

Status of Sewage Treatment Plants in Bihar (December 2023 to March, 2024)

- Commissioned STPs – 8 (5 town) with designed capacity – 233.5 MLD
- Operational STPs – 7 (Operational capacity –224.5 MLD) with utilized capacity – 106.6 MLD (~ 47.5 % of operational capacity)
- Compliance Status of operational STPs

	Compliance w.r.t. Hon'ble NGT vide order 30.04.2019	Compliance Status w.r.t MoEF&CC norms dated 13.10.2017
Complying	2	6
Non-complying	5	1

- Non-operational STPs – 01 (Designed capacity – 9.0 MLD)
- STPs complying for Faecal Coliform norms (<230 MPN/100ml) – 5
- STPs non-complying for Faecal Coliform norms (>230 MPN/100ml) – 2
- Disinfection system available at all 8 STPs (7 STPs operational).
- BOD removal efficiency range: ≤50% - 5 STPs and 50 -70% - 2 STPs
- STPs working at under-capacity (75% of designed capacity) - 6 STPs

Operational and Compliance status of Sewage Treatment Plants in Bihar

S.No	Name of STPs	Ganga Front Town	Treatment Technology	Designed Capacity (MLD)	Date of Monitoring	Operational/ Non-Operational Status	Compliance Status w.r.t Hon'ble NGT norms dated 30.4.2019	Compliance w.r.t. MoEF norms dtd 13.10.2017
1	Beur New, Patna	Patna	SBR	43	20.02.2024	Operational	Non-complying TN,FC	Complying
2	Karmali Chak	Patna	SBR	37	21.02.2024	Operational	Non-complying FC	Non-complying FC
3	Pahari (New) STP, 60MLD	Patna	SBR	60	21.02.2024	Operational	Non-complying COD,TN	Complying
4	Saidpur (60 MLD) STP	Patna	SBR	60	21.02.2024	Operational	Complying	Complying
5	Sonepur STP, 3.5MLD,	Sonepur	SBR	3.5	22.02.2024	Operational	Non-complying TN	Complying
6	Naugachia STP (9 MLD)	Naugachia (Bhagalpur)	SBR	9	20.02.2024	Non-operational		
7	Barh	Barh	SBR	11	21.02.2024	Operational	Complying	Complying
8	Sultanganj	Sultanganj	MBBR	10	20.02.2024	Operational	Non-complying COD, TSS, TN, TP	Complying

• STPs complying to BOD Norms (≤ 10 mg/l) in Bihar (December 2023 to March, 2024) w.r.t. NGT and MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	BOD (≤ 10 mg/l)
1	Beur New, Patna	Patna	43	6
2	Karmali Chak	Patna	37	6
3	Pahari (New) STP, 60MLD	Patna	60	4
4	Saidpur (60 MLD) STP	Patna	60	5
5	Sonepur STP, 3.5MLD,	Sonepur	3.5	4
6	Barh	Barh	11	5
7	Sultanganj	Sultanganj	10	5

• STPs complying to COD (≤ 50 mg/l) in Bihar (December 2023 to March, 2024) w.r.t. NGT Norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	COD (≤ 50 mg/l)
1	Beur New, Patna	Patna	43	32
2	Karmali Chak	Patna	37	32
3	Saidpur (60 MLD) STP	Patna	60	36
4	Sonepur STP, 3.5MLD,	Sonepur	3.5	28
5	Barh	Barh	11	40

• STPs non-complying to COD (≥ 50 mg/l) in Bihar (December 2023 to March, 2024) w.r.t. NGT norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	COD (≥ 50 mg/l)
1	Pahari (New) STP, 60MLD	Patna	60	80
2	Sultanganj	Sultanganj	10	112

• STPs complying to TSS (≤ 20 mg/l) in Bihar (December 2023 to March, 2024) w.r.t. NGT and MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	TSS (≤ 20 mg/l)
1	Beur New, Patna	Patna	43	10
2	Karmali Chak	Patna	37	18
3	Pahari (New) STP, 60MLD	Patna	60	8
4	Saidpur (60 MLD) STP	Patna	60	10
5	Sonepur STP, 3.5MLD,	Sonepur	3.5	6
6	Barh	Barh	11	8

• STPs complying to TSS (20 mg/l - 100 mg/l) in Bihar (December 2023 to March, 2024) w.r.t. MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	TSS (20 mg/l - 100 mg/l)
1	Sultanganj	Sultanganj	10	32

- STPs complying to FC (≤ 230 MPN/100 ml) in Bihar (December 2023 to March, 2024) w.r.t. NGT and MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	FC (≤ 230 MPN/100 ml)
1	Pahari (New) STP, 60MLD	Patna	60	130
2	Saidpur (60 MLD) STP	Patna	60	130

- STPs complying to FC (230 - 1000 MPN/100 ml) in Bihar (December 2023 to March, 2024) w.r.t. MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	FC (230 - 1000 MPN/100 ml)
1	Beur New, Patna	Patna	43	240

- STPs non-complying to FC (≥ 1000 MPN/100 ml) in Uttarakhand (December 2023 to March, 2024) w.r.t. MoEF&CC norms

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	FC (≥ 1000 MPN/100 ml)
1	Karmali Chak	Patna	37	92000

- STPs having Disinfection system

S. No.	Name of STPs	Ganga Front Town	Designed Capacity (MLD)	Disinfection Technology
1	Beur New, Patna	Patna	43	Chlorination
2	Karmali Chak	Patna	37	Chlorination
3	Pahari (New) STP, 60MLD	Patna	60	Chlorination
4	Saidpur (60 MLD) STP	Patna	60	Chlorination
5	Sonepur STP, 3.5MLD,	Sonepur	3.5	UV
6	Naugachia STP (9 MLD)	Naugachia (Bhagalpur)	9	Chlorination
7	Barh	Barh	11	Chlorination
8	Sultanganj	Sultanganj	10	Chlorination

- STPs with weak strength sewage (< 40 mg/l)

S. No.	Name of STPs	Ganga Front Town	Treatment Technology	Designed Capacity (MLD)	BOD
1	Beur New, Patna	Patna	SBR	43	6
2	Karmali Chak	Patna	SBR	37	6
3	Pahari (New) STP, 60MLD	Patna	SBR	60	5
4	Saidpur (60 MLD) STP	Patna	SBR	60	9
5	Sonepur STP, 3.5MLD,	Sonepur	SBR	3.5	9
6	Barh	Barh	SBR	11	6
7	Sultanganj	Sultanganj	MBBR	10	10

- Performance Analysis of STPs

S.No.	Technology (No.)	Range of BOD removal efficiency (%age)				Total	Overall complying		Overall non-complying		Non-complying Parameters		Non-operational
		<50	50-70	70-90	>90		Hon'ble NGT norms	MoEF&CC norms	Hon'ble NGT norms	MoEF&CC norms	either BOD,COD,TSS/FC		
											Hon'ble NGT norms	MoEF&CC norms	
1	SBR (7)	5	1	-	-	6	2	5	4	1	1/2	0/1	1
2	MBBR	-	1	-	-	1	0	1	1	0	1/0	0/0	-
	Total	5	2	0	0	7	2	6	5	1	2/2	0/1	1

• **STPs operating at under-capacity (<75% of designed capacity)**

S.No.	Name of STPs	Ganga Front Town	Treatment Technology	Designed Capacity (MLD)	Utilized capacity (MLD)	Compliance Status w.r.t Hon'ble NGT norms dated 30.4.2019	Compliance w.r.t. MoEF norms dtd 13.10.2017
1	Beur New, Patna	Patna	SBR	43	20	Non-complying	Complying
2	Karmali Chak	Patna	SBR	37	16.4	Non-complying	Non-complying
3	Pahari (New) STP, 60MLD	Patna	SBR	60	13	Non-complying	Complying
4	Saidpur (60 MLD) STP	Patna	SBR	60	42	Complying	Complying
5	Sonepur STP, 3.5MLD,	Sonepur	SBR	3.5	0.763	Non-complying	Complying
6	Barh	Barh	SBR	11	5	Complying	Complying

• **Under-construction STPs**

S.No.	Name of STPs	Ganga Front Town	Treatment Technology	Designed Capacity (MLD)	Date of Monitoring	Under Construction/ Under Trial/ DPR
1	Phulwari Shariff	Patna	SBR	6	23.11.2023	Under construction
2	Bhaktiarpur STP	Bakhtiarpur	SBR	10	07.11.2023	Under construction
3	Begusarai STP Mauza – Raja Dumri, Begusarai	Begusarai	SBR	17	08.11.2023	Under construction
4	Mokama STP, Patna	Patna	SBR	8	07.11.2023	Under construction
5	Kankarbagh STP	Patna	ASP	50	23.11.2023	Under construction
6	Maner STP	Patna	SBR	6.5	22.11.2023	Under construction
7	Chapra STP	Chapra	SBR	32	22.11.2023	Under construction
8	Digha STP	Patna	ASP	100	21.11.2023	Under construction
9	Danapur STP	Patna	SBR	25	21.11.2023	Under construction

NGT Standards: Compliance based on norms prescribed by Hon'ble NGT vide order dt 30.04.2019 in the matter of OA no. 1069/2018 (pH – 5.5-9.0, BOD <10mg/l, TSS< 20mg/l, COD< 50mg/l; Faecal Coliform – desirable <100MPN/100ml & permissible < 230 MPN/100 ml, Nitrogen-Total < 10 mg/l and Phosphorous-Total < 1.0 mg/l (TP compliance for discharge into ponds and lakes).

Compliance compared with MoEF&CC notification dt. 13.10.2017: Standard for treated sewage from STPs for cities other than metro cities, state capitals and union territories were notified as pH-6.5-9.0, BOD as 30mg/L, Total suspended solids (TSS) as less than 100mg/L and Faecal coliform as less than 1000MPN per 100mL.