00
20	CalciumHardness	mg/l	120	104	108	100	88	132	80	120	108	144			110.40	144.00	80.00
21	M.Hardness	mg/l	28	20	24	40	36	36	40	30	36	40			33.00	40.00	20.00
22	D. Oxygen	mg/l	7.4	7.2	7.3	6.6	7.2	6.8	7.4	7.6	7.4	7.6			7.25	7.60	6.60
23	B.O.D.	mg/l	1.4	1.4	1.3	1.4	1.6	1.6	1.4	1.2	1.3	1.4			1.40	1.60	1.20
24	C.O.D.	mg/l	15.36	14.28	15.68	19.2	18	18	15.68	10	14.28	15.48			15.60	19.20	10.00
25	Sodium	mg/l	17	14	15.02	20.18	16.08	18.8	14	16	14	16.5			16.16	20.18	14.00
26	Potassium	mg/l	1.8	1.8	2.01	1.86	1.4	1.84	1.26	1.5	1.6	1.8			1.69	2.01	1.26
27	T. Coliform	MPN/100ml	50	40	40	50	50	50	40	40	6	40			40.60	50.00	6.00
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.724	0.382	0.4	0.89	0.72	0.73	0.66	0.76	0.68	0.72			0.67	0.89	0.38
30	FDS	mg/l	138	138	144	156	156	180	142	160	168	154			153.60	180.00	138.00
31	T.K.N.	mg/l	6.16	4.482	5.04	4.48	5.6	5.04	5.6	5.6	6.16	5.04			5.32	6.16	4.48
32	Boron	mg/l	0.003	0.016	0.016	0.008	0.004	0.004	0.002	0.004	0.006	0.002			0.007	0.016	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		08.04.17	13.05.17	27.6.17	22.07.17	04.08.17	05.09.17	02.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	30	31	30	25	24	23	23	24	22	20			25.2	31.00	20.00
4	Turbidity	NTU	0.8	1.2	2	4.5	1.4	2.4	1.3	1.3	1.1	2.2			1.8	4.50	0.80
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.0	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.7	8.3	8.41	8.36	8.62	8.23	8.3	8.42	8.5	8.56			8.3	8.62	7.70
8	Sp. Conductivity	µMhos/cm.	286	324	402	372	404.1	466	429	398	480	365			392.6	480.00	286.00
9	T. Solids	mg/l	188	210	258	255	253	300	270	246	230	246			245.6	300.00	188.00
10	D. Solids	mg/l	182	204	248	241	242	288	262	240	220	238			236.5	288.00	182.00
11	S. Solids	mg/l	6.0	6	10	14	11	12	8	6	10	8			9.1	14.00	6.00
12	Amm. Nitrogen	mg/l	0.019	0.014	0.01	0.009	0.008	0.006	0.018	0.019	0.014	0.009			0.0	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.005	0.022	0.011	0.001	0.009	0.002	0.003	0.007	0.003	0.003			0.0	0.02	0.00
14	Nitrate Nitrogen	mg/l	0.686	0.6	0.9	1.24	0.538	0.548	0.687	1.13	1.082	0.699			0.8	1.24	0.54
15	Phosphate (PO ₄)	mg/l	0.013	0.016	0.018	0.012	0.026	0.011	0.014	0.014	0.036	0.006			0.0	0.04	0.01
16	Chloride	mg/l	19.14	24.7	30.85	29.99	34.2	91.64	34.457	23.48	29.35	23.14			34.1	91.64	19.14
17	Sulphate (SO ₄)	mg/l	6.01	2.23	2.1	4.16	4.83	2.54	3.015	6.91	7.43	7.5			4.7	7.50	2.10
18	T. Alkalinity	mg/l	156	144	160	144	140	168	152	200	160	168			159.2	200.00	140.00
19	T. Hardness	mg/l	132	120	140	120	128	160	160	120	140	180			140.0	180.00	120.00
20	Calcium Hardness	mg/l	112	96	108	88	96	128	128	100	90	120			106.6	128.00	88.00
21	Magnesium Hardness	mg/l	20	24	32	32	32	32	32	20	50	60			33.4	60.00	20.00
22	D. Oxygen	mg/l	7.6	7.4	7.2	6.8	7.1	6.7	7.3	7.4	7.9	7.8			7.3	7.90	6.70
23	B.O.D.	mg/l	1.2	1.1	1.3	1.4	1.4	1.4	1.5	0.5	1.2	1.1			1.2	1.50	0.50
24	C.O.D.	mg/l	0.719	9.52	14.7	20	12	12	23.52	9	12.74	13.55			12.8	23.52	0.72
25	Sodium	mg/l	15	15.6	14.07	19.6	17.13	18.08	14.6	14.01	18	17.2			16.3	19.60	14.01
26	Potassium	mg/l	1.2	1.8	1.2	1.8	2.37	1.62	1.2	1.2	2.16	1.8			1.6	2.37	1.20
27	T. Coliform	MPN/100ml	40	34	40	50	40	40	30	40	34	40			38.8	50.00	30.00
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.719	0.58	0.72	0.62	0.67	0.68	0.56	0.73	0.066	0.69			0.6	0.73	0.07
30	FDS	mg/l	130	158	170	165	168	172	176	168	146	158			161.1	176.00	130.00
31	T.K.N.	mg/l	5.04	3.361	5.6	6.44	5.04	2.8	3.921	5.04	2.8	4.48			4.5	6.44	2.80
32	Boron	mg/l	0.002	0.004	0.006	0.003	0.004	0.002	0.002	0.002	0.002	0.004			0.0	0.006	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling											20.1.18			-	-	-
2	Appearance											Clear					
3	Temperature	°C										22			22.00	22.00	22.00
4	Turbidity	NTU										2.5			2.50	2.50	2.50
5	Colour	PCS										1			1.00	1.00	1.00
6	Odour	T. No										O.less					
7	pH	pH Unit										8.52			8.52	8.52	8.52
8	Sp. Conductivity	µMhos/cm.										374			374.00	374.00	374.00
9	T. Solids	mg/l										231			231.00	231.00	231.00
10	D. Solids	mg/l										224			224.00	224.00	224.00
11	S. Solids	mg/l										7			7.00	7.00	7.00
12	Amm. Nitrogen	mg/l										0.011			0.01	0.01	0.01
13	Nitrite Nitrogen	mg/l										0.003			0.00	0.00	0.00
14	Nitrate Nitrogen	mg/l										0.95			0.95	0.95	0.95
15	Phosphate (PO ₄)	mg/l										0.008			0.01	0.01	0.01
16	Chloride	mg/l										30.85			30.85	30.85	30.85
17	Sulphate (SO ₄)	mg/l										7.59			7.59	7.59	7.59
18	T. Alkalinity	mg/l										192			192.00	192.00	192.00
19	T. Hardness	mg/l										180			180.00	180.00	180.00
20	CalciumHardness	mg/l										140			140.00	140.00	140.00
21	M.Hardness	mg/l										40			40.00	40.00	40.00
22	D. Oxygen	mg/l										8			8.00	8.00	8.00
23	B.O.D.	mg/l										1.2			1.20	1.20	1.20
24	C.O.D.	mg/l										7			7.00	7.00	7.00
25	Sodium	mg/l										17.2			17.20	17.20	17.20
26	Potassium	mg/l										1.8			1.80	1.80	1.80
27	T. Coliform	MPN/100ml										40			40.00	40.00	40.00
28	F. Coliform	MPN/100ml										<2			<2	<2	<2
29	Fluoride	mg/l										0.74			0.74	0.74	0.74
30	FDS	mg/l										158			158.00	158.00	158.00
31	T.K.N.	mg/l										4.48			4.48	4.48	4.48
32	Boron	mg/l										0.004			0.004	0.004	0.004
	CATEGORY											A			"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		18.4.17	14.5.17	27.6.17	19.07.2017	03.08.17	05.09.17	20.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	31	31	30	26	24	23	23	24	22	20			25.40	31.00	20.00
4	Turbidity	NTU	0.8	1.6	2.1	6.1	6.8	2	1.41	1.1	2.8	1.4			2.61	6.80	0.80
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.00	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.38	8.6	8.56	8.66	8.44	8.36	8.01	8.93	8.3	8.57			8.38	8.93	7.38
8	Sp. Conductivity	µMhos/cm.	288	362	380	308	347	432	453.65	440.36	420.25	370.22			380.15	453.65	288.00
9	T. Solids	mg/l	186	217	238	215	251	272	288	213	261	207			234.80	288.00	186.00
10	D. Solids	mg/l	180	209	228	204	242	261	280	203	252	202			226.10	280.00	180.00
11	S. Solids	mg/l	6	8	10	11	9	11	8	10	9	5			8.70	11.00	5.00
12	Amm. Nitrogen	mg/l	0.012	0.008	0.009	0.008	0.018	0.012	0.021	0.016	0.017	0.014			0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.002	ND	BDL	0.003	0.004	0.008	0.005	0.005	0.081	0.003			0.01	0.08	0.00
14	Nitrate Nitrogen	mg/l	0.72	0.768	0.9	0.323	0.794	0.634	0.811	1.055	1.3259	0.672			0.80	1.33	0.32
15	Phosphate (PO ₄)	mg/l	0.016	0.008	0.01	0.016	0.026	0.019	0.029	0.039	0.014	0.008			0.02	0.04	0.01
16	Chloride	mg/l	18.85	23.75	29.04	23.48	42.75	27.43	23.64	30.85	27.99	19.28			26.71	42.75	18.85
17	Sulphate (SO ₄)	mg/l	2.26	1.68	2.01	3.17	7.42	3.72	7.61	7.131	7.737	8.226			5.10	8.23	1.68
18	T. Alkalinity	mg/l	124	164	168	124	160	168	150	156	176	168			155.80	176.00	124.00
19	T. Hardness	mg/l	120	128	132	92	128	160	100	140	160	152			131.20	160.00	92.00
20	CalciumHardness	mg/l	92	100	108	72	100	124	60	96	120	116			98.80	124.00	60.00
21	Mg Hardness	mg/l	28	28	24	20	28	36	40	44	40	36			32.40	44.00	20.00
22	D. Oxygen	mg/l	7.5	7.5	7.4	7.2	7.1	6.9	7.2	7.6	7.9	8			7.43	8.00	6.90
23	B.O.D.	mg/l	1.1	1.1	1	1.3	1.4	1.1	0.8	1.2	1.4	1.1			1.15	1.40	0.80
24	C.O.D.	mg/l	7.61	7.61	8.82	14.28	15	11	7.84	14	14	8.71			10.89	15.00	7.61
25	Sodium	mg/l	14.4	15.08	13.01	16.8	16.02	17.6	17.1	16.8	14.6	16.8			15.82	17.60	13.01
26	Potassium	mg/l	1.2	1.76	1.02	1.4	1.3	1.8	1.28	1.8	1.1	1.6			1.43	1.80	1.02
27	T. Coliform	MPN/100ml	30	34	34	40	40	33	40	40	40	33			36.40	40.00	30.00
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.64	0.58	0.74	0.69	0.55	0.68	0.61	0.68	0.69	0.64			0.65	0.74	0.55
30	FDS	mg/l	110	146	160	132	140	168	151	152	174	128			146.10	174.00	110.00
31	T.K.N.	mg/l	2.8	5.6	2.24	2.241	3.92	3.921	3.08	6.16	8.4	3.36			4.17	8.40	2.24
32	Boron	mg/l	0.002	0.006	0.008	0.002	0.004	0.004	0.006	0.002	0.005	0.004			0.00	0.01	0.00
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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		18.4.17	14.5.17	30.6.17	19.07.2017	03.08.17	05.09.17	02.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	31	31	29	26	25	23	23	24	22	20			25.4	31	20
4	Turbidity	NTU	1.2	1.6	1.2	6.1	2.1	2.4	1.08	1.5	2.8	1.2			2.1	6.1	1.08
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1	1	1
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.91	8.6	8.42	8.66	8.52	8.44	8.15	8.34	8.3	8.47			8.381	8.66	7.91
8	Sp. Conductivity	µMhos/cm.	294	384	328	308	400.01	489	664.7	378	420.25	374.54			404.05	664.7	294
9	T. Solids	mg/l	192	228	208	215	253	331	408	202	261	241			253.90	408	192
10	D. Solids	mg/l	184	220	199	204	240	322	398	194	252	235			244.80	398	184
11	S. Solids	mg/l	8	8	9	11	13	9	10	8	9	6			9.10	13	6
12	Amm. Nitrogen	mg/l	0.02	0.007	0.013	0.008	0.018	0.006	0.029	0.014	0.017	0.012			0.014	0.029	0.006
13	Nitrite Nitrogen	mg/l	0.002	ND	0.008	0.003	0.006	0.003	0.006	0.004	0.081	0.014			0.014	0.081	0.002
14	Nitrate Nitrogen	mg/l	0.802	0.872	0.59	0.323	0.738	0.524	0.849	1.609	1.3259	0.741			0.837	1.609	0.323
15	Phosphate (PO ₄)	mg/l	0.018	0.012	0.012	0.016	0.024	0.008	0.028	0.018	0.014	0.014			0.0164	0.028	0.008
16	Chloride	mg/l	22.29	28.3	23.59	23.48	19	32.92	28.71	19.28	27.99	23.14			24.87	32.92	19
17	Sulphate (SO ₄)	mg/l	2.56	2.01	2.16	3.17	3.48	2.724	2.08	4.108	7.737	8.23			3.83	8.23	2.01
18	T. Alkalinity	mg/l	128	160	140	124	144	224	200	120	176	172			158.80	224	120
19	T. Hardness	mg/l	120	132	120	92	124	200	220	92	160	156			141.6	220	92
20	Calcium Hardness	mg/l	100	100	84	72	84	164	50	68	120	116			95.80	164	50
21	Mg Hardness	mg/l	20	32	36	20	40	36	170	24	40	40			45.80	170	20
22	D. Oxygen	mg/l	7.5	7.4	7.5	7.2	6.8	6.8	7.2	7.4	7.9	7.9			7.36	7.9	6.8
23	B.O.D.	mg/l	1.2	1.2	1.1	1.3	1.2	1.1	1	1.3	1.4	1.2			1.20	1.4	1
24	C.O.D.	mg/l	10.47	9.52	12.74	14.28	8	12	8.82	10	14	17.42			11.73	17.42	8
25	Sodium	mg/l	14	16.18	15.7	16.8	17.84	16.2	18.5	13.02	14.6	16.8			15.96	18.5	13.02
26	Potassium	mg/l	1.3	1.4	1.4	1.4	1.98	1.4	2.08	1.46	1.1	1.8			1.53	2.08	1.1
27	T. Coliform	MPN/100ml	34	40	34	40	40	34	40	40	40	40			38.2	40	34
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.62	0.54	0.67	0.69	0.82	0.58	0.84	0.64	0.69	0.68			0.677	0.84	0.54
30	FDS	mg/l	130	160	158	132	164	190	154	159	174	152			157.30	190	130
31	T.K.N.	mg/l	2.8	7.28	3.921	2.241	6.1	3.361	3.36	5.88	8.4	3.92			4.73	8.4	2.241
32	Boron	mg/l	0.002	0.005	0.006	0.002	0.004	0.003	0.005	0.003	0.005	0.003			0.00	0.01	0.00
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		18.4.17	14.5.17	27.6.17	19.07.2017	03.08.17	05.09.17	02.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	31	31	30	26	24	23	23	24	22	20			25.4	31	20
4	Turbidity	NTU	1.5	1.5	2	14.6	2.3	2.3	1.21	2	2.2	2.7			3.2	14.6	1.21
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.0	1	1
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.9	8.4	8.41	8.6	8.62	8.4	7.86	7.5	8.4	8.63			8.3	8.63	7.5
8	Sp. Conductivity	µMhos/cm.	308.47	410	402	361.4	396.32	402	608.7	462.94	400.8	384.18			413.7	608.7	308.47
9	T. Solids	mg/l	192	254	258	267	252	298	375	222	248	255			262.1	375	192
10	D. Solids	mg/l	184	244	248	249	237	286	368	207	240	247			251.0	368	184
11	S. Solids	mg/l	8	10	10	18	168	12	7	15	8	8			26.4	168	7
12	Amm. Nitrogen	mg/l	0.02	0.009	0.01	0.011	0.021	0.008	0.024	0.021	0.016	0.015			0.0	0.024	0.008
13	Nitrite Nitrogen	mg/l	0.002	0.016	0.011	0.004	0.012	0.002	0.004	0.004	0.009	0.009			0.0	0.016	0.002
14	Nitrate Nitrogen	mg/l	1.007	0.806	0.9	0.623	0.982	0.668	0.018	1.923	0.724	1.09			0.9	1.923	0.018
15	Phosphate (PO ₄)	mg/l	0.014	0.016	0.018	0.02	0.032	0.008	0.036	0.022	0.012	0.013			0.0	0.036	0.008
16	Chloride	mg/l	22.29	33.25	30.85	25.43	19	32.92	28.28	34.71	35.98	21.21			28.4	35.98	19
17	Sulphate (SO ₄)	mg/l	2.732	2.34	2.1	4.12	4.41	4.26	4.56	9.34	8.2	8.5			5.1	9.34	2.1
18	T. Alkalinity	mg/l	128	168	160	132	144	132	128	-	172	176			148.9	176	128
19	T. Hardness	mg/l	120	136	140	112	148	192	200	160	140	160			150.8	200	112
20	Calcium Hardness	mg/l	92	104	108	72	112	156	80	104	120	124			107.2	156	72
21	Magnesium Hardness	mg/l	28	32	32	40	36	36	120	56	20	36			43.6	120	20
22	D. Oxygen	mg/l	7.5	7.4	7.2	6.7	6.7	6.9	7	7.4	7.9	7.7			7.2	7.9	6.7
23	B.O.D.	mg/l	1.2	1.4	1.3	1.6	1.4	2.1	0.7	1.4	1.6	1.3			1.4	2.1	0.7
24	C.O.D.	mg/l	10.47	14.28	14.7	17.13	15	20	7.84	18	14.28	14.52			14.6	20	7.84
25	Sodium	mg/l	14	17.06	14.07	19	20.8	17.8	21.01	17.9	14.6	17.3			17.4	21.01	14
26	Potassium	mg/l	1	1.4	1.2	1.8	2.32	1.8	2.51	2	1.4	2			1.7	2.51	1
27	T. Coliform	MPN/100ml	40	40	40	50	50	40	40	50	34	50			43.4	50	34
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.424	0.64	0.72	0.83	0.88	0.62	0.98	0.78	0.79	0.74			0.7	0.98	0.424
30	FDS	mg/l	130	140	170	158	168	184	201	146	158	164			161.90	201	130
31	T.K.N.	mg/l	2.8	6.44	5.6	3.361	6.72	4.482	2.8	6.72	4.482	5.6			4.90	6.72	2.80
32	Boron	mg/l	0.002	0.008	0.006	0.008	0.005	0.002	0.006	0.003	0.006	0.006			0.005	0.008	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling											20.1.18			-	-	-
2	Appearance											Clear					
3	Temperature	°C										21			21.00	21.00	21.00
4	Turbidity	NTU										2.4			2.40	2.40	2.40
5	Colour	PCS										1			1.00	1.00	1.00
6	Odour	T. No										O.less					
7	pH	pH Unit										8.4			8.40	8.40	8.40
8	Sp. Conductivity	µMhos/cm.										359			359.00	359.00	359.00
9	T. Solids	mg/l										224			224.00	224.00	224.00
10	D. Solids	mg/l										216			216.00	216.00	216.00
11	S. Solids	mg/l										8			8.00	8.00	8.00
12	Amm. Nitrogen	mg/l										0.012			0.01	0.01	0.01
13	Nitrite Nitrogen	mg/l										0.006			0.01	0.01	0.01
14	Nitrate Nitrogen	mg/l										0.84			0.84	0.84	0.84
15	Phosphate (PO ₄)	mg/l										0.009			0.01	0.01	0.01
16	Chloride	mg/l										28.92			28.92	28.92	28.92
17	Sulphate (SO ₄)	mg/l										6.72			6.72	6.72	6.72
18	T. Alkalinity	mg/l										180			180.00	180.00	180.00
19	T. Hardness	mg/l										160			160.00	160.00	160.00
20	CalciumHardness	mg/l										132			132.00	132.00	132.00
21	M.Hardness	mg/l										18			18.00	18.00	18.00
22	D. Oxygen	mg/l										7.8			7.80	7.80	7.80
23	B.O.D.	mg/l										1			1.00	1.00	1.00
24	C.O.D.	mg/l										10			10.00	10.00	10.00
25	Sodium	mg/l										16.8			16.80	16.80	16.80
26	Potassium	mg/l										1.8			1.80	1.80	1.80
27	T. Coliform	MPN/100ml										40			40.00	40.00	40.00
28	F. Coliform	MPN/100ml										<2			<2	<2	<2
29	Fluoride	mg/l										0.68			0.68	0.68	0.68
30	FDS	mg/l										150			150.00	150.00	150.00
31	T.K.N.	mg/l										4.48			4.48	4.48	4.48
32	Boron	mg/l										0.004			0.004	0.004	0.004
	CATEGORY											A			"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

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	Avge	Max.	Min.
1	Date of Sampling		18.4.17	13.5.17	17.6.17	13.07.17	03.08.17	05.09.17	20.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear			Clear	Clear	Clear
3	Temperature	°C	31	31	31	28	27	23	23	24	22	20			26.0	31.00	20.00
4	Turbidity	NTU	1.1	1.1	0.9	6	6.4	1.7	2.01	1.6	3.5	2.2			2.7	6.40	0.90
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.0	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.82	8.2	8.19	8.42	8.39	8.4	7.79	8.62	8.52	8.67			8.3	8.67	7.79
8	Sp. Conductivity	µMhos/cm.	308	308	350	304	340	340	663.7	398	419.7	379.69			381.1	663.7	304
9	T. Solids	mg/l	204	195	230	224	261	254	409	224	276	246			252.3	409	195
10	D. Solids	mg/l	196	190	22	212	225	240	399	210	266	240			220.0	399	22
11	S. Solids	mg/l	8	5	8	12	36	166	10	14	10	6			27.5	166	5
12	Amm. Nitrogen	mg/l	0.014	0.012	0.013	0.016	0.018	0.016	0.024	0.028	0.019	0.012			0.0	0.028	0.012
13	Nitrite Nitrogen	mg/l	0.002	0.014	BDL	0.006	0.001	0.004	0.008	0.005	0.016	0.007			0.0	0.016	0.001
14	Nitrate Nitrogen	mg/l	0.872	0.83	0.86	0.363	0.421	0.66	0.468	1.707	1.19	1.08			0.8	1.707	0.363
15	Phosphate (PO ₄)	mg/l	0.008	0.015	0.016	0.02	0.026	0.012	0.031	0.014	0.014	0.018			0.0	0.031	0.008
16	Chloride	mg/l	28.28	24.7	31.09	34.49	33.5	29.26	33.5	38.56	25.99	23.14			30.3	38.56	23.14
17	Sulphate (SO ₄)	mg/l	3.74	2.19	3.36	6.8	6.6	2.26	6.69	7.468	8.07	9.34			5.7	9.34	2.19
18	T. Alkalinity	mg/l	140	144	160	120	130	160	160	128	164	176			148.2	176	120
19	T. Hardness	mg/l	128	120	140	108	110	140	150	124	148	164			133.2	164	108
20	Calcium Hardness	mg/l	108	100	112	80	90	108	100	88	104	128			101.8	128	80
21	Magnesium Hardness	mg/l	20	24	28	28	20	32	50	36	-	36			30.4	50	20
22	D. Oxygen	mg/l	7.5	7.3	7.2	6.9	7.2	7.4	6.9	7.2	8.2	7.9			7.4	8.2	6.9
23	B.O.D.	mg/l	1.2	1.4	1.1	1.4	1.2	1.2	1	1.4	1.4	1.2			1.3	1.4	1
24	C.O.D.	mg/l	8.56	12.37	14.82	14.4	15	16	7.84	14	16	12.58			13.2	16	7.84
25	Sodium	mg/l	16.04	15.6	16.1	18.04	18.44	17.2	100	17.2	16.2	17.2			25.2	100	15.6
26	Potassium	mg/l	1.2	1.7	1.96	1.4	1.26	1.8	50.69	1.86	1.4	1.9			6.5	50.69	1.2
27	T. Coliform	MPN/100ml	40	40	40	40	50	50	40	50	40	40			43.0	50	40
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.66	0.58	0.8	0.72	0.68	0.73	0.71	0.72	0.62	0.074			0.6	0.8	0.074
30	FDS	mg/l	118	144	152	134	142	166	210	164	174	160			156.4	210	118
31	T.K.N.	mg/l	3.36	4.482	2.8	5.6	5.6	3.92	5.88	6.72	5.04	6.16			4.956	6.72	2.8
32	Boron	mg/l	0.002	0.008	0.003	0.004	0.005	0.005	0.005	0.004	0.004	0.004			0.004	0.008	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		13.4.17	13.5.17	3.6.17	25.07.17	03.08.17	05.09.17	02.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	30	31.4	32.5	25	23	23	24	24	22	20			25.49	32.50	20.00
4	Turbidity	NTU	1.1	0.8	0.8	7.1	6.42	1.6	8.2	1.3	1.2	6.3			3.48	8.20	0.80
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.00	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.6	8.12	8.36	8.52	8.9	8.42	8.37	7.25	8.48	8.69			8.271	8.9	7.25
8	Sp. Conductivity	µMhos/cm.	300	370	320	302	380	332	445	501.49	522.7	276.85			375.00	522.7	276.85
9	T. Solids	mg/l	197	250	225	207	224	234	270	230	332	209			237.80	332	197
10	D. Solids	mg/l	190	243	220	190	209	222	259	220	320	202			227.50	320	190
11	S. Solids	mg/l	7	7	5	17	15	12	11	10	12	7			10.30	17	5
12	Amm. Nitrogen	mg/l	0.014	0.009	0.018	0.009	0.009	0.018	0.02	0.015	0.022	0.018			0.02	0.022	0.009
13	Nitrite Nitrogen	mg/l	0.002	0.022	0.01	0.002	0.008	0.006	0.004	0.028	1.097	0.01			0.15	1.097	0.002
14	Nitrate Nitrogen	mg/l	0.724	0.472	0.884	1.23	0.85	0.72	1.73	1.63	1.066	1.348			1.07	1.73	0.472
15	Phosphate (PO ₄)	mg/l	0.008	0.017	0.016	0.008	0.01	0.016	0.026	0.054	0.012	0.02			0.02	0.054	0.008
16	Chloride	mg/l	33.94	36.1	30.62	26	30.4	23.77	38.28	43.39	33.98	28.92			32.54	43.39	23.77
17	Sulphate (SO ₄)	mg/l	3.68	2.68	3.07	3.92	4.04	3.08	5.17	9.79	8.59	9.07			5.31	9.79	2.68
18	T. Alkalinity	mg/l	124	156	160	132	172	152	152	172	200	136			155.60	200	124
19	T. Hardness	mg/l	120	140	140	112	140	128	160	160	170	156			142.60	170	112
20	Calcium Hardness	mg/l	100	112	112	88	112	100	124	132	136	92			110.800	136	88
21	Magnesium Hardness	mg/l	20	28	28	24	28	28	36	28	36	64			32.00	64	20
22	D. Oxygen	mg/l	7.3	7.6	7.4	7.2	7.3	7.4	7.1	7.2	7.9	8			7.44	8	7.1
23	B.O.D.	mg/l	1.1	1.1	1.2	1.4	1.5	1.3	1.4	1.2	1.2	1.4			1.28	1.5	1.1
24	C.O.D.	mg/l	9.6	12.37	13	15	10	16	20.58	15	14	14.52			14.01	20.58	9.6
25	Sodium	mg/l	15	14.8	16.8	16.02	17.08	18	18.3	16	15.6	20.2			16.78	20.2	14.8
26	Potassium	mg/l	1.8	1.9	2	1.3	1.4	1.8	1.8	1.7	1.6	2			1.73	2	1.3
27	T. Coliform	MPN/100ml	34	40	40	40	40	40	40	40	34	40			38.800	40	34
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	0	0
29	Fluoride	mg/l	0.68	0.58	0.64	0.002	0.8	0.67	0.79	0.68	0.78	0.84			0.65	0.84	0.002
30	FDS	mg/l	127	148	152	132	142	160	172	170	182	130			151.50	182	127
31	T.K.N.	mg/l	5.04	5.042	3.36	4.48	4.48	3.92	5.6	6.12	5.88	3.92			4.78	6.12	3.36
32	Boron	mg/l	0.003	0.07	0.002	0.002	0.003	0.006	0.006	0.004	0.004	0.006			0.0106	0.07	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "			"A "	"A "	"A "

Classification of River water based on IS - 2296 -

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		13.4.17	13.5.17	13.6.17	25.07.17	03.08.17	05.09.17	02.10.17	04.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Sl.Muddy	Sl. Muddy	Sl. Muddy	Clear	Clear	Clear	Clear					
3	Temperature	°C	30	31.5	32.5	25	24	23	24	24	22	20			25.60	32.50	20.00
4	Turbidity	NTU	1.6	1.4	0.9	8.9	8.02	1.8	5.7	1.4	1.4	12.1			4.32	12.10	0.90
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1.00	1.00	1.00
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.94	8	7.89	8.59	8.72	8.48	8.4	7.78	8.58	8.61			8.30	8.72	7.78
8	Sp. Conductivity	µMhos/cm.	350	392	340	312	392	350	406.25	654.92	550.68	370.86			411.87	654.92	312
9	T. Solids	mg/l	210	257	237	206	232	258	248	252	334	246			248.00	334	206
10	D. Solids	mg/l	202	248	230	198	212	244	240	240	319	238			237.10	319	198
11	S. Solids	mg/l	8	9	7	18	20	14	8	12	15	8			11.90	20	7
12	Amm. Nitrogen	mg/l	0.017	0.015	0.02	0.01	0.009	0.02	0.016	0.017	0.026	0.02			0.017	0.026	0.009
13	Nitrite Nitrogen	mg/l	0.003	0.029	0.019	0.002	0.009	0.007	0.023	0.052	0.099	0.005			0.025	0.099	0.002
14	Nitrate Nitrogen	mg/l	0.931	0.82	1.08	1.86	1.09	0.69	1.644	1.803	1.07	1.19			1.218	1.86	0.69
15	Phosphate (PO ₄)	mg/l	0.009	0.02	0.018	0.009	0.012	0.018	0.022	0.062	0.099	0.022			0.03	0.099	0.009
16	Chloride	mg/l	37.71	30.4	40.2	28	51.3	29.26	28.71	48.21	39.98	38.56			37.23	51.3	28
17	Sulphate (SO ₄)	mg/l	4.02	3.07	3.15	4.01	5.1	3.62	4.62	10.41	8.9	12.66			5.96	12.66	3.07
18	T. Alkalinity	mg/l	136	164	164	136	180	164	136	180	208	192			166.00	208	136
19	T. Hardness	mg/l	128	144	152	116	160	144	144	168	180	176			151.20	180	116
20	Calcium Hardness	mg/l	96	100	112	92	120	108	112	142	144	136			116.20	144	92
21	Magnesium Hardness	mg/l	32	44	40	24	40	36	32	26	36	40			35.00	44	24
22	D. Oxygen	mg/l	7.1	7.4	7.2	7	7.2	7.3	7.2	7	7.7	7.9			7.30	7.9	7
23	B.O.D.	mg/l	1.3	1.3	1.4	1.6	1.6	1.4	1.3	1.4	1.9	1.2			1.44	1.9	1.2
24	C.O.D.	mg/l	15.36	14.28	15	16	17	18	16.66	15	16	17.42			16.07	18	14.28
25	Sodium	mg/l	17	17.5	19.8	17.01	18.12	19.3	16.6	17.7	16.02	20.6			17.97	20.6	16.02
26	Potassium	mg/l	1.9	2	2.1	1.4	1.6	1.9	1.4	<2	1.7	2			1.78	2.1	1.4
27	T. Coliform	MPN/100ml	40	50	50	50	50	5	30	50	40	50			41.50	50	5
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.72	0.73	0.72	0.8	0.9	0.72	0.68	0.72	0.84	0.88			0.77	0.9	0.68
30	FDS	mg/l	136	156	160	138	148	170	168	180	192	158			160.6	192	136
31	T.K.N.	mg/l	5.88	3.921	4.48	4.76	5.04	6.16	3.92	8.12	6.12	6.16			5.46	8.12	3.92
32	Boron	mg/l	0.004	0.078	0.003	0.002	0.004	0.007	0.004	0.003	0.004	0.008			0.01	0.002	0.078
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Ave.	Max.	Min.
1	Date of Sampling											11.1.18			-	-	-
2	Appearance											Clear					
3	Temperature	°C										20			20.00	20.00	20.00
4	Turbidity	NTU										1.8			1.80	1.80	1.80
5	Colour	PCS										1			1.00	1.00	1.00
6	Odour	T. No										O.less					
7	pH	pH Unit										8.74			8.74	8.74	8.74
8	Sp. Conductivity	µMhos/cm.										364.57			364.57	364.57	364.57
9	T. Solids	mg/l										25			25.00	25.00	25.00
10	D. Solids	mg/l										220			220.00	220.00	220.00
11	S. Solids	mg/l										5			5.00	5.00	5.00
12	Amm. Nitrogen	mg/l										0.01			0.01	0.01	0.01
13	Nitrite Nitrogen	mg/l										0.006			0.01	0.01	0.01
14	Nitrate Nitrogen	mg/l										0.802			0.80	0.80	0.80
15	Phosphate (PO ₄)	mg/l										0.015			0.02	0.02	0.02
16	Chloride	mg/l										23.65			23.65	23.65	23.65
17	Sulphate (SO ₄)	mg/l										6.091			6.09	6.09	6.09
18	T. Alkalinity	mg/l										152			152.00	152.00	152.00
19	T. Hardness	mg/l										176			176.00	176.00	176.00
20	CalciumHardness	mg/l										112			112.00	112.00	112.00
21	M.Hardness	mg/l										64			64.00	64.00	64.00
22	D. Oxygen	mg/l										7.6			7.60	7.60	7.60
23	B.O.D.	mg/l										1.2			1.20	1.20	1.20
24	C.O.D.	mg/l										10.64			10.64	10.64	10.64
25	Sodium	mg/l										15.5			15.50	15.50	15.50
26	Potassium	mg/l										1.7			1.70	1.70	1.70
27	T. Coliform	MPN/100ml										40			40.00	40.00	40.00
28	F. Coliform	MPN/100ml										<2			<2	<2	<2
29	Fluoride	mg/l										0.73			0.73	0.73	0.73
30	FDS	mg/l										140			140.00	140.00	140.00
31	T.K.N.	mg/l										5.04			5.04	5.04	5.04
32	Boron	mg/l										0.003			0.003	0.003	0.003
	CATEGORY											A			"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1992

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

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	Avg.	Max.	Min.
1	Date of Sampling		18.4.17	30.5.17	27.6.17	25.07.17	03.08.17	05.09.17	02.10.17	30.11.17	13.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	31	31	30	25	24	23	23	22	22	21			25.20	31	21
4	Turbidity	NTU	1	2.2	2.3	2.8	7.01	3.3	3.2	2.5	2.7	4.9			3.19	7.01	1
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1	1	1
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.62	8.3	8.4	7.4	8.25	8.24	8.2	7.8	8.4	8.67			8.13	8.67	7.4
8	Sp. Conductivity	µMhos/cm.	303	312	331	336	400	443	380	391.95	418.7	400			371.57	443	303
9	T. Solids	mg/l	201	224	229	258	246	299	262	242	258	266			248.50	299	201
10	D. Solids	mg/l	190	216	220	240	230	288	254	234	50	258			218.0	288	50
11	S. Solids	mg/l	11	8	9	18	16	11	8	8	8	8			10.5	18	8
12	Amm. Nitrogen	mg/l	0.015	0.008	0.006	0.009	0.016	0.016	0.021	0.02	0.018	0.018			0.01	0.021	0.006
13	Nitrite Nitrogen	mg/l	0.004	0.007	0.004	0.001	0.004(BDL)	0.003	0.004	0.004	0.01	0.005			0.00	0.01	0.001
14	Nitrate Nitrogen	mg/l	0.834	0.473	0.424	1.076	1.24	0.603	0.624	1.041	1.051	0.884			0.83	1.24	0.424
15	Phosphate (PO ₄)	mg/l	0.02	0.019	0.016	0.019	0.02	0.014	0.019	0.022	0.021	0.012			0.02	0.022	0.012
16	Chloride	mg/l	23.57	21.52	23.59	29.99	30.4	34.75	32.543	21.68	33.98	23.14			27.52	34.75	21.52
17	Sulphate (SO ₄)	mg/l	2.63	2.22	2.94	3.88	4.12	3.212	4.123	6.89	4.6	22.47			5.71	22.47	2.22
18	T. Alkalinity	mg/l	132	148	152	132	204	200	164	168	172	170			164.20	204	132
19	T. Hardness	mg/l	124	128	128	120	172	184	152	148	180	160			149.60	184	120
20	Calcium Hardness	mg/l	100	84	92	80	124	156	120	120	156	80			111.20	156	80
21	Magnesium Hardness	mg/l	24	44	36	40	46	28	32	28	24	72			37.40	72	24
22	D. Oxygen	mg/l	7.3	7.3	7.4	6.4	7.1	6.7	7.2	7.9	7.8	7.8			7.29	7.9	6.4
23	B.O.D.	mg/l	1.3	1.2	1.2	1.6	1.7	1.4	1.3	1.2	1.4	1.2			1.35	1.7	1.2
24	C.O.D.	mg/l	12.37	18	19.6	20	20	16	17.64	9.8	18	16.45			16.79	20	9.8
25	Sodium	mg/l	17.06	15.4	14.9	17.94	18.02	15.9	16.7	16.7	19.6	18.2			17.04	19.6	14.9
26	Potassium	mg/l	1.4	1.6	1.5	1.76	1.6	1.8	1.1	1.6	1.8	1.9			1.61	1.9	1.1
27	T. Coliform	MPN/100ml	50	40	50	50	50	40	34	40	50	40			44.40	50	34
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	0	<2
29	Fluoride	mg/l	0.65	0.48	0.55	0.72	0.8	0.66	0.73	0.69	0.71	0.78			0.677	0.8	0.48
30	FDS	mg/l	114	146	148	168	160	170	176	148	176	160			156.60	176	114
31	T.K.N.	mg/l	3.92	3.361	2.801	3.08	3.08	4.482	3.361	5.6	7.84	5.6			4.31	7.84	2.801
32	Boron	mg/l	0.003	0.06	0.05	0.003	0.009	0.004	0.003	0.004	0.006	0.006			0.015	0.06	0.003
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: At Koteshwar, Nisarpur, Dhar.

S.No	Characteristic	Unit	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Avg.	Max.	Min.
1	Date of Sampling		18.4.17	13.5.17	30.6.17	13.07.17	19.08.17	05.09.17	02.10.17	04.11.17	15.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear					
3	Temperature	°C	31	31.4	29.4	28	23	23	23	24	22	21			25.58	31.4	21
4	Turbidity	NTU	1	0.7	1	8.4	1.2	1.7	2.8	1.2	2.9	8			2.89	8.4	0.7
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1	1	1
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.82	8.1	8.2	8.4	8.31	8.39	8.36	7.72	8.57	8.69			8.256	8.69	7.72
8	Sp. Conductivity	µMhos/cm.	290	310	320	374	308	324	394	426.52	422.2	437.64			360.6	437.64	290
9	T. Solids	mg/l	190	202	206	263	192	242	227	250	271	254			229.7	271	190
10	D. Solids	mg/l	182	196	198	235	180	226	220	240	263	244			218.40	263	180
11	S. Solids	mg/l	8	6	8	28	12	16	7	10	8	10			11.30	28	6
12	Amm. Nitrogen	mg/l	0.018	0.015	0.016	0.022	0.018	0.014	0.019	0.014	0.014	0.014			0.02	0.022	0.014
13	Nitrite Nitrogen	mg/l	0.002	0.018	0.024	0.007	0.007	0.006	0.004	0.004	0.009	0.005			0.01	0.024	0.002
14	Nitrate Nitrogen	mg/l	0.73	0.72	0.77	0.844	0.92	0.422	0.869	1.89	0.898	1.073			0.91	1.89	0.422
15	Phosphate (PO ₄)	mg/l	0.012	0.014	0.01	0.02	0.018	0.01	0.014	0.012	0.008	0.016			0.01	0.02	0.008
16	Chloride	mg/l	21.05	26.6	27.22	33.26	28.92	29.26	30.62	28.92	25.99	26.99			27.88	33.26	21.05
17	Sulphate (SO ₄)	mg/l	2.88	2.73	2.82	4.4	4.2	3.14	3.26	6.3	3.127	10.82			4.4	10.82	2.73
18	T. Alkalinity	mg/l	120	140	144	160	140	148	148	144	156	180			148.0	180	120
19	T. Hardness	mg/l	112	126	128	152	128	128	140	132	176	160			138.2	176	112
20	Calcium Hardness	mg/l	92	96	96	124	108	100	108	100	128	116			106.8	128	92
21	Magnesium Hardness	mg/l	20	28	32	28	20	48	32	32	48	44			33.20	48	20
22	D. Oxygen	mg/l	7.6	7.4	7.5	6.9	7	7.4	7.1	7.3	8	7.6			7.38	8	6.9
23	B.O.D.	mg/l	1.2	1.1	1.2	1.4	1.1	1.3	1.1	1.2	1.4	1.2			1.22	1.4	1.1
24	C.O.D.	mg/l	9.6	10.47	10.78	16.32	14	12	9.8	18	8	10.64			11.96	18	8
25	Sodium	mg/l	16.2	16	17	19	22	16.2	15.6	16.8	16.8	16.9			17.25	22	15.6
26	Potassium	mg/l	1.4	1.5	1.8	2	1.2	1.8	1.4	1.8	1.9	1.8			1.66	2	1.2
27	T. Coliform	MPN/100ml	40	30	34	50	50	50	30	40	34	30			38.80	50	30
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.68	0.61	0.68	1.08	0.77	0.46	0.79	0.68	0.69	0.69			0.71	1.08	0.46
30	FDS	mg/l				0				-	-	160			80	160	0
31	T.K.N.	mg/l	3.361	3.92	3.361	5.6	5.04	3.92	4.48	5.04	6.16	60.16			10.10	60.16	3.361
32	Boron	mg/l	0.004	0.011	0.009	0.006	0.006	0.006	0.002	0.003	0.004	0.005			0.006	0.011	0.002
	CATEGORY		"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, BHOPAL.

Water Quality during Year - 2017-18

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	Avg	Max.	Min.
1	Date of Sampling		18.4.17	13.5.17	30.6.17	13.07.17	19.08.17	05.09.17	02.10.17	04.11.17	16.12.17	01.01.18			-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear			Clear	Clear	Clear
3	Temperature	°C	31	31	29.5	28	24	23	24	24	22	21			25.75	31	21
4	Turbidity	NTU	1	1.4	1.2	12.5	1.2	2.3	8.5	1.8	1.3	6.1			3.73	12.5	1
5	Colour	PCS	1	1	1	1	1	1	1	1	1	1			1	1	1
6	Odour	T. No	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O.L	O. Less					
7	pH	pH Unit	7.8	8.3	8.6	8.5	8.2	8.42	8.06	7.72	8.56	8.7			8.29	8.7	7.72
8	Sp. Conductivity	µMhos/cm.	294	320	333	380	320	310	418.47	483	449.4	439.45			374.73	483	294
9	T. Solids	mg/l	204	220	210	270	196	222	282	270	291	269			243.40	291	196
10	D. Solids	mg/l	194	212	202	244	186	211	270	258	279	261			231.70	279	186
11	S. Solids	mg/l	10	8	8	26	10	132	12	12	12	8			23.80	132	8
12	Amm. Nitrogen	mg/l	0.014	0.013	0.018	0.024	0.016	0.019	0.018	0.016	0.016	0.016			0.017	0.024	0.013
13	Nitrite Nitrogen	mg/l	0.003	0.018	0.007	0.006	0.004	0.008	0.008	0.004	0.005	0.005			0.01	0.018	0.003
14	Nitrate Nitrogen	mg/l	0.86	0.92	0.66	0.92	0.72	0.56	1.228	1.68	1.956	0.973			1.05	1.956	0.56
15	Phosphate (PO ₄)	mg/l	0.011	0.016	0.014	0.02	0.012	0.012	0.032	0.012	0.022	0.012			0.02	0.032	0.011
16	Chloride	mg/l	22.97	34.2	27.22	35.22	34.71	25.6	26.8	43.39	25.99	30.85			30.70	43.39	22.97
17	Sulphate (SO ₄)	mg/l	3.06	3.03	2.66	4.93	2.8	3.46	5.17	4.97	8.912	14.45			5.34	14.45	2.66
18	T. Alkalinity	mg/l	136	148	148	160	132	140	148	152	168	180			151.2	180	132
19	T. Hardness	mg/l	124	128	132	156	124	124	140	140	176	172			141.60	176	124
20	CalciumHardness	mg/l	96	104	100	120	104	100	112	100	132	120			108.80	132	96
21	Magnesium Hardness	mg/l	28	24	32	36	20	24	28	40	44	52			32.800	52	20
22	D. Oxygen	mg/l	7.5	7.2	7.4	6.8	7.1	7.2	6.9	7.1	7.7	7.8			7.27	7.8	6.8
23	B.O.D.	mg/l	1.3	1.4	1.2	1.3	1.2	1.2	1.2	1.4	1.4	1.4			1.300	1.4	1.2
24	C.O.D.	mg/l	11.5	15.23	11.76	18.24	10	10	5.88	20	9	14.52			12.61	20	5.88
25	Sodium	mg/l	17	16	16.3	21	17	17.9	1.8	17.2	18.2	19			16.14	21	1.8
26	Potassium	mg/l	1.8	1.6	1.7	2	1.2	2	26.8	1.6	2	2			4.27	26.8	1.2
27	T. Coliform	MPN/100ml	34	50	50	40	50	40	30	50	40	33			41.70	50	30
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2			<2	<2	<2
29	Fluoride	mg/l	0.77	0.72	0.8	1.04	0.72	0.58	0.82	0.78	0.69	0.8			0.77	1.04	0.58
30	FDS	mg/l	128	152	154	170	132	132	180	174	188	170			158.00	188	128
31	T.K.N.	mg/l	5.042	5.42	3.921	6.163	4.28	5.04	5.04	6.12	5.6	5.04			5.17	6.163	3.921
32	Boron	mg/l	0.003	0.008	0.008	0.008	0.002	0.008	0.004	0.004	0.006	0.006			0.006	0.008	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "	"A "			"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1992

