

Analysis results of Surface water monitoring under NWMP for the month of October, 2022

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	12.10.2022	SW 348	ZO Lab Ldh	7.8	9.1	BDL	237	220	130	BDL	0.19	BDL	B	S
2	River Satluj at D/S NFL	1380	12.10.2022	SW 349	ZO Lab Ldh	7.6	8.9	BDL	246	220	78	BDL	0.26	BDL	B	S
3	River Sutej at 100m D/s PACL Nangal	2915	12.10.2022	SW 350	ZO Lab Ldh	7.7	8.9	BDL	245	260	140	BDL	0.22	BDL	B	S
4	River Satluj at D/s Nangal	1018	12.10.2022	SW 351	ZO Lab Ldh	7.6	8.6	BDL	307	380	92	BDL	0.20	0.14	B	S
5	River Satluj at Kiratpur Sahib	1814	13.10.2022	SW 353	ZO Lab Ldh	7.9	8.0	BDL	253	480	210	BDL	0.28	0.14	B	S
6	Ropar Head-Works	1019	13.10.2022	SW 356	ZO Lab Ldh	7.8	7.7	BDL	254	790	330	BDL	0.28	0.11	C	S
7	River Satluj D/S of Rishab- Paper Mills	1293	13.10.2022	SW 357	ZO Lab Ldh	7.8	7.6	BDL	255	840	460	BDL	0.27	0.28	C	S
8	River Satluj U/S Buddha Nallah	1690	14.10.2022	SW 360	ZO Lab Ldh	8.0	7.2	BDL	278	1100	460	BDL	0.62	0.13	C	S
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	14.10.2022	SW 362	ZO Lab Ldh	7.7	6.0	2.6	332	1,70,000	70,000	0.010	0.69	0.34	D	U
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	17.10.2022	SW 364	ZO Lab Ldh	7.8	5.0	1.4	320	70,000	22,000	BDL	0.48	0.21	D	U
11	River Satluj at D/s East Bein	1381	17.10.2022	SW 365	ZO Lab Ldh	7.7	4.9	2.5	307	84,000	31,000	BDL	0.43	0.24	D	U
12	River Satluj at Harike	1022	17.10.2022	SW 366	ZO Lab Ldh	7.7	7.3	1.4	331	3300	1100	BDL	0.42	0.29	C	S
13	Harike Lake D/S from canal	1382	17/10/22	512	ZO Lab, Jal	7.8	7.1	1.8	233	840	310	0.04	0.44	0.23	C	S
14	D/S Harike lake	1297	17/10/22	511	ZO Lab, Jal	7.7	8.7	1.6	229	790	270	0.03	0.38	0.20	C	S
15	U/S Hussainiwala H/W Ferozepur	1691	17.10.2022	SW 367	ZO Lab Ldh	7.9	7.4	BDL	232	1100	330	BDL	0.22	0.14	C	S
16	D/S Hussainiwala H/W Ferozepur	1692	17.10.2022	SW 368	ZO Lab Ldh	7.9	6.9	BDL	234	1200	460	BDL	0.22	0.26	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, 2022

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	12.10.2022	SW 348	ZO Lab Ldh	BDL	2	BDL	132	118	5	6	104	27.2	8.7	82	BDL	BDL	1.5	BDL	BDL	0.17	4.5	1.4
2	River Satluj at D/S NFL	1380	12.10.2022	SW 349	ZO Lab Ldh	BDL	4	BDL	136	120	6	7	98	26.4	7.8	86	BDL	BDL	1.6	BDL	BDL	0.20	6.0	1.6
3	River Sutej at 100m D/s PACL Nangal	2915	12.10.2022	SW 350	ZO Lab Ldh	BDL	3	BDL	138	121	6	7	108	28.8	8.7	86	BDL	BDL	1.6	BDL	BDL	0.21	5.2	1.4
4	River Satluj atD/s Nangal	1018	12.10.2022	SW 351	ZO Lab Ldh	BDL	9	BDL	172	151	8	6	124	32	10.7	102	BDL	BDL	1.5	BDL	BDL	0.20	5.2	1.8
5	River Satluj at Kiratpur Sahib	1814	13.10.2022	SW 353	ZO Lab Ldh	BDL	20	13	142	125	7	8	118	31.2	9.7	82	BDL	BDL	1.6	BDL	BDL	0.23	7.0	1.7
6	Ropar Head-Works	1019	13.10.2022	SW 356	ZO Lab Ldh	BDL	45	32	143	126	7	6	116	31.2	9.2	82	BDL	BDL	1.6	BDL	BDL	0.23	6.9	1.7
7	River Satluj D/S of Rishab-Paper Mills	1293	13.10.2022	SW 357	ZO Lab Ldh	BDL	60	47	146	128	7	6	98	27.2	7.3	86	BDL	BDL	1.5	BDL	BDL	0.23	6.2	1.7
8	River Satluj U/S Buddha Nallah	1690	14.10.2022	SW 360	ZO Lab Ldh	BDL	180	188	162	143	7	8	110	29.6	8.7	96	BDL	BDL	2.2	BDL	BDL	0.21	15.0	6.1
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	14.10.2022	SW 362	ZO Lab Ldh	12	130	110	206	164	24	19	128	33.6	10.7	108	BDL	1.0	2.6	1.6	0.87	0.26	18	4.8
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	17.10.2022	SW 364	ZO Lab Ldh	7	160	116	192	162	16	15	120	32	9.7	90	BDL	BDL	1.8	BDL	BDL	0.23	12	3.0
11	River Satluj at D/s East Bein	1381	17.10.2022	SW 365	ZO Lab Ldh	8	110	130	184	160	13	12	122	32	10.2	98	BDL	BDL	2.0	BDL	BDL	0.24	11	3.0
12	River Satluj at Harike	1022	17.10.2022	SW 366	ZO Lab Ldh	7	130	156	196	173	17	14	130	34.4	10.7	104	BDL	BDL	1.8	BDL	BDL	0.21	11	1.5
13	Harike Lake D/S from canal	1382	17/10/22	512	ZO Lab, Jal	14	94	82	146	118	13	10	70	19	5.3	88	ND	1.0	1.1	1.4	0.14	0.2	8.5	3.8
14	D/S Harike lake	1297	17/10/22	511	ZO Lab, Jal	12	73	78	148	120	11	9	78	21	6.3	106	ND	1.1	1.0	1.4	0.13	0.21	7.7	3.0
15	U/S Hussainiwala H/W Ferozepur	1691	17.10.2022	SW 367	ZO Lab Ldh	BDL	16	18	139	123	7	8	104	27.2	8.7	96	BDL	BDL	1.7	BDL	BDL	0.18	5.1	1.5
16	D/S Hussainiwala H/W Ferozepur	1692	17.10.2022	SW 368	ZO Lab Ldh	BDL	23	20	138	122	8	9	102	26.4	8.7	96	BDL	BDL	1.8	BDL	BDL	0.19	5.0	1.5

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, 2022 (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	12.10.2022	SW 348	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	12.10.2022	SW 349	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	12.10.2022	SW 350	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	12.10.2022	SW 351	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	13.10.2022	SW 353	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	13.10.2022	SW 356	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	13.10.2022	SW 357	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	14.10.2022	SW 360	BDL	0.48	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	14.10.2022	SW 362	BDL	0.39	BDL	0.7	BDL	BDL	BDL	BDL	BDL
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	17.10.2022	SW 364	BDL	0.71	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	River Satluj at D/s East Bein	1381	17.10.2022	SW 365	BDL	0.63	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	River Satluj at Harike	1022	17.10.2022	SW 366	BDL	0.49	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	17/10/22	SW 512	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	D/S Harike lake	1297	17/10/22	SW 511	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
15	U/S Hussainiwala H/W Ferozepur	1691	17.10.2022	SW 367	BDL	1.12	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	17.10.2022	SW 368	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, Endosulphan-1, Endosulphan-2, Dieldrin, Aldrin, Methyl Parathion & Malathion were BDL

Analysis results of Surface water monitoring under NWMP for the month of October, 2022

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	10/10/22	497	ZO Lab, Jal	7.6	5.4	1	188	110	26	BDL	0.33	BDL	B	S
18	River Beas at U/S Pathankot	1694	10/10/22	499	ZO Lab, Jal	8.3	8.2	1.1	267	330	170	0.11	0.46	0.18	B	S
19	River Beas at D/S Pathankot	1695	10/10/22	500	ZO Lab, Jal	8.2	8.1	1	256	460	210	0.1	0.36	0.25	B	S
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/10/22	498	ZO Lab, Jal	8.3	8.4	1	264	280	110	0.1	0.48	0.15	B	S
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	12/10/22	501	ZO Lab, Jal	7.8	7.1	1	229	480	260	0.04	0.25	0.27	B	S
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	12/10/22	502	ZO Lab, Jal	8.1	8.2	BDL	256	350	170	0.07	0.37	0.19	B	S
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	12/10/22	504	ZO Lab, Jal	8.0	8.6	1.1	220	330	170	0.06	0.29	0.19	B	S
24	River Beas at U/s Goindwal	1696	17/10/22	508	ZO Lab, Jal	7.9	8.4	1	208	280	110	0.06	0.31	0.16	B	S
25	River Beas at D/s Goindwal	1012	17/10/22	509	ZO Lab, Jal	7.7	8.5	1.1	236	310	110	0.04	0.23	0.22	B	S
26	Beas at Harike	1697	17/10/22	510	ZO Lab, Jal	8.0	9.3	1	212	350	170	0.06	0.35	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	10/10/22	497	ZO Lab Jal.	7	11	9	120	100	12	9	56	15	4.4	74	ND	BDL	0.7	BDL	0.08	0.11	5.6	2.5
18	River Beas at U/S Pathankot	1694	10/10/22	499	ZO Lab Jal.	8	13	11	168	134	20	12	130	30	13	108	ND	1.1	0.8	1.6	0.11	0.15	12	3.6
19	River Beas at D/S Pathankot	1695	10/10/22	500	ZO Lab Jal.	7	39	42	152	124	14	10	104	26	9.2	110	ND	1.3	0.9	1.8	0.11	0.16	8.5	3.2
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/10/22	498	ZO Lab Jal.	8	12	7	162	128	16	10	136	32	14	106	ND	1.0	0.8	1.4	0.09	0.14	13	3.7
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	12/10/22	501	ZO Lab, Jal	8	42	38	143	122	12	9	84	21	7.8	108	ND	1.2	1.0	1.6	0.10	0.18	5.3	2.8
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	12/10/22	502	ZO Lab, Jal	8	34	40	162	132	16	10	78	20	6.8	108	ND	1.1	0.9	1.6	0.11	0.21	7.6	3.4
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	12/10/22	504	ZO Lab, Jal	8	49	55	137	110	17	12	74	18	6.8	90	ND	1.2	1.0	1.8	0.10	0.23	5.7	2.8
24	River Beas at U/s Goindwal	1696	17/10/22	508	ZO Lab, Jal	7	12	8	140	114	18	14	96	24	8.7	112	ND	1.3	1.1	2.0	0.11	0.20	6.9	3.0
25	River Beas at D/s Goindwal	1012	17/10/22	509	ZO Lab, Jal	7	16	12	145	121	14	12	104	26	9.7	108	ND	1.2	0.9	1.8	0.12	0.19	5.4	2.9
26	Beas at Harike	1697	17/10/22	510	ZO Lab, Jal	8	28	20	138	115	16	13	82	22	6.8	102	ND	1.1	1.0	1.6	0.13	0.18	7.2	2.9

Note. 1. BDL means Below Method Detection Limit

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3. Water Quality Index (S means Satisfactory, U means Unsatisfactory)

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Analysis results of Surface water monitoring under NWMP for the month of October, 2022 (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	10/10/22	497	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	10/10/22	499	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	10/10/22	500	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/10/22	498	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	12/10/22	501	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	12/10/22	502	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	12/10/22	504	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	17/10/22	508	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	17/10/22	509	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	17/10/22	510	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, 2022

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	10/10/22	496	ZO Lab, Jal	7.8	10.3	BDL	149	130	17	BDL	0.13	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	10/10/22	496	ZO Lab Jal.	6	13	8	102	84	11	9	62	16	5.3	60	ND	BDL	0.7	BDL	BDL	BDL	2.4	2.9

- Note. 1. BDL means Below Method Detection Limit
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 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, 2022 (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	10/10/22	496	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, 2022

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	SAR	B mg/l	Quality of water as per DBU	Water Quality Index
1	Ghaggar at Mubarikpur Rest House	1023	769	13.10.2022	H/o Lab Patiala	7.6	5.5	9	438	24000	2700	1.81	0.43	D	U
2	Ghaggar at Bhankarpur	1295	770	13.10.2022	H/o Lab Patiala	7.4	3.4	14	558	28000	3900	1.62	0.58	E	U
3	Ghaggar at Chattbir	1698	771	13.10.2022	H/o Lab Patiala	7.3	3.2	15	583	28000	4300	1.66	0.50	E	U
4	Ghaggar at U/s Jharmal Nadi	1702	772	13.10.2022	H/o Lab Patiala	7.3	4.0	10	465	22000	3200	1.60	0.44	D	U
5	Ghaggar at D/s Jharmal Nadi	1701	773	13.10.2022	H/o Lab Patiala	7.2	3.6	13	565	28000	4600	1.62	0.51	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	775	13.10.2022	H/o Lab Patiala	7.4	4.0	10	482	28000	3300	1.59	0.50	D	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	776	13.10.2022	H/o Lab Patiala	7.2	3.4	12	583	28000	4600	1.69	0.57	E	U
8	Ghaggar at Rattanheri	1473	785	17.10.2022	H/o Lab Patiala	7.3	3.0	16	638	35000	6300	1.75	0.73	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	786	17.10.2022	H/o Lab Patiala	7.4	3.2	15	619	28000	5800	1.71	0.71	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	787	17.10.2022	H/o Lab Patiala	7.5	3.0	18	729	35000	7000	1.82	0.79	E	U
11	Ghaggar at Khanauri	1024	790	17.10.2022	H/o Lab Patiala	7.4	3.3	17	690	35000	5800	1.79	0.77	E	U
12	Ghaggar at Moonak	1703	792	17.10.2022	H/o Lab Patiala	7.6	2.9	19	725	43000	7900	1.74	0.80	E	U
13	Ghaggar at U/s Sardulgarh	1705	793	20.10.2022	H/o Lab Patiala	7.4	5.3	8	451	21000	2600	1.62	0.43	D	U
14	Ghaggar at D/s Sardulgarh	1704	794	20.10.2022	H/o Lab Patiala	7.5	5.1	10	502	24000	3300	1.57	0.51	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	769	13.10.2022	H/o Lab Patiala	44	490	572	285	243	26	10	97	24	9	209	BDL	11.9	1.1	16.7	1.0	1.1	41	16
2	Ghaggar at Bhankarpur	770	13.10.2022	H/o Lab Patiala	71	400	363	360	308	46	11	173	48	13	231	BDL	12.3	1.1	17.2	1.2	1.1	49	22
3	Ghaggar at Chattbir	771	13.10.2022	H/o Lab Patiala	73	410	393	378	324	50	13	186	51	14	235	BDL	12.6	1.1	17.6	1.2	1.2	52	23
4	Ghaggar at U/s Jharmal Nadi	772	13.10.2022	H/o Lab Patiala	52	290	243	303	258	30	10	119	31	10	218	BDL	12.2	1.1	17.1	1.1	1.1	40	18
5	Ghaggar at D/s Jharmal Nadi	773	13.10.2022	H/o Lab Patiala	70	380	442	368	314	49	13	167	47	12	238	BDL	12.8	1.1	17.9	1.2	1.2	48	21
6	Ghaggar at U/s Dhakanshu Nallah	775	13.10.2022	H/o Lab Patiala	51	360	332	312	266	33	11	125	32	11	221	BDL	12.3	1.0	17.2	1.1	1.1	41	19
7	Ghaggar at D/s Dhakanshu Nallah	776	13.10.2022	H/o Lab Patiala	69	400	441	379	324	51	15	178	50	13	237	BDL	12.7	1.1	17.8	1.2	1.2	52	22
8	Ghaggar at Rattanheri	785	17.10.2022	H/o Lab Patiala	77	380	298	417	355	55	19	209	54	18	249	BDL	14.2	1.1	19.9	1.2	1.2	58	28
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	786	17.10.2022	H/o Lab Patiala	75	370	315	402	343	52	18	203	53	17	245	BDL	14.1	1.1	19.7	1.2	1.1	56	26
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	787	17.10.2022	H/o Lab Patiala	81	390	321	439	374	57	21	227	58	20	256	BDL	12.7	1.2	17.8	1.2	1.2	63	32
11	Ghaggar at Khanauri	790	17.10.2022	H/o Lab Patiala	78	320	328	447	382	60	22	243	59	23	258	BDL	13.9	1.2	19.5	1.3	1.2	64	30
12	Ghaggar at Moonak	792	17.10.2022	H/o Lab Patiala	80	370	353	472	402	63	24	271	64	27	265	BDL	14.4	1.3	20.2	1.3	1.3	66	34
13	Ghaggar at U/s Sardulgarh	793	20.10.2022	H/o Lab Patiala	43	60	48	293	250	28	12	110	26	11	219	BDL	12.6	1.1	17.6	1.2	1.1	39	14
14	Ghaggar at D/s Sardulgarh	794	20.10.2022	H/o Lab Patiala	51	75	72	327	288	35	15	143	34	14	226	BDL	12.9	1.1	18.1	1.2	1.2	43	17

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, 2022 (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	13.10.2022	769	BDL	BDL	3.27	0.31	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	13.10.2022	770	BDL	BDL	7.33	0.59	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chhattbir	1698	13.10.2022	771	BDL	BDL	6.82	0.48	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	13.10.2022	772	BDL	BDL	6.13	0.30	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	13.10.2022	773	BDL	BDL	6.85	0.36	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	13.10.2022	775	BDL	BDL	6.65	0.41	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	13.10.2022	776	BDL	BDL	7.11	0.48	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	17.10.2022	785	BDL	BDL	6.21	0.42	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	17.10.2022	786	BDL	BDL	6.19	0.40	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	17.10.2022	787	BDL	BDL	6.42	0.45	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	17.10.2022	790	BDL	BDL	6.91	0.44	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	17.10.2022	792	BDL	BDL	7.03	0.48	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	20.10.2022	793	BDL	BDL	4.52	0.24	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	20.10.2022	794	BDL	BDL	4.73	0.29	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, 2022

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	11.10.2022	SW 767	H.O. Lab Patiala	7.7	BDL	107	4002	350000	150000	-	5.98	1.44	E	U
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	11.10.2022	SW 768	H.O. Lab Patiala	8.0	BDL	53	1521	280000	110000	-	2.39	1.19	E	U
3	Point Source B/N	2914	14.10.2022	SW 361	ZO Lab Ldh	7.4	BDL	120	1450	84,00,000	33,00,000	0.201	5.08	0.50	E	U
4	Kali Bein into Beas	2913	19/10/22	522	ZO Lab, Jal	7.3	4.0	3.0	266	3900	1300	0.01	0.73	0.45	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	27/10/22	525 A	ZO Lab, Jal	6.7	BDL	198	1927	700000	260000	0.04	7.75	0.52	E	U
7	Hundiara drain before entering Pakistan	2907	27/10/22	525 B	ZO Lab, Jal	7.6	BDL	107	1332	630000	170000	0.85	4.30	0.63	E	U
8	Pathlawa Drain	2911	Sample was not collected													
9	Ranjit Sagar Reservoir	2912	10/10/22	495	Z.O. Lab Jalandhar	7.9	9.2	BDL	142	130	22	BDL	0.19	BDL	B	S
	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	13.10.2022	SW 774	H.O. Lab Patiala	7.2	BDL	29	927	170000	46000	-	1.76	0.85	E	U
11	Sagar Para Drain at village sagra dist.Patiala	4158	17.10.2022	SW 788	H.O. Lab Patiala	7.6	BDL	22	681	35000	7000	-	1.65	0.80	E	U
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	13.10.2022	SW 781	H.O. Lab Patiala	7.1	BDL	65	1592	430000	150000	-	3.19	1.11	E	U
13	Confluence point of Sarsa Nadi with river Satluj	4161	13.10.2022	SW 355	ZO Lab Ldh	7.8	6.7	BDL	320	700	260	BDL	0.43	0.16	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, 2022

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	11.10.2022	SW 767	H.O. Lab Patiala	426	440	468	2598	2011	588	49	1588	319	192	992	BDL	10.2	5.1	14.3	5.0	4.8	548	192		
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	11.10.2022	SW 768	H.O. Lab Patiala	187	325	296	992	845	96	38	879	172	109	387	BDL	23.6	2.4	33.0	3.2	3.0	163	189		
3	Point Source B/N	2914	14.10.2022	SW 361	ZO Lab Ldh	385	190	336	1012	740	264	56	296	80	23.3	452	BDL	13.4	4.9	20.1	10.8	0.46	201	46		
4	Kali Bein into Beas	2913	19/10/22	522	ZO Lab, Jal	21	BDL	6	166	138	18	15	80	22	6.3	114	ND	1.3	1.2	1.8	0.18	0.25	15	3.8		
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	27/10/22	525 A	Z.O. Lab Jalandhar	466	320	356	1259	888	250	84	472	120	42	402	ND	40	6.4	48	6.4	0.39	387	55		
7	Hundiara drain before entering Pakistan	2907	27/10/22	525 B	Z.O. Lab Jalandhar	309	294	320	832	592	173	75	324	75	33	320	ND	34	4.6	46	5.2	0.26	178	61		
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																							
9	Ranjit Sagar Reservoir	2912	10/10/22	495	Z.O. Lab Jalandhar	6	10	5	98	80	10	8	60	15	5.3	66	ND	BDL	BDL	BDL	BDL	BDL	3.3	2.0		
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	13.10.2022	SW 774	H.O. Lab Patiala	125	170	198	604	515	78	30	541	111	64	248	BDL	9.7	2.2	13.6	2.7	3.1	94	57		
11	Sagar Para Drain at village sagra dist.Patiala	4158	17.10.2022	SW 788	H.O. Lab Patiala	82	260	180	442	377	65	22	304	67	33	227	BDL	8.3	1.3	11.6	2.0	1.2	66	41		
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	13.10.2022	SW 781	H.O. Lab Patiala	248	400	338	1033	881	187	36	890	198	96	296	BDL	22.6	3.1	31.6	3.6	3.3	219	84		
13	Confluence point of Sarsa Nadi with river Satluj	4161	13.10.2022	SW 355	ZO Lab Ldh	BDL	35	24	180	158	14	11	112	30.4	8.7	88	BDL	BDL	1.6	BDL	BDL	0.22	10.4	2.1		

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, 2022 (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	11.10.2022	SW 767	8.21	0.82	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	11.10.2022	SW 768	7.32	0.76	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	14.10.2022	SW 361	10	1.9	0.18	BDL	BDL	BDL	BDL	BDL	BDL
4	Kali Bein into Beas	2913	19/10/22	522	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	27/10/22	525 A	1.4	1.1	BDL	BDL	0.14	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	27/10/22	525 B	1.4	0.7	BDL	BDL	0.11	BDL	BDL	BDL	BDL
8	Pathlawa Drain	2911	Sample was not collected										
9	Ranjit Sagar Reservoir	2912	10/10/22	495	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	13.10.2022	SW 774	7.81	0.56	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	17.10.2022	SW 788	6.88	0.49	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	13.10.2022	SW 781	7.03	0.47	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	13.10.2022	SW 355	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.