

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chloride s (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.92	<1	4	18	9.6	74	5	44	40	84	98		90
Feb-19	7.68	<1	4	17	9.8	72	5	46	34	80	126	34	80
Mar-19	7.56	<1	4	20	9.6	74	5	44	34	78	100	30	70
Apr-19	7.54	<1	4	19	9.4	70	5	42	34	76	96	40	90
May-19	7.62	<1	4	20	9.2	72	5	42	36	78	88	30	110
June-19	8.4	<1	4	20	9	68	5	42	30	72	85	50	110
July-19	8.1	<1	4	19	9.8	60	7	42	16	58	81	40	90
Aug-19	7.7	<1	4	18	10	64	7	38	22	60	83	30	80
Sept-19	8.05	<1	4	22	10.2	79	8	40	30	70	78	26	70
Oct-19	8	<1	4	20	9.2	69	10	44	24	68	76	30	60

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chloride s (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.96	<1	4	17	9.6	72	5	42	40	82	98		90
Feb-19	7.68	<1	4	16	9.4	68	5	44	34	78	128	40	70
Mar-19	7.65	<1	4	18	9.6	66	5	42	32	74	92	30	80
Apr-19	7.58	<1	4	18	9.6	68	5	42	36	78	95	40	90
May-19	7.71	<1	4	20	9.2	66	5	40	36	76	92	50	110
June-19	8.07	<1	4	20	9	72	6	64	24	88	93	60	130
July-19	8.04	<1	4	19	10	69	4	50	20	70	88	40	110
Aug-19	7.87	<1	4	18	10	70	5	46	32	78	89	30	80
Sept-19	8.16	<1	4	20	10.2	75	6	44	36	80	88	40	90
Oct-19	8.05	<1	4	20	10.8	80	6	44	22	66	89	50	80

**Upper Ganga Canal D/S Roorkee, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.12	1	6	17	9.2	74	6	42	40	82	105		140
Feb-19	7.82	1	6	16	9	76	7	48	38	86	120	70	130
Mar-19	7.54	1	4	19	9.2	74	6	46	42	68	116	60	110
Apr-19	7.45	1	4	18	9	72	6	42	40	82	112	70	130
May-19	7.8	1	4	19	9.4	74	6	44	40	84	110	80	140
June-19	7.87	1	6	19	9.2	72	8	60	40	76	99	90	170
July-19	7.9	1.2	6	19	8.6	60	7	46	20	66	81	80	140
Aug-19	7.61	1	4	18	10	63	6	44	36	80	92	60	170
Sept-19	8.09	1	4	20	10	72	7	46	32	78	86	70	140
Oct-19	8.2	1	4	20	9.8	79	8	40	30	70	78	60	130

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.05	<1	4	17	9.8	70	5	42	38	80	94		80
Feb-19	7.72	<1	4	16	10	72	5	40	36	76	115	30	60
Mar-19	7.68	<1	4	19	9.6	70	5	42	38	80	94	40	70
Apr-19	7.62	<1	4	18	10	72	5	44	38	82	90	34	90
May-19	7.64	<1	4	19	9.8	74	5	42	38	80	96	40	110
June-19	8	<1	4	20	9.4	78	5	70	28	98	90	50	90
July-19	8.12	<1	4	19	8.6	58	5	52	18	70	86	40	110
Aug-19	7.8	<1	4	18	9	60	7	46	26	72	85	30	90
Sept-19	8.21	<1	4	20	10.4	65	9	44	30	74	80	40	80
Oct-19	8.12	<1	4	21	10.6	75	15	44	28	72	83	30	70

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.12	<1	4	17	9.8	72	5	44	40	84	102		130
Feb-19	8.12	<1	4	16	9.6	70	6	42	36	78	136	60	140
Mar-19	7.62	1	4	19	9.2	72	5	42	38	80	108	50	110
Apr-19	7.64	1	4	19	9	74	5	42	40	82	98	60	130
May-19	7.82	1	4	20	9.2	70	5	40	36	76	90	70	140
June-19	7.92	1	6	20	9	72	6	44	34	78	94	80	170
July-19	7.7	1.2	6	19	8.2	75	5	54	30	84	95	60	130
Aug-19	7.92	1	6	19	8.8	61	5	42	38	80	90	80	140
Sept-19	8.44	1	6	20	9.8	74	7	44	34	78	92	90	170
Oct-19	8.3	1	6	20	10.8	110	11	44	24	68	140	80	140

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.98	1	6	17	9.4	78	6	44	42	86	107		220
Feb-19	7.82	1	6	16	9.2	76	7	44	40	84	116	170	300
Mar-19	7.72	1	8	19	9	78	8	46	42	88	110	140	280
Apr-19	7.76	1	5	18	9	80	7	50	40	90	140	110	220
May-19	7.68	1	6	20	8.8	76	8	46	42	88	124	140	350
June-19	7.4	1.2	6	19	8.6	78	9	98	34	132	207	170	300
July-19	7.18	1.4	6	19	8.6	90	9	60	24	84	132	140	280
Aug-19	7.37	2	8	18	9	100	9	46	42	88	142	170	350
Sept-19	7.59	1.4	6	22	8.6	110	13	50	40	90	143	220	300
Oct-19	8.02	1.2	6	20	8.8	148	19	52	22	74	153	170	280

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.95	<1	4	17	9.6	70	5	42	40	82	96		110
Feb-19	7.85	<1	4	17	9.8	72	6	42	36	78	110	50	80
Mar-19	7.62	<1	4	19	9.4	76	5	44	40	84	102	40	90
Apr-19	7.65	<1	4	19	9.4	78	5	44	42	86	94	30	80
May-19	7.72	<1	4	20	9.4	76	6	42	40	82	98	40	90
June-19	8.36	<1	4	20	9.2	74	5	52	30	82	97	70	130
July-19	8.09	<1	4	19	9	64	8	48	14	62	84	50	110
Aug-19	8.0	<1	4	18	10	76	6	48	30	78	83	40	90
Sept-19	8.18	<1	4	22	10	78	6	42	32	74	79	30	80
Oct-19	8.1	<1	4	20	9	76	7	42	28	70	73	40	90

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.15	26	86	18	2.8	240	25	164	126	290	328	8.15	>1600
Feb-19	7.85	28	110	18	3	280	27	200	140	340	390	7.85	>1600
Mar-19	7.82	30	136	20	2.8	290	30	240	120	360	386	7.82	>1600
Apr-19	7.84	28	112	19	3	260	24	196	124	320	372	7.84	>1600
May-19	7.79	30	120	20	2.6	278	25	200	148	348	410		>1600
June-19	7.84	26	126	20	2.8	290	30	230	128	358	430		>1600
July-19	7.86	25	118	19	3	270	22	220	100	320	390		>1600
Aug-19	6.89	27	120	20	2.6	274	26	222	102	324	392		>1600
Sept-19	6.94	26	120	22	2.8	260	25	220	80	300	400		>1600
Oct-19	8.05	28	124	20	2.8	280	28	234	78	312	415		>1600

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.96	1	6	18	9.4	76	7	44	42	86	115		170
Feb-19	7.48	1	6	16	9.6	82	8	54	36	90	160	130	220
Mar-19	7.52	1	4	20	9.4	86	7	48	44	92	136	90	170
Apr-19	7.54	1	4	18	9.2	80	6	46	42	88	118	80	220
May-19	7.48	1	6	20	8.8	84	6	54	40	94	144	110	280
June-19	7.84	1	6	20	9	78	6	50	34	84	118	130	220
July-19	7.91	1.2	6	19	8.6	76	7	48	26	74	122	80	170
Aug-19	7.81	1.2	6	18	8.8	78	6	46	30	76	110	110	220
Sept-19	8.45	1	6	25	8.6	76	13	44	38	82	246	130	280
Oct-19	8.3	1	6	22	8.8	78	11	48	36	84	190	110	220

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.02	<1	4	17	10.4	64	5	38	32	70	114		40
Feb-19	7.42	<1	4	16	10	70	5	46	32	78	96	26	50
Mar-19	7.48	<1	4	19	9.8	62	4	42	30	72	86	17	40
Apr-19	7.62	<1	4	17	9.8	60	5	36	32	68	88	17	40
May-19	7.54	<1	4	18	10.2	68	5	38	34	72	80	14	50
June-19	7.62	<1	4	19	9.8	66	5	42	32	74	82	17	40
July-19	7.7	<1	4	18	10.2	62	4	44	26	70	78	26	50
Aug-19	7.48	<1	4	18	10.4	64	5	46	26	72	80	17	40
Sept-19	8.23	<1	4	20	9.8	58	7	40	28	68	73	30	50
Oct-19	8.12	<1	4	20	10	60	6	42	24	66	62	26	60

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.92	<1	4	17	10	68	5	40	38	78	110		60
Feb-19	7.62	<1	4	16	9.8	72	5	44	36	80	105	30	60
Mar-19	7.56	<1	4	20	9	68	4	40	34	74	90	34	70
Apr-19	7.68	<1	4	19	9.6	64	5	40	36	76	94	30	70
May-19	7.52	<1	4	19	9.8	70	5	36	32	78	90	26	80
June-19	7.68	<1	4	20	9.6	74	6	46	34	80	88	40	90
July-19	7.86	<1	4	19	9.6	76	5	44	28	72	84	30	80
Aug-19	7.32	<1	4	18	10	72	5	42	36	78	85	30	90
Sept-19	8.29	<1	4	22	9	64	7	42	30	72	76	40	80
Oct-19	7.78	<1	4	20	9.6	62	6	44	26	70	66	30	70

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

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.96	<1	4	16	9.4	76	5	48	40	88	94		<2
Apr-19	7.81	<1	4	17	9.6	74	5	42	40	82	84	26	60
July-19	7.84	<1	4	18	9.4	72	5	42	28	70	86	22	50
Oct-19	8.04	<1	4	19	10	73	10	64	26	90	100	26	60

**River Yamuna at U/S Dakpathar, Dehradun**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.98	1	4	17	9	70	6	46	32	78	98		60
Apr-19	7.72	1	4	18	9.2	72	6	44	36	80	105	170	280
July-19	7.76	1.2	6	19	8.6	70	6	46	30	76	112	80	220
Oct-19	7.03	1	6	20	8.8	60	12	62	18	80	82	70	170

**River Alaknanda A/C Mandakini at Rudrapryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.85	<1	4	16	9.8	66	5	44	30	74	68		<2
Apr-19	7.74	<1	4	17	9.6	68	5	42	34	76	78		<2
July-19	7.82	<1	4	18	9.2	64	6	44	26	70	68		<2
Oct-19	7.78	<1	4	18	10.2	60	5	44	24	68	70	<2	<2

**River Mandakini B/C Alaknanda at Rudrapryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.94	<1	4	17	9.4	60	5	42	28	70	64		<2
Apr-19	7.82	<1	4	17	9.6	62	5	40	34	74	70		<2
July-19	7.86	<1	4	18	9.4	60	5	40	24	64	65		<2
Oct-19	7.8	<1	4	18	9.8	58	4	44	22	66	68	<2	<2

**River Alaknanda B/C Mandakini at Rudrapryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.89	<1	4	17	9.6	62	5	40	32	72	66		<2
Apr-19	7.68	<1	4	18	9.8	60	4	38	32	70	74		<2
July-19	7.74	<1	4	19	9.6	64	4	42	32	74	66		<2
Oct-19	7.78	<1	4	18	10.2	62	4	42	26	68	65	<2	<2

**River Alaknanda A/C Bhagirathi at Devpryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.01	<1	4	17	9.6	60	5	38	30	68	74		<2
Apr-19	7.82	<1	4	18	9.8	62	5	40	32	72	68		<2
July-19	7.86	<1	4	19	9.6	60	6	40	24	64	72		<2
Oct-19	7.84	<1	4	18	10	62	5	46	20	66	70	<2	<2

**River Alaknanda B/C to Bhagirathi at Devpryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	7.98	<1	4	17	9.2	62	5	38	32	70	70		<2
Apr-19	7.65	<1	4	17	9.6	64	5	38	34	72	66		<2
July-19	7.85	<1	4	19	9.4	56	5	38	22	60	62		<2
Oct-19	7.8	<1	4	19	10	58	5	42	20	62	64	<2	<2

**River Bhagirathi B/C with Alaknanda at Devpryag, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Jan-19	8.05	<1	4	17	9.4	58	5	34	30	64	62		<2
Apr-19	7.68	<1	4	17	9.6	62	5	38	32	70	60		<2
July-19	7.76	<1	4	18	9.8	58	5	40	26	66	64		<2
Oct-19	7.8	<1	4	18	10.2	60	5	44	24	68	68	<2	<2

**River Bhagirathi at Gangotri, Uttarkashi, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
May-19	7.64	<1	ND	5	10.8	56	4	46	26	72	82		<2

**Ground Water -Handpump CHC, Bhagwanpur,Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.2			18		425	38	188	24	212	718		<2	1044

**Ground Water -Handpump Vill-Sunhera, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.21			18		432	52	180	38	218	576		<2	890

**Ground Water -Handpump Ramnagar Industrial Area,Roorkee, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.18			20		298	50	90	22	218	380		<2	572

**Ground Water -Handpump Sikendarpur Lakheswari, Roorkee, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.12			19		380	68	120	110	230	1140		<2	1770

**Ground Water -Handpump Saleempur Chowk,Roorkee, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.38			20		275	35	190	26	216	648		<2	970

**Ground Water -Handpump Roshnabad Collectorate, Haridwar, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
May-19	7.02			18		120	18	74	16	90	288		<2	422

**River Ganga D/S Lakkarghat O P, Haridwar**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Sept-19	8.1	1	6	28	8.8	210	13	72	46	118	274	60	140
Oct-19	7.8	1	6	24	9	180	10	70	40	110	247	70	170

**River Ganga D/S Swargaashram-1, Haridwar**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)
Sept-19	8.04	<1	4	21	9.2	65	9	42	24	66	82	40	110
Oct-19	8.06	<1	4	20	9.4	68	8	44	28	72	192	50	140



**Naini Lake at Nainital (Water Intake Point), Nainital**

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.53	1.6	6	430	8	7.4	220	23	128	92	220	318
Feb-19	7.68	1.4	5	380	6	7.6	196	25	134	96	230	264
Mar-19	7.75	2	6	390	15	7.4	260	19	156	130	286	302
Apr-19	7.64	1.8	5	360	18	7.2	240	21	178	142	320	268
May-19	7.76	2	6	380	19	7.4	260	25	182	144	326	284
June-19	7.58	1.4	5	460	17	7	240	17	144	116	260	310
July-19	7.49	1.6	6	420	15	7.4	216	19	168	104	272	284
Aug-19	7.5	1.2	5.0	360	16	7.6	220	15	156	102	258	242
Sept-19	7.63	1.6	5.0	410	15	6.0	244	17	186	110	296	272
Oct-19	7.86	1.8	6.4	390	14	6.2	226	15	180	132	312	268

**Bheemtal Lake, Nainital, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.38	1.4	5	190	9	7	108	19	96	74	170	122
Feb-19	7.46	1.2	6	160	8	7.4	124	21	86	72	158	108
Mar-19	7.62	1.6	5	220	18	6.8	180	17	116	102	218	166
Apr-19	7.44	1.4	5	240	19	7.4	160	19	124	106	230	148
May-19	7.52	1.6	6	220	20	7	140	17	110	102	212	136
June-19	7.74	1.6	6	220	19	7.20	136	19	96	72	168	146
July-19	7.35	1.2	5	210	16	7	140	17	96	72	168	144
Aug-19	7.46	1.4	5.0	190	18	7.4	160	19	88	74	162	128
Sept-19	7.51	1.8	6.0	180	16	6.6	146	15	76	64	140	126
Oct-19	7.64	1.2	5.8	164	15	6.4	104	12	78	56	134	148

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Alkalinity (mg/L)	Chloride (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.49	1.4	5	240	13	7.4	138	15	112	86	198	162
Feb-19	7.32	1.4	6	220	10	7.4	138	17	104	82	186	134
Mar-19	7.58	1.4	5	240	22	7.2	156	21	108	96	204	136
Apr-19	7.58	1.6	6	260	21	7	148	17	112	104	216	122
May-19	7.64	1.8	5	180	22	7.2	126	21	108	86	194	112
June-19	7.82	1.2	6	240	20	7.6	134	21	102	84	186	154
July-19	7.68	1.6	5	210	18	7.4	128	23	116	94	210	142
Aug-19	7.52	1.8	6.0	230	21	7.2	136	21	108	86	194	158
Sept-19	7.35	1.4	5.0	220	20	7.6	124	24	82	76	158	136
Oct-19	7.52	1.6	6.4	190	18	6.8	112	21	78	64	142	166

**Ground Water -Handpump Near Govt. Primary , Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
Oct-10	7.5	1.6	5.6	30	0.0	210	15	154	126	280	214	-	-	326

**Ground Water -Handpump Near Chaiti Chauraha, Bazpur Road , Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
Oct-10	7.4	8.0	20	30	0.0	224	18	122	102	224	193			296

**Ground Water -Handpump in village Damauda at Kashipur near India Glycos Ltd., Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
Oct-10	7.5	3.2	4.6	30	0.0	160	24	104	96	200	156			240

**Ground Water -Handpump Near Kendriya Vidhyala, Bazpur Road , Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
Oct-10	Dry													

**Ground Water -Handpump Near Govt. Gurudwara, Muradabad Raod, Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/ 100 mL)	Total Coliform (MPN/ 100 mL)	Conductivity (µmohm/cm)
Oct-10	7.5	1.6	4.2	30	0.0	218	26	120	110	230	162			249

**Ground Water -Handpump Near Sitarganj, Industrial Area-1 , Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	6.8	1.8	3.2	30	0.0	264	26	114	128	242	348			535

**Ground Water -Handpump Near Sitarganj, Industrial Area-2 , Kashipur, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	7.5	13	20	30	0.0	214	16	122	138	260	210			323

**Ground Water -Handpump at Pantnagar, Industrial Area-1, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	7.4	1.8	4.20	29	0.0	215	16	110	128	238	196			296

**Ground Water -Handpump at Pantnagar, Industrial Area-2, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	7.5	2.0	4.0	30	0.0	176	18	116	105	221	171			263

**Ground Water -Handpump at Santipuri, Kichha-1, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	Dry													

**Ground Water -Handpump at Santipur, Kichha-2, Uttarakhand**

Month	pH	BOD (mg/L)	COD (mg/L)	Temp (°C)	DO (mg/L)	Alkalinity as CaCo3 (mg/L)	Chlorides (mg/L)	Calcium as Ca(mg/L)	Magnesium as Mg (mg/L)	Hardness as CaCO3 (mg/L)	Total Dissolved Solids (mg/L)	Fecal Coliform (MPN/100 mL)	Total Coliform (MPN/100 mL)	Conductivity (µmohm/cm)
Oct-10	Dry													

## Water Quality Data Kumaun Rivers

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.2	2	4	430	12	8.2	280
Feb-19	7.6	4	18	390	15	6.2	264
Mar-19	8.1	12	36	510	24	8.2	267
Apr-19	7.4	3.4	18	280	30	5.8	286
May-19	7.6	3.8	22	320	38	6	330
June-19	7.4	3	24	580	38	6.2	275
July-19	7.6	2	20	429	32	4.6	279
Aug-19	7.1	2.4	25	210	32	6.2	199
Sept-19	7.1	3.4	20	278	32	4.6	181
Oct-19	7.5	5.0	10	261	30	4.8	170

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.2	3.2	16	230	12	7.4	152
Feb-19	7.6	4.2	18	256	13	7.6	191
Mar-19	7.5	1.8	30	598	23	6.8	122
Apr-19	7.4	5	32	280	28	5.8	182
May-19	River Dry						
June-19	River Dry						
July-19	7.4	6	30	284	30	3.6	185
Aug-19	7.2	4.0	25	300	30	5.8	153
Sept-19	7.10	4	30	167	30	1.2	109
Oct-19	7.2	14	28	278	30	6.2	181

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.9	12	38	720	13	2.4	474
Feb-19	7.4	10.6	34	649	14	2.2	421
Mar-19	7.9	12	49	830	24	1.8	122
Apr-19	7.5	12	42	480	28	2.6	256
May-19	River Dry						
June-19	River Dry						
July-19	7.4	12	28	389	31	1.8	407
Aug-19	7.6	12	60	270	31	0.8	142
Sept-19	6.8	60	170	176	31	0.0	115
Oct-19	7.4	26	60	387	30	0.40	252

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.1	2	6.2	240	12	7.2	158
Feb-19	7.4	1.5	5.8	251	14	6.2	136
Mar-19	7.8	1.8	30	430	20	3.2	320
Apr-19	7.3	2	6.2	212	28	4.8	159
May-19	River Dry						
June-19	7.5	3	28	540	38	4	177
July-19	River Dry						
Aug-19	7.3	6.6	30	260	30	4.4	129
Sept-19	6.9	4.2	40	156	30	5.2	102
Oct-19	7.3	5.0	30	227	32	5.2	148

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	6.8	48	120	570	13	0.8	367
Feb-19	7.3	42	102	556	13	0.4	334
Mar-19	6.3	56	160	750	21	0.2	510
Apr-19	7.5	42	110	540	28	0	349
May-19	5.8	44	120	580	38	0.2	398
June-19	7.3	20	60	660	38	0.2	422
July-19	7.1	40	130	360	30	0.0	234
Aug-19	6.9	48	140	320	30	0.0	155
Sept-19	6.8	52	190	244	30	0.80	159
Oct-19	7.3	44	90	489	29	0.60	318

**Pilakhar River at Bilaspur, Rampur, US Nagar**

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.6	8	28	400	14	6.8	254
Feb-19	7.3	8	26	210	15	6.6	285
Mar-19	7.7	10	30	440	19	6	178
Apr-19	7.5	7.2	32	420	32	5.6	319
May-19	7.3	7.4	36	480	38	5.8	342
June-19	7.5	6	30	590	37	4.8	265
July-19	7.3	8	20	462	30	5.6	309
Aug-19	7.6	6.0	20	320	30	4.4	219
Sept-19	7.5	4.0	30	473	29	4.2	308
Oct-19	7.9	3.6	40	207	30	4.8	135

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19							
Feb-19							
Mar-19							
Apr-19							
May-19							
June-19							
July-19							
Aug-19	7.4	12	30	260	30	4.0	104
Sept-19	7.3	4.0	40	200	30	5.0	130
Oct-19	7.5	3.8	10	175	30	6.2	114

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.7	8	24	510	13	4.8	336
Feb-19	7.5	8	26	496	17	5	238
Mar-19	7.3	6.2	20	553	25	5.6	329
Apr-19	7.5	4.8	22	540	30	5.2	348
May-19	7.3	4.2	28	460	36	5.6	326
June-19	7.6	4	30	550	38	6	151
July-19	7.3	4	30	164	30	5.6	107
Aug-19	7.3	5.0	40	240	30	3.6	115
Sept-19	7.7	4.0	20	216	30	4.4	141
Oct-19	7.99	8.0	40	243	30	6.4	158

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.3	10	28	560	13	6.4	358
Feb-19	7.6	12	26	580	17	6.4	329
Mar-19	7.7	6.8	22	620	23	4.4	432
Apr-19	7.4	8	40	480	32	4.2	266
May-19	7.2	7.2	36	460	36	4.8	428
June-19	7.4	5	20	510	38	4.2	488
July-19	6.9	6	20	247	30	4.8	161
Aug-19	7.2	5.0	20	340	30	4.2	178
Sept-19	7.3	2.0	20.0	286	30	4.0	186
Oct-19	7.4	2.6	40	570	30	4.8	371

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	7.1	4	11	280	12	6.2	188
Feb-19	7.7	4	14	381	16	6	208
Mar-19	7.3	4.6	18	510	26	5.2	267
Apr-19	7.5	5.2	28	460	32	6	272
May-19	7.4	4.6	24	480	38	5.8	267
June-19	7.7	4.2	28	520	37	6.4	264
July-19	7.1	6	20	389	29	6.8	253
Aug-19	7.2	6.2	30	430	31	4.0	234
Sept-19	7.2	6.0	20	440	32	4.0	286
Oct-19	7.8	6.2	20	412	30	5.2	268

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

Month	pH	BOD (mg/L)	COD (mg/L)	Conductivity (umhos/cm)	Temp (°C)	DO (mg/L)	Total Dissolved Solids (mg/L)
Jan-19	6.7	24	68	590	14	3.2	389
Feb-19	6.9	20	56	530	15	2.8	356
Mar-19	7.6	14	28	490	25	4.8	304
Apr-19	7.2	12	24	510	30	2	362
May-19	6.8	10	26	520	36	2.4	292
June-19	7.4	6	32	560	38	2	297
July-19	7.1	4	40	433	30	6.4	232
Aug-19	7.2	6.0	30	520	30	6.4	286
Sept-19	6.5	4.0	40	520	30	6.5	286
Oct-19	7.2	6.4	60	484	29	1.8	315