

WATER QUALITY CHARACTERISTICS OF RIVER GANGA AT RISHIKESH & HARDIWAR

RIVER GANGA AT RISHIKESH U/S LAXMANJHULA, SWARGAASHRAM, U/S RISHIKESH

Month	pH	BOD mg/L	COD mg/L	Total Coliform (MPN/ 100 mL)	Temp °C	DO mg/L	Alkalinity CaCO ₃ mg/L	Chlori des mg/L	Calcium as Cl mg/L	Magnesium as Mg mg/L	Hardness as CaCO ₃ mg/L	TDS mg/L
2018												
Jan-18	7.38	<1	4	40	16	9.8	74	5	42	38	80	92
Feb-18	7.82	<1	4	60	16	10.2	70	5	42	34	76	105
Mar-18	7.32	<1	4	30	18	10.4	76	5	40	30	70	96
Apr-18	7.48	<1	4	40	19	9.8	70	5	42	32	74	87
May-18	7.5	<1	4	60	20	10.2	68	5	38	34	72	82
Jun-18	7.42	<1	4	70	20	9.8	64	5	40	34	74	84
Jul-18	7.45	<1	4	40	20	10	74	5	46	34	80	86
Aug-18	7.56	<1	4	30	22	9.8	76	5	44	38	82	80
Sep-18	7.68	<1	4	30	18	9.8	68	5	44	34	78	74
Oct-18	8.4	<1	4	60	18	9	74	5	42	40	82	126
Nov-18	7.62	<1	4	26	17	9.6	70	5	40	36	76	80
Dec-18	7.71	<1	4	30	17	10	68	5	40	34	74	84
Average	7.55		4.00	41.33	18.58	9.92	71.00	5.00	41.83	34.83	76.67	85.50
Min-Max	7.32-8.4			26-70	16-22	9-10.4	64-76		38-46	30-40	70-82	74-126
2019												
Jan-19	8.02	<1	4	40	17	10.4	64	5	38	32	70	114
Feb-19	7.42	<1	4	50	16	10	70	5	46	32	78	96
Mar-19	7.48	<1	4	40	19	9.8	62	4	42	30	72	66
Apr-19	7.62	<1	4	40	17	9.8	60	5	36	32	68	88
May-19	7.54	<1	4	50	18	10.2	68	5	38	34	72	80
June-19	7.62	<1	4	40	19	9.8	66	5	42	32	74	82
July-19	7.7	<1	4	50	18	10.2	62	4	44	26	70	78
Aug-19	7.48	<1	4	401	18	10.4	64	5	46	26	72	80
Sep-19	8.23	<1	4	50	20	9.8	58	7	40	28	68	73
Oct-19	8.12	<1	4	60	20	10	60	6	42	24	66	62
Nov-19	7.95	<1	4	58	19	11.8	50	5	40	20	60	69
Dec-19	7.94	<1	4	73	18	10.4	40	8	44	22	66	79
2020												
Jan-20	7.72	<1	4	40	16	11	70	9	48	30	78	79
Feb-20	7.72	<1	4	40	17	10.8	62	13	60	28	88	62
Mar-20	7.7	<1	4	30	19	11.6	71	6.5	53	30	83	84
Apr-20	7.8	0.6	4	30	19	10.6	60	7.5	45	25	70	55

GANGA AT D/S OF RISHIKESH, NEAR PASHULOK, UTTARAKHAND

Month	pH	BOD mg/L	COD mg/L	Total Coliform (MPN/ 100 mL)	Temp °C	DO mg/L	Alkalinity CaCO3 mg/L	Chlorides mg/L	Calcium as Cl mg/L	Magnesium as Mg mg/L	Hardness as CaCO3 mg/L	TDS mg/L
2018												
Jan-18	7.54	<1	4	60	16	9.6	72	5	42	36	78	102
Feb-18	7.74	<1	4	70	16	9.8	68	6	40	34	74	108
Mar-18	7.52	<1	4	40	19	9.6	64	6	38	32	70	94
Apr-18	7.56	<1	4	60	20	9.6	66	4	38	34	72	90
May-18	7.52	<1	4	90	21	9.8	70	6	40	36	76	94
Jun-18	7.58	<1	4	110	20	9.2	72	6	42	32	74	92
Jul-18	7.38	<1	4	70	20	9.6	76	6	46	40	86	96
Aug-18	7.48	<1	4	60	20	9.6	72	5	44	40	84	88
Sep-18	7.42	<1	4	70	20	9.4	74	5	46	40	86	92
Oct-18	7.85	<1	4	60	19	9.6	72	6	44	40	84	88
Nov-18	7.76	<1	4	40	17	9.4	68	6	42	36	78	92
Dec-18	7.82	<1	4	50	17	9.8	70	5	42	40	82	94
Average	7.60		4.00	65.00	18.75	9.58	70.33	5.50	42.00	36.67	78.67	94.17
Min-Max	7.38-7.85			40-110	16-21	9.2-9.8	64-76	4-6	38-46	32-40	70-86	88-108
2019												
Jan-19	7.92	<1	4	60	17	10	68	5	40	38	78	110
Feb-19	7.62	<1	5	60	16	9.8	72	5	44	36	80	105
March-19	7.56	<1	4	70	20	9	68	4	40	34	74	90
Apr-19	7.68	<1	4	70	19	9.6	64	5	40	36	76	94
May-19	7.52	<1	4	80	19	9.8	70	5	36	32	78	90
June-19	7.68	<1	4	90	20	9.6	74	6	46	34	80	88
July-19	7.86	<1	4	80	19	9.6	76	5	44	28	72	84
Aug-19	7.32	<1	4	90	18	10	72	5	42	36	78	85
Sep-19	8.29	<1	4	80	22	9	64	7	42	30	72	76
Oct-19	7.78	<1	4	70	20	9.6	62	6	44	26	70	66
Nov-19	8.04	<1	4	60	19	11.2	68	5	46	24	70	72
Dec-19	8.04	<1	4	50	18	10	71	8	42	18	60	100
2020												
Jan-20	7.66	<1	4	50	17	10.6	62	8	40	24	64	74
Feb-20	8.0	<1	4	50	17	10.4	65	9	56	28	84	74
Mar-20	7.50	<1	4	40	19	10.4	60	10	48	22	70	75
Apr-20	7.5	0.8	4	40	19	9.8	45	6.5	30	20	50	80

GANGA AT HARIDWAR U/S BHINDHUGHAT, DUDHIYABAN, HARIDWAR

Month	pH	BOD mg/ L	COD mg/L	Total Coliform (MPN/ 100 mL)	Temp °C	DO mg/L	Alkalinity CaCO ₃ mg/L	Chlorid es mg/L	Calcium as Cl mg/L	Magnesium as Mg mg/L	Hardness as CaCO ₃ mg/L	TDS mg/L
2018												
Jan-18	7.92	<1	4	110	16	9.8	70	5	40	38	78	97
Feb-18	8.2	1	6	140	16	9.6	68	6	40	36	76	127
Mar-18	7.91	1	4	90	18	9.4	70	6	40	34	74	88
Apr-18	7.82	1	4	110	19	9.2	72	5	42	36	78	98
May-18	7.82	1	4	140	22	9.4	70	6	40	36	76	90
Jun-18	7.92	1	6	170	20	9.2	72	6	44	34	78	98
Jul-18	7.62	1	6	130	20	9	80	6	52	38	90	110
Aug-18	8.13	1	6	220	20	8.8	76	6	52	40	92	101
Sep-18	8.22	1	6	170	20	9.4	78	6	48	42	90	111
Oct-18	8.18	<1	6	140	18	9.6	72	6	44	38	82	121
Nov-18	8.41	<1	4	110	18	9	74	5	44	40	84	126
Dec-18	8.2	<1	4	140	17	10.2	70	5	42	40	82	100
Average	8.03	1.00	5.00	139.17	18.67	9.38	72.67	5.67	44.00	37.67	81.67	105.58
Min-Max	7.62-8.41		4-6	90-220	16-22	8.8-10.2	68-80	5-6	40-52	34-42	74-92	88-127
2019												
Jan-19	8.12	<1	4	130	17	9.8	72	5	44	40	84	102
Feb-19	8.12	<1	4	140	16	9.6	70	6	42	36	78	136
Mar-19	7.62	1	4	110	19	9.2	72	5	42	38	80	108
Apr-19	7.64	1	4	130	19	9	74	5	42	40	82	98
May-19	7.82	1	4	140	20	9.2	70	5	40	36	76	90
June-19	7.92	1	6	170	20	9	72	6	44	34	78	94
July-19	7.7	1.2	6	130	19	8.2	75	5	54	30	84	95
Aug-19	7.92	1	6	140	19	8.8	61	5	42	38	80	90
Sep-19	8.44	1	6	170	20	9.8	74	7	44	34	78	92
Oct-19	8.3	1	6	140	20	10.8	110	11	44	24	68	140
Nov-19	8.4	1	6	140	19	10.6	90	10	44	28	72	113
Dec-19	8.02	1	6	110	19	10.4	91	5	44	29	73	80
2020												
Jan-20	7.7	1	6	90	17	10.8	100	9	50	42	92	126
Feb-20	7.5	<1	4	110	18	10	84	9	56	34	90	113
Mar-20	7.65	1	6	90	20	9.6	80	10	64	26	90	102
Apr-20	7.8	1	6	90	20	9.8	70	10	70	24	94	78

