

River Ganga Canal at Harki Pouri Haridwar (Upper Ganga Canal)

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.89	<1	4	80	16	9.4	68	5	40	34	74	112
Feb-18	8.14	<1	4	70	16	9	64	5	38	34	72	121
Mar-18	7.8	<1	6	160	18	9.8	70	5	42	34	76	109
Apr-18	7.56	<1	4	140	20	9.6	74	5	44	34	78	100
May-18	7.62	<1	4	170	21	9.4	72	5	42	38	80	88
Jun-18	7.94	<1	4	110	20	8.8	74	6	44	40	84	86
Jul-18	7.42	<1	4	80	20	9.4	75	6	46	40	86	98
Aug-18	8.04	<1	4	80	20	9	76	5	46	42	88	106
Sep-18	8.24	<1	4	70	20	9	80	5	48	44	92	106
Oct-18	8.18	<1	4	80	18	9.2	78	5	46	40	86	124
Nov-18	8.4	<1	4	60	18	9	74	5	42	40	82	126
Dec-18	8.17	<1	4	80	18	10	72	5	42	38	80	100
Average	7.95		4.17	98.33	18.75	9.30	73.08	5.17	43.33	38.17	81.50	106.33

Upper Ganga Canal D/s Harki Pauri, (Harki Pauri Haridwar at Rishikul Bridge), Haridwar

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity /visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.98	<1	4	70	16	9.8	66	5	40	34	74	104
Feb-18	7.72	<1	4	90	16	9.2	68	5	40	32	72	110
Mar-18	7.57	<1	4	140	18	9.6	70	6	42	34	76	111
Apr-18	7.65	<1	4	80	18	9.4	66	5	40	34	74	92
May-18	7.71	<1	4	170	21	9	68	5	40	36	76	95
Jun-18	7.94	<1	4	130	20	9	70	5	40	38	78	94
Jul-18	7.48	<1	4	110	22	9.6	88	5	70	40	110	115
Aug-18	8.11	<1	4	140	22	9.2	82	4	54	44	98	100
Sep-18	8.23	<1	4	110	20	8	76	5	46	44	90	107
Oct-18	8.17	<1	4	90	18	9	70	5	42	40	82	121
Nov-18	8.41	<1	4	70	18	8.8	72	5	44	42	86	126
Dec-18	8.16	<1	4	80	17	9.8	70	5	42	38	80	101
Average	7.93		4.00	106.67	18.83	9.20	72.17	5.00	45.00	38.00	83.00	106.33

Upper Ganga Canal D/S Roorkee, Haridwar, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity /visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.93	1	4	170	16	9.4	72	5	42	38	80	104
Feb-18	7.87	1	6	130	16	9.2	68	6	42	34	76	105
Mar-18	7.69	1	6	170	18	9.4	70	6	42	38	80	104
Apr-18	7.64	1	6	130	19	9.6	74	6	46	42	88	108
May-18	7.81	1	4	140	20	9.4	72	6	44	40	84	98
Jun-18	8.04	<1	4	220	20	9.2	74	6	42	40	82	90
Jul-18	7.71	1	4	130	20	9	86	5	56	42	98	110
Aug-18												
Sep-18	8.27	1	4	110	20	8.2	82	5	54	40	94	113
Oct-18	8.12	1	6	130	18	8.6	80	6	48	44	92	124
Nov-18	8.06	1	6	110	18	8.4	76	7	44	40	84	117
Dec-18	8.23	1	6	170	17	9	78	6	44	42	86	100
Average	7.94	1.00	5.09	146.36	18.36	9.04	75.64	5.82	45.82	40.00	85.82	106.64

Ganga Canal at Dam Kothi, Haridwar (Upper River Ganga Canal at Harki Pauri)

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlo rides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.95	<1	4	60	16	9.8	70	5	42	34	76	97
Feb-18	8.15	<1	4	80	16	9.6	66	6	40	32	72	128
Mar-18	7.93	<1	4	110	18	10	68	5	42	32	74	81
Apr-18	7.72	<1	4	90	19	9.6	70	5	44	38	82	94
May-18	7.66	<1	4	110	20	9.8	74	5	44	40	84	98
Jun-18	7.94	<1	4	90	20	9	70	5	42	36	78	92
Jul-18	7.58	<1	4	80	20	9.4	84	6	54	42	96	102
Aug-18	8.13	<1	4	70	22	9	78	5	54	38	92	101
Sep-18	8.2	<1	4	90	20	9	74	5	48	38	86	107
Oct-18	8.13	<1	4	80	18	9.2	72	6	44	40	84	122
Nov-18	8.34	<1	4	70	18	9	68	5	42	36	78	126
Dec-18	8.24	<1	4	90	17	10	72	5	42	40	82	100
Average	8.00		4.00	85.00	18.67	9.45	72.17	5.25	44.83	37.17	82.00	104.00

Ganga at Haridwar U/S Bindhughat, Dudhiyavan, Haridwar, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlo rides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
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

Ganga at Haridwar D/S Balakumari Mandir, Ajeetpur, Haridwar

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlo rides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.76	1	6	220	16	9.2	76	8	44	40	84	182
Feb-18	7.74	1	6	280	16	9	74	10	46	42	88	242
Mar-18	7.69	1.2	6	220	18	9.2	76	8	44	40	84	232
Apr-18	7.72	1	6	280	19	9	78	8	52	44	96	172
May-18	7.68	1.2	6	350	20	8.8	76	7	50	42	92	124
Jun-18	7.87	1	6	300	20	8.6	74	6	44	38	82	95
Jul-18	7.67	1	6	220	20	9.2	90	8	62	48	110	125
Aug-18	8.04	1.2	6	240	21	8.6	92	7	72	34	106	104
Sep-18	8.29	<1	4	280	20	10.6	78	6	48	42	90	107
Oct-18	8.21	1	4	240	18	9.6	72	5	42	40	82	108
Nov-18	7.8	1	6	220	18	9	74	8	46	38	84	128
Dec-18	8.1	1	6	280	17	9.6	76	7	42	40	82	100
Average	7.88	1.05	5.67	260.83	18.58	9.20	78.00	7.33	49.33	40.67	90.00	143.25

Ganga Canal at Lalita Rao Bridge, Haridwar (Upper Ganga Canal), Haridwar

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.91	<1	4	80	16	9	68	5	42	36	78	112
Feb-18	7.93	<1	4	70	16	9.2	64	6	40	30	70	126
Mar-18	7.77	<1	6	90	18	10.2	62	6	40	38	78	108
Apr-18	7.62	<1	4	130	19	9.4	80	5	44	36	80	102
May-18	7.74	<1	4	170	21	9.4	76	5	42	40	82	96
Jun-18	7.91	<1	4	130	20	8.8	72	5	44	36	80	94
Jul-18	7.52	<1	4	90	20	9.4	82	6	54	44	98	105
Aug-18	8.11	<1	4	110	20	9.2	80	5	56	40	96	104
Sep-18	8.25	<1	4	90	20	9.8	72	5	44	40	84	106
Oct-18	8.05	<1	4	70	18	9.4	68	5	40	38	78	122
Nov-18	8.15	<1	4	80	18	9.2	70	6	42	38	80	125
Dec-18	8.23	<1	4	90	17	10.2	74	6	44	40	84	100
Average	7.93		4.17	100.00	18.58	9.43	72.33	5.42	44.33	38.00	82.33	108.33

Suswa River at Mothrawala, (Suswa (D/S) Mathurawala), Dehradun, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.84	32	156	>1600	16	2.8	344	32	220	180	400	472
Feb-18	7.91	36	172	>1600	16	2.2	328	30	220	160	380	438
Mar-18	7.88	34	134	>1600	19	2.4	320	35	250	120	370	452
Apr-18	7.82	36	142	>1600	19	2.2	322	35	260	130	390	460
May-18	7.79	32	128	>1600	20	2	298	30	256	120	376	428
Jun-18	7.82	34	132	>1600	20	2.4	312	35	258	110	368	448
Jul-18	7.66	32	128	>1600	20	3	290	30	244	136	380	432
Aug-18	7.86	34	118	>1600	20	2.6	260	34	186	92	278	398
Sep-18	7.82	32	110	>1600	20	2.4	254	32	168	100	268	405
Oct-18	7.81	34	128	>1600	19	2.6	270	30	200	148	348	417
Nov-18	8.15	32	136	>1600	18	2	264	35	184	134	318	380
Dec-18	8.21	30	124	>1600	18	2.4	260	30	180	130	310	344
Average	7.88	33.17	134.00		18.75	2.42	293.50	32.33	218.83	130.00	348.83	422.83

River Ganga after confluence of River Song near Satyanarayan Temple D/S Raiwala, Dehradun

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.52	<1	6	350	16	9	88	6	62	48	110	168
Feb-18	7.84	1	6	300	16	8.8	82	8	56	40	96	123
Mar-18	7.54	1	4	240	18	9.4	84	8	52	40	92	186
Apr-18	7.55	1.2	6	220	20	9.2	88	7	52	44	96	154
May-18	7.48	1	6	280	22	8.8	84	8	54	40	94	170
Jun-18	7.58	1	4	110	20	9.2	72	6	42	32	74	92
Jul-18	7.68	1.2	6	130	20	8.6	90	8	70	40	110	112
Aug-18	7.62	1	6	130	20	8.4	88	6	60	38	98	98
Sep-18	7.84	1	6	170	20	8.8	84	6	52	40	92	100
Oct-18	7.75	1.2	6	220	19	8.4	80	8	50	44	94	104
Nov-18	7.82	1	6	170	18	8.6	76	7	46	40	86	116
Dec-18	7.89	1	6	220	17	9.2	74	8	44	40	84	110
Average	7.68	1.05	5.67	211.67	18.83	8.87	82.50	7.17	53.33	40.50	93.83	127.75

River Ganga at Rishikesh U/S Lakshmanjhula, Swargashram U/S of Rishikesh

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
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

Ganga at D/S of Rishikesh, Near Pashulok, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
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

River Yamuna at U/S of Lakhwar Dam, Dehradun, (River Yamuna U/s Lakhwar Dam), Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.64	<1	4	0	16	9	72	5	42	40	82	88
Apr-18	7.76	<1	4	<2	18	9.2	72	5	46	42	88	98
Jul-18	7.6	<1	4	<2	19	9	68	5	40	36	76	90
Oct-18	8.12	<1	4	<2	17	8.8	78	5	52	38	90	98
Average	7.78		4.00	0.00	17.50	9.00	72.50	5.00	45.00	39.00	84.00	93.50

River Yamuna at U/S Dakpathar, (Yamuna U/S Dakpathar) Dehradun

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.12	1	4	40	16	8.8	64	6	40	32	72	76
Apr-18	7.64	1	6	40	19	9.2	56	5	40	30	70	78
Jul-18	7.62	1	4	80	20	8.8	72	6	46	36	82	110
Oct-18	8.15	1	4	40	18	8.6	66	6	40	34	74	86
Average	7.63	1.00	4.50	50.00	18.25	8.85	64.50	5.75	41.50	33.00	74.50	87.50

River Alaknanda A/C Mandakini at Rudrapryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.61	<1	4	0	15	9.2	68	5	40	34	74	72
Apr-18	7.78	<1	4	<2	17	9.8	64	5	42	32	74	66
Jul-18	7.68	<1	4	<2	18	9	60	6	42	30	72	56
Oct-18	8.08	<1	4	<2	16	9.2	64	5	44	32	76	64
Average	7.79		4.00	0.00	16.50	9.30	64.00	5.25	42.00	32.00	74.00	64.50

River Mandakini B/C Alaknanda at Rudrapryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.52	<1	4	0	15	9.6	62	5	38	34	72	66
Apr-18	7.64	<1	4	<2	17	9.4	66	6	44	34	78	64
Jul-18	7.74	<1	4	<2	19	9.2	60	5	40	28	68	64
Oct-18	7.96	<1	4	<2	16	9	62	5	40	32	72	58
Average	7.72		4.00	0.00	16.75	9.30	62.50	5.25	40.50	32.00	72.50	63.00

River Alaknanda B/C Mandakini at Rudrapryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.46	<1	4	0	15	9.4	66	5	40	36	76	64
Apr-18	7.68	<1	4	<2	17	9.2	68	5	42	38	80	70
Jul-18	7.71	<1	4	<2	19	8.8	62	5	42	28	70	60
Oct-18	7.94	<1	4	<2	17	9	64	5	44	30	74	62
Average	7.70		4.00	0.00	17.00	9.10	65.00	5.00	42.00	33.00	75.00	64.00

River Alaknanda A/C Bhagirathi at Devpryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.58	<1	4	0	16	9.4	64	5	40	32	72	68
Apr-18	7.58	<1	4	<2	18	9.6	62	5	38	32	70	65
Jul-18	7.88	<1	4	<2	19	9.6	56	6	38	28	66	68
Oct-18	7.98	<1	4	<2	17	9.4	62	6	42	32	74	62
Average	7.76		4.00	0.00	17.50	9.50	61.00	5.50	39.50	31.00	70.50	65.75

River Alaknanda B/C to Bhagirathi at Devpryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.53	<1	4	0	16	9.4	74	6	44	38	82	72
Apr-18	7.71	<1	4	<2	18	9.4	70	5	46	34	80	68
Jul-18	7.83	<1	4	<2	19	9.2	54	5	38	24	62	58
Oct-18	8.12	<1	4	<2	17	9	64	6	40	36	76	64
Average	7.80		4.00	0.00	17.50	9.25	65.50	5.50	42.00	33.00	75.00	65.50

River Bhagirathi B/C with Alaknanda at Devpryag, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Total Coliform	Temp	DO	Alkalinity/visul titration CaCO3	Chlorides	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS
Jan-18	7.68	<1	4	0	16	9.6	62	5	38	32	70	64
Apr-18	7.68	<1	4	<2	18	9.2	60	5	40	38	68	60
Jul-18	7.78	<1	4	<2	18	9.4	56	5	40	34	64	62
Oct-18	8.21	<1	4	<2	18	9.2	60	6	38	28	66	58
Average	7.84		4.00	0.00	17.50	9.35	59.50	5.25	39.00	33.00	67.00	61.00

Naini Lake at Nainital (Water Intake Point), Nainital

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	Alkalinity /visul titration	Chloride /Argento metric	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS	Phenolphthaleine Alkalinity
Jan-18	7.4	1.8	5	460	9	7	240	17	124	86	210	346	0
Feb-18	7.9	1.6	5	480	11	7.6	260	21	128	102	230	340	0
Mar-18	8.15	1.6	5	470	12	7.2	220	22	126	116	242	318	0
Apr-18	8.16	1.4	6	460	14	7.4	216	26	156	118	274	314	0
May-18	7.6	1.8	6	480	18	7.4	210	19	118	98	216	320	0
Jun-18	7.5	1.6	6	460	19	7.2	186	17	116	102	218	316	0
Jul-18	7.46	1.4	5	470	15	6.6	164	23	114	106	220	292	0
Aug-18	7.42	1.2	5	460	16	7.86	230	23	112	96	208	324	0
Sep-18	7.6	1.4	6	440	14	7.4	210	27	118	98	216	294	0
Oct-18	7.42	1.2	6	480	12	7.6	208	23	148	90	238	291	0
Nov-18	7.26	1.4	5	460	11	7.2	194	17	94	154	248	264	0
Dec-18	7.44	1.2	6	470	7	7.4	236	21	126	98	224	340	0
Average	7.61	1.47	5.5	465.83	13.2	7.3	214.5	21.33	123.33	105.33	228.66	313	0

Bheemtal Lake, Nainital, Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	Alkalinity /visul titration	Chloride /Argento metric	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS	Phenolphthaleine Alkalinity
Jan-18	7.7	1.6	6	212	10	7.2	118	21	72	52	124	136	0
Feb-18	7.42	1.4	5	220	12	7.2	122	23	78	50	128	134	0
Mar-18	7.6	1.2	5	220	15	7.6	122	22	136	110	246	166	0
Apr-18	7.74	1.4	6	240	15	7.4	126	22	76	52	128	148	0
May-18	7.72	1.6	5	240	19	7.4	126	28	68	52	120	146	0
Jun-18	7.74	1.4	5	220	18	7.2	114	23	72	54	126	148	0
Jul-18	7.2	1.6	6	170	16	7.6	112	21	82	62	144	148	0
Aug-18	7.74	1.4	6	260	14	7.6	116	17	78	56	134	148	0
Sep-18	7.72	1.2	4	240	13	7.2	114	23	76	62	138	144	0
Oct-18	7.38	1.6	5	230	14	7.8	126	21	78	66	144	146	0
Nov-18	7.42	1.6	6	260	11	7.6	138	19	84	72	156	124	0
Dec-18	7.36	1.4	6	160	8	6.8	124	15	102	84	186	110	0
Average	7.6	1.45	5.42	222.66	13.75	7.4	121.5	21.25	83.5	64.33	147.83	142	0

Gola River at Haldwani, (River Gola, Nainital), Uttarakhand

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	Alkalinity /visul titration	Chloride /Argento metric	Calcium as CaCO3	Magnesium as CaCO3	Hardness as CaCO3	TDS	Phenolphthaleine Alkalinity
Jan-18	7.6	1.4	6	212	11	7.6	122	17	132	110	242	144	0
Feb-18	7.7	1.6	6	230	14	7.4	124	18	130	114	244	146	0
Mar-18	7.48	1.4	6	220	13	7.4	140	21	76	44	120	140	0
Apr-18	7.6	1.2	5	220	16	7.5	126	22	136	94	230	164	0
May-18	7.9	1.6	6	220	22	7.2	132	22	136	118	254	162	0
Jun-18	7.8	1.4	6	240	20	7.4	124	21	142	106	248	168	0
Jul-18	7.76	1.4	5	230	18	7.6	120	17	136	112	248	162	0
Aug-18	7.9	1.6	6	220	22	7.2	132	22	136	118	254	162	0
Sep-18	7.7	1.2	6	220	15	7.8	118	19	74	62	136	142	0
Oct-18	7.45	1.4	6	240	15	7.4	118	17	118	102	220	168	0
Nov-18	7.38	1.6	5	220	13	7.2	112	21	124	108	232	146	0
Dec-18	7.62	1.2	5	170	11	7	116	10	108	88	196	114	0
Average	7.7	1.42	5.67	220.16	15.8	7.39	123.66	18.91	120.67	98	218.66	152	0

Water Quality Data Kumaun Rivers

Kosi River at Kashipur Bajpur Road Bridge, Kashipur, US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.1	4	14.2	310	19.7	7.2	198
Feb-18	7.3	2.2	14	330	22	7.8	220
Mar-18	6.8	6	18	330	28	6.4	222
Apr-18	7.48	14	38	510	26	4	336
May-18	7.3	12	32	430	29	5.2	276
Jun-18	7.3	10	28	330	29	6.4	216
Jul-18	7.4	4	12	340	28	6.8	225
Aug-18	7.2	3.2	10	310	26	7.2	202
Sep-18	6.9	3.4	12	280	26	7.2	184
Oct-18	7.2	3.2	10	270	26	6.8	186
Nov-18	7.1	4.8	12	270	23	6.6	176
Dec-18	7.5	2.4	10	410	16	7.6	260
Average	7.21	5.76	17.51	343.33	24.89	6.6	225.08
Min-Max	(6.8-7.5)	(2.2-12)	(10-38)	(270-510)	(16-29)	(4-7.8)	(176-336)

Dhella River U/S at Kashipur Moradabad Road Bridge, (U/S Moradabad Road) US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.2	12	38	270	17.2	5.2	182
Feb-18	7.4	4	18	280	23.2	6.4	177
Mar-18	7.3	8	26	280	28.2	5.4	180
Apr-18	River Dry						
May-18	River Dry						
Jun-18	River Dry						
Jul-18	River Dry						
Aug-18	7.4	8	24	290	29	6.2	192
Sep-18	7.1	7.2	20	300	28	6.2	196
Oct-18	7.2	8	30	280	26	5.6	182
Nov-18	7.3	8	18	310	23	4.6	202
Dec-18	7.4	4	10	230	16	6.4	146
Average	7.28	7.4	23	280	23.82	5.75	182.12
Min-Max	(7.1-7.4)	(4-12)	(10-38)	(270-300)	(16-29)	(4.6-6.4)	(146-202)

Dhella River D/S at Thakurdwara, Aliganj Road, US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.6	20	102	650	20	2.2	430
Feb-18	7.7	40	132	660	22.5	2.8	430
Mar-18	7.8	18	60	450	25.5	2.4	294
Apr-18	River Dry						
May-18	River Dry						
Jun-18	River Dry						
Jul-18	6.9	22	72	370	28	2.4	245
Aug-18	7.1	20	74	140	28	3.8	268
Sep-18	6.9	18	60	430	28	2.8	282
Oct-18	7.2	16	58	380	26	2.2	246
Nov-18	7.2	20	58	440	23	2.6	286
Dec-18	6.7	22	60	600	18	2.2	377
Average	7.23	21.77	75.11	457.77	24.33	2.6	317.55
Min-Max	(6.7-7.8)	(16-40)	(58-132)	(140-660)	(18-28)	(2.2-3.8)	(245-430)

Bhella River U/S Kashipur, (U/S Ramnagar Road), US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.2	6	20	240	18	6.2	162
Feb-18	7.2	4	14	280	20.8	5.8	187
Mar-18	7.2	4.2	16	320	25	6.2	210
Apr-18	7.3	6	20	240	28.3	7	168
May-18	River Dry						
Jun-18	River Dry						
Jul-18	7.2	3.4	10	220	28	6	140
Aug-18	7.2	4	16	210	26	7.2	138
Sep-18	7.1	6	18	220	26	7.2	152
Oct-18	7.3	4	8.2	210	25	6.6	139
Nov-18	7.3	6.2	16	240	22	5.8	166
Dec-18	7.1	3.2	8	220	17	6.8	146
Average	7.21	4.7	14.62	240	23.61	6.48	160.8
Min-Max	(7.1-7.3)	(4-6.2)	(8-20)	(210-320)	(17-28.3)	(5.8-7.2)	(139-210)

Bhella River at Lohia Bridge D/S Kashipur (D/S Lohiya Bridge), US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.4	18	48	440	20	1.2	291
Feb-18	7.4	44	108	460	20.2	2.2	301
Mar-18	7.5	38	128	580	26.2	1.2	381
Apr-18	7.68	40	156	690	26	1.2	454
May-18	7.9	52	168	700	30	0.8	462
Jun-18	7.8	48	150	660	32	1.2	428
Jul-18	6.8	32	88	590	29	0.8	387
Aug-18	6.9	34	98	560	29	1.8	362
Sep-18	6.8	40	140	540	28	1.6	374
Oct-18	7.5	48	110	510	27	0	332
Nov-18	7.6	26	88	520	23	2.6	336
Dec-18	6.8	44	110	370	20	0.4	240
Average	7.32	39.5	117.66	558.33	25.78	1.1	366.66
Min-Max	(6.8-7.9)	(18-52)	(48-168)	(370-700)	(20-32)	(0-2.6)	(240-462)

Pilakhar River at Bilaspur, Rampur, US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.6	3.2	30	520	18.6	6.8	344
Feb-18	7.7	4.8	42	590	22.6	5.8	386
Mar-18	7.35	14	80	610	27	3.6	317
Apr-18	7.54	16	40	420	28	3	178
May-18	7.4	10	38	320	29	4.2	202
Jun-18	7.2	8	30	310	30	4.8	192
Jul-18	7.3	10	38	220	29	5.2	188
Aug-18	7.5	3.2	18	280	27	7.2	180
Sep-18	7.4	6.2	20	310	27	6.8	198
Oct-18	7.5	8	30	470	26	5.2	306
Nov-18	7.8	8	30	430	22	6.8	284
Dec-18	7.4	10	32	420	17	6.2	277
Average	7.47	8.45	35.66	408.33	25.26	5.46	254.33
Min-Max	(7.2-7.8)	(3.2-16)	(18-80)	(220-610)	(17-30)	(3-7.2)	(178-386)

Nanduar River U/S Sitarganj Industrial Area, (Nandour U/S Sitarganj), US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	River Dry						
Feb-18	River Dry						
Mar-18	River Dry						
Apr-18	River Dry						
May-18	River Dry						
Jun-18	River Dry						
Jul-18	7.6	4.2	21	490	28	6.4	308
Aug-18	7.3	2	12	360	28	7.4	238
Sep-18	7.4	3.2	14	320	27	7.2	206
Oct-18	7.2	6	14	360	26	6.8	238
Nov-18	7.6	4	14	340	23	6.8	222
Dec-18	River Dry						
Average	7.42	3.88	15	374	26.4	6.92	242.4
Min-Max	(7.2-7.6)	(2-4.2)	(12-21)	(320-490)	(23-28)	(6.4-7.4)	(206-308)

Nanduar River D/S Sitarganj Industrial Area, (Nandour D/S Sitarganj), US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.6	4	24	350	18	8	236
Feb-18	8.1	8	46	390	23	7.6	253
Mar-18	7.7	2	20	360	26	7.2	229
Apr-18	7.38	7	18	270	27	6	166
May-18	7.46	8.2	40	370	30	6.2	236
Jun-18	River Dry						
Jul-18	7.8	8.2	34	550	27	6	336
Aug-18	7.1	6	30	510	27	6.8	336
Sep-18	7.3	8	30	470	27	6.2	316
Oct-18	7.89	10	42	510	26	5.8	332
Nov-18	7.9	10	32	410	23	5.6	266
Dec-18	7.6	8	24	450	17	5.2	302
Average	7.62	7.21	30.90	421.81	24.6	6.41	273.45
Min-Max	(7.1-7.9)	(2-10)	(18-46)	(270-550)	(17-30)	(5.2-8)	(166-336)

Kichha River at Kichha, (River Kichha (U/S Nagarbhalla, Kashipur), US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	8.10	8	46	580	17	4.80	386
Feb-18	8	18	66	560	20	4.40	366
Mar-18	7.42	6	58	690	26	6.60	448
Apr-18	7.54	38	140	720	21	0.40	469
May-18	7.6	28	88	570	28	2	378
Jun-18	7.4	22	80	550	30	2.6	348
Jul-18	7.5	18	70	490	29	3.2	316
Aug-18	7.7	12	44	430	27	4.6	276
Sep-18	7.6	10.2	38	410	28	4.4	260
Oct-18	7.7	12	46	530	25	4	346
Nov-18	7.4	14.2	46	460	23	4.2	308
Dec-18	7.8	12	30	530	18	6.2	346
Average	7.65	16.53	62.67	543.33	24.33	3.95	354.64
Min-Max	(7.4-8.10)	(6-38)	(30-140)	(410-720)	(17-30)	(0.40-6.60)	(260-469)

Kalyani River at U/S Pantnagar Industrial Area, US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.2	3.2	18	390	17	8.2	248
Feb-18	7.2	2.2	16	450	27	8	298
Mar-18	River Dry						
Apr-18	River Dry						
May-18	River Dry						
Jun-18	7.2	3.2	8	440	30	7.2	284
Jul-18	7.6	2.6	16	510	28	7.2	328
Aug-18	7.6	1.8	18	460	27	7.8	288
Sep-18	7.5	4	14	390	27	7.2	248
Oct-18	7.3	8	28	410	25	6.2	268
Nov-18	7.2	4.2	18	320	22	6.8	210
Dec-18	7.4	3.2	10	370	18	6.4	234
Average	7.35	3.6	16.22	415.55	24.55	7.22	267.33
Min-Max	7.2-7.6)	(1.8-8)	(8-28)	(320-460)	(17-30)	(6.2-8.2)	(210-328)

Kalyani River at D/S Pantnagar Industrial Area, US Nagar

Month	pH	BOD mg/L	COD mg/L	Conductivity	Temp	DO	TDS
Jan-18	7.9	8.2	38	620	17	5.20	412
Feb-18	7.4	6	36	580	22	5.20	377
Mar-18	6.98	20	84	230	27	1.80	339
Apr-18	6.86	80	304	470	28	0.60	300
May-18	7.1	52	200	480	30	1.20	317
Jun-18	6.4	48	190	580	32	1.20	376
Jul-18	7.3	44	152	570	28	1.80	374
Aug-18	7.8	30	118	550	28	3.20	352
Sep-18	6.9	34	138	580	28	2.80	376
Oct-18	7.3	36	130	540	27	2.00	352
Nov-18	7.6	26	88	520	23	2.60	336
Dec-18	6.8	30	80	580	18	2.80	378
Average	7.19	34.51	129.83	525	25.66	2.53	357.41
Min-Max	(6.4-7.9)	(6-80)	(36-304)	(230-620)	(17-32)	(0.60-5.20)	(300-412)