

Analysis results of Surface water monitoring under NWMP for the month of April, 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	24.04.23	SW 1598	ZO Lab Ldh	7.8	7.4	BDL	264	68	20	BDL	0.19	BDL	B
2	River Satluj at D/S NFL	1380	24.04.23	SW 1599	ZO Lab Ldh	8.2	12.1	BDL	274	91	40	BDL	0.21	BDL	B
3	River Sutej at 100m D/s PACL Nangal	2915	24.04.23	SW 1600	ZO Lab Ldh	8.3	12.2	BDL	275	92	40	BDL	0.21	BDL	B
4	River Satluj at D/s Nangal	1018	24.04.23	SW 1601	ZO Lab Ldh	8.5	11.4	BDL	270	78	20	BDL	0.23	0.11	B
5	River Satluj at Kiratpur Sahib	1814	25.04.23	SW 1604	ZO Lab Ldh	8.3	8.8	BDL	282	260	110	BDL	0.23	0.14	B
6	Ropar Head-Works	1019	25.04.23	SW 1607	ZO Lab Ldh	8.0	9.0	BDL	289	700	260	BDL	0.29	0.10	C
7	River Satluj D/S of Rishab- Paper Mills	1293	25.04.23	SW 1608	ZO Lab Ldh	8.0	8.6	BDL	293	940	320	BDL	0.30	0.29	C
8	River Satluj U/S Buddha Nallah	1690	26.04.23	SW 1612	ZO Lab Ldh	8.2	8.1	1.2	394	1100	700	0.104	0.79	0.31	C
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	26.04.23	SW 1614	ZO Lab Ldh	7.2	BDL	105	1250	79,00,000	22,00,000	0.106	4.63	0.48	E
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	27.04.23	SW 1616	ZO Lab Ldh	7.4	BDL	41	733	28,00,000	12,00,000	0.047	2.81	0.32	E
11	River Satluj at D/s East Bein	1381	27.04.23	SW 1617	ZO Lab Ldh	7.2	BDL	50	808	35,00,000	17,00,000	0.049	2.65	0.40	E
12	River Satluj at Harike	1022	27.04.23	SW 1618	ZO Lab Ldh	7.7	6.8	3.6	356	5400	2200	0.051	0.62	0.33	D
13	Harike Lake D/S from canal	1382	17/04/23	SW 146	ZO Lab, Jal	7.9	7.1	2.8	339	4300	2100	0.05	0.79	0.28	C
14	D/S Harike lake	1297	No flow observed, hence sample could not be collected												
15	U/S Hussainiwala H/W Ferozepur	1691	27.04.23	SW 1619	ZO Lab Ldh	7.5	5.3	1.1	264	1400	390	0.018	0.32	0.20	C
16	D/S Hussainiwala H/W Ferozepur	1692	27.04.23	SW 1620	ZO Lab Ldh	7.5	5.2	1.2	263	1700	490	0.026	0.32	0.34	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 April, 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 as P mg/l	F mg/l	Na mg/l	K mg/l
1	River Satluj at U/S Nangal	1017	24.04.23	SW 1598	ZO Lab Ldh	BDL	BDL	BDL	149	130	9	23	126	33.6	10.2	72	BDL	BDL	1.4	BDL	BDL	0.17	4.9	2.3
2	River Satluj at D/S NFL	1380	24.04.23	SW 1599	ZO Lab Ldh	BDL	2	BDL	157	137	11	26	134	35.2	11.2	76	BDL	BDL	0.9	BDL	BDL	0.19	5.7	2.4
3	River Sutej at 100m D/s PACL Nangal	2915	24.04.23	SW 1600	ZO Lab Ldh	BDL	3	BDL	158	138	12	26	138	36	11.7	74	BDL	BDL	1.0	BDL	BDL	0.19	5.7	2.6
4	River Satluj atD/s Nangal	1018	24.04.23	SW 1601	ZO Lab Ldh	BDL	7	BDL	161	140	12	29	132	34.4	11.2	72	BDL	BDL	1.1	BDL	BDL	0.20	6.1	2.3
5	River Satluj at Kiratpur Sahib	1814	25.04.23	SW 1604	ZO Lab Ldh	BDL	8	BDL	174	153	16	36	132	34.4	11.2	84	BDL	BDL	1.4	BDL	BDL	0.16	6.0	2.4
6	Ropar Head-Works	1019	25.04.23	SW 1607	ZO Lab Ldh	BDL	12	15	178	154	18	36	126	33.6	10.2	92	BDL	BDL	1.3	BDL	BDL	0.21	7.5	3.0
7	River Satluj D/S of Rishab-Paper Mills	1293	25.04.23	SW 1608	ZO Lab Ldh	BDL	15	19	178	152	15	34	134	37.6	9.7	94	BDL	BDL	2.0	BDL	BDL	0.17	8.0	2.6
8	River Satluj U/S Buddha Nallah	1690	26.04.23	SW 1612	ZO Lab Ldh	8	45	38	236	198	26	40	162	42.4	13.6	104	BDL	1.3	2.7	1.8	0.29	0.22	23	2.1
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	26.04.23	SW 1614	ZO Lab Ldh	346	150	210	804	642	124	78	280	73.6	23.3	212	BDL	10.6	2.6	14.0	2.4	0.76	178	14.9
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	27.04.23	SW 1616	ZO Lab Ldh	147	90	110	457	391	100	58	202	54	16.3	182	BDL	3.1	2.4	4.3	0.57	0.30	92	5.3
11	River Satluj at D/s East Bein	1381	27.04.23	SW 1617	ZO Lab Ldh	174	100	129	546	426	109	64	214	55.2	18.5	190	BDL	4.9	2.2	6.9	0.39	0.27	89	8.0
12	River Satluj at Harike	1022	27.04.23	SW 1618	ZO Lab Ldh	34	120	168	223	191	41	35	134	36.8	10.2	118	BDL	1.7	1.4	2.4	0.21	0.21	16.6	1.6
13	Harike Lake D/S from canal	1382	17/04/23	SW 146	ZO Lab, Jal	292	72	78	955	652	145	96	325	73	35	560	BDL	25	4.0	36	2.7	0.38	182	22
14	D/S Harike lake	1297	No flow observed, hence sample could not be collected																					
15	U/S Hussainiwala H/W Ferozepur	1691	27.04.23	SW 1619	ZO Lab Ldh	6	20	22	174	152	16	26	122	32.8	9.7	110	BDL	0.9	1.3	1.3	BDL	0.18	8.2	3.1
16	D/S Hussainiwala H/W Ferozepur	1692	27.04.23	SW 1620	ZO Lab Ldh	7	30	25	176	154	18	29	120	33.6	8.7	112	BDL	1.3	1.4	1.8	BDL	0.20	8.0	3.0

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 April, 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)
1	River Satluj at U/S Nangal	1017	24.04.23	SW 1598	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	24.04.23	SW 1599	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	24.04.23	SW 1600	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	24.04.23	SW 1601	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	25.04.23	SW 1604	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	25.04.23	SW 1607	BDL	0.49	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	25.04.23	SW 1608	BDL	0.63	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	26.04.23	SW 1612	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	26.04.23	SW 1614	BDL	22	BDL	1.6	BDL	BDL	BDL	BDL	BDL
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	27.04.23	SW 1616	BDL	6.7	BDL	0.57	BDL	BDL	BDL	BDL	BDL
11	River Satluj at D/s East Bein	1381	27.04.23	SW 1617	BDL	6.8	BDL	0.56	BDL	BDL	BDL	BDL	BDL
12	River Satluj at Harike	1022	27.04.23	SW 1618	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	17/04/23	SW 146	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	D/S Harike lake	1297	No flow observed, hence sample could not be collected										
15	U/S Hussainiwala H/W Ferozepur	1691	27.04.23	SW 1619	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	27.04.23	SW 1620	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 April, 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	10/04/23	S 125	ZO Lab, Jal	8.1	8.9	1.0	220	120	31	0.039	0.47	BDL	B
18	River Beas at U/S Pathankot	1694	10/04/23	S 127	ZO Lab, Jal	8.2	9.1	1.1	314	170	49	0.064	0.55	0.17	B
19	River Beas at D/S Pathankot	1695	10/04/23	S 128	ZO Lab, Jal	7.9	8.9	1.2	285	210	70	0.041	0.44	0.21	B
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/04/23	S 126	ZO Lab, Jal	8.1	9.0	1.1	319	140	33	0.059	0.59	0.11	B
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	13/04/23	S 132	ZO Lab, Jal	7.7	8.1	1.2	272	280	110	0.021	0.32	0.37	B
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	13/04/23	S 133	ZO Lab, Jal	7.9	8.9	1.3	288	330	170	0.041	0.40	0.18	B
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/04/23	S 135	ZO Lab, Jal	7.8	6.9	1.4	276	330	140	0.021	0.35	0.27	B
24	River Beas at U/s Goindwal	1696	17/04/23	S 143	ZO Lab, Jal	7.5	8.0	1.2	235	280	110	0.014	0.39	0.13	B
25	River Beas at D/s Goindwal	1012	17/04/23	S 144	ZO Lab, Jal	8.0	8.1	1.3	264	330	170	0.035	0.59	0.18	B
26	Beas at Harike	1697	17/04/23	S 145	ZO Lab, Jal	8.1	9.1	1.2	256	390	130	0.039	0.39	0.12	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	10/04/23	S 125	ZO Lab Jal.	6	36	16	128	105	17	12	84	23	6	77	BDL	0.6	0.7	1.3	0.13	0.12	10	2.4
18	River Beas at U/S Pathankot	1694	10/04/23	S 127	ZO Lab Jal.	9	38	18	188	152	16	8	122	30	11	129	BDL	0.8	0.6	1.5	0.12	0.17	14	2.8
19	River Beas at D/S Pathankot	1695	10/04/23	S 128	ZO Lab Jal.	8	42	24	162	130	15	10	120	32	10	106	BDL	0.9	0.5	1.4	0.13	0.17	11	2.8
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/04/23	S 126	ZO Lab Jal.	8	25	18	194	159	15	10	124	29	13	94	BDL	0.9	0.8	1.6	0.12	0.16	15	2.9
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	13/04/23	S 132	ZO Lab, Jal	8	45	30	156	125	10	8	118	30	10	100	BDL	0.7	0.8	1.6	0.14	0.16	8.0	2.7
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	13/04/23	S 133	ZO Lab, Jal	7	55	35	166	140	10	7	140	38	11	110	BDL	0.9	0.7	1.5	0.16	0.15	11	3.1
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/04/23	S 135	ZO Lab, Jal	9	60	39	180	146	12	6	120	34	8	114	BDL	0.6	0.7	1.4	0.14	0.14	8.7	2.9
24	River Beas at U/s Goindwal	1696	17/04/23	S 143	ZO Lab, Jal	6	22	16	148	117	10	8	108	20	11	116	BDL	0.7	0.8	1.3	0.16	0.13	9.7	2.7
25	River Beas at D/s Goindwal	1012	17/04/23	S 144	ZO Lab, Jal	8	30	18	151	125	10	8	106	26	10	84	BDL	0.7	0.7	1.2	0.13	0.14	14	3.0
26	Beas at Harike	1697	17/04/23	S 145	ZO Lab, Jal	7	36	20	156	120	15	11	110	25	12	84	BDL	0.6	0.9	1.3	0.12	0.13	9.3	2.4

Note. 1. BDL means Below Method Detection Limit

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Analysis results of Surface water monitoring under NWMP for the month of April, 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	10/04/23	S 125	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	10/04/23	S 127	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	10/04/23	S 128	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	10/04/23	S 126	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	13/04/23	S 132	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	13/04/23	S 133	ZO Lab Jal.	BDL	BDL	0.09	BDL	BDL	BDL	BDL	BDL	BDL
7	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/04/23	S 135	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	17/04/23	S 143	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	17/04/23	S 144	ZO Lab Jal.	BDL	BDL	0.07	BDL	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	17/04/23	S 145	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 April, 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	10/04/23	S 124	ZO Lab, Jal	8.0	9.2	1.0	188	100	18	BDL	0.20	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	10/04/23	S 124	ZO Lab Jal.	7	BDL	BDL	115	95	9	8	100	25	9.0	62	BDL	BDL	0.7	BDL	BDL	0.11	4.6	3.9

- 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 April, 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	10/04/23	S 124	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 April, 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	SW 1572	12/4/2023	H/o Lab Patiala	8.2	5.3	9	505	22000	2600	0.58	1.79	0.99	D
2	Ghaggar at Bhankarpur	1295	SW 1573	12/4/2023	H/o Lab Patiala	7.7	3.4	29	810	28000	3900	0.28	2.04	0.58	E
3	Ghaggar at Chattbir	1698	SW 1574	12/4/2023	H/o Lab Patiala	7.4	3.2	26	752	35000	4600	0.15	1.98	0.56	E
4	Ghaggar at U/s Jharmal Nadi	1702	SW 1575	12/4/2023	H/o Lab Patiala	7.6	3.6	12	672	28000	3800	0.25	1.91	0.50	E
5	Ghaggar at D/s Jharmal Nadi	1701	SW 1576	12/4/2023	H/o Lab Patiala	7.8	3.2	16	723	35000	4800	0.36	1.94	0.57	E
6	Ghaggar at U/s Dhakanshu Nallah	1699	SW 1578	12/4/2023	H/o Lab Patiala	7.7	3.1	13	638	28000	3900	0.33	1.90	0.56	E
7	Ghaggar at D/s Dhakanshu Nallah	1700	SW 1579	12/4/2023	H/o Lab Patiala	7.1	2.9	17	807	35000	4600	0.01	1.99	0.60	E
8	Ghaggar at Rattanheri	1473	SW 1588	13/4/2023	H/o Lab Patiala	7.9	2.0	19	844	35000	5800	0.50	2.09	0.67	E
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	SW 1589	13/4/2023	H/o Lab Patiala	7.8	2.6	18	772	35000	4800	0.39	1.99	0.64	E
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	SW 1590	13/4/2023	H/o Lab Patiala	7.7	2.1	22	915	35000	6300	0.31	1.96	0.70	E
11	Ghaggar at Khanauri	1024	SW 1593	13/4/2023	H/o Lab Patiala	7.6	3.1	21	844	35000	5800	0.28	1.89	0.68	E
12	Ghaggar at Moonak	1703	SW 1595	13/4/2023	H/o Lab Patiala	7.7	2.8	24	971	43000	8400	0.36	2.01	0.65	E
13	Ghaggar at U/s Sardulgarh	1705	SW 1585	13/4/2023	H/o Lab Patiala	7.3	5.3	10	449	22000	2600	0.08	1.61	0.44	D
14	Ghaggar at D/s Sardulgarh	1704	SW 1586	13/4/2023	H/o Lab Patiala	7.4	4.4	11	597	24000	3400	0.14	1.70	0.51	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	12/4/2023	H/o Lab Patiala	48	510	621	327	278	37	10	137	35	12	227	BDL	7.3	1.0	10.2	2.0	1.2	48	21
2	Ghaggar at Bhankarpur	1295	12/4/2023	H/o Lab Patiala	122	470	400	524	446	78	22	307	80	26	272	BDL	9.3	2.2	13.0	2.2	1.3	82	43
3	Ghaggar at Chattbir	1698	12/4/2023	H/o Lab Patiala	119	450	429	489	417	75	20	279	72	24	254	BDL	10.1	2.0	14.1	2.3	1.3	76	41
4	Ghaggar at U/s Jharmal Nadi	1702	12/4/2023	H/o Lab Patiala	72	320	309	427	364	56	18	219	53	21	251	BDL	10.0	1.6	14.0	2.0	1.1	65	38
5	Ghaggar at D/s Jharmal Nadi	1701	12/4/2023	H/o Lab Patiala	88	330	328	467	398	59	22	248	61	23	269	BDL	10.4	2.0	14.6	2.2	1.2	70	40
6	Ghaggar at U/s Dhakanshu Nallah	1699	12/4/2023	H/o Lab Patiala	78	270	301	417	356	47	17	207	50	20	263	BDL	10.9	1.2	15.3	2.1	1.1	63	31
7	Ghaggar at D/s Dhakanshu Nallah	1700	12/4/2023	H/o Lab Patiala	92	400	425	523	447	77	23	298	78	25	278	BDL	11.2	1.9	15.7	2.5	1.3	79	44
8	Ghaggar at Rattanheri	1473	13/4/2023	H/o Lab Patiala	98	230	182	533	458	76	27	292	74	26	285	BDL	11.1	2.0	15.75	2.9	1.3	82	49
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	13/4/2023	H/o Lab Patiala	95	240	185	503	429	69	24	270	70	23	280	BDL	11.0	2.2	15.4	2.5	1.3	75	43
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	13/4/2023	H/o Lab Patiala	101	250	202	592	504	85	38	358	87	34	301	BDL	10.2	2.8	14.3	3.1	1.5	85	51
11	Ghaggar at Khanauri	1024	13/4/2023	H/o Lab Patiala	99	235	211	549	468	80	26	323	83	28	290	BDL	11.3	2.6	15.8	3.0	1.4	78	48
12	Ghaggar at Moonak	1703	13/4/2023	H/o Lab Patiala	105	250	265	627	534	89	43	397	91	41	310	BDL	12.0	3.2	16.8	3.4	1.8	92	53
13	Ghaggar at U/s Sardulgarh	1705	13/4/2023	H/o Lab Patiala	51	40	29	293	251	27	15	123	26	14	215	BDL	8.3	0.8	11.6	1.7	1.1	41	19
14	Ghaggar at D/s Sardulgarh	1704	13/4/2023	H/o Lab Patiala	60	70	51	357	304	37	22	177	38	20	229	BDL	9.3	0.9	13.0	2.0	1.3	52	27

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 April, 2023 (Metal/Pesticides)

S.N.	Point of Sample Collection	Code	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	1023	BDL	BDL	3.38	0.33	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	1295	BDL	BDL	7.29	0.59	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chattbir	1698	1698	BDL	BDL	5.93	0.55	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	1702	BDL	BDL	5.48	0.47	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	1701	BDL	BDL	5.99	0.53	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	1699	BDL	BDL	5.83	0.50	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	1700	BDL	BDL	6.13	0.58	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	1473	BDL	BDL	6.30	0.53	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	4159	BDL	BDL	6.26	0.51	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	4160	BDL	BDL	6.49	0.58	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	1024	BDL	BDL	6.73	0.60	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	1703	BDL	BDL	6.81	0.63	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	1705	BDL	BDL	4.73	0.28	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	1704	BDL	BDL	4.91	0.31	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 April, 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 μ s/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	18/4/2023	SW 1596	H.O. Lab Patiala	7.8	BDL	147	5038	430000	120000	0.28	6.59	1.43	E
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	18/4/2023	SW 1597	H.O. Lab Patiala	8.0	BDL	62	2465	350000	110000	0.90	3.27	1.28	E
3	Point Source B/N	2914	26.04.23	SW 1613	ZO Lab Ldh	7.2	BDL	165	1553	1,60,00,000	34,00,000	0.256	6.89	0.57	E
4	Kali Bein into Beas	2913	19/04/23	S 155	ZO Lab, Jal	6.8	4.1	2.8	333	3400	1100	BDL	0.89	0.61	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	17/04/23	SW 162	ZO Lab, Jal	7.3	BDL	170	3191	700000	310000	0.28	9.23	0.49	E
7	Hundiara drain before entering Pakistan	2907	17/04/23	SW 163	ZO Lab, Jal	7.2	BDL	115	1628	480000	210000	0.25	4.39	0.58	E
8	Pathlawa Drain	2911	Sample was not collected												
9	Ranjit Sagar Reservoir	2912	10/04/23	SW 123	ZO Lab, Jal	8.2	9.1	BDL	180	140	33	BDL	0.18	BDL	B
	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	12.4.2023	SW 1580	H.O. Lab Patiala	7.5	0.21	48	1427	120000	26000	0.17	2.09	0.62	E
11	Sagar Para Drain at village sagra dist.Patiala	4158	13.4.2023	SW 1591	H.O. Lab Patiala	7.9	0.4	32	1167	35000	4600	0.34	2.12	0.73	E
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	12.4.2023	SW 1584	H.O. Lab Patiala	7.8	BDL	96	2367	430000	170000	0.71	3.72	1.21	E
13	Confluence point of Sarsa Nadi with river Satluj	4161	25.04.23	SW 1606	ZO Lab Ldh	8.1	8.9	BDL	322	390	110	0.091	0.35	0.20	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 April, 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	18/4/2023	SW 1596	H.O. Lab Patiala	481	530	515	3275	2788	705	115	2137	450	246	1015	BDL	8.0	3.9	11.2	7.0	7.1	700	282	
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	18/4/2023	SW 1597	H.O. Lab Patiala	232	270	267	1601	1364	210	109	1149	238	142	472	BDL	17.9	1.9	25.0	5.8	5.0	258	269	
3	Point Source B/N	2914	26.04.23	SW 1613	ZO Lab Ldh	518	190	388	1136	845	292	45	326	84.8	27.7	446	BDL	25.6	4.1	36.2	10.6	1.20	286	23.4	
4	Kali Bein into Beas	2913	19/04/23	S 155	ZO Lab, Jal	18	162	189	211	174	22	20	106	25	11	152	BDL	1.1	1.2	1.6	0.19	0.21	21	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	17/04/23	SW 162	Z.O. Lab Jalandhar	408	74	102	1901	1322	460	204	420	103	39	740	BDL	28	4.4	40	3.2	0.4	435	26	
7	Hundiara drain before entering Pakistan	2907	17/04/23	SW 163	Z.O. Lab Jalandhar	292	72	78	955	652	145	96	325	73	35	560	BDL	25	4.0	36	2.7	0.38	182	22	
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																						
9	Ranjit Sagar Reservoir	2912	10/04/23	SW 123	Z.O. Lab Jalandhar	6	BDL	BDL	106	86	10	7	90	22	8.5	58	BDL	BDL	0.6	BDL	BDL	0.11	4.0	2.5	
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	12.4.2023	SW 1580	H.O. Lab Patiala	182	240	243	920	784	138	90	787	155	97	298	BDL	8.3	1.4	11.6	5.3	4.5	135	90	
11	Sagar Para Drain at village sagra dist.Patiala	4158	13.4.2023	SW 1591	H.O. Lab Patiala	119	150	146	758	645	100	75	587	103	80	291	BDL	7.5	0.9	10.5	3.3	2.8	118	63	
12	Confluence point of sukhana Choe with River Ghaggar, vill.Mubarkpur	4162	12.4.2023	SW 1584	H.O. Lab Patiala	332	390	382	1541	133	281	132	1296	296	135	367	BDL	20.2	3.3	28.3	5.2	6.0	308	145	
13	Confluence point of Sarsa Nadi with river Satluj	4161	25.04.23	SW 1606	ZO Lab Ldh	BDL	16	21	210	184	27	46	140	36.8	11.7	82	BDL	1.4	2.2	2.0	BDL	0.17	9.6	2.5	

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 April, 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
1	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	SW 1596	8.21	0.93	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	SW 1597	7.70	0.78	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	SW 1613	29	2.2	BDL	BDL	0.14	BDL	BDL	BDL	BDL
4	Kali Bein into Beas	2913	S 155	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 162	1.4	0.34	0.34	BDL	0.16	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	SW 163	3.9	0.89	0.89	0.11	0.22	BDL	BDL	BDL	BDL
8	Pathlawa Drain	2911	Sample was not collected									
9	Ranjit Sagar Reservoir	2912	SW 123	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	SW 1580	6.48	0.63	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	SW 1591	7.00	0.61	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	SW 1584	7.53	0.82	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	SW 1606	0.56	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.