ACTION PLAN

FOR CLEAN-UP OF POLLUTED STRETCH OF

GODAVARI RIVER

2025

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GODAVARI RIVER (Someshwar Temple, Nasik to Raher in District Nanded)

1.1 Executive Summary

Sr. No.	Description of Item		Details
1.	Name of the identified polluted river and its tributaries	:	Someshwar Temple to Rahed Tributaries: Darna, Manjara, Purna, Pravara, Sindphana
2.	Is river is perennial and total length of the polluted river	:	Non- perennial Length- 504 Km
3.	Priority	:	2018 Priority I (BY CPCB) 2022 Priority II (BY CPCB) 2024 Priority III (BY MPCB)
4.	No of drains contributing to pollution and names of major drains	:	1. Chikhali Nalla 2. Gangapur/Bardan phata nalla. 3. Someshwar Nalla. 4. Anadwali Nalla 5. Kaplicha Nallah, Tal. Gangakhed, Dist. Parbhani 6. Chunal Nallah (Back side of Kadhakpur to Godavari river)
5.	Major Towns on the banks of the river with population	:	1. Nashik - 1,486,053 2. Kopargaon - 65,273 3. Tryambakeshwar - 168,423 4. Paithan - 41,536 5. Gangakhed - 49,891 6. Nanded - 550,439
6.	a. Sewage generation & Treatment in MLD	:	Total Water consumption 1. Nanded– **125 MLD** 2. Gangakhed- 2.0 MLD 3. Paithan – 2.4 MLD 4. Nashik-450 MLD Total Sewage generation 1. Nanded– 92.8 MLD 2. Gangakhed- 1.5 MLD 3. Paithan – 1.9 MLD 4. Nashik- 365 MLD
	b. Total no. of existing STPs and the total capacities in MLD	:	1. Paithan-1.7 MLD 2. Nanded- 03 Nos of STPs with Capacity 132 MLD 3. Nashik- 10 Nos of STPs with Capacity-392.5 MLD

	c. Gaps in sewage treatment in MLD and no. of towns not having STPs	:	Gap in the Treatment is 14.1 MLD for Nashik City. STPs for small towns will be completed by 2028. For rest of the towns MPC Board has proposed funding plan to install sewage treatment facilities in next three years. e.g. Gangakhed town Nanded Gap in the Treatment 16.5 MLD
7.	Major industrial estates located with total no. of industries	:	Industrial Estate: Satpur, Ambad, and Nanded No. of Industries: 201 (Effluent generating)
	a. Total water consumption and total industrial effluent generation in MLD	:	Total Water consumption – 28.70 MLD Total Eff. Generation – 15.30 MLD
	b. No. of industries having captive ETPs and their treatment capacity in MLD	:	201 MPCB does not permit treated/untreated industrial effluent discharge into the River.
	c. No of CETP"s and their treatment capacity	:	Proposed CETP of capacity 0.5 MLD at MIDC Satpur
	d. Gaps in treatment of industrial effluent	:	No gap in effluent treatment.
8.	Waste Management	:	
	a. Solid Waste Generation & processing	:	1. Nanded– 250 MT/day 2. Gangakhed- 16 MT/day 3. Paithan – 6.0 MT/day 4. Nashik – 558 MT/day • Municipal Council, Paithan has provided composting facility at Panthewadi, which is about 2.5 km away from river Godavari. • Municipal Council, Gangakhed near the polluted stretch has provided landfill site with dry and wet processing technology. • Municipal Corporation Nanded has provided dumping ground at a distance of more than 2 km from river Godavari. • Nashik Municipal Corporation treats 501 MT/day through Composting, Biomethanization, RDF System.
	b. Biomedical Waste Generation & treatment	:	**District** | **Qty Generated (Kg/day)** | **Treatment Capacity**

			Nashik	3000	Incinerator - 250 Kg/Hr Autoclave - 400 litr/cycle
			Chh. Sambhajin agar	1600	Incinerator - 250 Kg/Hr
					Autoclave - 400 litr/cycle
			Nanded	904	Incinerator - 100 kg/hr Autoclave - 50 litr/cycle
	c. E-Waste Management Generation & treatment	:	E-waste generated by industries is sent to MPCB authorized E-waste reprocessor.		
	d. Hazardous waste Management	:	HW generated from industry is disposed through CHWTSDF. MEPL Ranjangaon:- Direct Landfilling:-60000 MT/A, Stabilization :- 15,000 MT/A, Incineration :-25,000 MT/A Lifespan – 25 years from 2007.		
9.	Action plan includes mainly covering aspect such as (Proposal for utilisation of sewage, ground water recharging or rain water harvesting, measures for regulating ground water use, protection and management of flood plain zone, maintaining minimum E-flows and water shed management, plantation on both sides of the river, setting up of bio-diversity parks etc., as per Hon'ble NGT Orders dated 20.09.2018 and 19.12.2018)	:	RRC has already communicated to Water Resource Dept, GoM for maintaining minimum E-flows and water shed management, plantation on both sides of the river, setting up of bio-diversity parks.		
10.	Min. and Max. required time period for implementation of action plans		Min 1 Years, Max 4 Years		
11.	Total estimated budget in crores towards implementation of proposed action plans with break-up (e.g. No. of STPs, capacity, total cost; No of CETPs, total capacity, Cost towards interception and diversion of sewage/effluent to STPs/CETPs etc.,)	:	STP Nanded – 72 Cr, Paithan – 46 Cr, Nashik – 59 Cr, Cost of Sewage network & other allied works not included		

12.	Whether „River Rejuvenation Committee (RRC) constituted by the State Govt./UT Administration and If so, Date of constitution of „RRC".	:	River Rejuvenation Committee (RRC) constituted as per the Maharashtra Government G.R. issued by the Environment Dept, GoM vide No. NGT 2018/PC-2/TC-3 dtd.13.12.2018.
13.	Responsible Organisation (s) for implementation of proposed action plans (Please enclose details as annexure)	:	1. Water Resource Department, GoM 2. Urban Development Department 3. Nashik Municipal Corporation 4. Nanded – Waghala Municipal Corporation
			5. Gangakhed Municipal Council 6. Paithan Municipal Council 7. Kopargaon Muncipal Council And other Large Grampanchayts
14.	Expected deliverables w r to achieving Goals	:	1. To achieve 100% sewage collection and treatment 2. To achieve 100% MSW collection, transportation and treatment. 3. To achieve river water quality of Bathing standards by 2028. 4. Augmentation of River Flow and restoration of water quality-2028

15.	Initiatives taken by Govt. of Maharashtra and MPCB.	:	• Maharashtra Government through it"s forest department has announced The Plantation Program GOM, announced „Namami Chandrabhaga • MPC Board will provide financial & technical assistance to villages in next three years to comply with sewage & waste management. • MPC Board has issued Direction to the local bodies to make 25% budgetary provision for scientific treatment and disposal of Sewage and Solid Waste. Accordingly, Municipal Corporations have passed resolution in their General Body meeting and reserved the funds. These funds are reserved and made mandatory to utilise for preparation of DPR, establishing treatment facility, O & M of treatment facility etc. The review of the same is taken from time to time by the Board. • MPC Board has issued directions to 08 Municipal Corporations to penalize to the tune of 1pais/litre of sewage generation under „Polluter pays principle". • MPC Board has issued directions to non-complying CETPs to penalize to the tune of 2 paisa/litre for remediation & upgradation to comply with the consented standards.
			• MPC Board has issued directions to non-complying CETPs to penalize to the tune of 2 paisa/litre for remediation & upgradation to comply with the consented standards.
	Budget Estimates & Pooling of Resources from Local Bodies, State Pollution Control Board, State Government & Central Government		Gangapur Municipal Council, Paithan Municipal Council, Nanded Municipal Council, Beed Municipal Council, Pimpalgaon Municipal Council & Nashik Municipal Corporation will provide adequate funds of. for STPs & management

			of sewerage system. The said work will be completed by 2028 • Maharashtra Government has already received proposal of Rs. 1104.54Cr. Under State River Conservation Program & form this amount State Government will provide necessary funds in next 3 years by 2028 for Sewage management • The Maharashtra Pollution Control Boards has also reserved Rs. 461.42Cr. for preparation of action plan for abetment & Control of Pollution of River Water due to sewage & solid waste disposal from B & C Municipal Councils (Urban Local Bodies.), Nagar Panchayat & Gram Panchayat for reducing polluted stretches in compliance with Hon"ble NGT, principal bench directions w.r.t. "More River Stretches are now Critically Polluted. The said funds will be used for DPR preparation, development of infrastructure for sewage collection & treatment & development of infrastructure for Solid Waste Management. The DPR preparation & implementation of the same will be completed by year 2028 (i.e in next 3 years). • The Maharashtra Government through Urban Development Department has approved DPR of all Urban Local Bodies for Solid Waste Management. The funds for the same amounting to Rs. 2560.0Cr has been already approved by Government & the said DPRs will be implemented & Solid Waste Management issues will be resolved by 2028.

Preamble -

In the matter of OA No. 673 of 2018-"More river stretches are critically polluted now: CPCB", the Hon'ble NGT has passed order dated 20.09.2018 for constitution of River Rejuvenation Committee (RRC) and Special Environment Surveillance Task Force (SESTF). The report comprises 351 polluted river stretches in India out of which 53 polluted river stretches are in Maharashtra. In the state, 9 polluted stretches in priority I & 6 polluted stretches in priority II. It has been mandated to prepare Action Plan for River Stretches and make them pollution free. In compliance of the orders of the Hon'ble NGT, the State Government has constituted RRC.

River Rejuvenation Committee (RRC) constituted as per the Maharashtra Government G.R. issued by the Environment Dept, GoM vide No. NGT 2018/PC-2/TC-3 dtd.13.12.2018 with 5 members under the guidance of Principal Secretary for preparation of action plans and to monitor the implementation of these action plans. The members of RRC are as mentioned under:

1. Commissioner / Director, Directorate of Municipal Administration
2. Chief Executive Officer – Maharashtra Industrial Development Corporation
3. Director (Environment)
4. Director (Industries)
5. Member Secretary – Maharashtra Pollution Control Boards- Member & Co-ordinator of RRC

Further State Government also constituted District Level Special Task Force comprising of the following:

1. Representative of District Collector
2. Representative of District Superintendent of Police
3. Representative of Regional Officer, MPCB
4. Representative of the District Judge of the concerned District

Meetings of the RRC Committee:

- 1st Meeting of River Rejuvenation Committee (RRC) convened on 14.12.2018.
  RRC reviewed draft action plans of polluted river stretches of Priority I prepared by Maharashtra PCB. It was decided by the all the committee members, to take review of local bodies and accordingly to communicate the outcomes of the meeting to the Hon‟ble NGT, Principal Bench. Maharashtra PCB submitted nine draft action plans of polluted river stretches of Priority I to CPCB along with minutes of 1st meeting of RRC and submitted progress report of polluted river stretches to Hon‟ble NGT on 15.12.2018

- 2nd Meeting of River Rejuvenation Committee (RRC) convened on 09.01.2019.
  RRC reviewed draft action plans of polluted river stretches of Priority II prepared by Maharashtra PCB. It was decided in the meeting to add in the draft action plans funding details like source, name of scheme, timeline etc for proposed STPs by concern local bodies.

- 3rd Meeting of River Rejuvenation Committee (RRC) convened on 23.01.2019.
  RRC reviewed and finalised draft action plans of polluted river stretches of Priority I, II, III, IV and V prepared by Maharashtra PCB. RRC also decided to call the local bodies and review the timelines proposed in action plans from time to time.

- Maharashtra PCB submitted 53 draft action plans of polluted river stretches of Priority I, II, III, IV and V to CPCB along with minutes of 2nd & 3rd meeting of RRC and submitted progress report of polluted river stretches to Hon"ble NGT on 31.01.2019.
- CPCB Task Team on Polluted River Stretches called MPCB to give presentation on Action Plan for Priority-I & II polluted river stretches on 12.02.2019. Accordingly, the presentations were reviewed by Task team & few improvements in the action plan were suggested.

- 4th Meeting of River Rejuvenation Committee (RRC) held on 16/02/2019 & it was decided to communicate with Water Resource Department to maintain e-flow in the rivers of Maharashtra adopting good irrigation practices, protection & management of flood plain zone (FPZ), rain water harvesting, ground water charging, planation on both sides of river, Setting up of biodiversity parks on flood plains by removing encroachments and Urban Development department communicated to take necessary steps to provide adequate funds to urban local bodies for installation of sewage treatment & MSW processing facilities in a time bound manner so as to comply with the Hon"ble NGT.

- 5th Meeting of River Rejuvenation Committee (RRC) held on 25/06/2019. It was decided that Director Environment will communicate with Water Resource Department and Urban Development Department regarding provision of funds in time bound manner for installation of STPs & MSWM facilities. RRC reviewed and approved Action Plans for restoration of polluted river stretches in priority III, IV & V.

- 6th Meeting – Meeting of River Rejuvenation Committee (RRC) held on 05/11/2019. Discussed issue about funds & implementation in time bound manner of STPs & MSWM facilities.

- 7th Meeting – 28.03.2025 – In this meeting issue of Godavari River was not discussed. Issue of Pawana river was discussed.

Achievable goal:

The objective/goal of the action plan is that the quality of river water should meet with the required value as given under:-

Quality Parameter	**Standard to be achieved**
BOD	3.0 mg/l.
Dissolved Oxygen (DO)	More than 5.0 mg/l.
Faecal Coliform	Less than 500 MPN/100ml.

1.2 Background

The Godavari River rises in northwestern Maharashtra state in the Western Ghats range, only about 50 miles (80 km) from the Arabian Sea, and flows for most of its course generally eastward across the broad plateau of the Deccan (peninsular India). From its source to the Eastern Ghats, the Godavari River flows through gentle, somewhat monotonous terrain, along the way receiving the Darna, Purna, Manjra, Pranhita, and Indravati rivers.

Considering the ever increasing problem of river water pollution, Central Pollution Control Board (CPCB) decided to carry out comprehensive study on polluted river stretches. Hence accordingly directions were given to Maharashtra Pollution Control Board (MPCB) to carry out such comprehensive studies on prescribed river stretches. To assess the river water quality and ground truthing, field visits, sample collection and group discussion were carried out at all locations. The sample collection, preservation and analysis of samples were done as per methods given in the manual of American Public Health Association (APHA, 2001) and each water sample were analyzed for physico-chemical and microbiological parameters. Polluted river stretches on river Godavari is from Someshwar temple to Raher (10 locations). Major Cities/ Towns on Polluted River Stretches Major cities/ towns on polluted river stretches are Trimbakeshwar, Nasik, Kopargaon, Paithan, Gangakhed and Nanded. The sampling was carried out for all identified polluted stretches. The samples were tested for physico-chemical analysis including the metals and pesticides. With these laboratory results, it will enable to analyze the impact of human activities on the identified locations with respect to its upward and downward stream.

Figure 1 Stretch of Godavari River

Table 1 Principal Tributaries of River Godavari and its Length in km

Sr. No.	Name of River	Elevation of Source	Length of Tributary (km)	Catchment Area (sq.km.)
1.	Upper Godavari (source to Manjira confluence)	1,067	675	33502

2.	Pravara	1,050	208	6537
3.	Purna	838	373	15579
4.	Manjra	823	724	30844
5.	Middle Godavari(between Confluence points Manjra and Pranhita)	323	328	17205
6.	Maner	533	225	13106
7.	Painganga	686	676	23898
8.	Wardha	777	483	24087
9.	Pranhita	640	721	61093
10.	Lower Godavari (Pranhita Confluence to sea)	107	462	24869
11.	Indravati	914	535	41665
12.	Sabari	1,372	418	20427

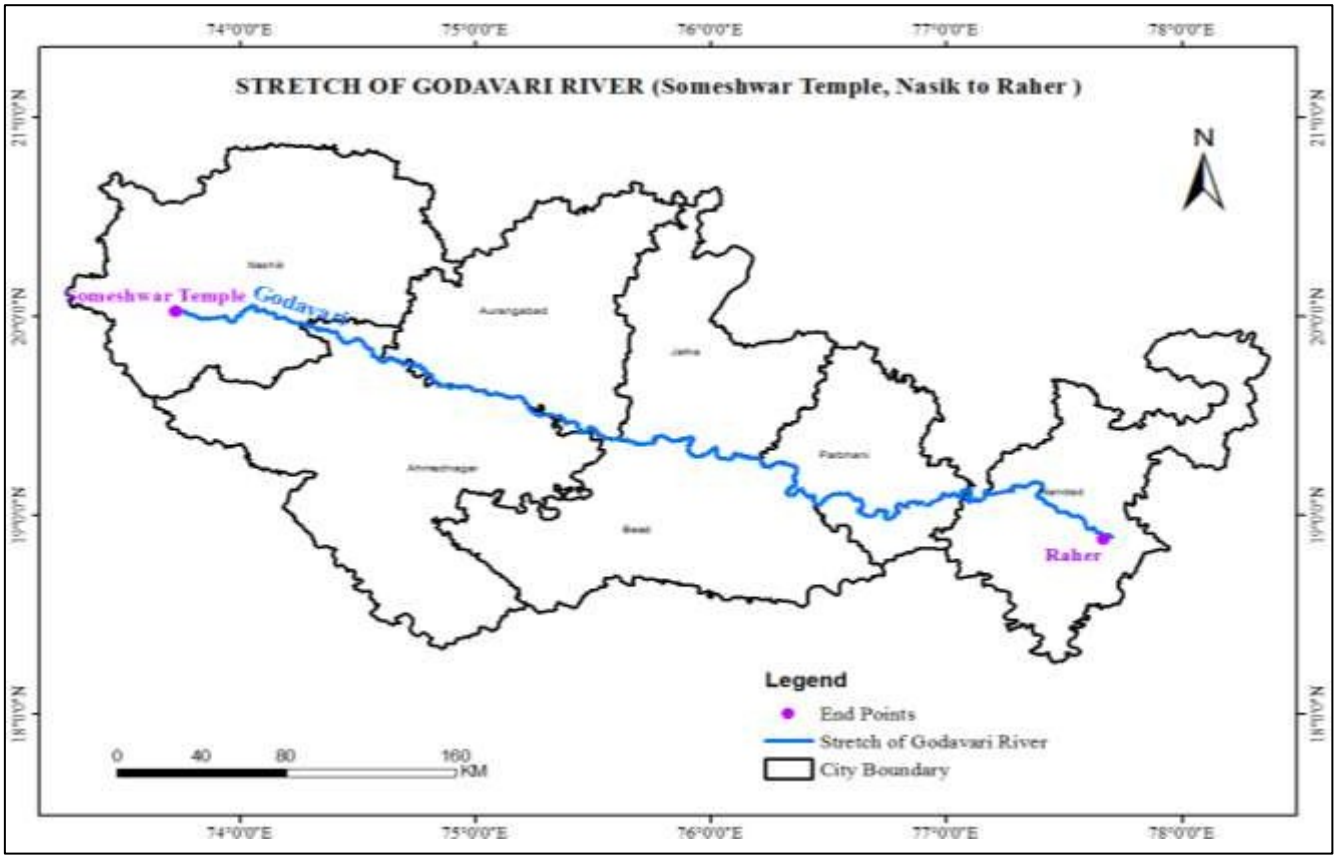

Figure 2 Map Showing Stretch of River Godavari

Table 2 Polluted River Stretches of River Godavari

River	Polluted Stretch	Monitoring Location
Godavari	Nasik D/s to Paithan	U/S of Gangapur Dam, Nasik
		Near Someshwar Temple
		Hanuman Ghat, Nasik
		Panchavati at Ramkund
		Tapovan
		Kapila Godavari, confl. Point, Tapovan
		Saikheda
		U/s of Paithan,Jayakwadi
		D/s of Paithan, Pathegaon
		Raher in District Nanded

The river is non-perennial in nature and the flow in non-monsoon is attributed to the release of water from various dams. Most of the river basin remains dry in lean season. The river stretch extends from Someshwar Temple in Nashik to Raher in Nanded District. Length of the stretch is approximately 504 Km. Major towns like Nashik, Nanded, Paithan, Gangakhed & Tryambakeshwar are situated on the bank of Godavari.

The current status of the river as per the monthly sampling conducted between January to December 2018 reveals that water quality of the river falls in Priority III i.e. max BOD 32 mg/l.

Table 3 Introduction of river stretch

Sr. No.	Description of item	Details
1	Approx. length of stretch	504 km
2	Major Towns located on the bank along with Population	1. Nashik 2. Tryambakeshwar 3. Paithan 4. Gangakhed 5. Nanded
3	Stretch of River Perennial or Non Perennial	Non Perennial The river flows only when water discharge from dam & rainy season.
4	Water usage in the stretch	Irrigation purpose
5	Current status of polluted river stretch-2024	Priority III

1.3 Status of Sewage Generation and Treatment

Major cities/towns on polluted river stretches are Tryambakeshwar, Nasik, Kopargaon, Paithan, Gangakhed and Nanded.

Table 4 Status of Sewage Treatment

City Name	STP Location	STP Commissioned in (Year)	Status (Operational/Non-Operational/Under Construction)	STP Installed Capacity (MLD)	STP utilization capacity (MLD)	Technology (UASB/ASP/OP/SBR/MBR/FAB etc.)	Disposal (land, River, Sea or any other)
Nanded	STP at Elichpur, Nanded	2012	Operational	30	12	Primary & Secondary	Godavari River
	STP at Bondar, Nanded	2012	Operational	87	30	Primary & Secondary	Godavari River
	STP at Sangvi, Nanded **Dunkin STP of 10 MLD is proposed at Nanded.**	**2024**	Operational **Proposed**	15 **10**	15	Primary & Secondary Primary & Secondary	Godavari River
Nashik	**Gangapur- Phase-II**	**2028**	**Proposed**	**11.5**	-	Primary & Secondary	Godavari River
Nashik	**Makhmalabad**	**2028**	**Proposed**	**50**	-	Primary & Secondary	Godavari River
Nashik	**Kamatwada**	**2018**	**Proposed**	**66**	-	Primary & Secondary	Godavari River
Nashik	Chehedi STP	2006	Operational	22	20	UASB	Darna River
	Chehedi STP	2012	Operational	20	18	ASP	
	Panchak STP	2004	Operational	7.5	7	ASP	Godavari River
	Panchak STP	2012	Operational	21	20	ASP	
	Panchak STP(New)	2016	Operational	32	30	UASB+MBPR	
	Agartakali STP	2015	Operational	70	68	ASP	

	Agartakali STP	2016	Operational	40	38	UASB+MBPR	
	Tapovan STP	2003	Operational	78	75	UASB	
	Tapovan STP	2010	Operational	52	50	UASB	
	Gangapur STP	2023	Operational	18	18	SBR	Godavari River
	Pimpalgaon Khamb STP	2023	Operational	32	-	SBR	Godavari River
Trimbakeshwar (Municipal Council)	Trimbakeshwar	-	Operational	0.7	-	Primary & Secondary	
Trimbakeshwar (Municipal Council)	Trimbakeshwar	-	**Proposed**	**4.5**	-	Primary & Secondary	
Paithan (Municipal Council)	Paithan	-	Operational	1.7	-	Primary & Secondary	
Kopargaon (Municipal Council)	Kopargaon	-	**Proposed**	**10**	-	Primary & Secondary	
Gangakhed (Municipal Council)	Gangakhed	-	**Proposed**	**5.5**	-	Primary & Secondary	

Table 5 Major Cities/Towns on Polluted River Stretches

Sr. No.	Name of City/Town	Name of Administrative District	Class of Local Body	Population as per Census 2011
1.	Tryambakeshwar	Nasik	C class Municipal Council	168,423
2.	Nasik	Nasik	B class Municipal Corporation	1,486,053
3.	Kopargaon	Ahemadnagar	B class Municipal Council	65,273
4.	Paithan	Chh. Sambhajinagar	C class Municipal Council	41,536
5.	Gangakhed	Parbhani	B class Municipal Council	49,891
6.	Nanded	Nanded	C class Municipal Corporation	550,439

1.4 An insight of the Cities/ Towns Located on Godavari from Nasik D/s to Paithan

1.4.1 Tryambakeshwar

Water Supply and Sewage Generation: The source for water supply to Trimbak city is Amboli dam at a distance of 11 km from Trimbakeshwar. The capacity of the dam is 129.37 ML/ft2. The water reservation for the city is 26MCFT. During 2003, during *Sinhastha Kumbhmela*, a sewage treatment plant is constructed with MBR technology. The plant is located at the back side of the Shiva Temple with a capacity of 1.0 MLD.

1.4.2 Nasik

Water Supply Sewage Generation and Treatment: Nasik city receives piped water from two sources Gangapur dam headwork‟s on river Godavari, which supplies almost 1.6 million residents of NMC area and Headwork‟s on river Darna which services Nasik Road area.

Presently Nasik Municipal Corporation is pumping 450 MLD raw water from these two sources. The average supply of drinking water to citizen is at 150 LPCD. Nasik has Sewage Treatment Plant shaving combined capacity of 392.5 CMD and all are operating. Details of STPs are mentioned in Table below

1.4.3 Kopargaon

Situated in 19°54' north latitude and 74°33' east longitude.Kopargaon is the head-quarters of the taluka. Municipality was established in1947. Kopargaon Municipal Council is a B class Municipal Council. Water source for Kopargaon Municipal Council is Darna and Nandur Madhyameshwar dam. Water consumption of Kopargaon Municipal Council is 11 MLD and Quantity of domestic effluent generated is 7 MLD whereas there is no adequate treatment facility available to treat the sewage generated. Sanjivini (Takli) S.S. K. Ltd. is located in close proximity of river generating trade effluent 313 CMD and Domestic effluent 104 CMD. Godavari Biorefineries Ltd is also located in close proximity of river where as industry is not generating effluent.

1.4.4 Paithan

An ancient town in the Chh. Sambhajinagar district is located on the north bank of the river Godavari. A shrine of saint Eknath Maharaj rests on the banks of river Godavari. Paithan Municipal Council is a C class Municipal Council. Having water consumption 2.4 MLD and Sewage generation is of 1.7 MLD. There is no adequate treatment facility available to treat the sewage generated. No effluent generating industries were identified from river pollution point of view.

1.4.5 Gangakhed

It is a city and a municipal council in Parbhani district. It is situated on the bank of Godavari river it has largest number of various temples on the bank of the holly river. Water sources for town is Godavari and Masoli river. Water consumption for town is 5 MLD. Domestic waste water generation is 3.5MLD. There is no adequate treatment facility available to treat the sewage generated. No effluent generating industries were identified from river pollution point of view.

1.4.6 Nanded

It is one of the historical places in Marathwada region of Maharashtra State. It is situated on the north bank of Godavari river. It is famous for Sikh Gurudwaras. Nanded City is getting treated water from the W.S. operated by Corporation and CIDCO. The total supply is considered at 135 lpcd. City is having Godavari River as source with four head works situated on the banks of Godavari 2 in submergence of Shankar Sagar (Vishnupuri Dam) and two downstream of Dam. Treated water is served to CIDCO from WTP of capacity12.5 MLD. Major Part of the city is being served with the WTP having capacity 60MLD. Presently average rate of water supply is 85 LPCD. There are 3 STPs available having capacity of 87 MLD and 30 MLD & 15 MLD.

All **domestic sewage** should be properly treated and its entry into river water should be prevented. The treatment can be carried out as follows:

- **For small villages (population less than 1000)** – root zone technology, Phytoremediation techniques can be used.
- **For small villages or municipal councils (Population 1000 to 10000)** – underground drainage system (100%) can be developed.
- **For towns and cities (Population more than 10000)** – underground drainage system (100%) can be developed

Table 6 Details of Proposed Sewage Treatment Plants

City/ Town	Name and Address of STP	Designed Capacity (MLD)	Treatment	Target year of Completion
Nanded	Dunkin STP of 10 MLD	10	Primary & Secondary	2028
Nashik	Gangapur- Phase-II	11.5	Primary & Secondary	2027
Nashik	Makhmalabad STP	50	Primary & Secondary	2028
Nashik	Kamatwada STP	66	Primary & Secondary	2028
Trimbakeshwar	Trimbakeshwar New STP	4.5	Primary & Secondary	2026
Kopargaon	Kopargaon STP	10	Primary & Secondary	2027
Gangakhed	Gangakhed STP	5.5	Primary & Secondary	2028
	Total 7 STP proposed			

Table 7 Domestic sewage aspects on the river stretch

Sr No	Particular	Remarks
1	Details of drainage system/sewerage network present/proposed	Drainage work is taken up along with the STP construction work.
2	Proposal for utilization of sewage	The Infrastructure Projects are mandated by MPCB to recycle 60% of treated sewage for secondary use by providing duel pipeline. The Local Bodies will be encouraged to reuse treated sewage for various purposes including to Thermal Power Plants wherever possible. e.g. Koradi TPS is receiving 100 MLD of treated sewage from Nagpur city.
3	Ground water extraction & consumption	There is groundwater extraction either for irrigation or for domestic purpose. Specially in the dry areas of Marathwada.
4	STP sludge management	STP sludge is disinfected and used as manure.
5	Proposal for ground water recharging/rain water harvesting	The EC has mandated rainwater harvesting.
7	Adopting good irrigation practices	Agriculture Department, GoM & Water Resource Department, GoM is requested for implementation.
8	Protection and management of Flood Plain Zones (FPZ)	Water Resource Department, GoM is requested for implementation.
9	Plantation on both sides of the river	Water Resource Department, GoM is requested for implementation.
10	Setting up of biodiversity parks on flood plains by removing encroachment	Water Resource Department, GoM is requested for implementation.

Further, there are 4 STPs in Chh. Sambhajinagar Region, two of which have been provided by Chh. Sambhajinagar Municipal Corporation. The other two have been provided by the Nanded- Waghala City Municipal Corporation. The total treatment capacity of these STPs is 128.5 MLD. The total domestic effluent received at these STPs was 51 MLD and all of it was treated by these STPs. The mean of annual performance and analysis of all STPs provided in Chh. Sambhajinagar Region are represented in **Table 8.**

Table 8 Mean of Annual Performance of STPs in Chh. Sambhajinagar Region.

Location	Parameters (mg/l)					
	pH		BOD (Mean)		S.S. (Mean)	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
CIDCO STP near Chikalthana Airport, Chh. Sambhajinagar	-	8	-	48	-	-
STP at Saleem Ali Sarovar, HUDCO, Chh. Sambhajinagar	-	7.5	-	39	-	-
Nanded Waghala City Municipal Corporation, Bondar STP, Nanded (87 MLD)	-	7.8	-	97	-	57
Nanded Waghala City Municipal Corporation, Elichpur STP Nanded (30 MLD)	-	7.8	-	95	-	53

It can be observed from **Table 8.** that the outlet values of BOD and suspended solids were not within the prescribed discharge standards at all locations.

In Nashik Region, There are 10 STPs in this Region. The collective treatment capacity of eight of the remaining STPs is 220.8 MLD. The total domestic effluent received at these STPs was 409 MLD, and the total quantity of domestic effluent treated at these STPs was 302 MLD. The mean of annual performance and analysis of all STPs provided in Nashik Region are represented in **Table 9.**

Table 9 Mean of Annual Performance of STPs in Nashik Region

Location	Parameters (mg/l)					
	pH		BOD (Mean)		S.S. (Mean)	
	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
Trimbakeshwar	7.8	7.6	101	98	NA	NA
Panchak (7.5 MLD)	7.6	7.59	118	46	NA	NA
Panchak (21 MLD)	7.5	7.46	202	58	NA	NA
Chehedi (20 MLD)	7.7	7.6	134	26	NA	NA
Chehedi (22 MLD)	7.8	7.82	97	35	NA	NA
Tapowan (78 MLD)	7.6	7.56	101	48	NA	NA
Tapowan (52 MLD)	7.6	7.67	93	41	NA	NA
Shirdi Nagar Panchyat	7.8	7.7	25	15	NA	NA
Shirpur Municipal Council, Shirpur	7.3	7.26	38	12	140	122

1.5 Drain out-falling in River Godavari

There are six drains that falls into the River Godavari which are as follows:

Table 10 Primary Details of Drains in Nasik city

1	**Name of Drain**		**1. Chikhali Nalla 2. Gangapur/Bardan phata nalla. 3. Someshwar 1 / 2 Nalla. 4. Anadwali Nalla**
2	Source of pollution load		1. Domestic Waste 2. Domestic Waste 3. Domestic Waste 4. Domestic Waste
3	If industrial/Mixed (name of the units & sector) and details to be confirmed from the regional officers of SPCB		NA
4	Traceable length (in km) before meeting the river (through Google earth map)		1. 2.5 Kms 2. 0.5 Kms 3. 1 kms 4. 0.5 Kms
5	Coordinate of the confluence point(if not reachable indirect through Google earth /map) (decimal units)	Latitude	1. 20°01'14.2"N 2. 20°02'09.1"N 3. 20°01'20.4"N 4. 20°01'08.4"N
		Longitude	1. 73°44'21.9"E 2. 73°43'04.3"E 3. 73°43'49.5"E 4. 73°44'49.6"E
6	Landmarks/Address of the Location		1. Near blue leaf hotel. 2. Gangapur Vilage. 3. Near Someshwar temple. 4. Near Chandasi Road.
7	Flow (if in MLLD)if Zero, indicate weather dry or stagnant		--
8	Observations		1. Domestic effluent is directly discharged into chikhali nalla by vekhe nalla from satpur area. 2. Domestic effluent is directly discharged into nalla by residential area.

		3. Domestic effluent is directly discharged into nalla by residential area. 4. Domestic effluent is directly discharged into nalla by residential area.

Table 11 Primary Details of Drain in Gangakhed city

1	Name of Drain	Kaplicha Nallah, Tal. Gangakhed, Dist. Parbhani
2	Source of pollution load	Domestic
3	If industrial/Mixed (name of the units & sector) and details to be confirmed from the regional officers of SPCB	NA
4	Traceable length (in km) before meeting the river (through Google earth map)	0.5 Km
5	Landmarks/Address of the Location	Back side of Hanuman Temple, Tal. Gangakhed, Dist. Parbhani
6	Flow (if in MLLD)if Zero, indicate weather dry or stagnant	About 5 MLD
7	Observations	1. At Present the water was stored & channelized for collection of impurities before entering into Godavari River.

Table 12 Primary Details of Drain in Nanded City

1	Name of Drain	Chunal Nallah (Back side of Kadhakpur to Godavari river)
2	Source of pollution load	Domestic
3	If industrial/Mixed (name of the units & sector) and details to be confirmed from the regional officers of SPCB	NO
4	Traceable length (in km) before meeting the river (through Google earth map)	03 Km
5	Landmarks/Address of the Location	Nalla meets River Godavari Near Urvashi Mahadev Mandir at Daikan

6	Flow (if in MLLD)if Zero, indicate weather dry or stagnant	1 MLD
7	Observations	-

Table 13 Particulars of Drains Falling into River Godavari

S.N	Location	Name of drain	Length in kms	Discharge (MLD)
1	Nashik	Chikhali Nalla	2.5	1.5
2	Nashik	Gangapur/Bardan phata nalla.	0.5	2.5
3	Nashik	Someshwar 1 / 2 Nalla	1.0	1.0
4	Nashik	Anadwali Nalla	0.5	0.5
6	Nanded	Chunal Nalla	3	2.0

Table 14 Status of Water Quality in Drain

Sr. No.	Regional Office	Major Drain	BOD(mg/l)	COD(mg/l)
1	Nashik	Chikhali Nalla	18	55
3	Nanded	Chunal Nalla	87	164

1.6 Status of Water Quality

The river water analysis was carried out to show that the general status of the river Godavari at various stretches in the four districts viz Nasik, Ahmadnagar, Chh. Sambhajinagar and Nanded. These are river pollution stretches identified by the CPCB. The sampling was carried out for all identified pollution stretches. The samples were tested for physico-chemical analysis including the bacteriological analysis.

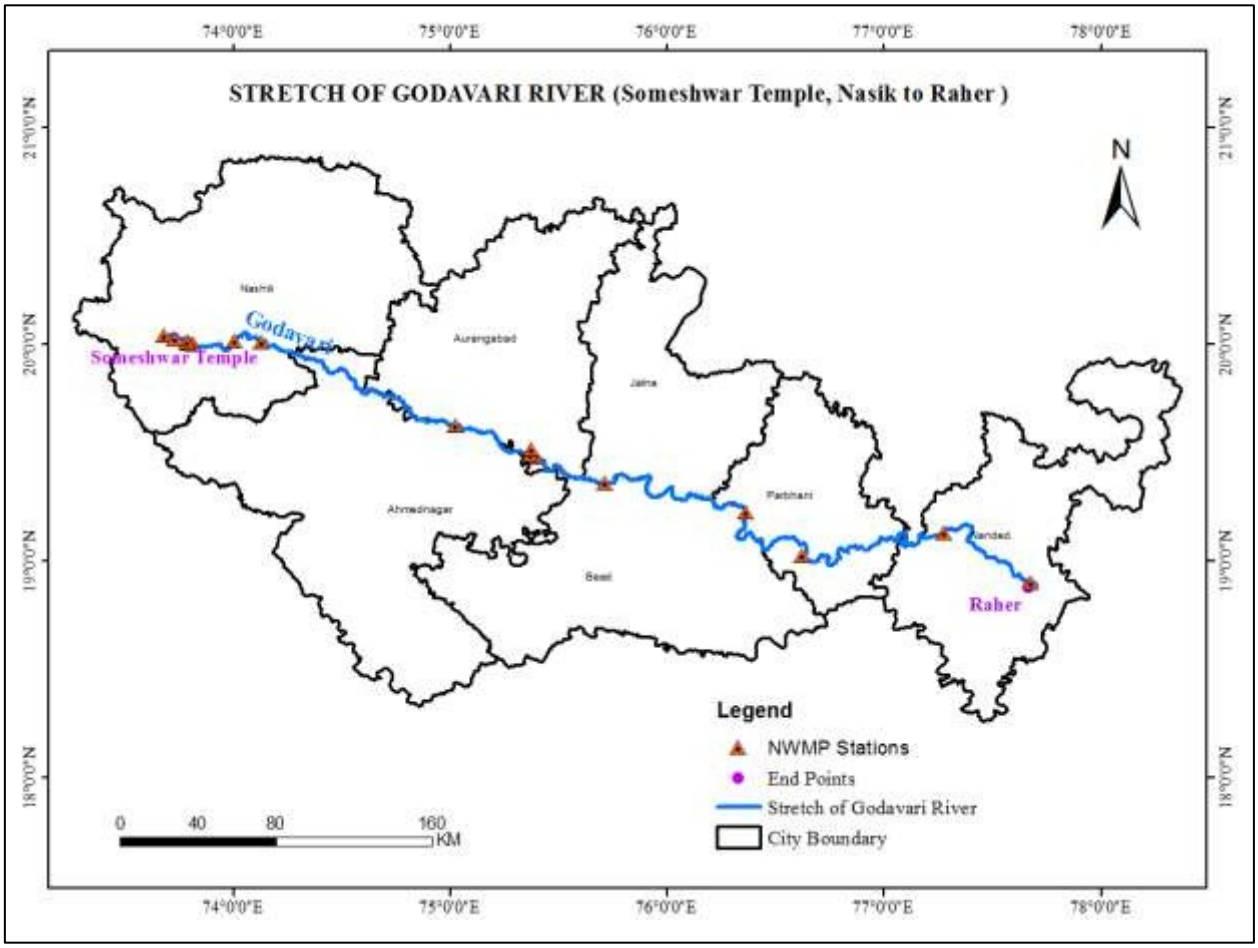

Figure 3 Map Showing NWMP Stations across Stretch of Godavari River

With these laboratory results, it will enable to analyze the impact of human activities on the identified locations with respect to its upward and downward stream. The monthly status of water quality for the year 2017 & 2018 at two NWMP locations for different parameters such as pH, DO, BOD, FC and TC are provided in the following table:

Table 15 Water Quality Monitored at Dhalegaon

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100 ml	Water Qality Criteria of Bathing
2023	8.27	6.33	4.58	7.63	Non Complying
2024	8.34	6.88	3.6	2.62	Non Complying

Table 16 Water Quality Monitored at U/s of Gangapur Dam

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100 ml	Water Qality Criteria of Bathing
2023	7.62	6.17	3.1	7.67	Non Complying
2024	8.02	5.9	3.23	8.13	Non Complying

Table 17 Water Quality Monitored at Panchvati, Ramkund

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100 ml	Water Qality Criteria of Bathing
2023	7.73	5.45	3.78	10.83	Non Complying
2024	7.88	5.28	4.79	12.76	Non Complying

Table 18 Water Quality Monitored at Raher

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.5	6.45	4.22	9.02	Non Complying
2024	9.11	7.23	4.58	2.71	Non Complying

Table 19 Water Quality Monitored at Intake of Pump house

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	9.25	7.37	4.07	9.64	Non Complying
2024	9.14	7.45	4.09	2.71	Non Complying

Table 20 Water Quality Monitored at Nasik D/s near Amardham

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.65	5.56	3.63	8.58	Non Complying
2024	7.91	4.36	6.27	9.44	Non Complying

Table 21 Water Quality Monitored at Jaikwadi Dam

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.6	6.6	3.69	3.01	Non Complying
2024	9.3	7.37	3.73	1.8	Non Complying

Table 22 Water Quality Monitored at Latur Water Intake near Pump house

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.98	6.03	3.78	1.8	Non Complying
2024	7.97	6.5	4.12	1.8	Non Complying

Table 23 Water Quality Monitored at Paithan U/s of Paithan Intake Pump house

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.68	6.73	3.61	7.89	Non Complying
2024	9.28	7.24	3.95	2.04	Non Complying

Table 24 Water Quality Monitored at D/s of Paithan at Pathegaon Bridge

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.65	6.58	4.37	7.42	Non Complying
2024	9.31	7.18	4.42	3.27	Non Complying

Table 25 Water Quality Monitored at U/s of Chh. Sambhajinagar Reservoir Kaigaon Tokka near Kaigaon Bridge

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.59	6.41	4.85	12.95	Non Complying
2024	9.26	7.17	4.04	6.75	Non Complying

Table 26 Water Quality Monitored at Jalna Intake Water Intake Water Pump house, Shahagad

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	8.28	5.92	5.88	10.04	Non Complying
2024	8.36	5.97	5.07	5.56	Non Complying

Table 27 Water Quality Monitored at Someshwar Temple

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.63	5.88	3.27	9.58	Non Complying
2024	8.06	5.41	6.32	9.07	Non Complying

Table 28 Water Quality Monitored at Hanuman Ghat

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.69	5.86	3.42	8.36	Non Complying
2024	7.81	5.21	5.44	10.36	Non Complying

Table 29 Water Quality Monitored at Tapovan

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.74	5.1	4.24	9.75	Non Complying
2024	7.89	4.29	7.76	36.73	Non Complying

Table 30 Water Quality Monitored at Kapila-Godavari Confluence Point

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.7	5.85	3.43	7.42	Non Complying
2024	7.87	4.67	5.69	21.18	Non Complying

Table 31 Water Quality Monitored at Saikheda

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.69	5.87	3.33	7.67	Non Complying
2024	7.78	5.23	4.96	9.9	Non Complying

Table 32 Water Quality Monitored at Nandur-Madhameshwar Dam

Year	pH (6.5-8.5)	DO (mg/L), 05 Mg/L or More	BOD (mg/L), 03 Mg/L or Less	FC MPN /100ml Less than 500 MPN/100ml	Water Qality Criteria of Bathing
2023	7.66	5.93	3.3	8.5	Non Complying
2024	7.87	5.68	4.13	8.56	Non Complying

It is observed from above analysis, that most of the location are not complying to the bathing standards of 3mg/lit of BOD. That is due to non-availability of the dilution water at disposal location in the river bed. The necessary dilution will be achieved by way of discharging necessary water quantum required to maintain e-flow from dam in a periodical manner. The usual water cycle of the release of water is mostly for irrigation and domestic purposes from interval of 21 days to 45days. The continuous e-flow will be achieved subject to availability of the water in the dam.

The stations located at Nasik are showing higher levels of the BOD, whereas other locations downstream of Nasik shows BOD in the range of <10mg/lit. Due non availability of the sewerage system in Nasik city to collect sewage from slum area.

1.7 Status of Industrial Effluent and Treatment facilities

The industrial Statistics in Chh. Sambhajinagar & Nashik region is represented in following Table.

Chh. Sambhajinagar Region		
LSI	**MSI**	**SSI**
269	22	5378
136	80	2004
208	105	854
White - 26		
Nashik Region		
LSI	**MSI**	**SSI**
337	45	6117
173	61	2312
458	112	2056
White - 93		

In Chh. Sambhajinagar Region, there is one operational CETP provided viz. M/s. Waluj CETP Pvt. Ltd. located at MIDC Area, Waluj with a treatment capacity of 10 MLD. The collective amount of effluent generated by industries in Chh. Sambhajinagar was 63 MLD..

In Nanded no Industrial Estate and No Industry is located about 2 km radius of the river. 2 Nos of MIDC"s i.e MIDC Nanded and MIDC Krushnoor are located more than 2.0 kms and 10.0 kms from the river respectively. Major industries are Agrobase and Engineering industries. No CETP exists in this jurisdiction.

In Nashik No Industrial Estate and No Industry is located about 1 kms radius of the river. 2 nos of MIDC"s i.e MIDC Satpur and MIDC Ambad located more than 2.5 kms and 4.0 kms from the river respectively. Major industries are Engineering and Automobile Industries. No CETP exists in this jurisdiction. However CETP of 0.5 MLD for Electroplating industries is Proposed in MIDC Ambad, Nashik.

In Paithan no effluent generating industry is located in the catchment area of the Godavari river basin.

In Gangakhed no industry located in the catchment area.

Table 33 District wise particulars of Industries

	Category of Industries	No of Industries	Remarks
Nanded	Orange	487	1. No Industrial Estate and No Industry is located about 2 km radius of the river 2. No CETP exists in this jurisdiction. 3. 2 Nos of MIDC"s i.e MIDC Nanded and MIDC Krushnoor located more than 2.0 kms and 10.0 kms from the river respectively. Major industries are Agrobase and Engineering industries. 4. 8 effluent generating units: Water consumption – 2 MLD Industrial effluent – 0.45 MLD Domestic effluent – 0.15 MLD
	Red	224	

Nashik	Orange	1221	1. No Industrial Estate and No Industry is located about 1 kms radius of the river 2. No CETP existing in this jurisdiction. 3. 2 nos of MIDC"s i.e MIDC Satpur and MIDC Ambad located more than 2.5 kms and 4.0 kms for the river respectively. Major industries are Engineering and Automobile Industries. 4. However 1 no of Common Bio medical site is located at the bank of the River Godavari. They have provided Full-fledged Treatment facility. 5. MIDC Satpur – 0.5 MLD proposed CETP will be operational in 1 year with ZLD condition. Total 800 Industries. Most are engineering units except 45 effluent generating electroplating units. 21 MLD water supply – 16 MLD domestic effluent + 1.5 MLD industrial effluent
	Red	1326	
Chh. Sambhajinagar	Orange	934	1. Chh. Sambhajinagar (Paithan – River Godavari) - No any effluent generating industry is located in the catchment area of the Godavari river basin near Paithan city. 2. Water Consumption – Waluj MIDC – 18 MLD (40 Kms from river basin, 4.5 MLD CETP operational) Shendra – 5 MLD Chikalthana – 4 MLD Paithan – 1 MLD (Tiny industries – mostly green and orange)
	Red	1189	

Table 34 Particulars of Industries

Sr No	Particular	Remarks
1	Particulars of Industries	Details provided in Table 31
2	No. of Directions issued to Industries	Nil
3	Total water consumption and total	--
	industrial effluent generation	
4	No. of industries having captive ETPs	All Units
5	No. of CETPs existing in the catchment of the polluted river stretch and the treatment capacity	There is one CETP in MIDC waluj area of Capacity 10 MLD & its treated effluent discharge point is in the Kham River which further meets to Jaikwadi Dam. But, all water from Kham river is lifted by nearby farmers. The said CETP is not located in the catchment area of the polluted river stretch of Godavari River & the said CETP is most of the time complied with the consented standards. No CETP in Nashik District.
6	No. of Industries that are members of the CETPs	528 Nos. of industries are the members of CETP
7	Gaps in treatment of industrial effluent	The industries are achieving the consented standards. Hence, no Gap and no Industry is allowed to discharge effluent in river.
8	OCEMS installation Status by Industries	05
9	Status of Hazardous Waste Generation and Treatment	HW generated from industry is disposed through CHWTSDF. Maharashtra Enviro Power Ltd. MIDC, Ranjangaon, Dist. Pune Capacity – Landfill – 60000 TPA Incinerable – 20000 TPA Lifespan – 20 years

1.8 Waste Management

Table 35 Status of Waste Management

Sr. No	Particular	Remarks		
1	Total MSW Generation	City/Town	Population	Qty Generated (MT/day)
		Nashik M. Corporation.	17,00,000	558.0
		Trimbakeshwar M. Council	12,000	6.0
		Gangakhed M. Council	49,891	16.0
		Paithan M.Council	41,536	6.0
		Nanded-Waghala M. Corporation	5,55,000	250.0

<table>
<tr><td>2</td><td>Existing MSW treatment and disposal facilities</td><td>
<table>
<tr><th>City/Town</th><th>Qty Treated (MT/day)</th><th>Identified Sites</th><th>MSW Processing facility</th></tr>
<tr><td>Nashik M. Corporation.</td><td>501.0</td><td>Sr. No. 278, Pathardi Shivar, Dist-Nashik</td><td>Composting , Leachate Treatment, RDF, Biomethanation, SLF, Plastic processing plant, Carcass incineration</td></tr>
<tr><td>Trimbakeshwar M. Council</td><td>4.0</td><td>G. N. 49,Vill-Kojuli, Trimbakeshwar</td><td>Composting Bio Methanation</td></tr>
<tr><td>Gangakhed M. Council</td><td>3.5</td><td>Gut. No. 72 of Village Pimpri,Dist-Parbhani</td><td>Composting, Landfill</td></tr>
<tr><td>Paithan M.Council</td><td>NIL</td><td>S. No 54, Panthewadi.,Dist-Aurnagabad</td><td>Dumping</td></tr>
<tr><td>Nanded-Waghala M. Corporation</td><td>NIL</td><td>Gut No.372,Vill-Tuppa Dist-Nanded.</td><td>Dumping</td></tr>
</table>
</td></tr>
<tr><td>3</td><td>Bio-medical waste Management</td><td>
<table>
<tr><th>District</th><th>Qty Generated (Kg/day)</th><th>Treatment Capacity</th></tr>
<tr><td>Nashik</td><td>3000</td><td>Incinerator - 250 Kg/Hr
Autoclave - 400 litr/cycle</td></tr>
<tr><td>Chh. Sambhajinagar</td><td>1600</td><td>Incinerator - 250 Kg/Hr
Autoclave - 400 litr/cycle</td></tr>
<tr><td>Nanded</td><td>904</td><td>Incinerator - 100 kg/hr
Autoclave - 50 litr/cycle</td></tr>
</table>
</td></tr>
<tr><td>4</td><td>E-Waste management</td><td>E-waste generated by industries is sent to MPCB authorized E-waste reprocessor.</td></tr>
<tr><td>5</td><td>Hazardous Waste Management</td><td>HW generated from industry is disposed through CHWTSDF.

Maharashtra Enviro Power Ltd.
MIDC, Ranjangaon, Dist. Pune
Capacity –
Landfill – 60000 TPA
Incinerable – 20000 TPA
Lifespan – 20 years</td></tr>
</table>

1.9 Greenery Development Plan of Forest Department, Government of Maharashtra

For maintaining the transparency, accountability and credibility, all the data relating to site selection for plantation with Geo-Tagging, development of Nurseries, digging of pits, availability of manpower, actual plantation and survival of the trees planted etc. is uploaded on the Digital

Platform of Forest Department so that people can access the· data at any given point of time. This has helped to build confidence amongst the people and their ever increasing participation in the plantation programme.

For the registration of plantation by the individuals, private NGOs and other stakeholders of society the mobile application called "My Plants" has been developed. Similarly, the programs like "Saplings at the Door Step", "Digital visibility on social media", "publicity campaign" are being implemented for greater public participation.

In Marathwada region of the State having low forest cover, a dedicated "Eco-Battalion" has been established at Chh. Sambhajinagar for tree plantation and its protection under the Defense Ministry of GIO considering establishing two more companies of this force at Beed & Latur.

The Forest Department is trying it‟s level its level best to increase the Forest and Tree cover in the State by various innovative ideas by involvement of people in the plantation & its protection especially on Non-Forest areas as forest area is limited. Massive tree plantation program in urban & rural areas under the scheme "Nurturing Trees is Worshiping Nature" has been launched by the Govt. in line with Ranmala Village in Khed Taluka of Pune District.

The Tree based Agriculture under Mahatma Gandhi National rural Employment Guarantee Scheme (MG-NREGS) Kanya Van Samruddhi Yojana, Bhausaheb Phundkar Horticulture Plantation Programme in co-ordination with Agriculture Department, Sericulture Plantation in coordination with Textile Department, Riverside Plantation are some of scheme initiated for increasing green cover in the Non- Forest areas.

1.10 Plan for restoration of water quality

The samples were analyzed and presented graphically in comparison to all identified sampling locations. It was interpreted from the results that the water parameters are well within the prescribed standards of A-II River. The following measures are recommended:

1. **De-siltation of Gangapur Dam:** The requirement of water for religious, social and ecological functions needs to be carved out. The decrease in dam storage will be detrimental for all these stakeholders and sectors. Therefore, De-silting should be taken up on priority basis after proper assessment and techno-economic feasibility study. De-siltation of Gautami – Godavari, Kashyapi and Gangapur will be helpful in maintaining

environmental flow of Godavari. Further it is also recommended that at de-siltation of other dams also need to be carried out.

2. **Religious Activities Impacting River Quality:** Devotees perform various kinds of Pujas at certain places at the bank of the river. This leads to addition of organic matter in to the river directly. Some of the activities are as below:
    - Proper use of collection facility for *nirmalya* should be placed at every religiously significant place like temples, ghats.
    - "Pindadan comprising of cooked rice during *Dashakriya* and *nirmalya* in the river at Ramkund.
    - Human body ash (*Asthi*) Visarjan activities at Ramkund.
    - *Bhaji bajar* and stalls of offerings to Devotees near river banks.

3. **Disposal of Nirmalya:** Placing of nets on the bridges to avoid throwing of *nirmalya* across the riverflow and also downstream of holy places such as Ramkund, Tapovan to collect floating Nirmalya disposed by the devotees can be helpful to reduce the amount of *nirmalya* in the river. At present, many permanent ghats have been constructed on the bank of River Godavari. As the river Godavari is a non-perennial river, the banks of the river must be protected. Hence temporary ghats may be built if more ghats are needed in the future. Volunteers should be appointed for effective collection and disposal of such material. Awareness programs should be organized for adoptions of the improved system for pollution prevention.
4. **Collection of Domestic Wastewater**: 100% collection of wastewater from the Nasik Municipal area should be achieved in order to avoid any wastewater directly entering into the river. Wherever collection process is not feasible in short time, in situ nallah treatment should be adopted. Prior to awarding permission for development of new residential areas in the outskirts of the city, there should be provision of sewerage network and STP of appropriate capacity and accordingly authorities should take prompt action for construction of new STP. It is recommended to have soak pits for villages in close proximity of river in order to avoid direct discharge of sewage in to the river.
5. **Status of Sewer:** Regular operation and maintenance sewers and sewerage chambers should be done as leakages or breakages in either can lead to flow of huge quantity of sewage in to the river Godavari. Deliberate breakages of Sewage chambers should be checked and stopped by undertaking strict actions and providing alternatives by using treated water for irrigation through decentralized system. The centralized sewer system is always problematic due to multiple lines and expensive due to need for pumping which requires electricity. All conventional sewer and STPs require very high O&M costs, especially uninterrupted power and trained manpower. Hence Decentralized wastewater treatment is recommended at least for all multi complex projects.
6. **Maintenance and Up-Gradation of STPs:** Regular maintenance and up gradation of STPs should be carried out for effective treatment of wastewater. The working status of each STP performance unit should be strictly checked.

7. **Industrial Wastewater:** Reuse and recycle of treated wastewater for construction, gardening etc. Purposes should be implemented.

8. **Other Recommendations**
   - Activities such as soil excavation, brick making on the bank of river is seriously affecting the quality of river water, hence such activities should be strictly prohibited up to 500 m. from high flood line.
   - It is recommended to implement River Regulation Zone policy strictly to restrict activities in the river bank.
   - Encroachments, depositions, construction or any kind of developmental activities on the bank of rivers should be banned.
   - Nallah Treatment System shall be provided so as to stop sewage entering into the River.

Table 36 Time bound Action Plan to improve water quality for Godavari River

Sr. No.	Target/Action Plan Expected	Agency / Organization	Expected Duration for Implementation
1	Provide STP for treatment of sewage generation to avoid contamination of River	Concerned ULB	3 Years
2	Provide STP for treatment of sewage generation and MSW treatment Facility in the villages/towns located on the bank of river to avoid contamination of River	Concern Grampanchayat and Zilha Parishat	2 Years
3	In-Situ Nallah Treatment to stop sewage entering into the River	Municipal Corporation	1 year
4	To stop bathing in river water & open defecation at bank of river. Also, proper disposal of human excreta and sewage.	Local Body & Police Department.	10 Months
5	Regular cleaning of river bed and regular flow monitoring should be initiated.	Local Body & Irrigation Department.	Continuous
6	To prevent growth of Algae/Eicchornia in river bed by installation of floating rafters and screen bars.	Local Body & Irrigation Department.	Continuous
7	Effective operation, collection & treatment of MSW.	Municipal Corporation	10 Months

8	Up-gradation of existing STPs to meet 10mg/lit BOD Outlet standard	Municipal Corporation	3 Years

Table 37 Long term action plan

Sr.No.	Activity	Responsibility	Time Frame
1	Compulsory application of water meter.	Nanded Municipal Corporation Nashik Municipal Corporation	3 Year
2	Maintaining continuous flow in the river	Nanded Municipal Corporation Nashik Municipal Corporation, Irrigation Department	3 Year
3	For the treatment of 100% waste water prepare a plan, construct & operate STP in scientific manner	Nanded Municipal Corporation Nashik Municipal Corporation	3 Years
4	Up-gradation of existing STPs to meet 10mg/lit BOD Outlet standard	Nanded Municipal Corporation Nashik Municipal Corporation	3 Years
5	Exploration, development and augmentation of groundwater resources	Groundwater Surveys & Development Agency (G.S.D.A.)	Continuous
6	Groundwater Monitoring	Maharashtra Pollution Control Board, Ministry of Drinking water & sanitation	Continuous
7	Provision of adequate funds	Urban Development	1 Year for

	to Local Bodies located at bank of the river	Department, Municipal Administration, Rural Development Department	planning & 3 years for implementation
8	Tree Plantation in catchment area & banks of the river	Forest Department, Water Resource Department	2 Year
9*	Maintaining e flow of the river, protection of flood plain zone, development of Bio Diversity Park	Forest Department, Water Resource Department	1 Year for planning & 3 years for implementation
10	Prevention of Agricultural run-off to the river	Agriculture Department	1 Year for planning & 3 years for implementation
11	Up-gradation of existing STPs to meet 10mg/lit BOD Outlet standard	Concerned ULB	3 Years*

***Note:** All existing STPs needs to be upgraded and modernized for achieving for 10BOD outlet standards as existing STPs are designed way back based on 30 BOD disposal standard i.e. stream standards as per EPA. Up-gradation will be completed in next 3 years as per the notification dated 24th November 2015 & directions of CPCB.

1.11 Budget Estimates & Pooling of Resources from Local Bodies, State Pollution Control Board, State Government & Central Government

- Chh. Sambhajinagar Municipal Council, Gangapur Municipal Council, Paithan Municipal Council, Nanded Municipal Council, Beed Municipal Council, Pimpalgaon Municipal Council & Nashik Municipal Corporation will provide following adequate. for STPs & management of sewerage system. The said work will be completed by 2028

- Maharashtra Government has already received proposal of Rs. 1104.54Cr. Under State River Conservation Program & form this amount State Government will provide necessary funds in next 2 years by 2026 for Sewage management
- The Maharashtra Pollution Control Boards has also reserved Rs. 461.42Cr. for preparation of action plan for abetment & Control of Pollution of River Water due to sewage & solid waste disposal from B & C Municipal Councils , Nagar Panchyat & Gram Panchayat for reducing polluted stretches in compliance with Hon"ble NGT, principal bench directions w.r.t. "More River Stretches are now Critically Polluted. The said funds will be used for DPR preparation, development of infrastructure for sewage collection & treatment & development of infrastructure for Solid Waste Management. The DPR preparation & implementation of the same will be completed by year 2028 (i.e in next 3 years).The Maharashtra Government through Urban Development Department

has approved DPR of all Urban Local Bodies for Solid Waste Management. The funds for the same are approved by Government & the said DPRs will be implemented & Solid Waste Management issues will be resolved by 2028.

Proposed plans for maintaining e-flow: River flows only in Monsoon season & whenever dam water is released. The amount of water released from dam is such that it will not over flow from next weir at the downstream.

1.12 Timelines for Implementation of Restoration Plan

Activities/Year	2024	2025	2026	2027	2028
Reconnaissance Survey					
Water Quality Sampling					
Execution (Setting up of STPs)					
Execution (MSWM system)					
Augmentation of River Flow if any and restoration of water quality					

1.13 Governance and Supervision

1.13.1 Two Tier Monitoring

Monitoring will be done by the concerned Departments/ Agencies, which are executing or responsible for particular activities and it will be their primary responsibility to ensure compliance of the Action Plan. In addition, there will be two level of Committees to review and monitor the status: (i) District Level Task Force (ii) River Rejuvenation Committee

1.13.1 District Level Special Task Force:

The District Level Special Task Force will monitor the Status of implementation of the Action Plan at the district Level.

1.13.2 River Rejuvenation Committee:

The River Rejuvenation Committee will monitor the Status of implementation of the Action Plan at the State Level.