

District Environment Plan



Prepared By



Environment Department, Government of Maharashtra



Maharashtra Pollution Control Board

Latur

1.0 Preamble

Hon'ble National Green Tribunal vide order dated 26/09/2019 in O.A. No. 360 of 2018 filed by Shree Nath Sharma Vs Union of India and Others directed that CPCB shall facilitate the District Magistrates in preparation of District Environmental Plan by placing Model plan on its website. This model plan may be adopted as per local requirements by all Districts under supervision of District Magistrate.

The said Order also directs that Department of Environment in respective States / UTs should collect district plans to prepare State Environment Plan, which shall be monitored by respective Chief Secretaries of State/UT by 15/12/2019.

Based on State Environmental plans, CPCB and Ministry of Environment, Forest & Climate Change shall prepare National Environmental Plan, under the supervision of Secretary, MoEF&CC and Chairman, CPCB by 31/01/2020. The National Action Plan needs to be submitted before Hon'ble NGT 15/02/2020.

In compliance to above directions and as per the model DEP prepared by CPCB, Environment Action plan for the district is prepared.

2.0 Introduction

Latur district is a district in Maharashtra state of India. Latur city is the district headquarters and is the 16th largest city in the state of Maharashtra. The city is a tourist hub surrounded by many historical monuments, including Udgir Fort and Kharosa Caves. Latur district has an ancient historical background. The King 'Amoghvarsha' of Rashtrakutas developed the Latur city, originally the native place of the Rashtrakutas. The Rashtrakutas who succeeded the Chalukyas of Badami in 753 A.D called themselves the residents of Lattalut. The district is primarily agricultural. Later in the 19th century, Latur became part of the Princely state of Hyderabad. In 1905 it was merged with surrounding areas and renamed Latur tehsil, becoming part of Osmanabad district. Before 1948, Latur was a part of Hyderabad State under Nizam. The chief of Nizam's Razakar army, Qasim Rizwi, was from Latur.

General Latur district profile is presented in the **Table 1** and location is shown in **Figure 1**.

Table 1 Latur District Profile

Description	Details
Average Climate	Summer: 41 to 45.6 °C. Winter: 13 to 41 °C. Rainfall: 9.0 to 693 mm/month.
Geographical Location	It lies between 18.40° North Latitude and 76.56° East Longitude. It lies on the foothills of Sahyadri Mountains. Latur district is in the Marathwada region in Maharashtra in India
Area	7157 sq. km.
Boundaries	The district is situated on the Maharashtra Karnataka boundary. On the eastern side of the Latur is Bidar district of Karnataka, whereas Nanded is on the northeast, Parbhani on the northern side, Beed on the Northwest and Osmanabad on the western and southern side. The entire district of Latur is situated on the Balaghat plateau, 540 to 638 meters from the mean sea level.
Languages Spoken	Marathi, Hindi, Urdu, Telgu, Kannad. English are major languages but all Indian languages are spoken
Population	Total: 2,454,196 ; Male: 1,273,140 Female: 1,181,056

Description	Details
	[According to 2011 Census Report]
Population Density	343 per sq.km
Literacy Rate	77.26
Rivers	Manjara , Gharni , Terna, Tawarja, Lendi, Manyad
Sub districts	5 Numbers
Villages	948 Numbers
Statutory Towns	16 Numbers
Tahsils	10 Numbers: Latur, Ausa, Renapur, Nilanga, ShirurAnantpal, Deoni, Udgir, Jalkot, Ahmedpur, Chakur.
Pin code	413 512- 413 531

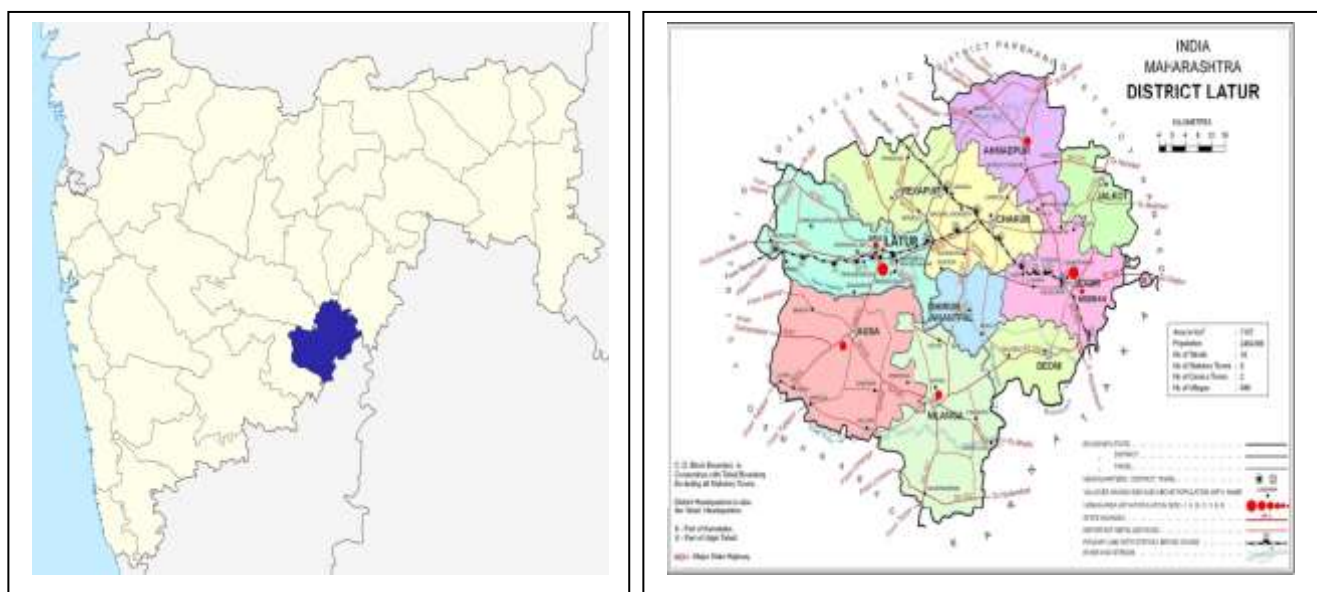


Figure 1 Location of Latur District

3.0 Waste Management Plan

Urban India is facing an ever increasing challenge of providing for the incremental infrastructural needs of a growing urban population. According to the 2011 census, the population of India was 1.21 billion; of this 31% live in cities. It is further projected that by 2050 half of India's population will live in cities. With this increasing population, management of Municipal Solid Waste (MSW) in the country has emerged as a severe problem not only because of the environmental and aesthetic concerns but also because of the sheer quantities generated every day.

Solid waste management is among the basic essential services provided by municipal authorities in the country to keep cities clean. Primary sources of solid waste are local households, commercial establishments, hospitals, hotels, restaurants, and markets. Local Bodies are responsible for collection, storage, segregation, transportation and disposal of all solid waste generated in the city. There are 10 Urban Local Bodies [ULBs]. in the district. **Table 2** represents the list of ULBs along with population. Following section gives insight about waste management of the district.

Table 2 Name of ULBs with Population

Sr. No.	Urban Local Bodies	Population
1.	Latur Municipal Corporation	382,950
2.	Ahmedpur Municipal Council	43,936
3.	Udgir Municipal Council	103,550
4.	Ausa Municipal Council	36,118
5.	Nilanga Municipal Council	36,172
6.	Deoni Nagar Panchayat	12,899
7.	Chakur Nagar Panchayat	19,244
8.	Shirur Anantpal Nagar Panchayat	10,417
9.	Jalkot Nagar Panchayat	9,356
10.	Renapur Nagar Panchayat	19,277

3.1 Domestic Solid Waste Management Plan

There are total 10 ULBs with 153 Wards in the district. Municipal Solid Waste [Dry & Wet] generated from each ULBs is given in the **Figure 2** and details of Other Types of Waste is presented in **Figure 3** due to its less quantity and for easy representation. Total domestic solid waste generation across the district is 235.47MTD. wherein, Dry Waste is 105.96MTD and Wet waste is 129.515MTD.

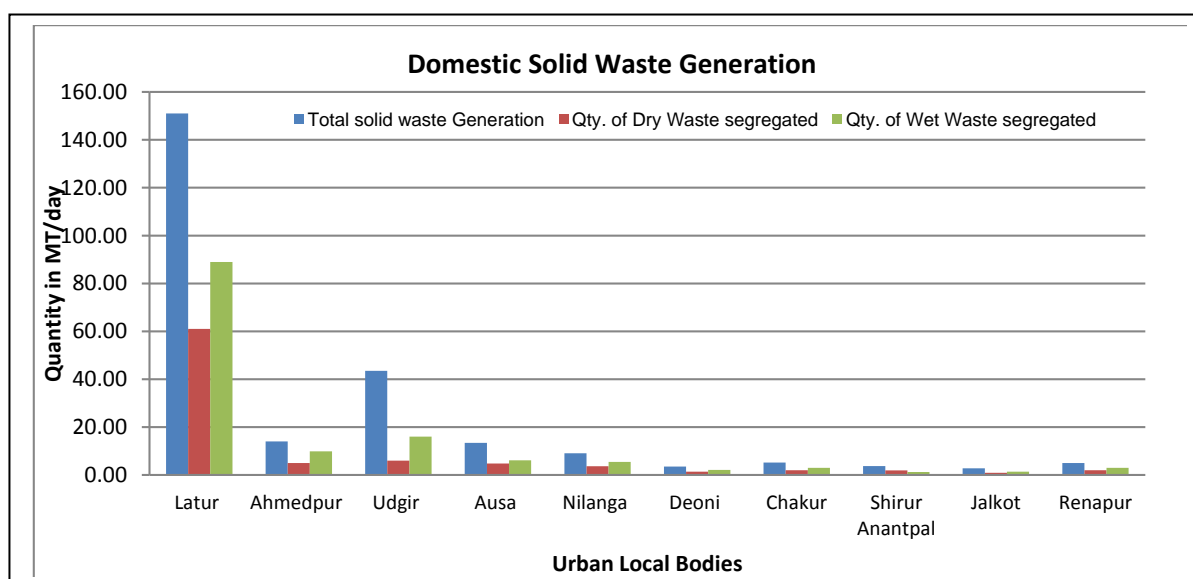


Figure 2 Details of Domestic Solid Waste Generation

Being most populated city, Latur city generates maximum quantity i.e. 151MTD with dry waste is of 61MTD and wet waste 89MTD. Minimum quantity is generated by Deoni Nagar Panchayat i.e. 3.75MTD out of which 1.8MTD is dry waste and 1.2MTD is wet waste. It is observed that all generated waste is 100% segregated in to Dry & Wet waste. There Only 2 bulk Waste Generator is identified across the 10 ULBs with 2 on site treatment facility. Details of other types of waste generation and interpretation are as below;

A] Street Sweeping Waste: Total generation of Street Sweeping Waste is 8.1MTD. With 5MTD, Latur stands on top whereas Renapur generates 0.02MTD which is lowest quantity generated in the district

- B] Drain Silt Waste:** Total Drain Silt Waste generated is 32.2MTD. Maximum quantity i.e. 10MTD is generated by Latur City and lowest quantity is generated by 0.01MTD by Jalkot Nagar Panchayat. No system for collection of drain silt in Renapur Nagar Panchayat.
- C] Domestic Hazardous Waste (DHW):** District generates only 0.3MTD of DHW.
- D] Other Waste (Horticulture, sanitary waste, etc.):** Total Quantity of Horticulture, Sanitary and other waste is 0.2MTD.

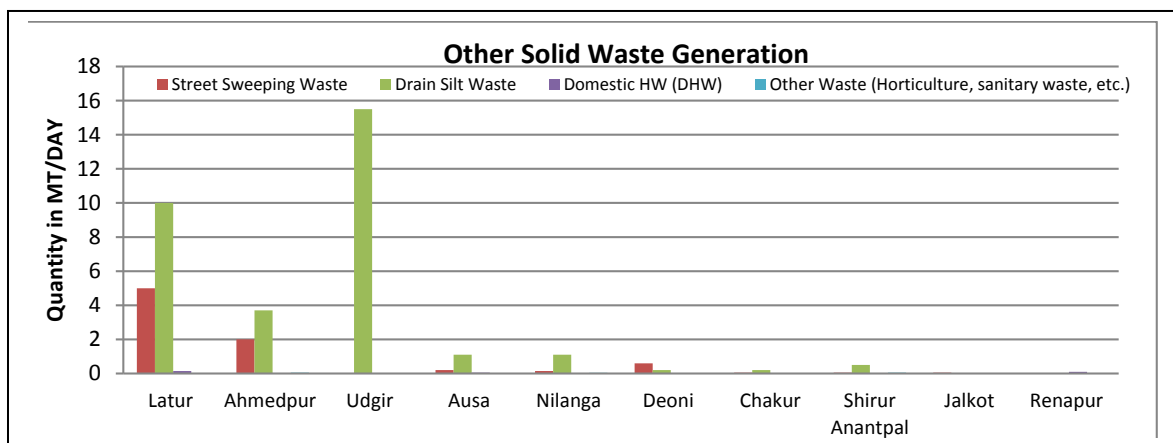


Figure 3 Details of Other Waste Generation

3.1.2 Adequacy of Infrastructure

Out of 10 ULBs, 7 ULBs are having 100% door to door collection system whereas in 3 ULBs have partially implemented door to door collection system. Only Latur city has initiated Mechanical Sweeping. There are 3 numbers of old dump sites and with total stored material of 2,25,180MT. All ULBs have started working of reclamation of old dumping site.

Availability of infrastructure to handle the waste generated from the district is presented in **Figure 4**.

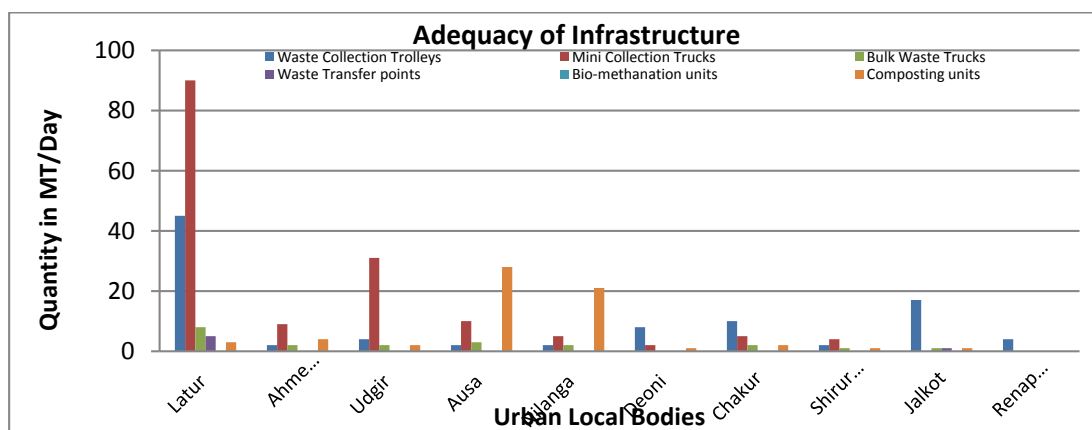


Figure 4 Adequacy of Solid Waste Infrastructure

District has provided 6 numbers of waste Transfer points for all types of waste collection & transportation and 10 waste deposition centres for DHW across the entire district. There are 96Waste collection Trolleys, 156, Mini collection Trucks, 21 Bulk transport Trucks. 2 Sanitary Landfill sites are present in the district but both are not in operations. No Bio-Methanation units is installed in any of the ULBs. There are 63 composting units and most of the wet

waste is treated through composting. District authorities has implemented Solid Waste Management Rules in all the ULBs.

3.2 C&D Waste Management Plan

District generates 782.4MT annually Construction and Demolition Waste [C&D Waste]. 109.91MT is processed /recycled. 921MT is disposed by land filling without processing. 248.5MT is illegally dumped. District has 5 storage facility.

3.3 Plastic Waste Management

Overall Plastic waste generated in Latur district is 0.9MTD. Chakur Nagar Panchayat generates maximum waste with 0.19MTD.

Collection and Segregation systems in all ULBs have implemented 100%. Overall Plastic Waste Collection Centre are 12. There are 145 Plastic Waste Pickers and 20 numbers of Plastic Waste Recycler but there is no plastic manufacture unit in the district. 1MT/Month plastic is use in Road making. PW Management Rules, 2016 is implemented in all the ULBs ULBs have established linkage with 9 NGOs. However no information is available related to programme conducted for mass awareness of public regarding plastic waste.

3.4 Biomedical Waste Management

There are 377 hospitals, out of which 275 Bedded hospital and 102 are Non Bedded and all of them have taken BMW authorization from MPCB. 207Clinics and 10 Veterinary hospitals. Total BMW generation from all above mentioned sources are to the tune of 732kg/day. There is only 1 Common Facility available for treatment and disposal of BMW. Inventory of BMW generating units are mentioned in the **Figure 5**.

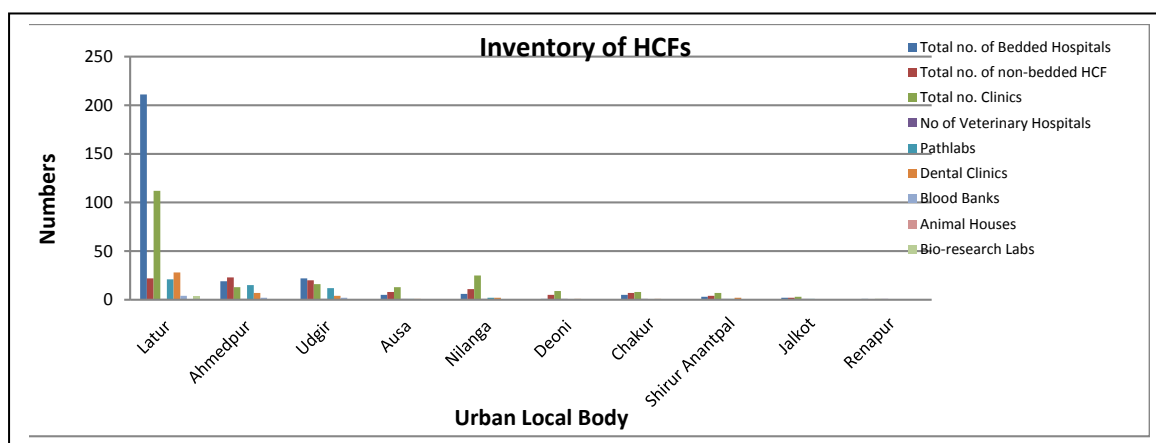


Figure 5 Inventory of BMW Generating Units

3.5 Hazardous Waste Management

There are 19 industries which generates Hazardous Waste. Annual HW generation is 1,995.9MT out of which 1,017.33MT is sent for incineration, 722.38MT is sent for land filling and 256.2MT is send for recover of HW materials. All industries have taken authorization from MPCB and displayed Board of HW Generation in front of Gate All industries and have taken membership of Common Hazardous Waste TSDF. As there is no Common Treatment

facility is within the district and all generated HW is sent to Common Hazardous Waste TSDF located in other district of the State.

3.6 E Waste Management

There are 6 dedicated Collection Centres provided by ULBs and PROs under EPR scheme. There is authorized E-Waste recyclers / Dismantler.

3.7 Action Plan

As per the above data it is observed almost all ULBs are handling & disposing generated solid waste as per the Municipal Solid waste Management Rules, however certain practices needs to be strengthen and can be improved by adopting action plan as mentioned in **Table 3**.

Table 3 Action Plan for Solid Waste Management

Sectors	Gaps	Action Points	Priority
Domestic Solid Waste			
Quantification	<ul style="list-style-type: none"> ▪ Methodology for solid waste quantification should be ascertained ▪ Quantification based on Income group, culture affluence and technology to be considered 	<ul style="list-style-type: none"> ▪ Mechanism for graded weighing system either through intermediate transfer station or at the common receiving station to be created. Usually one weigh bridge at any treatment / disposal location required ▪ Quadrate sampling methodology to be adopted in order to reduce quantity as well as quality 	Immediate
Collection System & Transport System	<ul style="list-style-type: none"> ▪ Some of the places, efficiency of the collection system is not up to the mark 	<ul style="list-style-type: none"> ▪ Ideally most proven method of SWM is 3 Tier System with door to door, community and transfer station approach ▪ Additionally 2 Collection Trolley are required ▪ Need to procure approximately 3 Mini Collection Truck 	Short to Mid Term
Infrastructure	<ul style="list-style-type: none"> ▪ Mostly composting is the main treatment methodology with about 90% coverage ▪ Sanitary landfill is installed in 2ULBs but not in operation ▪ Bio - Methanation unit is not installed though major treatment of wet is through composting ▪ No any RDF Facility installed in entire district 	<ul style="list-style-type: none"> ▪ Intermediate / Transfer station based decentralized waste treatment facility to be evaluated ▪ Need to augment and start the operation of existing Sanitary landfill ▪ Need to install RDF facility at least one in each ULB ▪ Composting facility can be further augmented with aid on of bio-Methanation plant 	
Plastic Waste	<ul style="list-style-type: none"> ▪ Lack of SOP for not only quantification but also life cycle analysis [LCA] 	<ul style="list-style-type: none"> ▪ Strengthening surveillance of life cycle assessment for type and quantity of Plastic Waste ▪ Effective EPR Policy 	High & Immediate

Sectors	Gaps	Action Points	Priority
	<ul style="list-style-type: none"> ▪ Limited understanding / interpretation of EPR / PRO 	<ul style="list-style-type: none"> ▪ Initiation of 100% compliance to PW Rules at the earliest ▪ Mass awareness through ULBs 	
C&D Waste	<ul style="list-style-type: none"> ▪ No facility for C&D Waste Recycling Plant ▪ 921MT is disposed by land filling without processing ▪ 248.5MT is illegally dumped. 	<ul style="list-style-type: none"> ▪ Minimum 1 such facility at each of the ULB to be established ▪ System for utilization of recovered material and processed C&D waste to be effectively implemented and monitored 	High
Biomedical Waste	<ul style="list-style-type: none"> ▪ Rooting and effective collection within 48hrs from the time of generation to be effectively handled ▪ Treatment facility lacks implementation of 2016 Notification in line with CPCB audited report ▪ Limited Inventorization 	<ul style="list-style-type: none"> ▪ Regular Inventorization through automatic / digital platform to be developed ▪ Up-gradation of existing facility to meet 2016 CPCB norms ▪ Additional at least 1 facility to cover the of umbrella zone along with increasing burden on the existing coverage area to be planned ▪ Collection mechanism to be strengthen with additional vehicles to cover vast area and scattered HCF [miniscule quantity] 	Very High & Immediate
Hazardous Waste	<ul style="list-style-type: none"> ▪ Domestic HW being mixed with solid waste posing threat ▪ No separate handling of domestic HW ▪ Not effective segregation at source 	<ul style="list-style-type: none"> ▪ Either decentralized 4 - 5 step segregation practices to be initiated or at least advisory for intermittent storage and collection of domestic HW to be initiated ▪ Inventory to be initiated and maintained 	Very High & Immediate
E Waste	<ul style="list-style-type: none"> ▪ Lack of inventory ▪ Limited understanding of E waste rule and management ▪ Neither segregation nor separate transfer / handling facility ▪ No Awareness programme conducted by ULBs & PROs ▪ No Authorized E waste recycler / dismantlers 	<ul style="list-style-type: none"> ▪ Detailed inventory for domestic e waste under 26 different categories ▪ Mass awareness campaign ▪ Every ULB to have at least one E waste management centre and minimum one collection / drop centre in a radius of 25-30km ▪ Atleast one e waste processing unit in a district 	Very High & Immediate
Noise	<ul style="list-style-type: none"> ▪ Most of the source related noise areas show exposure beyond compliance 	<ul style="list-style-type: none"> ▪ Noise mapping to be carried out for zonation purposes ▪ At source control using physical or natural attenuation 	

Sectors	Gaps	Action Points	Priority
	<ul style="list-style-type: none"> Excessive exposure during noise generating potential events/ festivals 	<ul style="list-style-type: none"> methods to be adopted In the path noise control methodologies using noise absorbers creating zone of inhibition / silence zone to be done End of the pipe measures such as PEs acoustic enclosures etc. to be adopted Event based noise control policy to be effectively implemented 	

4.0 Water Quality Management Plan

There is only 1 Rivers flowing within the district with 720km in length and 1 drain / nalla is identified meeting in to the river. Total number of bore-well are 6058 however permission for withdrawing water is not taken from anyone. Water quality of the region is monitored through water sampling and analysis for multiple parameters throughout the years and also represented digitally in form of WQI on various platform. MPCB conducts regular ground water monitoring through SWMP and NWMP at 2 locations throughout the districts. Analysis results of surface water quality is presented in the **Table 4**.

Table 4 Surface Water Quality

Station Code	pH			DO (mg/L)			BOD (mg/L)			FC MPN/100ml		
	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
1312	7.70	8.30	8.00	5.68	7.38	6.61	2.20	4.20	3.44	2.00	4.00	2.55
2158	8.11	8.11	8.11	7.25	7.25	7.25	2.40	2.40	2.40	2.00	2.00	2.00
Average	7.91	8.21	8.06	6.47	7.32	6.93	2.30	3.30	2.92	2.00	3.00	2.27

Where;

2157: Godavari river at Latur water intake near Pump house. Village. Dhamegaon, Taluka. Kalumb
2679: Manjra river at D/s of Latur, near Latur. Nanded bridge, Village. Bhatkheda, Taluka. Latur

Surface water quality results reveals that Average pH is in the range of 7.9 to 8.2, DO is in the range of to 6.4 to 6.9, and BOD is in the range of 2.3 to 3.3. In all samples presence of Faecal Coliform is found in the range of 2 to 2.2.

Overall 44.5MLD sewage is generated from all ULBs however there is no sewage treatment plant is installed for treatment. As all generated sewage is being directly discharged in to the water bodies without any treatment which is a major threat to the water bodies. There is an urgent requirement of STP of capacity 50MLD. Only 7.4% of population is covered under the sewage network. Out of 10 ULBs, 9 ULBs are not having sewage network which is very alarming situation as all the generated sewage is being discharged in to the river without any treatment.

There are 39 industries, discharging their treated effluent in to the river to the tune of 7.16MLD. There is no Common Effluent Treatment Facilities within the district and industries are treating their entire effluent and achieving the norms as stipulated by their permits.

All the above needs to be combined with the effort of sensitization and awareness at all level in order to formulate and implement successful water quality management strategy. Detailed Issue based management action plan is provided in **Table 4**.

Table 4 Action Plan for Water Quality Management

Sectors	Gaps	Action Points	Priority
Water Resources	<ul style="list-style-type: none"> ▪ Limited information available on mapping of surface water resources in terms of quantity ▪ Limited Inventorization of quantity, usage, availability exploitation etc. ▪ Limited Rejuvenation / remediation of water bodies ▪ Solid waste dumping i the river bodies ▪ 6058 Bore-well are identified but none of them have taken permission to withdraw water 	<ul style="list-style-type: none"> ▪ Thorough Mapping of resources to be taken up ▪ Extensive assessment of quality to be done ▪ Criticality indicators to be established for each water body/resource ▪ Extend water quality monitoring network to include representativeness ▪ Based on the criticality initiate Rejuvenation / remediation ▪ Online Monitoring system for surface water bodies to be established ▪ Notices and actions needs to be taken against violator who are withdrawing water without permission ▪ Protection methods to be developed for creative stoppage of dumping of solid waste in the surface water bodies 	High
Domestic	<ul style="list-style-type: none"> ▪ Correlation between generation and treatment often misleading ▪ Water budgeting exercise often missing ▪ Computation of water footprint missing ▪ There is no STP installed within the district and entire sewage is being discharged in to the river without treatment ▪ Sewage network is not available in 9 ULBs and existing network covers only 7.4% of entire population ▪ Surveillance /Inventorization in cradle to grave approach absolutely never applied ▪ Limited collection system and treatment facility especially in remote area ▪ Often polluting water resources ▪ No established reuse options / reuse network 	<ul style="list-style-type: none"> ▪ Digital Platform to accommodate water budgeting / reuse potential ▪ Approximately 50MLD of STP needed ▪ In situ treatment of 720km stretches to be developed ▪ Need to construct sewage collection network to cover 100% Population ▪ Policy for reuse / recycle of treated wastewater 	Very high & Immediate
Industrial	<ul style="list-style-type: none"> ▪ Performance of CETP is questionable 	<ul style="list-style-type: none"> ▪ Need to explore option for provision of at least one CETP within the district 	

		<ul style="list-style-type: none"> ▪ Digital compliance methodology to be developed ▪ Disposal system to be under constant surveillance 	
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5.0 Air Quality Management

Both CPCB & MPCB through their NAMP & SAMP programme has set up 3 manual Ambient air monitoring locations in the district. However, there is no any continuous Ambient air monitoring installed. Latur comes under list of Non Attainment cities with respect to the Ambient Air Quality India (2011-2015) & WHO reports 2014/2018. Monitored data reveals that PM₁₀ is major concern in the air quality and has exceedance factor of about 2.

Gap identified and action plan to be adopted with its priority for air quality of Aurangabad region is presented in **Table 5**.

Table 5 Action Plan for Air Quality Management

Sectors	Gaps	Action Points	Priority
Air	<ul style="list-style-type: none"> ▪ Most of the places PM₁₀ seems to exceed by a factor of 2 ▪ Limited CAAQMS to establish / corroborate inferences ▪ Sectoral action plans not effectively established ▪ Latur comes under list of Non Attainment cities with respect to the Ambient Air Quality India (2011-2015) & WHO reports 2014/2018 	<ul style="list-style-type: none"> ▪ Emission inventory and source apportionment supported with dispersion and health based iterative process for science based AQM strategy to be established ▪ Each ULB to have atleast one urban and one rural CAAQMS or three manual stations at least to include criteria pollutants with minimum one location to include parameters of 2009 CPCB notification and meteorological data including cloud cover ▪ Fugitive emission control system for hot spot emission control to be installed ▪ Green barriers / Photo catalyst options to be evaluated ▪ Capacity building to be enhanced ▪ Compliance and specific mitigation measures need to initiated as per the requirement of Non Attainment Cities 	High

6.0 Mining Activity Management plan

Total area covered under mining is 0.1293sq.km. As on date 11 number of Mining licenses for Stone Quarries are issued by the respective authorities.

7.0 Noise Action Plan

Other than event base monitoring and special projects related / orders monitoring, MPCB carries out annual noise monitoring at few locations. There are 12 numbers of noise measuring devices with all ULBs. and Noise quality reveals mainly source specific non

compliance such as traffic related in most of the kerb side analysis. Though zoning categories and regulations therein are particularly specified, in limitation of noise regulations has always been challenge to the regulatory authority. Monitored data spells potential management plan that could be taken up on priority by each of the ULBs. There is no complaint received in last one year related to the noise pollution.

8.0 Conclusion

There seems to be vast data gaps and a detailed exercise to collate and validate data gathered through this process needs to be urgently taken up in addition to the adopting a holistic & inclusive consultative process of gathering information, collating & converging it in order to be able to device strategies of future. Also, it is equally important that projection for at least next 20 years be done in order to evaluate management plans for futuristic view to meet the objective of such vast exercise. Digital data availability needs to be one of the prime tasks of government & methods of its validation be created with scope for improvement in near future.