

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		12.04.17	15.05.17	20.06.17	05.07.17	19.08.17	05.09.17	24.10.17								
2	Appearance		Clear	Clear	Clear	Clear	Clear	clear	Clear								
3	Temperature	oC	25.8	35.2	27	26	28.4	28.8	27.2						28.5	35.2	25.8
4	Turbidity	NTU	2.5	2.9	3.2	3.4	3.6	2.2	2.9						3.0	3.6	2.2
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	OL	O.L	O.L	O.L								
7	pH	pH Unit	7.39	7.42	7.56	7.62	7.42	7.17	7.68						7.4	7.62	7.17
8	Sp. Conductivity	µMhos/cm.	208.2	218.6	239.5	228.4	194.4	189.2	183.2						213.1	239.5	189.2
9	T. Solids	mg/l	166	146	155	168	172	183	175						165.0	183	146
10	D. Solids	mg/l	157	136	143	154	158	165	162						152.2	165	136
11	S. Solids	mg/l	9	10	12	14	14	18	13						12.8	18	9
12	Amm. Nitrogen	mg/l	Trace	0.02	Trace	Trace	Trace	Trace	BDL						0.0	0.02	0.02
13	Nitrite Nitrogen	mg/l	Trace	0.003	Trace	Trace	Trace	Trace	BDL						0.0	0.003	0.003
14	Nitrate Nitrogen	mg/l	0.22	0.2	0.42	0.62	0.6	0.4	0.62						0.4	0.62	0.2
15	Phosphate (PO ₄)	mg/l	ND	BDL	BDL	BDL	BDL	BDL	BDL								
16	Chloride	mg/l	24.4	29.5	24.4	24.6	19.7	14.7	19.7						22.9	29.5	14.7
17	Sulphate (SO ₄)	mg/l	ND	BDL	2.2	2	Trace	Trace	2.4								
18	T. Alkalinity	mg/l	20	16	20	24	28	24	32						22.0	28	16
19	T. Hardness	mg/l	80	88	84	88	96	92	80						88.0	96	80
20	CalciumHardness	mg/l	52	48	52	52	64	64	60						55.3	64	48
21	Magnesium H.	mg/l	58	40	32	36	32	28	20						37.7	58	28
22	D. Oxygen	mg/l	7	7.1	6.8	7	7.2	7	7.4						7.0	7.2	6.8
23	B.O.D.	mg/l	0.8	1.2	0.8	0.6	1.5	1.4	1.1						1.1	1.5	0.6
24	C.O.D.	mg/l	ND	BDL	5	BDL	BDL	BDL	BDL								
25	Sodium	mg/l	-	-	-	-	-	-	-								
26	Potassium	mg/l	-	-	-	-	-	-	-	-	-	-	-	-			
27	T. Coliform	MPN/100ml	<2	2	<2	4	2	<2	2						2.7	4	2
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<2								
29	T.K.N.	mg/l	-	-	-	-	-	-	-								

CATEGORY

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Classification of River water based on IS - 2296 - 1982

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								
2	Appearance		Clear	Clear	Clear			Clear	Clear								
3	Temperature	oC	26.4	34	26.8	26.2	28.6	29	27.4						28.5	34	26.2
4	Turbidity	NTU	2.7	3.4	3.2	3.2	6.4	3.4	2.8						3.7	6.4	2.7
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.41	7.61	7.62	7.8	7.71	7.33	7.82						7.6	7.8	7.33
8	Sp. Conductivity	µMhos/cm.	217	211.3	242.4	342.4	201.6	204.3	181.1						236.5	342.4	201.6
9	T. Solids	mg/l	176	178	187	212	196	191	188						190.0	212	176
10	D. Solids	mg/l	169	170	177	200	180	173	178						178.2	200	169
11	S. Solids	mg/l	7	8	10	12	16	18	10						11.8	18	7
12	Amm. Nitrogen	mg/l	Trace	Trace	0.03	0.01	0.06	0.06	0.08								
13	Nitrite Nitrogen	mg/l	Trace	Trace	0.006	0.008	0.03	Trace	0.006								
14	Nitrate Nitrogen	mg/l	0.4	0.22	0.4	0.64	0.6	0.6	0.8						0.5	0.64	0.22
15	Phosphate (PO ₄)	mg/l	BDL	BDL	BDL	BDL	0.2	0.24	0.04								
16	Chloride	mg/l	24.4	29.5	34.4	34.4	19.7	19.7	29.5						27.0	34.4	19.7
17	Sulphate (SO ₄)	mg/l	4.4	-	3	4.6	4.2	3	4.8						3.8	4.6	3
18	T. Alkalinity	mg/l	24	28	28	32	32	28	36						28.7	32	24
19	T. Hardness	mg/l	96	92	100	112	116	124	76						106.7	124	92
20	CalciumHardness	mg/l	64	56	60	76	72	84	52						68.7	84	56
21	Magnesium H.	mg/l	32	36	40	36	44	40	24						38.0	44	32
22	D. Oxygen	mg/l	7.7	7.7	7.5	7.5	7.5	7.4	7.8						7.6	7.7	7.4
23	B.O.D.	mg/l	1.2	1.4	1.1	1.7	1.4	1.6	1.4						1.4	1.7	1.1
24	C.O.D.	mg/l	BDL	9.6	5	10	9.6	9.6	5						8.8	10	5
25	Sodium	mg/l	-	-	-	-	-	-	-								
26	Potassium	mg/l	-	-	-	-	-	-	-								
27	T. Coliform	MPN/100ml	27	33	34	70	70	40	22						45.7	70	27
28	F. Coliform	MPN/100ml	<2	<2	2	8	7	<2	<2								
29	T.K.N.	mg/l	-	-	-	-	-	-	-								

CATEGORY

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Classification of River water based on IS - 2296 - 1982

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 Intake 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								
2	Appearance		Clear	Clear	Clear			Clear	Clear								
3	Temperature	oC	28.5	36	27.6	26.4	29	29.4	28.2						29.5	36	26.4
4	Turbidity	NTU	2.8	3.4	3.8	6.4	22	6.2	3.6						7.4	22	2.8
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.84	8.01	7.68	7.72	7.7	8.02	7.71						7.8	8.02	7.68
8	Sp. Conductivity	µMhos/cm.	242.6	241.3	245.1	512.3	411.4	321.2	203.2						329.0	512.3	241.3
9	T. Solids	mg/l	204	197	200	387	390	211	196						264.8	390	197
10	D. Solids	mg/l	195	189	193	369	344	187	181						246.2	369	187
11	S. Solids	mg/l	9	8	7	18	46	24	15						18.7	46	7
12	Amm. Nitrogen	mg/l	Trace	0.02	0.06	0.08	0.04	0.06	0.02						0.1	0.08	0.02
13	Nitrite Nitrogen	mg/l	Trace	0.004	0.02	0.004	0.002	0.01	0.01						0.0	0.02	0.002
14	Nitrate Nitrogen	mg/l	0.61	0.68	0.8	0.82	1.2	0.6	0.62						0.8	1.2	0.6
15	Phosphate (PO ₄)	mg/l	ND	BDL	BDL	0.2	0.4	0.2	0.14								
16	Chloride	mg/l	29.5	29.5	29.5	34.4	19.7	14.7	14.7						26.2	34.4	14.7
17	Sulphate (SO ₄)	mg/l	6.4	4.8	4.4	6.2	6	4.8	6						5.4	6.4	4.4
18	T. Alkalinity	mg/l	28	32	32	36	48	44	40						36.7	48	28
19	T. Hardness	mg/l	120	136	132	136	124	120	128						128.0	136	120
20	Calcium Hardness	mg/l	88	76	76	88	76	76	80						80.0	88	76
21	Magnesium H.	mg/l	32	60	56	48	48	44	48						48.0	60	32
22	D. Oxygen	mg/l	8.2	7.9	7.8	7.7	7.8	8.1	8.1						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	1.8	0.7
24	C.O.D.	mg/l	10	9.6	5	15	19.2	9.6	10						11.4	19.2	5
25	Sodium	mg/l	-	-	-	-	-	-	-								
27	T. Coliform	MPN/100ml	27	34	30	70	110	50	21						53.5	110	27
28	F. Coliform	MPN/100ml	<2	<2	<2	8	12	2	<2								
29	T.K.N.	mg/l	-	-	-	-	-	-	-								

CATEGORY

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Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada At Dindori

Description of Sampling Station: 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								
2	Appearance		Clear	Clear	Clear			Clear	Clear								
3	Temperature	oC	28.6	36	27.6	26.2	29	29.4	28.2						29.5	36	26.2
4	Turbidity	NTU	3.1	3.8	4.6	8.2	24	6.6	3.8						8.4	24	3.1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.96	8.11	7.7	7.9	7.76	8.12	7.85						7.9	8.12	7.7
8	Sp. Conductivity	µMhos/cm.	256.4	287.3	341.4	551.6	418.6	343.2	221.5						366.4	551.6	256.4
9	T. Solids	mg/l	215	203	229	397	402	221	205						277.8	402	203
10	D. Solids	mg/l	204	191	218	376	354	193	189						256.0	376	191
11	S. Solids	mg/l	11	12	11	21	48	28	16						21.8	48	11
12	Amm. Nitrogen	mg/l	0.06	0.08	0.08	0.08	0.06	0.08	0.05						0.1	0.08	0.06
13	Nitrite Nitrogen	mg/l	0.008	0.006	0.04	0.006	0.004	0.02	0.02						0.0	0.04	0.004
14	Nitrate Nitrogen	mg/l	0.88	0.8	0.84	1.22	1.4	0.82	0.84						1.0	1.4	0.8
15	Phosphate (PO ₄)	mg/l	0.2	0.26	0.4	0.64	0.44	0.22	0.22						0.4	0.64	0.2
16	Chloride	mg/l	34.4	34.4	44.3	44.3	24.6	24.6	19.7						34.4	44.3	24.6
17	Sulphate (SO ₄)	mg/l	6.2	5.6	6	8.4	6.4	5	6.4						6.3	8.4	5
18	T. Alkalinity	mg/l	32	36	40	44	52	48	44						42.0	52	32
19	T. Hardness	mg/l	128	148	140	148	128	124	132						136.0	148	124
20	CalciumHardness	mg/l	88	80	80	96	84	72	84						83.3	96	72
21	Magnesium H.	mg/l	40	68	60	52	44	52	48						52.7	68	40
22	D. Oxygen	mg/l	8	8	8.2	7.9	7.6	8	8.4						8.0	8.2	7.6
23	B.O.D.	mg/l	1.7	2	1.6	2	1.8	2	1.8						1.9	2	1.6
24	C.O.D.	mg/l	20	19.2	10	20	28.8	19.2	10						19.5	28.8	10
25	Sodium	mg/l	-	-	-	-	-	-	-								
26	Potassium	mg/l	-	-	-	-	-	-	-								
27	T. Coliform	MPN/100ml	40	50	40	110	130	70	40						73.3	130	40
28	F. Coliform	MPN/100ml	<2	2	8	12	33	12	4						13.4	33	2
29	T.K.N.	mg/l	-	-	-	-	-	-	-								
	CATEGORY		A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, JABALPUR.

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: River 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								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1	2	6	8	6	15	1.5						6.3	15	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.22	7.25	8.52	8.6	8.36	7.92	7.24						8.0	8.6	7.22
8	Sp. Conductivity	µMhos/cm.	186	304	203	182	370	169	245						235.7	370	169
9	T. Solids	mg/l	318	268	176	150	388	176	210.0						246.0	388	150
10	D. Solids	mg/l	276	236	164	124	364	132	173						216.0	364	124
11	S. Solids	mg/l	42	32	12	26	24	44	37						30.0	44	12
12	Amm. Nitrogen	mg/l	0.32	0.64	0.4	0.42	0.5	0.4	0.45						0.4	0.64	0.32
13	Nitrite Nitrogen	mg/l	1.34	0.09	0.3	0.22	0.35	0.2	0.30						0.4	1.34	0.09
14	Nitrate Nitrogen	mg/l	0.1	0.5	0.3	0.3	0.5	0.6	0.40						0.4	0.6	0.1
15	Phosphate (PO ₄)	mg/l	0.04	0.033	0.1	0.132	0.112	0.132	0.4						0.1	0.132	0.033
16	Chloride	mg/l	12.4	17.49	6	12.5	15	2.5	12.0						11.0	17.49	2.5
17	Sulphate (SO ₄)	mg/l	6.4	7.6	4.25	3.5	10	9.5	5.0						6.9	10	3.5
18	T. Alkalinity	mg/l	16	16	10	12	12	8	14.0						12.3	16	8
19	T. Hardness	mg/l	56	68	92	84	132	64	60.0						82.7	132	56
20	CalciumHardness	mg/l	48	40	80	76	104	56	45.0						67.3	104	40
21	Magnesium H.	mg/l	18	28	12	8	28	8	15.0						17.0	28	8
22	D. Oxygen	mg/l	7.9	7.8	7.7	7.8	7.2	7.8	7.4						7.7	7.9	7.2
23	B.O.D.	mg/l	1.3	1.2	0.9	0.8	1.8	1.3	1.5						1.2	1.8	0.8
24	C.O.D.	mg/l	12	12	8	8	16	8	12.0						10.7	16	8
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	36	36	34	40	49	46	31.0						40.2	49	34
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
	Cat.		A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

Water Quality during Year - 2017-18

Natural Water Resource River Narmada

Description of Sampling Station: River 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								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1		10	12	10	22	2.0						11.0	22	1
5	Colour	PCS	CL	CL	CL	CL	--	--	CL								
6	Odour	T. No	OL	OL	OL	OL	--	--	OL								
7	pH	pH Unit	7.24	7.34	8.46	8.5	8.34	7.82	7.3						8.0	8.5	7.24
8	Sp. Conductivity	µMhos/cm.	368	294	226	214	370	208	252						280.0	370	208
9	T. Solids	mg/l	318	286	192	198	384	220	225						266.3	384	192
10	D. Solids	mg/l	282	251	176	154	362	164	195						231.5	362	154
11	S. Solids	mg/l	42	35	16	34	22	56	30						34.2	56	16
12	Amm. Nitrogen	mg/l	0.8	0.32	0.46	0.42	0.44	0.4	0.40						0.5	0.8	0.32
13	Nitrite Nitrogen	mg/l	1.34	0.1	0.6	0.24	0.25	0.2	0.25						0.5	1.34	0.1
14	Nitrate Nitrogen	mg/l	0.12	0.8	0.3	0.35	0.5	0.6	0.35						0.4	0.8	0.12
15	Phosphate (PO ₄)	mg/l	0.04	0.04	0.132	0.165	0.112	0.165	0.5						0.1	0.165	0.04
16	Chloride	mg/l	14.99	14.99	12	22.5	15	2.5	10.0						13.7	22.5	2.5
17	Sulphate (SO ₄)	mg/l	7.6	6.4	5.25	3.5	10	10	4.0						7.1	10	3.5
18	T. Alkalinity	mg/l	18	18	16	20	10	12	12.0						15.7	20	10
19	T. Hardness	mg/l	72	66	120	124	128	80	75						98.3	128	66
20	CalciumHardness	mg/l	44	42	96	96	96	64	50						73.0	96	42
21	Magnesium H.	mg/l	28	24	24	28	32	16	25						25.3	32	16
22	D. Oxygen	mg/l	7.9	7.9	7.6	7.6	7.3	7.8	7.4						7.7	7.9	7.3
23	B.O.D.	mg/l	1.4	1.2	1.1	1.2	1.6	1.2	1.4						1.3	1.6	1.1
24	C.O.D.	mg/l	12	12	8	8	24	8	10.0						12.0	24	8
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	35	39	39	46	47	46	38.0						42.0	47	35
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

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

Natural Water Resource : River Narmada

Description of Sampling Station: River Narmada At JAMTARA JABLPUR.

S.No.	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		25.4.17	15.5.17	15.6.17	4.7.17	4.8.17	5.9.17	7.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	5	1.8	1	6	4.3	6	1.3						4.0	6	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	8.34	8.17	7.31	7.1	7.36	7.48	7.08						7.6	8.34	7.1
8	Sp. Conductivity	µMhos/cm.	311	189	354	356	814	450	218						412.3	814	189
9	T. Solids	mg/l	326	171	313	344	293	468	198						319.2	468	171
10	D. Solids	mg/l	284	145	281	292	256	436	175						282.3	436	145
11	S. Solids	mg/l	42	26	32	52	37	32	23						36.8	52	26
12	Amm. Nitrogen	mg/l	0.42	0.9	0.32	0.2	1.6	0.4	0.42						0.6	1.6	0.2
13	Nitrite Nitrogen	mg/l	0.32	0.6	0.09	0.09	0.8	0.32	0.39						0.4	0.8	0.09
14	Nitrate Nitrogen	mg/l	0.5	0.7	0.09	0.1	1	0.38	0.56						0.5	1	0.09
15	Phosphate (PO ₄)	mg/l	0.112	1	0.033	5.23	2	0.112	0.5						1.4	5.23	0.033
16	Chloride	mg/l	12	4.95	19.99	12.49	16.83	32.48	5.94						16.5	32.48	4.95
17	Sulphate (SO ₄)	mg/l	10	3.8	6.4	4.4	7	10	3.4						6.9	10	3.8
18	T. Alkalinity	mg/l	10	8	12	12	38	8	6.0						14.7	38	8
19	T. Hardness	mg/l	128	78	68	70	144	136	60.0						104.0	144	68
20	Calcium Hardness	mg/l	96	44	46	50	108	104	36						74.7	108	44
21	Magnesium H.	mg/l	32	34	22	20	36	32	24.0						29.3	36	20
22	D. Oxygen	mg/l	7.4	7.3	7.7	7.9	7.8	7.2	7.6						7.6	7.9	7.2
23	B.O.D.	mg/l	1.8	1.6	1.2	1.2	1.4	1.8	1.6						1.5	1.8	1.2
24	C.O.D.	mg/l	16	13	12	12	18	16	12.0						14.5	18	12
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	25	40	39	23	40	58	31.0						37.5	58	23
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
29	T.K.N.	mg/l	--	--	--	--	--	--	--								

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Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station : River 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	1.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1	1.8	5	6	6.3	1.5	1.8						3.6	6.3	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.35	8.13	8.33	7.12	8.63	7.36	7.61						7.8	8.63	7.12
8	Sp. Conductivity	µMhos/cm.	364	193	285	352	345	337	219						312.7	364	193
9	T. Solids	mg/l	343	171	298	346	316	295	203						294.8	346	171
10	D. Solids	mg/l	307	149	272	308	275	271	175						263.7	308	149
11	S. Solids	mg/l	36	22	26	38	41	24	28						31.2	41	22
12	Amm. Nitrogen	mg/l	0.2	0.9	0.32	0.06	1.3	0.73	0.43						0.6	1.3	0.06
13	Nitrite Nitrogen	mg/l	0.8	0.4	0.34	0.04	0.6	0.64	0.27						0.5	0.8	0.04
14	Nitrate Nitrogen	mg/l	0.09	0.5	0.32	0.26	0.8	1.73	0.63						0.6	1.73	0.09
15	Phosphate (PO ₄)	mg/l	0.04	0.8	0.112	0.023	0.7	0.68	0.4						0.4	0.8	0.023
16	Chloride	mg/l	17.49	6.93	12.49	14.99	12	7.92	6.93						12.0	17.49	6.93
17	Sulphate (SO ₄)	mg/l	5.4	3.9	2	5.4	8	4.13	3.6						4.8	8	2
18	T. Alkalinity	mg/l	16	10	10	14	30	28	8.0						18.4	30	10
19	T. Hardness	mg/l	72	76	112	76	96	120	62						92.0	120	72
20	CalciumHardness	mg/l	46	54	84	52	54	70	40						60.0	84	46
21	Magnesium H.	mg/l	26	22	128	24	42	50	22						48.7	128	22
22	D. Oxygen	mg/l	7.9	7.4	7.5	7.9	7.8	7.8	7.3						7.7	7.9	7.4
23	B.O.D.	mg/l	1.1	1.4	1.4	1.2	1.7	1.4	1.2						1.4	1.7	1.1
24	C.O.D.	mg/l	8	11	4	12	13	11	10.0						9.8	13	4
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	26	38	31	28	10	33	33.0						27.7	38	10
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
29	T.K.N.	mg/l	--	--	--	--	--	--	--								
	Cat.		A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: River 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	1.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	6	1.7	6	6	3.8	1.5	1.6						4.2	6	1.5
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	8.35	8.11	8.38	7.26	8.17	7.36	7.33						7.9	8.38	7.26
8	Sp. Conductivity	µMhos/cm.	346	178	310	368	361	361	233						320.7	368	178
9	T. Solids	mg/l	356	163	318	345	325	310	214						302.8	356	163
10	D. Solids	mg/l	338	143	284	303	283	281	187						272.0	338	143
11	S. Solids	mg/l	18	20	34	42	42	29	27						30.8	42	18
12	Amm. Nitrogen	mg/l	0.42	0.8	0.44	0.2	1.1	0.56	0.42						0.6	1.1	0.2
13	Nitrite Nitrogen	mg/l	0.5	0.7	0.36	0.1	0.8	0.43	0.39						0.5	0.8	0.1
14	Nitrate Nitrogen	mg/l	0.32	0.8	0.34	0.5	0.9	2.74	0.53						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						1.7	7.6	0.033
16	Chloride	mg/l	9.99	5.9	12.49	14.99	11	7	7.92						10.2	14.99	5.9
17	Sulphate (SO ₄)	mg/l	7.6	2.4	2.4	7.6	4.9	3.7	3.0						4.8	7.6	2.4
18	T. Alkalinity	mg/l	10	8	12	14	36	34	10.0						19.0	36	8
19	T. Hardness	mg/l	132	58	132	72	104	140	66						106.3	140	58
20	CalciumHardness	mg/l	96	40	100	48	60	96	40						73.3	100	40
21	Magnesium H.	mg/l	36	18	32	24	44	44	26						33.0	44	18
22	D. Oxygen	mg/l	7.6	7.8	7.5	7.9	8.3	7.8	7.4						7.8	8.3	7.5
23	B.O.D.	mg/l	1.6	1.1	1.8	1.2	1.2	1.6	1.3						1.4	1.8	1.1
24	C.O.D.	mg/l	16	10	4	12	13	9	11.0						10.7	16	4
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	29	34	40	39	40	43	38.0						37.5	43	29
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
29	T.K.N.	mg/l	--	--	--	--	--	--	--								
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

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

Natural Water Resource : River 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	1.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1	1.7	5		4.2	1.8	2.0						2.7	5	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.31	8.04	8.32	7.23	8.11	7.83	7.40						7.8	8.32	7.23
8	Sp. Conductivity	µMhos/cm.	367	200	294	362	383	361	249						327.8	383	200
9	T. Solids	mg/l	337	183		349	354	319	235						308.4	354	183
10	D. Solids	mg/l	294	159		312	306	289	190						272.0	312	159
11	S. Solids	mg/l	43	24		37	48	30	45						36.4	48	24
12	Amm. Nitrogen	mg/l	0.64	0.8		0.2	1.7	0.63	0.50						0.8	1.7	0.2
13	Nitrite Nitrogen	mg/l	0.8	0.6		0.09	0.8	0.81	0.40						0.6	0.81	0.09
14	Nitrate Nitrogen	mg/l	0.12	0.5		0.34	1	2.71	0.50						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						0.3	0.8	0.033
16	Chloride	mg/l	17.49	5.94	12.49	19.99	8	7	7.8						11.8	19.99	5.94
17	Sulphate (SO ₄)	mg/l	7.6	3.4	2	6.4	6.3	5.61	5.0						5.2	7.6	2
18	T. Alkalinity	mg/l	14	10		14	24	28	12.0						18.0	28	10
19	T. Hardness	mg/l	70	82		74	136	138	80						100.0	138	70
20	CalciumHardness	mg/l	50	62		52	94	94	58						70.4	94	50
21	Magnesium H.	mg/l	20	20		22	42	44	22						29.6	44	20
22	D. Oxygen	mg/l	7.8	7.6	7.5	7.8	8.1	7	7.5						7.6	8.1	7
23	B.O.D.	mg/l	1.3	1.4	1.6	1.2	1.4	1.8	1.8						1.5	1.8	1.2
24	C.O.D.	mg/l	12	13	4	12	18	11	12.0						11.7	18	4
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	39	46	34	43	41	47	38.0						41.7	47	34
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

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

Natural Water Resource : River Narmada

Description of Sampling Station: River 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		18.04.17	15.5.17	15.6.17	4.7.17	4.8.17	4.9.17	7.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1	2	6	6	6	2.3	1.8						3.9	6	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.16	8.61	8.29	7.25	8.11	7.92	7.39						7.9	8.61	7.16
8	Sp. Conductivity	µMhos/cm.	375	191	310	368	383	384	233						335.2	384	191
9	T. Solids	mg/l	333	169	326	354	354	350	220.0						314.3	354	169
10	D. Solids	mg/l	285	149		308	306	308	180.0						271.2	308	149
11	S. Solids	mg/l	48	20		46	48	42	40						40.8	48	20
12	Amm. Nitrogen	mg/l	0.9	0.5		0.32	1.7	0.83	0.50						0.9	1.7	0.32
13	Nitrite Nitrogen	mg/l	1.34	0.3		0.09	0.8	0.9	0.45						0.7	1.34	0.09
14	Nitrate Nitrogen	mg/l	0.15	0.4		0.8	1	4.19	0.48						1.3	4.19	0.15
15	Phosphate (PO ₄)	mg/l	0.054	0.6		0.057	0.8	0.55	0.40						0.4	0.8	0.054
16	Chloride	mg/l	12.44	6.93	12.49	22.49	8	7.92	7.78						11.7	22.49	6.93
17	Sulphate (SO ₄)	mg/l	4.4	3.6		6.7	6.3	6.34	4.0						5.5	6.7	3.6
18	T. Alkalinity	mg/l	14	12	10	16	24	36	10.0						18.7	36	10
19	T. Hardness	mg/l	68	86	124	78	136	142	75						105.7	142	68
20	CalciumHardness	mg/l	42	60	86	46	94	100	55.0						71.3	100	42
21	Magnesium H.	mg/l	26	20	28	32	42	42	20.0						31.7	42	20
22	D. Oxygen	mg/l	7.8	7.2	7.5	7.7	8.1	6.8	7.5						7.5	8.1	6.8
23	B.O.D.	mg/l	1.3	1.6	1.5	1.3	1.4	2	1.7						1.5	2	1.3
24	C.O.D.	mg/l	8	12	4	12	18	12	10.0						11.0	18	4
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	36	34	39	46	41	48	31.0						40.7	48	34
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

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

Natural Water Resource : River Narmada

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	7.10.17								
2	Appearance		--	--	--	--	--	--	--								
3	Temperature	oC	--	--	--	--	--	--	--								
4	Turbidity	NTU	1.3	1	1	6	8	3	6.0						3.4	8	1
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.78	7.21	7.63	7.26	8.38	7.14	8.31						7.6	8.38	7.14
8	Sp. Conductivity	µMhos/cm.	260	366	200	348	330	362	360						311.0	366	200
9	T. Solids	mg/l	228	318	186	348	368	354	382						300.3	368	186
10	D. Solids	mg/l	212	279	162	296	312	306	358						261.2	312	162
11	S. Solids	mg/l	16	39	24	52	56	48	24						39.2	56	16
12	Amm. Nitrogen	mg/l	0.4	0.2	0.42	0.8	0.44	0.8	0.42						0.5	0.8	0.2
13	Nitrite Nitrogen	mg/l	0.5	0.5	0.71	0.1	0.15	0.1	0.34						0.3	0.71	0.1
14	Nitrate Nitrogen	mg/l	BDL	0.8	0.13	1.34	0.24	1.34	0.50						0.8	1.34	0.13
15	Phosphate (PO ₄)	mg/l	BDL	0.03	0.6	7.7	7.2	0.057	0.112						3.1	7.7	0.03
16	Chloride	mg/l	12	12.49	6.93	296	17.49	19.99	14.99						60.8	296	6.93
17	Sulphate (SO ₄)	mg/l	6.25	6.4	2.7	5.4	7.2	5.4	10.0						5.6	7.2	2.7
18	T. Alkalinity	mg/l	12	14	8	18	10	22	8.0						14.0	22	8
19	T. Hardness	mg/l	132	56	76	76	156	82	132						96.3	156	56
20	CalciumHardness	mg/l	84	42	48	52	124	54	104						67.3	124	42
21	Magnesium H.	mg/l	48	14	28	26	32	28	28						29.3	48	14
22	D. Oxygen	mg/l	7.5	7.9	7.8	7.7	7.2	7.5	7.2						7.6	7.9	7.2
23	B.O.D.	mg/l	1.2	1.2	1.2	1.5	1.8	1.6	2.0						1.4	1.8	1.2
24	C.O.D.	mg/l	8	12	10	16	16	16	16.0						13.0	16	8
25	Sodium	mg/l	--	--	--	--	--	--	--								
26	Potassium	mg/l	--	--	--	--	--	--	--								
27	T. Coliform	MPN/100ml	40	39	41	39	47	46	46.0						42.0	47	39
28	F. Coliform	MPN/100ml	--	--	--	--	--	--	--								
29	T.K.N.	mg/l	--	--	--	--	--	--	--								
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

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	Apr.	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	28.0817								-	-	-
2	Appearance		Clear	Clear	Clear		S. Turbid								-	-	-
3	Temperature	oC	-	28	29	23	24								-	-	-
4	Turbidity	NTU	8	10	10	34	32								18.80	34.0	8.0
5	Colour	PCS	CL	CL	CL	CL	CL								-	-	-
4	Odour	T. No	OL	OL	OL	OL	OL								-	-	-
7	pH	pH Unit	7.96	7.78	7.82	7.74	7.68								7.80	8.0	7.7
8	Sp. Conductivity	µMhos/cm.	254	252	256	250	254								253.20	256.0	250.0
9	T. Solids	mg/l	222	228	230	448	458								317.20	458.0	222.0
10	D. Solids	mg/l	214	218	220	214	222								217.60	222.0	214.0
11	S. Solids	mg/l	8	10	10	234	236								99.60	236.0	8.0
12	Amm. Nitrogen	mg/l	0.018	0.020	0.025	0.015	0.02								0.02	0.0	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL										
14	Nitrate Nitrogen	mg/l	0.16	0.15	0.20	0.30	0.12								0.19	0.3	0.1
15	Phosphate (PO ₄)	mg/l	0.2	0.4	0.5	0.3	0.4								0.36	0.5	0.2
16	Chloride	mg/l	26.99	27.99	26.99	25.07	26.63								26.73	28.0	25.1
17	Sulphate (SO ₄)	mg/l	2.6	2.5	2.6	2.4	2.5								2.52	2.6	2.4
18	T. Alkalinity	mg/l	130	132	134	130	132								131.60	134.0	130.0
19	T. Hardness	mg/l	116	120	122	116	118								118.40	122.0	116.0
20	CalciumHardness	mg/l	94	96	98	94	96								95.60	98.0	94.0
21	Magnesium H.	mg/l	22	24	24	22	24								23.20	24.0	22.0
22	D. Oxygen	mg/l	7.9	7.7	7.6	7.8	7.8								7.76	7.9	7.6
23	B.O.D.	mg/l	1.3	1.4	1.5	1.4	1.3								1.38	1.5	1.3
24	C.O.D.	mg/l	9.88	9.68	19.36	19.36	9								13.46	19.4	9.0
25	Sodium	mg/l	13.23	14.21	14.34	13.42	13.21								13.68	14.3	13.2
26	Potassium	mg/l	1.03	1.04	1.04	1.02	1.01								1.03	1.0	1.0
27	T. Coliform	MPN/100ml	34	40	47	280	150								110.20	280.0	34.0
28	F. Coliform	MPN/100ml	<2	<2	<2	6.00	<2								6.00	6.0	6.0
29	Boron	mg/l	-														
30	S.A.R.	meq/l	0.13														
Cat.			A	A	A	A	A										

Classification of River water based on IS - 2296 – 1982

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	Apr.	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						-	-	-
2	Appearance		Clear	Clear	Clear	S. Turbid	S. Turbid	Clear	clear						-	-	-
3	Temperature	oC	-	-	28	24	23	23	26						-	-	-
4	Turbidity	NTU	6	8	8	34	32	10	10						17.60	34.0	6.0
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL						-	-	-
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL						-	-	-
7	pH	pH Unit	8.10	7.84	7.92	7.78	7.82	7.62	7.68						7.89	8.1	7.8
8	Sp. Conductivity	µMhos/cm.	246	248	252	244	254	246	242						248.80	254.0	244.0
9	T. Solids	mg/l	204	206	212	446	446	226	170						302.80	446.0	204.0
10	D. Solids	mg/l	196	198	202	208	212	216	162						203.20	212.0	196.0
11	S. Solids	mg/l	8	8	10	238	234	10	8						99.60	238.0	8.0
12	Amm. Nitrogen	mg/l	0.02	0.03	0.04	0.02	0.01	0.04	BDL						0.02	0.0	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL								
14	Nitrate Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	3								
15	Phosphate (PO ₄)	mg/l	0.11	0.12	0.15	0.10	0.2	0.25	BDL						0.14	0.2	0.1
16	Chloride	mg/l	25.62	26.99	27.96	24.99	22.66	23.65	24.99						25.64	28.0	22.7
17	Sulphate (SO ₄)	mg/l	2.9	3.0	3.5	2.5	3	3.6	8.5						2.98	3.5	2.5
18	T. Alkalinity	mg/l	132	134	138	128	130	132	134						132.40	138.0	128.0
19	T. Hardness	mg/l	124	124	130	122	128	134	130						125.60	130.0	122.0
20	CalciumHardness	mg/l	104	106	110	104	108	112	106						106.40	110.0	104.0
21	Magnesium H.	mg/l	20	18	20	18	20	22	24						19.20	20.0	18.0
22	D. Oxygen	mg/l	7.7	7.8	7.7	7.9	7.8	7.8	7.8						7.78	7.9	7.7
23	B.O.D.	mg/l	1.4	1.3	1.4	1.4	1.5	1.3	1.4						1.40	1.5	1.3
24	C.O.D.	mg/l	9.88	10.0	9.68	9.68	9.2	10	10						9.69	10.0	9.2
25	Sodium	mg/l	14.32	14.42	15.12	14.21	14.26	15.26	16.14						14.47	15.1	14.2
26	Potassium	mg/l	1.02	1.03	1.04	1.01	1.02	1.01	1.2						1.02	1.0	1.0
27	T. Coliform	MPN/100ml	34	40	34	280	230	36	34						123.60	280.0	34.0
28	F. Coliform	MPN/100ml	<2	<2	<2	4	<2	<2	<2						4.00	4.0	4.0
29	Boron	mg/l	BDL	BDL	BDL	BDL		BDL	BDL								
30	S.A.R.	meq/l	0.18	-	-	-		-	-						0.18	0.18	0.18
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: River Narmada at near Budhnighat Budhani (Opposite - Bhandrabhan)

S.No.	Characteristic	Unit	Apr.	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								-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Turbid	Sl. Turbid								-	-	-
3	Temperature	oC	27	28	29	23	24								-	-	-
4	Turbidity	NTU	10	10	10	36	32								19.60	36.0	10.0
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL						-	-	-
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL						-	-	-
7	pH	pH Unit	8.01	7.94	7.82	7.78	7.68								7.85	8.0	7.7
8	Sp. Conductivity	µMhos/cm.	246	252	254	248	254								250.80	254.0	246.0
9	T. Solids	mg/l	228	232	240	444	552								339.20	552.0	228.0
10	D. Solids	mg/l	218	222	228	212	218								219.60	228.0	212.0
11	S. Solids	mg/l	10	10	12	232	234								99.60	234.0	10.0
12	Amm. Nitrogen	mg/l	0.042	0.055	0.045	0.035	0.03								0.04	0.1	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL										
14	Nitrate Nitrogen	mg/l	0.16	0.20	0.25	0.30	0.02								0.19	0.3	0.0
15	Phosphate (PO4)	mg/l	0.0	0.03	0.04	0.2	0.4								0.14	0.4	0.0
16	Chloride	mg/l	28.57	26.03	26.99	25.07	24.63								26.26	28.6	24.6
17	Sulphate (SO4)	mg/l	2.9	2.8	2.9	2.6	2.6								2.76	2.9	2.6
18	T. Alkalinity	mg/l	132	136	138	128	134								133.60	138.0	128.0
19	T. Hardness	mg/l	126	130	132	120	124								126.40	132.0	120.0
20	Calcium Hardness	mg/l	106	108	110	102	104								106.00	110.0	102.0
21	Magnesium H.	mg/l	20	22	22	18	20								20.40	22.0	18.0
22	D. Oxygen	mg/l	7.8	7.7	7.6	7.8	7.7								7.72	7.8	7.6
23	B.O.D.	mg/l	1.2	1.4	1.5	1.3	1.4								1.36	1.5	1.2
24	C.O.D.	mg/l	9.88	19.36	19.36	9.68	9.6								13.58	19.4	9.6
25	Sodium	mg/l	13.47	14.21	14.54	13.21	14.26								13.94	14.5	13.2
26	Potassium	mg/l	1.04	1.05	1.04	1.03	1.02								1.04	1.1	1.0
27	T. Coliform	MPN/100ml	40	47	46	210	150								98.60	210.0	40.0
28	F. Coliform	MPN/100ml	<2	<2	<2	2.00	<2								2.00	2.0	2.0
29	Boron	mg/l	-	-	-	-									-	-	-
30	S.A.R.	meq/l	0.18														
Cat.			A	A	A	A	A										

Classification of River water based on IS - 2296 – 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: Hoshangabad, Near Korighat.

S.no	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		19.04.17	03.05.17	6/26/17	12.7.17	26.08.17	04.09.17	04.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Turbid	Sl. Turbid	Clear	clear						-	-	-
3	Temperature	oC	-	28	29	23	24	24	26						-	-	-
4	Turbidity	NTU	8	8	10	-	34	8	12						15.00	34.0	8.0
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL						-	-	-
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL						-	-	-
7	pH	pH Unit	8.04	7.92	7.84	7.73	7.76	7.69	7.98						7.86	8.0	7.7
8	Sp. Conductivity	µMhos/cm.	252	256	262	230	246	238	286						249.20	262.0	230.0
9	T. Solids	mg/l	208	202	208	430	413	202	186						292.20	430.0	202.0
10	D. Solids	mg/l	198	194	198	198	188	192	178						195.20	198.0	188.0
11	S. Solids	mg/l	10	8	10	232	228	10	8						97.60	232.0	8.0
12	Amm. Nitrogen	mg/l	0.03	0.02	0.04	0.01	0.02	0.01	0.07						0.02	0.0	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	0.17						#DIV/0!	#DIV/0!	#DIV/0!
14	Nitrate Nitrogen	mg/l	3.0	2.0	1.5	1.02	1.04	1.02	3.45						1.71	3.0	1.0
15	Phosphate (PO4)	mg/l	0.014	0.013	0.015	0.02	0.25	0.01	BDL						0.06	0.3	0.0
16	Chloride	mg/l	26.60	27.99	28.92	23.99	23.65	24.63	23.99						26.23	28.9	23.7
17	Sulphate (SO4)	mg/l	3.0	2.0	2.0	1.8	1.6	1.5	6.25						2.08	3.0	1.6
18	T. Alkalinity	mg/l	136	134	138	132	128	130	124						133.60	138.0	128.0
19	T. Hardness	mg/l	126	132	138	126	130	134	112						130.40	138.0	126.0
20	CalciumHardness	mg/l	108	112	116	108	110	112	106						110.80	116.0	108.0
21	Magnesium H.	mg/l	18	20	22	18	20	22	18						19.60	22.0	18.0
22	D. Oxygen	mg/l	7.9	7.7	7.8	8.0	7.8	7.7	7.8						7.84	8.0	7.7
23	B.O.D.	mg/l	1.6	1.4	1.5	1.3	1.4	1.3	1.3						1.44	1.6	1.3
24	C.O.D.	mg/l	19.76	10.0	9.68	9.68	9.28	10	20						11.68	19.8	9.3
25	Sodium	mg/l	15.21	14.64	15.38	14.31	13.64	12.78	14.6						14.64	15.4	13.6
26	Potassium	mg/l	1.04	1.02	1.04	1.01	1.03	1.02	1.01						1.03	1.0	1.0
27	T. Coliform	MPN/100ml	40	50	34	240	130	34	33						98.80	240.0	34.0
28	F. Coliform	MPN/100ml	<2	<2	<2	2	<2	<2	<2						2.00	2.0	2.0
29	Boron	mg/l	BDL	BDL	BDL	BDL		BDL	BDL						#DIV/0!	#DIV/0!	#DIV/0!
30	S.A.R.	meq/l	0.21			-			-						0.21	0.21	0.21
Cat.			A	A	A	A	A	A	A						A	A	A

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

Water Quality during Year - 2017-18
Natural Water Resource : River Narmada

Description of Sampling Station: Hoshangabad, Near Sethanighat

S.no	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		19.04.17	03.05.17	6/26/2017	12.7.17	28.08.17	04.09.17	04.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	S Turbid	Sl. Turbid	Clear	clear						-	-	-
3	Temperature	oC	-	-	28	23	24	23	25						-	-	-
4	Turbidity	NTU	8	10	10	34	32	8	8						18.80	34.0	8.0
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL						-	-	-
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL						-	-	-
7	pH	pH Unit	8.12	7.94	7.84	7.74	7.68	7.68	7.83						7.86	8.1	7.7
8	Sp. Conductivity	µMhos/cm.	248	252	256	248	244	252	282						249.60	256.0	244.0
9	T. Solids	mg/l	218	224	228	444	444	216	196						311.60	444.0	218.0
10	D. Solids	mg/l	210	214	218	212	218	208	188						214.40	218.0	210.0
11	S. Solids	mg/l	8	10	10	232	228	8	8						97.60	232.0	8.0
12	Amm. Nitrogen	mg/l	0.035	0.040	0.035	0.025	0.025	0.02	BDL						0.03	0.0	0.0
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL								
14	Nitrate Nitrogen	mg/l	0.16	0.15	0.20	0.10	0.15	0.25	0.25						0.15	0.2	0.1
15	Phosphate (PO ₄)	mg/l	0.24	0.26	0.30	0.20	0.25	0.35	1.01						0.25	0.3	0.2
16	Chloride	mg/l	27.59	26.99	27.96	23.99	22.66	24.63	19.99						25.84	28.0	22.7
17	Sulphate (SO ₄)	mg/l	1.9	1.8	2.1	1.6	1.8	2.2	5						1.84	2.1	1.6
18	T. Alkalinity	mg/l	132	136	238	128	134	138	126						153.60	238.0	128.0
19	T. Hardness	mg/l	118	122	230	124	124	130	128						143.60	230.0	118.0
20	CalciumHardness	mg/l	100	102	108	106	104	112	110						104.00	108.0	100.0
21	Magnesium H.	mg/l	18	20	22	18	20	18	18						19.60	22.0	18.0
22	D. Oxygen	mg/l	7.6	7.8	7.7	7.8	7.8	7.7	7.9						7.74	7.8	7.6
23	B.O.D.	mg/l	1.4	1.5	1.6	1.5	1.4	1.3	1.3						1.48	1.6	1.4
24	C.O.D.	mg/l	9.88	20.0	19.36	9.68	9.6	10	10						13.70	20.0	9.6
25	Sodium	mg/l	14.31	15.21	15.46	14.32	15.26	14.84	13.4						14.91	15.5	14.3
26	Potassium	mg/l	1.02	1.03	1.04	1.02	1.02	1.02	1.01						1.03	1.0	1.0
27	T. Coliform	MPN/100ml	40	50	50	220	230	31	40						118.00	230.0	40.0
28	F. Coliform	MPN/100ml	<2	<2	<2	4	<2	<2	<2						4.00	4.0	4.0
29	Boron	mg/l	0.02	BDL	BDL	BDL		BDL	BDL						0.02	0.0	0.0
30	S.A.R.	meq/l	0.20	-	-	-		-	-						0.20	0.20	0.20
Cat.			A	A	A	A	A	A	A						A	A	A

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, SHAHDOL.

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.no	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		19.04.17	02.05.17	26.06.17	12.7.17	26.08.17	04.09.2017	04.10.17								
2	Appearance		Clear	Clear	Clear	S. Turbid	Sl. Turbid	Clear	clear								
3	Temperature	oC	-	-	28	23	24	23	25						25.0	28	23
4	Turbidity	NTU	8	10	10	-	34	12	8						15.5	34	8
5	Colour	PCS	CL	CL	CL	CL	CL	CL	CL								
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	8.26	7.89	7.78	7.73	7.76	7.62	7.84						7.9	8.26	7.73
8	Sp. Conductivity	µMhos/cm.	262	264	268	230	246	258	284						254.0	268	230
9	T. Solids	mg/l	226	228	232	430	413	232	178						305.8	430	226
10	D. Solids	mg/l	216	218	222	198	188	220	168						208.4	222	188
11	S. Solids	mg/l	10	10	10	232	228	12	10						98.0	232	10
12	Amm. Nitrogen	mg/l	0.042	0.046	0.050	0.01	0.02	0.04	BDL						0.0	0.05	0.01
13	Nitrite Nitrogen	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL								
14	Nitrate Nitrogen	mg/l	0.21	0.23	1.5	1.02	1.04	1.06	3.9						0.8	1.5	0.21
15	Phosphate (PO ₄)	mg/l	2.2	2.1	2.40	0.02	0.25	22	BDL						1.4	2.4	0.02
16	Chloride	mg/l	28.57	27.99	28.92	23.99	23.65	24.64	18.99						26.6	28.92	23.65
17	Sulphate (SO ₄)	mg/l	2.2	2.1	2.4	1.8	1.6	2.8	11.25						2.0	2.4	1.6
18	T. Alkalinity	mg/l	138	140	144	132	128	136	118						136.4	144	128
19	T. Hardness	mg/l	124	124	130	126	130	116	124						126.8	130	124
20	CalciumHardness	mg/l	102	104	108	108	110	114	102						106.4	110	102
21	Magnesium H.	mg/l	22	20	22	18	20	22	22						20.4	22	18
22	D. Oxygen	mg/l	7.8	7.7	7.7	8.0	7.8	7.8	7.6						7.8	8	7.7
23	B.O.D.	mg/l	1.6	1.7	1.6	1.3	1.4	1.4	1.5						1.5	1.7	1.3
24	C.O.D.	mg/l	19.76	20	19.36	9.68	9.28	20	20						15.6	20	9.28
25	Sodium	mg/l	15.38	15.49	15.52	14.31	13.64	14.18	15.7						14.9	15.52	13.64
26	Potassium	mg/l	1.06	1.05	1.06	1.01	1.03	1.08	1.6						1.0	1.06	1.01
27	T. Coliform	MPN/100ml	50	34	50	240	130	36	40						100.8	240	34
28	F. Coliform	MPN/100ml	<2	<2	<2	2	<2	<2	<2						2.0	2	2
29	Boron	mg/l	0.01	BDL	BDL	BDL		BDL	BDL						0.0	0.01	0.01
30	S.A.R.	meq/l	0.20	-	-	-		-	-						0.2	0.2	0.2
Cat.			A	A	A	A	A	A	A								

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		4/23/2017	5/12/2017	6/12/2017										-	-	-
2	Appearance		--	--	--										-	-	-
3	Temperature	oC	--	24	24										-	-	-
4	Turbidity	NTU	1.8	1.4	2.8										2	2.8	1.4
5	Colour	PCS	5	Colourless	5										-	-	-
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL						-	-	-
7	pH	pH Unit	7.60	7.30	7.64										7.51	7.64	7.3
8	Sp. Conductivity	µMhos/cm.	396	342	386										374.66	396	342
9	T. Solids	mg/l	278	240	268										262	278	240
10	D. Solids	mg/l	268	232	256										252	268	232
11	S. Solids	mg/l	10	8	12										10	12	8
12	Amm. Nitrogen	mg/l	0.094	0.076	0.14										0.1033	0.14	0.076
13	Nitrite Nitrogen	mg/l	0.002	0.002	0.0018										0.0019	0.002	0.0018
14	Nitrate Nitrogen	mg/l	0.754	0.744	0.726										0.74	0.75	0.726
15	Phosphate (PO ₄)	mg/l	BDL	BDL	BDL												
16	Chloride	mg/l	22	20	26										22.666	26.00	20
17	Sulphate (SO ₄)	mg/l	10.6	10.0	10.2										10.266	10.60	10
18	T. Alkalinity	mg/l	110	106	100										105.33	110	100
19	T. Hardness	mg/l	170	166	158										164.66	170	158
20	CalciumHardness	mg/l	108	106	90										101.33	108	90
21	Magnesium H.	mg/l	62	60	68										63.333	68	60
22	D. Oxygen	mg/l	7.1	7	7.2										7.1	7.2	7
23	B.O.D.	mg/l	2	2	2.0										2	2	2
24	C.O.D.	mg/l	16	13	10.5										13.166	16	10.5
25	Sodium	mg/l	14.4	12.4	11.3										12.7	14.4	11.3
26	Potassium	mg/l	0.9	0.8	0.6										0.7666	0.9	0.6
27	T. Coliform	MPN/100ml	50	40	50										46.666	50	40
28	F. Coliform	MPN/100ml	6	4	7.0										5.6666	7	4
29	T.K.N.	mg/l	1.68	1.68	1.12										-	-	-
	Cat.		"A "	"A "	"A "												

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD, BHOPAL.

Water Quality during Year - 2017-18

Natural Water Resource : Narmada River at Punasa Dam

S.no	Characteristic	Unit	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear						Clear	Clear	Clear
3	Temperature	°C	30	30	30	25	--	23	23						26.83	30.00	23.00
4	Turbidity	NTU	0.8	0.6	0.9	1.4	2.2	3.2	0.8						1.414	3.20	0.60
5	Colour	PCS	1	1	1	1	1	1	1						1	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	6.94	8.2	8.3	8.45	8.46	8.3	8.42						8.15	8.46	6.94
8	Sp. Conductivity	µMhos/cm.	272.13	288.1	282	360	2960	396	364						703.18	2960	272.13
9	T. Solids	mg/l	193	203	186	218	198	267	208						210.42	267	186
10	D. Solids	mg/l	187	196	178	210	190	260	200						203	260	178
11	S. Solids	mg/l	6.0	7	8	8	8	7	8						7.4285	8	6
12	Amm. Nitrogen	mg/l	0.009	0.008	0.016	0.006	0.007	0.01	0.014						0.01	0.016	0.006
13	Nitrite Nitrogen	mg/l	0.004	0.008	BDL	0.002	0.002	0.002	0.009						0.0045	0.009	0.002
14	Nitrate Nitrogen	mg/l	0.657	0.78	0.484	0.832	0.416	0.738	0.79						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						0.01	0.019	0.006
16	Chloride	mg/l	21.05	26.6	18.434	24.99	20.9	64.02	24.88						28.70	64.02	18.434
17	Sulphate (SO ₄)	mg/l	3.556	1.8	2.62	2.42	2.93	2.73	2.83						2.70	3.556	1.8
18	T. Alkalinity	mg/l	164	128	132	136	120	180	152						144.57	180	120
19	T. Hardness	mg/l	144	108	112	108	96	164	140						124.57	164	96
20	Calcium Hardness	mg/l	120	80	90	88	72	128	112						98.57	128	72
21	Magnesium Hardness	mg/l	24	28	22	22	84	36	28						34.86	84	22
22	D. Oxygen	mg/l	7.4	7.4	7.2	6.5	6.9	6.9	7.3						7.09	7.4	6.5
23	B.O.D.	mg/l	1	1.2	1.1	1.2	1.2	1.2	1.1						1.142	1.2	1
24	C.O.D.	mg/l	8.64	9.52	12.84	15	9	12	10.78						11.11	15	8.64
25	Sodium	mg/l	14	14	16.01	16.2	14.8	14.62	15.06						14.95	16.2	14
26	Potassium	mg/l	1.3	1.7	1.2	1.4	1.5	1.26	1.4						1.394	1.7	1.2
27	T. Coliform	MPN/100ml	33	40	40	30	40	34	30						35.29	40	30
28	F. Coliform	MPN/100ml	<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						0.525	0.62	0.4
30	FDS	mg/l	136	138	118	136	120	161	124						133.29	161	118
31	T.K.N.	mg/l	2.8	5.04	3.36	4.2	4.4	3.92	4.48						4.03	5.04	2.8
32	Boron	mg/l	ND	0.004	0.006	0.002	0.002	0.003	0.004						0.00	0.006	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	30	29	30	28	24.5	23	23						26.79	30.00	23.00
4	Turbidity	NTU	0.9	0.4	1	4	14	3.3	3						3.80	14.00	0.40
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.8	8.6	8.39	8.14	7.98	8.11	7.82						8.12	8.60	7.80
8	Sp. Conductivity	µMhos/cm.	294	308	315	345	357	505	375						357.00	505.00	294.00
9	T. Solids	mg/l	223	208	216	248	262	308	284						249.86	308.00	208.00
10	D. Solids	mg/l	215	202	204	234	246	294	266						237.29	294.00	202.00
11	S. Solids	mg/l	8.0	138	12	14	16	14	18						31.43	138.00	8.00
12	Amm. Nitrogen	mg/l	0.02	0.011	0.012	0.024	0.018	0.009	0.016						0.02	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.002	0.008	BDL	0.008	0.006	0.003	0.003						0.01	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.7	0.42	0.9	0.648	0.83	0.72	0.44						0.67	0.90	0.42
15	Phosphate (PO ₄)	mg/l	0.018	0.016	0.019	0.008	0.026	0.014	0.18						0.04	0.18	0.01
16	Chloride	mg/l	24.88	26.6	27.22	34.49	28.5	114.32	23.92						39.99	114.32	23.92
17	Sulphate (SO ₄)	mg/l	6.873	1.64	1.7	3.05	6.69	4.27	6.22						4.35	6.87	1.64
18	T. Alkalinity	mg/l	152	140	148	128	168	180	160						153.71	180.00	128.00
19	T. Hardness	mg/l	148	124	132	140	124	168	120						136.57	168.00	120.00
20	Calcium Hardness	mg/l	120	104	108	100	88	132	80						104.57	132.00	80.00
21	Magnesium Hardness	mg/l	28	20	24	40	36	36	40						32.00	40.00	20.00
22	D. Oxygen	mg/l	7.4	7.2	7.3	6.6	7.2	6.8	7.4						7.13	7.40	6.60
23	B.O.D.	mg/l	1.4	1.4	1.3	1.4	1.6	1.6	1.4						1.44	1.60	1.30
24	C.O.D.	mg/l	15.36	14.28	15.68	19.2	18	18	15.68						16.60	19.20	14.28
25	Sodium	mg/l	17	14	15.02	20.18	16.08	18.8	14						16.44	20.18	14.00
26	Potassium	mg/l	1.8	1.8	2.01	1.86	1.4	1.84	1.26						1.71	2.01	1.26
27	T. Coliform	MPN/100ml	50	40	40	50	50	50	40						45.71	50.00	40.00
28	F. Coliform	MPN/100ml	<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						0.64	0.89	0.38
30	FDS	mg/l	138	138	144	156	156	180	142						150.57	180.00	138.00
31	T.K.N.	mg/l	6.16	4.482	5.04	4.48	5.6	5.04	5.6						5.20	6.16	4.48
32	Boron	mg/l	0.003	0.016	0.016	0.008	0.004	0.004	0.002						0.008	0.016	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	30	31	30	25	24	23	23						26.57	31.00	23.00
4	Turbidity	NTU	0.8	1.2	2	4.5	1.4	2.4	1.3						1.94	4.50	0.80
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.7	8.3	8.41	8.36	8.62	8.23	8.3						8.27	8.62	7.70
8	Sp. Conductivity	µMhos/cm.	286	324	402	372	404.1	466	429						383.30	466.00	286.00
9	T. Solids	mg/l	188	210	258	255	253	300	270						247.71	300.00	188.00
10	D. Solids	mg/l	182	204	248	241	242	288	262						238.14	288.00	182.00
11	S. Solids	mg/l	6.0	6	10	14	11	12	8						9.57	14.00	6.00
12	Amm. Nitrogen	mg/l	0.019	0.014	0.01	0.009	0.008	0.006	0.018						0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.005	0.022	0.011	0.001	0.009	0.002	0.003						0.01	0.02	0.00
14	Nitrate Nitrogen	mg/l	0.686	0.6	0.9	1.24	0.538	0.548	0.687						0.74	1.24	0.54
15	Phosphate (PO ₄)	mg/l	0.013	0.016	0.018	0.012	0.026	0.011	0.014						0.02	0.03	0.01
16	Chloride	mg/l	19.14	24.7	30.85	29.99	34.2	91.64	34.457						37.85	91.64	19.14
17	Sulphate (SO ₄)	mg/l	6.01	2.23	2.1	4.16	4.83	2.54	3.015						3.56	6.01	2.10
18	T. Alkalinity	mg/l	156	144	160	144	140	168	152						152.00	168.00	140.00
19	T. Hardness	mg/l	132	120	140	120	128	160	160						137.14	160.00	120.00
20	Calcium Hardness	mg/l	112	96	108	88	96	128	128						108.00	128.00	88.00
21	Magnesium Hardness	mg/l	20	24	32	32	32	32	32						29.14	32.00	20.00
22	D. Oxygen	mg/l	7.6	7.4	7.2	6.8	7.1	6.7	7.3						7.16	7.60	6.70
23	B.O.D.	mg/l	1.2	1.1	1.3	1.4	1.4	1.4	1.5						1.33	1.50	1.10
24	C.O.D.	mg/l	0.719	9.52	14.7	20	12	12	23.52						13.21	23.52	0.72
25	Sodium	mg/l	15	15.6	14.07	19.6	17.13	18.08	14.6						16.30	19.60	14.07
26	Potassium	mg/l	1.2	1.8	1.2	1.8	2.37	1.62	1.2						1.60	2.37	1.20
27	T. Coliform	MPN/100ml	40	34	40	50	40	40	30						39.14	50.00	30.00
28	F. Coliform	MPN/100ml	<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						0.65	0.72	0.56
30	FDS	mg/l	130	158	170	165	168	172	176						162.71	176.00	130.00
31	T.K.N.	mg/l	5.04	3.361	5.6	6.44	5.04	2.8	3.921						4.60	6.44	2.80
32	Boron	mg/l	0.002	0.004	0.006	0.003	0.004	0.002	0.002						0.003	0.006	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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. Jallood intake

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	14.5.17	27.6.17	19.07. 17	03.08.17	05.09.17	20.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	31	31	30	26	24	23	23						26.86	31.00	23.00
4	Turbidity	NTU	0.8	1.6	2.1	6.1	6.8	2	1.41						2.97	6.80	0.80
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.38	8.6	8.56	8.66	8.44	8.36	8.01						8.29	8.66	7.38
8	Sp. Conductivity	µMhos/cm.	288	362	380	308	347	432	453.65						367.24	453.65	288.00
9	T. Solids	mg/l	186	217	238	215	251	272	288						238.14	288.00	186.00
10	D. Solids	mg/l	180	209	228	204	242	261	280						229.14	280.00	180.00
11	S. Solids	mg/l	6	8	10	11	9	11	8						9.00	11.00	6.00
12	Amm. Nitrogen	mg/l	0.012	0.008	0.009	0.008	0.018	0.012	0.021						0.01	0.02	0.01
13	Nitrite Nitrogen	mg/l	0.002	ND	BDL	0.003	0.004	0.008	0.005						0.00	0.01	0.00
14	Nitrate Nitrogen	mg/l	0.72	0.768	0.9	0.323	0.794	0.634	0.811						0.71	0.90	0.32
15	Phosphate (PO ₄)	mg/l	0.016	0.008	0.01	0.016	0.026	0.019	0.029						0.02	0.03	0.01
16	Chloride	mg/l	18.85	23.75	29.04	23.48	42.75	27.43	23.64						26.99	42.75	18.85
17	Sulphate (SO ₄)	mg/l	2.26	1.68	2.01	3.17	7.42	3.72	7.61						3.98	7.61	1.68
18	T. Alkalinity	mg/l	124	164	168	124	160	168	150						151.14	168.00	124.00
19	T. Hardness	mg/l	120	128	132	92	128	160	100						122.86	160.00	92.00
20	CalciumHardness	mg/l	92	100	108	72	100	124	60						93.71	124.00	60.00
21	Magnesium Hardness	mg/l	28	28	24	20	28	36	40						29.14	40.00	20.00
22	D. Oxygen	mg/l	7.5	7.5	7.4	7.2	7.1	6.9	7.2						7.26	7.50	6.90
23	B.O.D.	mg/l	1.1	1.1	1	1.3	1.4	1.1	0.8						1.11	1.40	0.80
24	C.O.D.	mg/l	7.61	7.61	8.82	14.28	15	11	7.84						10.31	15.00	7.61
25	Sodium	mg/l	14.4	15.08	13.01	16.8	16.02	17.6	17.1						15.72	17.60	13.01
26	Potassium	mg/l	1.2	1.76	1.02	1.4	1.3	1.8	1.28						1.39	1.80	1.02
27	T. Coliform	MPN/100ml	30	34	34	40	40	33	40						35.86	40.00	30.00
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1						<2	<2	<2
29	Fluoride	mg/l	0.64	0.58	0.74	0.69	0.55	0.68	0.61						0.64	0.74	0.55
30	FDS	mg/l	110	146	160	132	140	168	151						143.86	168.00	110.00
31	T.K.N.	mg/l	2.8	5.6	2.24	2.241	3.92	3.921	3.08						3.40	5.60	2.24
32	Boron	mg/l	0.002	0.006	0.008	0.002	0.004	0.004	0.006						0.00	0.01	0.00
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		18.4.17	14.5.17	30.6.17	19.07.17	03.08.17	05.09.17	02.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	31	31	29	26	25	23	23						26.85	31	23
4	Turbidity	NTU	1.2	1.6	1.2	6.1	2.1	2.4	1.08						2.2	6.1	1.08
5	Colour	PCS	1	1	1	1	1	1	1						1	1	1
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.91	8.6	8.42	8.66	8.52	8.44	8.15						8.385	8.66	7.91
8	Sp. Conductivity	µMhos/cm.	294	384	328	308	400.01	489	664.7						409.67	664.7	294
9	T. Solids	mg/l	192	228	208	215	253	331	408						262.14	408	192
10	D. Solids	mg/l	184	220	199	204	240	322	398						252.43	398	184
11	S. Solids	mg/l	8	8	9	11	13	9	10						9.71	13	8
12	Amm. Nitrogen	mg/l	0.02	0.007	0.013	0.008	0.018	0.006	0.029						0.014	0.029	0.006
13	Nitrite Nitrogen	mg/l	0.002	ND	0.008	0.003	0.006	0.003	0.006						0.005	0.008	0.002
14	Nitrate Nitrogen	mg/l	0.802	0.872	0.59	0.323	0.738	0.524	0.849						0.671	0.872	0.323
15	Phosphate (PO ₄)	mg/l	0.018	0.012	0.012	0.016	0.024	0.008	0.028						0.0168	0.028	0.008
16	Chloride	mg/l	22.29	28.3	23.59	23.48	19	32.92	28.71						25.47	32.92	19
17	Sulphate (SO ₄)	mg/l	2.56	2.01	2.16	3.17	3.48	2.724	2.08						2.60	3.48	2.01
18	T. Alkalinity	mg/l	128	160	140	124	144	224	200						160.00	224	124
19	T. Hardness	mg/l	120	132	120	92	124	200	220						144	220	92
20	Calcium Hardness	mg/l	100	100	84	72	84	164	50						93.43	164	50
21	Magnesium Hardness	mg/l	20	32	36	20	40	36	170						50.57	170	20
22	D. Oxygen	mg/l	7.5	7.4	7.5	7.2	6.8	6.8	7.2						7.20	7.5	6.8
23	B.O.D.	mg/l	1.2	1.2	1.1	1.3	1.2	1.1	1						1.16	1.3	1
24	C.O.D.	mg/l	10.47	9.52	12.74	14.28	8	12	8.82						10.832	14.28	8
25	Sodium	mg/l	14	16.18	15.7	16.8	17.84	16.2	18.5						16.46	18.5	14
26	Potassium	mg/l	1.3	1.4	1.4	1.4	1.98	1.4	2.08						1.57	2.08	1.3
27	T. Coliform	MPN/100ml	34	40	34	40	40	34	40						37.428	40	34
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1						<2	<2	<2
29	Fluoride	mg/l	0.62	0.54	0.67	0.69	0.82	0.58	0.84						0.68	0.84	0.54
30	FDS	mg/l	130	160	158	132	164	190	154						155.43	190	130
31	T.K.N.	mg/l	2.8	7.28	3.921	2.241	6.1	3.361	3.36						4.15	7.28	2.241
32	Boron	mg/l	0.002	0.005	0.006	0.002	0.004	0.003	0.005						0.00	0.01	0.00
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
1	Date of Sampling		18.4.17	14.5.17	27.6.17	19.07.17	03.08.17	05.09.17	02.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	31	31	30	26	24	23	23						26.86	31	23
4	Turbidity	NTU	1.5	1.5	2	14.6	2.3	2.3	1.21						3.63	14.6	1.21
5	Colour	PCS	1	1	1	1	1	1	1						1	1	1
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.9	8.4	8.41	8.6	8.62	8.4	7.86						8.31	8.62	7.86
8	Sp. Conductivity	µMhos/cm.	308.47	410	402	361.4	396.32	402	608.7						412.70	608.7	308.47
9	T. Solids	mg/l	192	254	258	267	252	298	375						270.86	375	192
10	D. Solids	mg/l	184	244	248	249	237	286	368						259.43	368	184
11	S. Solids	mg/l	8	10	10	18	168	12	7						33.29	168	7
12	Amm. Nitrogen	mg/l	0.02	0.009	0.01	0.011	0.021	0.008	0.024						0.014	0.024	0.008
13	Nitrite Nitrogen	mg/l	0.002	0.016	0.011	0.004	0.012	0.002	0.004						0.007	0.016	0.002
14	Nitrate Nitrogen	mg/l	1.007	0.806	0.9	0.623	0.982	0.668	0.018						0.715	1.007	0.018
15	Phosphate (PO ₄)	mg/l	0.014	0.016	0.018	0.02	0.032	0.008	0.036						0.0205	0.036	0.008
16	Chloride	mg/l	22.29	33.25	30.85	25.43	19	32.92	28.28						27.43	33.25	19
17	Sulphate (SO ₄)	mg/l	2.732	2.34	2.1	4.12	4.41	4.26	4.56						3.50	4.56	2.1
18	T. Alkalinity	mg/l	128	168	160	132	144	132	128						141.714	168	128
19	T. Hardness	mg/l	120	136	140	112	148	192	200						149.71	200	112
20	Calcium Hardness	mg/l	92	104	108	72	112	156	80						103.43	156	72
21	Magnesium Hardness	mg/l	28	32	32	40	36	36	120						46.29	120	28
22	D. Oxygen	mg/l	7.5	7.4	7.2	6.7	6.7	6.9	7						7.06	7.5	6.7
23	B.O.D.	mg/l	1.2	1.4	1.3	1.6	1.4	2.1	0.7						1.38571	2.1	0.7
24	C.O.D.	mg/l	10.47	14.28	14.7	17.13	15	20	7.84						14.2028	20	7.84
25	Sodium	mg/l	14	17.06	14.07	19	20.8	17.8	21.01						17.68	21.01	14
26	Potassium	mg/l	1	1.4	1.2	1.8	2.32	1.8	2.51						1.71857	2.51	1
27	T. Coliform	MPN/100ml	40	40	40	50	50	40	40						42.8571	50	40
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1						<2	<2	<2
29	Fluoride	mg/l	0.424	0.64	0.72	0.83	0.88	0.62	0.98						0.728	0.98	0.424
30	FDS	mg/l	130	140	170	158	168	184	201						164.43	201	130
31	T.K.N.	mg/l	2.8	6.44	5.6	3.361	6.72	4.482	2.8						4.60	6.72	2.80
32	Boron	mg/l	0.002	0.008	0.006	0.008	0.005	0.002	0.006						0.005	0.008	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	31	31	31	28	27	23	23						27.71	31.00	23.00
4	Turbidity	NTU	1.1	1.1	0.9	6	6.4	1.7	2.01						2.74	6.40	0.90
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.82	8.2	8.19	8.42	8.39	8.4	7.79						8.17285	8.42	7.79
8	Sp. Conductivity	µMhos/cm.	308	308	350	304	340	340	663.7						373.385	663.7	304
9	T. Solids	mg/l	204	195	230	224	261	254	409						253.857	409	195
10	D. Solids	mg/l	196	190	22	212	225	240	399						212	399	22
11	S. Solids	mg/l	8	5	8	12	36	166	10						35	166	5
12	Amm. Nitrogen	mg/l	0.014	0.012	0.013	0.016	0.018	0.016	0.024						0.01614	0.024	0.012
13	Nitrite Nitrogen	mg/l	0.002	0.014	BDL	0.006	0.001	0.004	0.008						0.00583	0.014	0.001
14	Nitrate Nitrogen	mg/l	0.872	0.83	0.86	0.363	0.421	0.66	0.468						0.63914	0.872	0.363
15	Phosphate (PO ₄)	mg/l	0.008	0.015	0.016	0.02	0.026	0.012	0.031						0.01828	0.031	0.008
16	Chloride	mg/l	28.28	24.7	31.09	34.49	33.5	29.26	33.5						30.689	34.49	24.7
17	Sulphate (SO ₄)	mg/l	3.74	2.19	3.36	6.8	6.6	2.26	6.69						4.520	6.8	2.19
18	T. Alkalinity	mg/l	140	144	160	120	130	160	160						144.857	160	120
19	T. Hardness	mg/l	128	120	140	108	110	140	150						128.00	150	108
20	Calcium Hardness	mg/l	108	100	112	80	90	108	100						99.71	112	80
21	Magnesium Hardness	mg/l	20	24	28	28	20	32	50						28.8571	50	20
22	D. Oxygen	mg/l	7.5	7.3	7.2	6.9	7.2	7.4	6.9						7.200	7.5	6.9
23	B.O.D.	mg/l	1.2	1.4	1.1	1.4	1.2	1.2	1						1.214	1.4	1
24	C.O.D.	mg/l	8.56	12.37	14.82	14.4	15	16	7.84						12.713	16	7.84
25	Sodium	mg/l	16.04	15.6	16.1	18.04	18.44	17.2	100						28.774	100	15.6
26	Potassium	mg/l	1.2	1.7	1.96	1.4	1.26	1.8	50.69						8.57285	50.69	1.2
27	T. Coliform	MPN/100ml	40	40	40	40	50	50	40						42.8571	50	40
28	F. Coliform	MPN/100ml	<2	<2	<2	<2	<2	<2	<1.1						<2	<2	<2
29	Fluoride	mg/l	0.66	0.58	0.8	0.72	0.68	0.73	0.71						0.69714	0.8	0.58
30	FDS	mg/l	118	144	152	134	142	166	210						152.285	210	118
31	T.K.N.	mg/l	3.36	4.482	2.8	5.6	5.6	3.92	5.88						4.520	5.88	2.8
32	Boron	mg/l	0.002	0.008	0.003	0.004	0.005	0.005	0.005						0.005	0.008	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear								
3	Temperature	°C	30	31.4	32.5	25	23	23	24						26.99	32.50	23.00
4	Turbidity	NTU	1.1	0.8	0.8	7.1	6.42	1.6	8.2						3.72	8.20	0.80
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.6	8.12	8.36	8.52	8.9	8.42	8.37						8.327	8.9	7.6
8	Sp. Conductivity	µMhos/cm.	300	370	320	302	380	332	445						349.857	445	300
9	T. Solids	mg/l	197	250	225	207	224	234	270						229.571	270	197
10	D. Solids	mg/l	190	243	220	190	209	222	259						219	259	190
11	S. Solids	mg/l	7	7	5	17	15	12	11						10.57	17	5
12	Amm. Nitrogen	mg/l	0.014	0.009	0.018	0.009	0.009	0.018	0.02						0.01	0.02	0.009
13	Nitrite Nitrogen	mg/l	0.002	0.022	0.01	0.002(BDL)	0.008(BDL)	0.006	0.004						0.01	0.022	0.002
14	Nitrate Nitrogen	mg/l	0.724	0.472	0.884	1.23	0.85	0.72	1.73						0.94	1.73	0.472
15	Phosphate (PO ₄)	mg/l	0.008	0.017	0.016	0.008	0.01	0.016	0.026						0.01	0.026	0.008
16	Chloride	mg/l	33.94	36.1	30.62	26	30.4	23.77	38.28						31.30	38.28	23.77
17	Sulphate (SO ₄)	mg/l	3.68	2.68	3.07	3.92	4.04	3.08	5.17						3.66	5.17	2.68
18	T. Alkalinity	mg/l	124	156	160	132	172	152	152						149.71	172	124
19	T. Hardness	mg/l	120	140	140	112	140	128	160						134.29	160	112
20	Calcium Hardness	mg/l	100	112	112	88	112	100	124						106.857	124	88
21	Magnesium Hardness	mg/l	20	28	28	24	28	28	36						27.43	36	20
22	D. Oxygen	mg/l	7.3	7.6	7.4	7.2	7.3	7.4	7.1						7.33	7.6	7.1
23	B.O.D.	mg/l	1.1	1.1	1.2	1.4	1.5	1.3	1.4						1.29	1.5	1.1
24	C.O.D.	mg/l	9.6	12.37	13	15	10	16	20.58						13.79	20.58	9.6
25	Sodium	mg/l	15	14.8	16.8	16.02	17.08	18	18.3						16.57	18.3	14.8
26	Potassium	mg/l	1.8	1.9	2	1.3	1.4	1.8	1.8						1.71428	2	1.3
27	T. Coliform	MPN/100ml	34	40	40	40	40	40	40						39.1428	40	34
28	F. Coliform	MPN/100ml	<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						0.59	0.8	0.002
30	FDS	mg/l	127	148	152	132	142	160	172						147.57	172	127
31	T.K.N.	mg/l	5.04	5.042	3.36	4.48	4.48	3.92	5.6						4.56	5.6	3.36
32	Boron	mg/l	0.003	0.07	0.002	0.002	0.003	0.006	0.006						0.01314	0.07	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Sl. Muddy	Sl. Muddy	Sl. Muddy	Clear								
3	Temperature	°C	30	31.5	32.5	25	24	23	24						27.14	32.50	23.00
4	Turbidity	NTU	1.6	1.4	0.9	8.9	8.02	1.8	5.7						4.05	8.90	0.90
5	Colour	PCS	1	1	1	1	1	1	1						1.00	1.00	1.00
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.94	8	7.89	8.59	8.72	8.48	8.4						8.29	8.72	7.89
8	Sp. Conductivity	µMhos/cm.	350	392	340	312	392	350	406.25						363.18	406.25	312
9	T. Solids	mg/l	210	257	237	206	232	258	248						235.43	258	206
10	D. Solids	mg/l	202	248	230	198	212	244	240						224.86	248	198
11	S. Solids	mg/l	8	9	7	18	20	14	8						12.00	20	7
12	Amm. Nitrogen	mg/l	0.017	0.015	0.02	0.01	0.009	0.02	0.016						0.015	0.02	0.009
13	Nitrite Nitrogen	mg/l	0.003	0.029	0.019	0.002	0.009	0.007	0.023						0.013	0.029	0.002
14	Nitrate Nitrogen	mg/l	0.931	0.82	1.08	1.86	1.09	0.69	1.644						1.159	1.86	0.69
15	Phosphate (PO ₄)	mg/l	0.009	0.02	0.018	0.009	0.012	0.018	0.022						0.02	0.022	0.009
16	Chloride	mg/l	37.71	30.4	40.2	28	51.3	29.26	28.71						35.08	51.3	28
17	Sulphate (SO ₄)	mg/l	4.02	3.07	3.15	4.01	5.1	3.62	4.62						3.94	5.1	3.07
18	T. Alkalinity	mg/l	136	164	164	136	180	164	136						154.29	180	136
19	T. Hardness	mg/l	128	144	152	116	160	144	144						141.14	160	116
20	Calcium Hardness	mg/l	96	100	112	92	120	108	112						105.71	120	92
21	Magne. Hardness	mg/l	32	44	40	24	40	36	32						35.43	44	24
22	D. Oxygen	mg/l	7.1	7.4	7.2	7	7.2	7.3	7.2						7.20	7.4	7
23	B.O.D.	mg/l	1.3	1.3	1.4	1.6	1.6	1.4	1.3						1.41	1.6	1.3
24	C.O.D.	mg/l	15.36	14.28	15	16	17	18	16.66						16.04	18	14.28
25	Sodium	mg/l	17	17.5	19.8	17.01	18.12	19.3	16.6						17.90	19.8	16.6
26	Potassium	mg/l	1.9	2	2.1	1.4	1.6	1.9	1.4						1.76	2.1	1.4
27	T. Coliform	MPN/100ml	40	50	50	50	50	5	30						39.29	50	5
28	F. Coliform	MPN/100ml	<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						0.75	0.9	0.68
30	FDS	mg/l	136	156	160	138	148	170	168						153.71	170	136
31	T.K.N.	mg/l	5.88	3.921	4.48	4.76	5.04	6.16	3.92						4.88	6.16	3.92
32	Boron	mg/l	0.004	0.078	0.003	0.002	0.004	0.007	0.004						0.01	0.002	0.078
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

MADHYA PRADESH POLLUTION CONTROL BOARD

Water Quality during Year - 2017-18

Natural Water Resource : River Narmada

Description of Sampling Station: At Rajghat Badwani.

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	30.5.17	27.6.17	25.07.17	03.08.17	05.09.17	02.10.17						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Sl. Muddy	Clear	Clear						Clear	Clear	Clear
3	Temperature	°C	31	31	30	25	24	23	23						26.71	31	23
4	Turbidity	NTU	1	2.2	2.3	2.8	7.01	3.3	3.2						3.12	7.01	1
5	Colour	PCS	1	1	1	1	1	1	1						1	1	1
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.62	8.3	8.4	7.4	8.25	8.24	8.2						8.06	8.4	7.4
8	Sp. Conductivity	µMhos/cm.	303	312	331	336	400	443	380						357.86	443	303
9	T. Solids	mg/l	201	224	229	258	246	299	262						245.571	299	201
10	D. Solids	mg/l	190	216	220	240	230	288	254						234.0	288	190
11	S. Solids	mg/l	11	8	9	18	16	11	8						11.6	18	8
12	Amm. Nitrogen	mg/l	0.015	0.008	0.006	0.009	0.016	0.016	0.021						0.013	0.021	0.006
13	Nitrite Nitrogen	mg/l	0.004	0.007	0.004	0.001	0.004	0.003	0.004						0.004	0.007	0.001
14	Nitrate Nitrogen	mg/l	0.834	0.473	0.424	1.076	1.24	0.603	0.624						0.753	1.24	0.424
15	Phosphate (PO ₄)	mg/l	0.02	0.019	0.016	0.019	0.02	0.014	0.019						0.018	0.02	0.014
16	Chloride	mg/l	23.57	21.52	23.59	29.99	30.4	34.75	32.543						28.05	34.75	21.52
17	Sulphate (SO ₄)	mg/l	2.63	2.22	2.94	3.88	4.12	3.212	4.123						3.30	4.123	2.22
18	T. Alkalinity	mg/l	132	148	152	132	204	200	164						161.714	204	132
19	T. Hardness	mg/l	124	128	128	120	172	184	152						144.00	184	120
20	Calcium Hardness	mg/l	100	84	92	80	124	156	120						108	156	80
21	Magne. Hardness	mg/l	24	44	36	40	46	28	32						35.71	46	24
22	D. Oxygen	mg/l	7.3	7.3	7.4	6.4	7.1	6.7	7.2						7.06	7.4	6.4
23	B.O.D.	mg/l	1.3	1.2	1.2	1.6	1.7	1.4	1.3						1.39	1.7	1.2
24	C.O.D.	mg/l	12.37	18	19.6	20	20	16	17.64						17.66	20	12.37
25	Sodium	mg/l	17.06	15.4	14.9	17.94	18.02	15.9	16.7						16.56	18.02	14.9
26	Potassium	mg/l	1.4	1.6	1.5	1.76	1.6	1.8	1.1						1.53714	1.8	1.1
27	T. Coliform	MPN/100ml	50	40	50	50	50	40	34						44.86	50	34
28	F. Coliform	MPN/100ml	<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						0.65571	0.8	0.48
30	FDS	mg/l	114	146	148	168	160	170	176						154.571	176	114
31	T.K.N.	mg/l	3.92	3.361	2.801	3.08	3.08	4.482	3.361						3.441	4.482	2.801
32	Boron	mg/l	0.003	0.06	0.05	0.003	0.009	0.004	0.003						0.019	0.06	0.003
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear								
3	Temperature	°C	31	31.4	29.4	28	23	23	23						26.97	31.4	23
4	Turbidity	NTU	1	0.7	1	8.4	1.2	1.7	2.8						2.40	8.4	0.7
5	Colour	PCS	1	1	1	1	1	1	1						1	1	1
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.82	8.1	8.2	8.4	8.31	8.39	8.36						8.226	8.4	7.82
8	Sp. Conductivity	µMhos/cm.	290	310	320	374	308	324	394						331.4	394	290
9	T. Solids	mg/l	190	202	206	263	192	242	227						217.4	263	190
10	D. Solids	mg/l	182	196	198	235	180	226	220						205.285	235	180
11	S. Solids	mg/l	8	6	8	28	12	16	7						12.14	28	6
12	Amm. Nitrogen	mg/l	0.018	0.015	0.016	0.022	0.018	0.014	0.019						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						0.01	0.024	0.002
14	Nitrate Nitrogen	mg/l	0.73	0.72	0.77	0.844	0.92	0.422	0.869						0.75	0.92	0.422
15	Phosphate (PO ₄)	mg/l	0.012	0.014	0.01	0.02	0.018	0.01	0.014						0.01	0.02	0.01
16	Chloride	mg/l	21.05	26.6	27.22	33.26	28.92	29.26	30.62						28.13	33.26	21.05
17	Sulphate (SO ₄)	mg/l	2.88	2.73	2.82	4.4	4.2	3.14	3.26						3.347	4.4	2.73
18	T. Alkalinity	mg/l	120	140	144	160	140	148	148						142.86	160	120
19	T. Hardness	mg/l	112	126	128	152	128	128	140						130.57	152	112
20	Calcium Hardness	mg/l	92	96	96	124	108	100	108						103.43	124	92
21	Magnesium Hardness	mg/l	20	28	32	28	20	48	32						29.71	48	20
22	D. Oxygen	mg/l	7.6	7.4	7.5	6.9	7	7.4	7.1						7.27	7.6	6.9
23	B.O.D.	mg/l	1.2	1.1	1.2	1.4	1.1	1.3	1.1						1.20	1.4	1.1
24	C.O.D.	mg/l	9.6	10.47	10.78	16.32	14	12	9.8						11.85	16.32	9.6
25	Sodium	mg/l	16.2	16	17	19	22	16.2	15.6						17.43	22	15.6
26	Potassium	mg/l	1.4	1.5	1.8	2	1.2	1.8	1.4						1.59	2	1.2
27	T. Coliform	MPN/100ml	40	30	34	50	50	50	30						40.57	50	30
28	F. Coliform	MPN/100ml	<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						0.724	1.08	0.46
30	FDS	mg/l				0									0	0	0
31	T.K.N.	mg/l	3.361	3.92	3.361	5.6	5.04	3.92	4.48						4.24	5.6	3.361
32	Boron	mg/l	0.004	0.011	0.009	0.006	0.006	0.006	0.002						0.006	0.011	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982

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	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb	March	Av.	Maxi.	Mini.
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						-	-	-
2	Appearance		Clear	Clear	Clear	Clear	Clear	Clear	Clear								
3	Temperature	°C	31	31	29.5	28	24	23	24						27.2142	31	23
4	Turbidity	NTU	1	1.4	1.2	12.5	1.2	2.3	8.5						4.01428	12.5	1
5	Colour	PCS	1	1	1	1	1	1	1						1	1	1
6	Odour	T. No	OL	OL	OL	OL	OL	OL	OL								
7	pH	pH Unit	7.8	8.3	8.6	8.5	8.2	8.42	8.06						8.27	8.6	7.8
8	Sp. Conductivity	µMhos/cm.	294	320	333	380	320	310	418.47						339.35	418.47	294
9	T. Solids	mg/l	204	220	210	270	196	222	282						229.14	282	196
10	D. Solids	mg/l	194	212	202	244	186	211	270						217.00	270	186
11	S. Solids	mg/l	10	8	8	26	10	132	12						29.43	132	8
12	Amm. Nitrogen	mg/l	0.014	0.013	0.018	0.024	0.016	0.019	0.018						0.01742	0.024	0.013
13	Nitrite Nitrogen	mg/l	0.003	0.018	0.007	0.006	0.004	0.008	0.008						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						0.84	1.228	0.56
15	Phosphate (PO ₄)	mg/l	0.011	0.016	0.014	0.02	0.012	0.012	0.032						0.02	0.032	0.011
16	Chloride	mg/l	22.97	34.2	27.22	35.22	34.71	25.6	26.8						29.5314	35.22	22.97
17	Sulphate (SO ₄)	mg/l	3.06	3.03	2.66	4.93	2.8	3.46	5.17						0.84	1.228	0.56
18	T. Alkalinity	mg/l	136	148	148	160	132	140	148						144.571	160	132
19	T. Hardness	mg/l	124	128	132	156	124	124	140						132.571	156	124
20	Calcium Hardness	mg/l	96	104	100	120	104	100	112						105.142	120	96
21	Magnesium Hardness	mg/l	28	24	32	36	20	24	28						27.4285	36	20
22	D. Oxygen	mg/l	7.5	7.2	7.4	6.8	7.1	7.2	6.9						7.16	7.5	6.8
23	B.O.D.	mg/l	1.3	1.4	1.2	1.3	1.2	1.2	1.2						1.25714	1.4	1.2
24	C.O.D.	mg/l	11.5	15.23	11.76	18.24	10	10	5.88						11.8014	18.24	5.88
25	Sodium	mg/l	17	16	16.3	21	17	17.9	1.8						15.29	21	1.8
26	Potassium	mg/l	1.8	1.6	1.7	2	1.2	2	26.8						5.3	26.8	1.2
27	T. Coliform	MPN/100ml	34	50	50	40	50	40	30						42.00	50	30
28	F. Coliform	MPN/100ml	<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	1.04	0.58
30	FDS	mg/l	128	152	154	170	132	132	180						149.71	180	128
31	T.K.N.	mg/l	5.042	5.42	3.921	6.163	4.28	5.04	5.04						4.99	6.163	3.921
32	Boron	mg/l	0.003	0.008	0.008	0.008	0.002	0.008	0.004						0.006	0.008	0.002
	CATEGORY		"A "	"A "	"A "	"A "	"A "	"A "	"A "						"A "	"A "	"A "

Classification of River water based on IS - 2296 - 1982