

Analysis results of Surface water monitoring under NWMP for the month of April, 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	04.04.2022	SW 1	ZO Lab Ldh	7.8	8.0	BDL	230	120	45	BDL	0.18	BDL	B	s
2	River Satluj at D/S NFL	1380	04.04.2022	SW 2	ZO Lab Ldh	8.3	9.6	BDL	264	330	68	BDL	0.21	BDL	B	S
3	River Sutej at 100m D/s PACL Nangal	2915	04.04.2022	SW 3	ZO Lab Ldh	8.3	9.5	BDL	266	320	78	BDL	0.21	BDL	B	S
4	River Satluj at D/s Nangal	1018	04.04.2022	SW 4	ZO Lab Ldh	8.5	8.4	BDL	287	390	93	BDL	0.26	0.15	B	S
5	River Satluj at Kiratpur Sahib	1814	05.04.2022	SW 22	ZO Lab Ldh	7.9	8.2	BDL	237	790	120	BDL	0.20	0.16	C	S
6	Ropar Head-Works	1019	05.04.2022	SW 27	ZO Lab Ldh	7.7	8.0	BDL	296	2200	930	BDL	0.33	0.16	C	S
7	River Satluj D/S of Rishab- Paper Mills	1293	05.04.2022	SW 31	ZO Lab Ldh	7.6	7.6	BDL	478	2500	930	BDL	0.86	0.27	C	S
8	River Satluj U/S Buddha Nallah	1690	06.04.2022	SW 33	ZO Lab Ldh	8.0	6.8	1.2	438	3100	1100	BDL	1.00	0.51	C	S
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	06.04.2022	SW 35	ZO Lab Ldh	7.4	BDL	65	1302	54,00,000	22,00,000	0.214	6.45	0.33	E	U
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	07.04.2022	SW 37	ZO Lab Ldh	7.5	1.8	24	1023	3,50,000	79,000	0.250	2.83	0.20	E	U
11	River Satluj at D/s East Bein	1381	07.04.2022	SW 38	ZO Lab Ldh	8.4	1.4	37	1045	4,30,000	94,000	1.160	2.50	0.47	E	U
12	River Satluj at Harike	1022	07.04.2022	SW 39	ZO Lab Ldh	7.8	4.8	4	616	5800	1700	0.185	1.78	0.35	D	S
13	Harike Lake D/S from canal	1382	12/04/2022	S 147	ZO Lab, Jal	8.2	7.9	2.9	379	3300	1100	0.232	1.27	0.48	C	S
14	D/S Harike lake	1297	12/04/2022	S 146	ZO Lab, Jal	7.7	7.6	1.6	423	2800	940	0.063	1.58	0.49	C	S
15	U/S Hussainiwala H/W Ferozepur	1691	07.04.2022	SW 40	ZO Lab Ldh	7.9	6.8	BDL	334	1100	450	0.054	0.75	0.29	C	S
16	D/S Hussainiwala H/W Ferozepur	1692	07.04.2022	SW 41	ZO Lab Ldh	7.9	6.6	BDL	344	1200	400	0.054	0.64	0.34	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 April, 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	04.04.2022	SW 1	ZO Lab Ldh	BDL	BDL	BDL	127	114	7	5	114	28	10.7	70	BDL	BDL	1.4	BDL	BDL	0.22	4.4	2.8
2	River Satluj at D/S NFL	1380	04.04.2022	SW 2	ZO Lab Ldh	BDL	1	BDL	145	131	9	7	124	29.6	12.2	90	BDL	BDL	1.5	BDL	BDL	0.25	5.4	3.5
3	River Sutej at 100m D/s PACL Nangal	2915	04.04.2022	SW 3	ZO Lab Ldh	BDL	1	BDL	148	132	11	8	126	30.4	12.2	89	BDL	BDL	1.6	BDL	BDL	0.23	5.4	3.5
4	River Satluj atD/s Nangal	1018	04.04.2022	SW 4	ZO Lab Ldh	BDL	2	BDL	158	141	11	9	122	29.6	11.7	93	BDL	BDL	1.5	BDL	BDL	0.22	6.7	4.2
5	River Satluj at Kiratpur Sahib	1814	05.04.2022	SW 22	ZO Lab Ldh	BDL	3	BDL	132	119	8	6	110	27.2	10.2	79	BDL	BDL	1.7	BDL	BDL	0.23	4.9	1.2
6	Ropar Head-Works	1019	05.04.2022	SW 27	ZO Lab Ldh	BDL	13	14	168	152	18	14	122	30.4	11.2	86	BDL	BDL	1.6	BDL	BDL	0.21	8.4	3
7	River Satluj D/S of Rishab-Paper Mills	1293	05.04.2022	SW 31	ZO Lab Ldh	BDL	15	18	279	249	55	24	158	40	14.1	115	BDL	BDL	1.7	BDL	BDL	0.22	25	5.1
8	River Satluj U/S Buddha Nallah	1690	06.04.2022	SW 33	ZO Lab Ldh	8	47	32	256	226	33	21	148	37.6	13.1	121	BDL	BDL	1.9	BDL	0.24	0.29	28	6
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	06.04.2022	SW 35	ZO Lab Ldh	232	140	304	802	658	191	49	224	56	20.4	270	BDL	14.3	3.2	20.0	2.1	0.36	222	51
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	07.04.2022	SW 37	ZO Lab Ldh	98	110	114	611	521	160	42	200	50.4	18.0	218	BDL	12.5	2.8	17.5	1.0	0.23	92	38
11	River Satluj at D/s East Bein	1381	07.04.2022	SW 38	ZO Lab Ldh	145	120	100	637	527	120	40	240	59.2	22.4	280	BDL	9.3	3.3	13.0	1.6	0.22	89	29
12	River Satluj at Harike	1022	07.04.2022	SW 39	ZO Lab Ldh	21	31	16	365	318	74	35	156	38.4	14.6	151	BDL	5.3	1.9	7.4	0.64	0.21	51	19
13	Harike Lake D/S from canal	1382	12/04/2022	S 147	ZO Lab, Jal	22	70	48	225	180	20	22	118	33	9	121	BDL	2.9	2.1	4.3	0.23	0.19	32	8.1
14	D/S Harike lake	1297	12/04/2022	S 146	ZO Lab, Jal	17	54	34	248	205	18	20	123	32	10	142	BDL	2.1	1.6	3.2	0.19	0.18	40	13
15	U/S Hussainiwala H/W Ferozepur	1691	07.04.2022	SW 40	ZO Lab Ldh	BDL	15	11	204	180	25	22	122	30.4	11.2	108	BDL	1.2	1.5	1.7	BDL	0.20	19	5.9
16	D/S Hussainiwala H/W Ferozepur	1692	07.04.2022	SW 41	ZO Lab Ldh	BDL	16	12	206	182	21	20	120	29.6	11.2	105	BDL	1.2	1.6	1.8	BDL	0.20	16	4.1

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 April, 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	04.04.2022	SW 1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	04.04.2022	SW 2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	04.04.2022	SW 3	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	04.04.2022	SW 4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	04.04.2022	SW 22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	05.04.2022	SW 27	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	05.04.2022	SW 31	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	06.04.2022	SW 33	BDL	0.73	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	06.04.2022	SW 35	BDL	2.9	BDL	0.7	BDL	BDL	BDL	BDL	BDL
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	07.04.2022	SW 37	BDL	3.7	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	River Satluj at D/s East Bein	1381	07.04.2022	SW 38	BDL	1.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	River Satluj at Harike	1022	07.04.2022	SW 39	BDL	0.8	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	12/04/2022	S 147	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
14	D/S Harike lake	1297	12/04/2022	S 146	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
15	U/S Hussainiwala H/W Ferozepur	1691	07.04.2022	SW 40	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	07.04.2022	SW 41	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, 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	07/04/2022	S 132	ZO Lab, Jal	8.1	8.0	1.1	227	170	39	0.065	0.55	BDL	B	S
18	River Beas at U/S Pathankot	1694	07/04/2022	S 134	ZO Lab, Jal	8.0	8.6	1.4	275	330	170	0.045	0.76	0.25	B	S
19	River Beas at D/S Pathankot	1695	07/04/2022	S 135	ZO Lab, Jal	8.1	7.8	1.3	260	490	220	0.052	0.49	0.30	B	S
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	07/04/2022	S 133	ZO Lab, Jal	8.0	8.8	1.3	295	280	110	0.060	0.73	0.11	B	S
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	11/04/2022	S 136	ZO Lab, Jal	7.8	8.0	1.4	242	460	210	0.039	0.27	0.39	B	S
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	11/04/2022	S 137	ZO Lab, Jal	8.1	8.9	1.3	216	310	110	0.091	0.25	0.15	B	S
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	11/04/2022	S 139	ZO Lab, Jal	8.0	8.5	1.2	225	220	79	0.060	0.23	0.30	B	S
24	River Beas at U/s Goindwal	1696	12/04/2022	S 143	ZO Lab, Jal	7.8	7.7	1.2	240	170	70	0.035	0.33	0.11	B	S
25	River Beas at D/s Goindwal	1012	12/04/2022	S 144	ZO Lab, Jal	8.1	7.6	1.3	238	280	110	0.059	0.32	0.26	B	S
26	Beas at Harike	1697	12/04/2022	S 145	ZO Lab, Jal	8.1	7.9	1.2	246	330	170	0.065	0.35	0.15	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	07/04/2022	S 132	ZO Lab Jal.	14	15	26	128	102	12	10	92	25	7	86	BDL	1.0	0.9	1.7	0.13	0.16	12	2.8
18	River Beas at U/S Pathankot	1694	07/04/2022	S 134	ZO Lab Jal.	16	14	24	167	135	14	12	97	30	5	92	BDL	0.9	0.8	1.7	0.13	0.14	17	2.4
19	River Beas at D/S Pathankot	1695	07/04/2022	S 135	ZO Lab Jal.	15	26	48	156	120	12	10	99	29	6	88	BDL	0.8	0.7	1.6	0.14	0.13	11	3.2
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	07/04/2022	S 133	ZO Lab Jal.	16	14	22	165	132	14	16	100	31	6	96	BDL	1.2	1.1	1.9	0.14	0.17	17	3.6
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	11/04/2022	S 136	ZO Lab, Jal	17	27	44	144	118	12	12	95	30	5	86	BDL	1.1	1.0	1.9	0.17	0.16	6.1	3.0
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	11/04/2022	S 137	ZO Lab, Jal	15	31	50	132	110	14	13	90	26	6	79	BDL	1.4	1.3	2.5	0.16	0.17	5.4	2.6
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	11/04/2022	S 139	ZO Lab, Jal	14	26	48	134	108	16	14	100	31	6	92	BDL	1.2	1.1	2.2	0.18	0.15	5.4	2.6
24	River Beas at U/s Goindwal	1696	12/04/2022	S 143	ZO Lab, Jal	14	25	42	138	112	12	10	95	26	7	100	BDL	1.0	0.7	1.6	0.14	0.12	7.3	3.1
25	River Beas at D/s Goindwal	1012	12/04/2022	S 144	ZO Lab, Jal	16	27	40	140	114	13	12	94	25	8	90	BDL	0.9	0.8	1.7	0.14	0.11	7.1	3.1
26	Beas at Harike	1697	12/04/2022	S 145	ZO Lab, Jal	15	38	55	144	115	14	12	100	28	7	100	BDL	1.0	0.9	1.7	0.18	0.12	7.9	3.0

Note. 1. BDL means Below Method Detection Limit

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Analysis results of Surface water monitoring under NWMP for the month of April, 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	07/04/2022	S 132	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	07/04/2022	S 134	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	07/04/2022	S 135	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	07/04/2022	S 133	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	11/04/2022	S 136	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	11/04/2022	S 137	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	11/04/2022	S 139	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	12/04/2022	S 143	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	12/04/2022	S 144	ZO Lab Jal.	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	12/04/2022	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, 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	07/04/2022	S 131	ZO Lab, Jal	8.0	8.1	1.1	168	170	33	0.040	0.11	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	07/04/2022	S 131	ZO Lab Jal.	11	BDL	10	98	78	10	6	80	25	4	75	BDL	0.8	0.6	BDL	BDL	0.13	2.2	2.3

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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 April, 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	07/04/2022	S 131	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, 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	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 4	7/4/22	H/o Lab Patiala	7.7	5.9	9	510	22000	3200	0.33	1.80	0.39	D	U
2	Ghaggar at Bhankarpur	1295	SW 5	7/4/22	H/o Lab Patiala	7.3	4.0	15	592	28000	5800	0.12	1.89	0.52	D	U
3	Ghaggar at Chattbir	1698	SW 6	7/4/22	H/o Lab Patiala	8.0	4.0	16	672	28000	6300	0.60	2.15	0.48	D	U
4	Ghaggar at U/s Jharmal Nadi	1702	SW 7	7/4/22	H/o Lab Patiala	7.7	4.1	12	511	24000	3400	0.33	1.70	0.41	D	U
5	Ghaggar at D/s Jharmal Nadi	1701	SW 8	7/4/22	H/o Lab Patiala	7.4	3.1	13	610	28000	4600	0.17	1.74	0.49	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	SW 10	7/4/22	H/o Lab Patiala	7.8	4.0	11	542	24000	2700	0.41	1.48	0.44	D	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	SW 11	7/4/22	H/o Lab Patiala	7.5	3.3	14	704	35000	7000	0.25	2.08	0.50	E	U
8	Ghaggar at Rattanheri	1473	SW 18	19/4/22	H/o Lab Patiala	7.8	3.0	12	641	28000	4600	0.44	1.96	0.53	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	SW 19	19/4/22	H/o Lab Patiala	8.0	3.2	11	613	28000	3800	0.61	1.96	0.51	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	SW 20	19/4/22	H/o Lab Patiala	8.1	3.1	13	672	35000	5800	0.75	1.92	0.59	E	U
11	Ghaggar at Khanauri	1024	SW 23	19/4/22	H/o Lab Patiala	7.9	3.0	12	604	28000	4700	0.57	2.03	0.60	E	U
12	Ghaggar at Moonak	1703	SW 25	19/4/22	H/o Lab Patiala	7.8	2.8	14	693	35000	6300	0.46	2.01	0.67	E	U
13	Ghaggar at U/s Sardulgarh	1705	SW 82	25/4/22	H/o Lab Patiala	7.6	5.7	11	485	24000	3400	0.27	1.60	0.39	D	U
14	Ghaggar at D/s Sardulgarh	1704	SW 83	25/4/22	H/o Lab Patiala	7.5	5.4	12	572	28000	4600	0.23	1.56	0.44	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	SW 4	7/4/22	H/o Lab Patiala	41	430	458	327	278	31	10	141	33	14	224	BDL	10.9	0.9	15.3	1.3	1.1	49	21
2	Ghaggar at Bhankarpur	SW 5	7/4/22	H/o Lab Patiala	77	460	469	368	314	33	14	179	45	16	231	BDL	11.5	1.0	16.1	1.4	1.1	58	24
3	Ghaggar at Chattbir	SW 6	7/4/22	H/o Lab Patiala	81	490	487	415	354	42	15	206	51	19	245	BDL	11.9	1.2	16.7	1.3	1.3	71	31
4	Ghaggar at U/s Jharmal Nadi	SW 7	7/4/22	H/o Lab Patiala	61	400	329	324	278	29	13	133	35	11	227	BDL	11.0	1.1	15.4	1.2	1.1	45	20
5	Ghaggar at D/s Jharmal Nadi	SW 8	7/4/22	H/o Lab Patiala	67	410	392	377	324	35	14	190	48	17	232	BDL	11.6	1.2	16.2	1.3	1.1	55	27
6	Ghaggar at U/s Dhakanshu Nallah	SW 10	7/4/22	H/o Lab Patiala	57	240	249	337	287	39	12	161	41	14	219	BDL	11.7	1.1	16.4	1.2	1.2	43	21
7	Ghaggar at D/s Dhakanshu Nallah	SW 11	7/4/22	H/o Lab Patiala	68	245	261	452	386	51	21	240	53	26	249	BDL	12.4	1.2	17.4	1.3	1.3	74	37
8	Ghaggar at Rattanheri	SW 18	19/4/22	H/o Lab Patiala	62	230	268	404	344	49	19	196	47	19	235	BDL	12.5	1.2	17.5	1.3	1.2	63	29
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	SW 19	19/4/22	H/o Lab Patiala	59	230	254	392	334	43	18	178	43	17	233	BDL	12.1	1.1	16.9	1.2	1.2	60	28
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	SW 20	19/4/22	H/o Lab Patiala	64	240	271	419	358	48	17	211	50	21	239	BDL	11.5	1.2	16.1	1.3	1.3	64	30
11	Ghaggar at Khanauri	SW 23	19/4/22	H/o Lab Patiala	63	250	268	382	327	41	14	171	42	16	234	BDL	12.7	1.1	17.8	1.3	1.1	61	29
12	Ghaggar at Moonak	SW 25	19/4/22	H/o Lab Patiala	69	265	292	442	377	51	21	224	53	22	247	BDL	13.2	1.1	18.5	1.3	1.2	69	35
13	Ghaggar at U/s Sardulgarh	SW 82	25/4/22	H/o Lab Patiala	58	60	69	315	268	31	11	150	35	15	222	BDL	10.9	1.1	15.3	1.2	1.1	45	19
14	Ghaggar at D/s Sardulgarh	SW 83	25/4/22	H/o Lab Patiala	62	70	78	369	315	37	14	201	46	21	230	BDL	11.4	1.1	16.0	1.3	1.2	51	25

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, 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	7/4/22	SW 4	BDL	BDL	3.14	0.29	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	7/4/22	SW 5	BDL	BDL	6.95	0.49	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chhattbir	1698	7/4/22	SW 6	BDL	BDL	5.12	0.33	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	7/4/22	SW 7	BDL	BDL	5.00	0.28	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	7/4/22	SW 8	BDL	BDL	5.19	0.35	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	7/4/22	SW 10	BDL	BDL	4.99	0.27	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	7/4/22	SW 11	BDL	BDL	5.24	0.35	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	19/4/22	SW 18	BDL	BDL	5.19	0.39	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	19/4/22	SW 19	BDL	BDL	5.14	0.35	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	19/4/22	SW 20	BDL	BDL	5.24	0.38	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	19/4/22	SW 23	BDL	BDL	5.08	0.29	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	19/4/22	SW 25	BDL	BDL	5.22	0.38	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	25/4/22	SW 82	BDL	BDL	4.22	0.21	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	25/4/22	SW 83	BDL	BDL	4.68	0.26	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, 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	21/4/22	SW 55	H.O. Lab Patiala	7.9	BDL	110	4412	430000	140000	0.38	6.58	1.23	E	U
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	21/4/22	SW 56	H.O. Lab Patiala	7.8	BDL	52	2274	350000	110000	0.75	2.90	1.06	E	U
3	Point Source B/N	2914	06.04.2022	SW 34	ZO Lab Ldh	7.3	BDL	145	1912	92,00,000	35,00,000	0.246	6.38	0.65	E	U
4	Kali Bein into Beas	2913	13/04/2022	S 156	ZO Lab, Jal	7.6	5.2	1.6	328	1700	460	0.035	1.08	0.54	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	21/04/2022	S 166	ZO Lab, Jal	7.1	BDL	258	2290	1100000	460000	0.032	10.63	0.43	E	U
7	Hundiara drain before entering Pakistan	2907	21/04/2022	S 167	ZO Lab, Jal	7.4	BDL	54	1312	700000	330000	0.780	4.42	0.69	E	U
8	Pathlawa Drain	2911	Sample was not collected													
9	Ranjit Sagar Reservoir	2912	07/04/2022	S 130	Z.O. Lab Jalandhar	7.9	7.7	1.1	194	140	26	0.032	0.11	BDL	B	S
	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/4/22	SW 12	H.O. Lab Patiala	7.2	BDL	35	1035	140000	32000	0.09	1.85	0.97	E	U
11	Sagar Para Drain at village sagra dist.Patiala	4158	19/4/22	SW 21	H.O. Lab Patiala	7.7	BDL	25	882	92000	7800	0.24	1.75	0.62	E	U
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	7/4/22	SW 16	H.O. Lab Patiala	7.6	BDL	53	1372	430000	140000	0.50	2.96	1.02	E	U
13	Confluence point of Sarsa Nadi with river Satluj	4161	05.04.2022	SW 24	ZO Lab Ldh	8.5	7.0	BDL	347	1300	780	BDL	0.58	0.24	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 April, 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	21/4/22	SW 55	H.O. Lab Patiala	438	470	429	2872	2442	587	231	1534	281	202	1015	BDL	8.5	4.9	11.9	4.8	4.6	592	193	
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	21/4/22	SW 56	H.O. Lab Patiala	204	290	306	1476	1255	224	113	937	192	111	493	BDL	21.3	3.7	29.8	4.1	3.2	204	224	
3	Point Source B/N	2914	06.04.22	SW 34	ZO Lab Ldh	456	180	382	1165	848	330	55	312	78.4	28.2	460	BDL	24.6	4.9	36.8	11.6	0.79	259	49	
4	Kali Bein into Beas	2913	13/04/2022	S 156	ZO Lab, Jal	14	10	22	186	156	16	14	100	29	7	106	BDL	1.4	1.1	2.3	0.18	0.17	25	9.2	
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	21/04/2022	S 166	Z.O. Lab Jalandhar	610	156	380	1380	1095	210	180	235	42	31	397	BDL	64	12	72	7.5	0.47	373	35	
7	Hundiara drain before entering Pakistan	2907	21/04/2022	S 167	Z.O. Lab Jalandhar	218	97	210	790	615	112	96	238	56	24	280	BDL	52	9.1	60	6.9	0.42	157	41	
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																						
9	Ranjit Sagar Reservoir	2912	07/04/22	S 130	Z.O. Lab Jalandhar	10	18	10	110	86	10	8	78	21	6	67	BDL	0.7	0.4	BDL	BDL	0.14	2.3	2.4	
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/4/22	SW 12	H.O. Lab Patiala	142	230	197	672	571	92	53	490	102	57	275	BDL	8.6	2.7	12.0	4.1	2.5	94	56	
11	Sagar Para Drain at village sagra dist.Patiala	4158	19/4/22	SW 21	H.O. Lab Patiala	84	210	178	577	491	67	49	406	75	53	261	BDL	8.0	1.4	11.2	1.3	1.3	81	51	
12	Confluence point of sukhana Choe with River Ghaggar, vill.Mubarkpur	4162	7/4/22	SW 16	H.O. Lab Patiala	205	260	283	893	759	103	85	660	124	85	311	BDL	19.9	3.6	27.9	2.6	2.4	175	79	
13	Confluence point of Sarsa Nadi with river Satluj	4161	05.04.2022	SW 24	ZO Lab Ldh	BDL	17	21	197	176	27	16	128	31.2	12.2	93	BDL	BDL	1.6	BDL	BDL	0.24	15	2.8	

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, 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	21/4/22	SW 55	7.79	0.78	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	21/4/22	SW 56	6.59	0.68	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	06.04.2022	SW 34	0.29	27.3	BDL	1.9	BDL	BDL	BDL	BDL	BDL
4	Kali Bein into Beas	2913	13/04/2022	S 156	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	21/04/2022	S 166	1.8	0.35	BDL	BDL	0.14	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	21/04/2022	S 167	13.4	0.49	BDL	BDL	0.11	BDL	BDL	BDL	BDL
8	Pathlawa Drain	2911	Sample was not collected										
9	Ranjit Sagar Reservoir	2912	07/04/22	S 130	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/4/22	SW 12	7.14	0.43	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	19/4/22	SW 21	5.17	0.32	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	7/4/22	SW 16	6.84	0.60	BDL	BDL	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	05.04.2022	SW 24	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.