

Analysis results of Surface water monitoring under NWMP for the month of January, 2020

River Satluj

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond µs/Cm	T.Coli MPN/100ml	F. Coli MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
1	River Satluj at U/S Nangal	1017	06.01.20	SW 1108	ZO Lab Ldh	8.3	8.0	<1	201	130	20	BDL	0.15	BDL	B	S
2	River Satluj at D/S NFL	1380	06.01.20	SW 1109	ZO Lab Ldh	8.5	9.6	<1	248	330	100	BDL	0.21	BDL	B	S
3	River Sutej at 100m D/s PACL Nangal	2915	06.01.20	SW 1110	ZO Lab Ldh	8.5	9.6	<1	266	340	92	BDL	0.22	BDL	B	S
4	River Satluj at D/s Nangal	1018	06.01.20	SW 1111	ZO Lab Ldh	8.3	8.6	<1	292	330	110	BDL	0.24	BDL	B	S
5	River Satluj at Kiratpur Sahib	1814	07.01.20	SW 1121	ZO Lab Ldh	8.3	7.6	<1	221	700	130	BDL	0.15	0.12	C	S
6	Ropar Head-Works	1019	07.01.20	SW 1118	ZO Lab Ldh	8.4	7.8	<1	278	1700	180	BDL	0.32	BDL	C	S
7	River Satluj D/S of Rishab- Paper Mills	1293	07.01.20	SW 1117	ZO Lab Ldh	8.5	7.2	<1	311	2000	200	BDL	0.43	0.11	C	S
8	River Satluj U/S Buddha Nallah	1690	15.01.20	SW 1134	ZO Lab Ldh	7.4	7.8	3.0	436	2100	930	BDL	0.83	0.15	C	S
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	15.01.20	SW 1135	ZO Lab Ldh	6.9	BDL	29	697	9,20,000	3,50,000	BDL	1.72	0.24	E	U
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	09.01.20	SW 1125	ZO Lab Ldh	8.2	1.8	14	642	2,80,000	79000	0.41	1.70	0.20	E	U
11	River Satluj at D/s East Bein	1381	09.01.20	SW 1126	ZO Lab Ldh.	8.0	3.0	10	691	2,40,000	79000	0.25	2.04	0.25	E	U
12	River Satluj at Harike	1022	09.01.20	SW 1127	ZO Lab Ldh.	8.2	6.5	4.2	362	7900	780	0.08	0.71	0.24	D	U
13	Harike Lake D/S from canal	1382	06.01.20	SW 4	ZO Lab Jal.	7.7	8.9	1.6	258	1100	400	0.021	0.29	0.16	C	S
14	D/S Harike lake	1297	06.01.20	SW 5	ZO Lab Jal.	7.8	8.8	1.3	269	1200	450	0.025	0.30	0.19	C	S
15	U/S Hussainiwala H/W Ferozepur	1691	10.01.20	SW 1128	ZO Lab Ldh	8.5	9.5	1.4	229	630	92	BDL	0.29	0.16	C	S
16	D/S Hussainiwala H/W Ferozepur	1692	10.01.20	SW 1129	ZO Lab Ldh	8.5	9.3	1.4	235	700	110	BDL	0.30	0.19	C	S

Note. 1. BDL means Below Method Detection Limit
 2. DBU means Designated Best Use (Class-A,B,C,D & E)
 3. Water Quality Index (S means Satisfactory, U means Unsatisfactory)
 4. U/s means Upstream , D/s means Downstream

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River Satluj

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO ₄ mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO ₃ -N mg/l	TKN mg/l	PO ₄ as P mg/l	F mg/l	Na mg/l	K mg/l
1	River Satluj at U/S Nangal	1017	06.01.20	SW 1108	ZO Lab Ldh	<5	BDL	BDL	125	108	5	6	114	24.8	12.6	68	BDL	BDL	2.44	BDL	BDL	0.21	3.6	1.8
2	River Satluj at D/S NFL	1380	06.01.20	SW 1109	ZO Lab Ldh	<5	2	BDL	152	122	7	8	122	27.2	13.1	80	BDL	BDL	3.20	BDL	BDL	0.25	5.4	1.9
3	River Sutej at 100m D/s PACL Nangal	2915	06.01.20	SW 1110	ZO Lab Ldh	<5	2	BDL	156	133	6	11	126	27.2	14.1	82	BDL	BDL	2.61	BDL	BDL	0.26	5.6	1.6
4	River Satluj atD/s Nangal	1018	06.01.20	SW 1111	ZO Lab Ldh	<5	2	BDL	173	135	10	9	138	28.8	16	94	BDL	BDL	2.41	BDL	BDL	0.25	6.6	2.2
5	River Satluj at Kiratpur Sahib	1814	07.01.20	SW 1121	ZO Lab Ldh	<5	BDL	BDL	143	123	7	5	116	24.8	13.1	80	BDL	BDL	2.69	BDL	BDL	0.25	3.6	1.2
6	Ropar Head-Works	1019	07.01.20	SW 1118	ZO Lab Ldh	<5	9	BDL	156	140	10	8	136	29.6	15.1	110	BDL	BDL	3.18	BDL	BDL	0.21	8.6	2.0
7	River Satluj D/S of Rishab-Paper Mills	1293	07.01.20	SW 1117	ZO Lab Ldh	<5	7	BDL	192	166	12	13	138	29.6	15.6	120	BDL	BDL	2.56	BDL	BDL	0.32	11.5	2.0
8	River Satluj U/S Buddha Nallah	1690	15.01.20	SW 1134	ZO Lab Ldh	20	7	10	253	231	37	13	184	38.4	21.4	148	BDL	BDL	2.14	1.1	0.14	0.34	25.8	2.5
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	15.01.20	SW 1135	ZO Lab Ldh	116	60	134	415	325	90	31	196	41.6	22.4	230	BDL	4.2	5.96	5.9	0.92	0.57	55.3	12.9
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	09.01.20	SW 1125	ZO Lab Ldh	92	60	172	379	291	81	28	184	38.4	21.4	212	BDL	5.1	2.40	6.6	0.23	0.21	53.1	9.2
11	River Satluj at D/s East Bein	1381	09.01.20	SW 1126	ZO Lab Ldh	48	45	65	432	339	95	24	190	40.8	21.4	246	BDL	5.0	2.66	6.7	0.36	0.23	64.6	11.6
12	River Satluj at Harike	1022	09.01.20	SW 1127	ZO Lab Ldh	24	18	28	211	164	32	8	120	25.6	23.3	118	BDL	1.0	3.74	1.3	0.10	0.27	18	11
13	Harike Lake D/S from canal	1382	06.01.20	SW 4	ZO Lab Jal.	14	54	16	160	134	27	16	118	32	9	98	BDL	0.7	0.6	1.3	0.12	0.14	7.1	3.1
14	D/S Harike lake	1297	06.01.20	SW 5	ZO Lab Jal.	9	52	18	165	132	23	15	109	30	8	99	BDL	0.7	0.7	1.3	0.13	0.16	7.2	3.4
15	U/S Hussainiwala H/W Ferozepur	1691	10.01.20	SW 1128	ZO Lab Ldh	10	30	26	131	116	14	6	98	21.6	10.7	102	BDL	BDL	2.45	BDL	BDL	0.20	6.5	2.7
16	D/S Hussainiwala H/W Ferozepur	1692	10.01.20	SW 1129	ZO Lab Ldh	11	32	29	135	119	14	6	98	23.2	9.7	104	BDL	BDL	2.30	BDL	BDL	0.22	6.8	2.5

Note. 1.
BDL means Below Method

Detection Limit

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River Beas

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17	River Beas at Talwara H/W	1693	15.01.20	SW 32	ZO Lab Jal.	7.9	7.7	1.3	212	94	46	0.014	0.48	BDL	B	S
18	River Beas at U/S Pathankot	1694	15.01.20	SW 34	ZO Lab Jal.	7.4	8.0	1.3	268	84	33	0.009	0.66	0.18	B	S
19	River Beas at D/S Pathankot	1695	15.01.20	SW 35	ZO Lab Jal.	7.5	7.8	1.6	275	210	94	0.014	0.32	0.21	B	S
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	15.01.20	SW 33	ZO Lab Jal.	7.8	7.9	1.4	254	84	31	0.018	0.72	0.16	B	S
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	8.01.20	SW 15	ZO Lab Jal.	7.9	7.6	1.3	260	350	170	0.036	0.46	0.25	B	S
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	8.01.20	SW 16	ZO Lab Jal.	8.0	7.5	1.2	213	210	110	0.035	0.16	0.27	B	S
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	8.01.20	SW 17	ZO Lab Jal.	7.9	8.1	1.3	205	140	63	0.036	0.18	0.30	B	S
24	River Beas at U/s Goindwal	1696	6.01.20	SW 1	ZO Lab Jal.	8.1	8.9	1.1	230	150	70	0.033	0.33	0.24	B	S
25	River Beas at D/s Goindwal	1012	6.01.20	SW 2	ZO Lab Jal.	8.0	8.8	1.1	217	220	79	0.348	0.29	0.29	B	S
26	Beas at Harike	1697	6.01.20	SW 3	ZO Lab Jal.	7.8	9.1	1.0	222	170	70	0.028	0.36	0.17	B	S

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17	River Beas at Talwara H/W	1693	15.01.20	SW 32	ZO Lab Jal.	8	20	10	140	110	17	12	75	19	6	92	BDL	BDL	BDL	BDL	BDL	0.10	9.3	2.9
18	River Beas at U/S Pathankot	1694	15.01.20	SW 34	ZO Lab Jal.	12	26	11	164	128	26	14	95	27	7	104	BDL	0.6	0.6	1.3	0.06	0.14	15	4.0
19	River Beas at D/S Pathankot	1695	15.01.20	SW 35	ZO Lab Jal.	14	38	14	170	149	21	18	105	26	10	117	BDL	0.7	0.4	1.0	0.08	0.12	7.6	2.5
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	15.01.20	SW 33	ZO Lab Jal.	12	24	12	158	132	24	14	92	26	7	90	BDL	0.5	0.5	0.9	0.05	0.13	16	4.4
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	8.01.20	SW 15	ZO Lab Jal.	14	34	16	164	144	19	15	107	25	11	110	BDL	0.8	0.4	1.4	0.07	0.13	11	3.8
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	8.01.20	SW 16	ZO Lab Jal.	13	30	12	146	124	17	12	120	30	11	90	BDL	0.7	0.5	1.3	0.08	0.12	4.0	2.4
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	8.01.20	SW 17	ZO Lab Jal.	12	42	16	148	128	12	10	110	28	10	111	BDL	0.8	0.7	1.5	0.07	0.14	4.4	2.2

24	River Beas at U/s Goindwal	1696	6.01.20	SW 1	ZO Lab Jal.	10	24	10	154	122	17	10	94	25	8	104	BDL	0.5	BDL	1.1	BDL	0.13	7.4	3.0
25	River Beas at D/s Goindwal	1012	6.01.20	SW 2	ZO Lab Jal.	10	22	10	152	120	12	12	90	24	7	96	BDL	0.6	BDL	1.0	0.05	0.11	6.3	2.2
26	Beas at Harike	1697	6.01.20	SW 3	ZO Lab Jal.	9	29	12	144	118	20	14	97	26	8	92	BDL	0.8	0.4	1.4	0.10	0.12	8.1	3.2

Note. 1. BDL means Below Method Detection Limit
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S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond μ s/Cm	T.Coli MPN/100ml	F Coli MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
27	Ravi at U/s of Madhopur H/W	1097	15.01.20	SW 31	ZO Lab Jal.	7.7	8.0	1.2	185	79	33	0.009	0.14	BDL	B	S

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO ₄ Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO ₃ -N mg/l	TKN mg/l	PO ₄ as P mg/l	F mg/l	Na mg/l	K mg/l
27	Ravi at U/s of Madhopur H/W	1097	15.01.20	SW 31	ZO Lab Jal.	10	22	BDL	128	104	12	8	80	21	6	77	BDL	BDL	BDL	BDL	BDL	BDL	2.8	1.6

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Analysis results of Surface water monitoring under NWMP for the month of January, 2020

River Ghaggar

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	pH	DO mg/l	BOD mg/l	Cond μ s/Cm	T.Coli MPN/ 100ml	F. Coli MPN/ 100ml	Free Amm. mg/l	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
1	Ghaggar at Mubarikpur Rest House	1023	6/1/20	SW 1637	H/o Lab Patiala	7.8	7.1	7	547	17000	2100	0.007	1.46	0.97	D	U
2	Ghaggar at Bhankarpur	1295	6/1/20	SW 1638	H/o Lab Patiala	7.5	5.3	36	890	24000	2700	0.30	1.86	0.99	D	U
3	Ghaggar at Chattbir	1698	6/1/20	SW 1639	H/o Lab Patiala	7.4	4.9	13	790	28000	3300	0.21	1.93	0.91	D	U
4	Ghaggar at U/s Jharmal Nadi	1702	6/1/20	SW 1640	H/o Lab Patiala	7.5	5.0	8	694	21000	3100	0.25	1.68	0.83	D	U
5	Ghaggar at D/s Jharmal Nadi	1701	6/1/20	SW 1641	H/o Lab Patiala	7.4	2.5	18	1017	24000	3400	0.21	2.12	0.98	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	6/1/20	SW 1643	H/o Lab Patiala	7.5	3.1	14	935	14000	1700	0.25	2.13	0.85	E	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	6/1/20	SW 1644	H/o Lab Patiala	7.3	2.7	18	1060	28000	3900	0.14	2.14	0.87	E	U
8	Ghaggar at Rattanheri	1473	10/1/20	SW 1688	H/o Lab Patiala	7.4	2.1	26	938	35000	4700	0.20	2.11	0.91	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	10/1/20	SW 1689	H/o Lab Patiala	7.5	2.5	21	947	28000	3900	0.25	2.00	0.88	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	10/1/20	SW 1690	H/o Lab Patiala	7.5	2.0	25	1063	35000	4000	0.23	2.49	0.94	E	U
11	Ghaggar at Khanauri	1024	10/1/20	SW 1693	H/o Lab Patiala	7.6	2.3	21	1013	24000	2700	0.30	2.06	0.92	E	U
12	Ghaggar at Moonak	1703	10/1/20	SW 1695	H/o Lab Patiala	7.6	3.2	23	1086	35000	4600	0.35	2.17	0.89	E	U
13	Ghaggar at U/s Sardulgarh	1705	18/1/20	SW 1781	H/o Lab Patiala	7.5	1.4	37	1147	22000	3200	0.27	2.10	0.70	E	U
14	Ghaggar at D/s Sardulgarh	1704	18/1/20	SW 1782	H/o Lab Patiala	7.6	1.0	42	1218	28000	4000	0.37	2.26	0.96	E	U

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1	Ghaggar at Mubarikpur Rest House	1023	6/1/20	SW 1637	H/o Lab Patiala	32	680	473	328	279	38	14	134	34	12	243	BDL	14.7	3.14	20.6	3.7	0.71	39	18
2	Ghaggar at Bhankarpur	1295	6/1/20	SW 1638	H/o Lab Patiala	160	200	293	534	454	81	33	325	87	26	275	BDL	15.2	2.11	21.3	5.4	0.98	77	36
3	Ghaggar at Chattbir	1698	6/1/20	SW 1639	H/o Lab Patiala	60	300	327	474	403	71	28	264	69	22	261	BDL	13.9	1.9	19.5	4.6	0.82	72	27
4	Ghaggar at U/s Jharmal Nadi	1702	6/1/20	SW 1640	H/o Lab Patiala	32	130	215	416	354	62	17	227	51	24	248	BDL	12.3	1.2	17.2	3.8	0.61	58	25
5	Ghaggar at D/s Jharmal Nadi	1701	6/1/20	SW 1641	H/o Lab Patiala	90	180	243	610	519	88	41	373	93	34	298	BDL	13.7	2.6	19.2	6.0	1.08	94	41
6	Ghaggar at U/s Dhakanshu Nallah	1699	6/1/20	SW 1643	H/o Lab Patiala	65	50	118	561	477	79	39	331	81	31	283	BDL	12.4	1.3	17.4	4.4	0.81	89	38
7	Ghaggar at D/s Dhakanshu Nallah	1700	6/1/20	SW 1644	H/o Lab Patiala	80	60	127	636	541	95	43	399	97	38	304	BDL	13.8	1.7	19.3	5.3	0.95	98	47
8	Ghaggar at Rattanheri	1473	10/1/20	SW 1688	H/o Lab Patiala	130	70	191	563	479	78	38	346	84	33	273	BDL	13.3	1.2	18.6	3.5	0.81	90	43
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	10/1/20	SW 1689	H/o Lab Patiala	110	90	212	568	483	82	40	358	79	39	270	BDL	12.7	1.0	17.8	3.2	0.78	87	40
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	10/1/20	SW 1690	H/o Lab Patiala	130	55	187	638	542	80	42	383	87	40	317	BDL	11.6	1.4	16.2	4.3	0.85	112	51

11	Ghaggar at Khanauri	1024	10/1/20	SW 1693	H/o Lab Patiala	104	35	141	608	517	90	36	369	80	41	321	BDL	12.1	1.5	16.9	3.5	0.90	91	41
12	Ghaggar at Moonak	1703	10/1/20	SW 1695	H/o Lab Patiala	116	60	197	648	551	93	46	387	84	43	332	BDL	14.1	1.8	19.7	2.8	1.02	98	48
13	Ghaggar at U/s Sardulgarh	1705	18/1/20	SW 1781	H/o Lab Patiala	184	30	104	688	584	96	48	447	98	49	342	BDL	13.4	1.9	18.8	4.0	1.0	102	53
14	Ghaggar at D/s Sardulgarh	1704	18/1/20	SW 1782	H/o Lab Patiala	212	45	125	731	621	105	50	467	101	52	369	BDL	14.6	2.1	20.4	4.4	1.3	112	51

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