

Analysis results of Surface water monitoring under NWMP for the month of October, 2023

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
1	River Satluj at U/S Nangal	1017	09.10.23	SW 154	ZO Lab Ldh	7.6	6.7	BDL	234	94	33	BDL	0.14	BDL	B
2	River Satluj at D/S NFL	1380	09.10.23	SW 155	ZO Lab Ldh	8.2	9.6	BDL	246	120	32	BDL	0.19	BDL	B
3	River Sutej at 100m D/s PACL Nangal	2915	09.10.23	SW 156	ZO Lab Ldh	8.2	9.7	BDL	249	120	46	BDL	0.20	BDL	B
4	River Satluj at D/s Nangal	1018	09.10.23	SW 157	ZO Lab Ldh	8.3	8.6	BDL	240	84	26	BDL	0.15	0.12	B
5	River Satluj at Kiratpur Sahib	1814	10.10.23	SW 160	ZO Lab Ldh	7.6	8.2	BDL	227	170	49	BDL	0.31	0.14	B
6	Ropar Head-Works	1019	10.10.23	SW 163	ZO Lab Ldh	7.5	7.8	BDL	267	700	230	BDL	0.42	0.14	C
7	River Satluj D/S of Rishab- Paper Mills	1293	10.10.23	SW 164	ZO Lab Ldh	7.7	7.3	BDL	243	840	310	BDL	0.44	0.18	C
8	River Satluj U/S Buddha Nallah	1690	11.10.23	SW 182	ZO Lab Ldh	7.8	7.1	1.2	264	1100	490	BDL	0.19	0.26	C
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	11.10.23	SW 184	ZO Lab Ldh	7.3	2.1	17	741	4,30,000	2,10,000	0.048	2.39	0.48	E
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.23	SW 186	ZO Lab Ldh	7.2	5.1	3.6	370	46,000	13,000	0.010	0.79	0.25	D
11	River Satluj at D/s East Bein	1381	12.10.23	SW 188	ZO Lab Ldh	7.3	4.9	3.8	345	49,000	22,000	0.011	0.75	0.28	D
12	River Satluj at Harike	1022	12.10.23	SW 189	ZO Lab Ldh	7.8	6.8	2.2	271	4300	1400	BDL	0.55	0.23	C
13	Harike Lake D/S from canal	1382	10/10/2023	403	ZO Lab, Jal	7.9	7.6	1.2	239	2200	630	0.045	0.54	0.29	C
14	D/S Harike lake	1297	10/10/2023	402	ZO Lab, Jal	7.6	7.7	1.2	262	1700	490	0.025	0.45	0.21	C
15	U/S Hussainiwala H/W Ferozepur	1691	13.10.23	SW 190	ZO Lab Ldh	7.7	7.4	BDL	267	940	230	0.024	0.37	0.18	C
16	D/S Hussainiwala H/W Ferozepur	1692	13.10.23	SW 191	ZO Lab Ldh	7.6	7.2	BDL	274	840	330	0.025	0.42	0.21	C

- 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, 2023

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 P mg/l	F mg/l	Na mg/l	K mg/l
1	River Satluj at U/S Nangal	1017	09.10.23	SW 154	ZO Lab Ldh	BDL	2	BDL	139	124	8	27	110	29.6	8.7	74	BDL	BDL	1.0	BDL	BDL	0.15	3.4	2.0
2	River Satluj at D/S NFL	1380	09.10.23	SW 155	ZO Lab Ldh	BDL	3	BDL	146	129	9	28	112	30.4	8.7	76	BDL	BDL	2.1	BDL	BDL	0.16	4.6	2.1
3	River Sutej at 100m D/s PACL Nangal	2915	09.10.23	SW 156	ZO Lab Ldh	BDL	3	BDL	148	130	9	28	112	29.6	9.2	76	BDL	BDL	2.1	BDL	BDL	0.16	4.8	2.1
4	River Satluj atD/s Nangal	1018	09.10.23	SW 157	ZO Lab Ldh	BDL	2	BDL	143	124	10	29	108	28.8	8.7	70	BDL	BDL	1.2	BDL	BDL	0.15	3.6	2.0
5	River Satluj at Kiratpur Sahib	1814	10.10.23	SW 160	ZO Lab Ldh	BDL	6	14	149	130	8	29	106	28	8.7	80	BDL	BDL	1.3	BDL	BDL	0.16	7.4	2.3
6	Ropar Head-Works	1019	10.10.23	SW 163	ZO Lab Ldh	BDL	20	23	163	143	9	26	112	30.4	8.7	96	BDL	BDL	1.2	BDL	BDL	0.16	10.2	3.4
7	River Satluj D/S of Rishab-Paper Mills	1293	10.10.23	SW 164	ZO Lab Ldh	BDL	23	30	168	146	10	31	114	30.4	9.2	98	BDL	BDL	1.3	BDL	BDL	0.17	10.8	4.0
8	River Satluj U/S Buddha Nallah	1690	11.10.23	SW 182	ZO Lab Ldh	8	84	90	162	134	12	32	114	29.6	9.7	92	BDL	BDL	1.1	BDL	BDL	0.16	4.6	2.3
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	11.10.23	SW 184	ZO Lab Ldh	86	140	170	495	384	65	58	250	64	21.9	230	BDL	4.8	8	7.2	1.61	0.28	87	12
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.23	SW 186	ZO Lab Ldh	22	155	120	231	184	23	31	134	35.2	11.2	108	BDL	1	3.5	1.6	0.37	0.25	21	5
11	River Satluj at D/s East Bein	1381	12.10.23	SW 188	ZO Lab Ldh	24	160	128	215	177	22	32	136	36	11.2	110	BDL	1.1	3.3	1.7	0.39	0.11	20	4.8
12	River Satluj at Harike	1022	12.10.23	SW 189	ZO Lab Ldh	14	110	67	163	137	15	21	104	27.2	8.7	98	BDL	BDL	3.1	BDL	0.21	0.12	13	3.3
13	Harike Lake D/S from canal	1382	10/10/2023	SW 403	ZO Lab, Jal	9	42	41	148	118	10	16	108	27	9.7	74	BDL	1.0	1.3	1.5	0.20	0.22	13	3.8
14	D/S Harike lake	1297	10/10/2023	SW 402	ZO Lab, Jal	9	39	35	151	121	12	18	114	28	11	74	BDL	1.0	1.2	1.6	0.18	0.22	11	3.9
15	U/S Hussainiwala H/W Ferozepur	1691	13.10.23	SW 190	ZO Lab Ldh	BDL	36	19	168	142	17	17	116	31.2	9.2	110	BDL	0.8	1.5	BDL	BDL	0.16	9.1	2.6
16	D/S Hussainiwala H/W Ferozepur	1692	13.10.23	SW 191	ZO Lab Ldh	BDL	42	23	175	144	19	19	118	31.2	9.7	114	BDL	1.0	1.6	1.6	BDL	0.16	10.4	3.1

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, 2023 (Metal/Pesticides)

River Sutlej

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)	Mg mg/l
1	River Satluj at U/S Nangal	1017	09.10.23	SW 154	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	09.10.23	SW 155	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	09.10.23	SW 156	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	09.10.23	SW 157	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	10.10.23	SW 160	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	10.10.23	SW 163	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	10.10.23	SW 164	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	11.10.23	SW 182	BDL	0.19	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.72
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	11.10.23	SW 184	BDL	2.1	BDL	0.19	BDL	BDL	BDL	BDL	BDL	0.38
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.23	SW 186	BDL	0.24	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.16
11	River Satluj at D/s East Bein	1381	12.10.23	SW 188	BDL	0.62	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.26
12	River Satluj at Harike	1022	12.10.23	SW 189	BDL	0.17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	10/10/2023	SW 403	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	D/S Harike lake	1297	10/10/2023	SW 402	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
15	U/S Hussainiwala H/W Ferozepur	1691	13.10.23	SW 190	BDL	0.16	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	13.10.23	SW 191	BDL	0.16	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, 2023

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
17	River Beas at Talwara H/W	1693	06/10/2023	385	ZO Lab, Jal	7.8	8.0	1.2	210	94	26	0.028	0.44	BDL	B
18	River Beas at U/S Pathankot	1694	06/10/2023	387	ZO Lab, Jal	7.7	7.8	1.2	259	140	46	0.024	0.39	0.18	B
19	River Beas at D/S Pathankot	1695	06/10/2023	388	ZO Lab, Jal	7.7	7.6	1	257	170	49	0.021	0.31	0.22	B
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2023	386	ZO Lab, Jal	7.8	7.9	1.1	254	120	33	0.032	0.47	BDL	B
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	09/10/2023	392	ZO Lab, Jal	7.7	7.6	1	242	210	63	0.018	0.28	0.38	B
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	09/10/2023	393	ZO Lab, Jal	7.8	7.4	BDL (<1)	207	170	49	0.028	0.21	0.19	B
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	09/10/2023	395	ZO Lab, Jal	7.8	7.3	1.3	208	220	70	0.028	0.19	0.28	B
24	River Beas at U/s Goindwal	1696	10/10/2023	399	ZO Lab, Jal	8.0	8.1	1.2	216	280	130	0.025	0.22	0.14	B
25	River Beas at D/s Goindwal	1012	10/10/2023	400	ZO Lab, Jal	7.9	7.9	1.2	204	330	140	0.018	0.24	0.19	B
26	Beas at Harike	1697	10/10/2023	401	ZO Lab, Jal	7.9	8.2	1.1	206	330	170	0.032	0.25	0.13	B

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	06/10/2023	385	ZO Lab Jal.	9	55	28	128	108	10	8	72	16	8	86	BDL	0.8	0.78	1.5	0.16	0.14	8.5	3.8
18	River Beas at U/S Pathankot	1694	06/10/2023	387	ZO Lab Jal.	8	60	25	142	112	9	12	102	30	6	90	BDL	0.8	1.02	1.7	0.18	0.17	9.1	3.2
19	River Beas at D/S Pathankot	1695	06/10/2023	388	ZO Lab Jal.	7	55	34	148	124	7	9	116	31	9	102	BDL	0.7	0.96	1.6	0.17	0.16	7.8	3.7
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2023	386	ZO Lab Jal.	10	60	27	138	110	8	10	102	28	8	109	BDL	0.9	0.88	1.7	0.18	0.14	10.8	3.9
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	09/10/2023	392	ZO Lab, Jal	7	49	38	138	108	12	8	114	27	11	86	BDL	0.6	0.84	1.6	0.15	0.14	6.9	3.0
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	09/10/2023	393	ZO Lab, Jal	6	68	32	136	105	8	12	122	38	6	88	BDL	0.8	0.92	1.5	0.18	0.15	5.3	3.4
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	09/10/2023	395	ZO Lab, Jal	11	72	38	140	110	9	12	130	39	8	84	BDL	0.8	0.96	1.6	0.16	0.15	5.1	3.7
24	River Beas at U/s Goindwal	1696	10/10/2023	399	ZO Lab, Jal	9	60	22	128	105	9	11	112	33	7	86	BDL	0.5	0.80	1.5	0.18	0.16	5.4	4.2
25	River Beas at D/s Goindwal	1012	10/10/2023	400	ZO Lab, Jal	10	48	25	139	116	10	9	106	32	6	84	BDL	0.4	0.86	1.4	0.16	0.17	5.6	3.9
26	Beas at Harike	1697	10/10/2023	401	ZO Lab, Jal	10	45	30	134	102	10	12	96	26	7	77	BDL	0.7	0.98	1.5	0.17	0.17	5.7	4.0

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, 2023 (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	06/10/2023	385	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	06/10/2023	387	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	06/10/2023	388	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	06/10/2023	386	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	09/10/2023	392	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	09/10/2023	393	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	09/10/2023	395	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	10/10/2023	399	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	10/10/2023	400	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	10/10/2023	401	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, 2023

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
27	Ravi at U/s of Madhopur H/W	1097	06/10/2023	384	ZO Lab, Jal	7.5	8.1	BDL	188	79	22	BDL	0.12	BDL	B

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	06/10/2023	384	ZO Lab Jal.	6	10	14	112	89	7	8	84	22	7.3	74	BDL	BDL	0.59	BDL	BDL	0.13	2.5	2.6

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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, 2023 (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	06/10/2023	384	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, 2023

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.N	SAR	B mg/l	Quality of water as per DBU
1	Ghaggar at Mubarikpur Rest House	1023	2277	9.10.2023	H/o Lab Patiala	7.8	5.7	9	481	22000	2700	0.35	1.88	0.44	D
2	Ghaggar at Bhankarpur	1295	2278	9.10.2023	H/o Lab Patiala	7.6	3.8	16	788	24000	3400	0.30	2.03	0.61	E
3	Ghaggar at Chattbir	1698	2279	9.10.2023	H/o Lab Patiala	7.6	3.6	15	768	24000	3400	0.30	2.00	0.59	E
4	Ghaggar at U/s Jharmal Nadi	1702	2280	9.10.2023	H/o Lab Patiala	7.5	3.9	14	631	22000	2700	0.23	1.99	0.48	E
5	Ghaggar at D/s Jharmal Nadi	1701	2281	9.10.2023	H/o Lab Patiala	7.7	2.8	17	747	28000	3800	0.36	2.05	0.58	E
6	Ghaggar at U/s Dhakanshu Nallah	1699	2283	9.10.2023	H/o Lab Patiala	7.9	3.3	13	551	28000	3200	0.53	2.01	0.53	E
7	Ghaggar at D/s Dhakanshu Nallah	1700	2284	9.10.2023	H/o Lab Patiala	7.7	3.0	21	783	35000	4600	0.36	2.04	0.65	E
8	Ghaggar at Rattanheri	1473	2291	10.10.2023	H/o Lab Patiala	7.8	3.7	18	821	35000	4600	0.45	2.11	0.68	E
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	2292	10.10.2023	H/o Lab Patiala	7.6	3.8	16	791	35000	3900	0.32	2.02	0.64	E
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	2293	10.10.2023	H/o Lab Patiala	7.7	3.2	19	858	35000	5800	0.37	2.11	0.72	E
11	Ghaggar at Khanauri	1024	2296	10.10.2023	H/o Lab Patiala	7.8	3.6	18	835	35000	4600	0.45	2.17	0.64	E
12	Ghaggar at Moonak	1703	2298	10.10.2023	H/o Lab Patiala	7.9	3.5	22	891	43000	6300	0.59	2.13	0.74	E
13	Ghaggar at U/s Sardulgarh	1705	2360	12.10.2023	H/o Lab Patiala	7.7	6.8	11	487	22000	2700	0.30	1.43	0.44	D
14	Ghaggar at D/s Sardulgarh	1704	2361	12.10.2023	H/o Lab Patiala	7.8	5.7	13	568	24000	3400	0.39	1.69	0.49	D

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	2277	9.10.2023	38	470	455	311	266	33	8	129	35	10	229	BDL	10.1	1.0	14.1	1.3	1.0	49	10
2	Ghaggar at Bhankarpur	1295	2278	9.10.2023	78	440	436	514	437	78	16	294	83	21	275	BDL	11.8	1.5	16.5	1.3	1.1	80	41
3	Ghaggar at Chattbir	1698	2279	9.10.2023	72	430	428	500	427	75	17	281	78	21	277	BDL	12.1	1.9	16.9	1.4	1.3	77	35
4	Ghaggar at U/s Jharmal Nadi	1702	2280	9.10.2023	65	310	300	410	349	54	13	196	55	14	253	BDL	11.5	1.3	16.1	1.2	1.1	64	29
5	Ghaggar at D/s Jharmal Nadi	1701	2281	9.10.2023	81	340	348	487	414	71	18	261	73	19	274	BDL	11.9	1.5	16.7	1.4	1.2	76	34
6	Ghaggar at U/s Dhakanshu Nallah	1699	2283	9.10.2023	62	290	310	358	305	55	15	198	56	14	255	BDL	11.8	1.4	16.5	1.3	1.2	65	30
7	Ghaggar at D/s Dhakanshu Nallah	1700	2284	9.10.2023	92	300	329	510	437	76	21	284	77	22	279	BDL	12.1	1.6	16.9	1.5	1.3	79	37
8	Ghaggar at Rattanheri	1473	2291	10.10.2023	80	330	341	538	458	79	24	308	82	25	278	BDL	12.9	1.9	18.1	2.1	1.4	85	41
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	2292	10.10.2023	77	320	336	513	4.8	76	21	290	78	23	275	BDL	12.8	1.9	17.9	2.0	1.4	79	39
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	2293	10.10.2023	87	345	350	557	478	84	26	329	87	27	284	BDL	12.4	2.0	17.4	2.3	1.6	88	43
11	Ghaggar at Khanauri	1024	2296	10.10.2023	85	340	346	547	466	83	25	313	84	25	280	BDL	12.8	1.8	17.9	2.2	1.7	88	40
12	Ghaggar at Moonak	1703	2298	10.10.2023	92	360	377	581	495	88	27	338	89	28	301	BDL	13.1	2.1	18.3	2.3	1.7	90	44
13	Ghaggar at U/s Sardulgarh	1705	2360	12.10.2023	56	40	53	315	268	32	12	141	35	13	225	BDL	10.1	1.3	14.1	1.3	1.2	39	22
14	Ghaggar at D/s Sardulgarh	1704	2361	12.10.2023	68	45	62	367	314	41	17	174	43	16	241	BDL	11.2	1.4	15.7	1.5	1.4	51	26

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, 2023 (Metal/Pesticides)

S.N.	Point of Sample Collection	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	BDL	BDL	3.32	0.42	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	BDL	BDL	7.33	0.58	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chattbir	1698	BDL	BDL	6.13	0.56	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	BDL	BDL	5.3	0.39	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	BDL	BDL	5.6	0.48	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	BDL	BDL	5.2	0.33	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	BDL	BDL	5.8	0.40	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	BDL	BDL	6.0	0.48	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	BDL	BDL	5.9	0.43	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	BDL	BDL	6.8	0.51	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	BDL	BDL	6.5	0.38	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	BDL	BDL	7.1	0.49	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	BDL	BDL	4.9	0.28	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	BDL	BDL	5.2	0.38	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, 2023

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 us/Cm	T.Coli MPN/100ml	FColi MPN/100ml	Free Amm. mg/l	SAR	B mg/l	Water quality as per DBU
1	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	13.10.2023	2362	H.O. Lab Patiala	7.6	BDL	141	5098	430000	170000	0.30	6.64	1.39	E
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	13.10.2023	2363	H.O. Lab Patiala	7.3	BDL	75	2803	350000	120000	0.25	3.48	1.28	E
3	Point Source B/N	2914	11.10.23	SW 183	ZO Lab Ldh	7.4	BDL	145	1680	54,00,000	17,00,000	0.255	5.94	0.71	E
4	Kali Bein into Beas	2913	11/10/2023	413	ZO Lab, Jal	7.3	5.4	2.7	421	2000	780	0.011	1.33	0.82	C
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	26/10/2023	428-A	ZO Lab, Jal	7.1	BDL	228	2022	280000	170000	0.023	3.96	0.62	E
7	Hundiara drain before entering Pakistan	2907	26/10/2023	428-B	ZO Lab, Jal	7.1	BDL	93	1465	110000	49000	0.015	2.42	0.71	E
8	Pathlawa Drain	2911	Sample was not collected												
9	Ranjit Sagar Reservoir	2912	06/10/2023	383	ZO Lab, Jal	7.8	8.2	BDL	168	79	27	BDL	0.21	BDL	B
	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	9.10.2023	2285	H.O. Lab Patiala	7.9	BDL	23	1641	170000	70000	0.55	2.13	1.18	E
11	Sagar Para Drain at village sagra dist.Patiala	4158	10.10.2023	2294	H.O. Lab Patiala	7.7	BDL	19	1382	70000	17000	0.35	2.36	0.78	E
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	9.10.2023	2289	H.O. Lab Patiala	7.5	BDL	91	2541	430000	140000	0.51	4.10	1.24	E
13	Confluence point of Sarsa Nadi with river Satluj	4161	10.10.23	SW 162	ZO Lab Ldh	7.7	7.0	BDL	378	430	140	0.036	0.40	0.17	B

- 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, 2023

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	13.10.2023	2362	H.O. Lab Patiala	438	710	697	3317	2824	632	202	2118	447	243	1038	BDL	11.9	5.3	16.7	5.8	5.2	702	277
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	13.10.2023	2363	H.O. Lab Patiala	243	460	458	1681	1431	235	145	1121	249	121	451	BDL	25.4	3.9	35.6	5.6	4.9	268	293
3	Point Source B/N	2914	11.10.23	SW 183	ZO Lab Ldh	480	180	344	1180	864	290	107	340	91.2	27.2	420	BDL	17	14	26	6.7	0.43	252	31
4	Kali Bein into Beas	2913	11/10/23	413	ZO Lab, Jal	16	20	14	243	182	8	10	146	36	13	168	BDL	1.1	1.4	1.8	0.23	0.27	37	8.2
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	26/10/23	428-A	Z.O. Lab Jalandhar	550	312	345	1284	792	389	182	345	88	30	420	BDL	23	3.9	38	1.9	0.58	169	29
7	Hundiara drain before entering Pakistan	2907	26/10/23	428-B	Z.O. Lab Jalandhar	284	195	227	882	562	193	121	350	84	34	324	BDL	15	3.3	23	1.5	0.4	103	23
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																					
9	Ranjit Sagar Reservoir	2912	06/10/2023	383	Z.O. Lab Jalandhar	6	7	BDL	100	78	6	5	80	20	7.3	72	BDL	BDL	0.51	BDL	BDL	0.11	4.4	2.5
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	9.10.2023	2285	H.O. Lab Patiala	105	90	125	1065	907	148	109	912	195	103	335	BDL	12.2	3.3	17.1	3.2	4.1	148	97
11	Sagar Para Drain at village sagra dist.Patiala	4158	10.10.2023	2294	H.O. Lab Patiala	88	80	98	898	764	127	98	716	153	81	310	BDL	11.8	2.4	16.5	2.9	3.7	145	71
12	Confluence point of sukhana Choe with River Ghaggar, vill.Mubarkpur	4162	9.10.2023	2289	H.O. Lab Patiala	298	270	310	1653	1408	279	165	1357	327	131	341	BDL	25.3	4.6	35.4	5.7	5.9	347	124
13	Confluence point of Sarsa Nadi with river Satluj	4161	10.10.23	SW 162	ZO Lab Ldh	BDL	70	96	223	192	17	38	134	35.2	11.2	104	BDL	1.2	2.3	1.8	BDL	0.18	10.6	3.1

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, 2023 (Metal/Pesticides)

S.N.	Point of Sample Collection	Code	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	Mn mg/l
1	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	2362	8.8	0.92	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	2363	7.5	0.77	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	SW 183	9.2	1.3	BDL	0.14	BDL	BDL	BDL	BDL	BDL	0.66
4	Kali Bein into Beas	2913	413	BDL	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	SW 428-A	1.6	0.32	BDL	BDL	0.12	BDL	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	SW 428-B	2.1	0.45	BDL	BDL	0.18	BDL	BDL	BDL	BDL	BDL
8	Pathlawa Drain	2911	Sample was not collected										
9	Ranjit Sagar Reservoir	2912	SW 383	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	2285	6.9	0.64	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	2294	6.9	0.49	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	2289	8.3	0.71	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	SW 162	BDL	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.