



# **PUNJAB POLLUTION CONTROL BOARD**

**VatavaranBhawan, Nabha Road, Patiala - 147 001**

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**No. PPCB/2018/28083-94**

**Dated 24/9/2018**

To

- 1) The Principal Secretary to Govt. of Punjab,  
Deptt. of Local Govt.  
Chandigarh
- 2) The Chief Executive Officer,  
Punjab Water Supply & Sewerage Board,  
Plot no. 1-B, Sector 27-A,  
Madhya Marg, Chandigarh
- 3) The Chief Administrator,  
Greater Mohali Area Development Authority,  
Room no. 202, PUDA Bhawan,S.A.S Nagar
- 4) The Director,  
Rural Development & Panchayats,  
Vikas Bhawan, Sector-62, SAS Nagar
- 5) The Member Secretary,  
Haryana State Pollution Control Board,  
C-11, Sector-6, Panchkula-134109,  
Haryana
- 6) The Member Secretary,  
Chandigarh Pollution Control Committee,  
Chandigarh
- 7) The Chief Engineer (Drainage),  
Deptt. of Irrigation, Punjab,  
Chandigarh
- 8) The Director, Water Quality,  
Department of Water Supply & Sanitation,  
Phase-II, Near Bassi Theatre, SAS Nagar

- 9) The Chief Conservator of Soil,  
Deptt. of Soil and Water Conservation,  
SCO50-51, Sector -17-E, Chandigarh
- 10) The Regional Director,  
Central Ground Water Board,  
North Western Region, BhujalBhawan,  
Plot No. 3A, Sector 27-B, Chandigarh
- 11) The Executive Officer,  
Municipal Council, Zirakpur
- 12) The Executive Officer,  
Nagar Panchayat, Lalru

**Subject: Comments for finalization of Action Plan to control the pollution in river Ghaggar in compliance to the order passed by Hon'ble NGT order on 7/8/2018 in the matter of OA no. 138 of 2016 (TNHRC) and OA no. 139 of (TNHRC).**

This is with reference to proceedings of 2<sup>nd</sup> meeting of Executing Committee held on 11/9/2018 under the Chairmanship of Hon'ble Justice Pritam Pal, Former Judge, Punjab & Haryana High Court.

In compliance to the decisions of the 2<sup>nd</sup> meeting, draft action plan for control of pollution in River Ghaggar has been prepared by the Punjab Pollution Control Board incorporating the available data with it. The draft action plan is sent **herewith** for inputs/ comments of your department w.r.t sources of water pollution and action plan of your department to tackle such sources falling into River Ghaggar.

It is further requested to depute the concerned officer of your department to attend the meeting regarding finalization of the said action plan alongwith duly approved inputs/ comments of your department on **3/10/2018 at 11.00 a.m at Committee Room, Vatavaran Bhawan, Nabha Road, Patiala.**

D.A/ As above

**Endst.no. 28095**

**-Sd/-**  
**Member Secretary**  
**dated 24/9/2018**

A copy of the above is forwarded to the Hon'ble Justice Pritam Pal, Former Judge, Punjab & Haryana High Court, Chandigarh for his kind information, please.

**-Sd/-**  
**Member Secretary**

## **1.0 Background**

River Ghaggar originates from Shiwalik Hills in Himachal Pradesh and flows through the Morni Hills in Haryana having Kaushalya and Markanda as its major tributaries. Initially, it receives municipal sewage of various towns located in Himachal and Haryana namely Parwanoo, Kalka and Pinjore through SukhnaNalla merging into Kaushalya river tributary of Ghaggar near Amravati Enclave. The Ghaggar also receives the sewage of various towns of Haryana including that of Panchkula before entering into the State of Punjab. It enters State of Punjab near Village Mubarikpur, District Mohali. After passing through District Mohali, District Patiala and District Sangrur, carrying sewage of these towns of the State of Punjab, it passes through State of Haryana and enters into District Mansa of Punjab. It enters the State of Haryana after Sardulgarh, Distt. Mansa of Punjab. The river Ghaggar and the drains, meeting with the river, are non-perennial and carry surface run off from fields falling in their catchment area during rainy season. However, treated / partially treated / untreated sewage / sullage of some of the cities, towns and villages situated along the river Ghaggar and other drains is discharged into the river directly or indirectly through drain / choe etc. The identification of various sources of pollution including sullage / sewage of villages, sewage of towns, industrial source and any other source and mapping of the pollution sources in River Ghaggar was carried out in the year 2008, November, 2013 and September, 2014. Based on the survey and mapping of pollution sources, PPCB and other concerned departments of the State Government have given top priority for cleaning of Rivers of the State including River Ghaggar.

## **2.0 Concern of the State Governments**

The State of Punjab and Haryana are proactive and serious to control the pollution in River Ghaggar. A series of meetings at the level of higher functionaries of the States have been held to tackle the pollution in the River. In this regard, a joint meeting between Chief Secretary, Haryana and Chief Secretary, Punjab was held on

17.01.2014 followed by meetings on 01.07.2014 under the chairmanship of Additional Chief Secretary to Govt. of Haryana and Secretary, Environment, Govt. of Punjab and other officers of Govt. of Punjab.

In order to control the pollution in Sukhna Choe, which is one of the major sources carrying treated/partially treated/untreated sewage/sullage and falling into river Ghaggar near Vill. Mubarkpur, a joint meeting was held between His Excellency Governor of Punjab & Administrator, U.T., Chandigarh and Hon'ble Chief Minister, Punjab on 09.12.2014.

Interstate meeting of the State of Punjab, Haryana and Himachal Pradesh was also held between Chief Secretaries of all the 3 States on 06.10.2015.

Meeting between, Principal Secretary, Environment, State of Punjab and Director, Environment, U.T., Chandigarh was held on 13.01.2016, wherein, the officers of Deptt. of Local Government, PWSSB and PPCB participated.

A News Item with caption "STENCH GRIPS MANSAS SACRED GHAGGAR RIVER" was published in THE TRIBUNE on 12/05/2014. Hon'ble National Human Rights Commission, New Delhi had taken Suo-Moto cognizance of the News Item. The Hon'ble National Human Rights Commission after considering the reply submitted before Hon'ble Commission by the Punjab Pollution Control Board and Haryana State Pollution Control Board, transferred the case to the Hon'ble National Green Tribunal and now it is pending before the Hon'ble Tribunal in the form of O.A. no. 138 of 2016 and O.A. no. 139 of 2016.

The case came up for hearing before the Hon'ble Tribunal on 09.12.2016 and passed the order as under:

**"We direct joint inspection and submission of report by the committee consisting of Member Secretary, Central Pollution Control Board, Member Secretaries of Haryana, Punjab and Himachal Pradesh Pollution Control Boards, respectively, within six weeks from today.**

**List these matters for directions and arguments on 25<sup>th</sup> January, 2017."**

In compliance to the orders of Hon'ble National Green Tribunal, the area along River Ghaggar has been jointly inspected by the officers of Pollution Control Boards of all the three States, officers from Pollution Control Committee, U.T., Chandigarh and

Central Pollution Control Board on 21.12.2016, 22.12.2016, 2.1.2017, 3.1.2017 and 30.01.2017. The joint inspection report of the committee consisting of Member Secretary, Central Pollution Control Boards, Member Secretaries of Haryana, Punjab and Himachal Pradesh Pollution Control Board was submitted before the Hon'ble Tribunal on 01.02.2017 by the Punjab Pollution Control Board. The case was heard by the Hon'ble NGT at number of times and lastly the case came up for hearing 7/8/2018 and the Hon'ble Tribunal has passed certain directions for making compliances of the same.

### **3.0 SOURCES OF POLLUTION IN RIVER GHAGGAR**

In the catchment area of river Ghaggar, the wastewater is generated mainly by the two sources:

- i) Domestic Source**
- ii) Industrial Source**

#### **3.1 Domestic Sources**

The drain wise details of various domestic source discharging sewage/ sullage into river Ghaggar directly or indirectly are as under:

##### **3.1.1 SUKHNA CHOE**

Sukhna Choe originates from Sukhna lake and is primarily meant for carrying the excess water of Sukhna lake during rainy season for further discharge into river Ghaggar. The details of the outlet carrying wastewater entering into Sukhna Choe are given as under :

##### **UT Chandigarh**

Earlier, there were 10 outlets through which the sewage / sullage in the territory of UT Chandigarh was discharged into Sukhna Choe. However, with the persuasion made by the Punjab Pollution Control Board, the administration of UT Chandigarh stopped the discharge of wastewater of village Bhagwanpura, IT Park, Vill. Kishangarh, Shashtri Nagar and Indra Colony (2 outlets) into Sukhna Choe but the

wastewater from following four outlets is still discharged into Sukhna Choe, which eventually meets river Ghaggar.

- (a) Two outlets of BapuDham Colony.
- (b) Outlet of Village Dariya.
- (c) Outlet of Village Hallomajra.

### **Haryana**

- (a) Drain carrying wastewater from the jurisdiction of State of Haryana, which meets Sukhna Choe near STP of Raipur Khurd.
- (b) Drain coming from the jurisdiction of State of Haryana, which passes near the K-Area of Zirakpur.
- (c) Singh Nallah coming from the State of Haryana.

### **Punjab**

Domestic effluent of some of the residential establishments of Zirakpur such as Village Baltana, Mamta Enclave, Krishna Enclave, Ambedkar Colony and K-Area etc. is discharged into Sukhna Choe. To treat the sewage / sullage of Zirakpur town an STP of 17.3 MLD has already been installed and commissioned. The Municipal Council, Zirakpur is required to connect the outlet of above mentioned residential establishments to the main sewer leading to STP, so that entire quantity of sewage/ sullage is treated in the STP of Zirakpur.

### **(Action to be taken by Municipal Council, Zirakpur)**

#### **3.1.2 DHABI NALLAH**

The Dhabi Nallah is a natural drain, originating nearby the Focal Point, DeraBassi. This drain mainly carries domestic effluent of Industrial Focal Point, DeraBassi, developed by PSIEC. An STP of capacity 2 MLD has been installed by PSIEC in Focal Point, DeraBassi for the treatment of sewage of industries of Focal Point and is commissioned. The treated effluent is presently being discharged into Dhabi Nallah.

A separate drain namely Haibatpur drain carries domestic effluent of different villages namely HaripurHinduan, Saidpura& treated wastewater of M/s ATS Housing Project, Barwala Road, DeraBassi and untreated sewage/ sullageof DeraBassi town, converges into Dhabi Drain at a distance of about ½ km downstream. The sewage /

sullage from other villages namely Issapur and Bhankharpur etc. is also being discharged into Dhabhi Nallah, which ultimately meets with river Ghaggar near Village Bakarpur. The main source of water pollution in Dhabhi Nallah is the sewage / sullage of DeraBassi town as at present untreated sewage / sullage of this town is discharged into the said Nallah. The status of STP of this town is given as under :

<b>Name of the town</b>	<b>Capacity of STP</b>	<b>Status of STP</b>	<b>Executing Agency</b>
DeraBassi	4 MLD	Construction work has been completed and is ready for commissioning. The STP will be commissioned as soon as the electric connection is released by PSPCL.	GMADA
	2 MLD	Land is available at Vill. Issapur and the tender for installation of STP is being invited.	PWSSB

The Department of Rural Development and Panchayats is required to install suitable treatment system to treat the sewage / sullage of the villages named above. Also the GMADA is required to expedite the work for getting electric connection from PSPCL for commissioning of 4 MLD capacity STP. The PWSSB is required to expedite the work for installation of 2 MLD capacity STP.

**(Action to be taken by GMADA, PWSSB and Deptt. of Rural Development and Panchayats)**

### **3.1.4 JHARMAL CHOE**

Jharmalchoe carries the domestic effluent of Villages namely Alamgir, Dappar, Chaundheri, Samalheri, Hussanpur, Lalru, Dehar and Tiwana etc. The sewage/sullage of Lalru town is also discharged into this choe and the status of STP of this town is given as under:

Name of the town	Capacity of STP	Status of STP	Executing Agency
Lalru	1.5 MLD	Installed and commissioned	
	1.5 MLD	Land is available but the nearby residents have filed a suit in the Hon'ble court of Law alleging	PWSSB

		not to allow to install the STP at this site .	
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The Department of Rural Development and Panchayats is required to install suitable treatment system to treat the sewage / sullage of above named villages. Also, the Nagar Panchayat, Lalru is required to pursue the case pending in the Hon'ble court of law for installation of STP .

**(Action to be taken by Deptt. of Rural Development and Panchayat, NagarPanchayat, Lalru and PWSSB)**

### **3.1.5 BASAULI DRAIN / CHOE**

Basauli Drain carries the domestic effluent of Villages namely JaulaKalan, Sarsini, Sitarpur and Basauli. The Department of Rural Development and Panchayats is required to install suitable treatment system to treat the sewage / sullage of these villages.

**(Action to be taken by Deptt. of Rural Development and Panchayats)**

### **3.1.6 PACHISDARA DRAIN (DhakansuChoe)**

The N-Choe originates near Punjab Civil Secretariat, Sector-2, Chandigarh and it traverses through Leisure Valley, Sector-10, Rose Garden, Sector-16,23, 36, 41, 42, revenue estate of village Kajheri and then it enters territory of Mohali City. Eventually this choe meets to Jagatpura Drain which further meets Pachisdara drain. The N-Choe carries untreated sewage/ sullage of some areas of UT Chandigarh. Besides, wastewater of PCA stadium & some villages of District Mohali is also discharged into this choe. The treated wastewater of STP of 135 MLD capacity of UT Chandigarh installed at Mohali, STP of UT Chandigarh installed at 3 BRD and STP of 45 MLD capacity of Mohali City is discharged into Jagatpura Drain. In a nutshell, the Pachisdara Drain carries the domestic effluent of Chandigarh through, Mohali, Banur, Rajpura and various villages located nearby this drain. The status of STPs for the towns Mohali, Banur and Rajpura is as under:



S.N.	Name of the town	Capacity of STP	Target date	Status of STP
1	SAS Nagar	45 MLD	Already commissioned	Installed & Commissioned
2	Banur	4 MLD	Already commissioned	Installed & Commissioned
3	Rajpura	10 MLD	31.12.2018	Civil work completed
		7 MLD	Already commissioned	Installed & Commissioned

The Department of Rural Development and Panchayats is required to identify the villages discharging their sewage/ sullage into this drain and is also required to install suitable treatment system to treat the sewage / sullage of these villages. The PWSSB is required to expedite the work for installation of 10 MLD capacity STP.

**(Action to be taken by PWSSB and  
Deptt. of Rural Development and Panchayats)**

### 3.1.7 PATIALA NADI

Patiala Nadi carries the sewage of Patiala and Sanour town. Although, 3 STPs for Patiala city of capacity 46 MLD, 13 MLD & 10 MLD have been installed, but the untreated sewage/sullage of some localities is still being discharged into Chhoti Patiala Nadi & Badi Patiala Nadi. The Chhoti Nadi meets to Badi Nadi near Sheesh Mahal, Patiala. Besides, untreated sewage/sullage of Sanour town is discharged into this Nadi. The status of STPs of these towns is as under:

S.N.	Name of the town	Capacity of STP	Target date	Status of STP
1	Patiala	46 MLD	Already commissioned	Installed & Commissioned
		13 MLD		
		10 MLD		
2	Sanour	4 MLD	--	Land is yet to be identified.

The capacity of the STP of 46 MLD is to be enhanced to 61 MLD for which DPR amounting to Rs. 19.46 crores has been got prepared under **AMRUT Scheme** by Municipal Corporation, Patiala from M/s Shah Technical Consultant Pvt. Ltd., Chandigarh and after approval of the same the process for tendering will be started.

The Department of Rural Development and Panchayats is required to identify the villages discharging their sewage / sullage into this drain and is also required to install suitable treatment system to treat the sewage / sullage of these villages. The PWSSB is required to expedite the work for installation of 4 MLD capacity STP.

**(Action to be taken by PWSSB,  
Deptt. of Rural Development and Panchayat and M.C., Patiala)**

### **3.1.8 SAGARPARA DRAIN**

This drain originates from Bibipur lake located in the territory of State of Haryana and carries the wastewater of the towns/ cities located in its catchment area. This drain meets to River Ghaggar near village Rasouli, Tehsil Patran, Distt. Patiala. Generally, it was noticed that this drain carries substantial of quantity of wastewater. The State of Haryana is required to identify the sources entering into this drain directly or indirectly.

**(Action to be taken by the State of Haryana)**

### **3.1.9 KAITHAL DRAIN**

This drain originates in the territory of State of Haryana and it meets river Ghaggar nearKhanauri town .It carries significant discharge of wastewater from the State of Hararyana. The sewage / sullage of Khanauri town is also discharged into this drain. The status of STP of Khanauri town is as under:

<b>S.N.</b>	<b>Name of the town</b>	<b>Capacity of STP</b>	<b>Status of STP</b>
1	Khanauri town	3 MLD	Installed and Commissioned

The State of Haryana is required to identify the sources entering into this drain directly or indirectly.

**(Action to be taken by State of Haryana)**

### **3.1.10 JHAMBOWALI CHOE**

Jhambowalichoe carries the sewage / sullage of various villages of Punjab namely Dugal (Khurd&Kalan), Hariyau (Khurd&Kalan), Khanewal, Nawangaun, Banga,

Dharamgarh, Bhedpuri, KahangarhBhutnan, Gazipur, Fatehmajri, Sehajpur (Kalan&Khurd), Ghagrauli, Dhuhar, Brass, Lalauchi, GajuMajra, TroraKhurd, Fatehpur, Kalyan, Jhambo, Kheri Mania, BishanpurChanna, Mehmodpur, ChuharpurMarasian, Hamjheri, Khaspur, Jeunpura, Arnetoo, Deogarh, Samana and Patran located in the catchment area of this choe. The sullage of village Chandu is also discharged directly into River Ghaggar opposite of Jhambowalichoe through pipeline. The status of STP of Patran town is given as under :

<b>S.N.</b>	<b>Name of the town</b>	<b>Capacity of STP</b>	<b>Status of STP</b>
1	Patran town	4 MLD	Installed and Commissioned
2	Samana	10 MLD	Installed & Commissioned

The Department of Rural Development and Panchayats is required to install suitable treatment system to treat the sewage / sullage of the villages named above.

**(Action to be taken by Deptt. of Rural Development and Panchayat)**

### **3.1.11 MOONAK TOWN**

Sewage / sullageof Moonak town is discharged directly into River Ghaggar through pipeline and the status of STP of this town is given as under :

<b>S.N.</b>	<b>Name of the town</b>	<b>Capacity of STP</b>	<b>Status of STP</b>
1	Moonak town	3 MLD	Installed and Commissioned

### **3.1.12LEHRAGAGGA MAIN**

The wastewater of Lehragagga town is discharged into Lehragaggamain leading to River Ghaggar. The status of STP of Lehragaggatown is as under:

<b>S.N.</b>	<b>Name of the town</b>	<b>Capacity of STP</b>	<b>Status of STP</b>
1	Lehragagga town	4 MLD	Installed and Commissioned

### 3.1.13 SARDULGARH TOWN

Sewage / sullage of Sardulgarh town is discharged into River Ghaggar after treatment in WSP of capacity 4.0 MLD. Some quantity of untreated effluent of village Bhunder is also discharged directly into River Ghaggar.

### 3.1.14 SIRHIND CHOE

In Sirhindchoe, the sewage of Bassi Pathana, Sirhind, Mandi Gobindgarh, Nabha, Sangrur, Sunam, Bhikhi and Longowal is discharged, which ultimately leads to River Ghaggar and joins it at Village Khai in Haryana. However, the water in Sirhindchoe occasionally reaches river Ghaggar as the same is being pumped out by the farmers for irrigating their agricultural fields located in the vicinity of this choe. Therefore, no flow of water is generally observed in this Choe, however during rainy season, the flow of water of this choe may reach to river Ghaggar. But in order to ensure that even during the rainy season, the untreated discharge of the said towns may not enter into River Ghaggar, STPs for these towns have been installed / proposed to be installed and the status of which is as under:

S.N.	Name of the town	Capacity of STP	Status of STP
1.	Bassi Pathana	3 MLD	Planning and designing are being done.
		0.2 MLD	Land is yet to be identified.
2.	Sirhind	5 MLD	Planning and designing are being done.
		4 MLD	Planning and designing are being done.
		2 MLD	Planning and designing are being done.
3.	Sunam	8 MLD	Operational
4.	Mandi Gobindgarh	25 MLD	Operational
		3 MLD	Under construction.
5.	Nabha	10 MLD	Land available but funds are yet to be tied up.

6.	Sangrur	11 MLD	Work of construction of STP is allotted. Previously the land was handed over to MC authorities but residents of village Kamomajra residing near the STP site filed a suit in Distt. Court, Sangrur against MC to not to construct STP at this site. No action is being taken due to Law & Order problem
		4 MLD	Land is being identified
7.	Bhikhi	3 MLD	Operational
8.	Longowal	3 MLD	Land available but the funds are yet to be tied up.

### 3.2 Industrial Source

#### 3.2.1 Industrial units located at DeraBassi and adjoining areas

There are 41 no. of water polluting industries in the catchment area of river Ghaggar at DeraBassi and adjoining areas. None of the industries is allowed to discharge the untreated / treated wastewater into the drains / choes leading to river Ghaggar. A list of these industries is attached herewith as **Annexure-A**. There are mainly pharmaceutical industries (10), dyeing units (8), Pulp & Paper mills (2), electroplating industries (5), engineering goods units (2), pesticide manufacturing (1), pharmaceutical formulation units (5), distillery unit (1), brewery unit (1), Meat Plant (2), Gelatine manufacturing unit (1) and Chemical manufacturing units (3) etc. The detail of pollution control system adopted by these industries is given as under:

- All the pharmaceutical units located at DeraBassi have installed their own effluent treatment plants and the major industries have installed ETP based on ZLD treatment system. These industries are utilizing their waste water onto land for plantation developed as per Karnal Technology.
- All the dyeing units located at DeraBassi have installed their own effluent treatment plants and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.

- All the pulp and paper mills located at DeraBassi have installed their own effluent treatment plants and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.
- All the electroplating units located at DeraBassi have made agreements with operator of the CETP located at Ludhiana to treat their wastewater.
- All the engineering goods manufacturing units located at DeraBassi have installed their own effluent treatment plants and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.
- There is one distillery unit and one brewery unit in the catchment area of river Ghaggar. The distillery unit has installed ETP based on ZLD treatment system and the brewery unit has installed its own effluent treatment plant and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.
- All the pharmaceutical formulation units located at DeraBassi have installed their own effluent treatment plants.
- There is only one major pesticide manufacturing unit, which has installed ETP based on ZLD treatment system.
- There is only one gelatine manufacturing unit, which has installed ETP and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.
- There are two meat plants, which have installed ETPs and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.
- There are three chemical manufacturing units, which have installed ETPs and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology.

### **3.2.2 Industrial units located in the catchment area of Patiala Nadi**

There are 4 no. paper mills, 2 board mills and 1 distillery unit in the catchment area of Patiala Nadi. A list of these industries is attached herewith as **Annexure-B**. The detail of pollution control system adopted by these industries is given as under:

- All the four paper mills have installed their own effluent treatment plants and the treated wastewater is discharged onto land for plantation developed as per Karnal Technology.
- Both the board mills have installed their own effluent treatment plants and have adopted recirculation system to recirculate the entire process water.
- There is only one distillery unit, which has installed its own effluent treatment plant and the treated wastewater is being discharged onto land for plantation developed as per Karnal Technology. This distillery unit is in the process of installing treatment system based on ZLD treatment technology which is likely to be commissioned by 31/12/2018.

#### **4.0 Way forward**

In order to restore the quality of water of river Ghaggar by ensuring no discharge of untreated sewage / sullage of wastewater directly / indirectly into the river, it is imperative to take prompt action by the following departments.

- 1 The Department of Water Supply and Sewerage Board / Deptt. of Local Govt. is required to install the sewage treatment plant in first phase in a time bound manner of the following towns/ cities.
  - A) STP of 2 MLD capacity of DeraBassi town.
  - B) STP of 1.5 MLD capacity of Lalru town.
  - C) All the outlets of Zirakpur town which are still connected to Sukhna Choe are required to be connected to sewerage system for treatment of wastewater in the STP of capacity 17.3 MLD of Zirakpur town.
  - D) STP of 4 MLD capacity for Sanour town.
  - E) STP of 10 MLD capacity for Rajpura town.
2. The Department of Water Supply and Sewerage Board / Deptt. of Local Govt. is required to install the sewage treatment plant in second phase in a time bound manner of the following towns / cities.
  - A) STP of 2 MLD, 4 MLD and 5 MLD capacities for Sirhind town.
  - B) STP of 3 MLD capacity for Mandi Gobindgarh town
  - C) STP of 0.2 MLD and 3 MLD capacities for BassiPathana town
  - D) STP of 10 MLD capacity for Nabha town

- E) STP of 4 MLD and 11 MLD capacities for Sangrur town
- F) STP of 3 MLD capacity for Longowal town
- 2 Municipal Corporation Patiala is required to augment the capacity of STP of 46 MLD installed at Village Shermajra.
- 3 Deptt. of Rural Development and Panchayats is required to identify all the villages which are discharging their wastewater directly / indirectly into river Ghaggar and are required to install treatment system based on suitable treatment technology to treat the wastewater of these villages.
- 4 GMADA is required to immediately commission the STP of 4 MLD capacity of Dera Bassi town.
- 5 Punjab Pollution Control Board is required to monitor all the industries on regular basis which are located in the catchment area of river Ghaggar.
- 6 UT Chandigarh is required to restrain the outlet leading to Sukhna Choe & N-Choe and these outlets are required to be connected to the STPs.
- 7 The PWSSB is required to frame a fool-proof protocol for operation and maintenance of all the STPs including the monitoring of quality of treated wastewater as well as operational parameters of the STPs.
- 8 The Department of Soil and Water Conservation is required to laid down distribution network of pipelines for utilization of treated wastewater for irrigation of agricultural land area instead of discharging the treated wastewater into drains which will also help to reduce the thrust on groundwater due to usage of fresh water for agricultural purposes.
- 9 State of Haryana is required to restrain the discharge of wastewater into Sukhna Choe, natural drain passing near K-Area of Zirakpur, Singh Nallah, Ghail Drain through which the wastewater of Ambala city is discharged and Sagarpara Drain etc.
- 10 State of Himachal Pradesh is required to restrain the discharge of various sources entering into river Ghaggar directly or indirectly.