

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

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 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	River Satluj at U/S Nangal	1017	08.10.2021	SW 17	ZO Lab Ldh	7.4	7.4	BDL	199	140	45	BDL	0.10	BDL	B	S
2	River Satluj at D/S NFL	1380	08.10.2021	SW 18	ZO Lab Ldh	7.9	10.8	BDL	202	250	78	BDL	0.11	BDL	B	S
3	River Sutej at 100m D/s PACL Nangal	2915	08.10.2021	SW 19	ZO Lab Ldh	7.8	10.1	BDL	203	270	68	BDL	0.08	BDL	B	S
4	River Satluj at D/s Nangal	1018	08.10.2021	SW 20	ZO Lab Ldh	8.2	9.7	BDL	200	260	68	BDL	0.07	BDL	B	S
5	River Satluj at Kiratpur Sahib	1814	12.10.2021	SW 22	ZO Lab Ldh	7.6	8.9	BDL	198	460	140	BDL	0.08	0.25	B	S
6	Ropar Head-Works	1019	12.10.2021	SW 24	ZO Lab Ldh	7.6	7.6	BDL	221	2600	1300	BDL	0.18	0.23	C	S
7	River Satluj D/S of Rishab- Paper Mills	1293	12.10.2021	SW 25	ZO Lab Ldh	7.7	8.1	BDL	210	2700	1700	BDL	0.14	0.28	C	S
8	River Satluj U/S Buddha Nallah	1690	13.10.2021	SW 27	ZO Lab Ldh	7.1	6.0	2.0	257	4700	2100	BDL	0.32	0.52	C	S
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	13.10.2021	SW 29	ZO Lab Ldh	6.9	BDL	15	493	46,00,000	17,00,000	BDL	1.14	0.68	E	U
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	14.10.2021	SW 31	ZO Lab Ldh	7.1	2.7	6	346	8,40,000	4,30,000	0.001	0.89	0.40	E	U
11	River Satluj at D/s East Bein	1381	14.10.2021	SW 32	ZO Lab Ldh	7.1	2.6	7	438	9,40,000	4,90,000	0.002	1.04	0.35	E	U
12	River Satluj at Harike	1022	14.10.2021	SW 33	ZO Lab Ldh	7.5	6.3	2.8	285	4700	2200	0.028	0.55	0.28	C	S
13	Harike Lake D/S from canal	1382	18/10/2021	406	ZO Lab, Jal	8.1	7.9	1.7	238	790	270	0.137	0.36	0.17	C	S
14	D/S Harike lake	1297	18/10/2021	407	ZO Lab, Jal	8.1	8.0	1.6	242	1200	380	0.117	0.34	0.16	C	S
15	U/S Hussainiwala H/W Ferozepur	1691	14.10.2021	SW 34	ZO Lab Ldh	7.2	5.0	1.6	304	1700	680	0.012	0.68	0.26	C	S
16	D/S Hussainiwala H/W Ferozepur	1692	14.10.2021	SW 35	ZO Lab Ldh	7.1	4.9	1.8	303	1100	780	BDL	0.72	0.29	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

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

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	08.10.2021	SW 17	ZO Lab Ldh	BDL	BDL	BDL	112	100	7	5	92	22.4	8.7	84	BDL	BDL	1.5	BDL	BDL	0.17	2.2	1.1
2	River Satluj at D/S NFL	1380	08.10.2021	SW 18	ZO Lab Ldh	BDL	3	BDL	116	102	6	6	98	25.6	8.3	84	BDL	BDL	1.7	BDL	BDL	0.18	2.4	0.9
3	River Sutej at 100m D/s PACL Nangal	2915	08.10.2021	SW 19	ZO Lab Ldh	BDL	4	BDL	117	103	6	6	96	24.8	8.3	82	BDL	BDL	1.7	BDL	BDL	0.18	1.9	0.9
4	River Satluj atD/s Nangal	1018	08.10.2021	SW 20	ZO Lab Ldh	BDL	7	BDL	123	112	7	5	132	32.8	12.2	82	BDL	BDL	1.5	BDL	BDL	0.21	1.9	1.0
5	River Satluj at Kiratpur Sahib	1814	12.10.2021	SW 22	ZO Lab Ldh	BDL	12	17	113	103	7	6	92	23.2	8.3	82	BDL	BDL	1.5	BDL	BDL	0.21	1.8	1.1
6	Ropar Head-Works	1019	12.10.2021	SW 24	ZO Lab Ldh	BDL	17	26	129	115	9	7	104	25.6	9.7	92	BDL	BDL	1.5	BDL	BDL	0.30	4.2	1.2
7	River Satluj D/S of Rishab-Paper Mills	1293	12.10.2021	SW 25	ZO Lab Ldh	BDL	21	37	123	106	5	5	96	23.2	9.2	90	BDL	BDL	1.7	BDL	BDL	0.39	3.2	1.3
8	River Satluj U/S Buddha Nallah	1690	13.10.2021	SW 27	ZO Lab Ldh	16	105	150	156	132	9	8	126	31.2	11.7	114	BDL	1.3	2.0	1.7	0.22	0.27	8.2	1.7
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	13.10.2021	SW 29	ZO Lab Ldh	64	120	241	299	235	46	31	168	41.6	15.6	172	BDL	3.4	2.2	4.5	1.86	0.43	34	5.3
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	14.10.2021	SW 31	ZO Lab Ldh	50	90	124	238	196	39	26	150	36	14.6	132	BDL	2.3	1.9	2.9	0.34	0.24	25	3.1
11	River Satluj at D/s East Bein	1381	14.10.2021	SW 32	ZO Lab Ldh	58	95	132	273	216	44	29	156	36.8	15.6	144	BDL	3.9	1.7	5.0	0.68	0.26	30	3.7
12	River Satluj at Harike	1022	14.10.2021	SW 33	ZO Lab Ldh	24	110	170	186	156	21	20	102	25.6	9.2	130	BDL	1.4	1.5	1.8	BDL	0.28	12.7	2.1
13	Harike Lake D/S from canal	1382	18/10/2021	406	ZO Lab, Jal	21	45	14	145	112	16	14	100	29	6	88	BDL	2.1	0.8	3.0	0.19	0.18	8.1	2.9
14	D/S Harike lake	1297	18/10/2021	407	ZO Lab, Jal	19	43	12	152	112	17	12	102	31	6	102	BDL	1.8	0.8	2.9	0.18	0.16	8.0	2.7
15	U/S Hussainiwala H/W Ferozepur	1691	14.10.2021	SW 34	ZO Lab Ldh	14	35	78	190	162	16	14	124	29.6	12.2	138	BDL	1.2	1.6	1.5	BDL	0.25	17.3	3.6
16	D/S Hussainiwala H/W Ferozepur	1692	14.10.2021	SW 35	ZO Lab Ldh	16	40	82	194	163	17	15	122	28.8	12.2	140	BDL	1.2	1.6	1.5	BDL	0.26	18.2	4.2

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

Analysis results of Surface water monitoring under NWMP for the month of October, 2021 (Metal/Pesticides)

River Satluj

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	T.Cr (mg/l)	Fe (mg/l)	Ni (mg/l)	Zn (mg/l)	Pb (mg/l)	Cd (mg/l)	Cu (mg/l)	Hg (mg/l)	As (mg/l)
1	River Satluj at U/S Nangal	1017	08.10.2021	SW 17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	08.10.2021	SW 18	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	08.10.2021	SW 19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	08.10.2021	SW 20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	12.10.2021	SW 22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	12.10.2021	SW 24	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	12.10.2021	SW 25	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	13.10.2021	SW 27	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	13.10.2021	SW 29	BDL	3.70	0.19	0.47	BDL	BDL	BDL	BDL	BDL
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	14.10.2021	SW 31	BDL	2.0	0.12	0.83	BDL	BDL	BDL	BDL	BDL
11	River Satluj at D/s East Bein	1381	14.10.2021	SW 32	BDL	1.26	BDL	0.95	BDL	BDL	BDL	BDL	BDL
12	River Satluj at Harike	1022	14.10.2021	SW 33	BDL	0.72	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	18/10/2021	406	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	D/S Harike lake	1297	18/10/2021	407	BDL	BDL	BDL	BDL	0.1	BDL	BDL	BDL	BDL
15	U/S Hussainiwala H/W Ferozepur	1691	14.10.2021	SW 34	BDL	0.57	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	14.10.2021	SW 35	BDL	0.47	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Note. 1. BDL means Below Method Detection Limit

2. Pesticides i.e. Alpha HCH, Beta HCH, Gama HCH, Anilophos, Chloropyrifos, 4,4' DDT, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

River Beas

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
17	River Beas at Talwara H/W	1693	06/10/2021	389	ZO Lab, Jal	7.6	7.4	1.0	185	110	26	0.015	0.34	0.10	B	S
18	River Beas at U/S Pathankot	1694	06/10/2021	391	ZO Lab, Jal	8.2	8.1	1.2	299	220	63	0.080	0.40	0.15	B	S
19	River Beas at D/S Pathankot	1695	06/10/2021	392	ZO Lab, Jal	8.2	7.2	1.3	302	430	94	0.064	0.51	0.17	B	S
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2021	390	ZO Lab, Jal	8.3	9.0	1.1	307	170	32	0.090	0.64	0.14	B	S
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	11/10/2021	393	ZO Lab, Jal	8.0	7.0	1.2	224	490	140	0.060	0.31	0.16	B	S
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	11/10/2021	394	ZO Lab, Jal	8.0	7.3	BDL(<1)	192	460	68	0.090	0.34	0.18	B	S
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	11/10/2021	395	ZO Lab, Jal	8.0	7.2	1.2	205	330	92	0.080	0.35	0.20	B	S
24	River Beas at U/s Goindwal	1696	18/10/2021	403	ZO Lab, Jal	8.3	8.0	1.0	202	280	70	0.090	0.37	0.25	B	S
25	River Beas at D/s Goindwal	1012	18/10/2021	404	ZO Lab, Jal	7.9	7.9	1.1	210	330	92	0.045	0.34	0.27	B	S
26	Beas at Harike	1697	18/10/2021	405	ZO Lab, Jal	8.0	8.1	1.0	195	430	110	0.050	0.32	0.19	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	SO4 Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO3-N mg/l	TKN mg/l	PO4as P mg/l	F mg/l	Na mg/l	K mg/l
17	River Beas at Talwara H/W	1693	06/10/2021	389	ZO Lab Jal.	14	18	BDL	112	85	9	10	82	29	2	71	BDL	0.6	0.9	BDL	0.09	0.14	7.1	2.5
18	River Beas at U/S Pathankot	1694	06/10/2021	391	ZO Lab Jal.	15	21	22	189	148	12	12	104	32	6	92	BDL	1.0	0.8	1.6	0.09	0.16	9.4	2.6
19	River Beas at D/S Pathankot	1695	06/10/2021	392	ZO Lab Jal.	14	29	18	182	145	14	13	106	30	7	88	BDL	0.8	0.9	1.5	0.10	0.17	12	3.0
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2021	390	ZO Lab Jal.	16	17	BDL	188	138	14	12	102	30	7	96	BDL	0.9	1.0	1.5	0.10	0.16	15	3.5
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	11/10/2021	393	ZO Lab, Jal	16	34	BDL	136	105	16	12	97	28	6	73	BDL	1.2	1.0	1.7	0.11	0.14	6.9	2.7
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	11/10/2021	394	ZO Lab, Jal	18	22	BDL	122	98	18	13	97	29	6	67	BDL	1.8	0.5	2.1	0.13	0.18	7.6	2.8
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	11/10/2021	395	ZO Lab, Jal	17	36	BDL	126	96	16	14	102	34	4	71	BDL	1.6	0.7	1.9	0.09	0.19	8.1	2.8
24	River Beas at U/s Goindwal	1696	18/10/2021	403	ZO Lab, Jal	14	44	11	124	90	13	12	100	26	9	79	BDL	0.9	0.6	BDL	0.08	0.14	8.6	2.7
25	River Beas at D/s Goindwal	1012	18/10/2021	404	ZO Lab, Jal	14	36	12	132	101	14	13	87	27	5	75	BDL	1.0	0.6	1.5	0.09	0.14	7.3	2.6
26	Beas at Harike	1697	18/10/2021	405	ZO Lab, Jal	15	29	10	123	97	14	12	92	27	6	81	BDL	1.0	0.5	1.6	0.10	0.15	7.0	2.6

Note. 1. BDL means Below Method Detection Limit

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Analysis results of Surface water monitoring under NWMP for the month of October, 2021 (Metal/Pesticides)

River Beas

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	Sample Collected & Analyzed by	T.Cr mg/l	Ni mg/l	Fe mg/l	Zn mg/l	Cu mg/l	Pb mg/l	Cd mg/l	As mg/l	Hg mg/l
1	River Beas at Talwara H/W	1693	06/10/2021	389	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	06/10/2021	391	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	06/10/2021	392	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2021	390	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	11/10/2021	393	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	11/10/2021	394	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	11/10/2021	395	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	18/10/2021	403	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	18/10/2021	404	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	18/10/2021	405	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Note. 1. BDL means Below Method Detection Limit

2. Pesticides i.e. Alpha HCH, Beta HCH, Gama HCH, Anilophos, Chloropyrifos, 4,4' DDT, OP-DDT, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL.

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

River Ravi

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	06/10/2021	388	ZO Lab, Jal	8.3	7.1	BDL(<1)	218	110	21	0.060	0.24	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	06/10/2021	388	ZO Lab Jal.	10	10	BDL	136	106	7	8	92	29	5	71	BDL	0.6	0.5	BDL	BDL	0.10	5.4	2.8

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Analysis results of Surface water monitoring under NWMP for the month of October, 2021 (Metal/Pesticides)

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Code	T.Cr mg/l	Ni mg/l	Fe mg/l	Zn mg/l	Cu mg/l	Pb mg/l	Cd mg/l	As mg/l	Hg mg/l
1	Ravi at U/s of Madhopur H/W	1097	06/10/2021	388	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

- Note. 1. BDL means Below Method Detection Limit
 2. Pesticides i.e. Alpha HCH, Beta HCH, Gama HCH, Anilophos, Chloropyrifos, 4,4' DDT, OP-DDT, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL.

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

River Ghaggar

S.N.	Point of Sample Collection	Code	Lab Sample No.	Date of receipt in lab	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	SW 5241	6/10/21	H/o Lab Patiala	7.8	6.2	7	415	17000	1700	0.25	1.75	0.30	D	U
2	Ghaggar at Bhankarpur	1295	SW 5242	6/10/21	H/o Lab Patiala	7.8	3.0	15	543	22000	2700	0.30	1.66	0.45	E	U
3	Ghaggar at Chattbir	1698	SW 5243	6/10/21	H/o Lab Patiala	7.6	3.1	16	602	24000	3400	0.24	1.75	0.33	E	U
4	Ghaggar at U/s Jharmal Nadi	1702	SW 5244	6/10/21	H/o Lab Patiala	7.8	4.0	12	490	22000	2600	0.33	1.66	0.29	D	U
5	Ghaggar at D/s Jharmal Nadi	1701	SW 5245	6/10/21	H/o Lab Patiala	7.6	3.3	15	566	28000	3800	0.25	1.66	0.50	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	SW 5247	6/10/21	H/o Lab Patiala	7.6	4.0	10	510	22000	3200	0.25	1.59	0.50	D	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	SW 5248	6/10/21	H/o Lab Patiala	7.6	3.1	14	602	24000	3400	0.26	1.81	0.60	E	U
8	Ghaggar at Rattanheri	1473	SW 5265	13/10/21	H/o Lab Patiala	7.9	3.5	13	568	28000	3800	0.63	1.85	0.45	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	SW 5266	13/10/21	H/o Lab Patiala	7.8	3.6	12	552	28000	3800	0.47	1.86	0.33	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	SW 5267	13/10/21	H/o Lab Patiala	7.9	3.2	14	597	28000	4000	0.59	1.81	0.29	E	U
11	Ghaggar at Khanauri	1024	SW 5270	13/10/21	H/o Lab Patiala	7.9	3.3	13	553	28000	3900	0.61	1.98	0.50	E	U
12	Ghaggar at Moonak	1703	SW 5272	13/10/21	H/o Lab Patiala	7.9	3.1	15	614	35000	4900	0.64	2.01	0.51	E	U
13	Ghaggar at U/s Sardulgarh	1705	SW 5273	18/10/21	H/o Lab Patiala	7.6	5.9	7	404	17000	2200	0.19	1.59	0.59	D	U
14	Ghaggar at D/s Sardulgarh	1704	SW 5274	18/10/21	H/o Lab Patiala	7.8	5.1	10	426	21000	2400	0.28	1.63	0.99	D	U

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO4 Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO3-N mg/l	TKN mg/l	PO4as P mg/l	F mg/l	Na mg/l	K mg/l
1	Ghaggar at Mubarikpur Rest House	1023	6/10/21	H/o Lab Patiala	34	430	428	271	231	26	10	109	27	10	194	BDL	7.0	1.0	9.8	1.2	1.0	42	14
2	Ghaggar at Bhankarpur	1295	6/10/21	H/o Lab Patiala	73	390	392	354	301	47	17	179	45	16	212	BDL	8.6	1.2	12.4	1.4	1.0	51	23
3	Ghaggar at Chattbir	1698	6/10/21	H/o Lab Patiala	81	300	297	392	334	52	19	222	54	21	221	BDL	9.7	1.3	13.6	1.6	1.4	60	26
4	Ghaggar at U/s Jharmal Nadi	1702	6/10/21	H/o Lab Patiala	61	290	228	319	272	35	14	151	39	13	204	BDL	9.4	1.1	13.2	1.4	1.2	47	22
5	Ghaggar at D/s Jharmal Nadi	1701	6/10/21	H/o Lab Patiala	77	310	296	369	315	49	15	200	52	17	216	BDL	9.9	1.2	13.9	1.4	1.0	54	25
6	Ghaggar at U/s Dhakanshu Nallah	1699	6/10/21	H/o Lab Patiala	51	210	243	329	283	41	11	158	42	13	211	BDL	10.1	1.0	14.1	1.3	1.0	46	20
7	Ghaggar at D/s Dhakanshu Nallah	1700	6/10/21	H/o Lab Patiala	69	230	267	393	337	51	18	215	53	20	219	BDL	10.5	1.1	14.7	1.3	1.1	61	27
8	Ghaggar at Rattanheri	1473	13/10/21	H/o Lab Patiala	64	220	249	369	315	45	13	180	44	17	218	BDL	13.9	1.0	19.5	1.4	1.0	57	28
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	13/10/21	H/o Lab Patiala	62	220	243	359	309	43	13	171	42	16	215	BDL	13.4	1.0	18.8	1.4	1.0	56	25
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	13/10/21	H/o Lab Patiala	68	240	257	384	329	48	15	201	49	19	223	BDL	13.1	1.1	18.3	1.5	1.0	59	29
11	Ghaggar at Khanauri	1024	13/10/21	H/o Lab Patiala	63	190	200	358	304	40	13	162	40	15	220	BDL	13.6	1.1	19.0	1.3	1.0	58	28
12	Ghaggar at Moonak	1703	13/10/21	H/o Lab Patiala	70	210	215	397	339	45	19	192	47	18	234	BDL	14.2	1.2	19.9	1.4	1.2	64	33
13	Ghaggar at U/s Sardulgarh	1705	18/10/21	H/o Lab Patiala	38	35	47	263	225	25	10	102	26	9	189	BDL	7.4	1.1	10.4	1.2	1.0	37	14
14	Ghaggar at D/s Sardulgarh	1704	18/10/21	H/o Lab Patiala	49	40	53	277	238	27	10	114	29	10	196	BDL	8.0	1.1	11.2	1.2	1.0	40	15

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)

Analysis results of Surface water monitoring under NWMP for the month of October, 2021 (Metal/Pesticides)

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Code	T.Cr mg/l	Ni mg/l	Fe mg/l	Zn mg/l	Cu mg/l	Pb mg/l	Cd mg/l	As mg/l	Hg mg/l
1	Ghaggar at Mubarikpur Rest House	1023	6/10/21	SW 5241	BDL	BDL	2.98	0.22	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	6/10/21	SW 5242	BDL	BDL	5.75	0.44	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chattbir	1698	6/10/21	SW 5243	BDL	BDL	4.78	0.29	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	6/10/21	SW 5244	BDL	BDL	4.80	0.25	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	6/10/21	SW 5245	BDL	BDL	5.45	0.21	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	6/10/21	SW 5247	BDL	BDL	6.90	0.29	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	6/10/21	SW 5248	BDL	BDL	6.56	0.53	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	13/10/21	SW 5265	BDL	BDL	5.75	0.44	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	13/10/21	SW 5266	BDL	BDL	4.78	0.29	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	13/10/21	SW 5267	BDL	BDL	4.80	0.25	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	13/10/21	SW 5270	BDL	BDL	6.90	0.29	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	13/10/21	SW 5272	BDL	BDL	6.29	0.25	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	18/10/21	SW 5273	BDL	BDL	6.43	0.40	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	18/10/21	SW 5274	BDL	BDL	7.04	0.60	BDL	BDL	BDL	BDL	BDL

Note. 1. BDL means Below Method Detection Limit

2. Pesticides i.e. Alpha HCH, Beta HCH, Gama HCH, Anilophos, Chloropyrifos, 4,4' DDT, OP-DDT, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL.

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

Drains

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	FColi MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Water quality as per DBU	Water Quality Index
1	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	19/10/21	SW 5275	H.O. Lab Patiala	7.3	BDL	134	4043	430000	210000	0.08	6.06	0.84	E	U
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	19/10/21	SW 5276	H.O. Lab Patiala	7.6	BDL	97	2715	210000	70000	0.61	3.32	0.52	E	U
3	Point Source B/N	2914	13.10.2021	SW 28	ZO Lab Ldh	7.1	BDL	140	1829	1,10,00,000	70,00,000	0.012	5.52	1.22	E	U
4	Kali Bein into Beas	2913	13/10/2021	402	ZO Lab, Jal	7.7	7.0	2.1	258	1100	460	0.060	0.67	1.14	C	S
5	Outfall of Nag Kalan drain into Tung Dhab drain at Majitha road, Amritsar	4163	Sample was not collected													
6	Tungdab drain at fatehgarh churian, Amritsar	2910	18/10/2021	408	ZO Lab, Jal	7.4	BDL	172	2130	490000	170000	0.570	3.70	0.98	E	U
7	Hundiara drain before entering Pakistan	2907	18/10/2021	409	ZO Lab, Jal	7.6	BDL	88	1229	330000	110000	0.850	3.51	0.92	E	U
8	Pathlawa Drain	2911	Sample was not collected													
9	Ranjit Sagar Reservoir	2912	06/10/2021	387	ZO Lab, Jal	8.3	7.2	BDL(<1)	214	94	22	0.030	0.27	BDL	B	S
	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	6/10/21	SW 5246	H.O. Lab Patiala	7.0	BDL	48	1115	110000	17000	BDL	2.11	1.10	E	U
11	Sagar Para Drain at village sagra dist.Patiala	4158	13/10/21	SW 5268	H.O. Lab Patiala	8.0	1.6	18	745	63000	6800	0.29	1.70	0.50	E	U
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	6/10/21	SW 5263	H.O. Lab Patiala	7.6	BDL	53	1109	350000	110000	0.50	2.57	0.52	E	U
13	Confluence point of Sarsa Nadi with river Satluj	4161	Sampling location not approachable													

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

Analysis results of Surface water monitoring under NWMP for the month of October, 2021

Drains

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.Alk n mg/l	p.Alkn mg/l	Amn-N 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	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	19/10/21	SW 5275	H.O. Lab Patiala	477	340	357	2635	2242	529	179	1521	284	197	978	BDL	7.7	4.1	10.8	4.7	3.0	543	173	
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	19/10/21	SW 5276	H.O. Lab Patiala	343	250	227	1764	1505	215	173	1390	248	187	412	BDL	24.3	3.8	34.0	4.4	2.9	284	307	
3	Point Source B/N	2914			ZO Lab Ldh	460	170	464	1226	921	338	58	348	85.6	32.6	680	BDL	24.4	4.9	32.1	8.68	0.86	237	21.3	
4	Kali Bein into Beas	2913	13/10/2021	402	ZO Lab, Jal	16	6	BDL	157	118	18	16	93	26	7	106	BDL	2.0	0.9	2.5	0.17	0.15	15	4.7	
5	Outfall of Nag Kalan drain into Tung Dhab drain at Majitha road, Amritsar	4163	Sample was not collected																						
6	Tungdab drain at fatehgarh churian, Amritsar	2910	18/10/2021	408	ZO Lab, Jal	490	390	76	1220	870	96	78	261	77	17	769	BDL	38	5.4	47	6.8	0.45	138	17	
7	Hundiara drain before entering Pakistan	2907	18/10/2021	409	ZO Lab, Jal	288	275	50	710	510	75	64	138	44	7	470	BDL	34	4.0	43	4.0	0.30	95	18	
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																						
9	Ranjit Sagar Reservoir	2912	06/10/2021	387	Z.O. Lab Jalandhar	10	6	BDL	128	102	6	10	77	23	5	69	BDL	BDL	BDL	BDL	BDL	BDL	5.5	2.7	
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	6/10/21	SW 5246	H.O. Lab Patiala	193	190	135	727	619	97	65	536	104	67	279	BDL	8.8	1.9	12.3	3.6	1.7	112	57	
11	Sagar Para Drain at village sagra dist.Patiala	4158	13/10/21	SW 5268	H.O. Lab Patiala	74	200	167	486	415	60	38	313	61	39	238	BDL	5.8	1.2	8.1	1.6	1.2	69	41	
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	6/10/21	SW 5263	H.O. Lab Patiala	210	215	275	721	615	91	60	478	89	62	327	BDL	19.9	2.1	27.9	2.7	1.7	129	54	
13	Confluence point of Sarsa Nadi with river Satluj	4161	Sampling location not approachable																						

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

Analysis results of Surface water monitoring under NWMP for the month of October, 2021 (Metal/Pesticides)

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Code	Fe mg/l	Zn mg/l	T.Cr mg/l	Ni mg/l	Cu mg/l	Pb mg/l	Cd mg/l	As mg/l	Hg mg/l
1	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	19/10/21	SW 5275	5.40	0.45	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	19/10/21	SW 5276	3.76	0.25	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	13.10.2021	SW 28	25.67	0.49	BDL	0.25	0.08	BDL	BDL	BDL	BDL
4	Kali Bein into Beas	2913	13/10/2021	402	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	Outfall of Nag Kalan drain into Tung Dhab drain at Majitha road, Amritsar	4163	Sample was not collected										
6	Tungdab drain at fatehgarh churian, Amritsar	2910	18/10/2021	408	0.28	0.05	BDL	BDL	0.05	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	18/10/2021	409	0.22	0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	Pathlawar Drain	2911	Sample was not collected										
9	Ranjit Sagar Reservoir	2912	06/10/2021	387	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	6/10/21	SW 5246	6.78	0.29	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	13/10/21	SW 5268	5.45	0.21	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	6/10/21	SW 5263	3.76	0.25	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	Sampling location not approachable										

Note. 1. BDL means Below Method Detection Limit

2. Pesticides i.e. Alpha HCH, Beta HCH, Gama HCH, Anilophos, Chloropyrifos, 4,4' DDT, OP-DDT, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL.