

MONTHLY PROGRESS REPORT

On

Polluted River Stretches

for the

State of Andhra Pradesh

JULY 2020

Submitted to

**Ministry of Jal Shakti
Government of India
Department of Water Resources
River Development & Ganga Rejuvenation**

**NATIONAL MISSION FOR CLEAN GANGA
MINISTRY OF JALSAKTHI**

NEW DELHI

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1. Progress report of Priority –IV Polluted River Stretches for the month of June 2020 for 2 rivers

BOD range criteria for Priority IV is between 6-10 mg/l.

1.1 River Tungabhadra

Progress Report of River **Tungabhadra at Kurnool** on revised action plan:

Sl No	Activity to be Monitored	Time Line	Submission of Progress by State/ compliance Status
1	Ensure 100% Treatment of Sewage at least in-situ remediation	31.03.2020	<p>1. Present demand : 60 MLD Existing Capacity : 2.4 MLD Ongoing : 12 MLD Present Existing Gap : 46 MLD Demand for year 2036 : 92.4 MLD Balance to be provided : 78 MLD</p> <p>2. DPR prepared for Rs. 304 Crores and proposed additional STPs capacity of 78 MLD to meet the demand for the year 2036 and is under process of according Administrative sanction.</p>
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of Sewage to the STPs must be ensured	31.03.2020	<p>1. For Commencement of STPs of 2 no's of 12 MLD (10+2). STPs are under construction and are executed by PHED and will be completed by Dec 2021.</p> <p>2. In the last month 10 MLD STP was not grounded and this month it has been grounded.</p> <p>3. Regarding 2 MLD capacity of STP, 35% (5% this month) progress is achieved.</p> <p>4. DPR is finalized for additional STPs and submitted to Government for according Administrative approval.</p>
2	Time line for completing all steps of action plan including completion of setting up STP's and their commissioning	31.03.2021	<p>1. Construction of 10.0 MLD STP will be complete by Dec-2021</p> <p>2. Construction of 2.0 MLD will be complete by May-2021</p>
3	<p>Chief Secretaries may setup appropriate Monitoring mechanism at state level</p> <ul style="list-style-type: none"> • Specific accountability of Nodal authorities not below the secretary level. • Chief Secretaries may have an accountable person attached in their office for this Purpose. <p>Monitoring at State Level must take place</p>	<p>22.01.2020</p> <p>22.01.2020</p> <p>Fortnightly Commencing 21.12.2019</p>	<p>Government of Andhra Pradesh vide G.O. No. 56 Dt: 05.08.2020 appointed Secretary, Municipal Administration & Urban Development Dept., A.P. Secretariat as Nodal Authority for setting up of STPs for 100% treatment of sewage in the five identified polluted river stretches in Andhra Pradesh viz., Godavari, Krishna, Tungabhadra, Kundu and Nagavali in coordination with the A.P. Pollution Control Board.</p> <p>The details of Nodal Authority is mentioned below:</p> <p>Secretary, MA&UD Department</p>

			<p>Guntur, Andhra Pradesh. Email: ps.apmaud@gmail.com Office phone: 0863 2442313 Fax: 0863 2442315</p> <p>Letter in this regard is communicated to Jal Sakthi, New Delhi and CPCB vide mail Dt:10.08.2020 by APPCB.</p>
6.1	Progress Report may be furnished by the states/ UTs to	Monthly	Noted
	<ul style="list-style-type: none"> Secretary, Ministry of Jal Shakthi Member Secretary, CPCB	(Preferably before 20 of every month)	
Progress Report may be comprised of details along with completion timelines on:			
	i) Identification of polluting sources including drains contributing to river pollution and action as per NGT Order on in-situ treatment.	A total of 32 no's of Outfall points of the major disposal drains have been identified which are contributing to river pollution and provided wire meshes at all outfall points.	
	ii) Status of STPs, I&D and Sewerage Networks Details of Existing Infrastructure, Gap Analysis, Proposed along with completion Time Line.	At present 3 no's of STPs of 0.80 MLD each are functioning and 2 no's of 10+2 MLD STPs are under construction and for remaining DPR prepared.	
	iii) Status of CETPs Details of Existing CETP and ETP infrastructure, Gap Analysis Proposed along with completion time line, number of Industries and complying status.	<ul style="list-style-type: none"> No CETP is existing in the Jurisdiction of Kurnool. No industry is discharging the industrial effluents into river stretch i.e., Tungabhadra river. No non-complying units, illegal units operating in the catchment of polluted river stretch. Only, domestic sewage is being discharged in to the River Tungabhadra At present 2.4KLD of Effluent Treatment plant is functioning at Slaughter house, Gareeb nagar. 	
	iv) Status of Solid waste Management & Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	<ul style="list-style-type: none"> Total wet waste generation is 110 TPD. For processing wet waste 2nd call of RFP to be invited. Total Dry waste generation is 30 TPD. For processing dry waste 2nd call of RFP invited. At present nearly 1.00 lakh metric tonnes of legacy waste was dumped at abandoned compost yard at Joharapuram. For Bio remediation of land RFP invited and bidder was finalised and submitted to Government for release of funds (7.95 Crores) 	
	v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	i) Latest water quality of Tungabhadra River at Bavapuram is tabulated (Annexure- I)	

	vi) Preventing dumping of waste and scientific waste management including bio-medical waste, Plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams etc	<ul style="list-style-type: none"> • 100% door to door collection of waste is already implemented and awareness is being created to public through announcement vehicle regularly in all colonies not to dispose garbage into river stretches • Part of river stretches, Corporation is implementing greenery and avenue plantation. For all disposal drains, grills, meshes were provided at disposal points to avoid garbage mixing into river stretches.
	5. Ground water regulation	Ground water quality is being regularly monitored by Ground water Department.
	6. Adopting good irrigation practices	Regularly attending the maintenance works for free flow of drain water.
	7. Protection and management of flood plain zones (FPZ),	No erosion of flood plain or flood banks is observed
	8. Rain water harvesting	At present rain water harvesting structures are constructed in all Municipal Schools and Municipal and Govt. Buildings and municipal open spaces. Further the Town planning staff are insisting for construction of rain water Harvesting structures in all Apartments.
	9. Plantation on both sides of the river	Part of river stretches, Kurnool Municipal Corporation is implementing greenery and avenue plantation. Further it will be continued for plantation along river bank within city limits.
	10. Setting up biodiversity parks on flood plains by removing encroachment.	Encroachments are being removed in flood plain areas.

Progress Report of River **Tungabhadra at Mantralayam** on revised action plan:

SI No	Activity to be Monitored	Time Line	Submission of Progress by State/compliance Status
1	Ensure 100% Treatment of Sewage at least in-situ remediation	31.03.2020	4 MLD capacity of 2 nos STP – DPR was prepared and submitted to higher authority for administrative sanction
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of Sewage to the STPs must be ensured	31.03.2020	4 MLD capacity of 2 nos STP – DPR was prepared and submitted to higher authority for administrative sanction
2	Time line for completing all steps of action plans including completion of setting up STP's and their commissioning	31.03.2021	4 MLD capacity of 2 nos STP – DPR was prepared and submitted to higher authority for administrative sanction Timeline:31.03.2021
5	Chief Secretaries may setup appropriate Monitoring mechanism at state level <ul style="list-style-type: none"> • Specific 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	Government of Andhra Pradesh vide G.O no. 56 dt: 05.08.2020 appointed Secretary, Municipal Administration & Urban Development Dept., A.P. Secretariat as Nodal Authority for setting up of STPs for 100% treatment of sewage by 31.03.2021 in the five

	Monitoring at State Level must take place		<p>identified polluted river stretches in Andhra Pradesh viz., Godavari, Krishna, Tungabhadra, Kundu and Nagavali in coordination with the A.P. Pollution Control Board.</p> <p>The details of Nodal Authority is mentioned below:</p> <p>Secretary, MA&UD Department Guntur, Andhra Pradesh. Email: ps.apmaud@gmail.com Office phone: 0863 2442313 Fax: 0863 2442315</p> <p>Letter in this regard is communicated to Jal Sakthi, New Delhi and CPCB vide mail dt:10.08.2020 by APPCB.</p>
		22.01.2020	
		Fortnightly Commencing 21.12.2019	
6.1	Progress Report may be furnished by the states/UTs to	Monthly	Noted
	<ul style="list-style-type: none"> Secretary, Ministry of Jal Sakthi, Member Secretary, CPCB 	(Preferably before 20 of every month)	
	Progress Report may be comprised of details along with completion timelines on:		
	i) Identification of polluting sources including drains contributing to river pollution and action as per NGT Order on in-situ treatment.	<ul style="list-style-type: none"> Most of the drains carrying sewage have been identified. 8 storm water drains have been identified and 42 wire mesh have also been provided. 	
	ii) Status of STPs, I&D and Sewerage Networks Details of Existing Infrastructure, Gap Analysis, Proposed along with completion Time Line.	4 MLD capacity of 2 nos STP – DPR was prepared and submitted to higher authority for administrative sanction	
	iii) Status of CETPs Details of Existing CETP and ETP infrastructure, Gap Analysis Proposed along with completion time line, NO of Industries and complying status.	<ul style="list-style-type: none"> No CETP is existing in the Jurisdiction of Kurnool. No industry is discharging the industrial effluents into river stretch i.e., Tungabhadra river. No non-complying units, illegal units operating in the catchment of polluted river stretch only, domestic sewage is being discharged in to the River Tungabhadra 	

	iv) Status of Solid waste Management & Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	SWPC Centre is existing with all infrastructure. At present it is not functional due to lack of man power. Efforts are going on to make it functional at the earliest
	v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	i) Latest water quality of Tungabhadra River is tabulated (Annexure- I)
	vi) Preventing dumping of waste and scientific waste management including bio-medical waste, Plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams etc	SWPC Centre is existing with all infrastructure. At present it is not functional due to lack of man power. Efforts are going on to make it functional at the earliest
5.	Ground water regulation	Ground water quality is being regularly monitored by Ground water Department.
6.	Adopting good irrigation practices	Regularly attending the maintenance works for free flow of drain water.
7.	Protection and management of flood plain zones (FPZ),	No erosion of flood plain is observed in the reach. The flood banks are being protected as and when found necessary
8.	Rain water harvesting	--
9.	Maintaining minimum environmental flow of river	In the Tungabhadra river, numbers of flood days are very meagre which will be observed in peak monsoon period only
10.	Plantation on both sides of the river	The river bed plantation is proposed on both sides of the river with 10m width.
11.	Setting up biodiversity parks on flood plains by removing encroachment.	Revenue and Gram Panchayat of Mantralayam are removing the encroachments regularly. Presently No proposal for biodiversity park at flood plains

1.2 River Kundu:

Progress Report of **River Kundu** on revised action plan

SI No	Activity to be Monitored	Time Line	Submission of Progress by State/compliance Status
1	Ensure 100% Treatment of Sewage at least in –situ remediation	31.03.2020	<p>1. Present demand :21 MLD Existing Capacity : 0 MLD Ongoing : 10 MLD Existing Gap : 11 MLD Demand for year 2036 : 36 MLD Balance to provided : 26 MLD</p> <p>2. Comprehensive DPR on UGD scheme is prepared for Rs.85.00 Cr with STPs capacity of 26 (21 + 5) MLD. To cater the needs of 2036 year and DPR is under process of according administrative sanction.</p> <p>3. 10 MLD capacity of STP at Nandyal and the work taken up by the PHED. Work grounded.</p>
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of Sewage to the STPs must be ensured.	31.03.2020	
2	Time line for completing all steps of action plans including completion of setting up STP's and their commissioning	31.03.2021	Construction of 10 MLD STP will be complete by December 2021
5	Chief Secretaries may setup	22.01.2020	
	Appropriate Monitoring mechanism at state level		<p>Government of Andhra Pradesh vide G.O no. 56 Dt: 05.08.2020 appointed Secretary, Municipal Administration & Urban Development Dept., A.P. Secretariat as Nodal Authority for setting up of STPs for 100% treatment of sewage in the five identified polluted river stretches in Andhra Pradesh viz., Godavari, Krishna, Tungabhadra, Kundu and Nagavali in coordination with the A.P. Pollution Control Board.</p> <p>The details of Nodal Authority is mentioned below:</p> <p>Secretary, MA&UD Department Guntur, Andhra Pradesh. Email: ps.apmaud@gmail.com Office phone: 0863 2442313 Fax: 0863 2442315</p> <p>Letter in this regard is communicated to Jal Sakthi, New Delhi and CPCB vide mail dt:10.08.2020 by APPCB.</p>
	<ul style="list-style-type: none"> Chief Secretaries may have an accountable person 	22.01.2020	

	Monitoring at State Level must take place.	Fortnightly Commencing 21.12.2019	
6.	Progress Report may <ul style="list-style-type: none"> Secretary, Ministry of Jal Shakti Member Secretary, CPCB 	Monthly (preferably before 20 th of every month)	Noted
Progress Report may be comprised of details along with completion timelines on:			
	xiv. Identification of polluting sources including drains Contributing to river pollution and action as per NGT Order on in-situ treatment.	<ul style="list-style-type: none"> Most of the drains carrying sewage have been identified. 8 storm water drains have been identified and 42 wire mesh have also been provided. 	
	xv. Status of STPs, I&D and Sewerage Networks Details of Existing Infrastructure, Gap Analysis, Proposed along with completion Time Line.	1.10 MLD capacity of STP at Nandyal and the work taken up by the Public Health Engineering Department Work grounded. 2. Comprehensive DPR on UGD scheme is prepared for Rs.85.00 Cr with STPs capacity of 26 (21 + 5) MLD. To cater the needs of 2035 year and DPR is under process of according administrative sanction.	
	xvi. Status of CETPs Details of Existing CETP and ETP infrastructure, Gap Analysis Proposed along with completion time line, NO of Industries and complying status.	<ul style="list-style-type: none"> No CETP is existing in the Jurisdiction of Kurnool. No industry is discharging the industrial effluents into river stretch i.e., Kundu river. No non-complying units, illegal units operating in the catchment of polluted river stretch However, the Nandyal Municipality is discharging the sewage water in to the River Kundu. 	
	xvii. Status of Solid waste Management & Details of Processing Facilities Details of Existing infrastructure, Gap Analysis, Proposed along with completion timeline	<ul style="list-style-type: none"> All Dry waste i.e 26 TPD which is coming from the ULB is send to MRF, Total wet waste generated from the ULB is 40 TPD. Out of 40 TPD, daily 20 TPD is treated by Aerobic composting method i.e Box composting and vermi-composting and windrow composting 	
	xviii. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	Latest water quality of Kundu River at Udumulapadu, Nandyal is tabulated (Annexure-II)	
	xix. Preventing dumping of waste and scientific waste management including bio-medical waste, Plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc	<ul style="list-style-type: none"> Plastic waste quantity:- <ol style="list-style-type: none"> Generation:-1.8MT Treatment:-0 Send to MRF Bio medical waste – All the HCFs located in the Kurnool District have tied up with CBMWTF for treatment and disposal of waste (100% achieved). 	

11. Ground water regulation	Ground water regulation is being regularly monitored by Ground water Department.
12. Adopting good irrigation practices	Regularly attending the maintenance works for free flow of drain water.
13. Protection and management of flood plain zones(FPZ),	No erosion of flood plain is observed in the reach. The flood banks are being protected as and when found necessary
14. Rain water harvesting	--
15.Maintaining minimum environmental flow of river	In the Kundu river, numbers of flood days are very meager which will be observed in peak monsoon period only.
16. Plantation on both sides of the river	The river bed plantation is proposed on both sides of the river with 10mt width.
17. Setting up biodiversity parks on flood plains by removing encroachment.	Revenue and Municipal Corporation of Nandyal are removing the encroachments regularly. Presently No proposal for biodiversity park at flood plains.

3. Progress report of Priority –V for the month of June 2020 for 3rivers

a. BOD range criteria for Priority V is between 3-6mg/l

2.1 River Godavari:

Sl.No.	Activity to be monitored	Timeline	Submission of Progress by State/UT-Compliance Status
1	Ensure 100% treatment of sewage at least in-situ remediation	31.03.2020	<p>1. Present demand :51 MLD Existing Capacity : 30 MLD Ongoing : 5 MLD Existing Gap : 16 MLD Demand for year 2035 : 71 MLD Balance to be provided : 36 MLD</p> <p>2. Present treatment capacity is 30 MLD and it is in operation.</p> <p>3. 5 MLD STP is grounded in Hukumpeta area under AMRUT.</p> <p>4. DPR on Comprehensive UGD scheme is prepared for Rs.419.00 Cr. with additional STP capacity of 36 MLD & up-gradation of existing 30 MLD capacity STP and submitted to NRCD.</p> <p>5. NRCD has given remarks on RMC and RMC has attended the remarks and resubmitted for approval.</p>
	commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31.03.2020	<p>1. Action is being taken to construct 5 MLD STP at Hukumpet under AMRUTH Scheme at a cost of Rs.17.98 Crores.</p> <p>2. DPR on Comprehensive UGD scheme is prepared for Rs.419.00 Cr. with additional STP capacity of 36 MLD & up-gradation of existing 30 MLD capacity STP and submitted to NRCD.</p> <p>3. NRCD has given remarks on RMC and RMC has attended the remarks and resubmitted for approval.</p>
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31.03.2021	<p>1. For ongoing 5 MLD STP December 2021.</p> <p>2. For newly proposed works, two years after approval of DPR.</p>
5	Chief Secretaries may set up appropriate monitoring mechanism at State level		
	<ul style="list-style-type: none"> Specifying 	22.01.2020	Government of Andhra Pradesh vide G.O no. 56 Dt: 05.08.2020 appointed Secretary, Municipal Administration & Urban

	<p>accountability of nodal authorities not below the Secretary level</p> <ul style="list-style-type: none"> Chief Secretaries may have an accountable person attached in their office for this Purpose. 	22.01.2020	<p>Development Dept., A.P. Secretariat as Nodal Authority for setting up of STPs for 100% treatment of sewage in the five identified polluted river stretches in Andhra Pradesh viz., Godavari, Krishna, Tungabhadra, Kundu and Nagavali in coordination with the A.P. Pollution Control Board.</p> <p>The details of Nodal Authority is mentioned below:</p> <p>Secretary, MA&UD Department Guntur, Andhra Pradesh. Email: ps.apmaud@gmail.com Office phone: 0863 2442313 Fax: 0863 2442315</p> <p>Letter in this regard is communicated to Jal Sakthi, New Delhi and CPCB vide mail dt:10.08.2020 by APPCB.</p>
	<ul style="list-style-type: none"> Monitoring at State level must take place 	<p>Fortnightly Commencing 21.12.2019</p>	
6	<p>Progress report may be furnished by the States/UTs to</p> <ul style="list-style-type: none"> Secretary, Ministry of Jal Shakti 	<p>Monthly (preferably before 20th of every month)</p>	Noted

6.1	Progress Report may be comprised of details along with completion timelines	
	i. Identification of polluting sources including drains contributing to river pollution and action as per NGT order on insitu treatment.	Three drains are i.e., Nallah Channel, Ava Drain and Mallayyapeta Drains merging into River Godavari in the entire sketch of Rajamahendravaram municipal corporation. All the drains should be properly designed with the interception and diversion plan.
	ii. Status of STPs, I&D and sewerage networks Details of Existing Infrastructure, Gap Analysis, proposed along with completion timeline.	5 MLD STP under AMRUTH Scheme at a cost of Rs.17.98 Crores and for balance 25 MLD STP the RMC has submitted proposals to Gol and awaiting for sanction under NRCP funds.
	iii. Status of CETPs Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No.of Industries and complying status.	There are no CETPs existing in the catchment of River Godavari at Rajamahendravaram. One industry is located in the catchment area of River Godavari i.e., M/s. Andhra Paper Limited. The industry has adopted a unique land (natural sand bed) treatment system for its treated effluent based on the know-how and designs approved by NEERI.
	iv. Status of Solid Waste Management &Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	Total waste generation is about 210 TPD. The existing facility is vermi composting of 5 TPD & MRF Centres – 2 Tonnes for remaining solid waste, the RMC is proposed waste to energy plant– 200 TPD and Wet Waste Management (Bio- methanization) - 25 TPD.
	v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;	The water quality is being regularly monitored in the River Godavari, Drains and Ground Water. (Annexure- III)
	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.	<ol style="list-style-type: none"> 1. For commissioning of integrated waste management facilities, work awarded for establishment of Bio-methanization plant at Kondagunturu and site clearance is in progress. 2. For C&D waste processing plant work awarded for waste processing unit near quarry junction in 49division. 3. MRF centres entrusted to NGO Asuradala, Bengalur and centres will be commenced within a week time

		4. There are about 188 no's HCF are operating in Rajamahendravaram city. It is estimated that about 400 Kgs / day Bio-waste is generated and same is disposed to Common Bio-Medical Treatment Facility i.e., M/s. EVB Technologies Ltd., Kanavaram (V), Rajanagaram (M), East Godavari District.
	vii. Ground water regulation.	Ground water regulation is being regularly monitored by Ground water Department.
	viii. Adopting good irrigation practices,	Regular maintenance works for free flow of drain water.
	ix. Protection and management of Flood Plain Zones(FPZ),	Proposed stone pitching to control the erosion of high margin lands adjoining the River Godavari. Estimates have been submitted to Government and awaited for administrative approval.
	x. Rain harvesting,	River Godavari is major river receives heavy floods. Hence the rain harvesting ground water recharging schemes cannot be taken up.
	xi. Maintaining minimum environmental flow of river	The River Godavari received major floods from June to October every year. The average quantum of water let into the Bay of Bengal is about 1500 TMC every year. To utilize this flood water Polavaram irrigation Project is proposed across river Godavari. The project is under progress. It is not possible to take up any minor projects/schemes across river Godavari.
	xii. Plantation on both sides of the river.	Adjacent to banks of River Godavari green coverage / parks wherever feasible will be developed by Andhra Pradesh Forest Department & Public Health Department.
	xiii. Setting up biodiversity parks on flood plains by removing encroachment.	Revenue and Municipal Corporation of Rajahmundry are removing the encroachments regularly. No proposal for biodiversity park at flood plains.

2 River Nagavali:

SL. No.	Activity to be monitored	Timeline	Submission of Progress by Status/UT Compliance Status
1	Ensure 100% treatment of sewage at least in-situ remediation	31-03-2020	<p>1) Present demand :12 MLD Existing Capacity : 0 MLD Ongoing : 10 MLD Existing Gap : 2 MLD Demand for year 2035 : 22 MLD Balance to provided: 12 MLD</p> <p>2. 10 MLD STP is in progress under AMRUT scheme and is expected to be completed by May 2021.</p> <p>3. Comprehensive proposal for providing UGD scheme for 2035 needs is prepared for an amount of Rs.190.36 Cr with an additional STP capacity of 12 MLD with sewer network.</p>
	commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	31-03-2020	<p>1.10 MLD STP is in progress under scheme and it is expected to complete by May 2021.</p> <p>2. Comprehensive proposal for providing UGD scheme for 2035 needs is prepared for an amount of Rs.190.36 Cr with an additional STP capacity of 12 MLD with sewer network.</p>
2	Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning	31-03-2021	<p>1. For ongoing 10 MLD STP - May 2021.</p> <p>2. For newly proposed works- 2 years after approval of DPR.</p>
5	Chief Secretaries may up appropriate monitoring mechanism at State level Specifying accountability of nodal authorities not below the secretaries level. Chief Secretaries may have an accountable person attached in their office for this purpose.	22.01.2020 22.01.2020	<p>Government of Andhra Pradesh vide G.O no. 56 dt: 05.08.2020 appointed Secretary, Municipal Administration & Urban Development Dept., A.P. Secretariat as Nodal Authority for setting up of STPs for 100% treatment of sewage by 31.03.2021 in the five identified polluted river stretches in Andhra Pradesh viz., Godavari, Krishna, Tungabhadra, Kundu and Nagavali in coordination with the A.P. Pollution Control Board. The details of Nodal Authority is mentioned below:</p> <p>Secretary, MA&UD Department Guntur, Andhra Pradesh.</p>

			<p>Email: ps.apmaud@gmail.com Office phone: 0863 2442313 Fax: 0863 2442315</p> <p>Letter in this regard is communicated to Jal Sakthi, New Delhi and CPCB vide mail dt:10.08.2020 by APPCB.</p>
	Monitoring at State level must take place	Fortnightly Commencing 21.12.2019	Noted.
	Progress report may be furnished by the State / UTs to Secretaries, Ministry of Jal Shakti Member Secretaries, CPCB	Monthly (preferably before 20th of every month)	Noted
6.1	Progress report may be comprised of details along with completion timelines on		
	(i) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment	<p>Only domestic sewage generated from Srikakulam Municipal Corporation (SMC) is being discharged into Nagavali River.</p> <p>There are 24 out fall drains merging into the river Nagavali in the entire stretch of ULB. Out of these 9 major drains have been provided with gates in order not to enter solid wastes into the river. Further it is proposed to provide gates for all the merging drain points.</p>	
	(ii) Status of STPs, C&D and sewerage Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	<p>1.10 MLD STP is in progress under scheme and it is expected to complete by May 2021.</p> <p>2. Comprehensive proposal for providing UGD scheme for 2035 needs is prepared for an amount of Rs.190.36 Cr with an additional STP capacity of 12 MLD with sewer network.</p>	
	(iii) Status of CETPs Details of Existing CETP and ETP Infrastructure , Gap Analysis, Proposed along with completion timeline, No. of industries and complying status	<p>No CETP is existing in the Jurisdiction</p> <p>No industry is discharging the industrial effluents into river stretch</p>	
	(iv) Status of Solid Waste Management & Details of Processing Facilities, Details of Existing, Gap Analysis, Proposed along with completion timeline	<p>At present solid waste management is being taking up with all the activities.</p> <ol style="list-style-type: none"> 1. 100% source collection 2. Source segregation is being done partially 3. Home composting is being done partially 4. Generation of power through bio gas plant Processing wet waste through wind row system partially. 	
	(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	The water quality is being regularly monitored (Annexure- IV)	

	(vi) Preventing dumping of waste and scientific waste management including bio-medical wastes, plastic waste and decentralizing waste processing Infrastructure, network processing, Including waste generated for hotels, ashrams etc.	At present as per the prevailing situations the entire solid waste being generated except bio medical waste is being dumped in the yard at Thandevalasa. Proposals are being prepared for the process of legacy waste management. Bio medical waste is being collected by third party and is being sent for CBMTF
	(vii) Ground water regulation/Ground water recharge/Rain water harvesting	Ground water quality is being regularly monitored by Ground water Department. Necessary Steps has been taken by De silting of tanks, development of cascades and restoration of Earth Bund in the basins of Nagavali River and its tributaries.
	(viii) Adopting good irrigation practices	Performing optimum utilization of Water to existing ayacut under Irrigation Projects duly adopting good Irrigation practices.
	(ix) Protection and management of Flood Plain Zones (FPZ)	<p>Achievable target: 55.065 km length of Earth bund and its Protection works of Nagavali Flood bank package II in Srikakulam District for safe guard the existing ayacut lands and surrounding villages from inundation and submersion of flood waters.</p> <p>The proposals July-2019 (Proposals were submitted to special chief secretary to government by the CE/NC/VSP Vide Lr.No. 115 GOVT, Dt. 15.10.2019 up to 31.07.2020)</p> <p>Present status: 50% o works are completed</p> <p>Remarks: As per G.O.Rt. No. 365, Dt. 08/07/2020 work was pre-closed</p>
	(x) Maintaining minimum environmental flow of river (xii) Plantation on both sides of the river	Number of flood days are very meager which will be observed in peak monsoon period only.
	(xiii) Setting up biodiversity parks on flood plains by removing encroachment	The entire stretch of river covered with the ULB is provided with river protection wall. There are no encroachments.

		commencing 21.12.2019	
6	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 20 of every month)	Noted
Progress Report may be comprised of details along with completion timelines on:			
	i. Identification of polluting sources including drains contributing to river pollution and action as per NGT Order on in-situ treatment.	Two works at an estimated costs of Rs.434.60 lakhs & Rs.500 lakhs were taken up to provide 19.70 km length UGD lines in Circle-1 area. Already 9.00 km length completed and the balance work is expected to be completed by September, 2020. Under AMRUT construction of sewer lines was taken up at a cost of Rs.39.88 Crores and work is nearing completion	
	ii. Status of STPs, I&D and Sewerage Networks Details of Existing Infrastructure, Gap Analysis, Proposed along with completion Time Line.	With regard to construction of 20 MLD capacity of STP at Jakkampudi, it is under construction and mechanical works are under progress.	
	iii. Status of CETPs Details of Existing CETP and ETP infrastructure, Gap Analysis Proposed along with completion time line, NO of Industries and complying status.	<ul style="list-style-type: none"> No CETP is existing in the catchment area of river Krishna from Amaravathi to Hamsaladeevi stretch. No industry is discharging the industrial effluents into river stretch i.e., Krishna river. No non-complying units, illegal units operating in the catchment of river Krishna from Amaravathi to Hamsaladeevi stretch. 	
	iv. Status of Solid waste Management& Details of Processing Facilities Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	VMC has allotted work to M/s. Zigma Global Environment Pvt. Ltd., for reclamation of the old dump yard at Ajith Singh Nagar in 42 acres. Approximately 2.5 lakh MT waste is already processed. Another 55830.31 MT of waste is processed from 14-02-2020 to 04-07-2020. Rs.10 crores is sanctioned to develop Park in reclaimed land.	
	v. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river	Latest water quality of Krishna River is tabulated (Annexure-V)	
	vi. Preventing dumping of waste and scientific waste management including bio-medical waste, Plastic wastes and decentralizing waste processing, including waste generated from hotels, ashrams, etc	<p><u>Plastic waste</u> Generation of 265 tonnes of dry waste & 4 tonnes of Plastic waste processing facility is established at MRF (Material Recovery Facility) Centre in collaboration with UNDP & Coco-Cola Company at Ajith Singh Nagar.</p> <p>Nearly 157 Tons of Dry waste is sent to different processing plants through the Kabadiwalas are collecting the same plastic waste and handed over to the Coco Cola company and make it into chips. Hotels and Ashrams are tied up with Cube-Bio Energy and Eco garb company waste is collected and disposed off in a safety manner.</p> <p><u>Bio medical waste</u>– All the HCFs located in the Krishna District have tied up with CBMWTF for</p>	

		treatment and disposal of waste (100% achieved)
	vii. Ground water regulation	Ground water regulation is being regularly monitored by Ground water Department.
	viii. Adopting good irrigation practices	Regularly attending the maintenance works for free flow of drain water.
	ix .Protection and management of flood plain zones(FPZ),	No erosion of flood plain or flood banks is observed in the reach from Amaravathi to Hamsala Deevi
	x. Rain water harvesting	--
	Xi Maintaining minimum environmental flow of river	Though ecological flows are to be maintained year long from Prakasam Barrage into Sea, it is not possible during non monsoon period due to inadequate releases from Upper reservoirs.
	xii. Plantation on both sides of the river	The river bed plantation is proposed on both sides of the river with 10mt width.
	xiii. Setting up biodiversity parks on flood plains by removing encroachment.	The entire stretch of river covered with the ULB is provided with river protection wall. There are no encroachments.

Incremental Status of Progress of 5 Polluted River Stretches in Andhra Pradesh							
S.No	Name of the ULB	STP Capacity	Name of River Stretch	Status of Ongoing Works		Status of DPRs	
				as on July 2020	as on Aug 2020	as on July 2020	as on Aug 2020
1	2	3	4	5	6	7	8
PRIORITY – IV RIVERS							
1	Kurnool	10 MLD	Tungabhadra	Designs Completed and works not grounded	Works Grounded	DPR Completed	Administrative Sanction is under Process
		2 MLD		Works Grounded	5%	DPR Completed	Administrative Sanction is under Process
2	Nandyal	10 MLD	Kundu	Works not Grounded	Works Grounded	DPR Completed	Administrative Sanction is under Process
PRIORITY – V RIVERS							
1	Srikakulam	10 MLD	Nagavali	40%	42%	DPR Completed	DPR under Scrutiny
2	Rajahmundry	5 MLD	Godavari	Designs and Survey Completed	Works grounded	Remarks issued by the NRCD	Attended Remarks and revised DPR has submitted
3	Vijayawada	20 MLD	Krishna	78%	80%	Survey is in Progress	Survey Completed

ANNEXURES

Annexure- I

Water Quality For The River Tungabhadra:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Tungabhadra at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Fecal Coliform and TDS for the year, 2020 is as follows:

S. No.	Code	Location point
01	1785	Manthralayam, Kurnool Dist.
02	1174	Bhavapuram, Kurnool Dist.
03	4388	Upstream of Kurnool town before compliance with domestic sewage&after compliance of Rayalaseema alkalies industries at Gondiparla, Kurnool.
04	4389	Downstream of Kurnool town after compliance with domestic sewage at Gondiparla, Kurnool.

Month-wise data of water quality of river Tungabhadra, 2020

Parameters	Code	Jan	Feb	Mar	Apr	May	June	July	*Standard		
									Class A	Class B	Class C
pH	1785	7.9	7.8	7.9	7.3	7.2	7.7	6.9	6.0 – 8.5	6.0 – 9.0	
	1174	7.7	7.4	7.8	7.4	7.3	7.6	7.8			
	4388	7.0	7.1	7.2	6.6	6.2	6.7	7.0			
	4389	7.3	7.1	7.6	7.0	7.2	7.8	7.6			
DO	1785	5.6	5.3	5.9	5.4	5.7	5.7	5.4	6.0	5.0	4.0
	1174	5.5	5.7	5.7	6.2	5.5	5.4	5.7			
	4388	5.4	5.6	5.7	5.1	5.4	5.5	5.2			
	4389	5.3	5.5	5.0	4.3	5.4	5.8	5.2			
BOD	1785	2.2	2.3	2.7	2.6	2.8	2.5	1.4	2.0	3.0	3.0
	1174	2.3	2.5	2.5	1.6	3.0	2.5	2.6			
	4388	2.0	1.9	2.5	3.0	3.0	2.7	1.0			
	4389	2.5	2.8	2.8	2.9	2.3	2.3	0.8			
Fecal Coliform	1785	100	400	300	200	200	100	100	---	500	---
	1174	200	300	200	100	200	200	100			
	4388	100	100	100	300	200	200	200			
	4389	200	300	200	300	100	100	100			
TDS	1785	1120	897	626	686	952	817	748	500 - 2000		
	1174	810	845	764	1084	1210	956	836			
	4388	944	1012	984	1786	2010	1769	1180			
	4389	756	745	603	1248	1328	1175	1086			
				Note: All values are expressed in mg/L except pH, Fecal coliform. Fecal Coliform is expressed in MPN count / 100 ml.							
				Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. However, the DO values found to be between 4.0 and 5.0 mg/lit. at certain instances at U/S & D/S of Kurnool town. Hence, they may be categorized as Class – C at these points.							

Annexure-II

Water Quality for the River Kundu:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Kundu at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Fecal Coliform and TDS for the year, 2020 is as follows:

S. No.	Code	Location point
1	2351	At Nandyal, Kurnool Dist.

Month-wise data of water quality of river Kundu, 2020

Parameters	Jan	Feb	Mar	Apr	May	June	July	*Standard		
								Class A	Class B	Class C
pH	7.2	7.6	7.0	6.3	5.9	6.8	6.8	6.0 – 8.5		6.0 – 9.0
DO	5.3	5.2	4.9	4.7	5.2	5.1	5.1	6.0	5.0	4.0
BOD	2.3	2.5	2.4	1.2	2.8	2.0	1.2	2.0	3.0	3.0
Fecal Coliform	200	400	100	200	300	300	200	---	500	---
TDS	461	656	512	624	728	834	752	500 - 2000		
								Note: All values are expressed in mg/L except pH, Fecal Coliform value. Fecal Coliform is expressed in MPN count / 100 ml.		
								Remarks: BOD & Fecal Coliform values found to be within the standard limits stipulated for bathing.		

Annexure-III

Water Quality for the River Godavari:

Andhra Pradesh Pollution Control Board is monitoring water quality of river Godavari at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Fecal Coliform and TDS for the year, 2020 is as follows:

S. No.	Code	Location Point
1	4367	Koundinyamukti(Kukunur) border point between Andhra Pradesh & Telangana States, West Godavari Dist.
2	4359	After confluence with Sabari at Kunavaram(waddigudem), East Godavari Dist.
3	0014	Polavaram, West Godavari Dist.
4	1218	Upstream of Rajahmundry at Kumaradevam
5	2370	At Rajahmundry Upstream of Nalla channel
6	2371	At Rajahmundry Downstream of Nalla channel
7	1219	Downstream of Rajahmundry at Dhawaleswaram
8	4365	Upstream of Narasapuram town before confluence with sewage, West Godavari Dist.
9	4366	Downstream of Narasapuram town after confluence with town sewage, West Godavari Dist.
10	4358	Near GMC Balayogi bridge,Govalanka, East Godavari Dist.

Month-wise data of water quality of river Godavari, 2020

Parameter	Code	Jan	Feb	Mar	Apr	May	June	July	Standard		
									Class A	Class B	Class C
pH	4367	8.5	7.9	8.72	8.68	8.44	8.54	7.2	6.0 - 8.5	6.0 – 9.0	
	4359	7.9	7.8	7.49	7.69	--	--	--			
	0014	8.2	7.6	7.84	7.81	7.62	8.17	7.45			
	1218	8.2	7.9	8.48	7.79	7.79	8.14	7.42			
	2370	8.3	7.3	7.44	7.52	7.72	7.74	7.43			
	2371	8.2	7.9	7.87	7.46	7.70	8.12	6.92			
	1219	7.6	7.7	7.81	8.05	7.66	7.59	7.14			
	4365	7.7	7.0	7.76	7.50	7.79	8.29	7.33			
	4366	7.5	7.8	8.05	8.68	7.62	8.32	7.56			
	4358	7.5	7.7	7.0	7.8	7.92	8.11	7.33			
DO	4367	6.4	6.9	7.7	6.5	6.8	7.5	6.8	6.0	5.0	4.0
	4359	6.2	6.9	8.0	6.8	--	--	--			
	0014	6.5	6.8	6.5	6.6	6.9	6.5	6.5			
	1218	6.3	6.4	6.8	6.8	7.5	7.7	6.4			
	2370	7.8	6.5	8.5	6.8	7.2	7.2	6.8			
	2371	7.5	5.9	6.5	6.4	7.0	6.6	6.5			
	1219	6.5	7.5	8.4	6.2	6.6	6.3	7.0			
	4365	6.8	8.4	6.2	5.6	6.1	6.4	6.7			
	4366	7.4	6.0	6.0	5.3	5.9	6.2	6.0			
	4358	6.0	6.6	4.8	5.8	5.0	4.8	5.5			
BOD	4367	1.4	2.0	1.8	1.9	2.2	1.5	1.0	2.0	3.0	3.0
	4359	2.0	1.3	1.5	1.3	--	--	--			
	0014	2.0	1.8	2.3	1.5	1.2	1.3	1.6			
	1218	1.3	1.8	1.4	1.2	1.1	1.2	1.8			
	2370	2.0	1.8	2.2	1.3	1.4	1.2	1.2			
	2371	2.5	2.3	1.8	2.0	1.8	2.0	1.6			
	1219	2.6	2.5	1.4	2.2	1.0	1.8	1.3			
	4365	2.2	2.2	2.0	2.2	1.6	1.6	1.0			
	4366	1.8	2.6	2.4	2.8	2.3	1.8	1.2			
	4358	0.9	1.7	2.8	2.6	2.8	2.6	1.1			

Fecal Coliform	4367	11	15	11	4	9	4	9	---	500	---
	4359	4	11	3	4	--	--	--			
	0014	7	9	7	4	<3	4	7			
	1218	11	11	4	4	4	3	11			
	2370	11	7	11	7	7	7	9			
	2371	15	9	15	11	11	11	15			
	1219	15	15	15	9	9	9	11			
	4365	15	7	11	9	11	15	15			
	4366	20	21	11	15	15	21	15			
	4358	11	11	9	7	7	9	9			
TDS	4367	212	508	23 2	320	408	192	172	500 - 2000		
	4359	86	98	74	74	--	--	--			
	0014	160	144	18 0	72	116	144	128			
	1218	184	168	18 0	78	120	152	112			
	2370	176	136	16 8	108	188	144	164			
	2371	188	186	14 8	136	212	162	220			
	1219	180	180	12 6	84	152	136	144			
	4365	1352 0	136	27 14 0	3286 8	21312	13240	152			
	4366	1942 4	1810 4	35 27 6	3484 0	29576	18460	340			
	4358	1769 2	2658 4	42 12	3147 2	25752	10120	3744			
Note::(1)All values are expressed in mg/L except pH Fecal .Coliform is expressed in MPN count / 100 ml.											
Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations except at U/S & D/S of Narsapuram town. High TDS values at Narsapuram & GMC Balayogi bridge, Govalanka could be attributed to the intrusion of backwaters of Bay of Bengal.											

Annexure- IV

Water Quality for the River Nagavali

Andhra Pradesh Pollution Control Board is monitoring water quality of river Nagavali at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Fecal Coliform and TDS for the year, 2020 is as follows:

S. No.	Code	Location point
01	4351	River Nagavali at Kureru, Vizianagaram Dist.
02	1448	Thotapally, Vizianagaram Dist.
03	4346	River Nagavali U/S of Srikakulam town.
04	4347	River Nagavali D/S of Srikakulam town.

Parameters	Code	Jan	Feb	Mar	Apr	May	June	July	*Standard		
									Class A	Class B	Class C
pH	4351	7.5	7.8	7.76	8.25	8.0	8.3	7.59	6.0 – 8.5	6.0 – 9.0	
	1448	7.5	8.0	8.13	8.46	7.71	8.11	7.65			
	4346	7.2	7.8	Dried	8.38	7.86	8.25	7.68			
	4347	7.1	7.1	Dried	8.73	7.84	8.2	7.63			
DO	4351	8.0	6.9	6.7	6.5	6.0	6.5	7.6	6.0	5.0	4.0
	1448	6.8	5.9	6.5	6.7	5.9	5.9	5.8			
	4346	8.2	8.3	Dried	6.2	6.0	8.2	8.0			
	4347	5.5	7.9	Dried	6.0	5.8	8.0	7.8			

BOD	4351	2.8	1.0	1.4	1.4	1.5	1.0	1.4	2.0	3.0	3.0
	1448	2.7	2.7	2.5	2.2	1.4	1.4	1.7			
	4346	2.6	2.7	Dried	2.0	1.2	2.4	1.0			
	4347	4.5	2.9	Dried	2.8	2.3	2.8	2.0			
Fecal Coliform	4351	11	7	15	7	9	11	15	---	500	---
	1448	11	15	11	7	4	4	11			
	4346	9	21	Dried	15	7	7	11			
	4347	15	23	Dried	21	11	11	21			
TDS	4351	136	180	260	140	252	188	204	500 - 2000		
	1448	156	232	232	220	216	160	192			
	4346	332	312	Dried	224	240	208	196			
	4347	748	284	Dried	418	276	214	232			

Note: All values are expressed in mg/L except pH, Fecal coliform. Fecal coliform is expressed in MPN count / 100 ml.

Remarks: BOD & Fecal coliform values found to within the standard limits stipulated for bathing at all the locations.

Annexure-V

Water Quality for the River Krishna

Andhra Pradesh Pollution Control Board is monitoring water quality of river Krishna at the following locations. Data pertaining to important parameters like, pH, Dissolved Oxygen, BOD, Fecal Coliform and TDS for the year, 2020 is as follows:

S. No.	Code	Location point
01	1175	Sangameswaram, Kurnool Dist.
02	3083	Srisailam, Kurnool Dist.
03	4381	After confluence with river Musi at Vadapalli, Guntur Dist.
04	1786	Vedadri, Krishna Dist.
05	1787	Amaravathi, Guntur Dist.
06	0025	Prakasham barrage, Vijayawada, Krishna Dist.
07	4375	Pavitrasangamam at Ibrahimpatnam, Krishna Dist.
08	1782	Hamsaladeevi, Krishna Dist.

Month-wise data of water quality of river Krishna, 2020:

Parameters	Code	Jan	Feb	Mar	Apr	May	June	July	*Standard		
									Class A	Class B	Class C
pH	1175	7.4	7.3	7.4	6.9	6.6	7.50	7.80	6.0 - 8.5	6.0 – 9.0	
	3083	7.3	7.5	7.7	7.1	6.7	7.10	7.60			
	4381	7.9	7.9	7.72	7.71	7.69	7.97	7.64			
	1786	7.8	7.8	7.82	7.29	7.81	7.97	7.94			
	1787	7.7	7.6	7.82	7.47	7.67	7.83	7.74			
	0025	7.8	7.2	7.80	7.71	7.74	7.92	7.82			
	4375	7.8	7.7	7.72	7.67	7.79	7.82	7.70			
	1782	7.8	8.0	7.96	7.93	7.41	7.68	7.42			
DO	1175	6.4	7.3	6.4	4.9	5.6	5.9	5.2	6.0	5.0	4.0
	3083	6.3	7.5	6.3	5.2	5.8	5.9	5.7			
	4381	7.5	7.9	7.4	7.2	6.8	7.3	7.3			
	1786	7.5	7.8	6.8	6.8	6.9	7.6	7.2			
	1787	7.4	7.6	7.3	7.1	6.9	7.3	7.1			
	0025	7.2	7.2	7.1	7.2	7.2	7.1	7.5			
	4375	7.2	7.7	7.2	7.1	7.2	7.1	7.4			
	1782	4.6	8.0	4.6	4.8	4.5	4.8	4.6			
BOD	1175	1.5	1.3	1.2	1.0	2.2	1.7	2.6	2.0	3.0	3.0
	3083	1.3	1.2	1.0	0.8	2.2	1.2	0.8			
	4381	1.6	1.8	1.8	0.8	2.4	2.0	1.2			
	1786	1.2	1.4	1.6	1.4	2.2	1.8	2.0			
	1787	1.0	1.2	1.0	0.8	1.2	1.4	1.2			
	0025	1.2	1.2	1.2	1.0	1.6	1.2	1.8			
	4375	1.0	1.2	1.0	0.8	1.6	1.4	1.2			
	1782	2.2	2.4	2.6	2.2	2.6	2.0	2.4			
Fecal Coliform	1175	100	100	100	100	100	100	100	---	500	---
	3083	<3	200	300	100	100	100	100			
	4381	<3	<3	<3	<3	<3	<3	<3			
	1786	<3	<3	<3	<3	<3	<3	<3			
	1787	<3	<3	<3	<3	<3	<3	<3			
	0025	<3	<3	<3	<3	<3	<3	<3			
	4375	<3	<3	<3	<3	<3	<3	<3			
	1782	<3	<3	<3	<3	<3	<3	<3			

TDS	1175	316	402	386	482	520	587	744	500 - 2000
	3083	318	326	356	340	364	368	467	
	4381	440	410	460	376	732	446	420	
	1786	320	490	510	464	620	446	420	
	1787	342	365	420	474	620	398	360	
	0025	265	340	390	407	550	425	468	
	4375	258	270	284	250	468	560	230	
	1782	22800	12720	22100	23300	19300	20600	18300	
	<p>Note: All values are expressed in mg/L except pH, Total Coliform value & Fecal coliform. Total Coliform & Fecal Coliform is expressed in MPN count / 100 ml.</p> <p>Remarks: BOD & fecal coliform values found to be within the standard limits stipulated for bathing at all the locations. High TDS values at Hamsaladeevi could be attributed due to the intrusion of backwaters of Bay of Bengal.</p>								