



HARYANA STATE POLLUTION CONTROL BOARD
C-11, SECTOR-6, PANCHKULA
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HSPCB

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No. HSPCB /WC / 2097 - 2098

Dated:- 01-07-2020

To

1. Secretary, Government of India,
Ministry of Jal Shakti, Department of Water Resources,
River Development & Ganga Rejuvenation,
Shram Shakti Bhawan, Rafi Marg,
New Delhi.
2. Member Secretary, CPCB,
Parivesh Bhawan, East Arjun Nagar,
New Delhi.

Sub:- Regarding Pollution abatement of 351 polluted stretches (Hon'ble NGT in the matter OA No. 673 of 2018).

Sir,

Kindly refer to the subject noted above.

In this connection, it is intimated that there are two polluted river stretches in the State of Haryana i.e. river Ghaggar and Yamuna. I have been directed to enclose herewith the progress report of Ghaggar Action Plan (**Annexure-A**) and Yamuna Action Plan (**Annexure-B**) of Haryana on the prescribed format for the month of May, 2020 for your kind information and further necessary action please.

DA/As above

Sr. Env. Engineer (HQ)
For Member Secretary

Monthly Progress Report by State of Haryana regarding Ghaggar Action Plan- May, 2020.

(Hon'ble NGT in the matter of OA No. 673/ 2018 dated 06.12.2019 and orders dated 21.05.2020 in OA No. 593/2017)

Sr. No.	Activity to be monitored	Timeline
1	Ensure 100% treatment of sewage at least in-situ remediation	30.06.2020
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured.	30.06.2020
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning.	30.06.2021
3	Chief Secretaries may set up appropriate monitoring mechanism at State Level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary Level.• Chief Secretaries may have an accountable person attached in their office for this purpose.	22.01.2020
	<ul style="list-style-type: none">• Monitoring at State Level must take place	Fortnightly Commencing 21.12.2019
4	Progress report may be furnished by the States/ UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB	Monthly (Preferably before 20th of every month)

Progress report regarding Ghaggar Action Plan by State of Haryana

6.1 (i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.

There are 11 major drains, i.e. Sukhna Nallah, Jatton Wala Nallah, STP Panchkula, MDC Drain, Sukhna Choe, Ambala Drain, Ghail drain, Markanda River, Sagarpara (Saraswati) Drain, Kaithal Drain and Ratia Drain falling out in River Ghaggar in the State of Haryana. The flow and water quality of all the drains is regularly being monitored by HSPCB.

6.1 (ii) Status of STPs, I&D and sewerage networks, Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline.

(a) Details for sewage management (in MLD)

River	Sewage Generated	Treatment Capacity	Gap
Ghaggar	296.9	511.5	0

Gap analysis- However, there is gap in treatment capacity of 15.8 MLD in Ambala only.

(b) Details of Sewage treatment plants

Existing STPs		Under Construction STPs		Proposed STPs	
No.	Capacity	No.	Capacity	No.	Capacity
59	511.5	13	66.5	10	61.5

Work of construction of new STPs will be completed latest by 30.06.2020.

(c) Laying of Sewerage in approved/notified areas

- Total length of sewer line to be laid- **460 Km**
- Length laid so far- **412 Km**
- Total towns in catchment area of Ghaggar-27
- Sewerage fully laid in 13 towns
- Work is under process at 14 locations
- Work will be completed latest by 31.08.2020

(d) Interception/diversion of sewage in the un-approved areas

183 MLD of effluent was proposed to be tapped/ diverted at 92 locations. Out of which 0.4 MLD effluents has been diverted at 1 location, so far.

6.1 (iii) Status of CETPs, Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status.

Details of Common Effluent treatment plants

Existing CETPs		Under Construction CETPs		Proposed CETPs	
No.	Capacity	No.	Capacity	No.	Capacity
4	6.1	0	0	2	3

- No. of industries in catchment of River Ghaggar -197
- No. of ETPs installed - 197
- Quantum of Industrial effluent generation -4.1MLD
- Gap in treatment -0

6.1 (iv) Status of Solid Waste Management & Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline.

There are 84 Urban Local bodies in the state of Haryana and generates 5568 TPD Municipal Solid Waste. Out of which 2108 TPD is being processed/treated and remaining quantity i.e., 3460.12 TPD is being sent to landfills.

The current status of SWM

Table 1: Current status of SWM activities in the State is given in as under:

Sr. No.	SWM Activities in State	Quantity (in Nos)
1.	Total No. of Wards	1540
2.	Quantity of Solid Waste generated	5568 TPD
3.	No. of wards with 100% Door to Door Collection	1422
4.	No. of wards where segregation is initiated	923
5.	No. of vehicles	4299
6.	No. of vehicle with Compartment	3192
7.	No. of vehicles with GPS	1546
8.	No. of Garbage Vulnerable Points Identified	744
9.	No. of BWG identified	2692
10.	No. of BWG processing on site	486
11.	No. of Solid Waste Challan done	1868
12.	No. of Plastic Waste Challan done	4848

Government of Haryana has adopted cluster based integrated approach for Solid Waste Management. The entire State has been broadly divided into fourteen (14) clusters out of which four (4) will be Waste To Energy i.e., Faridabad, Rohtak, Sonapat, Ambala and (10) will be waste to Compost/RDF processing i.e., Jind, Hisar, Dabwali with Sirsa, Rewari, Panchkula, Bhiwani, Faruknagar, Yamuna Nagar, Punhana and Fatehabad.

➤ **Processing Facilities**

14 suitable sites for setting up of processing facilities in 14 clusters based on Integrated Solid Waste management approach have already been identified. It is informed by MC Hisar that international airport is proposed to be developed at a distance of 2 km from the proposed MSW site. In view of this, a new site should be identified for the project, till that time project is annulled for bidding. Out of 14 clusters for the development of Integrated Solid Waste processing facilities and Sanitary Landfill facilities, suitable sites for setting up of 12 clusters, have already been procured. The procurement of site (processing facilities and Sanitary Landfill) for Jind Cluster is under progress and will be procured at the earliest. As there is international Airport is about to set up within the range of 2Km of the site identified at hisar so the bidding process is annulled for Hisar cluster and MC Hisar has identified few sites, which are under the site feasibility process. As per the Annual Report for the year 2018, presently in the state there are 14 nos. Solid Waste

Composting Facilities, 10 nos. Vermi Composting Facilities and 03 nos. RDF Facilities. Rejects and residues collected from the above mentioned processes are disposed in dumping sites and further proposed to be processed for energy recovery.

6.1 (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;

(a) Water quality of river Ghaggar

Sr. No.	Drains meeting with river Ghaggar	Latitude/ Longitude	Flow (MLD)	BOD (mg/l)	F.Coli
1	Ghaggar before Discharge of STP, Sec-28, Panchkula at Vill- Kakrali, Punjab.	30.639975/ 76.872849	230.00	BDL	-
	Ghaggar after Discharge of STP, Sec-28, Panchkula at Vill- Kakrali, Punjab.		238.50	BDL	22000.00
2	Ghaggar before Sukhna choe at Vill- Bhankarpur, Punjab	30.613894/ 76.836044	290.00	7	-
	ghaggar after Sukhna choe at Vill- Bhankarpur, Punjab		350.00	32.00	-
3	Ghaggar before Ambala Drain	30.405329/ 76.734221	897.25	-	-
	Ghaggar after Ambala Drain		897.25	-	-
4	Ghaggar before Ghail drain at Rampur, Ambala	30.333872/ 76.668059	897.25	-	-
	Ghaggar after Ghail drain at Rampur, Ambala		915.20	4	-
5	Ghaggar before Markanda River at Vill. Dhandhota	30.090733/ 76.394279	3.22	40	150000
	Ghaggar after Markanda River at Vill. Dhandhota		10.64	46	72000
6	Ghaggar before Sagar Para Drain at Vill. Sagra	29.893021/ 76.169712	Punjab	38	72000
	Ghaggar after Sagar Para Drain at Vill. Sagra		Punjab	56	150000
7	Ghaggar before Kaithal drain at Vill. Khanauri	29.845506/ 76.112592	Punjab	26	180000
	Ghaggar after Kaithal drain at Vill. Khanauri		Punjab	-	-
8	Ghaggar before Discharge of M.C. Ratia (Fatehabad)	29.71135/ 75.552123	331.00	38	-
	Ghaggar after Discharge of M.C. Ratia (Fatehabad)		335.00	56	110000

(b) Ground water quality status in the vicinity of river Ghaggar.

Ground water quality is being monitored at 75 locations in the catchment of river Ghaggar by HSPCB. Out of total 75 locations, ground water is found fit for drinking at 28 locations and non complying at 47 locations. Directions have already been conveyed to all the task forces to cap such water sources and a display board mentioning that “Water is not for drinking purpose” may be placed. The same has been compiled by the task forces.

Sr. No.	Region	No. of points monitored	Complying	Non-complying
1.	Panchhkula	7	7	0
2.	Ambala	7	7	0
3.	Jind	2	1	1
4.	Kaithal	13	7	6
5.	Sirsa	28	5	23
6.	Fatehabad	18	1	17
Total		75	28	47

6.1 (vi) Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc.

(a) Bio Medical Waste Management

As per the Annual Report of 2018 Haryana state has generated 14217.88 KG/Day and same is processed/treated by the authorized 11 nos. of Common Bio Medical Waste Treatment Facilities. Total Incineration Capacity of these CBWTFs is 1650 Kg/hr.

As per Annual Report 2018, there are 4079 number of Health Care Facilities (HCFs) in the State including 2723 number Bedded HCFs and 1356 number Non Bedded HCFs. In all Bedded HCFs of State total numbers of Beds are 53259. Total Bio Medical Waste (BMW) generated by all HCFs is 14217.88 Kg/day.

(b) Plastic Waste Rules Management

As per the detail provided by ULBD total 525.121 TPD plastic waste is being generated and out of which 283.06 TPD is being processed/Treated. There is gap of 242.061 TPD.

Under the notification no 2/8/2013/R issued in the official Gazette of Haryana Govt. dated 20th August 2013, complete plastic ban has been enforced in the whole State.

The Municipal Corporation/Committee/Council is doing door to door collection and segregation and through private parties. ULBD is framing a proposal for use of plastic waste in road construction as per Indian road congress guidelines for energy recovery and waste oil from plastic waste.

For plastic waste (including other dry waste) segregation, 373 Material Recovery Facilities have been set up in the whole State. Apart from Material recovery Facilities, ULBs have also identified 3524 and registered 3232 rag pickers and Kabariwalas's for collection and segregation of plastic waste. These rag pickers are also segregating the plastic waste on their own level and selling it to the recyclers directly.

At present 22 nos. Of Plastic Waste recyclers are registered in Haryana under PWM Rules, 2016.

6.1 (vii) Ground water regulation

The industries are being persuaded to obtain permission from CGWA for extraction of ground water.

6.1 (viii) Adopting good irrigation practices,

The major demand for river water is for Irrigation purposes and accordingly the State of Haryana has taken initiatives for water efficient farming practices which are given as under:-

(a) Pilot Project for installation of solar/grid powered micro irrigation infrastructure on sewage treatment plants for utilizing treated water for Irrigation.

With a view of augmenting water of assured supply to the every field, a new intervention has been proposed for the reuse of treated waste water from the existing Sewage Treatment Plants for the use of water in the best alternative which will help in enhancing the irrigation. Working on these lines this pilot project has been prepared on over exploited & critical blocks by selecting STPs of Ladwa, Shahabad and Pehowa towns for irrigation. The farmers of the area are to be benefited from this water have already formed Water User Associations and also given an undertaking to the effect that their area, to be covered under this project, is not covered by any canal command and they are willing to adopt this technology. The common Micro Irrigation Infrastructure will be provided for each STP outlet for supplying pressurized water supply at farm gate by providing pumping unit (grid/solar powered), filtration, HDPE pipe network etc. the water will be provided under pressure of 2-2.5 Kg/cm² So that farmers may utilize this for sprinkler and drip system. Farmers will be provided hydrant for every 4 acres or less if the holding of the farmers is less than four acres. In this manner the treated water, which was otherwise going unutilized in drain, will be put to proper use. It is also reported that sewage water from all these STPs is being properly

monitored and tested by Public Health Engineering Department and parameters of this treated water meet with the standards for irrigation.

(b) Project of Recycle and Ruse of Treated Wastewater for Irrigation Purpose

3 projects are commissioned so far, in the catchment of river Ghaggar utilizing 5.69 MLD of treated sewage from 3 STPs. 5 villages are benefitted by irrigating 290 hectares of land. Total cost of the projects is Rs 378.00 lacs.

Further, the Irrigation Department has planned to utilize 158 MLD of treated sewage from 6 STPs for Irrigation of 12755 hectares of agriculture land. Total cost of the projects is Rs. 7199 lacs.

(c) Installation of community based solar/grid powered mirco-irrigaton infrastructure in existing canal commands

Six community based solar/grid powered mirco-irrigaton facilities have been installed for Irrigation of 768 hectare land.

6.1 (ix) Protection and management of Flood Plain Zones (FPZ).

All the construction activities are banned on river Yamuna/Ghaggar Flood Plains and no encroachment on river Yamuna is allowed as per section 45 of Haryana Canal and Drainage Act, 1974. However, if any encroachment exists on river Yamuna/Ghaggar is immediately removed in accordance of this Act.

6.1 (x) Rain water harvesting,

Following steps are taken for rain water harvesting / conservation of water/avoid exploitation of ground water

a. Roof Top Rain Water Harvesting Scheme

On 31.10.2001, a notification regarding making roof rain water harvesting- Conversation & Artificial recharge of ground water compulsory in Govt. buildings/HSVP Buildings, including all the private houses/buildings to be constructed in Urban Estates, in future having roof top surface area 100 Sqm. more was issued. Notification has already been circulated vide No.9945-46 dated 29.11.2001 (copy enclosed) and the areas/Urban Estates in Haryana where this notification has been made applicable have also been notified vide letter no.1200 dated 10.12.2001.

Zonal Administrator/Estate Officers of HSVP ensure that occupation certificate is not issued in the absence of the implementation of above cited notification. 47 rain water harvesting systems have been constructed by HSVP.

List of Harvesting Well in various Urban Estates of HSVP w.e.f. 01.01.2002 to 29.02.2020

Sr. No.	Name of Urban Estate	Nos. of Harvesting Well
1	Panchkula	11443

b. Installation of Dual Button Flushing Cistern

Haryana Govt. has issued notification on 13.08.2014, making installation of dual button cisterns (capacity 10/5 Litre and 6/3 Litre) mandatory for all types of plot holders (new buildings) in HSVP areas in addition to all Govt. Buildings and Buildings in licensed areas. Occupation certificate shall not be issued in the absence of dual button flushing cisterns in these buildings.

c. Graded Tariff for Economic Use Of Water

The graded water tariff has been implemented in various Urban Estates in Haryana for economical domestic use of water.

d. Reuse of Tertiary Treated / Recycled Water

To avoid exploitation of ground water, tertiary treated water is being used for irrigation/flushing purpose in some of Urban Estates of HSVP. Efforts are being made for its implementation in other Urban Estates also.

6.1 (xi) Maintaining minimum environmental flow of river

It is brought out that Ghaggar river is not a perennial river and discharge varies from zero to maximum during flood seasons. Around 15-20% of the lowest possible discharge in the lean season is required for maintaining E-flow. In our case the discharge varies from zero to maximum so maintaining E-flow is not possible. However, the monthly flow of all the major drains joining river Ghaggar is being measured regularly on monthly basis and quantity of flow is as under:

6.1 (xii) Plantation on both sides of the river

➤ **Urban Estate Wise Plantation Done in HSVP Area**

Sr. No.	Name of U/E	Plantation Done in the Year 2016-17	Plantation Done in the Year 2017-18	Plantation Done in the Year 2018-19	Plantation Done in Year 2019-20 (upto 29.02.2020)
1	Panchkula	11238	6929	5000	7820
2	Ambala	3800	2317	1500	3626
3	Pehowa	125	0	0	0
4	Naraingarh	125	0	0	0
5	Kurukshetra	3430	2050	2000	3472
6	MTS Gulha	100	0	0	0

Sr. No.	Name of U/E	Plantation Done in the Year 2016-17	Plantation Done in the Year 2017-18	Plantation Done in the Year 2018-19	Plantation Done in Year 2019-20 (upto 29.02.2020)
7	MTS Pundri	100	0	0	0
8	Kaithal	675	2120	1000	3160
		19593	13416	9500	18078

➤ **Plantation done in catchment of River Ghaggar by Forest Department.**

Detail of plantation in catchment areas of Ghaggar river				
	Plantation 2018-2019		Plantation Target 2019-2020	
District	Ha.	No. of plants	Ha.	No. of plants
Panchkula	1117	8,31,000	404	4,81,000
Fatehabad	1519	11,41,000	855	7,20,000
Sirsa	863	8,81,000	624	5,27,000
Total	3499	2853000	1883	1728000

6.1 (xiii) Setting up biodiversity parks on flood plains by removing encroachment.

Herbal Parks for Bio-diversity conservation		
District	Name	Areas in Acre.
Panchkula	i) World Herbal Forest, Morni	12500
	ii) Kapoor Vatika at Mallah	25
	iii) Thapli Herbal Park at Village Thapli	10
	iv) Tikka-Tal Herbal Park	20
Fatehabad	i) Mulethi Vatika at Gilakhera	14
	ii) Er. Kanwar Sain Gupta Herbal Park at Tohana	25
Sirsa	i) Bahera Vatika at Village Fulkan Village	17
Total		12611

Monthly Progress Report by State of Haryana regarding Yamuna Action Plan- May, 2020.

(Hon'ble NGT in the matter of OA No. 673/ 2018 dated 06.12.2019)

Sr. No.	Activity to be monitored	Timeline
1	Ensure 100% treatment of sewage at least in-situ remediation	30.06.2020
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured.	30.06.2020
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning.	30.06.2021
3	Chief Secretaries may set up appropriate monitoring mechanism at State Level <ul style="list-style-type: none">• Specifying accountability of nodal authorities not below the Secretary Level.• Chief Secretaries may have an accountable person attached in their office for this purpose.	22.01.2020
	<ul style="list-style-type: none">• Monitoring at State Level must take place	22.01.2020 Fortnightly Commencing 21.12.2019
4	Progress report may be furnished by the States/ UTs to <ul style="list-style-type: none">• Secretary, Ministry of Jal Shakti• Member Secretary, CPCB	Monthly (Preferably before 20th of every month)

Progress report regarding Yamuna Action Plan by State of Haryana

6.1 (i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.

- The drains have been identified where Phyto/Bio remediation is to be started as an interim measure till the commencement of the under construction and proposed STPs/CETPs.
- The Nodal Departments for the execution of the works have also been identified.

The Nodal departments were identified as under:-

Sr. No.	Name of Drain	Main Stakeholder Departments	Name of ULB	Nodal Department for execution of works
1.	Dhanura Escapes (Ditch Drain)	PHED, ULBD	Yamunanagar	PHED
2.	Drain no. 2	ULBD, HSVP	Panipat	ULBD
3.	Drain no. 6	ULBD, HSIIDC	Sonipat	HSIIDC
4.	Mungeshpur	ULBD, PHED	Bahadurgarh	ULBD
5.	KCB Drain	HSIIDC, ULBD	Bahadurgarh	HSIIDC
6.	Drain no. 8	Not required being nil flow		
7.	Leg I	MCG, GMDA	Gurugram	MCG
8.	Leg II	MCG, GMDA	Gurugram	MCG
9.	Leg III	MCG, GMDA	Gurugram	GMDA
10.	Budhiya Nalah	ULBD, HSIIDC	Faridabad	ULBD
11.	Guanchi	ULBD, PHED (For discharge of village Hodal and Hathin).	Faridabad	ULBD

6.1 (ii) Status of STPs, I&D and sewerage networks, Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline.

(a) Details for sewage management (in MLD)

River	Generated	Treatment capacity	Gap
Yamuna	1034.4	1052.2	0

However, there is gap in treatment capacity of 181.4 MLD in some towns in catchment of river Yamuna i.e. Faridabad (171 MLD), Beri (0.1 MLD), Indri(0.8), Palwal(9 MLD) and Samalkha (0.5 MLD).

(b) Details of STPs

Existing STPs		Under Construction STPs		Proposed STPs	
No.	Capacity	No.	Capacity	No.	Capacity
58	1052.2	18	220	11	334

Work of construction of new STPs will be completed by 31.12.2020 except at Faridabad town where it will be completed latest by 31.07.2021.

(c) Status of laying of sewer network in approved/notified areas

1516 Km of sewer line was proposed to be laid in total 34 towns in the catchment of river Yamuna, out of which 929 KM length of sewer line have already been laid. Sewerage fully laid in 12 towns i.e. Radaur, Ganaur, Ladwa, Nuh, Kharkhoda, Sampla, Yamuna Nagar, Hathin, Meham, Gurugram, Gohana and Chhachhrauli. Sewer lines are being laid in balance 23 towns. Plan for 2 towns (Beri and Panipat,) are beyond the timelines prescribed by NGT and are planned upto 31.12.2021. Rest of Work will be completed by 31.12.2020.

(d) Interception of sewage (excluding Gurugram) in the un-approved areas

91.7 MLD of effluent was proposed to be tapped/ diverted at 128 locations. Out of which 12.51 MLD effluents has been diverted at 38 locations.

(e) Diversion of sewage at Leg-I, Leg-II, Leg-III drains in Gurugram

Sr. No.	Name of drains	Discharge as on 2018 (MLD)	Present Discharge	Progress achieved from Jan, 20 to May, 20	Total progress achieved till date(In MLD)	Pending issues	Road map for future course of action with timelines
1	Leg-I	22.80	8.60	3.5 MLD	14.20	Balance 6 points of 8.6 MLD is yet to be diverted out of 22.8 MLD. Which is delayed due to ban on construction activity by Hon'ble Supreme Court in NCR region due air pollution and lockdown due to Covid-19	Likely to be completed by 31-12- 2021 however, subject to availability of labour due to various phases of lockdown in future in view of epidemic of COVID-19
2	Leg-II	35.64	20.10	15.95 MLD	15.54	Balance 5 points of 7.8 MLD is yet to be diverted out of 35.64 MLD. Which is delayed due to ban on construction activity by Hon'ble Supreme Court in NCR region due air pollution and lockdown due to Covid-19	Likely to be completed by 31-12- 2021 however, subject to availability of labour due to various phases of lockdown in future in view of epidemic of COVID-19
3	Leg-III	80.25	34.90	14.45 MLD	45.35	Balance 38 points of 34.90 MLD is yet to be diverted out of 80.25 MLD. Which is delayed due to ban on construction activity by Hon'ble	Likely to be completed by 31-09- 2021 however, subject to availability of labour due to various phases

Sr. No.	Name of drains	Discharge as on 2018 (MLD)	Present Discharge	Progress achieved from Jan, 20 to May, 20	Total progress achieved till date(In MLD)	Pending issues	Road map for future course of action with timelines
						Supreme Court in NCR region due air pollution and lockdown due to Covid-19	of lockdown in future in view of epidemic of COVID-19
Total		138.69	63.6	33.90 MLD	75.09	Balance 49 points Of 51.3 MLD is yet to be diverted	

The work of tapping of sewage in Leg-I, Leg-II, Leg-III drains will be completed by 31.12.2020.

6.1 (iii) Status of CETPs, Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status.

Details of Common Effluent treatment plants

Existing CETPs		Under Construction CETPs		Proposed CETPs	
No.	Capacity	No.	Capacity	No.	Capacity
13	158.75	0	0	10	165.25

- No. of industries in catchment of River Yamuna -2597
- Quantum of Industrial effluent generation -129.7 MLD
- Existing treatment capacity of CETPs -158.750 MLD
- Treatment capacity under proposal - 120.25 MLD
- Gap in treatment -0

6.1 (iv) Status of Solid Waste Management & Details of Processing Facilities

Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline.

There are 84 Urban Local bodies in the state of Haryana and generates 5568 TPD Municipal Solid Waste. Out of which 2108 TPD is being processed/treated and remaining quantity i.e., 3460.12 TPD is being sent to landfills.

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➤ Processing Facilities

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are 14 nos. Solid Waste Composting Facilities, 10 nos. Vermi Composting Facilities and 03 nos. RDF Facilities. Rejects and residues collected from the above mentioned processes are disposed in dumping sites and further proposed to be processed for energy recovery.

6.1 (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;

(a) Water Quality and flow of major drains of river Yamuna

Pollution Load in the River Yamuna (before and after).					
Sr. No.	Name of drain	latitude/ Longitude	Flow (MLD)	BOD (mg/l)	F.Coli
1	Yamuna before Dhanura Escape	29.726992/ 77.13079	367.5	BDL (DL-1)	-
	Yamuna after Dhanura Escape		374.85	4.5	-
2	Yamuna before Drain No.2	29.279022/ 77.123801	1625.575	BDL(DI=2)	9000
	Yamuna after Drain No.2		1652.525	0	200
3	Drain No. 6	It Falls in Delhi Territory			
4	Yamuna before Diversion Drain No.8	28.86158/ 77.206427	4998	BDL (DL=1)	27000
	Yamuna after Diversion Drain No.8		5110.7	0	46000
5	Yamuna before Budhiya Nalah	28.379079/ 77.486982	13462.75	40	-
	Yamuna after Budhiya Nalah		13524	50	-
6	Yamuna before Guanchi	27.912886/ 77.519735	13389.25	19	3000
	Yamuna after Guanchi		13419.875	14	3200

(b) Ground water quality status in the vicinity of river Yamuna.

Ground water quality is being monitored at 66 locations in the catchment of river Yamuna by HSPCB. Out of total 66 locations, ground water is found fit for drinking at 50 locations and non complying at 16 locations. Directions have already been conveyed to all the task forces to cap such water sources and a display board mentioning that "Water is not for drinking purpose" may be placed. The same has been compiled by the task forces.

Sr. No.	Region	NO. of Points monitored	Complying	Non-Complying
1	Panipat	9	6	3
2	Faridabad	7	7	0
3	Sonepat	13	11	2

Sr. No.	Region	NO. of Points monitored	Complying	Non-Complying
4	Ballabagarh	12	4	8
5	Bahadurgarh	7	4	3
6	Gurgaon South	7	7	0
7	Gurgaon North	8	8	0
8	Yamuna Nagar	3	3	0
	Total	66	50	16

6.1 (vi) Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc.

(a) Bio Medical Waste Management

As per the Annual Report of 2018 Haryana state has generated 14217.88 KG/Day and same is processed/treated by the authorized 11 nos. of Common Bio Medical Waste Treatment Facilities. Total Incineration Capacity of these CBWTFs is 1650 Kg/hr.

As per Annual Report 2018, there are 4079 number of Health Care Facilities (HCFs) in the State including 2723 number Bedded HCFs and 1356 number Non Bedded HCFs. In all Bedded HCFs of State total numbers of Beds are 53259. Total Bio Medical Waste (BMW) generated by all HCFs is 14217.88 Kg/day.

(b) Plastic Waste Rules Management

As per the detail provided by ULBD total 525.121 TPD plastic waste is being generated and out of which 283.06 TPD is being processed/Treated. There is gap of 242.061 TPD.

Under the notification no 2/8/2013/R issued in the official Gazette of Haryana Govt. dated 20th August 2013, complete plastic ban has been enforced in the whole State.

The Municipal Corporation/Committee/Council is doing door to door collection and segregation and through private parties. ULBD is framing a proposal for use of plastic waste in road construction as per Indian road congress guidelines for energy recovery and waste oil from plastic waste.

For plastic waste (including other dry waste) segregation, 373 Material Recovery Facilities have been set up in the whole State. Apart from Material recovery Facilities, ULBs have also identified 3524 and registered 3232 rag pickers and Kabariwalas's for collection and segregation of plastic waste. These rag pickers are also segregating the plastic waste on their own level

and selling it to the recyclers directly. At present 22 nos. Of Plastic Waste recyclers are registered in Haryana under PWM Rules, 2016.

6.1 (vii) Ground water regulation

The industries are being persuaded to obtain permission from CGWA for extraction of ground water.

6.1 (viii) Adopting good irrigation practices,

The major demand for river water is for Irrigation purposes and accordingly the State of Haryana has taken initiatives for water efficient farming practices which are given as under:-

(a) Project of Recycle and Ruse of Treated Wastewater for Irrigation Purpose

Project was prepared under the guidelines of the scheme for "Incentivization Scheme for Bridging Irrigation Gap (ISBIG) of Ministry of water Resources, River Development and Ganga Rejuvenation, govt. of India" under components infrastructure for conveyance and additional treatment of municipal and industrial wastewater for augmenting water for the farm use "Project Under newly created Irrigation Efficiency in phasing during the financial year 2018-19 to 2020-2021 for amounting in Rs. 235.94 Crore only. 13 STPs with 157.60 MLD capacity in the catchment of river Yamuna are selected for the project.

(b) Installation of community based solar/grid powered mirco-irrigaton infrastructure in existing canal commands

Six community based solar/grid powered mirco-irrigaton facilities have been installed for Irrigation of 768 hectare land.

6.1 (ix) Protection and management of Flood Plain Zones (FPZ).

All the construction activities are banned on river Yamuna/Ghaggar Flood Plains and no encroachment on river Yamuna is allowed as per section 45 of Haryana Canal and Drainage Act, 1974. However, if any encroachment exists on river Yamuna/Ghaggar is immediately removed in accordance of this Act.

6.1 (x) Rain water harvesting,

Following steps are taken for rain water harvesting / conservation of water/avoid exploitation of ground water

(a). Roof Top Rain Water Harvesting Scheme

On 31.10.2001, a notification regarding making roof rain water harvesting-Conservation & Artificial recharge of ground water compulsory in Govt. buildings/HSVP Buildings, including all the private houses/buildings to be constructed in Urban Estates, in future having roof top surface area 100 Sqm. more was issued. Notification has already been circulated vide No.9945-46 dated 29.11.2001 (copy enclosed) and the areas/Urban Estates in Haryana where this notification has been made applicable have also been notified vide letter no.1200 dated 10.12.2001. (copy enclosed).

Sr. No.	Name of Urban Estate	Nos. of Harvesting Well
1	Kurukshetra	4879
2	Shahbad	638
3	Karnal	4395
4	Panipat	3032
5	Sonipat	3217
6	Gohana	338
7	Faridabad	10162
8	Yamunanagar / Jagadhari	139
9	Gurugram	21834
	Total	48634

425 rain water harvesting systems have been constructed by HSVP.

(b). INSTALLATION OF DUAL BUTTON FLUSHING CISTERN

Haryana Govt. has issued notification on 13.08.2014, making installation of dual button cisterns (capacity 10/5 Litre and 6/3 Litre) mandatory for all types of plot holders (new buildings) in HSVP areas in addition to all Govt. Buildings and Buildings in licensed areas. Occupation certificate shall not be issued in the absence of dual button flushing cisterns in these buildings.

(c). GRADED TARIFF FOR ECONOMIC USE OF WATER

The graded water tariff has been implemented in various Urban Estates in Haryana for economical domestic use of water.

(d). REUSE OF TERTIARY TREATED / RECYCLED WATER

To avoid exploitation of ground water, tertiary treated water is being used for irrigation/flushing purpose in some of Urban Estates of HSVP. Efforts are being made for its implementation in other Urban Estates also.

6.1 (xi) Maintaining minimum environmental flow of river

It has been reported by the Irrigation and Water Resources Department, Haryana that as per MoU dated 12.05.1994 signed among the States of UP, Haryana, Rajasthan, Himachal Pradesh & NCT of Delhi, a minimum discharge of 352 cusec water is released in Yamuna river from Hathnikund barrage at lean period also to maintain the E-flow of river which was in accordance with the guidelines of Ministry of Water Resources, River Development & Ganga Rejuvenation, Govt. of India in compliance of the order of Hon'ble NGT dated 11.06.2015. However, in case excess discharge is received at HKB (in monsoon seasons) in comparison to capacity of channel, then this excess discharge is released into river Yamuna through Somb Nadi and the indented supply is released in the channel.

6.1 (xii) Plantation on both sides of the river

Urban Estate Wise Plantation Done in HSVP Area					
Sr. No.	Name of U/E	Plantation Done in the Year 2016-17	Plantation Done in the Year 2017-18	Plantation Done in the Year 2018-19	Plantation Done in Year 2019-20 (upto 29.02.2020)
1	Jagadhri / Yamunagar	1905	1746	500	1178
2	Shahabad	155	0	0	0
3	Karnal	6819	10038	5000	2810
4	Faridabad	22073	26513	14300	22490
5	Palwal	1125	950	100	300
6	Rojka Meo	0	0	500	100
		32077	39247	20400	26878

Plantation done in catchment of river Yamuna by Forest Department.

Detail of plantation in catchment areas of Yamuna river				
District	Plantation 2018-2019		Plantation Target 2019-2020	
	Ha.	No. of plants	Ha.	No. of plants
Yamuna Nagar	977	10,67,000	898	9,20,000
Karnal	543	4,91,000	844	6,48,000
Panipat	599	5,41,000	540	4,46,000
Sonipat	646	5,06,000	612	4,99,000

Faridabad	527	3,62,000	940	7,44,000
Palwal	264	2,22,000	386	2,98,000
Total	3556	3189000	4220	3555000

6.1 (xiii) Setting up biodiversity parks on flood plains by removing encroachment.

Herbal Parks for Bio-diversity conservation		
District	Names	Area in Acre
Yamuna Nagar	i) Rudraksh Vatika at village Chuaharpur	184
	ii) Adi Badri Herbal Park	10
Karnal	i) Ashok Vatika at Gharaunda	5
	ii) Indri Herbal Park	10
Panipat	i) Bilva Vatika at Pati Kalyana Village	14
Sonipat	ii) Amaltas Vatika Pati Kalyana Village	8
	ii) Khanpur Kalan Herbal Park	12
Faridabad	i) Ratanjot Vatika at Gurugram Canal at Faridabad	10
Palwal		0
Total		253