

Analysis results of Surface water monitoring under NWMP for the month of October, 2020

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	06.10.20	SW 1632	ZO Lab Ldh	7.6	8.8	<1	194	100	20	BDL	0.06	BDL	B	S
2	River Satluj at D/S NFL	1380	06.10.20	SW 1633	ZO Lab Ldh	7.8	9.3	<1	196	260	68	BDL	0.06	BDL	B	S
3	River Sutej at 100m D/s PACL Nangal	2915	06.10.20	SW 1634	ZO Lab Ldh	7.8	9.2	<1	196	320	68	BDL	0.06	BDL	B	S
4	River Satluj at D/s Nangal	1018	06.10.20	SW 1635	ZO Lab Ldh	7.6	9.2	<1	221	240	40	BDL	0.07	BDL	B	S
5	River Satluj at Kiratpur Sahib	1814	07.10.20	SW 1637	ZO Lab Ldh	8.0	8.6	<1	214	400	120	BDL	0.11	0.14	B	S
6	Ropar Head-Works	1019	07.10.20	SW 1640	ZO Lab Ldh	7.5	8.5	<1	213	930	200	BDL	0.12	0.10	C	S
7	River Satluj D/S of Rishab- Paper Mills	1293	07.10.20	SW 1641	ZO Lab Ldh	7.4	8.5	<1	204	920	360	BDL	0.10	0.29	C	S
8	River Satluj U/S Buddha Nallah	1690	08.10.20	SW 1643	ZO Lab Ldh	7.4	6.7	1.2	221	5800	1100	0.014	0.13	0.13	D	U
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	08.10.20	SW 1645	ZO Lab Ldh	6.8	2.8	10	423	17,00,000	8,40,000	BDL	0.79	0.38	E	U
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.20	SW 1667	ZO Lab Ldh	7.4	4.5	3.8	337	1,40,000	70,000	0.020	0.44	0.24	D	U
11	River Satluj at D/s East Bein	1381	09.10.20	SW 1648	ZO Lab Ldh.	7.2	4.1	4.8	390	1,70,000	68,000	0.020	0.39	0.30	D	U
12	River Satluj at Harike	1022	09.10.20	SW 1649	ZO Lab Ldh.	7.3	7.2	2.2	345	4600	1100	0.011	0.39	0.34	C	S
13	Harike Lake D/S from canal	1382	9/10/20	SW 566	ZO Lab Jal.	7.9	7.1	1.1	204	1200	320	0.032	0.54	0.16	C	S
14	D/S Harike lake	1297	9/10/20	SW 567	ZO Lab Jal.	7.9	6.5	1.6	207	840	310	0.041	0.42	0.29	C	S
15	U/S Hussainiwala H/W Ferozepur	1691	12.10.20	SW 1665	ZO Lab Ldh	7.9	6.6	1.2	233	1200	400	BDL	0.32	0.16	C	S
16	D/S Hussainiwala H/W Ferozepur	1692	12.10.20	SW 1666	ZO Lab Ldh	7.8	6.4	1.2	236	1000	400	BDL	0.30	0.30	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, 2020

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	06.10.20	SW 1632	ZO Lab Ldh	<5	2	BDL	112	99	5	8	86	18.4	9.7	80	BDL	BDL	1.4	BDL	BDL	0.28	1.3	1.0
2	River Satluj at D/S NFL	1380	06.10.20	SW 1633	ZO Lab Ldh	<5	1	BDL	114	102	6	10	84	19.2	8.7	82	BDL	BDL	1.6	BDL	BDL	0.24	1.2	0.9
3	River Sutej at 100m D/s PACL Nangal	2915	06.10.20	SW 1634	ZO Lab Ldh	<5	2	BDL	113	102	6	10	94	20	10.7	80	BDL	BDL	1.5	BDL	BDL	0.22	1.3	0.8
4	River Satluj at D/s Nangal	1018	06.10.20	SW 1635	ZO Lab Ldh	<5	5	BDL	121	106	5	8	92	20	10.2	86	BDL	BDL	1.4	BDL	BDL	0.25	1.6	1.3
5	River Satluj at Kiratpur Sahib	1814	07.10.20	SW 1637	ZO Lab Ldh	<5	10	BDL	125	111	6	8	90	19.2	10.2	86	BDL	BDL	1.4	BDL	BDL	0.28	2.5	1.2
6	Ropar Head-Works	1019	07.10.20	SW 1640	ZO Lab Ldh	<5	3	BDL	123	110	6	10	94	20.8	10.2	78	BDL	BDL	1.4	BDL	BDL	0.30	2.7	1.1
7	River Satluj D/S of Rishab-Paper Mills	1293	07.10.20	SW 1641	ZO Lab Ldh	<5	11	13	115	104	6	11	80	18.4	8.3	74	BDL	BDL	1.6	BDL	BDL	0.39	2.1	1.0
8	River Satluj U/S Buddha Nallah	1690	08.10.20	SW 1643	ZO Lab Ldh	7	70	85	129	112	8	16	94	23.2	8.7	72	BDL	0.9	1.9	1.5	BDL	0.27	2.9	1.4
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	08.10.20	SW 1645	ZO Lab Ldh	48	80	134	247	199	40	27	118	26.4	12.6	106	BDL	3.2	2.0	4.1	0.45	0.43	19.7	4.5
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.20	SW 1667	ZO Lab Ldh	22	65	112	198	162	21	20	108	24	11.7	104	BDL	1.3	1.7	1.8	0.36	0.24	10.6	3.0
11	River Satluj at D/s East Bein	1381	09.10.20	SW 1648	ZO Lab Ldh	29	90	148	218	181	28	25	110	24	12.2	108	BDL	2.0	1.1	2.4	0.32	0.26	9.5	3.1
12	River Satluj at Harike	1022	09.10.20	SW 1649	ZO Lab Ldh	14	100	155	188	159	22	23	114	24.8	12.6	92	BDL	1.1	1.6	1.5	0.16	0.28	9.6	3.5
13	Harike Lake D/S from canal	1382	9/10/20	SW 566	ZO Lab Jal.	12	54	12	142	118	19	26	92	27	6	73	BDL	0.7	0.7	1.5	0.08	0.14	12	2.4
14	D/S Harike lake	1297	9/10/20	SW 567	ZO Lab Jal.	16	78	16	136	114	18	22	102	28	8	76	BDL	0.9	1.0	1.6	0.08	0.15	9.9	2.4
15	U/S Hussainiwala H/W Ferozepur	1691	12.10.20	SW 1665	ZO Lab Ldh	9	20	23	137	118	13	16	80	17.6	8.7	94	BDL	BDL	1.4	BDL	BDL	0.25	6.6	2.8
16	D/S Hussainiwala H/W Ferozepur	1692	12.10.20	SW 1666	ZO Lab Ldh	10	18	26	140	119	13	18	80	18.4	8.3	94	BDL	BDL	1.5	BDL	BDL	0.26	6.2	2.7

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, 2020 (Metal/Pesticides)

River Satluj

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Lab Sample No.	T.Cr mg/l	Ni mg/l	Fe mg/l	Zn mg/l	Cu mg/l	Pb mg/l	Cd mg/l
1	River Satluj at U/S Nangal	1017	06.10.20	SW 1632	BDL	BDL	BDL	BDL	BDL	BDL	BDL
2	River Satluj at D/S NFL	1380	06.10.20	SW 1633	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3	River Sutej at 100m D/s PACL Nangal	2915	06.10.20	SW 1634	BDL	BDL	BDL	BDL	BDL	BDL	BDL
4	River Satluj at D/s Nangal	1018	06.10.20	SW 1635	BDL	BDL	BDL	BDL	BDL	BDL	BDL
5	River Satluj at Kiratpur Sahib	1814	07.10.20	SW 1637	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6	Ropar Head-Works	1019	07.10.20	SW 1640	BDL	BDL	BDL	BDL	BDL	BDL	BDL
7	River Satluj D/S of Rishab-Paper Mills	1293	07.10.20	SW 1641	BDL	BDL	BDL	BDL	BDL	BDL	BDL
8	River Satluj U/S Buddha Nallah	1690	08.10.20	SW 1643	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	River Satluj at 100 mts D/s after Budha Nallah confluence, Ludhiana	1020	08.10.20	SW 1645	BDL	BDL	2.00	0.14	BDL	BDL	BDL
10	River Satluj at Boat Bridge, Dharamkot Nakodar Road	1021	12.10.20	SW 1667	BDL	BDL	0.95	0.04	BDL	BDL	BDL
11	River Satluj at D/s East Bein	1381	09.10.20	SW 1648	BDL	BDL	1.08	0.08	BDL	BDL	BDL
12	River Satluj at Harike	1022	09.10.20	SW 1649	BDL	BDL	1.42	0.09	BDL	BDL	BDL
13	Harike Lake D/S from canal	1382	9/10/20	SW 566	BDL	BDL	0.23	0.12	BDL	BDL	BDL
14	D/S Harike lake	1297	9/10/20	SW 567	BDL	BDL	0.19	0.23	BDL	BDL	BDL
15	U/S Hussainiwala H/W Ferozepur	1691	12.10.20	SW 1665	BDL	BDL	BDL	BDL	BDL	BDL	BDL
16	D/S Hussainiwala H/W Ferozepur	1692	12.10.20	SW 1666	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, 2020

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	12/10/20	SW 571	ZO Lab Jal.	7.8	7.9	1.1	185	93	20	0.021	0.71	BDL	B	S
18	River Beas at U/S Pathankot	1694	12/10/20	SW 573	ZO Lab Jal.	7.9	7.7	1.0	219	170	68	0.032	0.37	0.20	B	S
19	River Beas at D/S Pathankot	1695	12/10/20	SW 574	ZO Lab Jal.	7.6	7.6	1.0	232	390	78	0.020	0.55	0.29	B	S
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	12/10/20	SW 572	ZO Lab Jal.	7.9	7.8	1.1	216	210	130	0.032	0.51	0.14	B	S
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	13/10/20	SW575	ZO Lab Jal.	7.8	7.3	1.1	215	490	110	0.025	0.43	0.38	B	S
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	13/10/20	SW 576	ZO Lab Jal.	7.9	7.5	BDL (<1)	228	460	170	0.032	0.63	0.15	B	S
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/10/20	SW 577	ZO Lab Jal.	7.8	7.1	1.1	212	400	110	0.021	0.40	0.19	B	S
24	River Beas at U/s Goindwal	1696	9/10/20	SW 563	ZO Lab Jal.	7.9	7.6	BDL (<1)	190	340	170	0.023	0.39	0.10	B	S
25	River Beas at D/s Goindwal	1012	9/10/20	SW 564	ZO Lab Jal.	7.8	7.5	BDL (<1)	197	460	210	0.025	0.40	0.20	B	S
26	Beas at Harike	1697	9/10/20	SW 565	ZO Lab Jal.	7.8	7.5	1.0	192	330	130	0.028	0.39	0.21	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	12/10/20	SW 571	ZO Lab Jal.	10	9	BDL	115	90	10	13	82	27	4	68	BDL	0.6	0.7	1.2	0.05	0.14	15	2.1
18	River Beas at U/S Pathankot	1694	12/10/20	SW 573	ZO Lab Jal.	11	31	11	135	105	14	17	104	29	8	82	BDL	0.7	0.6	1.3	0.07	0.16	8.8	2.1
19	River Beas at D/S Pathankot	1695	12/10/20	SW 574	ZO Lab Jal.	10	38	12	142	119	14	18	102	27	9	88	BDL	0.8	0.7	1.2	0.06	0.14	13	2.4
20	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	12/10/20	SW 572	ZO Lab Jal.	12	28	10	130	104	13	16	106	28	8	72	BDL	0.7	0.6	1.3	0.06	0.14	12	2.5
21	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	13/10/20	SW575	ZO Lab Jal.	13	41	11	134	108	13	19	100	28	7	86	BDL	0.7	0.9	1.4	0.08	0.17	9.8	2.2
22	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	13/10/20	SW 576	ZO Lab Jal.	12	32	10	138	105	14	12	107	30	8	78	BDL	0.7	0.8	1.3	0.07	0.15	15	2.6
23	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/10/20	SW 577	ZO Lab Jal.	12	49	12	129	105	12	16	97	26	8	89	BDL	0.6	0.7	1.2	0.09	0.16	9.1	2.3
24	River Beas at U/s Goindwal	1696	9/10/20	SW 563	ZO Lab Jal.	8	51	15	116	88	10	12	96	25	8	78	BDL	0.5	0.5	1.0	0.05	0.11	8.8	2.2
25	River Beas at D/s Goindwal	1012	9/10/20	SW 564	ZO Lab Jal.	9	34	10	118	92	11	10	96	26	7	84	BDL	0.7	0.5	1.0	BDL	0.11	8.8	2.3
26	Beas at Harike	1697	9/10/20	SW 565	ZO Lab Jal.	10	46	11	116	89	14	17	92	24	8	67	BDL	0.8	0.6	1.4	0.06	0.13	8.7	2.2

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, 2020 (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	12/10/20	SW 571	ZO Lab Jal.	BDL	BDL	0.13	0.20	BDL	BDL	BDL	BDL	BDL
2	River Beas at U/S Pathankot	1694	12/10/20	SW 573	ZO Lab Jal.	BDL	BDL	0.23	0.15	BDL	BDL	BDL	BDL	BDL
3	River Beas at D/S Pathankot	1695	12/10/20	SW 574	ZO Lab Jal.	BDL	BDL	0.28	0.19	BDL	BDL	BDL	BDL	BDL
4	River Beas at Mirthal Bridge Gurdaspur (Pb.)	1010	12/10/20	SW 572	ZO Lab Jal.	BDL	BDL	0.11	0.15	BDL	BDL	BDL	BDL	BDL
5	River Beas 1 Km D/S effluent discharge point at Mukerian	1294	13/10/20	SW575	ZO Lab Jal.	BDL	BDL	0.21	0.18	BDL	BDL	BDL	BDL	BDL
6	River Beas at Bridge, village Bheate Patan Tehsil Batala Distt. Gurdaspur	4164	13/10/20	SW 576	ZO Lab Jal.	BDL	BDL	0.28	0.25	BDL	BDL	BDL	BDL	BDL
7	River Beas at G.T. Road, under Bridge Near Kapurthalla (Pb)	1011	13/10/20	SW 577	ZO Lab Jal.	BDL	BDL	0.19	0.20	BDL	BDL	BDL	BDL	BDL
8	River Beas at U/s Goindwal	1696	9/10/20	SW 563	ZO Lab Jal.	BDL	BDL	0.20	0.15	BDL	BDL	BDL	BDL	BDL
9	River Beas at D/s Goindwal	1012	9/10/20	SW 564	ZO Lab Jal.	BDL	BDL	0.21	0.13	BDL	BDL	BDL	BDL	BDL
10	Beas at Harike	1697	9/10/20	SW 565	ZO Lab Jal.	BDL	BDL	0.19	0.11	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, 2020

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	12/10/20	SW 570	ZO Lab Jal.	7.8	8.1	1.0	149	170	81	0.018	0.20	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	12/10/20	SW 570	ZO Lab Jal.	7	6	BDL	92	78	11	13	76	20	6	52	BDL	0.5	0.6	1.1	BDL	BDL	4.0	1.7

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 4. U/s means Upstream , D/s means Downstream

Analysis results of Surface water monitoring under NWMP for the month of October, 2020 (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	12/10/20	SW 570	BDL	BDL	0.25	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 October, 2020

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 3147	07/10/2020	H/o Lab Patiala	7.7	4.2	15	625	24000	3400	0.33	1.90	0.30	D	U
2	Ghaggar at Bhankarpur	1295	SW 3148	07/10/2020	H/o Lab Patiala	7.3	3.0	26	851	28000	4900	0.14	2.38	0.45	E	U
3	Ghaggar at Chattbir	1698	SW 3149	07/10/2020	H/o Lab Patiala	7.1	3.1	16	754	28000	4000	0.005	2.31	0.33	E	U
4	Ghaggar at U/s Jharmal Nadi	1702	SW 3150	07/10/2020	H/o Lab Patiala	7.2	2.9	19	826	28000	3800	0.10	2.13	0.29	E	U
5	Ghaggar at D/s Jharmal Nadi	1701	SW 3151	07/10/2020	H/o Lab Patiala	7.3	2.7	25	1082	35000	6300	.013	2.58	0.50	E	U
6	Ghaggar at U/s Dhakanshu Nallah	1699	SW 3153	07/10/2020	H/o Lab Patiala	7.3	3.0	22	938	24000	3400	0.10	2.81	0.50	E	U
7	Ghaggar at D/s Dhakanshu Nallah	1700	SW 3154	07/10/2020	H/o Lab Patiala	7.1	2.8	26	1032	35000	4600	0.005	2.74	0.60	E	U
8	Ghaggar at Rattanheri	1473	SW 3172	09/10/2020	H/o Lab Patiala	7.3	3.0	30	1037	35000	4600	0.14	2.51	0.76	E	U
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	SW 3173	09/10/2020	H/o Lab Patiala	7.5	2.9	27	1002	35000	4000	0.28	2.53	0.72	E	U
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	SW 3174	09/10/2020	H/o Lab Patiala	7.4	2.6	28	1137	35000	4700	0.20	2.46	0.84	E	U
11	Ghaggar at Khanauri	1024	SW 3177	09/10/2020	H/o Lab Patiala	7.5	3.0	22	886	28000	4600	0.29	2.29	0.68	E	U
12	Ghaggar at Moonak	1703	SW 3179	09/10/2020	H/o Lab Patiala	7.4	2.8	24	962	35000	5800	0.22	2.44	0.70	E	U
13	Ghaggar at U/s Sardulgarh	1705	SW 3201	15/10/2020	H/o Lab Patiala	7.9	4.2	19	785	24000	3400	0.47	1.83	0.31	D	U
14	Ghaggar at D/s Sardulgarh	1704	SW 3202	15/10/2020	H/o Lab Patiala	7.8	4.0	23	857	28000	4300	0.40	1.98	0.39	D	U

S.N.	Point of Sample Collection	Code	Date of receipt in lab	Sample Collected & Analyzed by	COD mg/l	Turb NTU	TSS mg/l	TDS mg/l	FDS mg/l	Cl mg/l	SO4 Mg/l	TH mg/l	Ca mg/l	Mg mg/l	T.Alkn mg/l	P.Alkn mg/l	AmnN mg/l	NO3-N mg/l	TKN mg/l	PO4as P mg/l	F mg/l	Na mg/l	K mg/l
1	Ghaggar at Mubarikpur Rest House	1023	07/10/2020	H/o Lab Patiala	71	280	265	406	345	52	23	184	47	16	242	BDL	10.9	1.6	15.3	0.75	1.3	59	32
2	Ghaggar at Bhankarpur	1295	07/10/2020	H/o Lab Patiala	128	360	312	553	470	82	40	316	75	31	256	BDL	13.9	1.5	19.5	2.92	1.4	97	42
3	Ghaggar at Chattbir	1698	07/10/2020	H/o Lab Patiala	78	30	67	490	417	80	27	250	57	26	250	BDL	10.4	1.3	14.6	1.32	1.0	84	33
4	Ghaggar at U/s Jharmal Nadi	1702	07/10/2020	H/o Lab Patiala	96	120	126	537	456	84	33	323	73	34	258	BDL	10.2	1.4	14.3	1.39	1.3	88	37
5	Ghaggar at D/s Jharmal Nadi	1701	07/10/2020	H/o Lab Patiala	121	90	117	703	598	117	50	451	93	53	296	BDL	13.0	1.5	18.2	2.7	1.3	126	52
6	Ghaggar at U/s Dhakanshu Nallah	1699	07/10/2020	H/o Lab Patiala	110	40	66	610	519	88	34	339	78	35	287	BDL	10.3	1.4	14.4	1.7	1.2	119	49
7	Ghaggar at D/s Dhakanshu Nallah	1700	07/10/2020	H/o Lab Patiala	132	45	78	671	570	96	39	421	89	48	298	BDL	10.9	1.6	15.3	1.9	1.3	129	56
8	Ghaggar at Rattanheri	1473	09/10/2020	H/o Lab Patiala	148	35	62	674	573	104	48	440	92	51	294	BDL	14.2	1.5	19.9	2.5	1.2	121	47
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	09/10/2020	H/o Lab Patiala	132	45	75	651	553	100	45	411	87	47	289	BDL	14.0	1.5	19.6	2.3	1.3	118	46
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	09/10/2020	H/o Lab Patiala	137	40	73	682	580	107	50	452	95	52	293	BDL	13.3	1.4	18.6	2.4	1.2	120	48
11	Ghaggar at Khanauri	1024	09/10/2020	H/o Lab Patiala	112	30	50	576	490	78	43	341	77	36	286	BDL	14.4	1.3	20.1	1.9	1.2	97	39
12	Ghaggar at Moonak	1703	09/10/2020	H/o Lab Patiala	120	50	69	625	531	85	47	379	84	41	297	BDL	14.9	1.5	20.9	2.0	1.3	109	46
13	Ghaggar at U/s Sardulgarh	1705	15/10/2020	H/o Lab Patiala	96	100	113	510	434	75	30	292	69	29	273	BDL	10.5	1.2	14.7	1.5	1.1	72	38
14	Ghaggar at D/s Sardulgarh	1704	15/10/2020	H/o Lab Patiala	116	120	129	557	473	79	36	334	76	35	282	BDL	11.3	1.3	15.8	1.8	1.2	83	45

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, 2020 (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	07/10/2020	SW 3147	BDL	BDL	2.98	0.22	BDL	BDL	BDL	BDL	BDL
2	Ghaggar at Bhankarpur	1295	07/10/2020	SW 3148	BDL	BDL	5.75	0.44	BDL	BDL	BDL	BDL	BDL
3	Ghaggar at Chattbir	1698	07/10/2020	SW 3149	BDL	BDL	4.78	0.29	BDL	BDL	BDL	BDL	BDL
4	Ghaggar at U/s Jharmal Nadi	1702	07/10/2020	SW 3150	BDL	BDL	4.80	0.25	BDL	BDL	BDL	BDL	BDL
5	Ghaggar at D/s Jharmal Nadi	1701	07/10/2020	SW 3151	BDL	BDL	5.45	0.21	BDL	BDL	BDL	BDL	BDL
6	Ghaggar at U/s Dhakanshu Nallah	1699	07/10/2020	SW 3153	BDL	BDL	6.90	0.29	BDL	BDL	BDL	BDL	BDL
7	Ghaggar at D/s Dhakanshu Nallah	1700	07/10/2020	SW 3154	BDL	BDL	6.56	0.53	BDL	BDL	BDL	BDL	BDL
8	Ghaggar at Rattanheri	1473	09/10/2020	SW 3172	BDL	BDL	0.49	0.23	BDL	BDL	BDL	BDL	BDL
9	Ghaggar before mixing with Sagar Para drain (U/s sagar para Drain)	4159	09/10/2020	SW 3173	BDL	BDL	0.39	0.27	BDL	BDL	BDL	BDL	BDL
10	Ghaggar after mixing with Sagar Para drain (D/s Sagar Para Drain)	4160	09/10/2020	SW 3174	BDL	BDL	0.50	0.30	BDL	BDL	BDL	BDL	BDL
11	Ghaggar at Khanauri	1024	09/10/2020	SW 3177	BDL	BDL	0.48	0.20	BDL	BDL	BDL	BDL	BDL
12	Ghaggar at Moonak	1703	09/10/2020	SW 3179	BDL	BDL	0.52	0.25	BDL	BDL	BDL	BDL	BDL
13	Ghaggar at U/s Sardulgarh	1705	15/10/2020	SW 3201	BDL	BDL	0.49	0.19	BDL	BDL	BDL	BDL	BDL
14	Ghaggar at D/s Sardulgarh	1704	15/10/2020	SW 3202	BDL	BDL	0.58	0.28	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, 2020

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	22/10/2020	SW 3255	H.O. Lab Patiala	7.5	BDL	196	6013	430000	210000	0.20	7.43	0.57	E	U
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	22/10/2020	SW 3256	H.O. Lab Patiala	7.7	BDL	40	1297	94000	21000	0.64	3.30	0.45	E	U
3	Point Source B/N	2914	08/10/20	SW 1644	Z.O. Lab, Ludhiana	6.7	0	120	1837	43,00,000	13,00,000	BDL	3.38	0.49	E	U
4	Kali Bein into Beas	2913	15/10/20	SW 584	Z.O. Lab Jalandhar	7.7	4.0	2.0	254	1200	380	0.033	0.98	0.40	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	22/10/2020	SW 592	ZO Lab, Jal	7.4	BDL	264	2030	540000	94000	0.210	8.15	0.49	E	U
7	Hundiara drain before entering Pakistan	2907	22/10/2020	SW 593	ZO Lab, Jal	7.4	BDL	105	1371	350000	46000	0.180	6.71	0.44	E	U
8	Pathlawa Drain	2911	Sample was not collected													
9	Ranjit Sagar Reservoir	2912	12/10/20	SW 569	Z.O. Lab Jalandhar	7.6	8.4	BDL (<1)	166	78	20	0.013	0.54	BDL	B	S
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/10/20	SW 3152	H.O. Lab Patiala	7.3	BDL	41	1170	120000	33000	0.09	2.79	1.10	E	U
11	Sagar Para Drain at village sagra dist.Patiala	4158	10/10/20	SW 3175	H.O. Lab Patiala	7.5	1.2	24	766	40000	5500	0.16	2.17	0.91	E	U
12	Confluence point of sukhana Choe with River Ghaggar, vill. Mubarkpur	4162	7/10/20	SW 3158	H.O. Lab Patiala	7.6	BDL	48	952	350000	110000	0.02	2.58	0.84	E	U
13	Confluence point of Sarsa Nadi with river Satluj	4161	07/10/20	SW 1639	Z.O. Lab, Ludhiana	7.6	8.3	<1	289	680	180	BDL	0.31	0.19	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, 2020

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	22/10/20	SW 3255	H.O. Lab Patiala	752	210	281	3918	3330	893	312	2080	389	269	1368	BDL	9.9	6.7	13.9	9.2	3.9	779	327
2	Tallewal Drain along with Lohgarh –Jalwana Link road near Shri Krishna rice mill Punjab	2909	22/10/20	SW 3256	H.O. Lab Patiala	169	30	56	843	717	113	22	490	102	57	262	BDL	21.3	1.3	29.8	3.5	1.1	168	186
3	Point Source B/N	2914	08/10/20	SW 1644	Z.O. Lab, Ludhiana	368	170	324	1113	869	314	56	320	73.6	33.0	570	BDL	29.8	3.4	45.6	12.71	0.86	139	27.9
4	Kali Bein into Beas	2913	15/10/20	SW 584	Z.O. Lab Jalandhar	13	14	BDL	142	110	16	21	95	25	8	72	BDL	1.1	0.9	1.9	0.11	0.18	22	3.2
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	22/10/20	SW 592	Z.O. Lab Jalandhar	480	294	82	1320	920	181	284	240	75	13	560	BDL	14	1.6	25	2.4	0.34	291	29
7	Hundiara drain before entering Pakistan	2907	22/10/20	SW 593	Z.O. Lab Jalandhar	234	170	38	960	700	145	196	192	49	17	410	BDL	12	1.3	18	1.8	0.26	214	36
8	Pathlawa Drain	2911	Drain was found dried, hence sample could not be collected																					
9	Ranjit Sagar Reservoir	2912	12/10/20	SW 569	Z.O. Lab Jalandhar	5	8	BDL	98	75	9	12	79	22	6	46	BDL	0.5	0.5	1.0	BDL	0.09	11	1.9
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/10/20	SW 3152	H.O. Lab Patiala	188	230	281	760	646	114	52	500	119	49	298	BDL	9.1	1.6	12.7	5.3	1.4	143	67
11	Sagar Para Drain at village sagra dist.Patiala	4158	10/10/20	SW 3175	H.O. Lab Patiala	106	20	29	498	423	73	21	297	76	26	253	BDL	8.0	1.0	11.2	2.1	1.0	86	32
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	7/10/20	SW 3158	H.O. Lab Patiala	212	90	113	619	526	79	24	425	99	43	277	BDL	24.6	1.9	34.4	3.7	1.2	122	42
13	Confluence point of Sarsa Nadi with river Satluj	4161	07/10/20	SW 1639	Z.O. Lab, Ludhiana	<5	7	11	167	141	19	16	108	25.6	10.7	92	BDL	BDL	1.5	BDL	BDL	0.26	7.5	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, 2020 (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	Dhanula Drain falling into Lasara drain, Near village, Ghunas Punjab	2906	22/10/20	SW 3255	BDL	BDL	6.44	0.40	BDL	BDL	BDL	BDL	BDL
2	Tallewal Drain along with Lohgarh – Jalwana Link road near Shri Krishna rice mill Punjab	2909	22/10/20	SW 3256	BDL	BDL	3.52	0.22	BDL	BDL	BDL	BDL	BDL
3	Point Source B/N	2914	08/10/20	SW 1644	0.31	BDL	9.65	1.0	BDL	BDL	BDL	BDL	BDL
4	Kali Bein into Beas	2913	15/10/20	SW 584	BDL	BDL	0.16	0.40	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	22/10/20	SW 592	BDL	BDL	1.19	0.61	0.30	BDL	BDL	BDL	BDL
7	Hundiara drain before entering Pakistan	2907	22/10/20	SW 593	BDL	BDL	3.53	0.58	0.10	BDL	BDL	BDL	BDL
8	Pathlawa Drain	2911	Sample was not collected										
9	Ranjit Sagar Reservoir	2912	12/10/20	SW 569	BDL	BDL	0.71	0.42	BDL	BDL	BDL	BDL	BDL
10	Outlet Of Nadiala Drain into Dhakanshu Nallah, Punjab	2908	7/10/20	SW 3152	BDL	BDL	6.78	0.29	BDL	BDL	BDL	BDL	BDL
11	Sagar Para Drain at village sagra dist.Patiala	4158	10/10/20	SW 3175	BDL	BDL	0.55	0.15	BDL	BDL	BDL	BDL	BDL
12	Confluence point of sukhana Choe with River Ghaggar,vill.Mubarkpur	4162	7/10/20	SW 3158	BDL	BDL	5.40	0.45	BDL	BDL	BDL	BDL	BDL
13	Confluence point of Sarsa Nadi with river Satluj	4161	07/10/20	SW 1639	BDL	BDL	0.43	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.