**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,**

**PRINCIPAL BENCH, NEW DELHI**

ORIGINAL APPLICATION NO. 752 OF 2024

**IN THE MATTER OF :-**

Brijesh Singh Ladwal …APPLICANT(S)

VERSUS

Union Territory of Chandigarh & Ors. …RESPONDENT(S)

**I N D E X**

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| 1. | Report on behalf of Respondent no. 1/DC, UT Chandigarh in compliance to the Hon'ble NGT (PB), New Delhi order dated 11.07.2024, 04.10.2024 in OA 752/2024. | 1-34 |

THROUGH COUNSEL

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PLACE: NEW DELHI
DATE: 23.01.2025

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL**
**PRINCIPAL BENCH, NEW DELHI**
**Original Application No. 752/2024**

**Report of Joint Committee constituted in compliance to Hon'ble NGT (PB), New Delhi order dated 11.07.2024, 04.10.2024 in O.A. No. 752 of 2024 in the matter of Brijesh Singh Ladwal vs Union Territory of Chandigarh &Ors.**

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## 1.0 Preamble

In this Original Application No. 752 of 2024, the matter of Brijesh Singh Ladwal Vs Union Territory of Chandigarh & Ors. The applicant has raised the issue of pollution being caused in Sukhna Choe drain flowing in the State of Punjab after entering from Chandigarh. The said drain is a storm water drain but as per the plea of the applicant the drain is polluted on account of discharge of pollutants and the solid waste which is stored and dumped on the banks of the Sukhna Choe. It is also alleged that the slums and shops on the bank are also discharging pollutants in Sukhna Choe, which finally meet river Ghaggar. Therefore, the Choe is polluting river by infusing all kinds of chemical and pollutants.

The Hon'ble National Green Tribunal, Principal Bench (PB) vide order dated 11.07.2024 (**Annexure-I**) has observed and directed as follows:

**Para: 06**

*To ascertain the status at the ground level we constitute a Joint Committee comprising of the representative of the CPCB, RO MoEF&CC Chandigarh, District Commissioner/District Magistrate Chandigarh, District Magistrate Zirakpur. District Commissioner/District Magistrate Chandigarh will act as nodal agency.*

**Para: 07**

*The Joint Committee will ascertain the extent of pollution being caused from different sources in Sukhna Choe, will get the sample analysis reports of water of Sukhna Choe at different point and will also suggest the remedial measures. The Committee will also identify the industrial unit discharging effluent in Sukhna Choe.*

## 1.1. Order of the Hon'ble National Green Tribunal Dated 11.07.2024

In compliance of the NGT order dated 11.07.2024, the *Joint Committee comprising of the following members and other associated concerned departments, which are as follows:*

1. Shri Nishant Kumar Yadav, IAS, Dy. Commissioner, U.T., Chandigarh.
2. Shri Amit Gupta, PCS (SDM Derabassi, Punjab Representative of DC, Mohali).
3. Dr. Dharmendra Kumar Gupta, Director, MoEF&CC, RO, Chandigarh.
4. Shri Jagdish Prasad Meena, Scientist-D, CPCB, RD, Chandigarh.
5. Shri Ashok Pathria, E.O Zirakpur (O/o Dy. Commissioner, Mohali).

In this regard, the first meeting was convened on 12.08.2024 through virtual mode under the Chairmanship of the Deputy Commissioner, U.T. Chandigarh, for the implementation of the order passed by the Hon'ble NGT dated 11.07.2024. In this meeting, it was requested to concerned officials of U.T. Chandigarh, Zirakpur (Punjab) and respective departments for providing the dry inventory data of the Sukhna Choe in their respective territorial area. Further, in this context, a second meeting (physical) was convened on 24.09.2024 under the Chairmanship of the Deputy Commissioner, U.T. Chandigarh, for the execution planning of the field visit and the sampling of the Sukhna Choe drain.

Consequently, after a quick physical survey of the sites (as mentioned in the petition) was done on 26.09.2024 by the joint committee (or nominated members in absence of joint committee members), an interim report submitted to the Hon'ble Court on 30.09.2024. Further, the Hon'ble National Green Tribunal passed an order vide OA no. 752/2024 dated 04.10.2024 granting 3 months time to file the final report on the above cited matter. Hence, in compliance of the order issued by the Hon'ble NGT the committee comprising of the abovementioned members of the joint committee (or nominated members in absence of joint committee members) and the representatives of the concerned departments, carried out physical survey again and representative samples were collected from the different-different Sukhna Choe sites from the origin point and around its catchment area drains to the merging point into the River Ghaggar on December 05 & 06, 2024 to identify the pollutant sources.

**2.0 Background:**

Sukhna Choe originates from Sukhna Lake. Kishangarh is the first residential area situated near the Choe and further passes through various sectors of Chandigarh where it covers a distance of approx. 8.4 Kms and enters into the Punjab at Baltana (Zirakpur).The treated discharge from Kishangarh STP and Raipur Khurd STP falls directly into Sukhna Choe. However, the treated discharge of 02 STPs of Chandigarh i.e. STPs Raipur Kalan I and II falling into Panchkula drain. Further, Panchkula drain, carrying untreated domestic sewage from the Panchkula area (namely Rajiv Colony, Indira Colony, & Village Budanpur) and treated sewage of Chandigarh 02 STPs (Raipur Kalan I and II) further travels distance of 02 kms and meeting into the Sukhna

Choe near Baltana, Zirkpur, Punjab. Further, the Sukhna Choe is flowing in Baltana, Punjab, where 03 drains are meeting into Sukhna Choe i.e. Air Force drain on the left side (Pabhat, Zirakpur), Singh Nala drain and Dhakoli Choe on the right side which carries 02 STPs of Sector 20 Panchkula. Dhakoli drain (Punjab) meets with Sukhna Choe near village Gazipur Saini, Zirkpur, Punjab. This drain (Sukhna) finally meets into the river Ghaggar after crossing the municipal limit of council Zirakpur. This Choe covers a distance of approx. 8.2 Kms in Punjab before it merges into the river Ghaggar.

This Sukhna Choe is an interstate drain that carries overflow of fresh water from Sukhna Lake and treated sewage from Chandigarh, storm water & treated/untreated sewage from Zirakpur (District Mohali) catchment area, Punjab, and treated/untreated sewage water from Panchkula area. The rough sketch of Sukhna Choe is attached as **Annexure-II.**

### 3.0 Monitoring locations of Sukhna Choe and its catchment area drains, final outlets of STPs and river Ghaggar:

During the field visit, the committee collected representative samples from identified locations which are mentioned in table-1 below:

**Table-1**

| S. No. | Field Code | Monitoring Locations | Co-ordinate location | |
|---|---|---|---|---|
| | | | Latitude | Longitude |
| 1. | $D_1$ | Sukhna Choe at Raipur Khurd (Exit point of Chandigarh). | 30.67328 | 76.81758 |
| 2. | $D_2$ | Sukhna Choe at Baltana bridge after mixing with Panchkula drain. | 30.66684 | 76.8231 |
| 3. | $D_3$ | Panchkula Drain before mixing in Sukhna Choe (Carrying untreated sewage of Panchkula area like Rajiv Colony, Indira Colony and Budanpur Village and treated outfalls of Chandigarh 02 STPs Raipur Kalan-I & II). | 30.67003 | 76.82315 |
| 4. | $D_4$ | Panchkula Drain at Vikasnagar bridge Near village Maulijagra (Carrying untreated sewage of Panchkula area like Rajiv Colony, Indira Colony and Budanpur Village. | 30.68776 | 76.8242 |
| 5. | $D_5$ | Sukhna Choe at Kalka Road Bridge Near Sohi Banquet, Zirakpur. | 30.6595 | 76.82421 |
| 6. | $D_6$ | Sukhna Choe after mixing of Dhakoli drain at Bridge of Village Gazipur, Zirakpur. | 30.63542 | 76.84046 |
| 7. | $D_7$ | Dhakoli Drain at Village Gazipur (Punjab) before mixing in Sukhna Choe. | 30.63438 | 76.84018 |
| 8. | $D_8$ | Dhakoli drain at old Ambala Road opp. Zirakpur near Delhi World Public School after mixing of Sector 20 Panchkula two STPs treated water & Dhakoli area's untreated Sewage (Tehsil Zirakpur, Punjab). | 30.64072 | 76.844 |
| 9. | $S_1$ | Final outlet of 02 MLD STP, Kishangarh, Chandigarh. | 30.73497 | 76.82516 |
| 10. | $S_2$ | Final outlet of 09 MLD STP, Raipur Khurd, Chandigarh. | 30.67454 | 76.814 |
| 11. | $S_3$ | Final outlet of 22.5 MLD STP, Raipur Kalan-I, Chandigarh. | 30.67949 | 76.82262 |
| 12. | $S_4$ | Final outlet of 05 MLD STP, Raipur Kalan-II, Chandigarh. | 30.68233 | 76.82426 |
| 13. | $S_5$ | Final outlet of18 MLD STP, Sector 20, Panchkula (Haryana). | 30.66567 | 76.84943 |

| | | | | |
|---|---|---|---|---|
| 14. | $S_6$ | Final outlet of 39 MLD STP, Sector 20, Panchkula (Haryana). | 30.66648 | 76.84911 |
| 15. | $R_1$ | River Ghaggar upstream (before meeting of Sukhna Choe, Zirakpur, Punjab. | 30.61319 | 76.83641 |
| 16. | $R_2$ | River Ghaggar Downstream (after confluence with Sukhna Choe at travelling distance about 1 Kmdownstream near Ambala-Chandigarh Expressway bridge, Zirakpur). | 30.6124 | 76.82975 |

### 3.0 Monitoring Results:

During visit, the committee had taken samples from Sukhna Choe and drains in its catchment area which are further falling into the Sukhna Choe; outlets of 02 STPs (in Chandigarh namely STP Kishangarh and STP Raipur Khurd) which directly meets into Sukhna Choe; 02 STPs of Chandigarh i.e. STPs Raipur Kalan I and II falling into Panchkula drain and 02 STPs of Sector 20, Panchkula which falls into Dhakoli drain (Punjab), hence, they indirectly meeting Sukhna Choe through these drains (i.e. Panchkula drain and Dhakoli drain). Further, two samples of River Ghaggar were collected before and after confluence with Sukhna Choe to assess water quality of River Ghaggar and compliance status of STPs discharged into Sukhana Choe.

### 3.1 Sampling Analysis results of Sukhana Choe and its Catchment Drains:

Physico-chemical & Biological analysis results of Sukhna Choe at various locations and its catchment drains, River Ghaggar upstream before mixing and downstream after mixing of the Sukhna Choe. The results of sample analysis are presented in Table-2.

**Table-2**

| S. No. | Parameters | Units | Field Code *(The codes of the locations are as per Table-1)* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | $D_1$ | $D_2$ | $D_3$ | $D_4$ | $D_5$ | $D_6$ | $D_7$ | $D_8$ | $R_1$ | $R_2$ |
| 01 | pH | -- | 7.6 | 7.6 | 7.5 | 7.5 | 7.7 | 7.9 | 7.8 | 7.9 | 8.4 | 8.8 |
| 02 | DO | mg/l | 1.4 | BDL | BDL | BDL | BDL | 2.8 | 2.2 | 1.6 | 7.9 | 6.4 |
| 03 | COD | mg/l | 91 | 125 | 144 | 168 | 110 | 62 | 155 | 192 | 165 | 215 |
| 04 | BOD | mg/l | 28 | 34 | 39 | 56 | 38 | 20 | 42 | 55 | 7.4 | 9.6 |
| 05 | TSS | mg/l | 47 | 60 | 95 | 122 | 59 | 65 | 120 | 127 | 2819 | 2634 |
| 06 | $NH_3$-N | mg/l | 7.5 | 7.8 | 10 | 12 | 11 | 16 | 15 | 17 | 0.45 | 0.22 |
| 07 | $PO_4$-P | mg/l | 1.25 | 2.18 | 2.42 | 2.21 | 2.24 | 2.1 | 2.83 | 2.52 | 0.07 | 0.22 |
| 08 | $NO_3$-N | mg/l | 0.5 | BDL | BDL | 0.5 | BDL | BDL | BDL | 0.5 | 3.5 | 4.2 |

### 3.2 Sampling Analysis results of the STPs outlet which meeting into Sukhna Choe:

The committee carried out sampling of the outlet of the STPs, which falls directly and indirectly discharges into the Sukhna Choe, to verify the prescribed norms. The sample analysis results of the same presented in Table-3.

**Table-3**

| Field code *(The codes of the locations are as per Table-1)* | Parameters | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | pH | DO | COD | BOD | TSS | $NH_3$-N | $PO_4$-P | $NO_3$-N | F-Coliform |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| $S_1$ | 7.7 | 8.1 | 9.0 | <2 | <5 | 4.2 | 0.89 | 1.8 | BDL |
| $S_2$ | 7.8 | 6.8 | 19 | 2.3 | 5.0 | 0.9 | 0.95 | 2.7 | BDL |
| $S_3$ | 7.5 | 5.4 | 24 | 6.6 | 10 | 0.34 | 0.87 | 4.4 | BDL |
| $S_4$ | 7.4 | 6.5 | 17 | < 2 | BDL | 0.67 | 0.94 | 9.1 | BDL |
| $S_5$ | 8.0 | 0.9 | 63 | 33 | 30 | 17 | 0.84 | BDL | $5.4 \times 10^5$ |
| $S_6$ | 8.1 | 1.5 | 18 | 6.9 | < 5 | 15 | 2.19 | 0.8 | $4.6 \times 10^4$ |
| **Prescribed Hon'ble NGT Norms | 6.5-9.0 | | 50 | 10 | 10 | -- | 5 | -- | 100 |

**All values are in mg/l except pH and Fecal Coliform MPN/100 ml.*

***Norms prescribed by Hon'ble NGT vide order dated 30.04.2019 in the matter O.A. No.1069/2018 (pH-5.5-9.0, BOD < 10 mg/l, TSS <20 mg/l, COD < 50 mg/l and Total Nitrogen < 10 mg/l and Fecal Coliform desirable <100MPN/100 ml.*

**4.0 Salient Observations:**

1. At the time of visit, the committee observed that the interstate drain is mostly carrying storm water and treated/untreated sewage from the Chandigarh, Panchkula, and Zirakpur areas.
2. At the time of visit, samples were collected by Chandigarh Pollution Control Committee (CPCC). Compliance is checked on the basis of monitored parameters.The analysis results of the same are attached as **Annexure-III.**
3. The committee observed that the first STP of 02 MLD capacity was located at Kishangarh (Chandigarh), which is based on the Membrane Bio Reactor (MBR) technology. It was found operational and as informed by the STP operator that the STP receives about 01 MLD flow and its treated effluent is discharged into Sukhna Choe. The samples of the final outlet of the STP were collected (as sample code $S_1$), further, the analysis results of the samples indicates that the Kishangarh STP of 02 MLD was found complying as per the prescribed Hon'ble NGT norms (ref.Table-3).
4. The committee had carried out survey of Sukhna Choe from the originating point (Regulatory point of Sukhna Lake) to the treated sewage discharge point of STP Kishangarh and it was found in dry condition and after discharge of the Kishangarh STP, the meager flow was observed in the Sukhna Choe at the time of visit. During the visit, the committee found that two small heaps of Municipal solid waste was disposed at the bank of Sukhna Choe in between the point of origin of Sukhna Choe (after 500m) and adjacent Kishangarh Bridge. During visit it was noticed that sludge drying bed are being constructed.
5. Further, this Sukhna Choe is passing through various areas of Chandigarh and the treated effluent of Raipur Khurd STP of 09 MLD capacity is falling into the left bank of Sukhna Choe, then this Choe enters into (Zirakpur) Punjab.
6. At the time of the visit, the committee collected the final outlet samples of STP Raipur Khurd 09 MLD (sample code $S_2$). The analysis results of the samples indicate that the STP of 09 MLD is found complying as per the prescribed Hon'ble NGT norms (ref. Table-3).

7. After this, the committee visited the Sukhna Choe exit point at Raipur Khurd village Chandigarh and sample collected (as sample code $D_1$) to verify the water quality of the Sukhana Choe.

**Table-4**

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Sukhna Choe at Raipur Khurd (Exit point of Chandigarh) | D1 | 7.6 | 47 | 1.4 | 91 | 28 | 7.5 | 1.25 | 0.5 |
| Prescribed General Standards(.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.) Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

8. The analysis result of the sample collected were found complying generally as per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986 (ref. Table-4).
9. Then, Sukhna Choe enters into Baltana, which falls under the jurisdiction of Zirakpur Mohali (Punjab).
10. It was observed that there are nos. of slum habitation near Mansa Devi Complex, Rajiv Colony, Indira Colony in Haryana and near Sohi Banquet hall, Zirakpur, Punjab which are directly discharging there solid as well as liquid waste into drain.
11. During the visit, the committee observed and as informed by a representative of the Panchkula Metropolitan Development Authority (PMDA) a local drain (Panchkula drain) carrying untreated domestic sewage from the Panchkula area (namely Rajiv Colony, Indira Colony, & Village Badanpur) falls into the Sukhna Choe. The Committee had taken samples of Panchkula drain at Vikas Nagar Bridge near, Village Mauli Jagra (as sample code $D_4$) to verify the water quality of the Panchkula drain at entry point of Chandigarh.

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Panchkula Drain at Vikas Nagar bridge Near Village Maulijagra (Haryana) | D4 | 7.5 | 122 | BDL | 168 | 56 | 12 | 2.21 | 0.5 |
| Prescribed General Standards (.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.) Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

12. It is evident from the above analysis results that the water quality analysis of Panchkula drain at (Sample Code D4) is complying w.r.t. pH, COD, $NH_3$-N as per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986 whereas, BOD, Total Suspended solids (TSS) are not complying with General Standards for Discharge of Environmental Pollutants into inland surface (ref. Table-2).
13. The further committee observed that in the Panchkula drain, treated sewage from UT Chandigarh STPs located at Raipur Kalan I & II also mixed. This drain carries untreated sewage from the Panchkula area and treated sewage from the Chandigarh meets Panchkula drain further after travelling a distance of about 2 kms, meets into Sukhna Choe at Sector 19 near Baltana village. At the time of the visit, the committee had collected samples from the Panchkula drain before mixing them into Sukhna Choe to assess the water quality of the Panchkula Choe.

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Panchkula Drain before mixing in Sukhna Choe, near Baltana village | D3 | 7.5 | 95 | BDL | 144 | 39 | 10 | 2.42 | BDL |
| Prescribed General Standards (.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.)Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

14. The water quality results of the Panchkula drain shows that drain (Sample Code $D_3$) is complying with pH, COD, TSS, and $NH_3$-N with respect to general standards for discharge of environmental pollutants into inland surfaces under Schedule-VI of The Environment (Protection) Rules, 1986, whereas BOD is not complying with general standards for discharge of environmental pollutants into inland surface (ref. Table-2).
15. At the time of visit the committee also collected samples from final outlet of STPs at Raipur Kalan-I of capacity 22.5 MLD & Raipur Kalan-II of 05 MLD capacities which are located at UT Chandigarh to verify prescribed norms. The sample analysis results of these STPs were generally found complying with prescribed norms pH, TSS, COD, BOD and Fecal Coliform (ref. Table-3).
16. After this the committee visited the Sukhna Choe at Baltana bridge, where the drain cumulatively is flowing with the treated water from Chandigarh and untreated sewage from Panchkula drain from the areas of Rajiv colony, Indira colony, Budanpur village and Mansa

Devi area. The committee had taken samples of Sukhna Choe at Baltana bridge (as sample code $D_2$) to verify the water quality of the Sukhana Choe.

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Sukhna Choe at Baltana bridge after mixing with Panchkula drain | D2 | 7.6 | 60 | BDL | 125 | 34 | 7.8 | 2.18 | BDL |
| Prescribed General Standards (.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.)Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

17. The water quality results of Sukhna Choe at Baltana bridge (sample Code $D_2$) is complying w.r.t. pH, COD, Total Suspended solids as per the General Standards for Discharge of Environmental Pollutants into inland surface. under Schedule-VI of The Environment (Protection) Rules, 1986 whereas, Biochemical Oxygen Demand (BOD 34 mg/L > Prescribed general standards of BOD -30 mg/L) is not complying with General Standards for Discharge of Environmental Pollutants into inland surface (ref. Table-2).
18. Then the committee visited the Sukhna Choe at Kalka Road Bridge near Sohi Banquet, Zirakpur, Punjab. The committee had taken sample from Sukhna Choe to assess the water quality.

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Sukhna Choe at Kalka Road Bridge Near Sohi Banquet,Zirakpur (Punjab) | D5 | 7.7 | 59 | BDL | 110 | 38 | 11 | 2.24 | BDL |
| Prescribed General Standards (.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.) Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

19. The water quality results of Sukhna Choe at Kalka Road bridge near Sohi banquet, Zirakpur (sample Code $D_5$) is complying w.r.t. pH, COD, Total Suspended solids as per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986 whereas, BOD is not complying with General Standards for Discharge of Environmental Pollutants into inland surface.
20. The committee also observed that the heaps of municipal solid waste on both side of Kalka Road Bridge were disposed at the bank of Sukhna Choe, which create the hindrance in the natural flow and may also affect the water quality.

21. During the visit, committee observed that another local drain namely Dhakoli drain which carries untreated domestic sewage of Dhakoli area (Zirakpur, Punjab) and treated sewage of Sector 20, Panchkula (Haryana) of capacities 18 & 39 MLD STPs which finally merges into Sukhna Choe at Village Gazipur (Saini), Zirakpur.
22. Further the committee had taken samples from final outlet of 18 & 39 MLD STPs of Sector 20, Panchkula (sample Code $S_5$ of 18 MLD STP and $S_6$ of 39 MLD STP). The analysis results of the samples indicates that the STP of 18 MLD, Sector 20 Panchkula is not complying w.r.t COD, BOD, TSS and Fecal Coliform and is complying only for pH, whereas for the STP of 39 MLD, Sector 20 Panchkula, complying for the parameters pH, BOD, COD, TSS except Fecal Coliform as per the prescribed Hon'ble NGT norms (ref. Table-3).
23. Then the committee visited the Dhakoli drain at old Ambala road opp. Zirakpur near Delhi World Public School after the mixing of Sector 20, Panchkula STPs treated sewage & untreated domestic sewage of Dhakoli area. The committee had taken samples to assess the water quality (sample Code $D_8$),

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Dhakoli drain at old Ambala Road opp. Zirakpur near Delhi World Public School (mixing of Sector 20 Panchkula two STPs treated water & Dhakoli area's untreated Sewage(Tehsil Zirakpur, Punjab) | D8 | 7.9 | 127 | 1.6 | 192 | 55 | 17 | 2.52 | 0.5 |
| Prescribed General Standards(.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.)Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

24. The water quality results of Dhakoli drain (sample Code $D_8$) is complying w.r.t. pH, COD, $NH_3$-N as per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986 whereas, BOD and TSS is not complying with General Standards for Discharge of Environmental Pollutants into inland surface (ref. Table-2).
25. After this, the committee collected the samples of the Dhakoli drain just before mixing into the Sukhna Choe near the village Gazipur (Saini). The committee had taken samples to assess the water quality (sample Code D6),

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Dhakoli Drain at Village Gazipur (Punjab) before mixing in Sukhna Choe. | D6 | 7.9 | 65 | 2.8 | 62 | 20 | 16 | 2.1 | BDL |
| Prescribed General Standards(.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.)Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

26. The water quality results of the drain (sample Code D6) is complying w.r.t. pH,BOD, COD and TSS as per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986. It may be deduced that as the Dhakoli drain is traversing its path from the agricultural fields in the Dhakoli area, hence, the drain is showing decrease in the BOD and the TSS levels(ref. Table-2).
27. During the visit, the committee had taken samples from Sukhna Choe after mixing of Dhakoli drain at Gazipur (Saini) bridge, Zirakpur to assess the water quality of the Sukhna Choe (sample Code D7).

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| Sukhana Choe after mixing of Dhakoli drain at Bridge of Village Gazipur, Zirakpur. | D7 | 7.8 | 120 | 2.2 | 155 | 42 | 15 | 2.83 | BDL |
| Prescribed General Standards (.) | | 5.5-9.0 | 100 | -- | 250 | 30 | 50 | -- | -- |

All values are in mg/l except pH.

(.)Prescribed General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986.

28. The water quality results of the drain (sample Code D7) is complying w.r.t. pH, COD, $NH_3$-Nas per the General Standards for Discharge of Environmental Pollutants into inland surface, under Schedule-VI of The Environment (Protection) Rules, 1986, whereas, BOD and TSS is not complying with General Standards for Discharge of Environmental Pollutants into inland surface. (ref. Table-2).
29. At the time of visit, the committee also observed that now there was no dumping of cattle dung in the area.
30. During the site visit, the Municipal Council, Zirakpur representative informed that a STP of 17.3 MLD capacity is located in the Zirakpur area, which is based on SBR technology,

which receives the sewage of the Zirakpur area. Further informed that the treated effluent of the Zirakpur STP is being discharged into the river Ghaggar through an underground pipeline of about 3.5 Kms. And, as informed by the Municipal Council, Zirakpur representative the STP is under upgradation and further as reported by PPCB, Directions have been issued to the STP for non-compliance of the norms.

**5.0 Water Quality of River Ghaggar:**

31. Further, the Sukhna Choe passes through the agricultural fields in Zirakpur Tehsil area and falls into the river Ghaggar near Mubarakpur, Zirakpur (Punjab).During the visit, the committee had taken sample from upstream of river Ghaggar (sample Code R1) before fall of Sukhna Choe and samples from downstream of river Ghaggar (sample Code R2) after fall of Sukhna Choe into the River Ghaggar Near Ambala-Chandigarh Expressway bridge, Zirakpur to assess the water quality of River Ghaggar.

| Sampling location | Field Code | Parameters | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | pH | TSS | D.O | COD | BOD | $NH_3$-N | $PO_4$-P | $NO_3$-N |
| River Ghaggar upstream (before meeting of Sukhna Choe, Zirakpur, Punjab | R1 | 8.4 | 2819 | 7.9 | 165 | 7.4 | 0.45 | 0.07 | 3.5 |
| River Ghaggar Downstream (after confluence with Sukhna Choe at travelling distance about 1 Km downstream near Ambala-Chandigarh Expressway bridge, Zirakpur) | R2 | 8.8 | 2634 | 6.4 | 215 | 9.6 | 0.22 | 0.22 | 4.2 |
| PRIMARY WATER QUALITY CRITERIA FOR BATHING WATER | | 6.5-9.0 | -- | > 5 | | < 3 | | | |

All values are in mg/L except pH.

32. pH value of River Ghaggar at upstream and downstream of Sukhna Choe were found to be 8.4 and 8.8 respectively and were found complying with Primary Water Quality Criteria for Outdoor Bathing.

33. BOD value of River Ghaggar at upstream and downstream of Sukhana Choe were found 7.4 mg/L and 9.6 mg/L respectively and were found not complying with Primary Water Quality Criteria for Outdoor Bathing at both the monitored locations.

34. DO value of River Ghaggar at upstream and downstream of Sukhana Choe were found to be 7.9 mg/L and 6.4 mg/L respectively and were found complying with Primary Water Quality Criteria for Outdoor Bathing.

35. As per the results, it may be indicated that the BOD and COD are showing an increasing trend from upstream to downstream.

36. It is also pertinent to mention that a report from the Joint Committee regarding **O.A. No. 606 of 2018 (IA No. 163/2021)**, which addresses the **compliance with the Solid Waste Management Rules, 2016** and other environmental issues in the UT of Chandigarh, was filed on **10.12.2024**. According to the report, the following Sewage Treatment Plants (STPs) were found to be non-compliant with the total nitrogen standards: **Kishangarh**, **Raipur Khurd**, and **Raipur Kalan I & II**. Regarding fecal coliform (FC), only **Raipur Kalan I & II** was compliant, while **Kishangarh** and **Raipur Khurd** were non-compliant. As per the representative of CPCC, total nitrogen will expedite from January, 2025 onwards.

37. The Geo tagged photographs taken during the visit is enclosed as **Annexure-IV.**

**6.0 Status Industrial Pollution discharge into Sukhna Choe:**

**6.1 Chandigarh Pollution Control Committee (CPCC) (dated 09.01.2025)**

- Chandigarh, being a planned city, already has an adequate sewerage system in place with separate storm water network.
- Industries releasing wastewater first treat it in their Effluent Treatment Plants (ETP). Only after treatment, the wastewater is discharged into the sewerage system.
- The treated wastewater further undergoes final treatment at one of the city's Sewage Treatment Plants (STPs), namely at Diggian or STP 3BRD, for disposal.
- The copy of CPCC letter is enclosed as **Annexure-V.**

**6.2 Punjab Pollution Control Board (PPCB) – SAS Nagar (dated 09.01.2025)**

- Similar to the HSPCB's statement, the PPCB also confirms that there are no industrial units operating along the Sukhna Choe within the jurisdiction of SAS Nagar.
- No industrial unit is permitted to discharge treated or untreated effluents into the Sukhna Choe.
- The copy of PPCB letter is enclosed as **Annexure-VI.**

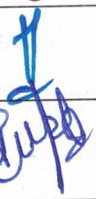
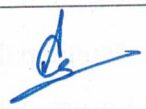
**6.3 Haryana State Pollution Control Board (HSPCB) – Panchkula (dated 09.01.2025)**

- The HSPCB confirms that there are no industrial units operating along the banks of the Sukhna Choe within the jurisdiction of Panchkula.
- No industry is permitted to discharge treated or untreated effluents into the Sukhna choe.
- The copy of HSPCB letter is enclosed as **Annexure-VII.**

**7.0 Joint Committee Recommendations:**

1. The Municipal Corporation, Chandigarh shall ensure regular cleaning of drains and Chandigarh Administration/Municipal Corporation Chandigarh shall install Iron Nets/Jalis at all the culvert points, where road is crossing drain, to prevent throwing of solid waste along the choes.
2. MCC (who is operating 6 STPs in Chandigarh and Engineering Department (who is operating 2 STPs in Chandigarh) shall strictly comply with the directions of Hon'ble NGT dated 12.12.2024 w.r.t Total Nitrogen, TKN and Fecal coliforms in the matter of OA No.606/2018.
3. The Municipal Council, Zirakpur shall carry out a survey and identify the spot area of the solid waste dumped into the Sukhna Choe, and 'Iron Net' will be fitted along with the drain in order to prevent dumping of the Solid Waste and C&D waste.
4. The Municipal Council Zirakpur shall ensure regular operation and maintenance of the existing STP of 17.3 MLD capacity.
5. Punjab Pollution Control Board shall issue direction to the Municipal Council Zirakpur/STP Operator to take corrective measures in a time-bound manner to ensure O&M of the STP, so that there is no disposal of untreated effluent into river Ghaggar.
6. The Municipal Corporation Panchkula shall carry out a survey and identify the spot area of the solid waste dumped in the drain carrying effluent in their catchment areas, which ultimately meets into the Sukhna Choe, and 'Iron Net' will be fitted along the drain in order to prevent dumping of the solid waste and C&D waste.
7. The Municipal Corporation, Panchkula shall ensure operation of the STPs that leads effluent into Sukhna Choe through drains so as to improve the water quality of the river Ghaggar.
8. The Panchkula Metropolitan Development Authority (PMDA) shall submit a time bound action plan for the gap in the treatment of the sewage falling into Panchkula drain from the areas of Panchkula Distt. (Haryana) i.e. Rajiv Colony, Indira Colony, village Budanpur and Mansa Devi area and/or its adjoining areas.
9. Panchkula Administration and Zirakpur Administration shall take necessary steps to stop soild as well as liquid waste discharghe from slums intheir respective areas.

**Joint Committee Member: Constituted in the matter of O.A No. 752 of 2024.**

| S. No. | Name & Designation | Organizations /Institutes/Departments | Signature |
|---|---|---|---|
| 1. | Shri Nishant Kumar Yadav, IAS | Deputy Collector, U.T. Chandigarh (Nodal Agency) |  |
| 2. | Shri Amit Gupta, PCS | SDM Derabassi, Punjab Representative of DC, Mohali |  |
| 3. | Dr. Dharmendra Kumar Gupta, Director, | MoEF&CC, RO, Chandigarh (Member nominated by MoEF&CC, RO, Chandigarh) |  |
| 4 | Shri Jagdish Prasad Meena, Scientist- 'D' | Central Pollution Control Board, Regional Directorate, Chandigarh (Member nominated by CPCB, RD Chandigarh). |  |
| 5. | Shri Ashok Pathria, Executive Officer, Zirakpur | (On behalf of Deputy Commissioner, Mohali) |  |

Annexure -L

Item No. 04 Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL**
**PRINCIPAL BENCH, NEW DELHI**

Original Application No. 752/2024

Brijesh Singh Ladwal Applicant

Versus

Union territory of Chandigarh & Ors. Respondent(s)

Date of hearing: 11.07.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON**
**HON'BLE MR. JUSTICE ARUN KUMAR TYAGI, JUDICIAL MEMBER**
**HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Mr. Brijesh Singh Ladwal, Applicant in Person

**ORDER**

1. In this original application, the applicant has raised the issue of pollution being caused in Sukhna Choe drain flowing in the State of Punjab after entering from Chandigarh. The said drain is a storm water drain but as per the plea of the applicant the drain is polluted on account of discharge of pollutants and the solid waste which is stored and dumped on the banks of the Sukhna Choe. It is also alleged that the slums and shops on the bank are also discharging pollutants in Sukhna Choe which finally meets river Ghaggar. Therefore the choe is polluting river also by infusing all kinds of chemical and pollutants in the said river.

2. In support of the plea, the applicant has enclosed the photographs Annexure A-1 and to show the infusion of the pollutants in river Ghaggar by Sukhna Choe, he has filed the photograph on page 28.

3. He has also enclosed a copy of news item dated 16.12.2023 "Sukhna Choe neck and neck with N-choe in race to accommodate more

sewage" published in the Indian express which states that Strom waterlines emitting sewage water, garbage dumped in the middle of choe, and concrete garbage was dumped at both the sides of the choe.

4. The O.A. raises substantial issue relating to compliance of the environmental norms.

5. Issue notice to the respondents. Applicant is directed to serve the respondents and file affidavit of service at least one week before next date of hearing.

6. To ascertain the status at the ground level we constitute a Joint Committee comprising of the representative of the CPCB, RO MoEF & CC Chandigarh, District Commissioner/District Magistrate Chandigarh, District Magistrate Zirakpur. District Commissioner/District Magistrate Chandigarh will act as nodal agency.

7. The Joint Committee will ascertain the extent of pollution being caused from different sources in Sukhna Choe, will get the sample analysis reports of water of Sukhna Choe at different point and will also suggest the remedial measures. The Committee will also identify the industrial unit discharging effluent in Sukhna Choe

8. Let a report be filed by the Joint Committee within a period of 10 weeks.

9. List on 04.10.2024.

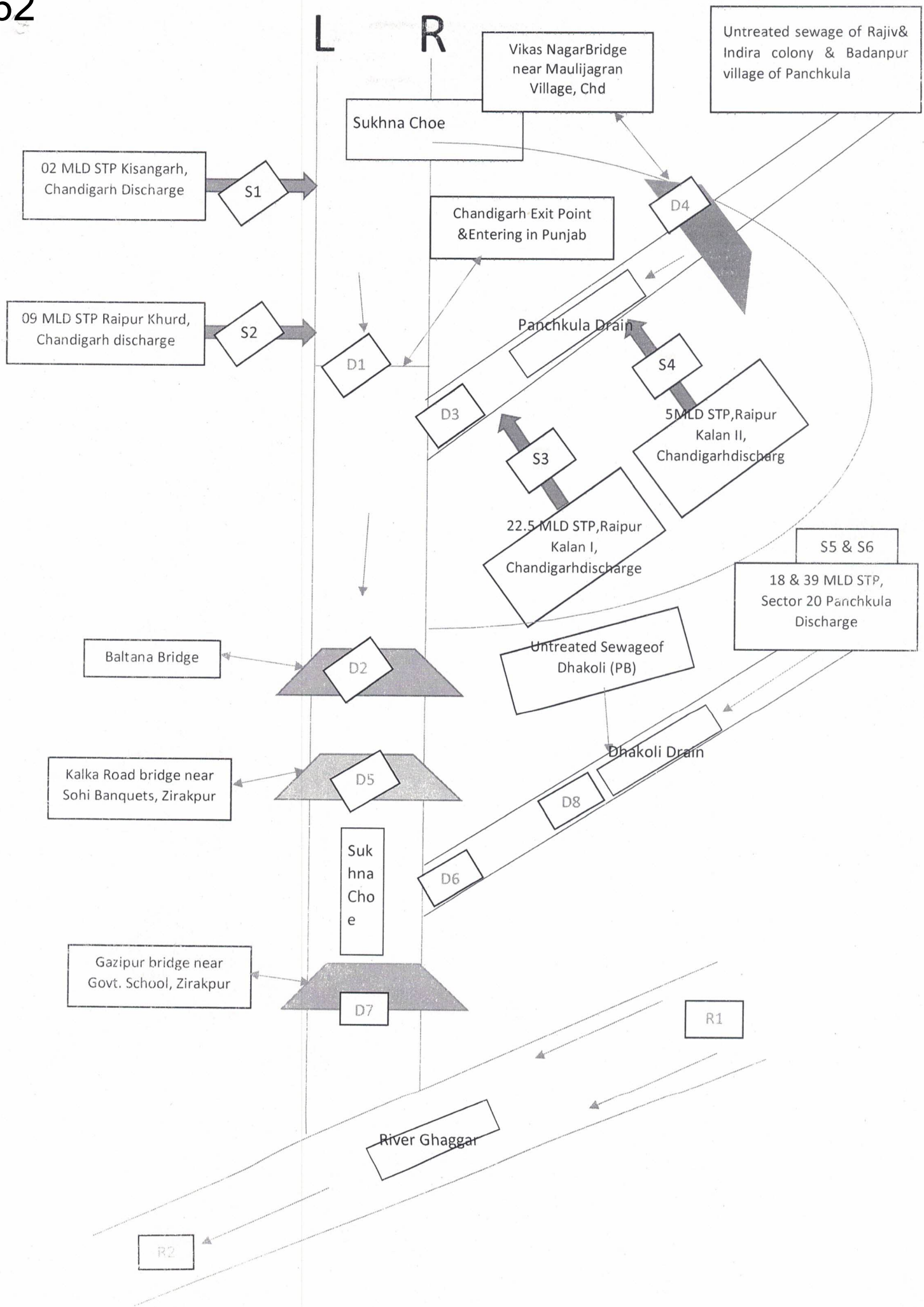
Prakash Shrivastava, CP

Arun Kumar Tyagi, JM

Dr. A. Senthil Vel, EM

July 11, 2024
O.A. No. 752/2024
HB

Annexure-II


L
R
Vikas NagarBridge near Maulijagran Village, Chd
Untreated sewage of Rajiv& Indira colony & Badanpur village of Panchkula
Sukhna Choe
02 MLD STP Kisangarh, Chandigarh Discharge
S1
Chandigarh Exit Point &Entering in Punjab
D4
09 MLD STP Raipur Khurd, Chandigarh discharge
S2
Panchkula Drain
D1
S4
D3
5MLD STP,Raipur Kalan II, Chandigarhdischarg
S3
22.5 MLD STP,Raipur Kalan I, Chandigarhdischarge
S5 & S6
18 & 39 MLD STP, Sector 20 Panchkula Discharge
Baltana Bridge
D2
Untreated Sewageof Dhakoli (PB)
Dhakoli Drain
Kalka Road bridge near Sohi Banquets, Zirakpur
D5
D8
Sukhna Choe
D6
Gazipur bridge near Govt. School, Zirakpur
D7
R1
River Ghaggar
R2

Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019



Annexure-III

# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 10:50 AM & 12:20 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/401/2024 | CPCC/402/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **STP Outlet- Kishangarh (S1) & Raipur Khurd (S2)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Kishangarh STP Outlet | Raipur Khurd STP Outlet | |
| 1 | pH | -- | 7.7 | 7.8 | APHA 4500-H |
| 2 | DO | mg/l | 8.1 | 6.8 | APHA 4500-O C |
| 3 | COD | mg/l | 9.0 | 19 | APHA 5220 D |
| 4 | BOD | mg/l | BDL(MDL2.0) | 2.3 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | BDL(MDL5.0) | 5.0 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 4.2 | 0.9 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 0.89 | 0.95 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | 1.8 | 2.7 | APHA 4500-$NO_3$ |
| 9 | Fecal Coliform | MPN/100 ml | BDL(MDL <1.8) | BDL(MDL <1.8) | APHA 9221 C |

BDL: Below Detection Limit
MDL: Method Detection Limit

Authorized Signatory

**Note:**
The results in the test report relate only to item tested. The report shall not be reproduced except in full, without the prior permission of Chandigarh Pollution Control Committee.

Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019

# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 01:50 PM & 02:10 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/403/2024 | CPCC/404/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **STP Outlet- Raipur Kalan-I (S3) & Raipur Kalan-II (S4)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Raipur Kalan-I STP Outlet | Raipur Kalan-II STP Outlet | |
| 1 | pH | -- | 7.5 | 7.4 | APHA 4500-$H^+$ |
| 2 | DO | mg/l | 5.4 | 6.5 | APHA 4500-O C |
| 3 | COD | mg/l | 24 | 17 | APHA 5220 D |
| 4 | BOD | mg/l | 6.6 | BDL(MDL2.0) | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 10 | BDL(MDL5.0) | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 0.34 | 0.67 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 0.87 | 0.94 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | 4.4 | 9.1 | APHA 4500-$NO_3$ |
| 9 | Fecal Coliform | MPN/100 ml | BDL(MDL <1.8) | BDL(MDL <1.8) | APHA 9221 C |

BDL: Below Detection Limit
MDL: Method Detection Limit

Authorized Signatory

**Note:**
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Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019



# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 06.12.2024 | Time of Sample Collection | 10:45 AM & 11:35 AM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 06.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/414/2024 | CPCC/415/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **STP Outlet- 18 MLD Sector-20 Panchkula (S5) & 39 MLD Sector-20 Panchkula (S6)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | STP Outlet (18 MLD), Sector-20 Panchkula | STP Outlet (39 MLD), Sector-20 Panchkula | |
| 1 | pH | -- | 8.0 | 8.1 | APHA 4500-$H^+$ |
| 2 | DO | mg/l | 0.9 | 1.5 | APHA 4500-O C |
| 3 | COD | mg/l | 63 | 18 | APHA 5220 D |
| 4 | BOD | mg/l | 33 | 6.9 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 30 | BDL(MDL5.0) | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 17 | 15 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 0.84 | 2.19 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | BDL(MDL0.5) | 0.8 | APHA 4500-$NO_3$ |
| 9 | Fecal Coliform | MPN/100 ml | $5.4 \times 10^5$ | $4.6 \times 10^4$ | APHA 9221 C |

BDL: Below Detection Limit
MDL: Method Detection Limit

**Authorized Signatory**

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Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019

# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 05:10 PM & 05:20 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/405/2024 | CPCC/406/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **Ghaggar River before mixing with Sukhna Choe (R1) & Ghaggar River after mixing with Sukhna Choe (R2)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Ghaggar River before mixing with Sukhna Choe | Ghaggar River after mixing with Sukhna Choe | |
| 1 | pH | -- | 8.4 | 8.8 | APHA 4500-H$^+$ |
| 2 | DO | mg/l | 7.9 | 6.4 | APHA 4500-O C |
| 3 | COD | mg/l | 165 | 215 | APHA 5220 D |
| 4 | BOD | mg/l | 7.4 | 9.6 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 2819 | 2634 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 0.45 | 0.22 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 0.07 | 0.22 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | 3.5 | 4.2 | APHA 4500-$NO_3$ |

BDL: Below Detection Limit
MDL: Method Detection Limit

**Authorized Signatory**

**Note:**
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CHANDIGARH
Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019



# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting | 18.12.2024 |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 12:40 PM & 01:10 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/407/2024 | CPCC/408/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **Sukhna Choe drain exit from Chandigarh (D1)& Sukhna Choe at Baltana Bridge (D2)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Sukhna Choe drain exit from Chandigarh | Sukhna Choe at Baltana Bridge | |
| 1 | pH | -- | 7.6 | 7.6 | APHA 4500-$H^+$ |
| 2 | DO | mg/l | 1.4 | BDL(MDL0.1) | APHA 4500-O C |
| 3 | COD | mg/l | 91 | 125 | APHA 5220 D |
| 4 | BOD | mg/l | 28 | 34 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 47 | 60 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 7.5 | 7.8 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 1.25 | 2.18 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | 0.5 | BDL(MDL0.5) | APHA 4500-$NO_3$ |

BDL: Below Detection Limit
MDL: Method Detection Limit

**Authorized Signatory**

**Note:**
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# Chandigarh Pollution Control Committee

Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019


## TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 01:20 PM & 02:25 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/409/2024 | CPCC/410/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **Panchkula drain before mixing with Sukhna Choe (D3) & Panchkula drain before entering in Chandigarh (D4)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Panchkula drain before mixing with Sukhna Choe | Panchkula drain before entering in chandigarh | |
| 1 | pH | -- | 7.5 | 7.5 | APHA 4500-H |
| 2 | DO | mg/l | BDL(MDL0.1) | BDL(MDL0.1) | APHA 4500-O C |
| 3 | COD | mg/l | 144 | 168 | APHA 5220 D |
| 4 | BOD | mg/l | 39 | 56 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 95 | 122 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 10 | 12 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 2.42 | 2.21 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | BDL(MDL0.5) | 0.5 | APHA 4500-$NO_3$ |

BDL: Below Detection Limit
MDL: Method Detection Limit

Authorized Signatory

**Note:**
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CHANDIGARH
Chandigarh Pollution Control Committee
Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019



# TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 | Time of Sample Collection | 03:05 PM & 03:40 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/411/2024 | CPCC/412/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **Sukhna Choe from Bridge near Sohi Banquet Zirakpur (D5) & Waste Water in Gazipur from Dhakoli Area & STP Haryana (D6)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Sukhna Choe from Bridge near Sohi Banquet Zirakpur | Waste Water in Gazipur from Dhakoli Area & STP Haryana | |
| 1 | pH | -- | 7.7 | 7.9 | APHA 4500-$H^+$ |
| 2 | DO | mg/l | BDL(MDL0.1) | 2.8 | APHA 4500-O C |
| 3 | COD | mg/l | 110 | 62 | APHA 5220 D |
| 4 | BOD | mg/l | 38 | 20 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 59 | 65 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 11 | 16 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 2.24 | 2.1 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | BDL(MDL0.5) | BDL(MDL0.5) | APHA 4500-$NO_3$ |

BDL: Below Detection Limit
MDL: Method Detection Limit

**Authorized Signatory**

**Note:**
The results in the test report relate only to item tested. The report shall not be reproduced except in full, without the prior permission of Chandigarh Pollution Control Committee.

# Chandigarh Pollution Control Committee

Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019

## TEST REPORT

| | | | |
|---|---|---|---|
| Test Report No. CPCC/Dec./2024 | | Date of Reporting 18.12.2024 | |
| Date of Sampling | 05.12.2024 & 06.12.2024 | Time of Sample Collection | 03:45 PM & 12:20 PM |
| Mode of Sampling | Collected by CPCC | Type of Sample | Grab |
| Sample Quantity | Approx. 3 Ltrs | Period of Analysis | 05.12.2024 to 12.12.2024 |
| Lab Sample Code | CPCC/413/2024 | CPCC/416/2024 | |
| Reference | Joint Monitoring Committee ( OA-752/2024) | | |
| Sampling Location | **Sukhna Choe From Gazipur Bridge after mixing with waste Water from Dhakoli Area & STP Haryana (D7) & Dhakoli Drain (D8)** | | |

| Sr. No. | Parameters | Unit | Results | | Test Methods |
|---|---|---|---|---|---|
| | | | Sukhna Choe From Gazipur Bridge after mixing with waste Water from Dhakoli Area & STP Haryana | Dhakoli Drain | |
| 1 | pH | -- | 7.8 | 7.9 | APHA 4500-$H^+$ |
| 2 | DO | mg/l | 2.2 | 1.6 | APHA 4500-O C |
| 3 | COD | mg/l | 155 | 192 | APHA 5220 D |
| 4 | BOD | mg/l | 42 | 55 | IS 3025 (Part 44) |
| 5 | TSS | mg/l | 120 | 127 | APHA 2540 D |
| 6 | $NH_3$-N | mg/l | 15 | 17 | APHA 4500-$NH_3$ C |
| 7 | $PO_4$-P | mg/l | 2.83 | 2.52 | APHA 4500-P D |
| 8 | $NO_3$-N | mg/l | BDL(MDL0.5) | 0.5 | APHA 4500-$NO_3$ |

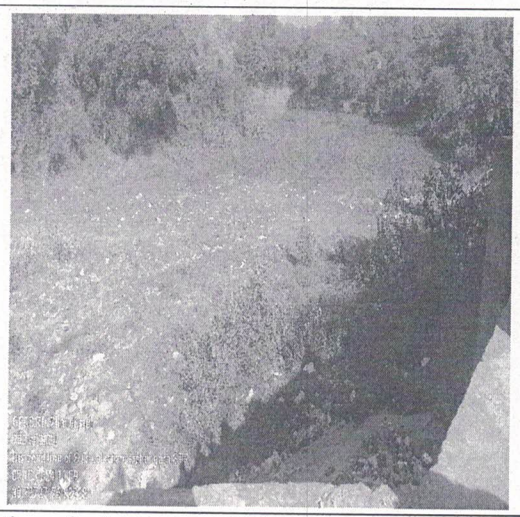
BDL: Below Detection Limit
MDL: Method Detection Limit

Authorized Signatory

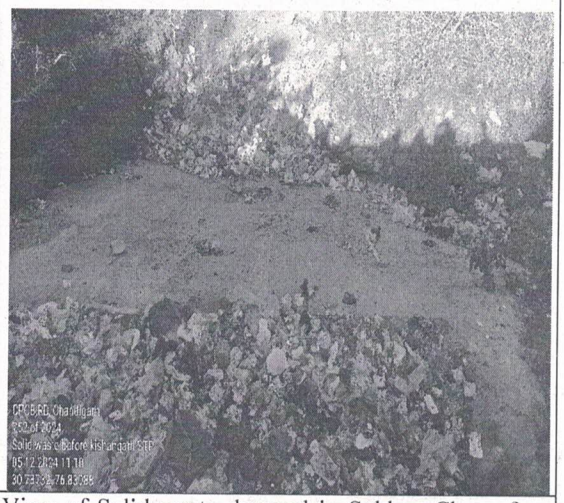
**Note:**
The results in the test report relate only to item tested. The report shall not be reproduced except in full, without the prior permission of Chandigarh Pollution Control Committee.

Annexure-VI 71

Photographs taken by the Committee during visit of Sukhna Choe and its catchment Drains STPs, River Ghaggar December 5-6, 2024:



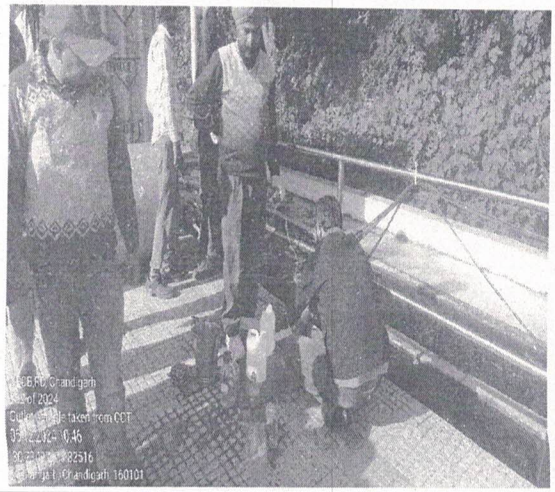
View of origin point of Sukhna Choe & found in dry condition



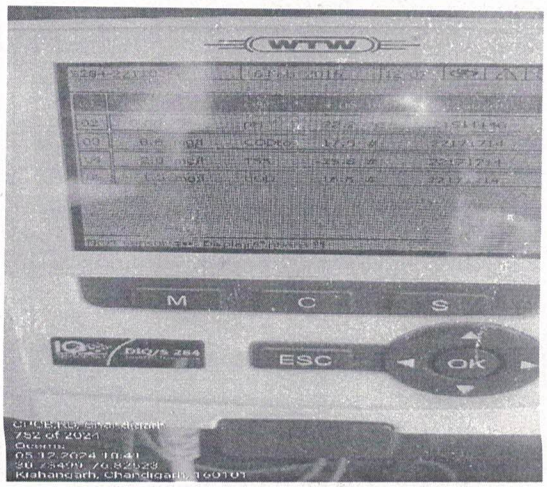
View of Solid waste dumped in Sukhna Choe after 500m of origin point at Kishangarh

View of Solid Waste Dumped at Bank of Sukhna Choe near STP at Kishangarh

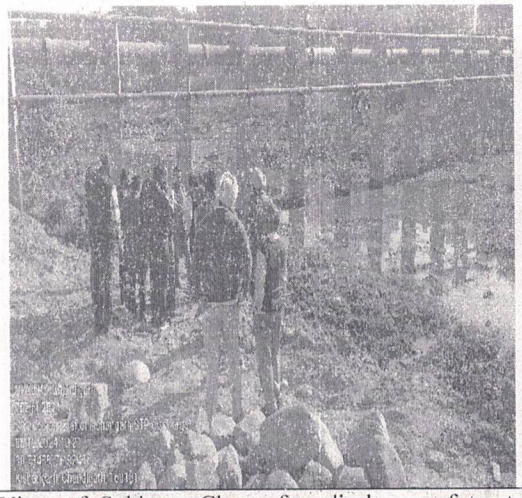
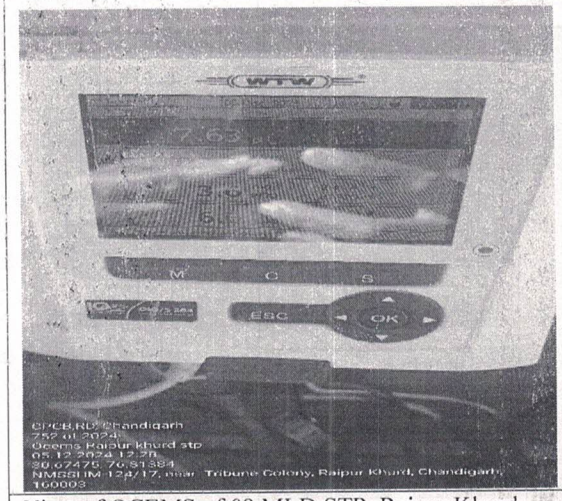
View of Entry Gate of 02 MLD STP, Kishangarh UT Chandigarh

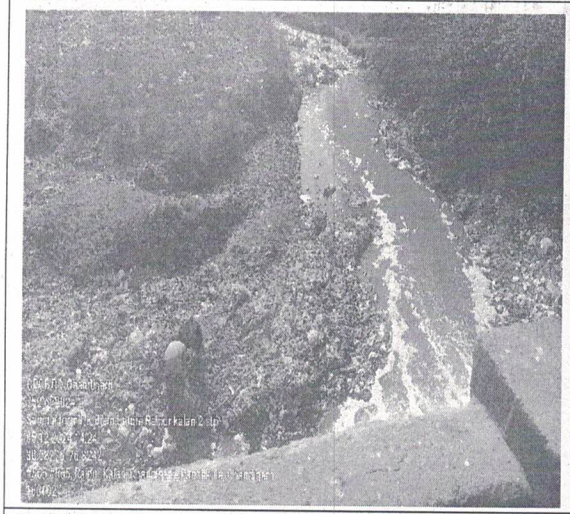


View of final outlet of 02 MLD STP, Kishangarh UT



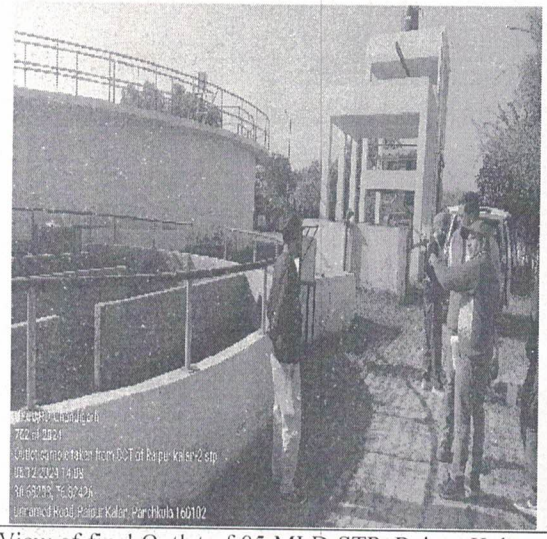

View of OCEMS of 02 MLD STP, Kishangarh UT

| CHD (As Sample code- S1 | Chandigarh |
|---|---|
|  |  |
| View of Sukhana Choe after discharge of treated water STP, Kishangarh | View of Sukhana Choe before discharge of STP, Raipur Khurd near the STP |
|  |  |
| View of Entry Gate of 09 MLD STP, Raipur Khurd Chandigarh | View of Final outlet of 09 MLD STP, Raipur Khurd, Chandigarh. |
|  |  |
| View of OCEMS of 09 MLD STP, Raipur Khurd | View of Sukhana Choe Exit point at Raipur Khurd, Chandigarh. |

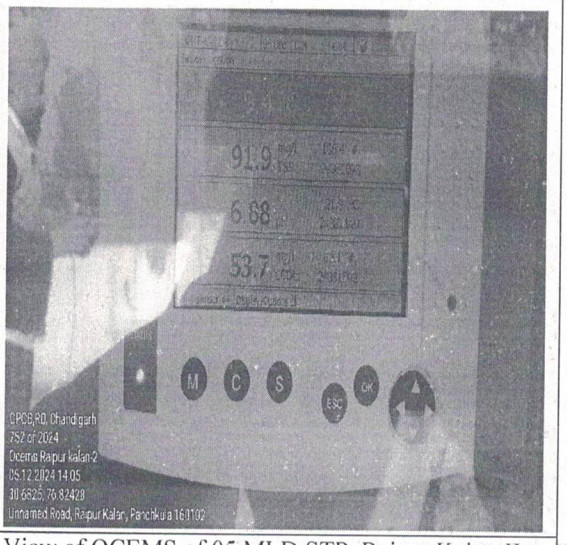


Panchkula drain at Vikas Nagar Bridge Near village Maulijagra

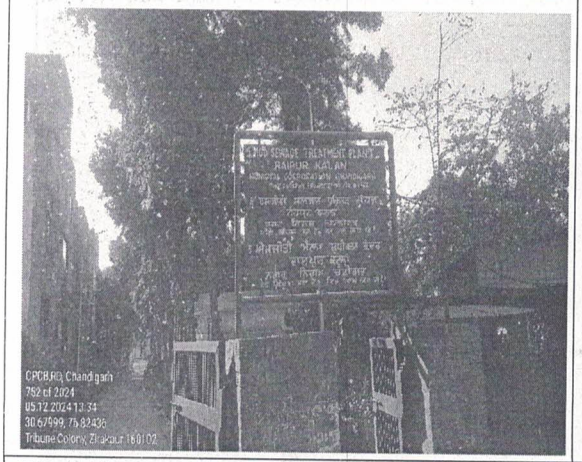

View of Entry Gate of 05 MLD STP, Raipur Kalan-II, Chandigarh



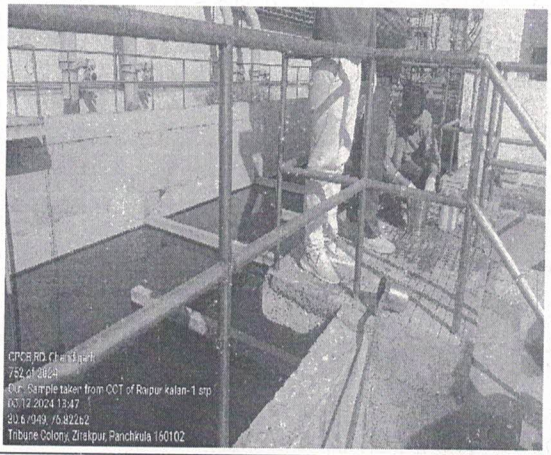
View of final Outlet of 05 MLD STP, Raipur Kalan-II, Chandigarh



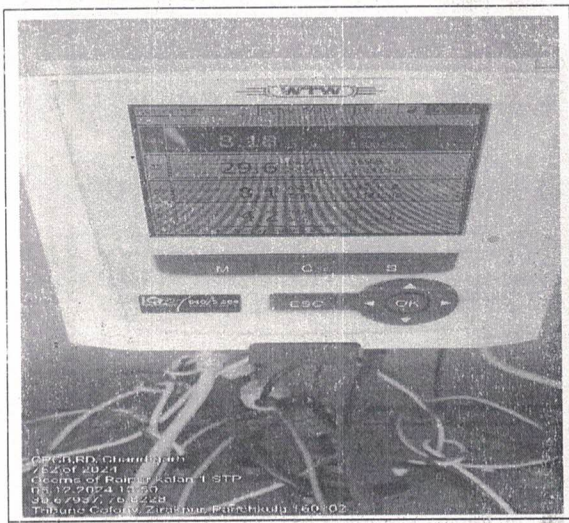

View of OCEMS of 05 MLD STP, Raipur Kalan-II, Chandigarh




View of Entry Gate of 22.5 MLD STP, Raipur Kalan-I, Chandigarh

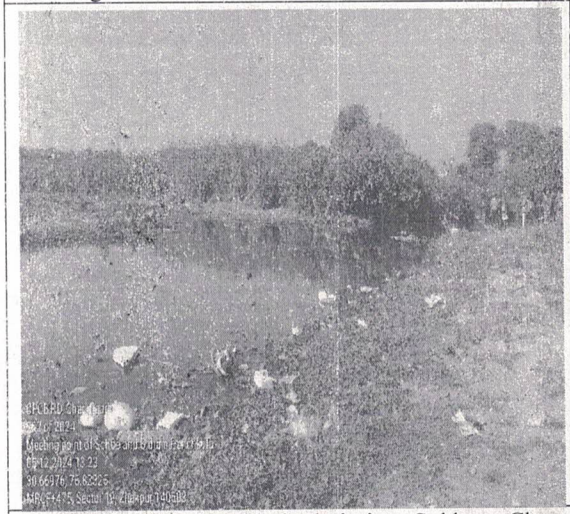



View of final Outlet of 22.5 MLD STP, Raipur Kalan-I Chandigarh




View of OCEMS of 22.5 MLD STP, Raipur Kalan-I, Chandigarh

View of Panchkula Drain before mixing in Sukhana Choe, Baltana Zirkpur (Punjab)

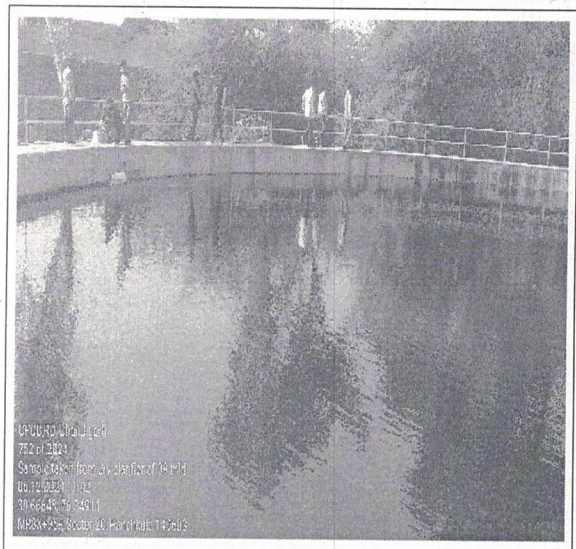
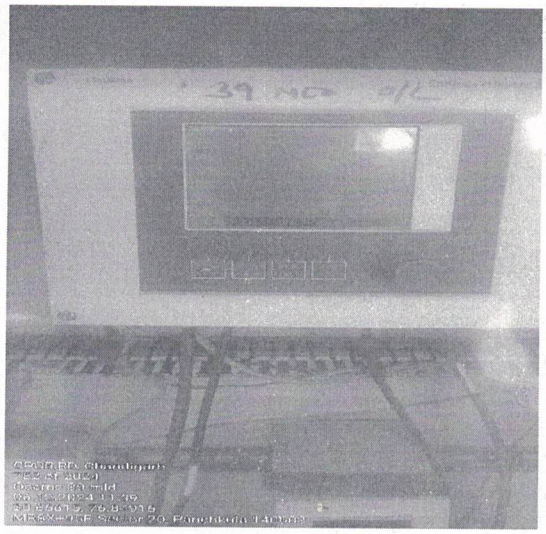
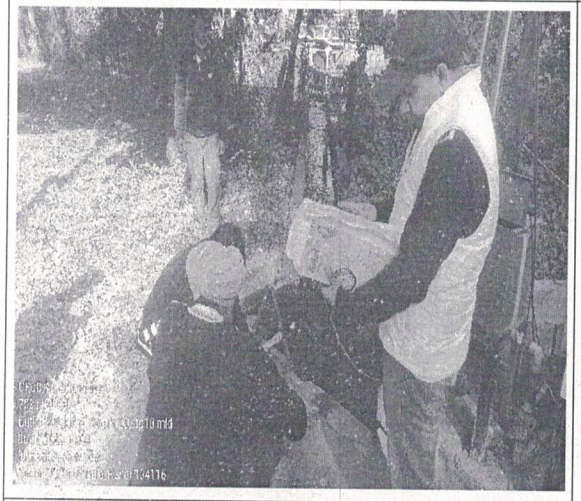


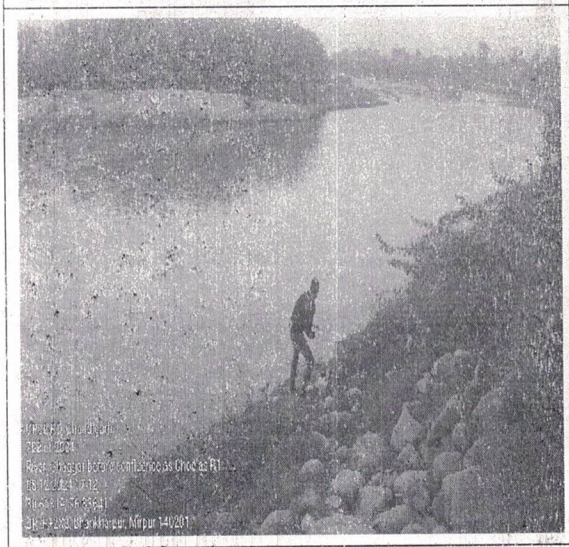
View of Mixing Panchkula drain into Sukhana Choe at Sector 19, Baltana Zirkpur (Punjab)

View Sukhana Choe at Sector 19B, Zirakpur Bridge (Baltana bridge) after mixing of Panchkula drain Into Sukhana Choe

View of Sukhana Choe at Kalka Road bridge (Near Sohi Banquet, Zirakpur)


View of Entry Gate of 39 MLD STP, Sector 20, Panchkula (Haryana)

| | |
|---|---|
|  |  |
| View of Final outlet 39 MLD STP, Sector 20, Panchkula (Haryana) | View of OCEMS of 39 MLD STP, Sector 20, Panchkula (Haryana) |
|  |  |
| View of final outlet of 18 MLD STP, Sector 20, Panchkula (Haryana) | View of Dysfunctional OCEMS of 18 MLD STP, Sector 20, Panchkula (Haryana) |
|  |  |
| View of Dhakoli Drain at old Ambala road opp. Zirakpur near Delhi World Public School after mixing of Sector 20 STPs treated water & Dhakoli Area Sewage Zirkpur Punjab | View of Dhakoli drain at Village Gazipur, Zirkpur (Punjab) before mixing in Sukhana. Choe |

| | |
|---|---|
|  |  |
| View of Sukhana Choe after mixing of Dhakoli drain at bridge of Village Gazipur, Zirakpur (Punjab) | View of Sukhana Choe meeting point in River. Ghaggar at near village Bhankharpur, Mirpur, Zirakpur (Punajb) |
|  |  |
| View River Ghaggar Upstream (before meeting of Sukhana Choe and collected sample by Committee | View River Ghaggar Downstream (after 1 km meeting of Sukhna Choe at near Ambala-Chandigarh Expressway bridge, Zirakpur and collected sample by Committee |

CHANDIGARH

# Chandigarh Pollution Control Committee

Paryavaran Bhawan, Madhya Marg, Sector 19-B,Chandigarh- 160019

Annexure-V

No. CPCC/2025/2135

Dated: 09.01.25

To

The Deputy Commissioner-cum-Nodal Officer,
Joint Committee,
Constituted by the Hon'ble NGT in the O.A. No. 752/2024,
Deputy Commissioner Office,
Sector-17, Chandigarh.

**Subject: O.A. No. 752/2024 titled Brijesh Singh Ladhwal Vs UT of Chandigarh & Ors reg.**

In reference to your request to provide the status of industrial discharge into Sukhna Choe from Chandigarh area, it is hereby informed that Chandigarh is a planned city with separate Industrial and residential areas. All the industries in Chandigarh are located in the designated industrial area, which is divided into Industrial area phase- I & phase- II. Industrial area of Chandigarh falls in the catchment of Sukhna choe.

However, being a planned city, proper sewerage system is already laid down. All the industries which are releasing any wastewater, first treat the same in their ETP, only then the wastewater is released and further it reaches STP Diggian or STP 3BRD and finally released only after treatment.

Hence, only treated water from Industrial area is released and that too not into the Sukhna choe as treated water from STP 3BRD is released into the Faida choe, which further mixes with N-choe and treated water from STP Diggian is released into the N-choe.

**(T.C. Nautiyal, IFS)**
**Member Secretary**

Annexure -VI

**Subject :** **OA no. 752 of 2024 titled as Brijesh Singh Ladwal versus UT of Chandigarh & Ors.**

Reference: Whatsapp message received on 8.1.2025.

In above regard, it is intimated that no industrial unit is operating on the banks of Sukhna Choe within the jurisdiction of Regional Office, SAS Nagar. Further, no industry is allowed to discharge any treated / untreated effluent into the choe / drain.

This is for kind information please.

9/1/25

**Environmental Engineer**
**PPCB, RO, SAS Nagar.**

**Haryana State Pollution Control Board**
SCO 115-116, 1st Floor, Sector -25, Panchkula
Website – www.hspcb.gov.in E-Mail - hspcbropkl@gmail.com



No. HSPCB/PKL/2025/R070

**Dated: 09.01.2025.**

To

The Deputy Commissioner-cum-Nodal Officer,
Joint Committee constituted by the Hon'ble NGT
in the OA No. 752 of 2024 Deputy Commissioner Office,
Sec-17, Chandigarh.

**Sub: OA. NO. 752/2024- titled Brijesh Singh Ladwal V/s Union Territory of Chandigarh and Ors.**

**Ref: Whatsapp message received on 08.01.2025.**

In this connection, it is intimated that no industrial unit is operating on the bank of Sukhna Choe within the jurisdiction of Panchkula Region. Further, no industry is allowed to discharge any treated/untreated effluent into the choe/drain.

This is submitted for your kind information please.

**Regional Officer**
**Panchkula Region**

Annexure - VII