

General: 0471- 2312910, 2318153, 2318154, 2318155 Chairperson: 2318150 Member Secretary: 2318151
e-mail: chn.kspcb@gov.in; ms.kspcb@gov.in FAX: 2318152 web: kspcb.kerala.gov.in

KERALA STATE POLLUTION CONTROL BOARD

കേരള സംസ്ഥാന മലിനീകരണ നിയന്ത്രണ ബോർഡ്

Pattom P.O., Thiruvananthapuram – 695 004

പട്ടം പി.ഒ., തിരുവനന്തപുരം - 695 004



KSPCB/314/2025-CEE

Date: 10.09.2025

From

The Chairperson

To

The Secretary

Ministry of Jal Shakthi,

Department of Water Resources, River

Development & Ganga Rejuvenation,

Shram Shakti Bhawan, Rafi Marg,

New Delhi- 110001

Sub:-Forwarding Monthly Progress Report for the month of July 2025 -reg.

Ref:-Order of the Hon'ble NGT in the matter of O.A.No.673/2018

Sir,

Kind attention is invited to the subject matter. The matter is reported for kind information. As per CPCB report on water quality 2022, 11 polluted river stretches were deleted and 8 new stretches were added and hence the number of polluted river stretches is currently 18. The report prepared in revised format with respect to the progress in implementation of action plan of polluted river stretches, for the month of July 2025 is submitted herewith.

Yours faithfully,


CHAIRPERSON

Encl: As above

National Mission for Clean Ganga
Monthly Progress Report for the month of July 2025 in the NGT
Matter OA No. 673 of 2018 (in compliance to NGT order dated
24.09.2020)

For the State of Kerala

Overall status of the State:

I. Total Population: Urban Population & Rural Population separately:

As per Census 2011, Kerala has a population of 3,37,77,386. Rural population in Kerala is 2,58,40,501 and urban population in the state is 79,36,885. Population projected for 2024 is 3,56,40,084. The water consumption and wastewater generated are calculated based on the population projected for 2024.

• **Estimated Sewage Generation(MLD):**

Based on population projected for 2024, the estimated sewage and sullage generation is as given below:

- Estimated Sewage and Sullage generation in Urban area - 1018 MLD

Sewage = 305.4 MLD

Sullage = 712.6 MLD

- Estimated Sewage and Sullage generation in Rural area - 2981 MLD

Sewage = 894.3 MLD

Sullage = 2086.7 MLD

Total Sewage and Sullage generation – 3999 MLD

• **Details of Sewage Treatment Plant:**

- Existing no. of common STPs/CSTPs: 27 (common STPs and other STPs) and 4 common FSTPs and **2069** number of individual STPs
- No. of functional common STPs in the state: 14
- No. of functional common septage treatment plants in the state: 4
- Total sewage treatment capacity in the state through existing common STPs *: =138.31 MLD (Urban area = **129.695** MLD rural=**8.615** MLD)
- Total septage treatment capacity in the state through existing common FSTPs: 0.22 MLD
- Sewage treatment capacity via individual STPs in establishments = **96.988 MLD**
- In Kerala, individual houses have septic tank/ soak pits existing for toilets attached to them.
- Gap in treatment of sewage in terms of sewage treatment plant = **78.497 MLD** (Urban)

- In Kerala, 48% highland (>75 m altitude); 41.76% midland (7.5-75m) and a low land (<7.5 m) of 10.24% (<https://kerenvis.nic.in>). Kerala has a rural-urban continuous settlement pattern. In Kerala, flats are less compared to individual households which are having septic tank /soak pit existing for toilets attached to them.
- Kerala is declared as open defecation Free State. A survey of liquid waste management was conducted in 2016 for 66.7 lakh residences (www.haritham.kerala.gov.in). The study revealed that in most of the household sullage from(kitchen, bathroom) is separated from sewage (toilet).
- Sullage which forms 70% of domestic waste water and sewage is only 30%.The major quantity of sullage, which is not contaminated with faecal coliform, is disposed through soak pit and for farming in their own premises.
- Sewage is discharged through septic tank/soak pit, common/ individual sewage treatment plant. The mixing of sewage and sullage occurs in the case of common sewage treatment plant and individual STPs. Based on the survey results retrofitting measures are also adopted in the State.
- Onsite sanitation is practiced in the majority of places, where septic tank, soak pit are provided. Septic tank, soak pit are already specified in CPHEEO manual and IS codes are available for their specification.
- Based on the instruction from Jalsakthi, Status of liquid waste management in all local bodies including panchayat have been called for by means of google spreadsheet. From the data received so far, the sullage which is not contaminated is disposed through soak pit and for farming in household premises is also reported.
- Asset mapping including septic tank and soak pit is completed in cities namely Kannur.
- Besides the above, Sanitation survey is conducted near the polluted drains, sources of pollution is identified and action is taken to stop any discharge of sewage/ sullage into the drain.
- In the thickly populated/ urbanized low land areas, action is taken to divert the sewage into common sewerage system/ retrofitting measures based on local condition.

Proposals submitted for NRCP fund

- DPR for sewerage system in cluster 1 comprising Attukal, Ambalathara, Kalady, Kalippankulam, Kamaleswaram was forwarded to Ministry of Jalsakthi vide letter dated 24.11.2022 for funding under NRCP. MoJS examined the proposal and requested KWA to prepare detailed project report in line with the guidelines of NRCP based on their observations. (Letter No.J-24025/1/2022-NRCD-II dated 07.12.2023). Board has requested KWA (Letter No. KSPCB/1852/2023-AE-13 dated 05.09.2024) to prepare detailed project report in line with the guidelines of NRCP and submit the same to MoJS through WRD. The same was intimated to Environment Department and Water Resource Department.
- As part of the Cochin Metro Rail Limited's Integrated water transported system project 4 STPs are proposed at Elamkulam, Vennala, Muttar, and Perandur for treating the water coming through drains and discharging treated water to water bodies. DPR for sewer line at

Muttar, Perandoor, Vennala, Elamkulam was forwarded to Ministry of Jalsakthi on 31.01.2023 for funding under NRCP. MoJS was requested to release the fund via Letter No KSPCB/1852/2023-AE-13 dated 08.07.2024. Administrative approval and expenditure sanction received for projects proposed at Perandoor and Elamkulam

Further action taken

- Letter was issued to District Collector Thiruvananthapuram to complete the activities in Karamana action plan and copy of letter is enclosed. This includes following:
 1. Taking of urgent action for the full utilization of 5MLD plant of Medical College.
 2. DG sets in sewage pumping/lift stations are to be operated urgently,
 3. To stop discharge from sewage lift station of Plamoodu,
 4. Urgent corrective actions are to be taken to divert discharge waste water from Rajaji Nagar,
 5. Urgent action is to be taken for the rehabilitation of sewer networks
 6. Urgent action is to be taken for completion of construction of slaughter house at Kunnukuzhi
 7. Urgent action is to be taken to treat waste water in the market of Pangode, Kumarichanda
 8. Urgent action is to be taken for completion of sewer work in newly added areas (sewerage system from Block F to G, Block H to R, Block A to E).
 9. Urgent action is to be taken to provide 155 houses in Kurukuvilakom with septic and treatment system.
 10. The process on addressing gap of 107 MLD plant at Muttathara is to be reported.
 11. Urgent action is needed to finish the work of rehabilitation of 8150 families from the banks of river.
- Direction was given to district collectors to prepare action plan for new river stretches.
- Letter issued on 7.12.2024 to Chairperson DLTC (SEE, Irrigation) for the preparation action plan for new river stretches and regarding implementation action plan for existing stretches.

Non installation of STP at Ernakulam Junction railway station, South:-Notice was issued to railway Station, South Ernakulam for noncompliance of the Board's direction for installation of STP and for not providing treatment for the waste containing oil from locoshed. This has been brought to notice of CPCB vide letter dated 15.03.23. EC Notice issued to railway on 27/06/2023. Reply received on 17/07/2023 and hearing conducted on 07/09/2023. The decisions taken in hearing were to provide a temporary facility to treat sewage generated from toilets in South railway station and housing complexes and excess quantity shall be collected and transported to the common facility at Elamkulam within a period of one month. Also proper treatment facility shall be provided to the effluent and septage from bio toilets and residential complexes. Sewage treatment plant of 750KLD for Ernakulam South is reported to be completed by October 2024.

Inspection was conducted with Railway official on 08.02.2024. Presently, the sewage from the railway station and railway housing complexes are disposed through the septic tank located near the KSRTC bus stand, Ernakulam South. Sewage is collected in two pump houses near the railway station and housing complexes and from there the sewage is pumped to the septic tank. Railway official informed that STP is proposed to be installed at the land near to the Railway housing complexes and the work can be started only after demolishing some housing complex buildings for clearing the land. The construction of STP has not started yet. Presently, the waste water is being disposed through the existing septic tank soak pit system.

Board has informed railway that, in spite of repeated direction; Railway has not taken proactive steps to install a permanent STP at Ernakulam South Railway Station even after 3 years from issue of consent. This lapse is viewed serious and Board is to take further action in case of violation of Board's direction. (Letter No. KSPCB/586/2023-EE-1 dated 28.06.2024). Further action is being taken by the Board.

Non installation of STP at Aluva station:- Principle approval for permanent STP of 50 KLD has been received and the proposal is under processing for final sanction.

Inspection was conducted by Board officials on 22.02.2024. Railway officials informed that they are not installing temporary STP and procedure for installation of permanent STP is going on. Currently waste water is being disposed to Septic tank-Soak pit system in 2 locations within the railway station compound. Board has informed railway that, inspite of repeated direction; Railway has not taken proactive steps to install a permanent STP at Aluva Railway Station even after 3 years from issue of consent. This lapse is viewed serious and Board is to take further action in case of violation of Board's direction. (Letter No. KSPCB/586/2023-EE-1 dated 28.06.2024). Further action is being taken by the Board.

Non installation of STP at Ernakulam North: Railway has not taken proactive steps to install a permanent STP at Ernakulam North Railway Station even after 3 years from issue of consent. Existing consent expired on 15.11.2023. Even though Railway applied for renewal, application was returned for compliance reporting in STP installation. Consent to Establish an STP of 350 KLD is applied & CTE was issued on 04.02.2025. Further action is being taken by the Board.

Lapses in remediation of oil contaminated area at Diesel Loco Shed, Southern Railway, Ernakulam:-Removal of oily sludge near the diesel locoshed and remediation of the area is in progress. The proposed cost of the work is Rs.22 lakhs.

The Railway started the work at February 2024. Inspection was conducted on 20.02.2024 and the remediation work was progressing at the time inspection. Nearly 2000 sqft area was demarcated for remediation. The land is a marshy land. The top soil containing oil was removed and spread out for drying. The water containing oil content from the remediation area was pumped in to a pit nearby and left open for drying. Inspections were conducted in every week since the commencement of remediation. Inspection was conducted by Board officials on 09.04.2024. Remediation work and filling of the land with red earth was seen completed. The excavated oil sludge will disposed to

KEIL Even though there is large extent of affected water logged area, the railway have now completed remediation 2000 sqm ft land area.

- Action is also being taken for providing temporary measures and NEERI, Nagpur furnished a proposal for the feasibility study on the development of process package of treatment of domestic sewage for meeting the environmental compliance at Edappally canal and Perandoor canal at Ernakulam and Pallikalar at Kollam district for an amount of Rs 45 lakhs and this proposal was approved by the Board and draft MOU has been signed. As per terms of payment in MoU, Ist installment of Rs 26,55,000/- including GST(Rupees Twenty Six Lakh Fifty Five Thousand Only) is released to the account of CSIR NEERI, Nagpur, Maharashtra. The scientists from NEERI conducted site inspection and monitored different canals/drains in Kochi and Kollam from April 14–19, 2024 and a preliminary report was submitted on 12.09.2024. Second field visit was done from October 15-21, 2024 and third visit carried out during 7.2.2025 to 12.2.2025 for further data collection.
- Instruction was also given for the full utilization of Common STP at Guruvayur and Kureepuzha and they are taking steps for registering of tankers and byelaw approval. Co-treatment tank is provided at Guruvayoor STP.
- Action is also taken for the rejuvenation of Amayizhinajanthodu, Ulloorthodu, Pattomthodu in Karamana catchment. As per the meeting chaired by Chief Secretary on 05.09.2023. A sanitation survey on the drains reaching AkkulamVelilake and its watershed was done by Socio Economic Unit Foundation (SEUF). Along the buffer distance of 100 metre from each banks of Amayizhanchan thodu, Pattom thodu and Ulloor thodu, the assets mapped and the problem areas were identified and action plan was prepared. Based on major observations, instruction issued to TVPM corporation and KWA. A stake holder meeting was held with Trivandrum corporation, PCB, KWA, Irrigation Department and SEUF survey team
- In Kollam district, Manichithodu and Thoppilkadav are stretches where major pollution was reported. Sanitation survey was conducted and the problem areas were identified. Action plan based on sanitation survey findings were shared to stakeholder departments.

Besides above, the following actions were taken by LSGI for liquid waste management:

- Kollam Corporation has taken up a project of Rs. 87 Lakhs for providing biodigester toilets to BPL houses near Ashtamudi lake for replacing leach pits.
- District Level Inspection Committee for checking the feasibility of proposal for setting up FSTPs in degraded land was constituted as per GO (Rt) No. 2558/2022/LSGD dated 21.10.2022.
- FSTPs with land readily available - 16 nos (10 nos under SBM(G) and 6 nos under SBM(U) (DPR Prepared- 4 Nos, Tendering stage- 9 Nos, DPR to be prepared 3 nos) Timeline expected is 18 months
- Mobile Treatment Unit technology is developed by WASH Institute and recommended by Principal Scientific Advisor (Sanitation) under Innovative Technologies list. In order to cover the areas where centralized treatment facility coverage is not available. Work order issued to two Local Self Government Institutions.

- IEC campaign by way of Jalsabhas and transect walk by volunteers, students and local communities across water bodies to gauge pollution and develop community understanding of the dangers of inadequate liquid waste management to the health of water bodies was conducted in all local bodies, both rural and urban.
- The State has executed over 165 Information, Education, and Communication (IEC) and capacity-building (CB) programs throughout its regions, showcasing a concerted effort towards enhancing Liquid Waste Management (LWM) initiatives. Technical experts and agencies for Liquid Waste Management have been empanelled. Malam bhootham – intensive campaign to highlight the dangers of faecal contamination and the urgent intervention, has been launched
- In situ expertise is being encouraged through capacity building of structural engineers and other motivated civil engineers within LSGD, so as to able to undertake the projects on their own.
- Self Help Groups. Micro enterprises are being mobilized and trained to take on the O&M of such projects.
- Liquid waste management projects have been included in the panel of projects for regular priority review by the Honorable CM, so as to resolve interdepartmental, financial and other policy issues in taking these projects forward expeditiously.
- **Condition Assessment and Management Plan for the Periyar River Basin**

Stakeholder Advisory (SAC) committee of the project CAMP for six river basins was convened by MoJS on 31.05.2024 and Periyar was one among the six river basins. The objective of the studies and management plan shall be to restore and maintain wholesomeness of the river ecosystem, improvement of ecological health, enabling rivers to perform its functions and to make the rivers Samarth supported on 5 pillars. – Unpolluted River Flow (Nirmal Dhara), Continuous River Flow (Aviral Dhara), River Conservation Synchronized Development, Connecting People and River Science & Management.

Earlier, in case of Ganga river basin, Ganga River Basin Management Plan (GRBMP) was prepared by the consortium of 7 IITs with IIT Kanpur as the lead partner. The centre for Ganga River Basin Management and studies (cGanga) has been established at IIT Kanpur to advise and providing continual scientific support to the Government for implementation and dynamic evolution of the Plan.

Similar methodology has been proposed for Periyar river basin by the consortium of IIT Palakkad and NIT Calicut with IIT Palakkad as lead institute.

- **Integrated Web Portal**

A unified web portal for implementation and monitoring of various activities related to Board. The key objective of the web portal includes analysis of water quality data from the National Water Monitoring Program, State Water Monitoring Program, Spatial mapping of all monitoring points and display of designated best use water, quality criteria-wise classes, Air Quality Index calculation, generation of Air & Water quality directory, Status of different solid and liquid waste treatment

facilities in the State, Data of Industrial and Non-Industrial activities including Category, type, scale etc.

- **Lake Rejuvenation Projects by ULBs**

- For cleaning and upgrading the section from Manichithod to Ashtamudi Lake, a budget of Rs.1 Cr has been allotted. In addition to cleaning the canal, the project includes the installation of barricades at various places to prevent plastic waste from flowing in and the installation of nets on the side of the canal to prevent dumping of garbage. This work is in progress.
- Rs. 50,00,000/- (Fifty Lakhs) has been allocated through Development Fund of Kollam Municipal Corporation (Finance Commission Tied Grant) for the construction of toilets and septic tanks on the banks of Ashtamudi Lake and other coastal areas.
- Kollam Corporation along with '12 neighboring Panchayats have earmarked Rs. 4.20 Crores for Ashtamudi lake cleaning. This project includes cleaning, restoration and protection of various areas of the Kollam Corporation and nearby Panchayats on the banks of Ashtamudi Lake. This project is in progress. 48 jetties in the banks of Ashtamudi Lake have been cleaned under this project so far.

MGNREGS

In regions earmarked for the establishment of Fecal Sludge Treatment Plants (FSTPs), it is imperative to implement a comprehensive strategy for the effective management of grey water. To address this crucial aspect of decentralized wastewater management, a total of 53,662 household-level soak pits, with an investment of Rs. 48.295 crore, have been strategically constructed. Simultaneously, 3,392 community-level Grey Water Management (GWM) systems have been implemented at a cost of Rs. 10.17 crore under MGNREGS & SBM G. These endeavors signify a significant financial commitment to ensuring the separate and efficient treatment of greywater in areas where FSTPs are anticipated. The construction of household-level soak pits and community-level GWM systems not only aligns with environmental sustainability goals but also contributes to the overall improvement of decentralized wastewater infrastructure, reinforcing the state's commitment to holistic and efficient sanitation practices.

Progress in Action plans

STPs are being planned for Irinjalakkuda Municipality, Thripunithura Municipality, Thikkakkara Municipality, additional STP requirement for 60 crores for Thiruvananthapuram District and for Taluk Hospital by Mavelikkara Municipality (300KLD). Revamping of STPs at Elamkulam (including capacity enhancement), Adwaithasramam & Aluva Market in Ernakulam District and enhancement of capacity utilisation of 107 MLD plant at Muttathara, Thiruvananthapuram are also being proposed.

FSTPs are being planned for Irinjalakkuda Municipality, Chengannur Municipality and Thiruvalla Municipality

The following CSTPs / STPs were completed :—

- 5 MLD STP at Medical College, Thiruvananthapuram

- 5 MLD at Elamkulam with septage treatment facility at Kochi, Ernakulam
- 0.01 MLD FSTP at Mattampuram, Thrissur
- 3 MLD at Chakkamkandam, Guruvayur, Thrissur.
- 2 MLD STP at Kozhikode medical College.
- 1 MLD STP at Kozhikode medical College.
- 500 KLD STP at Kozhikode medical College
- 0.01 MLD FSTP at Kalpetta, Wayanad
- 1 MLD CSTP at Padanappalam, Kannur
- 240 KLD STP at General Hospital, Alappuzha
- 360 KLD STP at General Hospital, Thrissur
- STP of capacity 0.03 MLD at Tirur Municipal Bus Stand, Malappuram



500 KLD STP at Kozhikode medical College



1 MLD STP at Kozhikode medical College



360 KLD STP at General Hospital, Thrissur



1 MLD CSTP at Padanappalam, Kannur

Details of existing STPs/ Common STPs/ common Septage treatment plants in the State :

- 107 MLD STP in Thiruvananthapuram District at Muttathara (Activated Sludge with extended aeration process). The present sewerage system cover 43 out of 100 wards of Thiruvananthapuram corporation area either partly or fully. 75% of capacity of the 107 MLD STP is utilized. Completion of ongoing works will enhance the utilization by 15%. Co processing of septage is also taking place. Control room is available for tanker transportation of septage. Letter issued to KWA for full utilization of common STP in

Thiruvananthapuram District at Muttathara. A total of Rs. 22.79 Crores has been utilized for the operation, maintenance of two plants at Muttathara and Septage treatment plant at Willington Island.

- Considering the contamination of Karamana river and for providing sewerage systems for the 19 wards on the bank of this river, DPR prepared and submitted to GoK on 16.10.2021 for issuing AS under RKI. DPR for the remaining 81 wards for the full capacity utilisation of 107 MLD STP is under preparation.
- Smart city mission has deposited Rs. 9.34 Crores to KWA for revamping of old sewer lines and laying new lines along the Smart city roads in TVPM. The work is progressing.
- A major project of 12 MLD capacity is being constructed at Kureepuzha, Kollam which is currently at 93% completion.
- 5 MLD STP at Elamkulam is functional. Dilution tank constructed and co treatment of septage started from 4/8/2023. AS received for extra network for 1.75 MLD for an amount of Rs. 63.91 crores under RKI.
- Medical College 5MLD STP: Works of 5MLD STP under AMRUT for Medical College, Thiruvananthapuram completed and started functioning from Sep 2021. This STP is exclusively for Thiruvananthapuram Medical college campus. Letter have been issued for full utilization of STP. The present load is 2.5 MLD and on connecting two buildings to this STP the load to 4 MLD.
- 3 MLD STP at Guruvayur (Activated sludge process)-The Guruvayoor Sewerage Project is planned to provide an effective sewerage system for the thickly populated area under Guruvayoor Municipality. It is functioning from September 2021. Length of network is approximately 7 km. Action is being taken for the complete utilization of STP. Dilution tank constructed for co treatment. Council has approved the proposal for upgradation of 3 MLD STP (at Chakkamkandam) to 5 MLD STP (septage co-treatment).

Sl. No.	STP location	STP Installed capacity	Utilization	Status
THIRUVANANTHAPURAM				
1	Common Sewage Treatment Plant, Muttathara, Trivandrum maintained by Kerala Water Authority (Co Processing facility for septage)	107 MLD (Activated Sludge Process)	80 MLD	• Operational (pH-6.9, TSS-20 mg/L, BOD- 3 mg/L, COD-68 mg/L, Oil and grease-BDL, Faecal Coliform- 3000 cfu/100ml as per analysis report dated 25.07.2025). • Action is being taken for preventing its exceedance. • Some quantity of treated water is used for irrigation, construction etc. • On completion of ongoing works and on implementation of DPR under preparation, full utilization of 107 MLD can be achieved. • Two DPRs submitted to GoK for AS. Directions issued to KWA for full utilization of plant
PATHANAMTHITTA				
2	Sewage Treatment Plant at Sannidhanam (5MLD) Maintained	5 MLD (UASB and SBR)	3.5 MLD	• Operational (pH-8.8, BOD-176 mg/l, COD- 230 mg/L, Suspended Solids - 76 mg/l, Faecal Coliform – NIL , as

	by Travancore Devaswom Board			- per analysis report dated 19.07.2025 after disinfection). - Letter issued to Travancore Devaswom Board (Letter No. PCB/PTA/ICO/2781/2017 dated 30.07.2024)
3	Sewage Treatment Plant at Pamba (3.5 MLD) maintained by Travancore Devaswom Board	3.5 MLD (Coagulation & settling)	3.5 MLD	- Operational (pH-8.8, BOD-176 mg/l, COD- 230 mg/L, Total Suspended Solids - 76 mg/l, Faecal Coliform – NIL , as per analysis report dated 19.07.2025 before chlorination). - Action is being taken for preventing its exceedance.
ALAPPUZHA				
4	DEWATS system, Chathanad (For 50 houses in slum area)	25 KLD (Anaerobic Baffle Reactor)	25 KLD	Operational (pH – 7, BOD – 22.256 mg/l, SS – 11 mg/l, Oil and grease BDL as per the analysis report dated 08.08.2025)
ERNAKULAM				
5	STP owned by Greater Cochin Development Authority, Marine drive, Kochi	0.9 MLD (Activated Sludge Process)	0.9 MLD Proposed to augment to 2 MLD	- Operational. - Analysis report dated 14.11.2024 (pH-7.2, TSS-18 mg/l, BOD-17.9 mg/l, oil & grease- BDL).
6	STP at Elamkulam, Kochi (AMRUT)	5 MLD(MBBR) with Co treatment 24 KLD	4 MLD	- Co-treatment is temporarily stopped due to choking in the plant. - NIIST has submitted the report to KWA. Three options provided. - Treatment Option II: possibility of co-treatment with septage was explored without compromising the hydraulic load but with the provision of additional infrastructure (MBBR tank). - Second option is selected based on discussion with concerned engineers. - Analysis report dated 19.10.2024 (pH-6.9, TSS-11 mg/l, nitrate -7.90 mg/l, phosphates- 1.4 mg/l, ammoniacal nitrogen- 3.88 mg/l, BOD-7.5 mg/l, COD- 16 mg/l, oil & grease- BDL, total Kjeldahl nitrogen- 4.48 mg/l).
7	STP owned by GCDA, International Stadium Kaloore	0.75MLD(Activated Sludge Process)	0.05 MLD	- Operational. - Analysis report dated 11.12.2024 (pH-7.51, TSS-21.5 mg/l, BOD-4.6 mg/l, oil & grease- 5 mg/l).
IDUKKI				
8	Sewage treatment Plant at Comfort station, Adimaly Grama Panchayat, Idukki	0.01 MLD		- STP was not working. - Show Cause Notice issued on 05.02.2024 - Inspection conducted on 15.07.2024 & direction will be issued

9	60 KLD STP at Taluk Hospital Adimaly, Adimaly Block Panchayat, Idukki	0.006 MLD		Operational MBBR Operational. (pH-7.45, BOD-27 mg/l, COD -56 mg/l, Suspended solids-24 mg/l, Oil and grease- BDL, Faecal coliform- Nil as per Analysis report dated 04.03.2025)
THRISSUR				
10	Sewage treatment Plant at Guruvayur, Thrissur District	3 MLD(Activated Sludge Process)	0.5MLD	• Operational. (pH-8.6, BOD-0.8 mg/l, COD -26 mg/l, Suspended solids-207 mg/l, Oil and grease- 0.28 mg/l, Faecal coliform- NIL as per Analysis report dated 31.07.2025)
11	Revamping of 35 KLD STP at Kuriyanchira Slaughter House Corporation, Thrissur	0.035MLD (MBBR)	0.035 MLD	Operational (pH – 7, BOD – 165.6 mg/l, COD – 524 mg/l, SS – 0.63 mg/l, oil & grease – 15.2 as per the analysis report dated 02.09.2024) Action is being taken for preventing exceedance.
KANNUR				
12	Sewage treatment Plant at Taliparambu (0.5MLD) Taliparamba Municipality, Kannur	0.5MLD (Activated Sludge Process)	0.5MLD	• Operational. • pH -7.37, TSS – 43 mg/l, COD- 8 mg/l, BOD – 3.4 mg/l, Oil and Grease- 1 mg/l as per the analysis report dated 13.08.2025
13	STP at old age home Kannur	0.010	0.010	MBBR (Operational) • pH -7.59, TSS – 35 mg/l, BOD – 25 mg/l, COD – 44 mg/l; Oil and Grease- 1.16 mg/l, as per the analysis report dated 13.08.2025
14	STP at Padannappalam	1 MLD	0.3 MLD	Operational Rotating Media Bio Reactor • pH -7.66, TSS – 39 mg/l, BOD – 10.7 mg/l, COD – 36 mg/l; Oil and Grease- 5.92 mg/l as per the analysis report dated 09.07.2025
Total Capacity			138.31 MLD	
FSTP				
ERNAKULAM				
1	Septage Treatment Plant at Brahmapuram, Kochi Corporation, Ernakulam	0.1MLD(MBBR)	0.1 MLD	• pH- 7.26 mg/L, BOD- 0.87 mg/L, COD- 24 mg/L, Oil and Grease-BDL, Total Suspended Solids – 54 mg/L,, Phosphate – 0.06 mg/L, Nitrate- 3.09 mg/l, Sulphates – 12.49 mg/l, Sulphides – 8.34 mg/l, Ammoniacal Nitrogen – 0.20 mg/l, Phenolic Compounds -1.23 mg/L,,Faecal coliform –7 cfu/ 100 ml, Faecal

				Streptococci-60 cfu/ 100 ml as per analysis report dated 14.05.2025
2	Septage Treatment Plant at Wellington Island, Kochi Corporation	0.1MLD(MBBR)	0.1 MLD	• Not working properly. • Site visit done by KSPCB on 18.01.2024. • Consent refusal intention notice issued.
THRISSUR				
3	FSTP at Mattampuram	0.01MLD (Biological)	Started functioning	pH – 7.25, BOD – 7 mg/l, COD – 44 mg/l, SS – 0.09, Oil & Grease – 0.02 mg/l, Ammoniacal Nitrogen – Nil, Total Nitrogen – 35.37 mg/l, Total Phosphorus – 0.63 mg/l, Faecal Coliform – Nil as per analysis report dated 11.11.2024
WAYANAD				
4	FSTP at Kalpetta	0.01MLD(Biological)	0.01 MLD	• Operational • pH – 7.23, TSS –4 mg/l, BOD – 11.196 mg/l, Oil and Grease- 4.04 mg/l as per the analysis report dated 08.01.2025
Total Capacity			0.22 MLD	
ETPs/CETPs				
IDUKKI				
1	Construction of 6 KLD ETP for Kumali Slaughter House Kumali GP, Idukki	0.06 MLD		• Slaughter house is not functioning.
MALAPPURAM				
2	ETP in Fish Market, Ponnundam GP , Malappuram	0.01MLD(Anaerobic)	Plant is working.	The unit has submitted ICE of the Board on 18.03.2023. Inspection was carried out on 12.05.2023. ETP is operational but sample could not be taken. STP file has been returned for clarification on 29.05.2023.
Total Capacity			0.115 MLD	

Institutional STPs

Sl. No.	STP location	STP Installed capacity	Utilization	Status
THIRUVANANTHAPURAM				
1	STP at Medical College, Thiruvananthapuram-Phase I & II (PRS)	5MLD(MBBR)	3 MLD	- Operational (pH-3.1, TSS-39 mg/L, BOD- 0.6 mg/L, Bio – assay Test – 100% fish died within 1 hour, COD- 84 mg/L, oil and grease-BDL, Total Coliform – 100 cfu/100ml, FC – NIL as per analysis report dated 25.07.2025). - The matter is being followed up.
ALAPPUZHA				
2	STP at General Hospital	0.24 MLD	0.1 MLD	Electro coagulation.
ERNAKULAM				

3	STP at Kalamassery, Market, Kalamassery Municipality (PRS)	10 KLD		Started operating
THRISSUR				
4	STP at General Hospital, Thrissur (AMRUT-1.0)	0.36 MLD	0.2 MLD	Operational. Sample was collected on 20.07.2024
MALAPPURAM				
5	Effluent treatment Plant at Tirur (fish market)	0.045 MLD (Biological)		Operational Ph- 6.3, BOD – 103 mg/l, COD – 330 mg/l, TSS – 64 mg/l, Oil & Grease – BDL as per analysis report dated 22.10.24 • Action is being taken for preventing its exceedance.
6	STP at Municipal Bus Stand, Tirur (PRS)	0.05MLD (Biological)	Working	Operational (Ph – 6.6, BOD – 12.4 mg/l, COD – 48 mg/l, TSS – 24 mg/l, Oil and grease – BDL as per the analysis report on 12.08.2024) • Action is being taken for preventing its exceedance. • Sample was collected on 18.07.2024. Analysis being done in district laboratory.
7	Sewage treatment Plant at Malappuram Municipal Bus stand	0.03MLD(MBBR)	0.03 MLD	Project proposal for maintenance work have been approved. ICE issued to the unit vide consent No.KSPCB/MA/ICE/10022893/2024 dated 24/01/2024 valid till 24/02/2024
KOZHICODE				
8	STP at Kozhikode Medical College.	2 MLD Old plant.	Working	• Operational. • According to analysis report on 01.08.2025 the following values were observed. pH -7.5, Suspended solids-BDL, Total Residual Chlorine – Nil, COD- 32 mg/l, Oil and Grease- BDL , BOD-14.4 mg/l, Ammoniacal – N 126.655 mg/l and Nitrate – N-0.189 mg/l
9	STP at Kozhikode Medical College.	2 MLD With 100 KLD Co-treatment Facility	Commissioned on 05.10.2023	• Operational • According to analysis report on 01.08.2025 the following values were observed. pH -7.5, Suspended solids-32.2 mg/l, Total Residual Chlorine – Nil, COD- 160 mg/l, Oil and Grease- 9.76 mg/l , BOD-33.4 mg/l, Ammoniacal – N 36.324 mg/l and Nitrate – N-0.368 mg/l
10	STP at Kozhikode	1 MLD	0.1 MLD	Operational • According to analysis report on

	Medical College.			01.08.2025 the following values were observed. pH -7.5, Suspended solids-12.3 mg/l, Total Residual Chlorine – Nil, COD- 72 mg/l, Oil and Grease- BDL, BOD-8.4 mg/l, Ammoniacal – N 55.401 mg/l and Nitrate – N-0.221 mg/l
11	STP at Kozhikode Medical College	500 KLD		Operational • According to analysis report on 26.05.2025 the following values were observed. pH -7, Total Residual Chlorine – Nil, TSS- 1.6 mg/l, COD- 16 mg/l, Oil and Grease- BDL , BOD-1.2 mg/l, Ammoniacal – N 5.401 mg/l , Chloride - 18 mg/l , Free Ammonia – 0.05401 mg/l and Nitrate – N-0.189 mg/l
12	STP at Kozhikode Medical College.	1 MLD	0.1 MLD	Operational • According to analysis report on 01.08.2025 the following values were observed. pH -7.5, Suspended solids-12.3 mg/l, Total Residual Chlorine – Nil, COD- 72 mg/l, Oil and Grease- BDL, BOD-8.4 mg/l, Ammoniacal – N 55.401 mg/l and Nitrate – N-0.221 mg/l
13	STP at Kozhikode Medical College	500 KLD		Operational • According to analysis report on 26.05.2025 the following values were observed. pH -7, Total Residual Chlorine – Nil, TSS- 1.6 mg/l, COD- 16 mg/l, Oil and Grease- BDL , BOD-1.2 mg/l, Ammoniacal – N 5.401 mg/l , Chloride - 18 mg/l , Free Ammonia – 0.05401 mg/l and Nitrate – N-0.189 mg/l
14	Common Sewage Treatment Plant at Narayana nagaram, near stadium, Vatakara, Opp. New bus stand	0.1 MLD		According to analysis report on 27.06.2025 the following values were observed. pH -9, COD- 48 mg/l, BOD-0.67 mg/l, Chloride - 30 mg/l , Suspended Solids – BDL.
WAYANAD				
15	Sewage Treatment Plant at Taluk Hospital, Sulthan Bathery	0.14 MLD(MBBR)	0.05 MLD	• Operational • pH -10.5, TSS – 13.7 mg/l, BOD – 15.24 mg/l, Oil and Grease- 2.08 mg/l, FC – Nil as per the analysis report dated 08.01.2025

Details of under construction of major ETPs / STPs in the State

No .	Location	Implementing Agency	Capacity of the plant in MLD	Physical Progress in %	Status of I & D or House sewer connections/ Previous status	Incremental progress	Timeline of Completion
THIRUVANANTHAPURAM							
1	FSTP at Varkala Municipality, Thiruvananthapuram (IMPACT KERALA Ltd)	IMPACT Kerala Ltd.	50 KLD FSTP	Work Awarded	• Work awarded after DBO tender. Design being vetted by Anna University. Work on going on site. • Legacy waste removal from the site has been completed. Soil report reinvestigated. Initially approved vetted drawings by Anna University revised. • Contractor has to submit MS FRP design drawings. • Contractor submitted design drawings on 07.02.2025, placed before Technical Committee & the committee approved the same. • Office building superstructure work completed; plastering completed. Receiving chamber wall concrete completed. Lab building foundation work completed.	• Contractor submitted MS FRP design drawings on 07.02.2025, placed before Technical Committee. • Technical committee raised some questions, contractor working on it. • Office Foundation work completed. Receiving chamber wall concrete completed. • Office building superstructure works in progress. • Receiving chamber wall concrete completed. • Excavation for foundation completed, steel work in progress. • Process plant foundation completed. Steel structure installation in progress. • Enormous delay in bill payment.	31.08.2025
2	ETP 10 KLD Capacity, Nedumangad Municipality, Thiruvananthapuram		0.01		80%	Works completed.	31.08.2025
KOLLAM							
3	STP at Kureepuzha,	Kerala Water Authority/	12	93%	12471 sewer connections are	STP (AMRUT-1.0): Physical	STP: 31.12.2025

	Kollam (AMRUT-1.0)	AMRUT			envisaged under AMRUT-2.0.<u>STP (AMRUT-1.0)</u>: Physical progress - 93%. Admin building construction, supply of MBBR media and supply & installation of rotary drum drier are the balance works. As the commissioning of the STP is delayed due to the non-completion of sewer network, the contractor requested to reduce the scope of the balance works and to modify the O&M arrangement of the STP. The recommendation of the KWA in this regard is to be placed in the next SLTC/ SHPSC for a taking a suitable decision. <u>FSTP (AMRUT-1.0)</u>: The decision of the Govt. regarding the tender excess (48%) is awaited. <u>Sewer Network (AMRUT-2.0)</u>: # Pallithottam-Thamarakkulam package: Survey works in progress. # Iron Bridge, Vaady-Karumalil&Asram om packages: AS dated 22/03/25 was issued. TS to be issued by KWA.	progress - 93%. Admin building construction, supply of MBBR media and supply & installation of rotary drum drier are the balance works. As the commissioning of the STP is delayed due to the non-completion of sewer network, the contractor requested to reduce the scope of the balance works and to modify the O&M arrangement of the STP. The recommendation of the KWA in this regard is to be placed in the next SLTC/ SHPSC for a taking a suitable decision. <u>FSTP (AMRUT-1.0)</u>: The bidder has withdrawn the bid submitted as the bid validity period has ended. Way forward to be decided by KWA. <u>Sewer Network (AMRUT-2.0)</u>: # Pallithottam-Thamarakkulam package: Survey works in progress. # Iron Bridge, Vaady-Karumalil&Asram om packages: AS dated 22/03/25 was issued. TS to be issued by KWA.	FSTP: 31.03.2026 Sewer Network: 31.03.2027
4	STP at Chitumala Old Age Home. Chitumala BP, Kollam		0.015	98%	Original contractor of the work was terminated in risk and cost, LB entrusted the accredited agency	Joint inspection by the state technical officer and agency was arranged. The agency will submit a revised estimate along with new	31.12.2025

					IRTC to do the rest of the work. The agency prepared proposal. SM scrutinized and suggested to submit detailed estimate. It shall contain repairs and maintenance of already installed equipment and proposed new works. Comparison chart is being prepared by the agency.	DPR. Original contract of the work was terminated in risk and cost, & the accredited agency IRTC has been tasked with completing the work. The agency has submitted proposal; TS is under processing for the additional works to make the plant run.	
5	190 KLD STP at Pathanapuram Market and Shopping Mall		0.190		38%	O&G trap and manhole construction completed. Construction hindered due to fund withdrawal issues. The contractor who was taken the work passed away. The remaining work has been taken as new project. Currently the DPR is under revision based on DSR 2021	31.12.2025
6	STP at Mayyanad GP, Kollam	IMPACT KERALA Ltd	590KL D Co-treatment	Work Awarded	• Agreement executed with the Contractor M/s Enrec Engineers on 29.02.2024. • Contractor submitted vetted process design. Submitted to KWA and got approval. • Dhawalakuzhy – Raw sewage tank excavation work in progress. • Thanni, Valiyavila & Dhawalakuzhy - Network line and manhole installation in progress.	• Work ongoing at site. • Thanni, Valiyavila & Dhawalakuzhy - Above ground 4 tanks wall concrete completed. Thanni - Office building concrete work completed. • Valiyavila – Office building concrete work completed. • Raw sewage tank concrete in progress. • Thanni & Valiyavila -	30.09.2025

					• Enormous delay in bill payment.	Network line and manhole installation in progress.	
ALAPPUZHA							
7	FSTP at Cherthala Municipality , Alappuzha	IMPACT KERALA Ltd	250 KLD Septage TP		Work ongoing at site. 99% of civil work completed.	Electro Mechanical Items reached site. Transformer installed. Electrical cabling works, solar panel installation and approval from KSEI pending. O&M agreement is signed. Cherthala FSTP plant inaugurated on 28.03.2025. Trial run completed. O&M agreement signed. Commissioning report to be given. PCB Consent to operate is pending. KSEB connection for solar panel is pending. Delay in bill payment.	Trial run
IDUKKI							
8	FSTP at Munnar, Idukki		50 KLD		5% work completed.	Due to a court case, work stopped temporarily District Collector Idukki has submitted report to Government for re-assigning the land to Munnar GP. Work stopped due to court case	Stalled
KOCHI							
9	STP at Ambedkar Colony, Div-16, Edakochi South (AMRUT-1.0)	Kochi Corporation/ AMRUT	1.1	62%	1500 sewer connections are envisaged. Physical progress – 62%. Work is progressing slowly due to rain	Work is hindered due to rain.	31.12.2025
10	STP at RAY Flats, Fort Kochi, Kochi Corporation (AMRUT-2.0)	Kochi Corporation	0.105	6%	199 flats will be connected Physical progress - 5%. Work is progressing slowly	Work is hindered due to rain	31.10.2025

					due to rain		
THRISSUR							
11	Viyoor central jail STP (Thrissur)		0.05		65% work completed	Civil works completed. pipe online interconnection pending. Electromechanical works completed. Pipe laying works between septic tank and sewerage lines, kitchen outlets are pending.	31.07.2025
12	Kunnumkulam, Thrissur		0.01		Completion stage and ready for commissioning	Ready for commissioning	Ready for commencing
13	STP at CHC Cherpu BP, Thrissur		0.01	90%	Plant construction completed. Trial run to be completed. Final bill is to be submitted by LB. Detailed estimate is under preparation.	The revised estimate has been prepared, received and is currently under verification by Suchitwa Mission.	11.07.2025
14	STP at Community Health Centre Pazhayannoor Block Panchayath, Thrissur		45 KLD	1%	Work Started	Work in progress.	31.12.2025
PALAKKAD							
15	STP at Ottappalam Municipality, Palakkad District	IMPACT KERALA Ltd	1.50ML D Co-treatment	Work Awarded	• KRFB NoC- LB paid fee. • Railway NoC and PWD NoC – higher level meeting required. • Beneficiary meeting decided to be convened by Municipality on 16.12.2024 • First bill submitted to KIIFB for Rs. 1.55 Cr (excluding GST). Awaiting payment. • STP work in progress. Pile completed. The concreting of the	• Pile cap shuttering work completed. • Grade beam shuttering work in progress. • KRFB NoC received. • Railway NoC and PWD NoC in process. • Beneficiary meeting convened by Municipality on 16.12.2024. • First bill in process. • Pile cap & grade beam reinforcement for SBR-1 tank	December 2025

					grade beam and base slab of the Intermediate Storage Tank, Sludge Holding Tank and Treated Water Tank completed, and the first lift concreting (3 meter) of the RCC wall completed. • Total station survey completed for finalizing sewer network design. Design being finalized. • Railway NoC in process – Minister level meeting conducted at Palakkad Collectorate on 20.06.2025. Railway sought 1-month time. Joint inspection done by Railways, IKL and LB.	completed. Epoxy coating work in progress. Steel work of grade beam & pile cap completed. • The reinforcement work for the SBR-2 tank grade beam & pile cap in progress. Up to raft beam bottom concrete completed. • KRFB NoC – received. As decided in KIIFB MLA review meeting, contractor to submit network plan up to Taluk hospital to KRFB. • PWD NoC – Contractor submitted revised drawings as directed by CE, PWD Roads to PWD section Office, Ottappalam – In process. • Project Director met PWD Roads & Bridges EE for expediting NoC.	
16	FSTP at Yakkara, Palakkad Municipality (AMRUT-1.0)	Palakkad Municipality	0.1	75%	Physical progress - 73%. Work is progressing slowly due to rain.	Working is hindered due to rain.	30.09.2025
MALAPPURAM							
17	STP at Pambad Housing Colony Malappuram Municipality, Malappuram		0.110		99%	Civil work and mechanical work completed. 3 phase electricity connection work progressing.	30.12.2024
18	STP at District Hospital, Tirur,		0.5		10%	Work started.	30.12.2025

	Malappuram						
19	Eco Friendly waste water Treatment plant 10 KLD in vettam Community Health centre , Tirur BP		0.01		25%	Work started. Agency needs some clarification from SM.	30.12.2025
KOZHIKODE							
20	Wastewater treatment plant at Kuttiyadi government taluk hospital, Kozhikode		0.080		98%	Physical work completed. Electrical work pending	Completed
KANNUR							
21	Sewage Treatment Plant 20 KLD at Shopping Complex cum multiplex Theatre, Kallumutti, Irutti Payam, Grama Panchayath1, Kannur		0.02	2%	Amount transferred to KWA on 26.02.2024. Tendering process will start soon.	Estimate prepared. Tendered with last date on 21.12.24. 2 offers received. Tender under process. Detailed Estimate is under preparation for tendering	31.12.2025
22	STP for Convention Centre, Pinarayi Grama Panchayath, Kannur		0.02	95 %	DPR under correction Stage	Now DPR correction progressing.	30.11.2025
23	FSTP at Chelora, Kannur Corporation (AMRUT-1.0)	Kannur Corporation/ AMRUT	100 KLD	86 %	Physical progress - 85%. Work is progressing slowly due to rain.	Working is hindered due to rain.	31.08.2025
WAYANAD							
24	Construction of 45 KLD waste water treatment plant at Kalpetta Government Ayurveda Hospital DP , Wayanad		0.045	65 %	District panchayat Wayanad terminated existing agency M/S Ram biological confirmed implementation of projects.	Remaining works to be tendered after the spillover.	31.12.2025

Details of proposed STP/STPs with co-treatment facility in the State

No.	Location	Implementing Agency	Capacity of the STP proposed in MLD	Project status Status of Project (at DPR Stage/ DPR Approved / AS issued/ TS issued/ Tendering Stage/ Tendered / Work Awarded)	Status of Project (in Detail)	Incremental progress	Likely Date of Completion of DPR Preparation/ Tendering
THIRUVANANTHAPURAM							

1	STP at Rajaji Nagar, Thiruvananthapuram Corporation	Thiruvananthapuram Corporation	0.5	Work Awarded	<u>STP:</u> LoA issued to Eco Paradigm on 29/04/25. The Agreement was executed on 27/05/25. <u>Sewer Network:</u> The preliminary report was submitted on 23/04/25 by the DPR agency (Urban Grey Water Solutions) and the draft report was submitted on 05/05/25. A joint site inspection was conducted on 17/05/25 by the officials of the ULB, Eco Paradigm & Urban Grey Water Solutions for finalizing the STP locations and 2 locations were finalized. <u>STP:</u> The estimate for shed construction was revised and the tender was floated again by the ULB with 23/07/25 as the date of tender opening. Only 1 bid was obtained. Hence to be retendered.. <u>Sewer Network:</u> The ULB submitted the details to the CE, LSGD on 25/07/25 for placing in the TS Committee. The details submitted are under scrutiny.	<u>STP:</u> Eight families to be shifted from one of the proposed STP locations for starting the works. Quotations for the construction of temporary sheds for shifting the families were called for by the ULB with 25/06/25 as the last date of submission but no offers were received. Hence, quotations to be called for again by the ULB. <u>Sewer Network:</u> The Urban Grey Water Solutions submitted the modified report based on the finalized locations on 13/06/25 and the estimate on 20/06/25. TS is to be issued..	31.03.2026
KOLLAM							
2	CHC Sooranadu, Sasthancotta Block Panchayath, Kollam		0.028	At Tendering Stage		LSG planning to tender for DPR preparation. Tendering process for DPR preparation is in progress. Revision	

						needed in the next DPC. DPC approved. Tendering process is progressing. Project spillover for further process.	
3	Waste water Treatment (90 KLD) System for coastal housing and Tsunmai resettlement facility at karikuzhi, mayyanad Grama Panchayath , Kollam		0.09	At DPR Stage	Physical progress – 57% Thanni, Valiyavila & Dhawalakuzhy - Above ground tanks wall concrete completed and network line and manhole installation in progress. Thanni - Office building concrete work completed, plastering work completed. Raw sewage tank concrete work completed. Valiyavila – Office building concrete work & plastering completed. Raw sewage tank concrete work in progress. Dhawalakuzhy – Raw sewage tank excavation work in progress.	Transferred to KIIFB	
PATHANAMTHITTA							
4	Taluk Hospital Thiruvalla , Thiruvalla Municipality, Pathanamthitta		0.225	Tendering stage	TS issued. Tendering Documents submitted to State Suchitwa Mission for verification.	Tender processing going on.	31.12.2026
5	Taluk Hospital Thiruvalla ,Thiruvalla Municipality, Pathanamthitta		0.09	DPR Stage	Under technical scrutiny		31.08.2026
ALAPPUZHA							
6	STP with Septage Cotreatment Capability at Alissery, Alappuzha Municipality (AMRUT-2.0)	Kerala Water Authority	5	AS Issued	The SHPSC held on 07 & 20/02/25 approved the issuance of AS and G.O dated 22/03/25 was issued. TS to be	Survey completed and the TS estimate is being prepared by KWA.	31.03.2027

					issued by the PPD & WASCON wing of KWA. Survey in progress for the finalization of the network design for the preparation of the TS estimate.		
7	Sewerage system for Haripad municipality(Kottathara Zone) with STP of capacity 4.2 MLD		3.8		DPR Submitted to Government of Kerala and RKI for AS on 01.09.2022	DPR submitted, Municipality decided to change it to FSTP. Land transfer process going on	31.12.2026
8	STP at Bhajanamadam Colony, Alappuzha Municipality (AMRUT-2.0)	Alappuzha Municipality	0.012	DPR Stage	The MoHUA's approval was received on 01/10/24. The DPR to be submitted by the ULB for placing in the SLTC/ SHPSC for approval of AS. The ULB will engage a DPR preparation agency only after the proposed land for the STP is relinquished by the Bhajanamadam Church. The church authorities are not willing to relinquish the land but they are willing to give NoC to the ULB for implementing the project. The matter is to be resolved.	The ULB has informed the Bhajanamadam Church authorities that the project will have to be cancelled if the land for the STP is not relinquished to the ULB. A meeting under the chairmanship of the Hon. MLA is expected to be held soon to resolve the issue.	31.12.2026
KOTTAYAM							
9	Taluk Hospital Pampady, Pampady Block panchayat, Kottayam		0.085	Tendering stage	TS received Tendering in progress. KSPCB consent to establish proceedings in progress. Tendering will be done after the approval of spill over projects by DPC	Tendering will be done after the approval of spill over projects by DPC. PCB approval pending.	31.07.2026
IDUKKI							
10	STP for Idukki district		0.205	Tendere	• Project	Correction	30.06.2026

	hospital and district Ayurveda hospital, Thodupuzha municipality, Idukki			d	modified as STP for Thodupuzha district hospital. SM verified the DPR DPR under verification by State Mission	not yet submitted by agency.	
11	STP at private bus station, Kothayikkunnu, Thodupuzha municipality Idukki		0.03	Tendering stage.	TS issued. Tendering works in progress.	TS issued for electrical works. Technical Sanction of mechanical items needs to be issued. Will retender soon.	31.12.2025
ERNAKULAM							
12	4 STPs are coming up under the KMRL's Integrated Water transport System project at		77		Tendering stage Funding sanction for Rs 341.97 crores received from KIIFB on 07.06.2023 DBOT tender published on 17.10.2023. Technical bid opening on 08.01.2024 DPR submitted at KIIFB. Expected funding sanction in upcoming KIIFB meeting. Tendering will be commenced after funding and technical sanction.	DPR for sewerline at Muttar, Perandur, Vennala, Elamkulam forwarded to Ministry of Jalasakthi vide letter dated 31/01/2023 for funding under NRCP. KIIFB issued provisional sanction for funding the project.	31.09.2026
	Elamkulam(17.5 MLD),						
	Vennala(24MLD)						
	Muttar(16.5 MLD)						
	Perandur(19 MLD)						
13	STP with Septage Cotreatment Capability at Elamkulam, Kochi Corporation	AMRUT/Kerala Water Authority	5	To be Tendere d	Tendered: The 5 th SHPSC held on 02/03/23 approved the issuance of AS and G.O dated 25/03/23 was issued. KWA split the work into 5 sub works and issued TS. Later the KWA decided to combine the proposals under AMRUT-2.0 & KMRL. In the meeting held by the Hon'ble Minister of LSGs on 24/07/24 the KWA was directed to go	<u>STP</u> : LoA issued to L1 bidder. The L1 bidder has given a case against the security deposit demanded by the KWA and the decision of the court is awaited. The agreement execution is delayed due to this. <u>Sewer Network</u> : Revised TS of the sewer network	31.03.2027

					ahead with the proposal under AMRUT-2.0 instead of the combined proposal involving KMRL. TS was issued by KWA for the STP package and tender was floated by KWA for the STP package on 02/12/24 with 01/01/25 as the due date. Three bids received. L1 is 8% above. LoA to be issued. The revised TS of the network package is to be issued by KWA..	package is to be issued by the PPD & WASCON Wing of KWA.	
14	STP with Septage Cotreatment Capability at Elamkulam, Kochi Corporation	AMRUT/Kerala Water Authority	5	To be Tendered	Tendered: The 5 th SHPSC held on 02/03/23 approved the issuance of AS and G.O dated 25/03/23 was issued. KWA split the work into 5 sub works and issued TS. Later the KWA decided to combine the proposals under AMRUT-2.0 & KMRL. In the meeting held by the Hon'ble Minister of LSGs on 24/07/24 the KWA was directed to go ahead with the proposal under AMRUT-2.0 instead of the combined proposal involving KMRL. TS was issued by KWA for the STP package and tender was floated by KWA for the STP package on 02/12/24 with 01/01/25 as the due date. Three	<u>STP</u> : LoA issued to L1 bidder. The L1 bidder has given a case against the security deposit demanded by the KWA and the decision of the court is awaited. The agreement execution is delayed due to this. <u>Sewer Network</u> : Revised TS of the sewer network package is to be issued by the PPD & WASCON Wing of KWA.	31.03.2027

					bids received. L1 is 8% above. LoA to be issued. The revised TS of the network package is to be issued by KWA..		
15	CHC Kadayiruppu, Vadavucode Block Panchayat, Ernakulam		0.025	DPR Stage		LB preparing estimate in Price software. DPR under correction by the agency.	31.08.2026
16	Chittur Thathamangalam				- Agreement executed with M/s Urban Grey Water solutions for DPR preparation 19-Nov-2024. Agency visited the Municipality. - Local body to initiate steps in carrying out the soil investigation. Consultant submitted a quotation for soil test. Local body to approve. - Contour survey completed. Design work in progress. - Public protest at site during soil test. Collector visited the site & directed to provide police protection. Soil test conducted on 29.04.2025. - Contour survey completed, DPR submitted by the consultant. - Technical presentation done before IKL technical committee on 04.07.2025. PR to be modified as	Work order issued for conducting soil test. Soil test will be done within 2 days. Contour survey completed, Design work in progress. Public protest was there at site during soil test. Dist. Collector directed the LB to provide police protection during soil sample collection. Consultant submitted modified DPR on 02.08.2024	31.12.2026

					per technical committee comments.		
THRISSUR							
17	STP with Septage Cotreatment Capability at kottapuram, Thrissur Corporation (AMRUT-2.0)	Kerala Water Authority	5	DPR Stage	The MoHUA's approval was received on 01/10/24. The DPR submitted by KWA was placed in the SLTC held on 07/01/25 and the SHPSC held on 07 & 20/02/25. The ULB was directed to resolve the public protest or identify alternative land or submit a replacement sewage/septage management project by 31/03/25; otherwise, the amount set aside for the project will be reallocated for the projects in the buffer list (WS projects) of AMRUT-2.0. Due to public protest the ULB wants to combine this project with the Kokkala STP project with the common STP at Kokkala. Approval is to be obtained from the Agriculture Dept. to convert the proposed land for the Kokkala STP.	Due to public protest the ULB wants to combine this project with the Kokkala STP project and construct a common STP at Kokkala. Approval is to be obtained from the Agriculture Dept. to convert the proposed land for the Kokkala STP. As per the Govt. Order (No. 78/ 2025/ AGRI) dated 08/07/25 the Agriculture Dept. has issued clearance for the construction of the STP proposed at Kokkala. The proposal to combine this project with the Kokkala sewerage project and to issue a combined AS will be placed in the next SLTC/ SHPSC for approval.	31.03.2027
18	STP at Athani, Wadakkanchery Municipality, Thrissur (PRS)		350 KLD STP		Site identified. DPR under preparation	DPR approved by RKI	31.12.2026
19	STP at Kokkala, Thrissur Corporation (AMRUT-2.0)	Thrissur Corporation	2.5	DPR Stage	The proposed land falls under paddy land category. Hence the clearance of the Agriculture Dept. is required. Request for clearance was submitted by the ULB to the SLMC	The decision of the Agriculture Dept. is awaited regarding the conversion of the proposed land for the STP. As per the	31.03.2027

					vide letter dated 02/08/23. The Agriculture Dept. rejected the ULB's request to convert the proposed land for the STP on 25/10/24 (via G.O No. 917/ 2024/ AGRI dated 29/09/24). The MoHUA's approval for the project was received on 01/10/24. The DPR was placed in the SLTC held on 07/01/25 and the SHPSC held on 07 & 20/02/25. The ULB was directed to submit the technical details of the STP to the District Collector for furnishing a report to the Govt. for taking an appropriate decision on allowing the ULB to construct the STP at the proposed location. The decision on according AS for the project will be taken by the SLTC/ SHPSC based on the decision taken by the Govt. The ULB submitted the technical details of the proposed STP to the District Collector on 22/02/25. As directed by the District Collector, a joint inspection was held on 10/03/25 involving officials of KLDC, Irrigation Dept., Agriculture Dept. & ULB, and a joint report was submitted to the District Collector on 17/03/25. Based on the joint report, the District Collector	Govt. Order (No. 78/ 2025/ AGRI) dated 08/07/25 the Agriculture Dept. has issued clearance for the construction of the STP proposed at Kokkala. The proposal to combine this project with the Kottappuram sewerage project and to issue a combined AS will be placed in the next SLTC/ SHPSC for approval.	
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					recommended (letter dated 25/03/25) to the Principal Secretary & APC, Agriculture Dept. that sanction can be given to convert the proposed land for the STP. The decision in this regard is awaited from Agriculture Dept.		
20	STP at Wadakkanchery Municipality, Thrissur (PRS)	IMPACT KERALA Ltd		DPR Stage	Initially planned at Puramboke land. NOC to be obtained from district collector. Now municipality planning for decentralized plants at different locations which needs to be finalized in consultation with PCB. Municipality to submit DPR accordingly. Not yet submitted.		
21	Pazhayanoor STP (Thrissur)		0.45 KLD	Work awarded	Design vetted by Sewerage Circle, Kochi. Work to be started by the contractor	Work ongoing.	31.12.2026
22	General Hospital, Irinjalakuda Municipality, Thrissur (PRS)		0.150	TS received		TS Received, Work to be started soon.	31.12.2026
23	35 KLD STP at Ramavarma District ayurveda hospital, Thrissur	Thrissur Corporation	0.035	DPR Stage	Agreement dated 04/01/24 was executed. The bridge work (for access to the site) was started on 18/06/24. The bridge work was stopped on 04/07/24 due to public protest. FSTP works could not be started due to public protest. The Joint Director, Thrissur, held a meeting with the public at the site on 28/10/24 but the issue could not be solved. In the	A meeting involving ministers in the Thrissur District is to be convened to finalize the land.	31.03.2026

					meeting held by the District Collector on 30/01/25 involving the representatives of all political parties it was decided to shift the project to the land given to IMA in Ramavarmapuram.		
24	STP at Ottuppara Market, Wadakkanchery Municipality, Trissur (IMPACT KERALA Ltd) (PRS)	IKL	18KLD STP		DPR submitted to KIIFB as a part of the project "Modernisation of Ottuppara Market in Wadakkanchery Municipality"	Under design review by KIIFB	30.06.2026
25	STP at Athani market, Wadakkanchery Municipality, Trissur (PRS) (IMPACT KERALA Ltd)	IKL	13.9 KLD STP		DPR submitted to KIIFB as a part of the project "Modernisation of Ottuppara Market in Wadakkanchery Municipality"	Under design review by KIIFB	30.06.2026
26	Waste water treatment plant at K R Narayanan memorial hall, Adat GP		0.0065	DPR stage		TS issued. As AS amount is less, revised AS is needed.	31.12.2025
27	Augmentation of existing 3 MLD STP at Chakkamkandam to 5 MLD with Septage Cotreatment Capability, Guruvayur Municipality (AMRUT-2.0)	Kerala Water Authority	2	DPR stage	The MoHUA's approval was received on 01/10/24. In the meeting held on 04/03/25, the KWA agreed to modify the DPR (inclusive of septage cotreatment) as suggested by the ULB. The modified DPR is to be submitted by KWA for placing in the SLTC/ SHPSC for approval of AS.	The modified DPR is to be submitted by the PPD & WASCON wing of KWA for placing in the SLTC/ SHPSC for approval of AS.	31.03.2027
28	General Hospital, Irinjalakuda Municipality, Thrissur (PRS)		0.150	TS received		TS Received, Work to be started soon.	31.12.2026
PALAKKAD							
29	Sewerage scheme in Shornur Municipality consisting of sewage network and FSSM with 2.5 MLD capacity STP with co- treatment unit, Palakkad		2.5 MLD	DPR stage		DPR Submitted to Govt and RKI for AS on 16.2.23 and now it is revising as per the direction of SBM 2.0, but	31.12.2026

						ULB move for FSTP	
30	STP for Municipal Buildings, Palakkad Municipality (AMRUT-2.0)	Palakkad Municipality	0.030	DPR Stage	The MoHUA's approval was received on 01/10/24. The Council held on 17/12/24 gave approval to call for Expression of Interests (EoI) for executing the project in the DBOT mode. The EoI was called for by the ULB on 01/03/25 and with 12/03/25 as the due date. Three bids received and are under scrutiny. LoA issued to L1 (Auxira, Kozhikode) on 29/04/25. The agreement is to be executed. The DPR is to be submitted by the contractor to the ULB for placing in the SLTC/ SHPSC for approval of AS.	The L1 bidder has not yet executed the agreement. The ULB has informed the L1 bidder that if the agreement is not executed within the 1st week of Jul-2025, the ULB will issue LoA to the L2. A team comprising of ULB, KSPCB, NSS Engg. College, Suchitwa Mission & AMRUT officials inspected the STP constructed by the L2 bidder (Qubits) at Hayath Hospital & Akshaya Hotel in Thrissur on 14/07/25. The report submitted by the team was placed in the ULB's Core Committee held on 23/07/25 and it was decided to take approval of the Council for issuing LoA to the L2. To be placed in the Council for approval.	31.12.2026
31	CHC Alathur, Alathur Block Panchayat , Palakkad		0.090	DPR Stage		A meeting with district mission with regarding to the DPR is planning.	31.12.2026

MALAPPURAM

32	Sewage Treatment Plant and Sewerage System for Ponnani Municipality (Harbour Zone)		7.12		DPR in PRICE 3 Submitted to Govt and RKI for AS on 17.10.2022	DPR submitted to Gok for AS. But AS not received.	31.12.2026
33	Sewerage system for Ponnani municipality(Kottathara Zone) with STP of capacity 4.2 MLD		4.2		DPR Submitted to Government of Kerala and RKI for AS on 20.10.2022	AS expected from GoK/RKI and it is revising as per direction of SBM 2.0	31.12.2026
34	STP at District Hospital Perunthalmanna, District Panchayath, Malappuram		0.200	DPR Stage		Even after multiple revised submissions, DPR is of inferior quality. Hence LB is going to find another competent agency. Necessary instructions were given to the LB.	31.10.2026
35	Eco-Friendly wastewater Treatment Plant (140 KLD) for Women and Children Hospital Ponnani Municipality, Malappuram		0.14	Tendering stage	Total fund deposited to KWA by the LB. Work yet to start. Land finalized.	Tendering procedure yet to start. KWA DOES NOT TAKE ANY ACTION AFTER TRANSFERRING HUGE AMOUNT OF FUND(Total fund deposited to KWA by the LB. Work yet to start. Land finalised. Tendering procedure yet to start)	31.12.2026
KOZHIKODE							
36	STP with Septage Cotreatment Capability at Sarovaram, Kozhikode Corporation	Kerala Water Authority	27	Tendered	The 7 th SHPSC held on 14/12/23 approved the issuance of AS and G.O dated 08/01/24 was issued. KWA issued combined TS for the STP and the sewer network packages. Tendering was kept on hold by the KWA as it was found in the	Prequalification process is in progress in KWA. Financial bid to be opened. Tender scrutiny has been completed by KWA and 4 bid were	31.03.2027

					CRZ mapping done by IRS, Chennai, that a portion of the proposed site for the STP (nearly 20 cents out of 2.6 Acres) falls under the CRZ-1 category. KWA had sought clarity from ULB regarding the possibility of getting CRZ clearance as the reduction in the area available will lead to reduction in the STP capacity and reworking of the estimate. The ULB has directed KWA to go ahead with the project without reducing the STP capacity under the assumption that the permission will be obtained from the KCZMA as per the CRZ rules (as per the latest rules, public utilities are allowed in CRZ-1). In the meeting held by the Hon'ble Mayor on 06/01/25, the KWA was directed to go ahead with the project without reducing the STP capacity under the assumption that the permission will be obtained from the KCZMA as per the prevailing CRZ rules (as per the latest rules, public utilities are allowed in CRZ-1). KWA has tendered the work with 14/02/25 as the opening date. The due date was extended up to	disqualified. The request given by these bidders are under the consideration of KWA. The financial bids are to be opened.	
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					25/02/25 and again up to 06/03/25 as per the request of the prospective bidders. Two bids received but both did not qualify. KWA retendered the work on 03/04/25 with 02/05/25 as the tender opening date. Six bids received and are under scrutiny in KWA.		
37	Sewerage System for Zone-A (STP at West Hill Industrial Estate), Kozhikode Corporation (AMRUT-2.0, alternative project for Avikkalthodu & Kothi sewerage projects)	Kozhikode Corporation	15	DPR Stage	Due to public protest and the ongoing court cases (there is a stay by the Munsiff Court regarding the Avikkalthodu STP work) the ULB combined the Kothi & Avikkalthodu sewerage projects proposed a common STP at a new location (West Hill Industrial Estate). The MoHUA's approval was received on 01/10/24. An EoI for executing the work in DBOT mode was floated by the ULB on 30/10/24 with 20/11/24 as the last date of bid submission. The due date of EoI was extended till 10/12/24 as per the request of the prospective bidders. Two offers received. The Council held on 21/12/24 approved the formation of a technical committee for scrutiny of bids. The SIDCO has objected the construction of the STP in the	The DPR submitted by the contractor is to be placed in the next SLTC/ SHPSC for approval of AS.	31.03.2027

					West Hill Industrial Estate. In this regard, the ULB has submitted a request to the Govt. (letter dated 20/12/24) for permission to construct the STP at the location and the decision is awaited. Although the SIDCO objected the construction of the STP in the West Hill Industrial Estate, the ULB is going ahead with the project and has issued LoA on 18/02/25 to KCCL & AIPPL - JV. The agreement was executed on 21/05/25. The DPR submitted by the contractor is to be placed in the next SLTC/ SHPSC for approval of AS.		
38	Construction of 7MLD capacity Sewage Treatment Plant and Laying Sewerage Network to Vatakara Municipality, Kozhikode		7MLD	DPR stage	DPR Submitted to Govt and RKI for AS on 14/02/2023		30.04.2026
39	Kozhikkode corporation Zone F		4 MLD	DPR stage		Submitted to Govt and RKI for AS on 29.09.2022	30.06.2026
40	STP at Vadakara Municipality, Kozhikkode	IMPACT KERALA Ltd	0.5 MLD Sewage TP 20KLD FSTP 20KLD	DPR stage	Narayana nagaram – Land was ‘Nanja’. Permission received vide G.O(MS)No.88/2024/AGRI dated 13.08.2024 received from Agriculture (NCA) Department regarding land conversion. Consultant submitted modified DPR with TAR reply, submitted to	Under KIIFB appraisal	Land Issue. Land Conversion process ongoing

					KIIFB.		
41	10 KLD Sewage Treatment Plant at EMS Memorial Municipal Town Hall, Koyilandy Municipality, Kozhikkode		0.01	Tendering Stage		All fund transferred to KWA. KWA site visited.	30.06.2026
KANNUR							
42	STP with Septage Cotreatment Capability at Maithanappally, Kannur Corporation (AMRUT-2.0)	Kerala Water Authority	5	AS Issued	The SHPSC held on 07 & 20/02/25 approved the issuance of AS and G.O dated 22/03/25 was issued. TS to be issued. The Council held on 28/04/25 decided that the project will be implemented by the ULB in the DBOT mode instead of KWA. As per the request of the ULB, the matter will be placed in the next SLTC/ SHPSC for approval.	The request of the ULB to execute the project in the DBOT mode on their own instead of KWA is to be placed in the next SLTC/ SHPSC for approval. The ULB has called for EoI on 31/07/25 for executing the project in DBOT mode with 16/08/25 as the date of opening.	31.03.2027
43	STP at Palayad, Taliparamba municipality, Kannur		1	DPR Stage	Approval for land purchase from weaver's society is under process. Decision for the land purchase is pending.	Land transfer consent from Industries department is not received.	31.12.2026
44	STP at hospital, Pazhayangadi, Kannur		0.120		At tendering stage Project vetting completed. Agency submitted a rough cost estimate for electrical components TS issued.	Requested for Urban Agglomeration fund for the project , It is not confirmed yet.	31.12.2026
45	STP at old age home, Kannur		0.010		Tendering Stage	TS issued	31.06.2026
46	Thalassery, Kannur		22	DPR Stage		DPR Submitted to Govt and RKI for AS on 28/11/2022	30.10.2026
47	Kannur corporation Zone 1		13	DPR Stage		DPR Submitted to Govt and RKI for AS on 25/11/2022	30.10.2026
48	Payyannur, Kannur		13 MLD	DPR Stage	MoHUA's approval was	DPR Submitted to	30.10.2026

					received on 01.10.2024. The DPR of the project is expected to be submitted by 30.11.2024 for placing in the SLTC / SHPSC for approval of AS.	Govt and RKI for AS on 25/11/2022	
49	DPR for perumba fish market Payyanur Municipality, Kannur		0.01	Work tendere d	New DPC project form taken and balance amount will be transferred to KWA from Municipality as they recieve the fund. The fund will be dispersed after allotment of CFC fund. CFC fund was not allotted so far, so CFC was unable to transfer Work Awarded the fund. to IRTC. Council Decision not yet taken by ULB for work Agreement.	Estimate under preparation. Rs.66.5 lakhs deposited to KWA. Municipality to deposit the balance amount of Rs24 lakhs. KWA is working on DPR. Fund transferred by Municipality to KWA.	
WAYANAD							
50	65 KLD Sewage Treatment Plant at Taluk Head Quarters Hospital Vythiri, Kalpetta Block Panchayat, Wayanad		0.065	At DPR Stage	M/s Ram Biologicals attended Suchitwa Mission to discuss the corrections in DPR. Agency to submit the revised DPR to LB.	DPR under revision by the agency.	31.12.2026
51	Mananthavady, Wayanad		2MLD	DPR Stage		Submitted to Govt and RKI for AS on 29/09/2022	31.12.2026
KASARGOD							
52	200 KLD Wastewater treatment plant at Tata Trust Govt Hospital, Kasargod		0.2	DPR Stage		Local body decided to hand over the work of DPR preparation to another agency	31.12.2026
53	Kasargod Zone 1		4MLD		At DPR stage	Private land identified . Action to be taken from land acquisition	31.12.2026
54	Kasargod Zone 2		4 MLD		At DPR stage	DPR Submitted to Govt and RKI	31.12.2026

						for AS on 23/11/2022	
55	Taluk Hospital , Neeleswaram Municipality Kasaragod		0.040		At tendering stage	The tender-qualified agency is unwilling to accept the work. Hence action for council approval is being taken for arranging the work through accredited agency. Requested for advance payment. Waiting for the fund.	31.12.2026
56	50 KLD Capacity decentralized sullage Treatment plant at Uppala Town Mangalpadi, Kasaragod		0.05	DPR Stage	• DPR have to be modified to include sewer networks • The sewer network survey has been completed and DPR has been prepared.	DPR revision under process. Process flow approved. Revised DPC form received. As the rate got changed from DSR 2018 to DSR 2021, revised estimate to be received from LB.	31.12.2026
57	CHC, Mangalpady, Manjeshwar Block Panchayath, Kasaragod		0.014	DPR tendering Stage	New project taken. Project revised as Mangalpady taluk hospital. DPC approved. DPR preparation by the agency DPC approved. DPR preparation delayed due to fund ambiguity for STP at Gram Panchayats	DPR preparation delayed due to fund ambiguity for STP at Gram Panchayats. DPC Approved project.	31.07.2026

Details of proposed ETPs in the State

No.	Location	Implementing Agency	Capacity of the ETP proposed in MLD	Status of Project (at DPR Stage/ DPR Approved/ AS issued/ TS issued/ Tendering	Status of Project (in Detail)	Incremental progress	Likely Date of Completion of DPR Preparation/ Tendering
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				Stage/ Tendered/ Work Awarded)			
THIRUVANANTHAPURAM							
1	ETP at KSRTC Depot, Thampanoor, Thiruvananthapuram (AMRUT-2.0)	KSRTC	0.02	AS issued	The SHPSC held on 07 & 20/02/25 approved the issuance of AS and G.O dated 22/03/25 was issued. The KSRTC requested (letter dated 21/04/25) Suchitwa Mission to issue TS. The Suchitwa Mission requested (letter dated 27/05/25) KSRTC to decide the mode of execution (accredited agency/ open tender) and provide the DPR to Suchitwa Mission for scrutiny for issuing technical sanction.	The KSRTC submitted the DPR to Suchitwa Mission on 21.06.2025 . The estimate is to be submitted. In the meeting held by the Suchitwa Mission on 31/07/25 the DPR & estimate submitted by the KSRTC was scrutinized and the KSRTC was directed to modify the DPR if required after checking the characteristics of the wastewater .	31.12.2026
KOTTAYAM							
2	ETP at Kodimatha, Kottayam Municipality		0.030	At DPR Stage	- Process flow approved. - DPR to be modified by the agency.	Technical Sanction issued on 07.02.2025. Manual TS obtained.	31.12.2025
ERNAKULAM							
3	ETP for slaughter house, Marakkadavu, Ernakulam		0.030	DPR Stage		DPR under correction by the agency. Consent from the KSPCB is not yet to be received due to the less availability	31.08.2026

						of land. Consent pending.	
THRISSUR							
4	ETP of 2 KLD at Konnamkulam Milk Production Cooperative Society		0.002	DPR stage		Under technical scrutiny	
MALAPPURAM							
5	ETP at Tirur Municipality		0.060	DPR Stage		LB to submit the revised DPR with revised DPC form	29.07.2025
6	ETP at Tirur Municipality Slaughter house		0.030	Tendering Stage	Due to strong public opposition to the proposed slaughterhous e, work has been halted. The local body will issue a letter to the government regarding the public protest.	Paused due to public protest.	31.08.2026
KOZHIKKODE							
7	ETP at Govt Ayurvedic Hospital, Talayad, Panangad Grama Panchayath, Kozhikode		0.03	TS issued		TS issued.	31.12.2025

Details of proposed FSTPs in the State

No.	Location	Impleme nting Agency	Capacity of the FSTP proposed in MLD	Project status Status of Project (at DPR Stage/ DPR Approved/ AS issued/ TS issued/ Tendering Stage/ Tendered/ Work Awarded)	Status of Project (in Detail)	Incremental progress	Likely Date of Completion of DPR Preparation/ Tendering
KOTTAYAM							
1	FSTP at Vellor GP			DPR stage	Land permission received		31.12.2026
2	FSTP at Manganam			DPR stage	O&M cost approved by local body.		31.12.2025
IDUKKI							
3	Erumeli FSTP				- Meeting conducted by Special Secretary on 09.06.2025, decided - IKL placed it before the Technical Committee on 04.07.2025 and decided to proceed with tender		

					to entrust the project to IKL. • DPR shared by SM, Council resolution and soil report received on 18.06.2025. Technical sanction given by SM.	formalities • MoU signed on 16.07.2025. To be tendered.	
ERNAKULAM							
4	FSTP at Brahmapuram, Kochi Corporation (AMRUT-2.0)	Kochi Corporation	1	AS Issued	The ULB engaged the IRTC to execute the work in the DBOT mode. The SHPSC held on 07 & 20/02/25 approved the issuance of AS and G.O dated 22/03/25 was issued. The design is being vetted by the CUSAT.	The vetted design has been obtained from CUSAT. TS estimate to be placed in the technical committee for approval. The details were forwarded to the CE, LSGD on 27/07/25 for placing in the Technical Committee for approval of TS and is under scrutiny.	31.03.2027
5	Muvattupuzha Municipality's FSTP Project		50 KLD		• DPR Submitted to RKI for AS on 13.11.2024 in advance. • Vide Lr.No.P P1/100/2024-LSGD dated 27.01.2025 from LSG(PP) Dept.informed that RKI has expressed its	Informed municipality to forward Council resolution to proceed with KIIFB funding. Chairman informed that LB may drop the project as the proposed plant is in wetland.	30.03.2026

					inability to take up the project. Land conversion required.		
6	North Paravur FSTP				- Agreement executed with M/s Urban Grey Water solutions for DPR preparation on 19-Nov-2024. Agency visited the Municipality. Identified land is near Periyar river. - Two sited identified; LB has to finalize the site. - PCB rejected the site identified by the Municipality as it was near the river. LB has 2.5 acres of dumping yard, machines arrived for biomining the area which may take 3 months to complete.	The steering committee will study the possibilities to implement the STP/FSTP plant there, LB has to consider public protest too. Later the proposal will be included as agenda for council approval. LB has to decide and inform IKL. PCB visited the site and directed the municipality to submit some details (plan, capacity lay out and design details) In the review meeting held by Principal Director on 05.06.2025, LB informed that the biomining site may be used for the proposed FSTP. Municipality has to submit council resolution regarding site change and to proceed with soil test after completing biomining at the earliest. Consultant will initiate survey at this location.	30.05.2026

					In the review meeting held by Principal Director on 05.06.2025, LB informed that the biominin g site may be used for the proposed FSTP. Municip ality has to submit council resolutio n regardin g site change and to proceed with soil test after completi ng biominin g at the earliest. Consulta nt will initiate survey at this location.		
THRISSUR							
7	FSTP at Ramavarma puram, Thrissur Corporation	Thrissur Corpora tion/ AMRU T	0.1	Work Awarded	Due to public protest the bridge work has been stopped on 03.07.2024 and the FSTP work couldn't be started. The Joint Director, Thrissur, held a meeting with the public at the site on 28.10.2024. Agreement	In the meeting held by the District Collector on 30.01.2025 involving the representatives of all political parties it was decided to shift the project to the land given to IMA. A meeting involving ministries to be convened jointly by the Hon'ble Mayor and the District Collector to	31.03.2026

					dated 04.01.2024 was executed. The bridge work (for access to the site) was started on 18.06.2024. The bridge work was stopped on 04.07.2024 due to public protest. The Joint Director, Thrissur held a meeting with the public at the site on 28.10.2024 but the issue could not be solved. Since no confirmation regarding the land for the FSTP has been obtained so far, the work is likely to be cancelled.	finalize the land.	
PALAKKAD							
8	FSTP at Shornur					Railway land to get. Application submitted.	
9	Shornur FSTP with grey water management				- Agreement executed with M/s Urban Grey Water solutions for DPR preparation 19-Nov-2024. Agency visited the Municipality. - Local	Soil test done. DPR in progress. Meeting with SM & Municipality conducted on 25.04.2025 for finalization of DPR. DPR being finalized. As per decision of meeting b/w consultant, LB and SM, Consultant submitted process flow to LB for	

					body to initiate steps in carrying out the soil investigation. Consultant submitted a quotation for soil test. Local body to approve. • Contour survey completed. Design work in progress. Modified DPR submitted on 02.08.2025	Suchitwa Mission approval & LB to submit council decision for 50 KLD with GWM. DPR submitted by consultant. Technical presentation done before IKL technical committee on 04.07.2025. DPR to be modified as per technical committee comments.	
MALAPPURAM							
10	FSTP at Perinthalmanna	Aquatechnics Water Treatment Technologies Pvt. Ltd. Ernakulam			Earlier identified site(near to Solid waste management) not feasible.	Site to be identified	
11	FSTP at Valancheri	IRTC-PIUMUNDUR				TS issued on 28.11.2024 by Suchithwa Mission. Draft agreement under verification by the Local Body. The agency requested for mobilization fund. Currently under process.	
KANNUR							
12	FSTP at Valliyayi, Mokeri GP				DPR under correction by the agency	Revised DPR received. Further process going on.	
KASARGODE							
13	FSTP at Manjeswaram, Manjeswaram GP				DPR under preparation . Tendering process will start after the Election	TS issued	

					procedures. (06.06.2024)		
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Mobile FSTP

No.	Location	Implementing Agency	Capacity of the STP proposed in MLD	Status of Project (in Detail)	Incremental Progress - June	Likely Date of Completion of DPR preparation/ Tendering
1	Mobile Treatment unit – Chalakudy – by BHOUMA ENVIROTECH PVT LTD		0.036	Operational		
2	Mobile Septage Units- 2 nos, Alappuzha Municipality (AMRUT-1,0)	Alappuzha Municipality/ AMRUT	0.02 (0.01 x 2 nos.)	Physically completed.	Both units delivered. Trial run and effluent testing are to be completed by the contractor.	31.07.2025
3	Mobile Treatment Unit - Kodungalloor, Neyyattinkara, Chirayinkeezhu, Kumarakam, Wadakkancherry			proposal stage		

Underground STPs

No	Projects	Status
1	UG STP for Thavanur Central Prison & Correctional Home, Malappuram Dist.	- Agreement executed with M/s CDD India for DPR preparation on 22-Nov-2024. - Consultant carried out a site visit. - Soil report received from Prison department on 02.06.25. DPR under preparation by CDD India, will be submitted within 19.07.2025. - Clarification required regarding funding & IMPACT centage.
2	UG STP at Parassinikkadavu, Anthur Municipality, Kannur Dist.	- Agreement executed with M/s CDD India for DPR preparation on 22-Nov-2024. - Consultant carried out a site visit. Local Body to initiate steps in carrying out the soil investigation. - Soil report received from LB on 02.06.25. - DPR under preparation by CDD India, will be submitted by 25.07.25
3	Govt. Ayurveda Hospital, Piravom Municipality, Ernakulam Dist.	- Agreement executed with M/s OXIRA Environmental Solutions Pvt Ltd for DPR preparation on 09-Apr-2025. Agency visited the Municipality on 29-Apr-2025, DPR under preparation. - The Local body to carry out soil test and to submit report.
4	3 projects in Alappuzha district i. Civil Station in Alappuzha Municipality	RFQ invited for PFR from empanelled agencies with 09.06.25 as last date. 8 quotes

	ii. Revenue Tower, Taluk Office in Haripad Municipality iii. Taluk Hospital in Haripad Municipality	received, under evaluation. Placed before the technical committee. Selection notice to be issued. In the review meeting held by Principal Director on 05.06.2025, directed LB to proceed with soil test.
5	2 projects in Palakkad district i. PHC in Akathethara Grama Panchayat ii.KAP Camp in Puthupariyaram Grama Panchayath	- RFQ invited for PFR from empanelled agencies with 09.06.25 as last date. 8 quotes received, under evaluation. Placed before the technical committee. Selection notice to be issued. - In the review meeting held by Principal Director on 05.06.2025, directed LBs to proceed with soil test.

IV.Details of Industrial Pollution:

- Total registered industrial and non industrial units –**129915**
- Total Effluent and Sewage & Sullage Generating units: 14422 (Large & Medium: 1298; Small: 13124)
- Quantity of Effluent and Sewage & Sullage generated from 14422 units = 178.36 MLD (Large & Medium: 156.3 MLD – mentioned in MPR for the month of Jan, 2021; Small: 22.059 MLD)
- Total Effluent Generating units = **193** (As per online consent system)
- Quantity of Effluent generated from **11744** [11551 (As per Dossier: As on 2020) + 193 (As per online consent system)] units = **111.906** MLD (107.08 MLD + 4.826 MLD)
- 15095 consents issued in 2023. More industries are brought under consent purview
- OCEMS facility provided in 48 industries and is linked to the SPCB/CPCB servers. In case of exceedance follow up is done.
- Number of industrial units connected to CETP: As per the available data – 95 nos

Number and total capacity of CETPs (details of existing/under construction /proposed)

- 9 nos of CETPs are functional (Total Capacity – 9.545 MLD)
- Proposed CETPs –3 nos. (Total Capacity- 3.12 MLD).

Details of existing/under construction/proposed CETPs in the State						
CETP Name	Treatment Capacity	Operational Capacity	Status(Whether Operational or Non operational)	Number of member units	Number of complying units	Whether complying with parameters
Kinfra Apparel Park, St.Xavier's College P.O, Thumba, Thiruvananthapuram	4.5 MLD	4.5 MLD	Operational	10		pH- 7.4, TSS – 28 mg/l, BOD – 4.1 mg/l, COD – 60 mg/l, O & G – BDL , FC- 1800 cfu/100ml as per analysis report dated 25.07.2025.
CETP,KINFRA,Elamannoor, Pathanamthitta	0.22 MLD	30 Cubic metre per day	Operational	4	4	pH - 7, TSS - 80, BOD - 12, O&G - 1.2,COD-64 as per analysis report dated 19.12.2024
KSIDC Mega Food Park, Pallipuram, Cherthala, Alappuzha	2 MLD	0.5 MLD	Operational	6		pH-7.7 mg/L, BOD-16.224 mg/L, SS- 50 mg/L O&G-BDL , as per analysis report dated 19.08.2025
Sea Food Park (India) Ltd., Aroor, Alappuzha	0.3 MLD	0.3 MLD	Operational	10		pH-7.3 mg/L, BOD-16.8 mg/L, SS-20 mg/L, O&G-BDL , as per analysis report dated 19.08.2025
Kinfra Small Industries Park Nellad, Mazhuvanoor	0.4 MLD	0.4 MLD	Operational	15		pH- 7.09, COD-248 mg/L, BOD-18.37 mg/L, Oil and Grease-BDL, Total Suspended Solids –182.4 mg/L, Fluorides < 1 mg/L, Chlorides-149.9 mg/L, Phosphate – 1.89 mg/L, Nitrate-1.10, Sulphates – 19.78 mg/L, Sulphides – 3.63 mg/l, Ammoniacal Nitrogen – 0.964 mg/l, Phenolic Compounds – BDL, as per

						analysis report dated 05.06.2025 Action is taken for preventing exceedance.
Rubber Park India Private Limited (New Plant), Common Effluent Treatment Plant, 2 A, Kaudileeyam, Rubber Park, Valayanchirangara, Ernakulam- 683556	0.25 MLD	0.25 MLD	Operational	17 Units Dormitory and Canteen		pH- 8.11, COD-40 mg/L, Oil and Grease-BDL, Total Suspended Solids – BDL, TDS –1.31, Chlorides-29.9 mg/L, Sulphates – 28.25 mg/L, Sulphides – BDL, Fluorides < 1 mg/L, Ammoniacal Nitrogen – 0.21 mg/L , Phenolic Compounds - BDL, Phosphates – 0.53 mg/l, Nitrate – 7.8 mg/l and Total Residual Chlorine - BDL as per analysis report dated 10.06.2025 Action is taken for preventing exceedance.
CSEZ, Kakkanad, Cochin Special Economic Zone Ernakulam	1 MLD		Operational	14		- pH-7.1,TSS-BDL , TDS – 378 mg/l, Chloride – 29.7 mg/l, Residual Chlorine – 216 mg/l, phosphate-0.2 mg/l, sulphide-10.88 mg/L , ammonical nitrogen – 0.4 mg/L, BOD-2.2 mg/l, COD-20 mg/l, Sulphate – 15.4 mg/l, Oil & grease – BDL, Phenolic compounds – 0.001 mg/l, Copper- BDL, cadmium - BDL analysis report dated 27.08.2024 - Inspection

						conducted by Board on 14.02.2024. As per the analysis report dated 31.07.2023, all parameters except Nitrates and Phosphates exceeds the prescribed limit. • Meanwhile CSEZ operated a tertiary units (Softner, degaser, RO, MEE etc.) as trial run.
KinfraTechno Industrial Park, Kakkanchery Chelambara P.O, Malappuram	0.675 MLD	0.675 MLD	Operational	17	17	Parameters complied within limits pH – 7.5, BOD – 10 mg/l, COD – 44 mg/l, TSS – 38 mg/l, oil & grease – BDL as per report dated 09.02.2024
Kinfra Textile Centre, Nadukani, Pallivayal P.O, Thaliparambu, Kannur– 670142	0.2 MLD	0.2 MLD	Operational	2	2	pH – 8.91, BOD – 303.5 mg/l, COD – 736 mg/l, Oil & Grease – 10.72 mg/l, TSS – 104 mg/l as per analysis report dated 13.08.2025

CETP- Proposed						
CETP, Industrial department, Aroor	1.5 MLD	Proposed	• GM issued proceedings on 08/01/2024 to resume the 1 acre land from JIS international • The time line now given to the unit for handing over the land to the Industries Department , if it does not start industrial activities in the land, is extended for 6 more months from 19.01.2024.			NA
CETP, Chandiroor	1.5 MLD	Proposed	• Not constructed (Land procured)	Sanctioned Rs. 10 crore in the 2024-25 annual budget for the construction CETP	ACCEPT Environment Solutions have submitted a project proposal.	
KINFRA Spices Park, Muttom, Idukki	0.120 MLD		• ICO issued. CETP is ready to operate		Industries have not started functioning.	

Effluent Treatment Plant

Sl. No	Industry Name	Industry Type	Consumption of water in MLD	Effluent Quantity in MLD	Mode of disposal	ETP Units	Date of monitoring	Limiting Standard	Latest Analysis report	
KOLLAM										
1	Kollam Dairy	Dairy	0.2	0.12	Irrigation and gardening	Screen Chamber, Collection Sump, Anaerobic Reactor – I & II, Aeration Tank, Secondary Clarifier, Dual Media Filter, Sludge Drying beds, Treated water pond	19-08-2023	pH 5.5-9, SS-100 mg/L, BOD-30, Oil&grease - 10mg/L	pH-8.5, S.S-85.4, BOD-28, Oil&grease - 0.0317	Parameters are within the limit
PATHANAMTHITTA										
2	Aravinds Car Wash & Detail Centre, Muthoor, Thiruvalla	Automobile servicing				ETP	13.01.2025	pH - 6.5 to 8.5, SS - 50, O&G - 10, COD-150, BOD-30	pH - 7, SS - 6, O&G - 15.2, COD-16, BOD-4	O&G exceeded the limit
3	AVG Motors Pvt Ltd, Mylapra, Pallipadi	Automobile servicing				ETP	13.03.2025	pH - 6.5 to 8.5, TSS - 10, BOD - 3, COD-50, O&G - 1	pH - 7.1, TSS - 24, BOD - 42.24, COD-80, O&G - 39.6	BOD, COD, SS and O&G exceeded the limit
4	Muthoot Motors Cochin Pampady mon junction near Pampady mon Ayyappa	Automobile servicing				ETP	23.01.2025	pH - 6 to 8, TSS - 100, BOD - 30, O&G - 10	pH - 7.1, TSS - 20, BOD - 12, O&G - 9.2	Parameters are within the limit

	temple Kozhenc hery									
ERNAKULAM										
5	Fact Ltd., Petroche mical Division, Eloor, Udyoga mandal	Petroch emical Unit	13.97	5.04	Periyar- downstre am of Pathalam bund	Neutralis ation, Equalisat ion, Bio pond, Guard pond, Final clarifier, Denitrifi cation reactor	25/05/2024	pH - 6.5 - 8.0, nitrates - 20mg/l, free ammonia - 5 mg/l, TKN - 100mg/l, oil and grease - 10mg/l, phenolic compound s - 1mg/l, ammoniac al nitrogen - 50mg/l, SS-30mg/l, BOD - 30mg/l, COD - 250mg/l	pH - 6.67, nitrates - NA, free ammonia - NA, TKN - NA, oil and grease - BDL, phenolic compound s - NA, ammonia cal nitrogen - NA, SS-56, BOD - 12mg/l, COD - 80mg/l	Analy sed para meter s are confo rming to the stand ards.
MALAPPURAM										
6	Jamia Nooriyy a arabic college , pattikka d , perintha lmanna	Educat ional institut ions				soakpit	30.01.2025	PH-6.5- 8.5,BOD- 30,COD- 250,TOTA L SUSPEND ED SOLIDS- 100,OIL AND GREASE- 10	PH-7.2, BOD-16, COD- 104, TOTAL SUSPEN DED SOLIDS- 68, OIL AND GREAS E-BDL	Conf ormi ng
KASARAGOD										
7	Vittal Agro Industrie s	Desicca ted Coconu t Powder Making Unit			Irrigation as far as possible and the rest shall be discharge d into soak pit.	ETP	27.01.2025	pH-6.5- 8.5,BOD- 30,TOTAL SUSPEND ED SOLIDS- 100,OIL AND GREASE- 10 ,COD- 250	PH- 7.48,BO D- 15.9,TO TAL SUSPEN DED SOLIDS- 45,OIL AND GREAS E- 9.88,CO D-32,	Conf ormin g to Stand ards

									NITRAT E-8.92 Sample collected on 27.01.20 25	
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Solid Waste Management

- The state has taken strong measures to implement effective waste management systems and enforce regulations designed to streamline the operations. Acknowledging the urgent need for sustainable waste practices, a comprehensive strategy has been developed that encompasses infrastructure improvements, public education initiatives, and the establishment of strict policies. To support this, the Government of Kerala enacted Amendment Ordinances to the Kerala Municipality Act and the Kerala Panchayat Raj Act on December 8, 2023.
- Under the revised legislation, all citizens are required to submit segregated waste to their local body or to an authorized agency for proper scientific processing. Local bodies may also face fines for failing to act in accordance with state government directives. Furthermore, institutions and commercial establishments are now obligated to keep their premises litter-free and ensure that all waste generated is disposed of properly. These activities are closely monitored at both the local and state levels to ensure effective implementation.
- In the state, a total quantity of 10076.17 TPD waste is being generated as per present population, in which 3011.23 TPD of waste is produced in urban and 6561.12 TPD in rural areas, respectively, Approximately 73% of the waste generated is organic material and in the remaining portion, 22% is inorganic waste and 5% reject material. Out of 10076.17 TPD waste generated in the state, 7398.66 TPD is biodegradable waste, 2173.72 TPD is non biodegradable waste and 503.81 TPD is inert.
- The State's policy on biodegradable waste management adopts a decentralized approach, emphasizing source-level treatment of biowaste generated by households. This policy encourages the use of composting devices and biogas plants at the household level to process organic waste, thereby reducing the burden on centralized waste management systems. To address gaps where households may lack capacity, community facilities are

implemented to manage surplus waste. This integrated approach promotes sustainability by minimizing transportation needs, reducing landfill waste, and fostering the production of renewable resources like compost and biogas, while also encouraging community participation and local solutions.

- Dry waste generated from households and institutions is collected and transported to Material Collection Facilities (MCFs) or Resource Recovery Facilities (RRFs), where it is segregated into recyclable and non-recyclable waste. The recyclable waste is sent to recycling units, while non-recyclable waste is directed to co-processing facilities, such as cement plants, for energy recovery. After separating biodegradable and non-biodegradable waste from the total waste generated, the remaining portion, known as inert waste, is utilized to fill low-lying areas, offering an environmentally sustainable method of disposal`

1. BIODEGRADABLE WASTE MANAGEMENT

For biodegradable waste management in the state, various composting devices and biogas units are utilized to manage wet waste at its source. The compost produced from household waste treatment is used as fertilizer for gardening in individual residences. Approximately 80% of the total biodegradable waste generated is managed at the source, while the remaining 20% is handled by community-level facilities operated by local bodies.

Depending on land availability, a range of medium-capacity decentralized composting facilities—such as aerobic compost units, organic waste converters, windrow plants, and biomethanation facilities—have been widely established across Kerala. The compost generated from community facilities is branded and marketed as fertilizer to local farmers through the Krishi Bhavans within the local body. Additionally, centralized facilities, like compressed biogas (CBG) plants, are being planned and implemented to manage waste more economically. Construction of a CBG plant in Ernakulam district has already begun, and six other projects are in the planning stages.

Table 1. Biodegradable Waste Management Facilities in the State

District Name	Total BDW Generation (TPD)	Total capacity of Compost plants (TPD)	Total capacity of Bio-methanation plants (waste to energy in plants) TPD	Total Rendering Capacity (TPD)	Total BDW Processing Capacity (TPD)
01 Thiruvananthapuram	774.83	750.68	90.87	0.00	841.55
02 Kollam	567.14	347.93	67.28	80.00	495.21
03 Pathanamthitta	224.92	159.62	27.97	15.00	202.59
04 Alappuzha	424.15	410.21	62.08	0.00	472.29
05 Kottayam	393.31	325.35	31.12	0.00	356.47
06 Idukki	208.38	260.04	17.86	0.00	277.90
07 Ernakulam	779.34	571.42	72.48	190.00	833.90
08 Thrissur	691.90	530.48	92.47	105	727.95
09 Palakkad	601.79	424.06	99.66	95	618.72
10 Malappuram	968.70	534.50	126.00	250	910.5
11 Kozhikode	744.15	742.64	63.67	30.00	836.31
12 Wayanad	170.56	184.52	14.40	12.00	210.92
13 Kannur	564.81	477.63	57.91	54.00	589.54
14 Kasaragod	284.68	190.41	27.99	70	288.4
Grand Total	7398.66	5909.49	851.76	901	7662.25

For managing the 7398.66 TPD of biodegradable waste generated, there is a facility of 7662.25 TPD across the state and hence there are no existing gaps. In order to account for the future generation, the state is taking steps to strengthen the source level treatment system in rural areas and to establish centralized facilities in urban areas.

2. NON-BIODEGRADABLE WASTE MANAGEMENT

For managing dry waste, women's self-help groups known as Harita Karma Sena collect primarily segregated dry waste from households and establishments, transferring it to Material

Collection Facilities (MCFs) and Resource Recovery Facilities (RRFs) for further sorting and processing. At these facilities, after secondary segregation, recyclable waste is sent to recycling units, while non-recyclable waste is transported to co-processing facilities, such as cement plants, where it is used as Refuse-Derived Fuel (RDF) for energy recovery. Both government and private agencies ensure the safe transportation of waste.

Table 2: Details of Solid Waste Management facilities in the state

Facility	Up to March 2023	Up to Oct 2024
RRF	93 Nos	167 Nos
MCF	1182 Nos	1272 Nos
Mini MCF	9357 Nos	19156 Nos
Godown facility	16 Nos	67 Nos
Godown Area	85,250 Sqft	481548 Sqft
Container storage facility		198 No.s

The state has made significant investments in infrastructure for the storage of dry waste. Currently, there are 167 Resource Recovery Facilities (RRF), 1272 Material Collection Facilities (MCF), 19156 Mini Material Collection Facilities (Mini MCF), and 67 storage godowns covering an area of 4,81,548 square feet. Additionally, 198 used shipping containers have been repurposed for waste storage, facilitating easier transportation of waste.

Table 3. Non Biodegradable Waste Management Facilities in the State

District Name	Total NBDW Generation	Facilities in Local Bodies (TPD)	CKCL Godown Facility (TPD)	Pvt agency Godown facility (TPD)	Total NBDW processing Capacity (TPD)
01 Thiruvananthapuram	239.67	127.68	87.36	23.20	238.24
02 Kollam	166.30	124.43	92.94	6.25	223.61
03 Pathanamthitta	63.41	61.87	29.74	28.98	120.59
04 Alappuzha	121.05	137.13	44.61	4.00	185.74

05 Kottayam	111.78	108.09	74.35	2.00	184.44
06 Idukki	57.58	58.77	89.22	0.46	148.44
07 Ernakulam	239.46	151.45	78.07	10.50	240.02
08 Thrissur	203.75	212.45	44.61	3.00	260.06
09 Palakkad	169.08	132.62	31.23	9.00	172.85
10 Malappuram	278.08	166.42	102.60	14.60	283.63
11 Kozhikode	226.63	127.07	29.74	49.96	206.77
12 Wayanad	48.43	29.10	37.17	5.00	71.28
13 Kannur	168.45	164.94	118.96	2.45	286.35
14 Kasaragod	80.06	84.46	74.35	1.00	159.81
Grand Total	2173.72	1686.48	934.94	160.40	2781.83
Kerala Enviro Infrastructure Ltd (KEIL)					16.00
Grand Total (TPD)					2797.83

All local bodies have developed comprehensive plans for the movement of vehicles to collect waste from households and transport it to processing facilities. The implementation of these plans is monitored at both the district and state levels through the Harithamithram App, ensuring efficient waste collection without accumulation and adequate availability of vehicles for waste management. To enhance oversight, all waste-transporting vehicles are required to have GPS tracking, and the Kerala State Pollution Control Board has set up a web portal for real-time monitoring of waste-carrying vehicles, both within and across state borders.

Efforts are also underway to equip Material Collection Facilities (MCFs) and Resource Recovery Facilities (RRFs) with the necessary tools for effective waste management, such as conveyor belts and baling machines. To enable easier transportation and reduce the reliance on landfills, the generated reject waste can be converted into Refuse Derived Fuel (RDF). In line with this, four RDF plants have been established in the Thiruvananthapuram and Cochin Corporations. Additionally, the government is working with local bodies to implement interventions for setting up cluster-level facilities across the state. RDF plants help divert non-recyclable waste from landfills, which reduces the volume of waste that needs to be disposed of, extending the lifespan of landfills and reducing the associated environmental hazards.

Additionally, Information, Education, and Communication (IEC) initiatives have been intensified to discourage open littering. Local Self-Government Institutions (LSGIs), as well as public and private sector entities, are being ranked based on their performance in waste management and cleanliness. To enforce regulations and prevent illegal dumping, 23 enforcement squads were established in March 2023 to carry out inspections and ensure compliance. Furthermore, control rooms are being set up at the district and local self-government levels to closely monitor waste collection and ensure its proper disposal.

3. LEGACY WASTE MANAGEMENT

Legacy dump sites are remediated through biomining, a process that utilizes microorganisms and natural methods to excavate, treat, segregate, and recover valuable materials from long-accumulated waste dumps. These legacy wastes consist of organic matter, plastics, metals, and other materials that have been compacted and decomposed over many years. The soil produced from biomining is utilized to fill low-lying areas at various locations. This process effectively sorts the waste into various categories, including soil, stones, RDF, glass, plastic, tires, wood, and footwear.

Table 4. Details of processed quantity of biomining sites

	Number of Sites	Processed quantity (MT)	Unprocessed quantity (MT)
Total Reported sites	59 Nos.	17,61,871.98	
Completed Sites	24	358278.55	
Work in progress	19	1359359.72	396970.576
Not yet started	16	173719.29	173719.29
Total		36,53,229.54	5,70,689.866

Remediation Completed Sites

	Name of Districts	Name of Local Body	Legacy waste site (district wise)	Quantity of processed waste (in MT) in each site
1	Thiruvananthapuram	Thiruvananthapuram Corporation	Palayam market	4804

2	Thiruvananthapuram	Thiruvananthapuram Corporation	Erumakuzhi, near chala market	900
3	Kollam	Kollam Corporation	Kureepuzha	83926
4	Pathananmthitta	Pathanamthitta Municipality	Near Mini stadium, PTA	800
5	Pathananmthitta	Adoor Municipality	Kaimalapara, Ward no. 2, Adoor	500
6	Pathananmthitta	Pandalam Municipality	Near RRF Unit, pandalam	400
7	Ernakulam	Kalamassery Municipality	Kalamasseri	35000
8	Thrissur	Kodungalloor Municipality	Pullut, Chappara, Kodungalloor	26000
9	Thrissur	Guruvayur Municipality	Choolpuram, Guruvayoor	20000
10	Thrissur	Kodungalloor Municipality	T.K.S. Puram, Kodungalloor	607
11	Palakkad	Pattambi Municipality	Pattambi, Sankara mangalam	1041.1
12	Malappuram	Malappuram ulb	Puliyettummal, Near Inkel city, Malappuram	5079.04
13	Malappuram	Tirur ulb	Trenching ground, Ottilathara	3079.2
14	Malappuram	Perinthalmanna Municipality	Perinthalmanna, Kunnappalli	200
15	Malappuram	Manjeri Municipality	Vettekkode, Manjeri	13902.11
16	Kozhikkode	Kozhikode Municipal Corporation	Kalliyi, ward-56, beside the river	15
17	Kozhikkode	Koyilandy Municipality	Koyilandi	40
18	Kozhikkode	Kozhikode Municipal Corporation	Njaliyan parambu	130,000
19	Thrissur	Thrissur Corporation	Laloor	19500
20	Palakkad	Alathur Grama Panchayath	Alathur	1824

21	Palakkad	Vadakkanchery Grama Panchayath	Vadakkanchery	1520
22	Palakkad	Nemmara Grama Panchayath	Nenmmara	3641.1
23	Kottayam	Mundakkayam Grama Panchayath	Mundakkayam	4000
24	Kottayam	Erumeli Grama Panchayath	Erumeli	1500
		Total		358278.55

Remediation work in progress

Sl No.	Name of Districts	Name of Local Body	Legacy waste site (district wise)	Quantity of waste (in MT) in each site	Quantity of unprocessed waste (in MT)
1	Thiruvananthapuram	Attingal Municipality	Attingal, Chudukad	11365	3565
2	Kottayam	kottayam municipality	Vadavathoor, Kottayam	80943.2	67992.39
3	Ernakulam	Kothamangalam Municipality	Kumbalathumuri, Kothamangalam	19146	19146
4	Idukki	Thodupuzha Municipality	Parakadavu, Thodupuzha	28000	11200
5	Ernakulam	Kochi Corporation	Brahmapuram, Kochi	843000	110535
6	Thrissur	Chavakkad Municipality	Chavakkad	5000	1400
7	Thrissur	Wadakkanchery Municipality	Kumbalangad	21063	10425.2
8	Palakkad	ottapalam municipality	Panamanna, Ottappalam	37600	9500
9	Kannur	Kannur Corporation	Chelora	43727.32	10853.32
10	Kannur	Mattannur Municipality	Mattannur, Karithurparamba	15680	5352
11	Kottayam	Changanaserry Municipality	Fathimapuram, Changanaserry	7300	3650
12	Ernakulam	Muvattupuzha Municipality	Kurianmala, Muvattupuzha	44589	38346.54
13	Thrissur	Irinjalakuda Municipality	Irinjalakkuda, Mangadikunnu	14000	9800
14	Palakkad	Palakkad Municipality	Koottupatha, Kodumba	73827	20671.56
15	Kannur	Thalaserry Municipality	Thalaserry, Punnoolpetty	45430.4	27258.24
16	Thiruvananthapuram	Thiruvananthapuram Corporation	Vizhinjam	3177.1	2859.39

17	Ernakulam	North Paravoor Municipality	Vedimara, North Paravoor	18666	18666
18	Thrissur	Wadakkanchery Municipality	Wadakkanchery, Kumblangad	16152	2422.8
19	Kozhikode	Vadakara Municipality	Puthiyappu, Vadakara	30693.6	23327.136
		Total		1359359.72	396970.576

Remediation Work about to start

SL No.	Name of Districts	Name of Local Body	Legacy waste site (district wise)	Quantity of waste (in MT) in each site
1	Alappuzha	Kayamkulam Municipality	Murikkummoodu, Kayamkulam	6567.04
2	Alappuzha	Alappuzha Municipality	Sarvodayapuram	57200
3	Kottayam	Erattupetta Municipality	Erattupettah, Thevarrupara	8000
4	Idukki	Kattappana Municipality	Kattappana, Puliyannala	12000
5	Wayanad	Kalpetta Municipality	Vellaramkunnu, Kalpetta	9485.37
6	Kannur	Iritty Municipality	Iritty, Athithattu	1618.49
7	Kannur	Payyannur Municipality	Payyannur, Moorikkovval	2100
8	Kannur	Kuthuparamba Municipality	Palapparamba, Kuthuparambu	12081.6
9	Kasaragod	Kasaragod Municipality	Kelugudde, Kasaragod	12873.6
10	Kasaragod	Kanhangad Municipality	Kanjhangad, Trenching Ground Chemmattamvayal	3481.69
11	Kollam	Kottarakkara Municipality	Ugrankunnu, Kottarakkara	6596
12	Alappuzha	Mavelikkara Municipality	Puthiyakavu, Mavelikkara	2880
13	Idukki	Munnar Grama Panchayath	Munnar	18163
14	Ernakulam	Koothattukulam Municipality	Town-Ward Koothattukulam 15,	1346
15	Thrissur	Chalakkudy Municipality	Near Cosmos Club, Chalakkudy	6769
16	Kasaragod	Mangalpady Grama Panchayath	Kubanoor	12557.80
		Total		173719.29

- Total number of Urban Local Bodies (6 Corporation and 87 Municipalities) : 93 Urban
- Total Urban Population : 79,36,885 (As per 2011 Census)
- Current Municipal Solid Waste Generation : 3011.23 TPD (Urban local bodies- Based on population)
- Processing Capacity : 3870.35 TPD
- Gap in Municipal Solid Waste Management : 0 TPD
- The following projects are completed and functioning:
 - Black soldier plant 50 TPD Brahmapuram, Ernakulam by ZIGMA
 - Black soldier plant 50 TPD Brahmapuram, Ernakulam by FABCO

Online Vehicle Tracking Portal

Rule 16 (6) of Solid Waste Management Rules, 2016 and on the order of Hon'ble NGT board developed an online vehicle tracking portal through ULCCS to monitor inter-state waste movement. GPS/ Mobile tracking through app can be implemented through this portal.

Clearing and beautification of Garbage Vulnerable Points

With active public participation in a mass campaign, garbage vulnerable points were pinpointed. These 1983 locations underwent clearing and beautification efforts, with students and environmentalists playing a crucial role. The once unsightly wayside waste heaps transformed into attractive gardens, conveying a significant message on cleanliness to the public. The operation and maintenance (O&M) of each of these parks are scheduled to be carried out with the support of LSGIs, Resident Welfare Associations, trade unions, NGOs, etc.

Sanitary Waste Management

Following satisfactory monitoring of its operation, new plants are now being proposed in all districts. The total number of planned projects for implementation in the state is 27. These plants will have a cumulative capacity of 23.05 TPD.

Community Level Sanitary Waste Incinerator Projects taken in local bodies			
Sl No.	Name of District	Total Projects taken up in districts	Capacity (TPD)
1	Thiruvananthapuram	2	2
2	Kollam	7	5
4	Alappuzha	1	1
5	Kottayam	2	2
6	Idukki	1	1
7	Ernakulam	1	3

8	Thrissur	4	0.55
9	Palakkad	1	1
10	Kannur	4	2.5
11	Kasargod	4	5
TOTAL		27	23.05

Local bodies, with the assistance of women's self-help groups known as Harita Karma Sena, manage the collection of dry waste from households and establishments. Subsequently, the collected waste undergoes segregation at Material Collection Facilities (MCFs) and Resource Recovery Facilities (RRFs). Recyclable waste is sent to recycling units, while non-recyclable waste is directed to co-processing facilities, such as cement plants, as Refuse-Derived Fuel (RDF) for energy recovery. To address specific waste components like sanitary waste, e-waste, construction & demolition waste, and hair waste, private partnerships are encouraged. Continuous monitoring of projects in this sector is conducted to ensure the effective maintenance of the system. The reject waste generated statewide in households/shops is segregated at MCFs and is sent to cement factories for onward utilization for energy generation.

Quantity of Reject Waste disposed off

	Reject Quantity (TPD)
From LB Facility	403.37
From CKCL facility	337.08
From Private Facility	59.89
TOTAL	800.34

In order to manage the waste generated including the future requirements, projects have been planned & proposed in local bodies. Projects worth ₹ 45.2 cr have been taken up in local bodies for wet waste management and ₹18.54 cr have been taken up in local bodies for dry waste management. For clearing the existing legacy dumpsites, projects worth ₹120 cr have been taken up under KSWMP and projects worth ₹56 cr taken up under other funds.

Rendering plants

Meat rendering plants process animal by-product materials for the production of tallow, grease, and high-protein meat and bone meal. Plants operate in conjunction with animal slaughterhouses

or poultry processing plants. The Government of Kerala developed guidelines for the operation of rendering plants which led to the standardization of facilities. The facilities use wastes as an input material to create valuable products as new outputs. The aim of resource-recovery is to reduce the amount of waste generated and optimize the values created from waste. Here, the newly functioning plants lead to the management of around **1068** TPD of poultry waste which would have ended-up as waste and created a menace to the people.

Details of Existing Rendering Plants

District	No. of plants	Plant Capacity (TDP)
Kollam	2	80
Pathanamthitta	1	15
Ernakulam	6	190
Thrissur	4	105
Palakkad	6	95
Malappuram	16	250
Kozhikode	1	30
Wayanad	1	12
Kannur	2	54
Kasargod	2	70
	41	901

Rendering plants are available in 10 districts and the wastes from other 4 districts are also processed through these plants.

Status of proposed Waste- to- Energy Plants

Status report of Waste to Energy Plant				
Sl. N o.	Waste to Energy plant	Land Identified	Procured	Status
1	Kozhikode Njaliyanparambu (450 TPD)	Kozhikode corporation	(Govt. land)12.67acre at Njaliyanparambu	• Concessionaire not achieved financial closure. • Recommended for termination
2	Kannur Chelora	Kannur Corporation	(Govt. Land) 9.7 acres at Chelora	• Work of - plant can be started only after the work of biomining is carried out. WtE plant is proposed in 9.7 acres of land after clearing the legacy waste. • Tendering completed and DPR prepared by Blue planet. Consent application is yet to be received. • For biomining, volume of legacy waste – 1,22,844 m³ (NIT). First given to Zonta and they asked to revise the amount of biomining. Again retendered and identified a suitable contractor, Jan-AdharSevabhaviSanstha. Bio mining already started. • Agreement to be executed Biomining is already started (6500) cum is biomined (50%).
3	Palakkad Kanjikode	Palakkad Municipality		• Concession awarded. • DPR approved. • Financial closure achieved. • Statutory clearances obtained • Construction of plant to commence on September 2024.
4	Kollam Kureepuzha	Kollam Corporation	7.05 acres at Kureepuzha (Govt.	• Concessionaire not achieved financial closure. • Recommended for termination

			land)	
5	Ernakulam Brahmapuram	Kochi corporation		• Construction of CBG Plant ongoing
6	Thrissur	Thrissur corporation		Land is yet to be Identified.
7	Malappuram	Malappuram munciplaity	8.09 acres of land at Kurumbathoor village in Tirur Taluk	• 8.09 acres of land identified by District Administration at Kurumbathur village. Tirur taluk forsetting up of WtE plant. The land is under possession of KSIDC. Details of this are reported to be submitted to Government already by LR Deputy Collector.
8	Thiruvananthapuram	Thiruvananthapuram Corporation		• Land is not yet identified.

Other interventions taken by the State in Solid Waste Management

Door-to-Door Waste Collection

In the fiscal year 2023–2024, there has been a significant increase in door-to-door waste collection coverage across the State. 100% door to door collection is ensured by special interventions at LSGI level. Haritha Mithram app facilitated developing systematic and professional approach on customized strategies for increasing the D2D coverage, user fee collection, segregated material movement, and scheduled transportation of waste from door steps to disposal facilities.

Registration of Unauthorized Dealers

Scrap dealers are pivotal in the non-biodegradable waste management process in Kerala, contributing significantly to the collection and processing of waste. They engage in collecting, sorting, and processing diverse scrap materials, such as metals, paper, plastics, and electronics, contributing to the reduction of waste reaching the mainstream. Efforts are underway to register them officially and evaluate the volume of waste they manage.

GPS Tracking Facility

To control the illegal dumping of waste, GPS tracking systems have been mandated for vehicles transporting waste. The Kerala State Pollution Control Board has created a web portal for real-time monitoring of waste-carrying vehicles, both interstate and intrastate. Additionally, vehicles

involved in the transfer of non-bio waste have been equipped with security stickers embedded with holograms.

Sanitary landfill

The non-usable, non-recyclable, non-biodegradable, non-combustible and non-reactive inert waste and preprocessing rejects and residues from waste processing facilities shall only go to sanitary landfill and its specifications are given in zi of Rule 15 of the Solid Waste Management Rules, 2016.

In the State, for a Regional Sanitary Landfill 25 acre of land has been earmarked by KINFRA at site of FACT at Ernakulam and action is being carried out to set up. Another secured landfill is under construction in Attingal Municipality.

VI. Bio-medical Waste Management:

As per Annual Report in the whole state for the year 2023-24:

- Total Bio-medical generation: 68122.53 kg/day
- No. of Hospitals and Health Care Facilities: 24196
- Existing Total Bio- Medical treatment capacity (captive and CBMW) : 71.8 TPD
- Total Bio-Medical waste treated : 62.33 TPD (Common- 60.97 kg/D + Captive- 1.36 TPD)

Board has entrusted Council of Scientific and Industrial Research organization , National Institute for Interdisciplinary Science and Technology (CSIR-NIIST) for conducting a detailed assessment of healthcare facilities in the Kerala state. The works include field inspection, field data collection, estimation of gap and for projected/ extrapolated requirements of CBWTF'S for next ten years and entered into an agreement.

VII. Hazardous Waste Management:

As per Annual Report in the whole state for the year 2023-24:

- Total Hazardous Waste generation: 44915.3351 Metric Tonne/year
- Total hazardous waste recycled: 2727.8695 Metric Tonne/year
- Total hazardous waste utilized: 54.165 Metric Tonne/year
- No. of Industries generating Hazardous waste: 2302
- Treatment Capacity of all TSDFs in the State: 27,50,000 MTA for 45 years
- Total hazardous waste treated (captive and Common) : 57451.16 Tonne/year

VIII . Plastic Waste Management:

- Total Plastic Waste generation: 71000 TPA (as per annual report in the whole state for the year 2023-24).

- Material Collection Facility – 17699 nos.; Resource Recovery Facility-136 nos.
- Gap between current status and desirable level : 2317.266 TPA

Prevention of Marine Littering

- The Govt. of Kerala along with German Company Plastic Fischer, initiated the Trivandrum Project in 2022, aiming to combat marine plastic pollution. By deploying TrashBoom systems in the identified locations, Plastic Fischer successfully collected and managed a total of 257 tons of plastic material from rivers, riverbanks, and beach cleanups until the end of 2023. Plastic Fischer obtained the required government permits and deployed 18 TrashBoom systems. Out of the total collected plastic material, 12 tons of plastic were recycled while 245 tons of non-recyclable material were sent to co-processing at cement plants.
- On 1 June 2023, "No More Beach Cleanups" was officially launched along the coastal line of city of Thiruvananthapuram in participation with GIZ to demonstrate behavioral change focused on awareness and action, beach clean-ups, youth mobilization, community engagement and promotion of plastic alternatives in selected locations. In participation with GIZ, at 8 beach locations, 44 beach cleanup drives were conducted in Trivandrum involving 2831 volunteers and 11.15 tonnes of waste were removed.
- Under the GIZ project, NCSCM joined hands in G20 beach clean-up. The clean-up drive was conducted at three beaches in Kerala-Trivandrum, Alappuzha, and Fort Kochi in Kerala (More than 500 volunteers across three beaches collected litter weighing around 1710 kg).

IX. Details of Alternate Treatment Technology being adopted by the State/UT:

- Decentralized Wastewater Treatment System (DEWATS) system coupled with Phyto-remediation was provided in a slum area, Chathanad in Alappuzha, Kerala. The system consists of Anaerobic baffle reactor, planted gravel filter. Waste water from the houses in the colony is collected through pipe line and then it enters the anaerobic baffle reactor and then it is passed through planted gravel filter and treated sewage is discharged into drain
- The Hon'ble NGT issued directions for bioremediation/ phytoremediation for the treatment of sewage. In OA 673/2018, the Oversight Committee submitted suggestions for controlling pollution due to sewage.

- Centre for Water Resources Development and Management, Kozhikode submitted “proposal for the study of sewer infiltration into water resources via isotopic tracing and treatment of liquid waste by constructed wetland” submitted to Indian National Committee on Ground Water(INCGW) on 25-10-2021, a response is awaited from the INCGW.
- Demonstration projects regarding phyto remediation at a relatively much lower cost with the help of environment experts so that these proposed projects could be realistically remodelled.
- There is lack of expertise on phyto remediation projects. Though there are model project on phytoremediation in other states such as at Golf Links, Hyderabad, such models shall be showcased and action is highly needed for transfer of technology of such projects and to strengthen the environmental experts in our State. Online Presentation by NEERI was conducted on 13.03.2023 and site visit by NEERI officials conducted from 11/05/2023 to 13/05/2023.Proposal for feasibility study submitted by NEERI and order issued. NEERI ,Nagpur then furnished a proposal for the feasibility study on the development of process package of treatment of domestic sewage for meeting the environmental compliance at Edappally canal and Perandoor canal at Ernakulam and Pallikalar at Kollam district for an amount of Rs 45 lakhs and this proposal was approved by the Board and draft MOU has been submitted.
- FSTP at Madakkathara, Thrissur is funded by UNICEF. The unit consists of Anaerobic Stabilization Reactor, Tiger Bio-filter, Intermediate Tank, PSF, ACF, Chlorination unit and Treated water tank.



- As per MPRs in compliance to the Order of Hon’ble NGT in O.A.673/2018, the State requests for expertise aid in in-situ treatment.

X. Identification of polluting sources including drains contributing to river pollution and action as per Hon’ble NGT order on in-situ treatment:

- Polluting sources including drains contributing to river pollution were already identified and according to that action plans were prepared and submitted to CPCB. STPs were proposed in the action plans wherever necessary. Measures for management of waste were also incorporated in the action plans. In situ primary treatment were proposed for the river stretches Bharathapuzha and Pamba in the action plans.

XI . Details of Nodal Officer appointed by Chief Secretary in the State/UT:

- Vide G.O.(Rt)No.93/2020/WRD dated 28.01.2020 Government of Kerala nominated Deputy Secretary (Projects),Water Resource Department as the nodal authority, Government of Kerala for monitoring the compliance of the directions in the order on fortnightly basis and to maintain record of progress and to act as an accountable person to the Chief Secretary for the purpose.
- Vide G.O.(Rt)No.223/2020/WRD dated 12.03.2020 Government of Kerala appointed a monitoring committee comprising of Additional Chief Secretary, Water Resources Department as Chairperson and Principal Secretary, LSGD, Principal Secretary, Environment, Secretary, Water Resources Department and Staff officer to Chief Secretary as nodal officers & members.

XII. Details of meetings carried under the Chairmanship Chief of Secretary in the State/UT:

- Regarding OA 514/2019 (Solid Waste Management) Chief Secretary convened meetings on 22.09.2020 and 25.09.2020 Regarding OA 804/17 (Implementation of Hazardous and Other Waste Management Rules, 2016) Chief Secretary convened meeting of 16/10/2020. Additional Chief Secretary Labour Department had convened 1st meeting on the same for Chief Secretary on 09/10/2020. Meeting of State Level Advisory Committee (SLAC) on Waste Management, chaired by Chief Secretary is being conducted in the State regularly to discuss the various matters. 38 such meetings were conducted in Kerala so far. Last SLAC meeting was conducted on 12.02.2021.
- Meetings were held by the Chief Secretary on 11-12-2020, 30-03-2021 and 05-04-2021 with the Stake holder Departments/ Authorities, to review the progress in implementation of the projects taken up on the basis of orders of the Hon'ble National Green Tribunal in O.A. No. 673 of 2018(PZ).
- RRC Meetings were held on 28/05/2021 and 23/06/2021 and Review meeting was held by the Chief Secretary on 31-05-2021. RRC meeting convened on 22.07.2021. Review

meeting was held by the Chief Secretary on 27.07.2021. RRC meeting convened on 02.09.2021 and Review meeting was held by Chief Secretary on 09.09.2021. RRC meeting convened on 01.10.2021 and Review meeting was convened by Chief Secretary on 23.10.2021. RRC meeting convened on 29.11.2021 and Review meeting was convened by Chief Secretary on 16.12.2021. RRC meeting convened on 13.01.2022 and Review meeting was convened by Chief Secretary on 27.01.2022. RRC meetings convened on 23.02.2022,01.04.2022 ,15.07.2022,13.10.2022,2/12/2022,08.02.2023,13.04.2023,20.05.2023, 11.08.2023,11.10.2023, 27.12.2023, 17.02.2024, 23.03.2024, 12.06.2024,01.08.2024 and 21.11.2024, 17.12.2024, 05.03.2025, 29.08.2025

- Review meetings were convened by Chief Secretary on 31.03.2022, 19.04.2022, 26.5.2022, 21.6.2022, 15.07.2022 & 23.08.2022,18/10/2022 &21.12.2022, 09.02.2023, 31/07/2023,06.11.2023, 25.03.2024, 08.07.2024, 16.11.2024, 13.06.2025

XIII. Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river:

Latest Monthly Progress Report and Analysis report of Polluted River Stretches are attached as Annexure I.

XIV. Action against identified polluters, law violators and officers responsible for failure for vigorous monitoring:

1176 notices under the provisions of Water Act has been issued from the Board to apartments/ hotels/houseboats/ industrial units as having no valid consent from the Board/ no sewage treatment plant / non functional sewage treatment plant so far. In Alappuzha district a total of 790 notices were issued including Closure Intention Notice and Consent Withdrawal Intention Notice were issued to 624 houseboats, 112 Closure Intention Notices and 54 Show Cause Notices were issued other units including peeling shed/ resorts/ hotels for illegal discharge(unauthorized units) coming into the water bodies and to Vembanad lake. A total of 167 apartments/ restaurants are served notice in Ernakulam district. In Kottayam notices were issued to 215 units including 106 house boats and 109 apartments/ hotels/restaurants/ auditorium/ lodge/ service station/ nursing homes. In Kollam district 2 Closure Intention Notice and 2 show cause notices were issued to units functioning without Consent. Direction was also issued Neendakara secretary as wastewater discharge noticed from fish peeling sheds in Neendakara. Show cause notice issued to 2 corporations & 7 municipalities for isolations

under Water Act and show cause notice for not imposing environmental compensation was issued to 2 corporations and 6 municipalities and hearing conducted on 07/09/2023.

XV. Ground water regulation:

As per the consolidated report submitted in O.A.No.496/2016, the Ground water Department is implementing a “Scheme for Ground water Conservation and Recharge”. Under this scheme, rain water collected from the roof-top is harvested for recharging the aquifer through dug wells and recharge pits. The recharging of deep aquifers through bore wells is also being experimented. The total budget outlay during the period 2019- 2020 was 450 lakhs. It is estimated that there are about 65 Lakhs dug wells in Kerala and the ground water extractions by means of traditional dug wells are prevalent source of fresh water. There are number of public dug wells left abandoned and needs renovation. These dug wells can be considered as suitable stretches to recharge ground water. The Central Groundwater Board has prepared a Block wise master plan in 2015 to take up artificial groundwater recharge to groundwater. The same can be used as a guideline to streamline groundwater recharge activities of the Department.

The State Government has enacted the Kerala Groundwater (Control and Regulation) act 2002 to provide for the conservation of groundwater and for the regulation and control for its extraction and its use in Kerala. The State Groundwater Authority has been constituted on 16.01.2004 to notify the area where groundwater abstraction is to be regulated. As per the Act Groundwater User’ refers to the person who are using ground water from a pumping well (> 1.5 HP for Open dug wells and > 3 HP for BW/TW) for any purpose including domestic purpose. In notified blocks of the state, permission required for the construction of new groundwater abstraction structures.

The Ministry of Water Resources, River Development & Ganga Rejuvenation (Central Groundwater Authority) has recently issued a new guide lines to regulate and control groundwater extraction in the country in pursuance of the directions of Hon’ble National Green Tribunal and the powers conferred under section 5 of the Environment (Protection) act, 1986 (29 of 1986) dated 24th December 2020.

XVI. Good Irrigation practices being adopted by the State:

Irrigation in Kerala is classified into two schemes.

- Major Irrigation and Medium Irrigation

- Minor Irrigation

The Irrigation department develops and maintains major and medium irrigation schemes/projects across the state. The primary activity of the Department is providing irrigation facility to the farmers of the State through its system comprising reservoirs, main canals, branch canals, feeder canals and other related infrastructure. The department maintains water distribution through the canal system. Water distribution is being carried out based on the cropping pattern of a particular area and a water distribution calendar prepared and approved by a committee headed by the District Collector with members of farming community, other stake holders and department officials. For proper distribution and maintenance of the canals Water Users Association (WUA)/ Farmers Association plays an important role.

1. Minor Irrigation

- Minor Irrigation schemes are divided into Class-I and Class-II depending on the ayacut served. Schemes serving above 50Ha up to 2000Ha are classified as MI Class-I. Lift irrigation schemes are also Minor irrigation schemes serving at least 40Ha. Aims to Construct RCBs, SWECBs, ponds, VCBs, check dams, salt water barriers, storage weirs, cross bars, and protection works etc.
- MI Class-I schemes Minor works like improvements to tanks and rivulet, construction of check dams, sluices, regulators, bunds, vented crossbars, salt water barriers, layout of channels and drainage structures etc are usually undertaken under MI Class-I schemes.
- MI Class-II Schemes Minor irrigation works including construction of vented cross bars, canals, improvements to natural drains etc are taken up under this scheme.

Lift Irrigation

- Lifting of water is required for irrigating fertile land at a higher elevation where gravity flow of stored water is not possible. Although mechanical lifting is required, these schemes are very useful and serve the marginal farmers of the State.
- Optimum utilization of water by supplying designed quantity
- Works involving lifting of water with a command area not less than 40 hectares come under this category.
- This will increase in the ground water table in high altitude areas, Ensure water availability to farmers before the cropping period.

- This will reduce agricultural loss in high altitude areas due to water scarcity, thereby by reducing distress to farmers.
- At present the Irrigation Department has under its control 450 Lift Irrigation Scheme (LI schemes) with a total Ayacut of 43170ha.
 - Micro Irrigation
- Micro-irrigation system is a modern method of irrigation in which water is delivered slowly. Usually in the form of discrete droplets, continuous drops, streams, etc. Micro-irrigation system is popular these days for its low cost and water-efficiency.
- The benefits of micro irrigation and precision farming are well demonstrated with an average increase in yield by three times. Pepper as a case in point shows enhancement from 1.9 kg/wine to 6/wine on precision agriculture. Coconut also shows increase in productivity to 150 nuts per plant as against 45 without precision irrigation support.
- In the coming year department is planning to implement atleast one micro irrigation scheme in each district with the coordination of line departments and farmers. Steps are initiated to identify the location as well as crops in coordination with the agriculture department.

XVII. Rain Water Harvesting:

In compliance with the Hon'ble NGT Order dated 11.09.2019 in O.A. No. 496/2016, the consolidated report of Kerala State regarding the present status of the implementation and action plans on rain water Harvesting for conservation of water was submitted by the Kerala State Government on 27.11.2019.

The State Groundwater Department has been implementing a scheme for Groundwater Conservation and Recharge under plan fund made available since 2004-05. The project component includes roof top rainwater harvesting for groundwater recharge through dug wells, recharge pits, bore wells and recharge shafts and construction of subsurface dykes and small check dams on micro water shed basis. The recharge schemes are being implemented as a long term measures to achieve sustainable groundwater development in the State. The Department is engaged in recharging groundwater through roof top rain water harvesting in public buildings and government schools and giving priority to implement such structures

in notified blocks. The Department has successfully implemented roof top rainwater harvesting through recharge pits to enhance groundwater levels of dug wells in the Kattakkada Constituency of Thiruvananthapuram District. The Constituency was officially declared in November 14th 2019 as the first assembly constituency in Kerala to implement artificial groundwater recharging structures in all Government schools and offices. The State Groundwater Department has implemented 169 nos of recharge pit/direct dug well recharge schemes, 4 check dams and one sub surface dyke during the 12th plan period. In the 13th plan period as on October 2020, the Department has completed 370 nos of recharge pit/dug well recharge schemes and 18 nos of bore well recharge schemes.

The Department has also taken initiatives to implement roof top rainwater harvesting structures in order to replenish the aquifer system in Chittur (Over-Exploited), Malampuzha and Kasaragod (Critical) blocks under Jal Shakti Abhiyan Programme by Ministry of Jal Shakti Government of India.

XVIII. Demarcation of Floodplain and removal of illegal encroachment:

Kerala receives about 90% of the annual rainfall during the monsoon months from June to August and from October to November. The remaining period from December to May is practically dry. Most of the rain water received during monsoon period flows to sea within 48 hours of rainfall due to the character of the geographic terrain of the state.

- State Disaster Management plan 2016 was prepared by National Centre for Earth Science Studies in 1:50,000 scale using satellite images.
- Based on the request of central water commission, Government of Kerala constituted Regional Committee for scientific assessment of Flood prone areas in Kerala.
- Flood-level marking for the flood affected rivers has been carried out. Steps have been taken for conducting the studies regarding Flood plain Zoning. Due to the peculiar topography and dense population, evacuation of people from these zones is difficult.

Flood plain zoning is considered as an effective measure for flood management. As far as Kerala is concerned, the topography and total number of rivers, major lakes and other water bodies are entirely different compared to other states. Since Kerala has 44 rivers, except three rivers, all are west flowing; that is about every 14 km (average) there is a river. It may please

be noted that the width of Kerala varying from roughly 30 to 120 km, and the total geographical area is 38863 km². Kerala is the 21st largest Indian state by area. As per census of 2011 the density of population per square kilometer is 859. By considering the above facts, implementation of zonation and demarcation of priority areas/non development zones will affect the populace of Kerala or leads to displacement from their ancestral settlement. This is why the Model Bill of 1975 issued by CWC has not been implemented in Kerala. However intensive contour may delineate and notification of limits of flood plains through LSGIs is a possible way out as far as Kerala is concerned to avoid future developmental activities in such area, for which a policy decision is necessary.

Desilting:- Flood havoc in 2018& 2019 very much affected the storage capacity of several regulators and check dams due to the accumulation of silt/ sand and other debris. In some cases, the proper functioning of the regulators become halted due to the accumulation of the above said materials.

Vide G.O (Rf) No.50/2019/WRD dt 08-11-2019 Government issued AS for desilting of 6 structures, namely:-

Cheruthuruthy check dam

Changanamkunnu regulator

Manjummel regulator

Purappallikavu regulator

Velliyankallu regulator cum bridge

Pookkottumana regulator cum bridge

The work for desilting of 6 regulators/ check dams were tendered and the works are in different stages.

Along with irrigation structures action were taken to desilt the dams as a pilot project to enhance the storage capacity which results more outflows and ground water recharge. Mangalam dam, Chuliyar dam, Meenkara dam and Walayar dam are the four dams listed. Apart from the above Irrigation department has initiated action to prepare an inventory of the present status of all the rivers in Kerala by entrusting the job to Executive Engineers. The primary objective is to find out the obstructions to free flow in rivers. It is expected to

complete the process within a month and draft reports/ status reports were also be ready. As a follow up, the department intends to desilt the river stretches which need urgent action to avoid flooding in the vicinity; by utilising the amount announced in the Budget.

Encroachments can be assessed after detailed survey with the help of Revenue Department. Executive Engineers entrusted with ownership of rivers have been directed to identify the encroachments along rivers and prepare a list at the earliest Public Grievance report form has been developed in department website. 300 petitions were forwarded to the revenue officials for remedial action. 133 petitions also received since then are also forwarded to the concerned.

XIX. Maintaining minimum e-flow of river:

- As per order of the Hon'ble NGT Order in OA no.498/2015 it is mandatory to maintain 15%-20% of average lean season flow in the river. E-flow can be assessed in many ways. Hydrological methods and holistic methods are generally used for this purpose. A good Hydrological data is maintained at IDRB Chief Engineers office at VikasBhavan. Steps have been initiated to collect last 25 years average flow details of all 44 rivers during summer season, ie from January to May.
- Ministry of Water resources, RD& Ganga Rejuvenation issued a notification (SO.5195 (E) dated 9.10.2018) to maintain e-flow in River Ganga. Hon'ble NGT order has given some relaxation to status , which are unable to adhere to the average percentage fixed as e-flow CE (I&A), & CE (IDRB) made discussion in this regard and action has been taken by IDRB to compile the last 25 years discharge of rivers. As per the report of Kerala State Disaster Management Authority (KSDMA) nearly 15% of the land area of the state prone to flood. On two (2) occasions, GOI (CWC) and Ministry of Environment Forest and climate change had circulated model bill on (i) Flood Plain Zoning (1975) (II) River Regulation Zone (2015). Considering the already enacted regulations vizi) Forest area ii) Coastal Regulation Zone (CRZ), the topography of the state, high population density , and number of rivers, Government has not yet taken a policy decision in this matter. The State Government has sent the apprehension of the State to GOI with regard to River Regulation Zone Bill.
- As per the direction of the Additional Chief Secretary (WRD), meetings were conducted with Chief Engineer, IDRB to discuss the availability of historical data. To

carry forward the study of e-flow a training was arranged on 12.09.2021 to the engineers entrusted for e-flow calculation. A review meeting in this regard was also conducted on 01.10.2021 and in the meeting it was decided to calculate e-flow of the rivers, Meenachil and Manimala as pilot project. Data collection for Manimala river completed. Data collection for Meenachil, Kadalundi, Karamana and Vamanapuram is in progress.

- It was decided in the last RRC meeting that an expert committee to be constituted to recalculate the e-flow. Accordingly an initial discussion of the technical committee has been convened and it has been decided to recalculate the e-flow for the rivers on the revised methodology. Secretary WRD directed (08/2023) to conduct a meeting with KSEB authorities, to collect required data for the e Flow calculation. Also details of dam, ground water, amount of water ejected out from hydro electric projects in various seasons are to be collected for the calculation of flow. For these, the Expert committee framed for vetting e Flow needs to be restructured to include representatives from KSEB, Fisheries, Environmental Scientists, etc. Hence we have requested to the above departments to nominate suitable officials from their department /institution who have expertise in e-flow analysis/who can contribute to the same to be included in the Expert Committee. Follow-ups are going on. Based on the direction from the Administrative Department, an Expert committee was constituted for vetting the same. The first meeting of the committee is scheduled to be held on 10.01.2024. The present e flow calculation was done in line with the old methodology as per the direction of NGT. As per the existing NGT order the minimum E flow calculation required is 15-20. Since it is based on the flow of Himalayan fed rivers, the same method cannot be applied to Southern states which are monsoon fed. Hence a new methodology is required. An interdepartmental Expert Committee has been constituted for calculation of e-flow. 3 Meetings of the committee have been convened, and as per decision of the committee, Kuttiyadi river was selected as pilot project for arriving the new methodology for e flow calculation, and CWRDM is assigned with carrying out same.
- Fisheries data for Kuttiyadi river was obtained from the Fisheries Department and data collection regarding cross section of river from the Hydrographic survey wing is in progress. Reconnaissance survey for 14.6 Km has been conducted by Hydrographic

survey wing and detailed estimate submitted to Head office for approval. The methodology for E flow calculation of Meenachil river was carried out by IDRB. The methodology in this regard is under review. The methodology was presented in the 4th meeting of the Expert committee 06.06.2024

XXII. Reuse of Treated Water:

Possibility of utilizing the treated effluent for irrigation, gardening, industries, construction and recharge are being explored. A 5 MLD tertiary treatment plant is proposed and the work is awarded for treatment of effluents of STP at Muttathara. The same is in the design stage.

XXIII. Model River being adopted by the State & Action proposed for achieving the bathing quality standards:

Tirur-Ponnani River, Malappuram

XXIV. Status of Preparation of Action Plan by the 13 Coastal States:

As per the NGT order in O.A 829/2019 dated 22.06.2020 regarding the remedial action to restore sea water quality along the Indian Coastal areas, the Hon'ble NGT ordered that "All States/UTs through their concerned departments such as Urban/Rural Development, Irrigation & Public Health, Local Bodies, Environment, etc. may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town and village, adhering to the timeline as directed by Hon'ble Supreme Court. STPs must meet the prescribed standards, including fecal coli form . CPCB may further continue efforts on compilation of River Basin-wise data. Action plans be firmed up with Budgets/Financial tie up." In compliance with the order, CPCB instructed that the State PCB shall associate National Centre for Coastal Research, Chennai under Ministry of Earth Science for monitoring and assessment of coastal water within the jurisdiction of the Kerala State up to 5 km from shore and to evolve strategies for protection of the coastal areas in association with Coastal Zone Management Authority in the State and Prepare time bound comprehensive action plan along with implementing agency in consultation with Kerala State Coastal Zone Management Authority for control of coastal pollution in Kerala State. Also the State Government has instructed the Board to prepare action plan by consulting CUSAT .Based on this, the Member Secretary of Kerala State Pollution Control Board has conducted meeting

with officials of CUSAT, National Centre for Coastal Research, Kerala State Coastal Zone Management Authority and also with the field level officers through video conferencing.. The Action plan was forwarded to CPCB. CPCB put forward some suggestions and requested to modify the action plan upon concurrence with River Rejuvenation Committee. So, the Coastal Action Plan prepared has been forwarded to the concerned Stakeholder Departments for their remarks. Meetings in this regard convened on 23.07.2021 and 02.08.2021. The modified Coastal Action Plan was approved by RRC and the same has been submitted before State Govt. for approval. The Coastal Action Plan was submitted to CPCB with the approval of State Govt.

XXV. Regulation of Mining Activities in the State/UT:

Indian parliament has enacted the Mines & Minerals (Development & Regulation) Act, 1957 and it stipulates for the conservation, prudent and discriminate exploitation of minerals with a view to secure maximum benefit to the community. In exercise of powers conferred by section 13 of Mines and Minerals (Development & Regulation) Act 1957, the Central Government has framed the Mineral concession Rules, 1960. The Central Government has also framed the Mineral Conservation and Development Rules, 1988 in exercise of the powers conferred by section 18 of the Act. These Rules are applicable to all minerals except coal, atomic minerals and minor minerals. The powers of framing rules for minor minerals have been delegated to the State under section 15 of the mines Act. In exercise of the powers conferred by section 15 (1) of the Act the State has framed the Kerala Minor Mineral Concession Rules 2015 and Kerala Minerals (Prevention of Illegal Mining, Storage and Transportation) Rules 2015 for the regulation and extraction of minor minerals. The Central Government in exercise of powers conferred by section 18 of the Act has also framed the Granite Conservation and Development Rules, 1999 for conservation & systematic development and scientific mining of the granite resources. The grant of reconnaissance permit, prospecting license or mining lease are governed by the central Act. The State with the prior approval of the Government of India grants permission for reconnaissance permit, prospecting license or mining lease for major minerals. The state Government issue quarrying permits and leases for minor Minerals based on the Kerala Minor Mineral Concession Rules, 2015. Other Acts and Rules which govern the mineral administration of India applicable to the State are the following:

- The Mines Act, 1952 (Act 35 to 1952)
- The Mines Rules, 1955 (35 of 1952)
- The Metalliferous Mines Regulations, 1961
- The Mines Rescue Rules, 1985
- Mines Vocational Training Rules, 1966
- Payment of wages (Mines Rules , 1966)
- Payment of undisbursed wages (mines rules, 1989)
- The Indian Explosive Act, 1884
- Air (Prevention & Control of Pollution) Act, 1981(14 of 1981)
- Environment (protection) Act, 1986 (29 of 1986)
- Indian Registration Act, 1908 (Central Act of Act 16 of 1908)
- Kerala Protection of River Banks and Regulation of Removal of Sand Act, 2001
- Kerala paddy field and wetland conservation Act, 2008.
- Kerala Panchayath Act.

There is no large scale mining activity in Kerala as in other parts of the country. Almost all the mines are open cast and limited in areal extent. The important mines of major minerals are china clay, laterite/bauxite, limestone and lime shell. Mineral sands and silica sand are excavated by scooping and quartz is being extracted by taking trenches and pits. The important minor minerals in the state are granite, building stones, dimension stone, laterite, tile/brick clay and ordinary sand. The state owns mineral deposits like placers, china clay (kaolin), limestone, silica sand, bauxite, graphite, iron ore, granite etc.

The major mineral based industries like Indian Rare Earths Ltd. (Chavara), Kerala Minerals and Metals Ltd. (Chavara), Malabar cements (Walayar), Travancore cements Ltd. (Kottayam), Kerala ceramics (Kundara) Travancore Titanium products Ltd. And English Indian Clays Ltd, Thiruvananthapuram, Excel Glass Industry, Alappuzha, KeralaClays and Ceramic Products Ltd. (Pazhayangadi) are some of the mineral based industries working in the State since several years. A number of tile based industries are also functioning mainly in Thrissur and Kozhikode districts.

In exercise of the powers conferred by section 15(1) of the Mines and Mineral (Development & Regulation) Act, 1957, the State has framed the Kerala Minor Mineral

Concession Rules 1967 for regulating the extraction of minor minerals. The State with prior approval of the Govt. of India grants permission for reconnaissance permit, prospecting license or mining lease for the first schedule minerals on first cum first served basis. In addition to EIA requirements as stipulated by the Central Govt, an EIA report is insisted on all mining activities before granting mining lease. No quarrying permits or leases are granted in the State unless there is a Mining plan duly approved by the competent authority. Afforestation of the reclaimed areas is promoted. Environment Rehabilitation is insisted in all mining projects.

The Kerala District Mineral Foundation Rules 2018 has been formed with an objective to work for the interest and benefit of persons and area affected by mining related operations. The permissible activities under District Mineral Foundation includes among other things, developing sources of irrigation, development alternate sources of energy and rain water harvesting, conservation measures of biodiversity of the affected areas.

The expert study in all selected quarries in Kerala was carried out with one day for ambient air quality measurement (without the operation of quarry) and next day with the operation of the quarry. Individual site reports with the observations on dust, noise and mine pit water quality was prepared by the monitoring team of KSPCB for all the nine quarry sites.

XXVI. Action taken status with regard to directions issued for prohibition of immersion of idols, puja materials and other items of religious offerings in rivers & other water bodies in particular during the occasion of festivals

- Regarding the Ganesh Utsav celebration and immersion of idols ,it may kindly be noted this is not widely practiced in the State of Kerala. The Board had instructed the District offices to conduct monitoring of water bodies where immersion of idols is practiced on a large scale. Water quality was carried out in three stages-pre immersion, during immersion & post immersion periods. A press release was also issued by the Board in connection with the festival for information of the public on the guidelines for immersion, issued by CPCB. In Kerala idol immersion are not celebrated as a major festival. The Govt. take steps to avoid water pollution due to immersion of idols. If to celebrate natural clay and colours are being used and that too in artificial ponds arranged by local authorities

- During Sabarimala festival season, there is a traditional celebration "Pettathullal", for the same the pilgrims will apply coloured Kumkum on their body. It was directed that only natural colours shall be used for the celebration. Separate arrangement like shower bath are provided for carrying out bath after the celebration, in order to avoid the reach of coloured water into the main waterbody. The waste water from the shower bath location will be treated in ETP provided.

XXVII. Current status of water quality of rivers based on draft revised categorisation of CPCB

- Out of 21 stretches, the following 11 stretches delisted from PRS. Mogral- at Kasaragod, Kuppam, Peruvamba, Ramapuram, Kavvayi- at Kannur, Bharathapuzha, Bhavani- at Palakkad, Kutiyadi-Kozhikode, Kecheri, Karuvannur, Puzhakkal- at Thrissur
- Due to improvement in water quality priority class of the following 4 rivers has been shifted to lower priority class. No priority I and II rivers in Kerala now.
 - Karamana, at Thiruvananthapuram- Priority III (from Priority-I)
 - Manimala at Alappuzha – Priority V (from Priority IV)
 - Pamba at Pathanamthitta – Priority V (from Priority IV)
 - Kadambayar at Ernakulam – Priority V (from Priority IV)


CHAIRPERSON

ACTION PLAN FOR RIVER KARAMANA, KERALA- JULY 2025

1. Short term Plan

Maintenance and de-bottlenecking of existing sewerage network

No.	Activity	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
2.1.1	Pumping lines from the terminal pumping stations namely Kuriyathi, Pattoor, Kannammoola and Enchakkal pumping stations are to be connected directly to STP at Muttathara	Kerala Water Authority	May-19				100%	Kuriathy Work Completed. DPR for pumping main from Pattoor, Kannanmoola and Enchakkal is under preparation.
	Kuriyathi Pumping line							
2.1.2	Rehabilitation/upgradation of Thaliyal and Arannoor Sewerage Pump house by rehabilitation of existing well, construction of new well and grit chamber, installation of new pump sets	Kerala Water Authority	May-20				100%	a)Completed.
	Arannoor						100%	b)Work completed.
2.1.3	5 MLD sewage treatment plant at Medical College	Kerala Water Authority	May-20				100%	Work Completed on 8/8/21
2.1.4	Installation of adequate pumps in Mudavanmughal and Enchakkal pumping stations	Kerala Water Authority	Mar-20				100%	Work Completed.

No.	Activity	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
2.1.5	DG sets in all lift and pumping stations - Mudavanmughal, Aranoor, Thaliyal, Kuriyathi, Pattoor, Kannammola, Pattom, Murinjapalam and Enchakkal	Kerala Water Authority	May-20				100%	Work Completed.
2.1.6	Reconnect sewer at Rajaji Nagar, stop outflow of sewage into Amayizhanchanthodu, control storm water entry into sewer to avoid overflow in Thampanoor area Sewage generated in Rajaji Nagar shall be diverted to main sewerline Sewage generated in Thoppil area shall be diverted main sewerline	Kerala Water Authority	Dec-20				100%	Work Completed.
2.1.7	Discharge of sewage in Parayilkadavu shall be stopped as there is overflow of sewage reaches in houses having sewerage connection and this may lead to discharge of sewage into River Karamana	Kerala Water Authority	Completed				100%	Work Completed.
2.1.8	Divert the sewer line from the School compound of Government Karamana High School	Kerala Water Authority	Completed				100%	Work Completed.
2.1.9	Rehabilitation by laying new lines increasing size of undersized main and reconstruction by dilapidated manholes for the last 3 years	Kerala Water Authority	May-20				100%	Works completed – 76No.(Rs.15.41cr) AMRUT-45, State plan-28 MLA ADF/SDF-3 In progress – 1No. (Rs. 3.cr.) AMRUT-1, State plan-0 Two Amrut work short closed due to non obtaining of Road cutting sanction.

No.	Activity	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
	Total works in progress/Completed (76 No.) Works dropped (2No.)					Dropped – 2 No. (Rs. 1.52cr.) State plan-2		Two works dropped due to not getting offers on repeated tenders and expiry of AS.
2.1.10	Extension of sewer network wherever technically feasible in new areas of existing blocks	Kerala Water Authority	May-20					Works completed -24 No.(Rs.17.21 cr.) AMRUT-12, State plan-11nos, Ongoing MLA ADF/SDF-1
	Tendering/ To be arranged (1No.) Land acquisition -1 In progress-3			0.10%	0.10%	0.00%	99.5% Land Aquisition in progress-1No .	Land will be available within 3 months. Lands are notified.

No.	Activity	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
2.1.11	Procurement of sewer cleaning machines and equipment maintenance	Kerala Water Authority	Mar-20				100%	Work completed

Solid Waste Management Action Plan

	Activity	Implementing Agency	Unit	Time for Completion	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of work remaining
2.2.1	Slaughter house and poultry waste	Thiruvananthapuram Corporation	Rendering Plant	Dec-22	0%	0%	0%	97%	Slaughter House- Slaughter house kunnukuzhy- Work started for construction of retaining wall, work ongoing for construction of security cabin and visitors lounge. Security cabin , roof slab casting completed, visitors lounge, structure completed, roof slab casting on progress. Work under progress. It will be completed on Dec 2024. poultry waste- TMC has started collecting poultry waste coming under jurisdiction of 25 HI Office from 1st November 2019 with online tracking of vehicles. The entire poultry waste generated in whole Corporation area is collected and sent to rendering plant at Elloor. Collected and send to Ernakulam plant.
2.2.2	Sanitation facility and Treatment of waste water in the markets of Pangode, Kumarichanda	Thiruvananthapuram Corporation	Treatment Plant Portable Aerobic bins	Dec-23	0%	0%	0%	100%	Kumarichanda: Market Renovation completed. Pilot project implemented for treatment of wastewater. Pangode: DPR submitted by the agency . Forwarded for getting technical sanction.

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
2.2.3	Provide facility for the treatment of sewage, sullage and	Thiruvananthapuram Corporation	1. Moonnathumukku 2. Poonthura-HI Office 3. Cheriyan muttam-Poonthura 4. Beemapally Compound 5. Tsunami	Mar-24	0%	0%	0%	50%	Only 13 Locations work completed out of 28Nos. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP where there is land availability- KWA
	garbage generated in the poonthura slum area between Karamana river and sea		6. Mother Theresa Colony 7. Kumari Chantha 8. Poonthura Marker 9. Moonnat tumukku bridge 10. Ambalathara- Nilama 11. Fisherment Flat- Muttathara 12. Perunalli Market Road 13. Poundkavu old market 14. Market						

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
			15. Tsunami Colony near 110 KV tower (Poundkadav) 16. Near Valiyavila Veli St. Thomas Church (Poundkadavu) 17. NearKamales shwaram HSS 18. Valiya veetil Residence associati on 19. Near Arannoor Govt.						
			21. Kumarapuram Thamara bhagam (near comfort station) 22. Near Kannam moola Bridge 23. Mannant hala Market 24. Santhi Nagar Residents associati on 25. Alanthar a Kattayil 26. UlloorMarket 27. Museum RKV Road 28. New Nalantha road						

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
2.2.4	The discharge of waste water from the surrounding houses to the pond at Jagathy is to be stopped	Thiruvananthapuram Corporation	Pond desilting						meeting was conducted on 30-07-21, convened by the Public Work Standing Committee Chairperson with KWA Officials, Tvpam Corporation officials and councillors ward to discuss this concern. This area will be covered in the master plan for providing sewer line for the full capacity utilization of CSTP at Muttathara and by providing Decentralized STP - included in KWA master plan.
2.2.5	Identification of illegal outlets into storm water drains and fine shall be imposed on such units	Thiruvananthapuram Corporation	Fine Imposed and prosecution initiated						2656900 rupees fine collected from 2019 to till date.
2.2.6	Biodegradable waste (DPR)	Thiruvananthapuram Corporation	Bio- Composter		0%	0%	0%	82%	Installed 65,080 bins in total.
2.2.7		Thiruvananthapuram Corporation	Thumboormuzhi aerobic bins		0%	0%	0%	65%	Total 154 locations, Total 550 bins installed in 57 location.
2.2.8		Thiruvananthapuram Corporation	Community biogas		0%	0%	0%	65%	27 nos installed, Only 2 in working condition
2.2.9		Thiruvananthapuram Corporation	Ring compost		0%	0%	0%	78%	Installed 350 units.
2.2.10		Thiruvananthapuram Corporation	RRF		0%	0%	0%	100%	Work completed
2.2.11		Thiruvananthapuram Corporation	Plastic Recycling unit						Site not yet identified. Project dropped

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
	Activity	Implementing Agency	Time line		Water quality in August/ Pre-monsoon		Water quality in August / Monsoon		Water quality in Post monsoon
2.3.1	River water quality monitoring - Killiyar, Karamana, Parvathiputhanar, Akkulam-Veli lake	Kerala State Pollution Control Board	Ongoing; monthly						1 Establishment of real time water quality monitoring station is going to install in Karamana river 2 Work order has been issued to access nano technology private Ltd.
2.3.2	Storm drains monitoring - Amayizhanchanthodu, Ulloorthodu, Pattomthodu, Kannamoolathodu, Thekkanakkara canal	Kerala State Pollution Control Board	Ongoing Seasonal monitoring- Pre-monsoon, monsoon, Post-monsoon						Monitoring going on
2.3.3	Inspection and effluent quality monitoring of the flats, industrial units, service stations, hospitals, hotels etc in Thiruvananthapuram Corporation area	Kerala State Pollution Control Board	Ongoing Interval; Red - 1 month Orange -3 month Green -6 month						

2. Long term Plan

Sewerage Network

	Long Term measures proposed	Implementing Agency	Amount Required (Rs. In Crore)	Time Line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of work remaining
3.1.1	Extension of sewerage system to Block F to G coastal belt	Kerala Water Authority	200						Consultant appointed for preparing Detailed Project Report for uncovered wards of the Thiruvananthapuram Corporation and Rehabilitation of existing system was terminated from the contract due to breach of contract by
3.1.2	Extension of sewerage system to Block H to R	Kerala Water Authority	700						

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
3.1.3	Extension of sewerage system to Newly added	Kerala Water Authority	300	Three years					the firm vide Proceedings No. KWA/SE/SEW/EOI/REPL/338/2020-2021 of the Superintending Engineer, Sewerage Circle, Kerala Water Authority Thiruvananthapuram dated 31.05.2022 to arrange the balance work at their risk and cost. As discussed in the Chief Secretary, GoK' s meeting dated 21/06/2022 the work of Preparation of DPRs has to be done internally. Mean while the terminated firm M/s REPL filed a complaint against KWA in the Hon'ble High court of Kerala (WP(C) No 26031 of the year 2022) and obtained a stay against KWA at first up to 22.08.22 which is then got extended up to 14.09.22 against taking any coercive actions. DPR preparation of sewerage system to the uncovered areas of TMC is now being carried out internally by KWA. The total wards were divided in to 10 clusters. Cluster1 comprises of 5 wards - Attukal, Kalady,Kallipankulam, Ambalathara and kamaleswaram wards - The DPR for Cluster 1 was submitted on 13/10/2022 for obtaining AS. DPR of Cluster 1 Zone 1 & 2 for Rs 99 Crores and DPR of Cluster 1 Zone 3&4 for Rs.58.50 submitted to the Secretary WRD on 13/04/23.Later as per the direction of Secretary Thiruvananthapuram Corporation the DPR for Cluster 1 was revised including Zone 1&5 for Rs 91.00 Cr and Zone 3&4 for Rs 66.50 Cr and was submitted to theSecretary Thiruvananthapuram Corporation on 28.12.2023 for getting AS under UIDF.Cluster 3, which was originally consisting of Thiruvallam,Poonkulam and Vellar is the second in the priority list and was taken up. This Cluster is then modified by adding more wards and is divided into 3 zones. Zone 1 of cluster 3 is consisting of Puthenpally and Part of Muttathara (until STP) was taken up on priority based on the demand of Thiruvananthapuram Corporation. The DPR for Cluster 3 Zone 1 is prepared consisting of Puthenpally and Muttathara (Part) Wards and submitted to CE on 02.12.22. DPR of Cluster 3.1.7 AdditionalSTP requirement KWA/WASCON/AEEII/NGT-PR/2024I/54473/20243 Zone 1,Puthanpalli ward of 1.5 MLD Sewerage network with 5 year O&M and without centage submitted to Corporation under AMRUT2.0 on 11/1/23.The DPR of Cluster 3 Zone 2 and Zone 3 is
3.1.4	Providing sewerage system in Block A to E	Kerala Water Authority	100						
3.1.5	Rehabilitation of existing Network and pump house in block A toE	Kerala Water Authority	100						
3.1.6	Procurements of equipments for maintenance sewerage system	Kerala Water Authority	10						
3.1.7	Additional STP requirement	Kerala Water Authority	60						

No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
	Total Amount required		5000 Crores						

* Out of the 100 wards in Thiruvananthapuram Corporation,43 wards(Blocks A to E) are fully/Partially covered with sewerage facility. For 35 Wards (Blocks F to R) design of sewerage network is available but this needs modification in lieu of the change in demography and for the balance 22 wards new designs are to be prepared. The long term measures are envisaged to cover the entire wards in the Thiruvananthapuram Corporation. For preparing DPR/DER for rehabilitation of existing sewerage system and for establishing sewerage system for uncovered areas of Thiruvananthapuram Corporation, AS has been obtained under RKI (Govt. of Kerala) and preparation of DPR in progress.

Solid Waste Management

	Long Term measures proposed by Thiruvananthapuram	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining		
3.2.1	Acquire 58 acres of land and rehabilitate 8150 families from the banks of River	Thiruvananthapuram Corporation	5 Years					Dropped		
3.2.2	SDM 2.0 Action plan prepared and submitted.									
3.2.3	KSWMD 5.14Crore works submitted to DPC.									

Desilting and Development

3.3.1	Development package for ParvathyPuthanar	Irrigation department included in KIFB by KWIL includes cleaning of canal	3 Years	100%	100%		100%	Phase I (First half) removal of water hyacinth completed Veli to Kadinamkulam Kayal (Ch 16.00 to Ch27.00).Executed by Inland Navigation . Aakkulam to Monnattumukku cleaning works 100% completed- by KWIL - for an amount of 45 Lakhs (3 Months) Now department work is started for clearing.		
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No.	Activity	Implementing Agency	Time line		Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
3.3.2	De-silting and development of AmayizhanchanThodu	Irrigation Department	1.5 Years				93%	On going	
3.3.3	Improvements to Thekkenekara canal and de-silting-		1 Year					Flood mitigation work completed	
3.3.4	Karimadam tank improvements,de-silting sheet piling/under preparation and providing fencing		1.5 Years				20%	Flood mitigation works ongoing	
3.3.5	Development of Karamana basin		1.5 Years					Desiltation of river completed. E-flow statement is submitted.	

SUPERINTENDING ENGINEER

WORKS UNDERTAKEN AS PART OF ACTION PLAN

STATE PLAN 2021-22

SI No.	Name of Work	Implementing office	Source of fund	Time line	Status
1	TSS - Providing and laying 300mm dia main and 200mm SW branch sewer line towards Sreekrishna Nagar infront of Jagathy School in Jagathy Kochar Road	Sewerage Division, KWA, Trivandrum	State Plan		Completed
2	TSS –Reconstruction of old dilapidated brick manholes with R C C and Raising of manhole covers in the Central R C area under Sewerage Section , Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
3	TSS - Reconstruction of old dilapidated brick man holes, Raising of man holes and Replacement of RCC Covers with CI covers at Thaliyil and Karuvalikkunnu area under Sewerage Section 2	Sewerage Division, KWA, Trivandrum	State Plan		Completed
4	TSS - Reconstruction of old dilapidated brick man holes and raising of man holes at Enchakkal Sreevaraham area under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
5	TSS - Reconstruction of old dilapidated brick man holes, Raising of man holes and Replacement of RCC Covers with CI covers at Poojappura and Arannoor area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
6	TSS –Reconstruction of old dilapidated rick manholes with R C C and Raising of manhole covers in the West R C area under Sewerage Section , Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
7	TSS - Urgent construction of compound wall and fencing at Karuvalikunnu Sub section office compound	Sewerage Division, KWA, Trivandrum	State Plan		Completed
8	Renovation of Puthenkotta Sub Section Office and construction of compound wall, reconstruction of damaged compound walls with barbed wire fencing protection at Kuriathy pumphouse premises and Arannoor pumphouse under Sewerage Section II,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed

9	TSS -Zone II - Laying 600mm dia RCC NP3 pipe sewer main towards Edapazhanji Chithra nagar (IV th reach) Chainage 2738 m to 2908 m for land acquisition cost	Sewerage Division, KWA, Trivandrum	State Plan		Completed
10	TSS - D Block - Zone II - Supplying Conveying and Laying 700mm dia RCC NP3 pipe sewer trunk main II from Murinjapalam to Kannamoola - Ch 0 to 342m	Sewerage Division, KWA, Trivandrum	State Plan		Ongoing
11	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers at Thampanoor and Manjalikulam area under sewerage section No.2,Kuriath.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
12	TSS - Reconstruction of old dilapidated brick man holes and raising of man holes at Fort - Chala area under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
13	TSS - Reconstruction of old dilapidated brick man holes and raising of man holes at Palkulangara - Pettah area under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
14	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers in the Right RC Area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
15	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers in the Left RC Area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
16	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers at Thaliyal and Karuvalikunnu area under sewerage section No.2,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed

17	TSS - D Block - Zone II - Supplying Conveying and Laying 700 mm dia RCC NP3 pipe sewer Trunk main II from Murinjapalam towards Kannammoola Ch. 342 M to 952 M - land acquisition cost	Sewerage Division, KWA, Trivandrum	State Plan		Ongoing
18	TSS - Rehabilitation and up gradation of sewer lines and construction of man holes at , Kunnumpuram - Dhanya Ramya theatre road opposite Ayurveda college Pay wards	Sewerage Division, KWA, Trivandrum	State Plan		Completed
19	TSS - Rehabilitation of Sewer network at Chayakudi Lane and its cross roads	Sewerage Division, KWA, Trivandrum	State Plan		Completed
20	TSS - Increasing capacity of sewer lines and constructing RCC man holes at Sreenagar Manacaud	Sewerage Division, KWA, Trivandrum	State Plan		Completed
21	TSS - Urgent rectification of Sewerage Network to replacement of damaged 225mm SW pipes with 250mm SW pipe and Construction of new manholes at Bhagat Singh road and Pettah - Kannammoola Poad, Pettah, Trivandrum	Sewerage Division, KWA, Trivandrum	State Plan		Completed
22	TSS -Providing and laying 150mm SW branch sewer line (six branches) in Chenneseri lane in Maruthamkuzhi residents Association	Sewerage Division, KWA, Trivandrum	State Plan		Completed
23	TSS - Increasing capacity of 150mm SW pipe to 200 mm SW pipe and constructing RCC manholes at Koopakkaramadom	Sewerage Division, KWA, Trivandrum	State Plan		Completed
24	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers in the West RC Area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
25	TSS - Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers in the Central RC Area	Sewerage Division, KWA, Trivandrum	State Plan		Completed

26	TSS -Pettah Flyover Service line from Thoppil lane junction to Railway line on Anayara byeroad	Sewerage Division, KWA, Trivandrum	State Plan		Completed
27	TSS -Providing and laying 300mm dia sewer main from Edapazinji towards Palottukonam lane for interconnecting the existing 300 mm lane already laid in Palottukonam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
28	TSS -Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers at Poojapura and Arannoor area under sewerage section No.2,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
29	TSS - Providing and laying 200mm SW sewer line in Kedaram line near Murinjaplam from KRA 161 to 167 in Pattom ward	Sewerage Division, KWA, Trivandrum	State Plan		Completed
30	TSS - Providing and laying 200mm SW sewer line from House No. 204 to 231 at CSM Nagar	Sewerage Division, KWA, Trivandrum	State Plan		Completed
31	TSS - E Block Zone 2nd reach and Balance of 3rd zone- Providing Land acquisition charges for land already taken in advance position by KWA for laying 300mm RCC pipes in Peroorkada Mannamoola area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
32	TSS- E Block Zone II - Laying 630mm dia HDPE pipe sewer main from Edapazhanji to Chithra nagar first reach- Ch 1841 m to 2133 m	Sewerage Division, KWA, Trivandrum	State Plan		Dropped
33	TSS- Rehabilitation of sewer lines and reconstruction of damaged manholes in Thycaud Elamkam Garden lane from TENRA 144 to TENRA 199 A and from TNRA 158 to TNRA 208 under Sewerage Section II,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed

34	TSS- Rehabilitation of existing sewer lines and extension of sewer networks at Podiyadi,Pandarakulam in Thaliyil TRWA/STRA area,Nedumcadu ward of Thiruvananthapuram Corporation under Sewerage Section II,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
35	TSS-Replacing of old and damaged 150 mm SW sewer line with 200 mm SW sewer line from Maruthankuzhy Ganapathy temple Jn through side of Kochar Road to Triveni Lane and replacing of old and damaged 150 mm SW sewer line with 250 mm sewer line at Panickers lane F lane	Sewerage Division, KWA, Trivandrum	State Plan		Completed
36	TSS- Providing sewer lines at Kadappathala lane in Oolampara Sasthamangalam Pippinmoodu Road	Sewerage Division, KWA, Trivandrum	State Plan		Completed
37	TSS-Increasing the capacity of 100mm dia SW pipe to 150mm and 200mm dia and construction of man holes at B and D block Flats of Karimadam Colony, Attakulangara.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
38	TSS-Supply, installation, testing & commissioning of one number additional 250 KVA DG set incomer feeder of 400 A rating in the existing main panel installed at Sewage pump house, Kuriathy, Thiruvananthapuram	Sewerage Division, KWA, Trivandrum	State Plan		Completed
39	TSS - Supply, installation, testing and commissioning of 250 KVAR Automatic Power Factor Correction (APFC) Panel and HT metering cubicle including replacement of Current transformer at Sewage pump house, Kuriathy.	Sewerage Division, KWA, Trivandrum	State Plan		Completed

40	TSS – Temporary rerouting of the 450 mm CI sewerage pumping main from Pattoor pump house- Laying 500 mm DI dia pumping main from Pattoor pumphouse to V. V. Nagar to replace the bursted pumping main at Pattoor	Sewerage Division, KWA, Trivandrum	State Plan		Completed
41	TSS - Interconnection work with 200 mm SW pipe line from the existing sewer line in front of Thampanoor Police Station to Aristo Junction	Sewerage Division, KWA, Trivandrum	State Plan		Completed
42	TSS-Providing and laying 200mm SW sewer line from RP lane towards Kuravankonam main line under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
43	TSS-Increasing capacity of 150 mm SW pipe to 200 mm SW pipe and constructing RCC manholes at Manacaud Valiyapalli,Thampuran Nagar, Avittom Thirunaal Welfare Association, CRW-77 to 82 and KRWA-144 to 155 under Sewerage Section 1 , Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
44	TSS-Providing sewage facility/rehabilitation of damaged line in six branch lanes at Athani,Vanchiyoor	Sewerage Division, KWA, Trivandrum	State Plan		Completed
45	TSS - Providing and laying 200 mm SW sewer line from DBRA 93 at Devaswom Board Jn.Nanthancode by replacing old damaged 150mm sewer line under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
46	TSS-Providing and laying 200mm SW sewer line at Regent Court lane,Kuravankonam under Sewerage Section, Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
47	TSS -Providing and laying 250 mm SW sewer line interconnecting from Sreerangam lane towards CSM Nagar under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed

48	TSS-Replacing of old and damaged 150 mm SW sewer line with 300 mm SW sewer line,near Sreekrishna Swami Temple, Ambalamukku from East Nada to Murali lane, under sewerage section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
49	TSS-Providing and laying 200 mm SW sewer line from House No.VRA-14 to VRA-37 in Madancovil lane Vellayambalam under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
50	TSS-Providing and laying 200 mm SW sewer line at Puthupalli lane from House No.PRA-68 at Chalakuzhy-under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
51	TSS-Providing and laying 200 mm SW sewer line from House No.63 to 70 at CSM Nagar- under Sewerage Section,Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
52	TSS- Replacing of old and damaged 100mm SW sewer line with 200 mm SW sewer line at Pullaikonam Lane,Sasthamangalam under Sewerage Section,Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
53	TSS-Replacing of old damaged 150 mm, SW sewer line with 250 mm SW sewer line at Panicker's Lane C-Lane under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
54	TSS-Providing and laying 200mm dia SW sewer branch line at Pallivila Lane and branches of Mythiri Lane in Kuravankonam-Ambalamukku Road	Sewerage Division, KWA, Trivandrum	State Plan		Ongoing
55	TSS-Standardization of electrical installation of 315 KVA substation at Kannammoola pump house	Sewerage Division, KWA, Trivandrum	State Plan		Completed
56	TSS -Providing and laying 200 mm SW sewer line at Thamarabhagam near pond , Kumarapuram under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed

57	TSS- Providing and laying 200 mm SW Sewer line and reconstructing damaged junction pits at Madancovil Lane to RNP Lane at the side of drain under Sewerage Section, Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan		Completed
58	TSS- Providing and laying 300 mm and 250 mm SW sewer line at Koonamkulam Lane from pond to Paloor Lane by replacing old damaged undersized pipes under Sewerage Section, Sasthamangalam (Reach I)	Sewerage Division, KWA, Trivandrum	State Plan		Completed
59	TSS- Providing and laying 250 mm SW sewer line at Koonamkulam Lane from pond to Paloor Lane by replacing old damaged under sized pipes under Sewerage Section, Sasthamangalam (Reach II)	Sewerage Division, KWA, Trivandrum	State Plan		Completed
60	TSS- Providing and laying 200 mm SW sewer line at Koonamkulam lane from KPRA-A-56(8) and Pottakuzhi Jeevan Nagar-Karimbichivilla under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
61	TSS-Maintenance of septage receiving station at 107 MLD STP at Muttathara-Supply, erection and trial running of non clog sewage submersible pumpset for Dilution tank	Sewerage Division, KWA, Trivandrum	State Plan		Dropped
62	TSS-Providing sewer line towards House no. RNRA 21 to 25 C,D,E Lane and RNRA E7 of Resmi Lane Muttada	Sewerage Division, KWA, Trivandrum	State Plan		Completed
64	TSS-E-block Zone II-Laying 600 mm RCC NP3 pipe sewer main towards Edappazhinji Chitra Nagar (IVth reach) Chainage 2738m to 2908 m in connection with the commissioning of Jagathy-Kootamvila scheme- Land acquisition charges -Balance amount	Sewerage Division, KWA, Trivandrum	State Plan		Completed

STATE PLAN 2022-23

Sl No.	Name of Work	Implementing office	Source of fund	Time line	Status
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1	TSS-Reconstruction of old dilapidated brick manholes and raising of manholes at Enchakkal -Sreevaraham area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
2	TSS-Reconstruction of old dilapidated brick manholes and raising of manholes at Pettah Palkulangara area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
3	TSS-Mace-Urgent re-laying of 400 mm dia RCC sewer main and allied works at Azhikotta Jn under Sewerage Section No-1, Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Work short closed as per SE's direction.
4	TSS- Replacing of old and damaged 100 mm SW sewer line with 200 mm SW sewer line at Bains Compound and Cliff house area in Nanthancode ward under sewerage section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Dropped
5	TSS-Providing and laying 200mm SW Sewer line at Forest office C- lane by replacing and diverting old damaged 150mm SW pipe, under Sewerage Section,Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
6	TSS- Replacing of old and damaged 225 mm SW sewer line with 300 mm SW sewer line, Mangalam Lane 3 in Sasthamangalam Ward, under Sewerage Section,Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
1	TSS Replacing of old and damaged 150 mm SW sewer line with 300 mm SW sewer line, MP Appan road, Vazhuthacaud under Sewerage Section,Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
2	TSS -Replacing of old and damaged 100 mm SW sewer line with 200 mm SW sewer line from in front of Pittappilli Agency Vellayambalam Jn. Gardens. Towards Elangam Gardens	Sewerage Division, KWA, Trivandrum	State Plan		Completed

3	TSS- Providing and laying 200mm SW sewer line at D-Lane (SEKT D1 to D6) and L-Lane (L1 to L6) in Kurups Lane and Sreerangam Lane House no. A-40 to 50 in 6 Sasthamangalam ward and Jagathy near UP School, House no SKNRA 129 to 134(A) in Jagathy ward,	Sewerage Division, KWA, Trivandrum	State Plan		Completed
4	TSS-Rehabilitation of damaged sewer lines and reconstruction of dilapidated brick man holes at various places in Pettah area	Sewerage Division, KWA, Trivandrum	State Plan		Completed
5	TSS-Laying new sewerage line/discarding the old one with 250 mm SW pipe from PF Office to Pattom junction (near IOC Pump) under Sewerage Section No-II , Kuryathi	Sewerage Division, KWA, Trivandrum	State Plan		Completed
6	TSS-Upgradation of existing sewer line 150mm SW pipes to 250mm SW pipe and construction of new manholes from Therakom Junction to Puthenkotta under Sewerage	Sewerage Division, KWA, Trivandrum	State Plan		Waiting for PWD Cutting sanction, Restoration amount remitted
7	TSS-Mace -Laying new 200mm sewer line from Attinkuzhi (Vattavila lane) Puthenkotta under sewerage section -II - Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
8	State Plan 2022-23-TSS- Construction of new parking shed for the newly purchased Department Vehicles (Sucking,jetting,desilting vehicles) at Kuriathy Sewerage South Sub Division premise	Sewerage Division, KWA, Trivandrum	State Plan		Completed
9	State Plan 2022-2023-TSS-E Block Zone II Laying 630 mm dia HDPE pipe sewer main from Edappazhanji to Chithra Nagar Ist Reach-CH.1841m to 2133 m-Additional Administrative Sanction for Rs. 50.10 lakhs (164.9+50.10) + Part 1	Sewerage Division, KWA, Trivandrum	State Plan		Well steining concrete in respect of 3 manholes and its scooping works were completed.
10	Part b - Gap	Sewerage Division, KWA, Trivandrum	State Plan		

11	State Plan 2022-23- TSS- Increasing the capacity of 150 mm dia SW pipe to 200 mm SW pipe and constructing RCC manholes at Uppalam Road residence association URR 11 A to URR 23 A under the area of Sewerage Section I,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
12	State Plan 2022-23- TSSReconstruction of old dilapidated brick manholes and raising of manholes in Thaliyal & Karuvalikunnu areas	Sewerage Division, KWA, Trivandrum	State Plan		Completed
13	State Plan 2022-23-TSS Reconstruction of old dilapidated brick manholes with RCC and raising of manhole covers in the Central and Right RC area under Sewerage Section, Sassthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
14	State Plan 2022-23-TSS Reconstruction of old dilapidated brick manholes with RCC and raising of manhole covers in the Left and West RC area under Sewerage Section, Sassthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
15	State Plan 2022-23- TSS Mace-Supply,erecting and commissioning of 200 HP slow speed non clog flood proof submersible pump set and allied works at Kuriathy pump house	Sewerage Division, KWA, Trivandrum	State Plan		Pump installation completed and commissioned.
16	State Plan 2022-23- TSS- Zone II -Laying 600 mm dia RCC NP3 pipe sewer main towards Edapazhinji Chitra Nagar (IV th Reach) Ch 2738 to 2908 m in connection with the commissioning of Jagathy Kootamvila Scheme	Sewerage Division, KWA, Trivandrum	State Plan		Out of 167.50m of 600 mm RCC NP3 pipe, 145m laid and 11 MH completed. Sanction was accorded by Irrigation Department to lay DI pipe across the box culvert. Box Culvert work completed. (99% completed)
17	State Plan 2022-23-TSS- Renovation of open drain from Kuriathy Pump house premise to public drain,	Sewerage Division, KWA, Trivandrum	State Plan		Completed

18	"Trivandrum Sewerage Scheme"-Providing and Laying Pipe from common manhole of sewer line at Ayyankali road to Nellikuzhy	Sewerage Division, KWA, Trivandrum	State Plan		
19	State Plan 2022-23- Reconstruction of old dilapidated brick man holes,raising of man holes and replacement of RCC Covers with CI covers at Thampanoor and Manjalikkulam area	Sewerage Division, KWA, Trivandrum	State Plan		completed
20	TSS-Rehabilitation of sewer line in Kanthalloor Mahadeva Temple lane in Valiyasala ward under Sewerage Section no.II,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Completed
21	` TSS-E Block Zone II Laying 700mm dia RCC NP3 pipe sewer main from Jagathy towards common man hole (Ch.512 m to 785 m) & inter connection of 700mm dia DI pipe between Jagathy Chadiyara sewer main and parallel main across Killi river and constructing 450mm dia bored cast in situ piles inside of river and connected works(Ch 649 m to 679 m)- Additional Administrative Sanction	Sewerage Division, KWA, Trivandrum	State Plan		27 No of 700 mm RCC pipe laid . MH 1 to MH 6 completed. MH 7 and pipe laying in progress .
22	State Plan 2022-23 - TSS-Urgent rehabilitation of sewerage network by replacement of damaged 150 mm SW pipes with 300 mm SW pipe and construction of new manholes from Decent Mukku Jn to Pumphouse Road	Sewerage Division, KWA, Trivandrum	State Plan		
23	State Plan 2022-23 - TSS-Reconstruction of old dilapidated brick manholes, raising of manholes and replacement of RCC covers with CI covers at Thycaud and Poojappura RC areas	Sewerage Division, KWA, Trivandrum	State Plan		Completed
24	State Plan 2022-23 - TSS-Replacing of old and damaged 100mm SW sewer line with 200 mm SW sewer line at Pullaikonam lane Sasthamangalam-Additional AS	Sewerage Division, KWA, Trivandrum	State Plan		Completed

25	State Plan 2022-23 -TSS- Providing and laying 200 mm SW sewer line from house No 63 to 70 at CSM Nagar under Sewerage Section,Sasthamangalam- Additional AS	Sewerage Division, KWA, Trivandrum	State Plan		Completed
26	State Plan 2022-23-TSS- Replacing of old and damaged 150 mm SW sewer line with 200 mm SW sewer line from house no J47 to J16 at Janvilla Lane, Sasthamangalam ward under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
27	State Plan 2022-23 - TSS- Replacing of old and damaged 225 mm SW sewer line from Vazhuthacadu NC Hospital In to House no. MPNRA 95 at MP Appan Road, Vazhuthacadu under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Completed
28	State Plan 2022-23-Attukal Pongala 2023-TSS- Preventive maintenance - Cleaning the sewer main and branch line using bucket type sewer cleaning machine under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Work arranged in connection with Attukal Pongala and is completd
29	State Plan 2022-23-Attukal Pongala 2023-TSS-Preventive maintenance - Raising of manhole covers and supplying and fixing CI MH cover at Palkulangara, Pettah and Enchakkal under Sewerage Section I,Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Work arranged in connection with Attukal Pongala and is completd
30	State Plan 2022-23-Attukal Pongala 2023-TSS-Preventive maintenance - Raising of man hole covers and supplying and fixing CI MH cover at Thampanoor and Manjalikulam RC areas under Sewerage Section No.II - Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Work arranged in connection with Attukal Pongala and is completd

31	State Plan 2022-23-TSS- Bucket cleaning - Cleaning the sewer line in Thampanoor - Mosque lane - Chempaka Nagar stretch under Sewerage Section No. II Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		Work arranged in connection with Attukal Ponkala and is completd
32	State Plan 2022-23-TSS- Urgent replacement of 12.5m of 500mm dia MS pumping main from Kannamoola to Perunelli stilling chamber near Kannammoola pumphouse(near car workshop	Sewerage Division, KWA, Trivandrum	State Plan		No response in tender calls, to be re- tendered

STATE PLAN 2023-24

SI No.	Name of Work	Implementing office	Source of fund	Time line	Status
1	State Plan 2023-24- TSS- Increasing the capacity of sewage pipe line and reconstructing RCC manholes from Puttukada-Thattukada junction to BSNL Exchange office, Kaithamukku jn. at Fort Ward	Sewerage Division, KWA, Trivandrum	State Plan	30-04-2025	Work ongoing
2	State Plan 2023-24- TSS- Reconstruction of old dilapidated brick manholes and construction of new manholes in various places at Fort, Chalai area	Sewerage Division, KWA, Trivandrum	State Plan	31-01-2025	Work ongoing
3	State Plan 2023-24- TSS – Reconstruction of old dilapidated brick manholes and construction of new manholes in various places at Enchakkal, Sreevaraham area	Sewerage Division, KWA, Trivandrum	State Plan	completed	Work ongoing
4	State Plan 2023-24- TSS- Reconstruction of damaged man holes and rehabilitation of sewer line at Fort hospital Junction to Fort Bakery Junction , Sreekanteswaram .	Sewerage Division, KWA, Trivandrum	State Plan	30-05-2025	Work ongoing
5	State Plan 2023-24- TSS- Increasing the capacity of sewage pipe line and reconstructing RCC manholes in PRRAP 40 to 49 in ARRA 89 to 129 and VJRA 19 to 25 in Vanchiyoor ward .	Sewerage Division, KWA, Trivandrum	State Plan	30-08-2025	Tender evaluation

6	State Plan 2023-24-TSS - Rehabilitation of damaged sewer lines and reconstruction of dilapidated brick manholes in Nandini Gardens, Kothalam .	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
7	State Plan 2023-24-TSS- Increasing the capacity of sewage pipe line and reconstructing RCC manholes in back side of Kottuval Street, Sabhavathy road near Gandhi hotel,Karikkada lane,Pattuvilakam street and Kamukuvilakam street at Chalai Ward	Sewerage Division, KWA, Trivandrum	State Plan	31-08-2024	Retendered
8	State Plan 2023-24- TSS- Providing and laying of 200 mm dia SW sewer branch line in the end of Vyasa Nagar near Turfsy sports hub to house No 73(AC) in Paruthipara .	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
9	State Plan 2023-24- TSS- Supplying and laying of 250 mm dia SW sewer line from Anaswara lane to existing MH to Njaramoodu .	Sewerage Division, KWA, Trivandrum	State Plan	30.04.2025	Work ongoing
10	State Plan 2023-24- TSS- Laying of 160 mm PVC sewer line near Poonthura Vilakom Lane in Maruthamkuzhy Residence Assosiation .	Sewerage Division, KWA, Trivandrum	State Plan	30.04.2024	Work ongoing
11	State Plan 2023-24- TSS- Laying 200 mm dia SW pipe sewer branch line from existing MH to the residential area near Pangode military camp	Sewerage Division, KWA, Trivandrum	State Plan	30.06.2025	Work ongoing
12	State Plan 2023-24- TSS- Laying 150 mm dia SW pipe sewer branch line towards Padayani Gardens Association	Sewerage Division, KWA, Trivandrum	State Plan	30.05.2025	Work ongoing
13	State Plan 2023-24-TSS- Replacing old and damaged 150mm & 100mm SW sewer line from House no. A61 to Shanthigiri hospital at Sasthamangalam ward	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed

14	State Plan 2023-24-TSS- Replacing of old and damaged 100&150mm SW line with 200mm SW sewer line from Vazhuthacadu Mohanan road towards CSM Nagar Vazhuthacadu ward	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Work ongoing
15	State Plan 2023-24-TSS- Reconstruction of old dilapidate brick manhole with RCC and raising o f manhole covers in LEFT and WEST R C area under Sewerage Section ,Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan	30.04.2025	Work ongoing
16	State Plan 2023 - 24 - TSS - Providing and laying 200 mm SW sewer line at Subramoniam lane near Edapazhinji	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Agreement Executed
17	State Plan 2023-24-TSS- Replacing of old and damaged 100 mm sewer line .with 200 SW sewer line in Kowdiar SS Kovil F lane	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed
18	State Plan 2023-24-TSS- Providing and laying250mm SW sewer line from Paloor lane House no.KPRA A55(2) to Koonamkulam pond near transformer	Sewerage Division, KWA, Trivandrum	State Plan	30.06.2025	Work ongoing
19	State Plan 2023-24-TSS- Replacing of old and damaged 150&200 mm SW sewer line with 300mm SW sewer line from Artech Rama Appartment through Panicker's lane F lane	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed
20	State Plan 2023-24-TSS- Providing CI manhole cover , raising of cover slab in road level and levelling the undulated portion of Kedaram lane and branch road of Pattom ward	Sewerage Division, KWA, Trivandrum	State Plan	30.06.2025	Agreement Executed
21	State Plan 2023-24-TSS- Replacing of old and damaged 100 &150 mm SW sewer line with 200 SW sewer line in Kanaka Nager Residence area	Sewerage Division, KWA, Trivandrum	State Plan	31.06.2025	Work ongoing

22	State Plan - 2023-24-TSS- Reconstruction of old dilapidated brick manholes with RCC and raising of manhole cover in the central and right RC area under Sewerage Section,Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed
23	State Plan - 2023-24-TSS- Reconstruction of old dilapidated brick manholes and construction of New manholes in various places at Palkulangara, Pettah ward, manhole cover sewerage section -I	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed
24	State plan 2023 - 24 - TSS - Reconstruction of old dilapidated brick man holes , construction of new man holes, raising of man holes & supplying CI MH covers in Pettah,Kannanmmoola & Kunnukuzhy, Pattom wards	Sewerage Division, KWA, Trivandrum	State Plan	30-06-2025	Work ongoing
25	State Plan 2023 - 24 - TSS - Reconstruction of old dilapidated brick man holes, raising of man holes & supplying CI MH covers in Valiyasala, Nedumcadu Chalai Kuriyathy,Attukal wards,	Sewerage Division, KWA, Trivandrum	State Plan	15-02-2025	Work ongoing
26	State Plan 2023 - 24 - TSS - Reconstruction of old dilapidated brick man holes construction of new man holes, raising of man holes & supplying CI MH covers in Arannoor ,Jagathy, Karamana, Poojappura, mudvanmugal, Kalady wards	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
27	State Plan 2023 - 24 - TSS - Rehabilitation of sewer lines construction of new man holes, Reconstruction of old dilapidated man holess, raising of man holes & supplying CI covers IN Thampannoor , Vanchiyoor, Palayam, vazhuthacadu and Thycadu wards	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Retendered

28	State Plan 2023 - 24 Supply and Laying 200mm SW pipe near to Chilanthivala pond,Elamkom and replacing the existing sewer line from Chilathivala pond towards Elamkom road	Sewerage Division, KWA, Trivandrum	State Plan	28-02-2025	Work ongoing
29	State Plan 2023 - 24 -TSS- Providing and laying 200mm SW sewer lines in Manjadimoodu Residence Association and PRA Lane No.1 in Padayani lane in Maruthumkuzhy.	Sewerage Division, KWA, Trivandrum	State Plan	30.06.2025	Agreement Executed
30	State Plan 2023 - 24- TSS- Providing and Laying 150mm SW Sewer line towards Green Valley Residents associaton (GVRA) in Muttada- Sewerage Work	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
31	State Plan 2023 - 24 -TSS- Providing 200mm SW sewer line in branches in Maruthumkuzhy area near Udiyanoor Temple (Kshethara kadavu lane, Udiyanoor lane, Sivashankara Lane & Thamburan Lane)	Sewerage Division, KWA, Trivandrum	State Plan	30.05.2025	Work ongoing
32	State Plan 2023 - 24-TSS- Providing and laying 200mm SW pipe sewer lines in 2 branches along Bains compound- near Nanthancode junction- Sewerage Work	Sewerage Division, KWA, Trivandrum	State Plan	31.01.2025	Completed
33	State Plan 2023-24- TSS- Urgent relaying of damaged gravity main at Sreevaraham junction	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2025	Tendered
34	State Plan 2023-24 -TSS - Increasing the capacity of sewage pipe line and reconstructing RCC manholes in Chembakassery, Eenchakkal Vallakkadavu road & Plancheri Lane at Perunthanni Ward	Sewerage Division, KWA, Trivandrum	State Plan	28-02-2025	Work ongoing

35	State Plan 2023-24-TSS- Increasing capacity of SW pipe from Garudan Junction to Market Junction in Sreevaraham Ward including Payikkattu lane, Panamoodu lane, Ullattu lane. Adikkathara lane (SKRA-1 to 107) & Kilikkodu Lane	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2025	Work ongoing
36	State Plan 2023-24-TSS - Rehabilitation of damaged sewer line and reconstruction of old dilapidated brick manholes in Fort & Enchakkal area	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
37	State Plan 2023-24-TSS Plan 30- 2023 - 24 - TSS - Rehabilitation of existing damaged 100 mm CI pipe with 160 mm 10 kg/cm ² PVC pipe. construction of new manholes at Thaliyal Residential Association from TRWA-413 to TRWA-419 & supply and laying 250 mm SW pipe in Harisree Residential Association (HSRA-D-47 to KSRA-D-43) & TR WA.- 200- TRWA-235 at Kalady	Sewerage Division, KWA, Trivandrum	State Plan	30-06-2025	Work ongoing
38	State Plan 2023-24-TSS - Rehabilitation of existing damaged 100mm pvc pipe to 200mm SW pipe at Nandavanam in Valiasala ward from electric post no T/MK/15 to TC/23/90,91, electric post no T/MK/12 to electric post no T/MK/9, and electric post no T/MK/8 to electric post no T/MK/6	Sewerage Division, KWA, Trivandrum	State Plan	30-04-2025	Agreement Executed
39	State Plan 2023-24-TSS- Rehabilitation of sewer main from Sivanagar to Pump house road across Killipalam Attakulangara Bypass	Sewerage Division, KWA, Trivandrum	State Plan	Dropped	Dropped

40	State Plan -2023-2024 - Rehabilitation of existing 150mm SW pipe with 250mm SW dia from opposite lane to Maruti service center to house No. GNRA -193-A and construction of man holes at Pulichivila lane - CIT road at Arannoor ward	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Retendered
41	State Plan 2023-24-TSS Laying and rehabilitation of sewerage system at Karamana MA Khadar road, Karamana Masjid lane, by lane near Mosque, & Karamana Sreedevi nagar	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2026	Retendered
42	State Plan-2023-24-TSS- Providing and laying 200 mm dia SW sewer branches (15 Nos) from Edapazhanji Chithra Nagar junction to Njaramoodu Junction .	Sewerage Division, KWA, Trivandrum	State Plan	30.09.2025	Work ongoing
43	State Plan-2023-24-TSS- Mace-Pilot project-GIS mapping of manholes in the maintenance area under Sewerage Division Pattoor.	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
44	State Plan-2023-24-TSS- Providing 200m Dia Sewer main from Edapazhinji Jn towards CSM Nagar	Sewerage Division, KWA, Trivandrum	State Plan	30.11.2025	Retendered
45	Replacing worn out impeller set of 190 HP Xylem pumpset at Kuriathy New Pump House- TSS- Replacing worn out impeller set of 190 HP Xylem pumpset at Kuriathy New Pump House	Sewerage Division, KWA, Trivandrum	State Plan		Terminated
46	200 HP slow speed non clog flood proof submersible pump set and allied works at Kuriathy Pump House	Sewerage Division, KWA, Trivandrum	State Plan	completed	Completed
47	Kadapathala Oolampara Retarring	Sewerage Division, KWA, Trivandrum	State Plan	Completed	Completed
48	State Plan 2023-24 - NGT- Rectification of breakage line towards Pattoor pump house from narrow lane between Indian Veneer Company and canal (Amayizhanjan thodu) near Pattoor junction - under Sewerage Section No. II Kuriyathy.	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2026	Work ongoing

49	State Plan 2023-24 - TSS-supply erection trial run and commissioning of dry well submersible stand by pump set at Murinjapalam pump house	Sewerage Division, KWA, Trivandrum	State Plan	15.07.2025	to be retendered
50	State Plan 2023-24 - TSS-supply erection trial run and commissioning of wet well submersible stand by pump set at Kannammoola	Sewerage Division, KWA, Trivandrum	State Plan	15.06.2025	Work ongoing
51	State Plan 2023-24 - TSS-supply erection trial run and commissioning of non clog wet well installed flood proof submersible pump set suitable for pumping raw sewage at Pattoor pump house	Sewerage Division, KWA, Trivandrum	State Plan	15.06.2025	Work ongoing
52	State Plan 2023-24 - TSS-supply erection trial run and commissioning of non clog dry installed flood proof submersible pump set suitable for pumping raw sewage at Plamoodu pump house	Sewerage Division, KWA, Trivandrum	State Plan	30.07.2025	Retendered

STATE PLAN 2024-25

SI No.	Name of Work	Implementing office	Source of fund	Time line	Status
1	Rehabilitation & upgradation of sewer lines and manholes in Sree Ganga nagar Welfare Residents Association in Kuryathi ward	Sewerage Division, KWA, Trivandrum	State Plan	31.12.2025	Work ongoing
2	Laying new sewer line in Munnazhithalakkal from TC.No. 20/222(1) to TC No. 20/296	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
3	Rehabitation of existing sewer main from electric post number PJ/PJ 50/9/3 to Jagathy post office	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work Awarded
4	Rehabilitation of existing sewer main from Sivalayam road in front of CITU labour weighting shed to PJ/PJP/116 near Kannettumukku	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
5	Rehabilitation & replacement of damaged sewer line and construction new man holes at Mannadi Bhagavathi Temple from JNRA-B-40 to JNRA-C-32 at Nedumcaud ward	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	TS Estimate Pending

6	State Plan-2024 - 2025 - zone 1- Reconstruction of old dilapidated brick man holes, raising of man hole covers under - Sewerage section no: II Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2026	Completed
7	State Plan-2024-2025 - Laying sewerage line at VYASA nagar, Valiyasalai	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
8	Supplying erecting and commissioning of 01 No 30HP wet well type submersible pumpset at Enchakkal pump house	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
9	TSS - Increasing the capacity of Sewage pipe line and reconstructing RCC manholes in chempakassery transformer lane and keezhe veedu colony in Perunthanni Ward	Sewerage Division, KWA, Trivandrum	State Plan	30-08-2025	Completed
10	TSS Mace - Rehabilitation of damaged sewer lines and reconstruction of manholes in S N Nagar in Pettah Ward	Sewerage Division, KWA, Trivandrum	State Plan	31-10-2025	Work ongoing
11	TSS - Reconstruction of damaged manholes under Kuriathy Section no. 1 (2 works)	Sewerage Division, KWA, Trivandrum	State Plan	31-03-2026	Work ongoing
12	TSS - Relaying of damaged sewer line and reconstruction of old dilapidated manholes in MGRA 68-70, MGRA 58 to KNRA 42, APRA 1E (near kulathinkara, palkulangara devi temple) in Palkulangara ward & MRA 102 at kaithamukku	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
13	TSS Relaying of damaged sewer line and reconstruction of old dilapidated manholes in Statue - GPO road and Mamballi lane	Sewerage Division, KWA, Trivandrum	State Plan	31-12-2025	Work ongoing
14	TSS- Supply and laying alternate 900mm DI pumping main from sewerage pump house at kuriathy upto bypass at kallumood	Sewerage Division, KWA, Trivandrum	State Plan		
15	State Plan 2024-2025- Replacing of old and damaged sewer line through NB Street and NSS Karayogam of Jawahar Nager in Kowdiar Ward	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Work ongoing

16	State Plan 2024-2025- Replacing of old and damaged sewer line from Ambalamukku Vrindavan Gardens to Oolampara junction for Rectify Sewerage overflow in Ambalamukku sreekrishna Temple	Sewerage Division, KWA, Trivandrum	State Plan		
17	State Plan 2024-25-Manhole construction- -Reconstruction of old dilapidated brick manholes with R C C and Raising of manhole covers in the areas under Sewerage Section , Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Work ongoing
18	Stateplan 2024-25-Althara main street--Replacing of old and damaged SW sewer line in Vellayambalam Althara nagar Althara main street towards CSM nagar and near Heera Blueberry	Sewerage Division, KWA, Trivandrum	State Plan		
19	State Plan 2024-2025 Replacing of old and damaged sewer line from Vazhuthacadu Mohanan road towards CSM nagar Balance work at Vazhuthacadu ward	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Work ongoing
20	State Plan 2024-2025- Laying of New Sewerage Line at Sasthamangalam, Kurups Lane, N Lane & Thamarakkulam Lane, Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan	31.06.2025	Work ongoing
21	State Plan-2024-25 - TSS- Replacing 500 mm CI pumping main from Kannamoola to Muttathara Sewerage Treatment Plant by HDPE 630mm dia pipe using horizontal directional drilling method	Sewerage Division, KWA, Trivandrum	State Plan		Dropped
22	State Plan-2024-25-TSS – Replacing 450 mm CI pumping main from Pattoor to Muttathara Sewerage Treatment Plant by HDPE 500mm Outer dia pipe using horizontal directional drilling method	Sewerage Division, KWA, Trivandrum	State Plan		Dropped

23	State Plan-2024-25 - providing roofing sheet for diesel generator installed at Plamoodu, Murinjapalam, Kannamoola and Pattoor pump houses, walking arrangements at bottom portion inside plamoodu pump house and replacing screening at grid chamber at Plamoodu, Murinjapalam and Pattoor pump houses	Sewerage Division, KWA, Trivandrum	State Plan	31.05.2025	Work ongoing
24	State Plan-2024-25 - TSS-Supply, erection, trial-run and commissioning of c/f stand by pump set at Kannammoola pump house	Sewerage Division, KWA, Trivandrum	State Plan	25.03.2025	Work ongoing
25	State Plan-2024-25 - TSS-Supply, erection, trial-run and commissioning of c/f stand by pump set at Plamoodu pump house	Sewerage Division, KWA, Trivandrum	State Plan	30.04.2025	Work ongoing
26	State Plan-2024-25 - TSS-Supply, erection, trial-run and commissioning of c/f stand by pump set at Murinjapalam pump house	Sewerage Division, KWA, Trivandrum	State Plan	30.08.2024	
27	State Plan-2024-25 - TSS - Raising of Manholes at Vivekananda Nagar and sastha Nagar in connection with the commissioning of Jagathy - Koottamvila Scheme and Laying 150mm dia SW sewer branch lane towards sastha Nagar SRA 144A to 144B & manhole raising at Chadiyara-	Sewerage Division, KWA, Trivandrum	State Plan		
28	State Plan-2024-25 - TSS - Supplying, erection and commissioning of electronic soft starter suitable for 70 HP sewage motor at Pattoor Pump House	Sewerage Division, KWA, Trivandrum	State Plan	25.08.2025	Tendered
29	State Plan-2024-25 - Maintenance of office building and pump house, replacing rusted, obsolete & damaged roof sheet of car shed and repairing of gate in Section Section office campus at Plamoodu and connected works.	Sewerage Division, KWA, Trivandrum	State Plan		

30	STATE PLAN 2021-22 TSS - Providing and laying 350 mm SW sewer line from House.No.U - 52 to newly laid man hole at Njaramoodu	Sewerage Division, KWA, Trivandrum	State Plan	30.08.2025	Work ongoing
31	State Plan - 2024-25 - Providing and laying 200 mm dia SW sewer line from Jagathy Bund Road towards Jagathy junction near bridge	Sewerage Division, KWA, Trivandrum	State Plan	30.10.2025	Work ongoing
32	State Plan-2024-25 - TSS - D Block Zone II - Supplying, conveying, laying and jointing 700mm dia RCC NP3 pipe sewer trunk main II from Murinjapalam - Kannamoola (Ch 849m to 1077m)	Sewerage Division, KWA, Trivandrum	State Plan	05.12.2025	Agreement Executed
33	Block Zone II -Supplying, conveying Laying and jointing 700mm dia RCC NP3 pipe sewer trunk main II from Murinjapalam - Kannamoola under Sewerage Project Section, Plamoodu (Ch.572m to 787m)	Sewerage Division, KWA, Trivandrum	State Plan	05.12.2025	Agreement Executed
34	State Plan 2024-25 - TSS - laying of sewer line from KBAC Junction-towards Lenin Nagar(Balance work) under Sewerage Project Section, Plamoodu	Sewerage Division, KWA, Trivandrum	State Plan	25.07.2025	Work ongoing
35	State Plan 2024-2025- Supplying and laying sewer lines in Velavilakom lane in Padayani- Manjadimood road	Sewerage Division, KWA, Trivandrum	State Plan	13.07.2025	Work ongoing
36	State Plan 2024-2025- Comprehensive Proposal for Infra structure Enhancement of Sewerage Treatment Plant at Muttathara	Sewerage Division, KWA, Trivandrum	State Plan		
37	State Plan - 2024 - 25 – State Plan 2024-2025- Laying 300mm dia Sewer main line and 250mm dia SW Sewer branch lines from Kannammoola Ayyankali road common manhole towards Padinjattil lane - Road restoration- Additional Work	Sewerage Division, KWA, Trivandrum	State Plan	16.02.2025	

38	State Plan - 2024 - 25 - Providing new sewer line from Chitra Nagar junction towards Vivekananda Nagar near Edappazhinji SK Hospital	Sewerage Division, KWA, Trivandrum	State Plan	30.09.2025	Work ongoing
39	State Plan-2024 - 25 - Replacing of old and damaged 150 mm SW sewer line with 200 mm SW sewer line-in Kunnukuzhi RC Street	Sewerage Division, KWA, Trivandrum	State Plan		
40	State Plan- -2024-25- Protective shelter for sewer cleaning machines and arranging control station for sewer cleaning machines and vehicles in Sasthamangalam	Sewerage Division, KWA, Trivandrum	State Plan		Work ongoing
41	State Plan--2024-25-Binoy line--Laying of new Sewerage Line at the branches in Benoy line V and line A at Marappalam-Muttada TKD road.	Sewerage Division, KWA, Trivandrum	State Plan		
42	State Plan--2024-25-Tagore Garden--Replacing of old and damaged SW lines with new higher sized sewer lines in Medical college Tagore garden towards Thamarabhagam	Sewerage Division, KWA, Trivandrum	State Plan		
43	State Plan--2024-25--- Replacing of old ,undersized and damaged SW line at CSM Nagar House no 10 to 76 in Vazhuthacadu ward -	Sewerage Division, KWA, Trivandrum	State Plan		
44	State Plan--2024-25-- Replacing of old,under sized and damaged sewer line with new s w sewerline from Ration shop Near kattachal Bhagavathy Temple Towards Bhagavathy line	Sewerage Division, KWA, Trivandrum	State Plan		
45	State Plan--2024-25-- Providing and laying S W sewer line near Sabarigiri school and Various Places in kuravankonam ward	Sewerage Division, KWA, Trivandrum	State Plan		
46	State Plan - 2024 - 25 - TSS - TSS - Construction of new well and connected work at Pattoor pump house	Sewerage Division, KWA, Trivandrum	State Plan		
47	State Plan - 2024 - 25 - TSS - TSS - Construction of new well and connected work at Kannamoola pump house	Sewerage Division, KWA, Trivandrum	State Plan		

48	State Plan – 2024 – 25 – TSS - Innovative technologies - Installation of closed-circuit television (CCTV) at different Store Yards under Sewerage Division Pattoor	Sewerage Division, KWA, Trivandrum	State Plan		
49	State Plan – 2024 – 25 – TSS - Purchase of CI Man Hole covers for maintenance work under Sewerage Division, Pattoor	Sewerage Division, KWA, Trivandrum	State Plan		
50	Replacement of 300mm pumping main from Enchakkal to Mutathara	Sewerage Division, KWA, Trivandrum	State Plan		
51	TSS -Laying 200mm Sewer line from Karavila Road to Chithra Nagar	Sewerage Division, KWA, Trivandrum	State Plan		
52	State Plan – 2024 – 25 – TSS - Purchase of CI & RCC Man Hole covers, various SW pipes and Cold bitumen premix for maintenance work under Sewerage Division, Pattoor	Sewerage Division, KWA, Trivandrum	State Plan		
53	Pumping main stilling chamber to STP	Sewerage Division, KWA, Trivandrum	State Plan		
54	State Plan - 2024 - 25 - TSS - Providing and laying new sewer line from the existing M H at Njaramoodu towards Hill top and its branch line, from Thampuramukku to Maruthankuzhy junction and a branch line starting from Edapazhinji Sastha Nagar	Sewerage Division, KWA, Trivandrum	State Plan		
55	TSS - D Block Zone II - Supplying, conveying, laying and jointing 700mm dia RCC NP3 pipe sewer trunk main II from Murinjapalam – Kannamoola (Ch. 342 m to 952 m) – Land acquisition cost - Additional AS	Sewerage Division, KWA, Trivandrum	State Plan		02.02.2025

56	State Plan-2024-25-TSS - Reconstruction of old dilapidated brick manholes and construction of new manholes in various places under Sewerage section -1.- Reconstruction of old dilapidated brick manholes and construction of new manholes in various places under Sewerage section -1- ZONE-1-Sewerage Work	Sewerage Division, KWA, Trivandrum	State Plan		Work ongoing
57	State Plan-2023 -2024 - NGT Rectification of breakage line towards Pattoor Pump House from narrow lane between Indian Veneer Company and canal(Amayizhanjan thodu) near Pattoor junction-under Sewerage section no II, Kuriathy-Sewerage Work	Sewerage Division, KWA, Trivandrum	State Plan		Work ongoing

STATE PLAN 2025-26

1	State plan - 2025-26- Manhole construction - reconstruction of all old dilapidated brick manholes with RCC and raising of manholes covers in the areas under sewerage section, Sasthamangalam.	Sewerage Division, KWA, Trivandrum	State Plan		TS Issued
2	State plan - 2025-26- Providing and laying SW Sewer line at Mannammoola, Edakulam Surya Garden area - sewerage wor	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
3	State plan - 2025-26- Tagore Garden - Replacing of old and damaged SW Lines with new higher sized sewer lines in Medical college, Tagore Garden towards Thamarabhagam.	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
4	State plan - 2025-26- Replacing of old, under sized and damaged see lines with New SW line from Ration shop near Kattachal Bhagavathy Temple towards Bhagavathy Lane	Sewerage Division, KWA, Trivandrum	State Plan		AS Received

5	State plan - 2025-26- Replacing of old, under sized and damaged sewer line with new SW Sewer line near Asif Biriyani Hotel at Kesavadasapuram - Ulloor Road.	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
6	State plan - 2025-26- Providing and laying SW sewer line near Sabarigiri School and varies places in Kuravankonam Ward.	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
7	State plan - 2025-26- TSS - Construction of New well and connected work at Pattoor Pump House	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
8	State plan - 2025-26- TSS - Construction of new well and connected work at Kannamoola Pump House.	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
9	State Plan-2025 - 26 -TSS - Construction of new well-and connected work at Plamoodu pump house-Sewerage Work- Construction of new well and allied structures-General Civil Work	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
10	State Plan-2025 - 26 - Providing and laying new sewer line from the existing M H at Njaramoodu towards Hill top and branch line starting from Edapazhinji Sastha Nagar-Extension of sewer line .-Sewerage Work	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
11	State Plan-2025 - 26 - TSS - C Block - Providing new sewer line from Kallumoodu Gardens to Pulli lane with railway crossing	Sewerage Division, KWA, Trivandrum	State Plan		AS Received
12	State Plan-2025-2026 - Rehabilitation of existing sewer main at Kalavihar lane, Kunnukuzhyunder Sewerage section no: II, Kuriathy	Sewerage Division, KWA, Trivandrum	State Plan		AS Received

13	State Plan-State Plan-2025 - 2026 - TSS- Reconstruction of old dilapidated brick man holes, construction of new sewerage man holes, raising of man hole covers & supplying CI MH covers - & Bucket Cleaning - Cleaning the sewer lines using Bucket type cleaning machine in Nandavanam near DD Office to Jagathy junction near back side of Karthika hotel under - Sewerage section no: II	Sewerage Division, KWA, Trivandrum	State Plan	AS Received
14	State Plan 2025- Laying 150mm SW line and Manholes near Vrindhavan Gardens at East fort-under sewerage section 1,Kuriyathy.	Sewerage Division, KWA, Trivandrum	State Plan	AS Received
15	State Plan 2025-26-Increasing the capacity of Sewage pipeline and reconstructing RCC manholes in various places of Padanav lane PRWA-12,Kuttikadu lane KNRA- 11,SPTRA 108,MSNRA-52,PRAW 1-4,TPSRA103-108 at Manacaud Ward &KB Pandaram lane under sewerage section 1,Kuriyathy	Sewerage Division, KWA, Trivandrum	State Plan	AS Received
16	State Plan-2025-26-Relaying old Sewer lines and re construction of Old dilapidated manholes at Chettikulangara NSS Karayogam Line. And cleaning sewer lines at Chalai, Sreevaraham and Fort areas.	Sewerage Division, KWA, Trivandrum	State Plan	AS Received

AMRUT

Sl No.	Name of Work	Implementing office	Source of fund	Time line	Status
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1	AMRUT 2.0 - T S S - Providing and laying 250 mm SW Sewer line at Kanjirampara East Residence Association (KERA), (MH 1- MH15) under Sewerage section Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
2	AMRUT 2.0 - T S S - Providing and laying 250 mm SW Sewer line at Kanjirampara East Residence Association (KERA), (MH16- MH 30) under Sewerage section Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
3	AMRUT 2.0 - T S S - Providing and laying 200 mm SW Sewer line at Harismrithy lane, Kanjirampara East Residents Association, Kanjirampara, under Sewerage section Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
4	AMRUT 2.0 - T S S - Providing and laying 200 mm SW Sewer line at Parayil lane, Kanjirampara East Residents Association, Kanjirampara, under Sewerage section Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
5	AMRUT 2.0 - T S S - Providing and laying 200 mm sw sewer line towards SOUBHAGYA NAGAR and KALATHIL LANE, Medical college ward, under Sewerage Section, Sasthamangalam	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
6	AMRUT 2.0 - T S S - Corporation of Thiruvananthapuram- Providing and laying 200mm SW Sewer line at Devi Nagar, "T" lane Edakulam, at Peroorkada ward under Sewerage section Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
7	AMRUT 2.0 - T S S - Providing and laying 200 mm SW sewer line from house MGRA 97 to 114 at Maharaja gardens, Kowdiar ward - under Sewerage Section, Sasthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed

8	AMRUT 2.0 - T S S - Providing and laying 300 & 250mm SW sewer line from Kalakoumudi road Towards Koyikkal lane in the side of pond - under Sewerage Section, Sassthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
9	AMRUT 2.0 - T S S - Providing and laying 200mm SW Sewer line at KK lane at Murinjapalam, under Sewerage Section, Sassthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
10	AMRUT 2.0 - T S S - Providing and laying 200 mm SW sewer line at Chithira lane Towards Kochar road Maruthankuzhy under sewerage section, Sassthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
11	AMRUT 2.0 - Providing and laying 200 mm SW sewer line from house no MGRA 135 towards TKD Road Marapalam under Sewerage section Sassthamangalam.	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
12	AMRUT 2.0 - Providing and laying 200 mm SW sewer line in Panchami Garden H no. PGRA 1 to PGRA 35 in Jagathy ward, under sewerage section Sassthamangalam	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
13	AMRUT 2.0 - SD - Providing and laying 300mm & 200 mm SW Sewer line at Arapura, Vattiyoorkavu, under Sewerage Section, Sassthamangalam, Reach 1	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
14	AMRUT 2.0 - Providing and laying 200 mm s w sewer line near BSNL office Chalakuzhy, Medical College and branch lane at SCT Nagar from SCTNRA-231 to PLRA-151 - under Sewerage section Sassthamangalam	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
15	SD - Providing and laying 300mm & 200 mm S W Sewer line at Arapura, Vattiyoorkavu, under Sewerage Section, Sassthamangalam, Reach 2	Sewerage Division, KWA, Trivandrum	AMRUT		Completed

16	AMRUT 2.0 - TSS- 2022-23- Laying 150 mm dia SW sewer line towards Padayani Garden Assosiation lane 17 (PRA 153 to PRA 158) & Lane 06 (PRA 29 to PRA 32) and laying PVC sewer line towards Punartham Garden Lane 11 (87 to 96) & Lane 8 Bin Padayani road in Maruthamkuzhy	Sewerage Division, KWA, Trivandrum	AMRUT		Completed
17	Upgradation of sewer line from Decent Mukku jn to Pumphouse road	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
18	Upgradation of sewer lines from Mudavanmughal jn (near RC Church) to Decent Mukku jn	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
19	Upgradation of existing sewer line from Kunnunbanglow to Mudavanmughal jn(near RC Church)	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter
20	Rehabilitation and upgradation of sewerage main from NC Hospital junction to Kannettumuuku junction	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
21	Reconstruction of old dilapidated brick man holes, construction of new sewerage man holes, raising of man hole covers & supplying CI MH covers in Pottakuzhy - Mulavana road stretch	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
22	AMRUT 2.0-Supply, Erecting and Commissioning of various pump sets, other necessary Equipments for 107 MLD Sewerage Treatment Plant at Muttathara	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter
23	AMRUT 2.0--Reconstruction of old dilapidated brick and RCC manholes with RCC and raising man hole covers in to road level and replacing RCC cover slab in to CI cover under Sansthamangalam Section	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing

24	AMRUT 2.0 - Raising of manhole at Vivekanda Nagar, Sastha Nagar, Chadiyara Poojappura area in connection with commissioning of Jagathy Koottamvila scheme and laying new sewer branch line towards Sastha nagar SRA 144A to 144B.	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter
25	AMRUT2 -Replacing and upgrading of old and damaged sewer line at Jagathy CS road	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
26	~~AMRUT 2.0 - Replacing and upgrading of old and damaged sewer line through NB Street and NSS Karayogam of Jawahar Nagar in Kowdiar ward~~	Sewerage Division, KWA, Trivandrum	AMRUT		Dropped
27	AMRUT 2.0 - Replacing of Old and damaged sewer line in Kunnukuzhi R C Street	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter
28	AMRUT 2.0 -Providing new sewer line in Mele veedu Madan kovil & Kukiliar lane fom house no. KLRA 80 to KLRA 125 in Jagathy ward	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
29	AMRUT 2.0--Providing new Sewer line in Idavakkadu line at Vikramapuram Hill and Kalathilpuzha line in Kanjirampara	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
30	AMRUT 2.0 -Replacing old and damaged sewer line at Althara main street and street in front of Heera Blue Berry	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
31	AMRUT 2.0 -Providing new sewer line near Udarasiromani Jhanardhanan Pillai road in Vazhuthacadu ward	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
32	AMRUT 2.0 - Providing new sewer line at Housing Board colony in Kuravankonam.	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter
33	AMRUT 2.0 -Providing new sewer line at Vinayaka nagar towards Arappura area	Sewerage Division, KWA, Trivandrum	AMRUT		Nonstarter

34	Amrut 2.0 Providing new sewer line and replacing and upgrading of old and damaged sewer line from Ambalamukku Vrindavan Gardens to Oolampara junction for rectifying Sewerage overflow in Ambalamukku Sreekrishna	Sewerage Division, KWA, Trivandrum	AMRUT		Ongoing
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SMART CITY

Sl No.	Name of Work	Implementing office	Source of fund	Time line	Status
1	Deposit work - Smart city Thiruvananthapuram Ltd - Reconstruction / maintenance of sewerage system from Music college to MN Smarakam road (Model school junction to Mettukada Road ID -PWD -PH-4B - 142c) due to work carried out by smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
2	Deposit work - Smart city Thiruvananthapuram Ltd - Reconstruction/Maintenance of Sewerage system from Zam - Zam hotel to Palayam traffic lnt near VJT hall (VJT Hall flyover Road - 108) due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
3	Deposit work - Smart city Thiruvananthapuram Ltd - Reconstruction/Maintenance of Sewerage system from fly over bridge starting in front of Women's Hospital Road ID- 120 & From Thampannoor Police station to Aristo Jn Road ID-140 due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
4	Smart city Thiruvananthapuram Ltd - Reconstruction / Maintenance of Sewerage system from Govt. Arts college to Music college Road ID - 121 (part-1) Norka - Gandhi Bhavan road	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
5	Smart city Thiruvananthapuram Ltd - Reconstruction / Maintenance of Sewerage system starting from Spencer junction to AKG Centre (Gas house road) Road ID - 152 due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed

6	Smart city Thiruvananthapuram Ltd - Reconstruction/Maintenance of Sewerage system from Norka building Thycadu to infront of Arts College (Road ID -PWD -PH 4B- 121(Part-2 portion) due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
7	Smart city Thiruvananthapuram Ltd - Reconstruction/Maintenance of Sewerage system from Sree Dharma Shastha Temple to Residence No.158 (Thycadu house-Keezhe Thampanoor road) (Road ID - 117-Part-2 portion) due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
8	Smart city Thiruvananthapuram Ltd – Reconstruction /Maintenance of Sewerage system from Sree Dharma Shastha Temple to MODEL school JN Road (Thycadu house- Keezhe Thampanoor road) (Road ID - 117-Part portion) due to work carried out by Smart city	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
9	T S S-Deposit Work- Smart city project- Shifting and laying 200 mm SW sewer line by replacing 150mm line near Vazhuthacaud Junction towards MP Appan road under Sewerage Section , Sasthamangalam. Road ID 104 Part1	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
10	T S S-Deposit Work- Smart city project- Shifting and laying 250 mm SW sewer line by replacing 150mm line From Bishop Pereira Hall Jn to Nanthavanam Jn. under Sewerage Section , Sasthamangalam. (Road ID 24)	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
11	TSS- Smart city Thiruvananthapuram Ltd - Reconstruction / maintenance of sewerage system at Kalabhavan Mani Road(from Panavila jn to Womens college jn - Road id - 116) due to work carried out by Smart City.	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed

12	TSS- Smart city Thiruvananthapuram Ltd - Reconstruction / maintenance of sewerage system from Vandrose Jn to Spencer Jn - Road id - 112) due to work carried out by Smart City	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
13	TSS- Smart city Thiruvananthapuram Ltd - Reconstruction / maintenance of sewerage system from Vandrose Jn to contonment police station (Punnan road)- Road id - 141) due to work carried out by Smart City	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
14	TSS - SCTL - Deviation of sewer line and reconstruction of brick man holes in the roads constructing under Smart city project roads with ID 144 (PWD PH -4B) in OVER BRIDGE TO UPPIDAMMOODU JN Chainage +00 to +731	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
15	TSS - SCTL - Deviation of sewer line and reconstruction of brick man holes in the roads constructing under Smart city project - Statue - General Hospital road - ID147 (PWD	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
16	TSS - SCTL - Deviation of sewer line and reconstruction of brick man holes in the roads constructing under Smart city project roads with ID 148 in Ayurveda college to Chettikulangara under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
17	TSS - SCTL - Providing sewer main and rider - reconstruction of brick man holes in the roads constructing under Smart city project along West nada - Azhikkotta road (ID - 136)	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
18	TSS - SCTL - Deviation of sewer line and reconstruction of brick man holes in the roads constructing under Smart city project road with ID 91 - Mathrubhumi road chainage 0.00 to 255.00 under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed

19	TSS - SCTL - Deviation of sewer line and reconstruction of brick man holes in the roads constructing under Smart city project roads with ID 146 (PWD PH - 4B) in Ayurveda college to Old GPO Kunnumpuram under Sewerage Section I, Kuriathy	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
20	TSS - SCTL - Providing sewer main and rider - reconstruction of brick manholes in Court Jn. - General Hospital road constructing under Smart city project (ID - 149) Chainage 705m	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
21	TSS - SCTL - Rehabilitation of sewer line , providing rider main and construction of man holes in Padmavilasom road constructing under Smart city project, ID - 132	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
22	Reconstruction of old dilapidated brick manholes with R C C and Raising of manhole covers in Ganapathy kovil road, Vazhuthacadu ward (ID 111)	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
23	DEPOSIT- SMART CITY- Providing and laying 160mm PVC rider main at Vazhuthcaud towards MP Appan road Road ID 104 part 1(Sl. No. 10)	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
24	Construction of manholes and reconstruction of brick manholes and steining raising at Bakery junction Valsala Nursing home road	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
25	DEPOSIT-Smart City - Rehabilitation of existing 150 mm SW sewer main with 300 mm SW PIPE from Sivanagar to Pump house road across Killipalam Attakulangara	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed

26	Rectification of damages caused sewer lines by Smart city contractor Road ID-149:-- Bucket cleaning of sewer lines blocked during smart city road constructions at Vanchiyoor General Hospital- Stretch 1: Vanchiyoor to Mathrubhumi road	Sewerage Division, KWA, Trivandrum	DEPO-SCTL		Completed
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MLA- ADS

1	LAC-ADS- Thiruvananthapuram Constituency - Project 19284- TSS-PROVIDING NEW SEWER LINE BESIDE EAST FORT- ATTAKULANGARA ROAD NEAR ATTAKULANGARA JUNCTION-Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Ongoing
2	LAC-ADS-Project No. 19398 - Thiruvananthapuram Constituency- - Reconstructing RCC manholes and relaying sewage pipe line at Meppalli gardens and chempakassery thannimoodu lane in palkulangara ward-Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Ongoing
3	LAC-ADS-2024-25- Sewerage section Sasthamangalam--Providing new Sewer line at Pottakuzhi junction near Kairali hotel- Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Completed
4	LAC-ADS-Vattiyoorkavu - Rehabilitation of sewer lines- T S S- Rehabilitation of old and damaged sewer line in Kowdiar SS Kovil C Lane and E Lane -Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Tender temporarily Cancelled
5	LAC-ADS-Rehabilitation of sewer line-Rehabilitation of existing damaged sewer pipe line at Nandavanam in Valiyasala ward-Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Submitted for Revised AS
6	LAC-ADS-Laying new sewerage line -Mosque lane Sreemoolam lane at Thampanoor ward-Sewerage Work	Sewerage Division, KWA, Trivandrum	MLA-ADS		Retendered

ANALYSIS REPORT OF RIVERS INCLUDED IN THE LIST OF PRS-2022 FOR THE MONTH OF JULY 2025

SL NO	PARAMETER	RIVER-NEYYAR		RIVER- KARAMANA		RIVER- MAMOM	RIVER- AYIROOR	RIVER- VAMANAPURAM
		Amaravila	Aruvippuram	Aruvikkara	Moonnattumukku	Mamom	Ayiroor	Vamanapuram
1	Temperature, 0°C	29	28	28	30	29.7	29.5	29.1
2	Dissolved Oxygen, mg/l	7.1	6.6	7.2	1.9	7.4	7	7.3
3	pH	6.8	6.5	6.7	7	7	6.7	7.2
4	Conductivity, µmhos/cm	160	84	78	525	165	235	114
5	BOD, mg/l	1 (BDL)	1 (BDL)	1.8	4.9	1 (BDL)	1.1	1 (BDL)
6	Nitrate-N, mg/l	0.3 (BDL)	0.3 (BDL)	0.3 (BDL)	1.1	0.3 (BDL)	0.3 (BDL)	0.3 (BDL)
7	Turbidity, NTU	1 (BDL)	1 (BDL)	1.1	3.2	1 (BDL)	1.1	1 (BDL)
8	Phenolphthalein Alkalinity, mg/l	5 (BDL)	5 (BDL)	5 (BDL)	5 (BDL)	5 (BDL)	5 (BDL)	5 (BDL)
9	Total Alkalinity, mg/l	32	32	16 (BDL)	52	28	28	28
10	Chloride, mg/l	28	20	13	132	24	48	24
11	COD, mg/l	5 (BDL)	5 (BDL)	5 (BDL)	52	5 (BDL)	5 (BDL)	5 (BDL)
12	TKN, mg/l	1.5 (BDL)	1.5 (BDL)	1.5 (BDL)	7.2	1.5 (BDL)	1.5 (BDL)	1.5 (BDL)
13	Ammoniacal-N, mg/l	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)
14	Hardness as CaCO3, mg/l	40	32	12	92	32	16	28
15	Calcium as CaCO3, mg/l	36	20	10	52	20	12	16
16	Magnesium as CaCO3, mg/l	4 (BDL)	12	4 (BDL)	40	12	4 (BDL)	12
17	Sulphate, mg/l	5 (BDL)	5 (BDL)	5 (BDL)	22	5 (BDL)	5 (BDL)	5 (BDL)
18	Calcium (Ca2+), mg/l	14.4	8.0	4.0	20.8	8.0	4.8	6.4
19	Magnesium (Mg2+), mg/l	1.0	2.9	0.5	10	3	1.0	2.9
20	Sodium, mg/l	16.4	10.7	7.5	74	13	30.4	13.5
21	Total Dissolved Solids, mg/l	92.8	75	43	314	92	136	77
22	Total Fixed Solids, mg/l	37	28	25	155	43	84	35
23	Total Suspended Solids, mg/l	12	10 (BDL)	12	77	15	20	14
24	Phosphate, mg/l	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)
25	Boron, mg/l	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)
26	Potassium, mg/l	5.8	5.6	3.4	18.8	6.4	20.2	6.3
27	Fluoride, mg/l	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)
28	Total Coliform, MPN/100 ml	2700	2400	1700	6300	2100	2500	920
29	Fecal Coliform, MPN/100 ml	1400	1300	1300	2400	1300	1400	360
30	Fecal Streptococcus, MPN/100 ml	1.8(BDL)	1.8 (BDL)	1.8 (BDL)	1.8 (BDL)	1.8 (BDL)	1.8 (BDL)	1.8 (BDL)
31	% SODIUM	42.9	37.3	49.9	58.1	41.3	61.2	44.9
32	SAR	1.13	0.82	0.93	3.35	0.99	3.31	1.11

No.	Activity	Implementing Agency	Time line	Progress in the month of May 2024	Progress in the month of June 2025	Progress in the month of July 2025	% Works Completed	Details of works remaining
3.3.2	De-silting and development of Amayizhanchan Thodu	Irrigation Department	1.5 Years			93%	On going	
3.3.3	Improvements to Thekkenekara canal and de-silting-		1 Year					
3.3.4	Karimadam tank improvements, de-silting sheet piling/under preparation and providing fencing		1.5 Years			20%	Flood mitigation work completed Flood mitigation works ongoing	
3.3.5	Development of Karamana basin		1.5 Years					Desiltation of river completed. E-flow statement is submitted.

SUPERINTENDING ENGINEER


 6/08/25
 S. S. Srinivasan
 PA

STATE WATER QUALITY MONITORING PROGRAMME (SWMP) 2025							
Analysis Report for the month of July- 2025							
Name of River		KARAMANA					
Date and Time of Sample collection		7/7/2025					
Method of analysis		SAMPLE ID					
Sl no.	Parameters	Peppara	Aruvikkara	Mangattukadavu	Pallathukadavu	Thiruvallom	Moonnattumukku
1	Temperature (°C)	28.5	28	29.5	29	29	30
2	Dissolved O ₂ (mg/L)	7.1	7.2	6.6	4.1	4	1.9
3	pH	6.8	6.7	6.7	6.6	6.6	7
4	Conductivity (µmho/Cm)	54	78	100	169	204	525
5	BOD (mg/L)	1 (BDL)	1.1	1.8	3.6	3.9	4.9
6	Nitrate - N (mg/L)	0.3 (BDL)	0.3 (BDL)	0.3 (BDL)	0.3 (BDL)	1	1.1
7	Turbidity (NTU)	1 (BDL)	1.1	1.1	2	2.1	3.2
8	Total Alkalinity (mg/L)	20 (BDL)	16 (BDL)	22	36	40	52
9	Chlorides (mg/L)	10	13	17	36	38	132
10	Ammonical N (mg/L)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)	0.4 (BDL)
11	Total Hardness (mg/L)	18	12	20	36	40	92
12	Ca as CaCO ₃ (mg/L)	14	10	14	28	20	52
13	Mg as CaCO ₃ (mg/L)	4 (BDL)	4 (BDL)	6	8	20	40
14	Sulphate (mg/L)	5 (BDL)	5 (BDL)	5 (BDL)	5 (BDL)	8.2	22
15	Sodium (mg/L)	5.6	7.5	8.9	22.5	28.9	74
16	Measured TDS (mg/L)	37	43	55	105	128	314
17	Total Phosphate (mg/L)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)	0.2 (BDL)
18	Boron (mg/L)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)	0.5 (BDL)
19	Potassium (mg/L)	2.2	3.4	3.9	6.6	11.3	18.8
20	Total Coliform (MPN/100ml)	360	1700	2100	3300	3800	6300
21	Fecal Coliform (MPN/100ml)	200	1300	1400	2800	2700	2400
22	SAR	0.58	0.93	0.86	1.63	2.00	3.35


 07/08/25
 ASSISTANT ENVIRONMENTAL SCIENTIST

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER MANIMALA, ALAPPUZHA

S. 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	31.03.2021	NIL
	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	Since Large Land holding by local residents on the bank, No
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	22.01.2020	Such issues arises, no need of steps since
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose	22.01.2020	No industry/commercial activity
	• Monitoring at State level must take place	22.01.2020	NIL
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB	22.01.2020 Fortnightly commencing	NIL
6.1	Progress Report may be comprised of details along with completion timelines on:	21.12.2019	Drains contributing to river

(I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment.	2020-2021	pollution were identified. The drains are seasonal and water quality is above the required limit, no in situ.
(II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline		Proposal for setting up an FSTP by Chengannur municipality is initiated.
(III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status		Since the area does not contain any industry no requirement of any CETP, this action. Plan revised.
(iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline	2019-2020	The adjoining local bodies are in the stage of developing and establishing adequate solid waste management facilities also the solid waste during issues were not identified in the stretch during field visit held during past 1 year.
(v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river;	2020-2021	Water quality analysis result of the stretch up to DECEMBER 2023 is enclosed.
(vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc.	2020-2021	Awareness campaigns initiated. No groundwater pollution is noted in the area action yet to

	(vii)Ground water regulation (viii) Adopting good irrigation practices (ix) Protection and management of food plain Zones (FPZ) (x) Rain water harvesting (xi)Maintaining minimum Environmental flow of river (xii) Plantation on both sides of the river (xiii)Setting up biodiversity parks on flood plains by removing encroachment		be initiated. Action will be initiated. Action will be initiated. Action will be initiated. Action will be initiated. Action will be initiated.
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ACTION PLAN FOR RIVER PAMBA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
A(a)	Monitorng of river water quality	Kerala State Pollution Control Board	Continuing project				100%	NIL
A(b)	Rendering Plant at Eraviperoor or Thiruvalla	Eraviperoor/ Thiruvalla local body	31.03.2021				0%	Work to be initiated
C(ii)	Fencing of bridges, desilting,	Irrigation	31.03.2021				0%	Work to

	dredging and protection works, surveillance cameras at vantage points	department						be initiated
C	Preventing illegal discharge of septage and other waste water into the river. Formation of River Protection Group	Panchayath, Police , KSPCB	31.05.2020.				0%	Work pending due to COVID pandemic
C	Greenery development Plantation on both sides of the river, setting up biodiversity parks in flood plains and removing encroachment	Irrigation department in association with panchayath	31.03.2021				0%	Yet to be initiated
C(b)(ii)	Green Protocol implementation in all offices, institution & public functions	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.03.2020				100%	0
D(a)	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation department, Hydrographic survey department	31.03.2021					Work to be initiated
C(ii)	Establishment of decentralized solid waste treatment facilities	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020				100%	0
C	Installing household & community level solid and domestic sewage waste management	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020				NA	NA

C	Door to door collection of solid waste & Material Collection Facilities (MCF) & Resource Revcovery Facilities (RRF)	Kalloopara, Eraviperoor, Puramattom, Kaviyoor, Peringara, Kuttoorpanchayaths	31.12.2020					NA	NA
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ACTION BY GROUND WATER DEPARTMENT

Sl. No	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Timeline	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks	31.03.2021					
2	B(ii)	Ground water recharging / rain water harvesting in Govt offices	31.03.2021					
3	NGT order in O.A no.496/2016	NGT order in O.A no.496/2016 Identification of illegal bore wells in the	31.03.2021					

	Identification of illegal bore wells in the catchment area.	catchment area.						
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**ANALYSIS REPORT OF DRAINS OF MANIMALA BETWEEN KALLOOPARA AND
THONDRA
JULY - 2025**

SI NO	BOTTLE NO.	Name of Drains	PH	BOD	TC	FC
1	TK1	Panayampalathodu	7.3	0.55	7000	2400
2	TK2	PadathupalamThodu	7.1	0.15	5600	4400
3	TK3	Thottappuzha	6.9	0.05	5400	2000
4	TK4	Kuttapuzha under Kattodubridge	7.2	0.05	3800	2100
5	TK5	Kadavumbara	7.2	0.15	2800	800
6	TK6	Drain under Varappalam Bridge	NIL	NIL	NIL	NIL
7	TK7	Drain under kallupalam Bridge	7.4	1.35	7400	2400
8	TK8	Komalamthodu	7.6	0.15	6000	2200
9	TK9	Vennikulam Valiyathodu	7.5	0.15	5800	2600
10	TK10	Paduthodu	7.7	0.15	5200	2400
11	TK11	Mallappally Valiyathodu	7.6	5.55	10000	6600

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PAMBA, PATHANAMTHITTA JULY 2025

S. 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	31.03.2025	Projects for to be taken
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured	„	„
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning	„	„
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose	NA	-
	• Monitoring at State level must take place	NA	-
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB	NA	-
6.	Progress Report may be comprised of details along with		

1	completion timelines on: (I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment. (II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status (iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; (vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including		Presently no STP in the panchayat Presently no CETP or ETP in the panchayat Door to door plastic waste collection, Supply of waste bins, Construction of compost pits etc. Not Available Biomedical waste disposed through IMAGE , Plastic waste collected door to door by Haritha Karma Sena Yes, Going On
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	waste generated from hotels, Ashrams, etc. (vii)Ground water regulation (viii) Adopting good irrigation practices (ix) Protection and management of food plain Zones (FPZ) (x) Rain water harvesting (xi)Maintaining minimum Environmental flow of river (xii) Plantation on both sides of the river (xiii)Setting up biodiversity parks on flood plains by removing encroachment		- Yes, Going On Yes, Going On
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ACTION PLAN FOR RIVER PAMBA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
A(a)	No industries	-	-	No industries				

A(a)	Monitoring of river water quality	Kerala State Pollution Control Board	Continuing project					
C(ii)	Establishment of decentralized solid waste treatment facility	MannarPanchayat, Kadapra/ NiranamPanchayath	31.03.2021	THUMBOORMOOZHI MODEL AEROBIC COMPOST 4 UNIT IN PANCHAYTH&2 UNIT IN PRIVATE BUS STAND	THUMBOORMOOZHI MODEL AEROBIC COMPOST 4 UNIT IN PANCHAYTH&2 UNIT IN PRIVATE BUS STAND	THUMBOORMOOZHI MODEL AEROBIC COMPOST 4 UNIT IN PANCHAYTH&2 UNIT IN PRIVATE BUS STAND		
C	Establishment of Material Collection Facility	MannarPanchayat, Kadapra/ NiranamPanchayath	31.03.2021	Work in progress	Work in progress	CIVIL WORK COMPLETED		
C	Resource Recovery Facility	MannarPanchayat, Kadapra/ NiranamPanchayath	31.03.2021	NA	NA	NA		
C	Installing household and community level solid waste management units	MannarPanchayat	31.03.2021	- PLASTIC WASTE COLLECTION	PLASTIC WASTE COLLECTION	PLASTIC WASTE COLLECTION		
C	Door to door collection and transportation of municipal solid waste	MannarPanchayat	31.03.2021	userfee collection 75.74%	Userfee collection 74.64%	Userfee collection 76.15%		23.85%
C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of	KadapraPanchayat	31.12.2020					

	Parumala Town							
C	Construction of small sewage treatment plant with screening, septic tank and disinfection to the storm water drain of Mannar Town	MannarPanchayat	31.12.2020	Projects has to be taken	Projects has to be taken	Projects has to be taken		
C	Construction of compound wall with fencing	Irrigation department	31.03.2021					
C	Removing light jungle and muddies from river courses	Irrigation department	31.03.2021					
C	Electrical-Light arrangements and Surveillance cameras	Irrigation department	31.03.2021					
C	Regualtingactivites in flood plain zone, protection and management of flood plain zone	Irrigation department	31.03.2021					
	Greenery developmentPlantation plan. Plantation on both sides of the river, setting up biodiversity parks on flood plains by removing encroachment	Irrigation department	31.03.2021					
C (b) (ii)	Green Protocol implementation in all	Mannar, Kadapra/ NiranamPanchayat	31.05.2020	100%	100%	100%		

	Offices institution & Public function							
D(a)	Issues relating to E-flow, maintaining minimum environmental flow of river (by having watershed management provisions)	Irrigation department	30.11.2020					
D (b)	Irrigation practices	Irrigation department	30.04.2020					
E	Awareness programmes for sections of public	Kerala State Pollution Control Board	31.05.2020					
C	Management of municipal, plastic, hazardous, biomedical and electrical waste	LSGD	31.03.2021	PLASTIC COLLECTED BY HARITHAKARMASENA	PLASTIC COLLECTED BY HARITHAKARMASENA	PLASTIC COLLECTED BY HARITHAKARMASENA		

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of May 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					

2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground water quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

Analysis Result of Drains Joining to Mannar-Thakazhi Stretch of Pamba River (JULY-2025)

SL.N o	Name of Drain	Parameters														
		pH			Electrical Conductivity(µS/cm)			BOD(mg/l)			TC(Nos/100ml)			FC		
	Months	MAY	JUNE	JULY	MAY	JUNE	JULY	MAY	JUNE	JULY	MAY	JUNE	JULY	MAY	JUNE	JULY
1	Parumala Drain	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
2	MannarTown Drain	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL	NIL
3	Kuriyathkadavu Thodu	7.1	7.7	7.2	71.28	29.06	129.9	1.65	0.672	3.5	1000	1000	400	600	600	200
4	KaruvelilThodu	7.6	7.5	7.4	45.2	32.67	111.7	1.92	3.552	1.35	3600	1200	2200	1600	200	200
5	Nochithodu	7.5	7.4	6.9	48.96	29.98	116.7	1.344	0.864	0.25	3400	800	4800	1200	300	2400
6	Pattaparambil Thodu	7.53	7.3	7	59.12	29.17	52.2	2.688	0.576	1.15	2200	1400	1600	1200	700	600
7	Kappiyarissery Thodu	7.41	7.2	6.8	53.5	37.06	66.81	1.824	1.632	2.45	1500	800	9400	800	600	600
8	Kombankery Thodu	7.5	7.1	7.1	49.38	30.49	69.42	2.592	0.576	1.85	1000	800	2600	500	700	800
9	Perackalthodu	7.63	7.2	7.2	62.27	34.38	54.82	3.648	2.496	0.85	2300	800	1800	1600	600	400
10	Erathodu	7.41	7.3	7.1	50.5	34.87	48.44	0.96	2.496	0.85	800	400	400	200	300	200
11	Kolarayaru	7.22	7.2	7	48.96	27.76	45.62	1.152	0.672	1.05	1000	1000	400	300	100	200

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER PERIYAR. ERNAKULAM

S. 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		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose		
	• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB		

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. (II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status (iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; (vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc. (vii) Ground water regulation (viii) Adopting good irrigation practices (ix) Protection and management of flood plain Zones (FPZ) (x) Rain water harvesting (xi) Maintaining minimum Environmental flow of river (xii) Plantation on both sides of the river (xiii) Setting up biodiversity parks on flood plains by removing encroachment		
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ACTION PLAN FOR RIVER PERIYAR, KERALA

SHORT TERM MEASURES

No. (as per tion Plan)	Activity	Implementing agency	Timeline	Progress in the month Of May 2025	Progress in the month Of June 2025	Progress in the month Of July 2025	% works comple ed	Details of works remaining
(b)	Augmentation and Revamping of existing STP at near Adwaita Ashramam and to increase the capacity of STP so as to treat more sewage generated in the municipality	Aluva Municipality	Dec 2019	The entire mechanical machinery of STP needs to be replaced. Estimate has been reset.. Electrical work, civil work is almost complete. The work needs to be retendered. Steps are being taken to get PCB's consent for STP.	The committee observed that there has been no time-bound progress in the renovation of the STP at Advaitashram. As part of the renovation, the entire mechanical machinery of the STP needs to be replaced. The estimate has been recast accordingly. The electrical and civil works are almost complete. The mechanical work has been re-tendered and the work order has been issued. The work will commence immediately. Steps are being taken to obtain the PCB (Pollution Control Board) consent for the STP. The committee instructed that all these tasks should be completed at the earliest.	The committee observed that there has been no time-bound progress in the renovation of the STP at Advaitashram. As part of the renovation, the entire mechanical machinery of the STP needs to be replaced. The estimate has been recast accordingly. The electrical and civil works are almost complete. The mechanical work has been re-tendered and the work order has been issued. The work will commence immediately. Steps are being taken to obtain the PCB (Pollution Control Board) consent for the STP. The committee instructed that all these tasks should be completed at the earliest.		
(b)	Augmentation and Revamping of existing STP at Aluva	Aluva Municipality	2021	PMSSY has received administrative approval of Rs 48 crore for the reconstruction of Aluva General Market and DPR has been prepared. The reconstruction of the market also includes a high-capacity ETP. Since the	PMSSY has received administrative approval of Rs 48 crore for the reconstruction of Aluva General Market and DPR has been prepared. The reconstruction of the market also includes a high-capacity ETP. Since	PMSSY has received administrative approval of Rs 48 crore for the reconstruction of Aluva General Market and DPR has been prepared. The reconstruction of the market also includes a high-capacity ETP. Since the		

	Market and to increase the capacity of STP so as to treat more sewage generated in the municipality			high-capacity ETP is being established, the proposal for a low-capacity ETP proposed only for the fish market will be discarded. submitted an application for Consent to Establish, - for the construction work of the market. The work will be completed within a year.	the high-capacity ETP is being established, the proposal for a low-capacity ETP proposed only for the fish market will be discarded. submitted an application for Consent to Establish, - for the construction work of the market. The work will be completed within a year. The inauguration of the Hi-Tech Market was held on June 29. The DPR includes STP and ETP.	high-capacity ETP is being established, the proposal for a low-capacity ETP proposed only for the fish market will be discarded. submitted an application for Consent to Establish, - for the construction work of the market. The work will be completed within a year. The inauguration of the Hi-Tech Market was held on June 29. The DPR includes STP and ETP.		
(b)	Discharge of sewage from township to the River through drain near Periyar Hotel shall be stopped.	Aluva Municipality	2020	A special squad has been formed for inspection. The outlets coming into the streams and Periyar are being inspected and fines are being collected.	For inspection purposes, special squads have been formed for the canals and drains. Inspections have been conducted at outlets leading to canals and also towards the Periyar River, and fines are being imposed. The committee suggested that illegal discharge points should be identified and that the discharge of wastewater into public drains must be reduced. It was also instructed that a monthly report must be submitted every month. The SE (Superintending Engineer) stated that action should be taken against those who repeatedly pay fines.	For inspection purposes, special squads have been formed for the canals and drains. Inspections have been conducted at outlets leading to canals and also towards the Periyar River, and fines are being imposed. The committee suggested that illegal discharge points should be identified and that the discharge of wastewater into public drains must be reduced. It was also instructed that a monthly report must be submitted every month. The SE (Superintending Engineer) stated that action should be taken against those who repeatedly pay fines.		
(b)	Identification of the establishment s/commercial complexes/flats/houses/hote	Aluva Municipality, KSPCB	2020	A special squad has been formed for inspection. Inspections are being conducted at the outlets leading to the forests, streams and Periyar and fines are being collected.	For inspection purposes, special squads have been formed for the canals and drains. Inspections have been conducted at outlets leading to canals and also towards the Periyar River, and fines are being imposed.	For inspection purposes, special squads have been formed for the canals and drains. Inspections have been conducted at outlets leading to canals and also towards the Periyar River, and fines are being imposed. The committee suggested		

	Is etc who is discharging the sewage to the public drain and to collect fine based on polluter pay principle				The committee suggested that illegal discharge points should be identified and that the discharge of wastewater into public drains must be reduced. It was also instructed that a monthly report must be submitted every month. The SE (Superintending Engineer) stated that action should be taken against those who repeatedly pay fines.	that illegal discharge points should be identified and that the discharge of wastewater into public drains must be reduced. It was also instructed that a monthly report must be submitted every month. The SE (Superintending Engineer) stated that action should be taken against those who repeatedly pay fines.		
(a)(iv)	Periodical inspection in the Industries, Flats, hotels monitoring of STP,ETP	KSPCB	Periodical	ONGOING	ONGOING	ONGOING		
(ii)	Installation of modern abattoirs	Aluva Municipality	March 2021	It was reported that the DPR for inviting bids for construction and preparation of a modern slaughterhouse has been approved by the Council on 12.07.2024 and further steps are being taken. This is included in the DPR for the new general market. The PCB informed that ICE application has to be submitted for the construction of the slaughterhouse. Since a house is located at a distance of 7.5 m, approval has not been received from the Town Planning Department. Approval has to be obtained directly from the government in this regard.	It was reported that approval was obtained in the Council meeting held on 12.07.2024 to invite an Expression of Interest (EOI) for the construction of a modern slaughterhouse and for the preparation of its DPR, and that further steps are being taken. This has already been included in the DPR for the new General Market. The Pollution Control Board (PCB) has informed that an ICE (Integrated Consent to Establish) application must be submitted for the construction of the slaughterhouse. Since a residential building is located just 7.5 meters away, approval has not been obtained from	It was reported that approval was obtained in the Council meeting held on 12.07.2024 to invite an Expression of Interest (EOI) for the construction of a modern slaughterhouse and for the preparation of its DPR, and that further steps are being taken. This has already been included in the DPR for the new General Market. The Pollution Control Board (PCB) has informed that an ICE (Integrated Consent to Establish) application must be submitted for the construction of the slaughterhouse. Since a residential building is located just 7.5 meters away, approval has not been obtained from the Town Planning Department. In this regard, direct approval from the government will be		

					the Town Planning Department. In this regard, direct approval from the government will be required.	required.		
(b)	Procurement of sewer cleaning machines and equipment maintenance	Aluva Municipality	March 2020	The clearing operations of the drains are being carried out every day. JCB, Hitachi etc. are being used on an annual contract basis. Equipment for clearing the drains has been purchased.	The clearing operations of the drains are being carried out every day. JCB, Hitachi etc. are being used on an annual contract basis. Equipment for clearing the drains has been purchased.	The clearing operations of the drains are being carried out every day. JCB, Hitachi etc. are being used on an annual contract basis. Equipment for clearing the drains has been purchased.	100	
	Installation of cameras at the waste dumping spots	Aluva Municipality	2020	As part of monitoring dumping sites (places where waste is dumped), 66 cameras have been installed. All are working. Rs. 15 lakh has been allocated for installing new cameras. They will be installed in this financial year. Details of fines, which were collected in 2025 Illegal Outlet: 60000/- Illegal Dumping: 10000/- Single use Plastic: Rs.10,000/-	As part of monitoring dumping sites (places where waste is dumped), 66 cameras have been installed. All are working. Rs. 15 lakh has been allocated for installing new cameras. They will be installed in this financial year. Details of fines, which were collected in 2025 Illegal Outlet: 60000/- Illegal Dumping: 10000/- Single use Plastic: Rs.10,000/-	As part of monitoring dumping sites (places where waste is dumped), 66 cameras have been installed. All are working. Rs. 15 lakh has been allocated for installing new cameras. They will be installed in this financial year. Details of fines, which were collected in 2025 Illegal Outlet: 60000/- Illegal Dumping: 10000/- Single use Plastic: Rs.10,000/-		
	Construction of STP and FSTP	Aluva Municipality			It has been informed that the Water Authority's DPR and Sanitation Mission funds are available. However, land is not available.	It has been informed that the Water Authority's DPR and Sanitation Mission funds are available. However, land is not available.		
(b)	Construction of retaining wall with HDPE liner at Kalamassery dumping yard	Kalamassery Municipality	Sept 2019	The construction of the dumping yard retaining wall has been completed. The construction of the compound wall has been completed. The STP will be installed immediately after the biomining. The biomining has	The construction of the dumping yard retaining wall has been completed. The construction of the compound wall has been completed. The STP will be installed immediately after the	The construction of the dumping yard retaining wall has been completed. The construction of the compound wall has been completed. The STP will be installed immediately after the biomining. The biomining has	100%	

	in order to prevent the leachate discharge from the yard to Thoombungal Thodu			started, completed 45 %	biomining. The biomining has started, completed 45 %	started, completed 45 %		
(ii)	Installation of plastic shredding unit	Kalamassery Municipality	June 2019	A plant has been set up and is functioning. The scraps are being transported by CKCL. It was informed that this is being transported to the Palakkad cement factory.	A plant has been set up and is functioning. The scraps are being transported by CKCL. It was informed that this is being transported to the Palakkad cement factory.	A plant has been set up and is functioning. The scraps are being transported by CKCL. It was informed that this is being transported to the Palakkad cement factory.	100 %	
(a)(iv)	Constitution of squads for night surveillance for finding the unauthorized dumping of sewage at NAD wetlands Kalamassery	Kalamassery Municipality, Police department	2020	A squad has been formed and is constantly monitoring. Those who dump waste are being identified using the cameras available to the municipality. It is not possible to install cameras on NAD roads as NAD has control over them.	A squad has been formed and is constantly monitoring. Those who dump waste are being identified using the cameras available to the municipality. It is not possible to install cameras on NAD roads as NAD has control over them.collaborating with the KSWMP project to prepare an IEC plan. As part of this, the decision to provide drainage and awareness classes has been included in this year's plan.	A squad has been formed and is constantly monitoring. Those who dump waste are being identified using the cameras available to the municipality. It is not possible to install cameras on NAD roads as NAD has control over them.collaborating with the KSWMP project to prepare an IEC plan. As part of this, the decision to provide drainage and awareness classes has been included in this year's plan.	N A	
(b)	Installation of common STP for Kalamassery Municipality and ETP at Municipal Market. Obtain	Kalamassery Municipality	December 2019	The work of renovating the existing ETP in the market has not started. The works will be completed within 2 months of renovating the market and after completing the biomining, the STP will be installed at the site of the existing dumping yard. The proposal for 2 new STPs has been sent to the DPC. The work of renovating the market is 80% complete.	The work of renovating the existing ETP in the market has not started. The works will be completed within 2 months of renovating the market and after completing the biomining, the STP will be installed at the site of the existing dumping yard. The proposal for 2 new STPs has been sent to the DPC. The work of renovating the market is 80% complete.	The work of renovating the existing ETP in the market has not started. The works will be completed within 2 months of renovating the market and after completing the biomining, the STP will be installed at the site of the existing dumping yard. The proposal for 2 new STPs has been sent to the DPC. The work of renovating the market is 80% complete.It has been	N A	

	a consent from Pollution Control Board				market is 80% complete. It has been decided to include the construction of the STP as a new project in this year's plan.	decided to include the construction of the STP as a new project in this year's plan.		
(a)(iv)	Monitoring and surveillance of industries in Kalamassery Industrial Estate in order to prevent unauthorized discharges to Muttar River	KSPCB	2019		Inspection is underway. Currently, there is a possibility of wastewater from the market reaching the river. This issue can be resolved through the renovation of the market. The PCB Executive Engineer (EE) also informed that a letter was sent to the Municipality referring to the low DO (Dissolved Oxygen) levels found in the water samples collected on June 2 from Thumbunkal stream and the Puthalam kadavu in the Edamula branch of the Periyar River. However, no response has been received yet.	Inspection is underway. Currently, there is a possibility of wastewater from the market reaching the river. This issue can be resolved through the renovation of the market. The PCB Executive Engineer (EE) also informed that a letter was sent to the Municipality referring to the low DO (Dissolved Oxygen) levels found in the water samples collected on June 2 from Thumbunkal stream and the Puthalam kadavu in the Edamula branch of the Periyar River. However, no response has been received yet.		
(ii)	Installation of modern abattoirs including poultry and meat rendering plants.	Kalamassery Municipality, Industries Department (for land allotment)	2021	There is no progress due to the lack of space.	There is no progress due to the lack of space.	There is no progress due to the lack of space.	N A	
(b)	Identification of the establishments/ commercial complexes/flats	Kalamassery Municipality	2020	Fines have been collected as part of the dumping waste and discharging sewage. Waste dumping fine :	A fine of Rs. 22,36,940/- has been collected so far for dumping waste and discharging sewage.	A fine of Rs. 22,36,940/- has been collected so far for dumping waste and discharging sewage.	N A	

	/houses/hotels etc who is discharging the sewage to the public drain			February- Rs. 110,000/- March - Rs 101,500/-	Waste dumping fine : February- Rs. 110,000/- March - Rs 101,500/-	Waste dumping fine : February- Rs. 110,000/- March - Rs 101,500/-		
	Installation of cameras at the waste dumping spots	Kalamassery Municipality	2020	84 cameras have been installed, 2 each in 42 wards. Work is underway to get visuals. internet connection has not been received.	84 cameras have been installed, 2 each in 42 wards. Work is underway to get visuals. internet connection has not been received.It will be resolved within 1 month.	84 cameras have been installed, 2 each in 42 wards. Work is underway to get visuals. internet connection has not been received.It will be resolved within 1 month.		
(b)	Identification of sources of sewage discharged to drain near Pathalam bridge and action to stop the discharge which reach river Periyar from hotels, labor camps etc In case the quantity of sewage generated is assessed to be more STP need to be installed	Eloor Municipality, KSPCB (for monitoring)	2020	Inspections are being conducted from time to time. Arrangements have been made to drain the sewage discharged from shopping complexes, shops, etc. into the soak pit. The problem has been resolved. The sewage from the places where foreign workers live near the bridge and from catering units has been inspected and notices have been issued to 4 institutions to construct soak pits. A meeting will be called to ensure that the catering units have PCB licenses. Action will be taken against the hotel institutions that have caused sewage to reach the Kuzhikandam stream	Inspections are being conducted from time to time. Arrangements have been made to drain the sewage discharged from shopping complexes, shops, etc. into the soak pit. The problem has been resolved. The sewage from the places where foreign workers live near the bridge and from catering units has been inspected and notices have been issued to 4 institutions to construct soak pits. A meeting will be called to ensure that the catering units have PCB licenses. Action will be taken against the hotel institutions that have caused sewage to reach the Kuzhikandam stream. Action is being taken. Cases have been filed against establishments discharging waste into the river. Fine details: June - Rs. 35,500/- May - Rs. 1,01,000/-	Inspections are being conducted from time to time. Arrangements have been made to drain the sewage discharged from shopping complexes, shops, etc. into the soak pit. The problem has been resolved. The sewage from the places where foreign workers live near the bridge and from catering units has been inspected and notices have been issued to 4 institutions to construct soak pits. A meeting will be called to ensure that the catering units have PCB licenses. Action will be taken against the hotel institutions that have caused sewage to reach the Kuzhikandam stream. Action is being taken. Cases have been filed against establishments discharging waste into the river. Fine details: June - Rs. 35,500/- May - Rs. 1,01,000/-		

	Installation of cameras at the waste dumping spots	Eloor Municipality	2020	84 cameras have been installed. All are working. Fines are being collected	84 cameras have been installed. All are working. Fines are being collected. Keltron cameras have been installed around the aerobic bin near the HIL company where waste was dumped, and around the bin near Manjummel Arattukadavu.	84 cameras have been installed. All are working. Fines are being collected. Keltron cameras have been installed around the aerobic bin near the HIL company where waste was dumped, and around the bin near Manjummel Arattukadavu.		
(a)(iv)	Periodical inspection in the Industries, Flats, hotels for monitoring of STP,ETP located in Cochin corporation	KSPCB	periodical					
(a)	Inventory of sources of pollution through a rapid study/Study for identification of pollution sources at Edapally thodu	Kochi Municipal Corporation	3 months	A squad has been formed with Engineering & Health to find the sources of sewage discharge. 4 squads are conducting regular inspections. Desilting and water hyacinth removal work is underway. Night squad is conducting inspections. A special squad regarding septage is conducting inspections. Fine collected details From 01/03/2025 to 31/03/2025, a total of Rs. 6,25696/- fine was collected.	A squad has been formed with Engineering & Health to find the sources of sewage discharge. 4 squads are conducting regular inspections. Desilting and water hyacinth removal work is underway. Night squad is conducting inspections. A special squad regarding septage is conducting inspections. Fine collected details From 01/03/2025 to 31/03/2025, a total of Rs. 6,25696/- fine was collected.	A squad has been formed with Engineering & Health to find the sources of sewage discharge. 4 squads are conducting regular inspections. Desilting and water hyacinth removal work is underway. Night squad is conducting inspections. A special squad regarding septage is conducting inspections. Fine collected details From 01/03/2025 to 31/03/2025, a total of Rs. 6,25696/- fine was collected.		

	issuing notice to the defaulters	Kochi Municipal Corporation	4 months	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified.	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified. The PCB has instructed to specify what the violations for issuing the notices are.	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified. The PCB has instructed to specify what the violations for issuing the notices are.		
(a)(iv)	Periodical inspection in the flats, hotels, shops located along the river	Kochi Municipal Corporation	periodical	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified.	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified. The PCB has instructed to specify what the violations for issuing the notices are.	Notices have been sent to 5 institutions regarding the discharge of sewage. A thorough inspection is being carried out in the institutions near the river. A total of 23 notices have been sent in the month of March. All of them have been rectified. The PCB has instructed to specify what the violations for issuing the notices are.		
(b)	Identification of natural drains/thodu reaching river Periyar and cleaning of weeds, grasses etc	Irrigation department	2 years	regarding encroachment, a letter has been sent to the Assistant Executive Engineer, Paravur Tehsildar for boundary demarcation. 1. Kuthuthodu (IRR/IA/EST/8495/2022-5-8-7) Rs. 74.40 lakh 2. Emadhodu (IRR/IA/EST/8495/2022-5-11-10)	<u>Minor Irrigation.</u> An 8 crore rupee project called Kalamassery with Agriculture is underway.It includes desilting of 40 canals, 7 culverts, and 2 sluices. Desilting of 22 canals has been completed. 80% of the work on the 7	<u>Minor Irrigation.</u> An 8 crore rupee project called Kalamassery with Agriculture is underway.It includes desilting of 40 canals, 7 culverts, and 2 sluices. Desilting of 22 canals has been completed. 80% of the work on the 7 culverts has been finished.		

				Rs. 9/- lakh These works have not been sanctioned. Report submitted to CEE on 17/02/2024.	culverts has been finished. Sluice work has not yet started. Desilting of Karumalloor canal is 49% complete. <u>Major Irrigation</u> Eerezhachal Punchathodu site has been handed over. As there are complaints from the residents regarding encroachment, a letter has been sent to the Assistant Executive Engineer, Paravur Tehsildar for boundary demarcation. A letter has also been submitted through the Collectorate. The project includes 218 meters of side protection and 1000 meters of desilting. The SE has informed that a report should be submitted to the Collector highlighting the issue of demarcation. 1. Kuthuthode (IRR/IA/EST/8495/2022-5-8-7) Rs. 74.40 lakh It has been taken up under the Operation vessel. The initial phase of the desilting work has commenced. It was informed that the work will proceed depending on a reduction in rainfall.	Sluice work has not yet started. Desilting of Karumalloor canal is 49% complete. <u>Major Irrigation</u> Eerezhachal Punchathodu site has been handed over. As there are complaints from the residents regarding encroachment, a letter has been sent to the Assistant Executive Engineer, Paravur Tehsildar for boundary demarcation. A letter has also been submitted through the Collectorate. The project includes 218 meters of side protection and 1000 meters of desilting. The SE has informed that a report should be submitted to the Collector highlighting the issue of demarcation. 2. Kuthuthode (IRR/IA/EST/8495/2022-5-8-7) Rs. 74.40 lakh It has been taken up under the Operation vessel. The initial phase of the desilting work has commenced. It was informed that the work will proceed depending on a reduction in rainfall.		
(iii)	Clearing of weeds, grasses at the river bank in order to	Irrigation department	3 years	Almost all the works have been completed in the 2024-2025 operation vessel. The work of removing the silt that was	Almost all the works have been completed in the 2024-2025 operation vessel. The work of removing the silt that	Almost all the works have been completed in the 2024-2025 operation vessel. The work of removing the silt that was		

	ensure the smooth flow of water			obstructing the water sampling in the upstream & downstream part of Patalam RCB has been completed (5 lakhs). The smooth flow of the river has been restored.	was obstructing the water sampling in the upstream & downstream part of Patalam RCB has been completed (5 lakhs). The smooth flow of the river has been restored. The site has been handed over for the project to remove banana plantations from the upstream and downstream areas of the Pathalam regulator. In the first phase, 10% of the work has been completed. Currently, the banks of the Pathalam and Manjummel rivers are clean.	obstructing the water sampling in the upstream & downstream part of Patalam RCB has been completed (5 lakhs). The smooth flow of the river has been restored. The site has been handed over for the project to remove banana plantations from the upstream and downstream areas of the Pathalam regulator. In the first phase, 10% of the work has been completed. Currently, the banks of the Pathalam and Manjummel rivers are clean.		
(a)	Maintaining of Minimum flow in river during lean period and periodical operation of Regulators at River in-order to maintain minimum flow.	Irrigation department	3 years	The shutters are being opened and operated at regular intervals. The protocol for operating the shutters has been prepared and sent to CEE. It has not been approved.	The shutters are being opened and operated at regular intervals. The protocol for operating the shutters has been prepared and sent to CEE. It has not been approved. Cleaning works have been arranged for a period of one year. Currently, all areas are free from waste.	The shutters are being opened and operated at regular intervals. The protocol for operating the shutters has been prepared and sent to CEE. It has not been approved. Cleaning works have been arranged for a period of one year. Currently, all areas are free from waste.		
(b)	Common Effluent Treatment Plant at Edayar Industrial Estate	Industries department	2022	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to have their own facilities for treatment of effluent.	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to have their own facilities for treatment of effluent.		

				The fund allotted for the project may be utilized for any other liquid waste treatment project."	have their own facilities for treatment of effluent. The fund allotted for the project may be utilized for any other liquid waste treatment project."	The fund allotted for the project may be utilized for any other liquid waste treatment project."		
(b)	Construction of internal roads and proper drainage in Edayar industrial estate	Industries department		Road drainage works worth Rs. 9.47 crore have been completed in the Edayar Industrial Area under the MSE CDP project. In addition, 48% of the drainage works out of the Rs. 34 lakh allocated to the Public Works Department for the drainage works in the Edayar Industrial Area have been completed. All the works related to the maintenance and repair of the internal road have been completed. Joint inspection in collaboration with PCB and PWD conducted. Detailed sketch of the industrial estate was given to the concerned department for doing required rectification in drainage works.	Road drainage works worth Rs. 9.47 crore have been completed in the Edayar Industrial Area under the MSE CDP project. In addition, 48% of the drainage works out of the Rs. 34 lakh allocated to the Public Works Department for the drainage works in the Edayar Industrial Area have been completed. All the works related to the maintenance and repair of the internal road have been completed. Joint inspection in collaboration with PCB and PWD conducted. Detailed sketch of the industrial estate was given to the concerned department for doing required rectification in drainage works. The feasibility report needs to be submitted to the PWD.	Road drainage works worth Rs. 9.47 crore have been completed in the Edayar Industrial Area under the MSE CDP project. In addition, 48% of the drainage works out of the Rs. 34 lakh allocated to the Public Works Department for the drainage works in the Edayar Industrial Area have been completed. All the works related to the maintenance and repair of the internal road have been completed. Joint inspection in collaboration with PCB and PWD conducted. Detailed sketch of the industrial estate was given to the concerned department for doing required rectification in drainage works. The feasibility report needs to be submitted to the PWD.		
(b)	Installation of common discharge pipe line at downstream of Pathalam Regulator Bridge	Industries department, Irrigation department	3 years	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to have their own facilities for treatment of effluent.	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to	Based on the minutes of the Environment-Chief Secretary's monthly review meeting with RRC/ Stakeholder Departments/ Authorities held on 9.2.2023 it is recorded as "The CETP project may be dropped and all the units may be advised to have their own facilities for treatment of effluent.		

				The fund allotted for the project may be utilized for any other liquid waste treatment project."	have their own facilities for treatment of effluent. The fund allotted for the project may be utilized for any other liquid waste treatment project."	The fund allotted for the project may be utilized for any other liquid waste treatment project."		
	Installation of Night vision surveillance cameras at the River Bank side	KSPCB	2020	Surveillance cameras and related equipment have been installed.	Surveillance cameras and related equipment have been installed	Surveillance cameras and related equipment have been installed	1 0 0	
(a)(iv)	Periodical Monitoring of Eloor, Edayar, Kalamassery Industrial belts	KSPCB	2020	Inspections are being conducted and nighttime surveillance is being conducted continuously with the involvement of more staff.	Inspections are being conducted and nighttime surveillance is being conducted continuously with the involvement of more staff.	Inspections are being conducted and nighttime surveillance is being conducted continuously with the involvement of more staff.	1 0 0	
(a)(iv)	Monitoring of quality of water at various intake point	Kerala Water Authority	2020					
(a)(iv)	Installation of additional continuous online River water monitoring station	KSPCB	2022	A water monitoring station has been installed at the top of the bund. Tender processes are in progress for the installation of a station at the bottom of the bund.	A water monitoring station has been installed at the top of the bund. Tender processes are in progress for the installation of a station at the bottom of the bund.	A water monitoring station has been installed at the top of the bund. Tender processes are in progress for the installation of a station at the bottom of the bund.	1 0 0	
(b)	Identification of the establishments/ commercial complexes/flats	Kadungallur Panchayath	2020	Fines are being levied on establishments that dump sewage. It was suggested that an inspection be conducted to see if there are any establishments that dump waste into the Onjithottu.	Fines are being levied on establishments that dump sewage. It was suggested that an inspection be conducted to see if there are any establishments that dump waste into the Onjithottu.	Fines are being levied on establishments that dump sewage. It was suggested that an inspection be conducted to see if there are any establishments that dump waste into the Onjithottu.	5 0 %	

	/houses/hotels etc who is discharging the sewage to the public drain							
	Installation of cameras at the waste dumping spots	Kadungallur Panchayath	2020	A Rs 15 lakh project to install 33 cameras at 28 locations is underway. The cameras have been installed. Cable connection needs to be provided.	A Rs 15 lakh project to install 33 cameras at 28 locations is underway. The cameras have been installed. Cable connection needs to be provided.	A Rs 15 lakh project to install 33 cameras at 28 locations is underway. The cameras have been installed. Cable connection needs to be provided.	50%	
(b)	Identification of the establishments/ commercial complexes/flats /houses/hotels etc who is discharging the sewage to the public drain	Choornikkara Panchayath	2020	Inspection is being conducted. Waste dumping fine:- January - 1,1000/- February- 7000/- March- 25,000/-	Inspection is being conducted. Waste dumping fine:- January - 1,1000/- February- 7000/- March- 25,000/-	Inspection is being conducted. Waste dumping fine:- January - 1,1000/- February- 7000/- March- 25,000/-		
	Installation of cameras at the waste dumping spots	Choornikkara Panchayath	2020	53 cameras have been installed. 13 more will be installed by KMRL CSR. sent for government approval.	53 cameras have been installed. 13 more will be installed by KMRL CSR. sent for government approval.	53 cameras have been installed. 13 more will be installed by KMRL CSR. sent for government approval.		

LONG TERM MEASURES

No. (as per Actio	Activity	Implement ing agency	Time line	Progress in the month Of May 2025	Progress in the month Of June 2025	Progress in the month Of July 2025	% works comple	Details of works
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n Plan)							ted	remaini ng
A(b)	Construction of walkway, ring roads etc at the Periyar River bank at industrial belt.	Irrigation department	4 years	FS has been received for Soil Investigation work. Rs. 92,000/- has been deposited for survey work. Survey work started on 06/03/2025. 730m has been completed. Design work is also in progress.	FS has been received for Soil Investigation work. Rs. 92,000/- has been deposited for survey work. Survey work started on 06/03/2025. 730m has been completed and another 470m survey work will be completed within a week. Design work is also in progress.The design from IDRB is available.The survey is currently in progress.	FS has been received for Soil Investigation work. Rs. 92,000/- has been deposited for survey work. Survey work started on 06/03/2025. 730m has been completed and another 470m survey work will be completed within a week. Design work is also in progress.The design from IDRB is available.The survey is currently in progress.		
C(i)	Fencing of the river banks along the stretches of waste disposal (Edamula stretch)	Cochin Municipal Corporation	1-2 years	Fencing works have been included in the budget. Beautification works are being carried out using own funds.	Fencing works have been included in the budget. Beautification works are being carried out using own funds.	Fencing works have been included in the budget. Beautification works are being carried out using own funds.		
C(iii)	Beautification of the river stretches (Edamula stretch)	Cochin Municipal Corporation	1-2 years	Almost everything has been completed. Work is underway to install about 300 cameras				

ACTION BY GROUND WATER DEPARTMENT

Sl. No.	Ref para item nos as per NGT Order no.673/2018 dated 20.09.2018	Activity	Progress in the month of september2024	Progress in the month of october 2024	Progress in the month of november 2024	% works completed	Details of works remaining
1	B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks					
2	B(ii)	Ground water recharging / rain water harvesting					
3	B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps					
4	B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices					

Analysis report of polluted river stretches-R Periyar, R- Chithrapuzha,R-Kadambrayar, R-Chalakudy For the month of July 2025

STNCode	Sampling Date	Sampling Time	StnName	Type Of Water Body	Name Of Water Body	River Basin	
17	08.07.2025	10:30	Periyar at Eloor	River	Periyar River		
1338	03.07.2025	10:16	Periyar at SDP Aluva	River	Periyar River		
2334	02.07.2025	11:20	Periyar at Pathalam	River	Periyar River		
2335	02.07.2025	12:20	Periyar at Kalamassery	River	Periyar River		
3468	03.07.2025	10:35	Periyar at KWA Aluva	River	Periyar River		
2337	11.07.2025	12:10	Kadambrayar At Brahmapuram	River	Kadambrayar River		
2338	11.07.2025	11:40	Kadambrayar At Manackakadavu	River	Kadambrayar River		
1573	11.07.2025	11:15	Chithrapuzha At Irumpanam	River	Chithrapuzha River		
1154	03.07.2025	12:00	Chalakudy at Pulikkakadavu	River	Chalakudy River		

Sl. No.	Parameters	Values								
		Station Code								
		17	1338	2334	2335	3468	2337	2338	1573	1154
1	Temperature, °C	27	28	26	27	28	29	29	29	29
2	Dissolved Oxygen, mg/l	7.7	7.8	7.7	5.8	7.4	1.8	2.8	1.3	6.6
3	pH	6.7	6.8	6.3	7.2	6.8	6.7	6.7	6.8	6.8
4	Conductivity, µmhos/cm	80	46	132	84	48	114	100	169	66
5	BOD, mg/l	1.7	2.3	1.2	2.4	1.5	4	3.8	4.2	0.4
6	Nitrate-N, mg/l	0.99	0.11	BDL	BDL	BDL	0.31	0.18	1.31	BDL
7	Turbidity, NTU	0.3	4.5	1.6	5.8	4.1	0.8	1	BDL	3.6
8	Phenolphthalein alkalinity	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9	Total Alkalinity, as CaCO3	14	14	16	24	15	28	27	17.37	14
10	Chloride, mg/l	11.5	3.5	24.5	7.5	3.5	13	11	22	8
11	COD, mg/l	4.8	6.4	4	7.2	4.8	12	11.2	12.8	1.8
12	TKN, mg/l	BDL	BDL	0.04	BDL	BDL	BDL	BDL	BDL	BDL
13	Ammoniacal-N, mg/l	BDL	BDL	0.02	BDL	BDL	BDL	BDL	BDL	BDL
14	Total Hardness, as CaCO3 mg/l	22	11	16	21	14	28	24	37	17
15	Calcium, as CaCO3 mg/l	14	10	11	20	9	24	18	28	15
16	Magnesium as CaCO3, mg/l	8	1	5	1	5	4	6	9	2
17	Sulphate, mg/l	BDL	BDL	BDL	BDL	BDL	0.1	BDL	11.5	BDL
18	Sodium, mg/l	7.5	2.3	15.9	4.9	2.3	8.45	7.15	14.3	5.2
19	Total Dissolved Solids, mg/l	46	26	74	47	27	65	56	84.6	37
20	Total Fixed Solids, mg/l	37	21	59	38	22	52	45	68	30
21	Total Suspended Solids, mg/l	9	8	10	8	9	10	10	12	9
22	Phosphate, mg/l	0.41	0.36	0.72	0.38	0.38	0.35	0.37	0.64	0.41
23	Boron, mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
24	Potassium, mg/l	1	1	4.20	1.8	1	1	1.1	4	1
25	Fluoride, mg/l	0.033	0.032	0.071	0.076	0.028	0.046	0.048	0.187	0.03
26	Total Coliform, MPN/100 ml	1500	1500	2400	2100	4100	2600	7900	4900	5400
27	Feecal Coliform, MPN/100 ml	1200	490	200	310	700	2200	5400	1200	790
28	Feecal Streptococci, MPN/100ml	220	40	120	40	79	260	310	350	140

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY 2025
Sampling point: VETTUKADAVU

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"	20.0	20.0
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY 2025
Sampling point: PATHALAM BRIDGE

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"	20.0	20.0
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY2025
Sampling point: PUTHALAM KADAVU

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"	20.0	20.0
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR - JULY 2025
Sampling point: PATHALAM BUND U/S

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"	20.0	20.0
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY 2025
Sampling point: PATHALAM BUND D/S

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"		
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY 2025
Sampling point: MANJUMMAL BUND

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"	20.0	20.0
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

KERALA STATE POLLUTION CONTROL BOARD
ENVIRONMENTAL SURVEILLANCE CENTRE, ELOOR
ANALYSIS REPORT OF RIVER PERIYAR -JULY 2025
Sampling point: ALUVA - MANAPPURAM

Sl. No	Parameter	Unit	05.07.2025	25.07.2025
1	Temperature	°c		
2	pH			
3	Conductivity	µS/cm		
4	TDS	NTU		
5	Turbidity	mg/L	*	*
6	Colour	"		
7	SS	"		
8	Chlorides	"		
9	Hardness	"		
10	D.O.	"		
11	COD	"		
12	Calcium	"		
13	Magnesium	"		
14	Ammoniacal Nitrogen	"		
15	Free Ammonia	"		
16	Phosphates			
17	Hexa Chromium	"		
18	Oil & Grease	"		
19	Iron	"		
20	Sulphides	"		
21	Sulphates	"		
22	Total Alkalinity	"		
23	Nitrate	"		
24	BOD	"		
25	TC	"		
26	FC	"		
27	FS	"		
28	Sodium	ppm		
29	Potassium	ppm		
30	SAR	meq/L		

* TURBIDITY METER IS OUT OF ORDER

As per the directions issued by CEE, Ernakulam on 23/01/2025 the daily river parameters reduced from 23 to 12

NATIONAL WATER QUALITY MONITORING PROGRAMME (NWMP)

Station Name		KARUVANNUR													
Type of Water body		RIVER													
Completed by		DO, THRISSUR													
Agency		KERALA STATE POLLUTION CONTROL BOARD													
1	Station Code	2	2	8	9										
2	Date and time of sample taken (DD/MM/YY, HH/MM)	0	5	0	7	2	0	2	5				11	35	AM
3	Weather	Cloudy				Clear✓				Windy				Raining	
4	Approximate depth of main stream	< 50 cm				50 – 100 cm				>100 cm✓				Flood	
5	Color & Intensity	Clear✓				Turbid				Green				Brown	
		1 = Light✓				2 = Moderate				3 = High					
6	Odour	None✓				Fishy				H2S				Other	
7	Floating Matter	Floating				Floating sludge				Oil & Grease				Water Hyacinth✓	
8	Visible effluent discharges in proximity	Industrial				Municipal sewage				None					
9	Human activities around the station	Cattle wading				Farming ✓				Fishing✓		Bathing		Other✓	
10	Location details	U/s of town or industrial area				D/s of town or industrial area✓				Pilgrim center/Bathing Ghat/Water intake				None	
11	Flow rate														
12	Major polluting source	Industrial effluent				MSW✓		PW		None		Other✓			
13	Uses of water in downstream	Irrigation				Drinking water source				Fishing✓		Domestic			
		Organized				Cultivation✓				Bathing		Others✓			

Sl.No	Determinants	Values
1	Temperature, 0C	27
2	Dissolved Oxygen, mg/l	7.6
3	pH	7.2
4	Conductivity, µmhos/cm	76
5	BOD, mg/l	0.8
6	Nitrate-N, mg/l	0.4
7	Turbidity, NTU	1.8
8	Phenolphthalein Alkalinity, mg/l	BDL
9	Total Alkalinity, mg/l	12
10	Chloride, mg/l	14
11	COD, mg/l	4
12	TKN, mg/l	BDL
13	Ammoniacal-N, mg/l	BDL
14	Hardness as CaCO3, mg/l	24
15	Calcium as CaCO3, mg/l	16
16	Magnesium as CaCO3, mg/l	12
17	Sulphate, mg/l	5
18	Calcium (Ca2+), mg/l	6.413
19	Magnesium (Mg2+), mg/l	1.944
20	Sodium, mg/l	8
21	Total Dissolved Solids, mg/l	46
22	Total Fixed Solids, mg/l	34
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	0.1
25	Boron, mg/l	BDL
26	Potassium, mg/l	1.8
27	Fluoride, mg/l	0.1
28	Total Coliform, MPN/100 ml	360
29	Fecal Coliform, MPN/100 ml	180
30	Fecal Streptococcus, MPN/100 ml	50
31	% SODIUM	39.8
32	SAR	0.7

NATIONAL WATER QUALITY MONITORING PROGRAMME (NWMP)														
Station Name		PUZHAKKAL												
Type of Water body		RIVER												
Completed by		DO, THRISSUR												
Agency		KERALA STATE POLLUTION CONTROL BOARD												
1	Station Code	2	2	9	0									
2	Date and time of sample taken (DD/MM/YY, HH/MM)	0	1	0	7	2	0	2	5				2	45 PM
3	Weather	Cloudy			Clear✓			Windy			Raining			
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm✓			Flood			
5	Color & Intensity	Clear✓			Turbid			Green			Brown			
		1 = Light✓			2 = Moderate			3 = High						
6	Odour	None			Fishy✓			H2S			Other			
7	Floating Matter	Floating			Floating sludge			Oil & Grease			Water Hyacinth			
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None✓						
9	Human activities around the station	Cattle wading			Farming			Fishing✓		Bathing		Other✓		
10	Location details	U/s of town or industrial area			D/s of town or industrial area ✓			Pilgrim center/Bathing Ghat/Water intake			None			
11	Flow rate													
12	Major polluting source	Industrial effluent			MSW✓		PW		None		Other✓			
13	Uses of water in downstream	Irrigation			Drinking water source			Fishing ✓		Domestic				
		Organized			Cultivation✓			Bathing		Others✓				
SL.No	Determinants							Values						
1	Temperature, 0C							34						
2	Dissolved Oxygen, mg/l							7.3						
3	pH							7.4						
4	Conductivity, µmhos/cm							105						
5	BOD, mg/l							0.87						
6	Nitrate-N, mg/l							0.3						
7	Turbidity, NTU							0.8						
8	Phenolphthalein Alkalinity, mg/l							BDL						
9	Total Alkalinity, mg/l							14						
10	Chloride, mg/l							23						
11	COD, mg/l							16						
12	TKN, mg/l							BDL						
13	Ammoniacal-N, mg/l							BDL						
14	Hardness as CaCO3, mg/l							30						
15	Calcium as CaCO3, mg/l							18						
16	Magnesium as CaCO3, mg/l							12						
17	Sulphate, mg/l							4.8						
18	Calcium (Ca2+), mg/l							7.214						
19	Magnesium (Mg2+), mg/l							2.916						
20	Sodium, mg/l							13						
21	Total Dissolved Solids, mg/l							63						
22	Total Fixed Solids, mg/l							44						
23	Total Suspended Solids, mg/l							BDL						
24	Phosphate, mg/l							0.1						
25	Boron, mg/l							BDL						
26	Potassium, mg/l							2						
27	Fluoride, mg/l							BDL						
28	Total Coliform, MPN/100 ml							200						
29	Fecal Coliform, MPN/100 ml							80						
30	Fecal Streptococcus, MPN/100 ml							NIL						
31	% SODIUM							46.5						
32	SAR							1						

NATIONAL WATER QUALITY MONITORING PROGRAMME (NWMP)														
Station Name		KECHERI												
Type of Water body		RIVER												
Completed by		DO, THRISSUR												
Agency		KERALA STATE POLLUTION CONTROL BOARD												
1	Station Code	2	2	9	1									
2	Date and time of sample taken (DD/MM/YY, HH/MM)	0	1	0	7	2	0	2	5			2	5	PM
3	Weather	Cloudy			Clear✓			Windy			Raining			
4	Approximate depth of main stream	< 50 cm			50 – 100 cm			>100 cm✓			Flood			
5	Color & Intensity	Clear✓			Turbid			Green			Brown			
		1 = Light✓			2 = Moderate			3 = High						
6	Odour	None✓			Fishy			H2S			Other			
7	Floating Matter	Floating			Floating sludge			Oil & Grease			Water Hyacinth			
8	Visible effluent discharges in proximity	Industrial			Municipal sewage			None						
9	Human activities around the station	Cattle wading			Farming✓			Fishing✓		Bathing		Other✓		
10	Location details	U/s of town or industrial area			D/s of town or industrial area ✓			Pilgrim center/Bathing Ghat/Water intake			None			
11	Flow rate													
12	Major polluting source	Industrial effluent			MSW✓		PW		None		Other ✓			
13	Uses of water in downstream	Irrigation			Drinking water source			Fishing✓		Domestic				
		Organized			Cultivation✓			Bathing		Others✓				
SL.No	Determinants							Values						
1	Temperature, 0C							33						
2	Dissolved Oxygen, mg/l							7.4						
3	pH							7.3						
4	Conductivity, µmhos/cm							120						
5	BOD, mg/l							0.6						
6	Nitrate-N, mg/l							1.2						
7	Turbidity, NTU							2.1						
8	Phenolphthalein Alkalinity, mg/l							BDL						
9	Total Alkalinity, mg/l							11						
10	Chloride, mg/l							26						
11	COD, mg/l							32						
12	TKN, mg/l							BDL						
13	Ammoniacal-N, mg/l							BDL						
14	Hardness as CaCO3, mg/l							36						
15	Calcium as CaCO3, mg/l							24						
16	Magnesium as CaCO3, mg/l							12						
17	Sulphate, mg/l							4.8						
18	Calcium (Ca2+), mg/l							9.619						
19	Magnesium (Mg2+), mg/l							2.916						
20	Sodium, mg/l							14						
21	Total Dissolved Solids, mg/l							72						
22	Total Fixed Solids, mg/l							54						
23	Total Suspended Solids, mg/l							BDL						
24	Phosphate, mg/l							0.05						
25	Boron, mg/l							BDL						
26	Potassium, mg/l							1.08						
27	Fluoride, mg/l							0.08						
28	Total Coliform, MPN/100 ml							210						
29	Fecal Coliform, MPN/100 ml							90						
30	Fecal Streptococcus, MPN/100 ml							NIL						
31	% SODIUM							44.9						
32	SAR							1						

**STATE WATER QUALITY MONITORING PROGRAMME
(SWMP)...July... 2025**

Station Name		Chalakudy						
Type of Water body		River						
Name of Water Body		Chalakudy						
Completed by		DO Thrissur						
Agency		KERALA STATE POLLUTION CONTROL BOARD						
1	Station Code	K52						
2	Date and time of sample taken (DD/MM/YY, HH/MM)	09.07.2025						
		12:30 PM						
3	Weather	Cloudy	Clear✓		Windy		Raining	
4	Approximate depth of main stream	< 50 cm	50 – 100 cm		>100 cm✓		Flood	
5	Color & Intensity	Clear✓	Turbid		Green		Brown	
		1 = Light✓	2 = Moderate		3 = High			
6	Odour	None✓	Fishy		H2S		Other	
7	Floating Matter	Floating	Floating sludge		Oil & Grease		Water Hyacinth	
8	Visible effluent discharges in proximity	Industrial	Municipal sewage		None			
9	Human activities around the station	Cattle wading	Farming✓		Fishing✓	Bathing		Other✓
10	Location details	U/s of town or industrial area	D/s of town or industrial area✓		Pilgrim center/Bathing Ghat/Water intake			None
11	Flow rate							
12	Major polluting source	Industrial effluent	MSW✓	PW	None		Other✓	
13	Uses of water in downstream	Irrigation	Drinking water		Fishing✓		Domestic	
		Organized water source	Cultivation✓		Bathing Ghat		Others✓	

Sl. No	Determinants	Values
1	Temperature, 0C	27
2	Dissolved Oxygen, mg/l	7.6
3	pH	7.06
4	Conductivity, µmhos/cm	72
5	BOD, mg/l	0.6
6	Nitrate-N, mg/l	0.3
7	Turbidity, NTU	1
8	Total Alkalinity, mg/l	8
9	Chloride, mg/l	11.6
10	Ammoniacal-N, mg/l	BDL
11	Hardness as CaCO3, mg/l	16
12	Calcium as CaCO3, mg/l	10
13	Magnesium as CaCO3, mg/l	6
14	Sulphate, mg/l	4.1
15	Sodium, mg/l	7
16	Total Dissolved Solids, mg/l	43
17	Phosphate, mg/l	0.02
18	Boron, mg/l	BDL
19	Potassium, mg/l	2.08
20	Total Coliform, MPN/100 ml	130
21	Fecal Coliform, MPN/100 ml	70
22	Sodium Absorption Ratio (SAR)	0.8

POLLUTED RIVER STRETCH MONITORING PROGRAM													(JULY 2025)	
Station Name		KALPATHYPUZHA AT KALPATHY												
Type of Water body		RIVER												
Completed by		DO, PALAKKAD												
Agency		Kerala State Pollution Control Board												
1	Station Code	3	4	6	0									
2	Date and time of sample taken (DD/MM/YY, HH/MM)	7/2/2025												
3	Weather	0	9	:	5	5								
4	Approximate depth of main stream	Cloudy		Clear ✓		Windy		Raining						
5	Color & Intensity	< 50 cm		50 – 100 cm		>100 cm✓		Flood						
6	Odour	Clear ✓		Turbid		Green		Brown						
7	Floating Matter	1 = Light		2 = Moderate ✓		3 = High								
8	Visible effluent discharges in proximity	None ✓		Fishy		H ₂ S		Other						
9	Human activities around the station	Floating Algae		Floating sludge		Oil & Grease		Water Hyacinth						
10	Location details	Industrial		Municipal sewage ✓		None								
11	Flow rate	Cattle wading ✓		Tourism spot		Fishing		Bathing ✓		Other				
12	Major polluting source	U/s of town or industrial area ✓		D/s of town or industrial area		Pilgrim center/Bathing Ghat/Water intake✓		None						
13	Uses of water in downstream	m ³ /s		Industrial effluent		MSW ✓		PW		None		Other		
		Irrigation		Drinking water source ✓		Fishing		Domestic						
		Organized water source		Cultivation		Bathing Ghat		Others						

SL.No	Determinant	Value
1	Temperature, °C	29
2	Dissolved Oxygen, mg/l	6.5
3	pH	8.5
4	Conductivity, µmhos/cm	500
5	BOD, mg/l	1.2
6	Nitrate-N, mg/l	0.4
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, as CaCO ₃ mg/l	2
9	Total Alkalinity, as CaCO ₃ mg/l	174
10	Chloride, mg/l	52
11	COD, mg/l	5
12	TKN, mg/l	BDL
13	Ammoniacal-N, mg/l	BDL
14	Hardness, as CaCO ₃ mg/l	180
15	Calcium, as CaCO ₃ mg/l	100
16	Magnesium as CaCO ₃ , mg/l	80
17	Sulphate, mg/l	25
18	Calcium (Ca ²⁺), mg/l	40
19	Magnesium (Mg ²⁺), mg/l	19.4
20	Sodium, mg/l	30
21	Total Dissolved Solids, mg/l	289
22	Total Fixed Solids, mg/l	188
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	0.2
25	Boron, mg/l	BDL
26	Potassium, mg/l	5
27	Fluoride, mg/l	0.2
28	Total Coliform, MPN/100 ml	16000
29	Fecal Coliform, MPN/100 ml	12800
30	Fecal streptococci , MPN/100 ml	1140
31	% Sodium	25.90
32	SAR	0.97

POLLUTED RIVER STRETCH MONITORING PROGRAM (JULY 2025)												
Station Name		RIVER KORAYAR AT KANJIKODE										
Type of Water body		RIVER										
Completed by		DO, PALAKKAD										
Agency		Kerala State Pollution Control Board										
1	Station Code	2	3	2	6							
2	Date and time of sample taken (DD/MM/YY, HH/MM)	7/2/2025										
3	Weather	1	0	:	3	0						
4	Approximate depth of main stream	Cloudy		Clear ✓		Windy		Raining				
5	Color & Intensity	< 50 cm		50 – 100 cm ✓		>100 cm		Flood				
6	Odour	Clear ✓		Turbid		Green		Brown				
7	Floating Matter	1 = Light		2 = Moderate ✓		3 = High						
8	Visible effluent discharges in proximity	None ✓		Fishy		H ₂ S		Other				
9	Human activities around the station	Floating Algae		Floating sludge		Oil & Grease		Water Hyacinth				
10	Location details	Industrial		Municipal sewage		None ✓						
11	Flow rate	Cattle wading ✓		Tourism spot		Fishing		Bathing ✓		Other		
12	Major polluting source	U/s of town or industrial area		D/s of town or industrial area ✓		Pilgrim center/Bathing Ghat/Water intake		None				
13	Uses of water in downstream	m ³ /s										
		Industrial effluent		MSW		PW		None ✓		Other		
		Irrigation ✓		Drinking water source ✓		Fishing		Domestic				
		Organized water source		Cultivation		Bathing Ghat		Others				

Sl.No	Determinant	Value
1	Temperature, °C	29
2	Dissolved Oxygen, mg/l	6.5
3	pH	8.7
4	Conductivity, µmhos/cm	1025
5	BOD, mg/l	1
6	Nitrate-N, mg/l	1.5
7	Turbidity, NTU	BDL
8	Phenolphthalein Alkalinity, as CaCO ₃ mg/l	4
9	Total Alkalinity, as CaCO ₃ mg/l	320
10	Chloride, mg/l	117
11	COD, mg/l	6
12	TKN, mg/l	BDL
13	Ammoniacal-N, mg/l	BDL
14	Hardness, as CaCO ₃ mg/l	368
15	Calcium, as CaCO ₃ mg/l	228
16	Magnesium as CaCO ₃ , mg/l	140
17	Sulphate, mg/l	40
18	Calcium (Ca ²⁺), mg/l	91.2
19	Magnesium (Mg ²⁺), mg/l	34
20	Sodium, mg/l	68
21	Total Dissolved Solids, mg/l	600
22	Total Fixed Solids, mg/l	380
23	Total Suspended Solids, mg/l	BDL
24	Phosphate, mg/l	BDL
25	Boron, mg/l	BDL
26	Potassium, mg/l	15
27	Fluoride, mg/l	0.2
28	Total Coliform, MPN/100 ml	4200
29	Fecal Coliform, MPN/100 ml	1800
30	Fecal streptococci , MPN/100 ml	320
31	% Sodium	27.60
32	SAR	1.54

National Mission for Clean Ganga
Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)
RIVER KADALUNDI, MALAPPURAM

S. 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		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		STP Repairing project DPC approved and sent to TS
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		Action plan prepared
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose.		
	• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB		
6.1	Progress Report may be comprised of details along with completion timelines on: (I) Identification of polluting sources including drains contributing to river		I) Already screen net placed to the both side of the Bridge and Periodic Inspection & Drainage Cleaning Doing

	pollution and action as per NGT order on in-situ treatment. (II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status (iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; (vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc. (vii) Ground water regulation (viii) Adopting good irrigation practices,		Action plan prepared through KWA NA Source level treatment units 8000 ring compost & 100 Biobin are distributed. Dry waste collecting and processing by shredding & Bailing Machine through HKS Done. Bio medical waste collection through IMAGE. NA Inspection activities doing NA NA NA
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	(ix) Protection and management of food plain Zones (FPZ),		NA
	(x) Rain water harvesting,		NA
	(xi) Maintaining minimum Environmental flow of river		NA
	(xii) Plantation on both sides of the river		
	(xiii) Setting up biodiversity parks on flood plains by removing encroachment		

ACTION PLAN FOR RIVER KADALUNDI, MALAPPURAM, KERALA

1. 2. Malappuram Municipality - Short Term Solid & Liquid Waste Management Action Plan								
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% of works completed	Details of works remaining
1.1	Slaughter house and Poultry house	Malappuram Municipality	July 2010	Fund Requested	Fund Requested	Fund Requested	NA	NA
1.2	Valiyathodu Cleaning - 8 Km length	Malappuram Municipality	Completed	Cleaned	Cleaned	Cleaned	50%	Cleaned

1.3	Installation of screening net in the Valiyathode	Malappuram Municipality	December 2019	Inspected	Inspected	Inspected	100%	NA
1.4	Identification of polluting points in Kadalundi river & awareness campaign - River walk(puzha nadatham – 15 km length)	Malappuram Municipality	Completed			Inspection' & Cleaning activities doing	100 %	NA
1.5	Sanitation facility and treatment of waste water in the markets - Treatment plant	Malappuram Municipality	Completed	New Building Construction Process	New Building Construction Process		50%	New Building Construction Process
1.6	The discharge of waste water from the surrounding houses to the Valiyathodu - Blocking of discharge of liquid waste	Malappuram Municipality	Completed	100%	100%	100%	100%	
1.7	Identification of illegal outlets into storm water drains and fine imposed on such units.	Malappuram Municipality	Ongoing	Ongoing	Ongoing	Inspection continuing	Inspection continuing & action taken	NA
1.8	Biodegradable waste Bio bins – 176	Malappuram Municipality	March	March	Completed	Completed		

	Bucket compost – 269 Thumboormuzhi Aerobic bins - 4 Biogas plant -55		2020 March 2020 March 2020 March 2020	2020 March 2020 March 2020 March 2020	Completed Completed	Completed Completed		100% 100% 100%
1.9	Non biodegradable waste MCF Plastic shredding and Bailing Echo Kiosk	Malappuram Municipality	March 2020 Completed March 2020				DPR under preparation Unit Functioning	100%
1.10	Identification and monitoring of illegal activities CC tv Network installation	Malappuram Municipality	March 2020				Under Processing	Nil

2.Kerala State Pollution Control Board

No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
2.1	River water quality Monitoring- Thirurangadi, Hajiyarpally National Water Quality Programme(NWMP)	KSPCB	Ongoing; Monthly frequency			Ongoing; Monthly frequency		
2.2	River water quality Monitoring - Thirurangadi, Kooriyad, Manikut, Hajiyarpally, Anakkayam, Oravambrum -	KSPCB	Ongoing; Seasonal - Pre - monsoon, monsoon, post - monsoon			Ongoing; Monthly frequency		

	State Water monitoring programme (SWMP)							
2.3	Inspection and effluent quality monitoring of the flats, industrial units, service stations, hospitals, hotels etc. in Malappuram Municipal area	KSPCB	Ongoing; Interval; Red – 1 month, Orange- 3 months, Green- 6 months			Ongoing		
	3.Ground Water Department							
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
3.1.	Ground Water resources and regulation of	Ground water Department		No action included in the	No action included in the	No action included in the		

	ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier status : As per Groundwater resources of Kerala, 2017 estimate a total number of 3 blocks (Mankada, Vengara and Malappuram) comes under the Kadalundi river basin. Out of three blocks Malappuram and Vengara are semi-critical blocks and the rest is a safe one, stage of groundwater extraction ranges from 69.43 % to			approved action plan to be performed by Ground Water Department	approved action plan to be performed by Ground Water Department	approved action plan to be performed by Ground Water Department		
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	79.84%)							
3.2	Ground water recharging / rain water harvesting (Earlier status : The average pre - monsoon groundwater level ranges from 7.59mbgl - 13.57 mbgl. Groundwater Department has implemented 3 no of roof top rain water recharging through recharge pit schemes in Vengara block.)	Ground water Department		No action included in the approved action plan to be performed by Ground Water Department	No action included in the approved action plan to be performed by Ground Water Department	No action included in the approved action plan to be performed by Ground Water Department		
3.3	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or hand pumps (Earlier status : Groundwater Department has 6 observation dug	Ground water Department		No action included in the approved action plan to be performed by Ground Water Department	No action included in the approved action plan to be performed by Ground Water Department	No action included in the approved action plan to be performed by Ground Water Department		

	wells and 14 bore wells in the river stretch. (report attached) (Map No: 7 attached))							
3.4	For regulating use of ground water for irrigation purpose, adopting good irrigation practices (Earlier status : The total irrigation draft in the area ranges from 979.683 - 1857.49 ha.m.)	Ground water Departme nt		No action included in the approved action plan to be performed by Ground Water Departme nt	No action included in the approved action plan to be performed by Ground Water Departme nt	No action included in the approved action plan to be performed by Ground Water Departme nt		

ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN TIRUR RIVER

FOR THE MONTH OF JULY 2025

SI NO	Name of point	PARAMETERS				
		pH	DO (mg/l)	BOD (mg/l)	COD (mg/l)	FC(cfu/100ml)
1	Drain near Tirur Railway station	6.7	4.9	1.9	3.4	20
2	Thazhepalam drain	7.1	6	2.8	4.1	80
3	Naduvilangadi drain (old ponnanihodu)	Dried				
4	Annassery drain	Dried				
5	Canal at CV Land	Dried				
6	Canal at Mangalam thuruth	7.3	5.7	2.6	4.6	80
7	Canal at Pullooni	6.8	5.1	2.8	4.8	100
8	Drain near Mangattiri bridge	Dried				
9	Drain near Ettirikkadavu bridge	6.9	4.1	1.2	3.2	20
10	Epothingal	6.6	4.9	1	3.4	80
11	Asarikkadav	7.5	5.9	1.8	3.2	680
12	Kandanathkadav	Dried				
13	Pancharamoola	6.8	4.8	1.3	3.4	100
14	Kakadav	7.2	4.5	1	3.6	140
15	Kanathkadav	7.3	4.5	1	4.1	120
16	Drain near tirur railway station	Dried				
17	Payyanangadi (kadayithodu)	7.4	6.3	3.7	4.8	260

**ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN KADALUNDY RIVER
JULY 2025 ALONG WITH HAJIYARPALLY**

Sl.No	Name of point	PARAMETERS				
		pH	DO (mg/l)	BOD(mg/l)	COD (mg/l)	FC (cfu/100 ml)
1	Valiyangadi drain	7.1	6.7	1	3.9	240
2	Valiyangadi bypass drain	6.7	5.5	1.6	4.2	440
3	Valiyathod drain	7.2	7.3	1.8	3.6	260
4	Hajiyarpally	7.1	7.2	1.6	3.8	440



ASSISTANT SCIENTIST

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER TIRUR, MALAPPURAM

S. 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		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose.		
	• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB		
6.	Progress Report may be comprised of details		

1	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. - II <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline - III <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status (iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; (vi) Preventing dumping of waste and scientific		
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	waste management including bio-medical waste, plastic waste and decentralizing waste processing, including waste generated from hotels, Ashrams, etc. (vii)Ground water regulation (viii) Adopting good irrigation practices, (ix) Protection and management of food plain Zones (FPZ), (x) Rain water harvesting, (xi)Maintaining minimum Environmental flow of river (xii) Plantation on both sides of the river (xiii) Setting up biodiversity parks on flood plains by removing encroachment		
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ACTION PLAN FOR RIVER TIRUR, KERALA

1	2 IRRIGATION DEPARTMENT							
No.	Activity	Implementing agency	Time line	Progress in the month of	Progress in the month of June 2025	Progress in the month of	% works completed	Details of works remaining

				May 2025		July 2025		
1.1.1	Strengthening the right side bund of Tirur-Ponnani puzha at Porur, ward no.I Tirur Municipality	Irrigation Department	6 Months					
1.1.2	Cleaning and development of old Ponnani thodu at Thazhepalam	Irrigation Department	6 Months					
1.1.3	Repair and Rehabilitation of Koottayi Regulator cum Bridge across Thirur-Ponnani Puzha in Mangalam Grama panchayatin Malappuram Dist	Irrigation Department	18 Months					
3	4 TIRUR MUNICIPALITY – SHORT TERM ACTION PLAN							
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining

1.2.1	Provide septic tank for nearest houses	Tirur Municipality	Dec 2019					
1.2.2	Establishment of Solid waste Treatment Plant ThumboorMozhi Model Aerobic Bin	Tirur Municipality	March 2020					
1.2.3	Establishment of Non Degradable waste treatment Plant Resource Recovery facility Centre Plastic Shredding Unit Segregation shed	Tirur Municipality	March 2020					
1.2.4	Slaughtering House	Tirur Municipality	December 2020					
1.2.5	Fencing on Bridgeside Thalakkadathur Bridge	Tirur Municipality	December 2020					
1.2.6	Installation of CCTV Camera near the river Bank Thalakkadathur Bridge	Tirur Municipality	May 2020					
1.2.7	Planting of Bamboo seedlings on the river bank (Thazhepalam)	Tirur Municipality	June 2020					
1.2.8	Renovation of Effluent treatment plant at fish Market AMC Granted ETP with Aeorobic System	Tirur Municipality Tirur Municipality	June 2019					
1.2.9	Setting up of STP at Private Bus stand	Tirur Municipality	June 2020					
1.2.10	Setting up of a new drain after demolishing the old one. The old one	Tirur Municipality	June 2020					

	was the hub of the waste water outlet of the shops and other establishments. The proposed drain is constructing in the middle of the road so as to avoid intrusion of pipes from outside							
1.2.11	Identification of illegal outlets into storm water drains and fine shall be imposed on such units	Tirur Municipality						
5	6 Cheriyamundam Grama panchayat							
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
1.3.1	Fencing on bridge side Thalakkadatur	Cheriyamundam Grama panchayat	March 2020					
	4.Kerala State Pollution Control Board							
No.	Activity	Implementing agency	Time line	Progress in the	Progress in the month of June	Progress in the	% works completed	Details of works remaining

				month of May 2025	2025	month of July 2025		
1.4.1	River water quality Monitoring- Thalakkadathur National Water Quality Programme(NWMP)	KSPCB	Ongoing; Monthly frequency					
1.4.2	River water quality Monitoring State Water monitoring programme (SWMP)	KSPCB	Ongoing; Seasonal					
1.4.3	Inspection and effluent quality monitoring of the flats, Industrial units, Service stations, hospitals, auditorium, hotels in Municipal area		Ongoing; Interval; Red – 1 month, Orange- 3 months, Green- 6 months					
	5.Ground Water Department							
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining

1.5.1.	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones/blocks (Earlier status : As per Groundwater resources of Kerala, 2017 estimate a total number of 2 blocks (Tirur and Kuttippuram) comes under the Tirur river basin. These two blocks are semi-critical blocks and the stage of groundwater extraction ranges from 77.75 % to 77.92%)	Ground water Department						
1.5.2	Ground water recharging / rain water harvesting (Earlier status : The average pre - monsoon groundwater level ranges from 6.14mbgl - 8.49 mbgl.)							
1.5.3	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/bore wells or handpumps (Earlier status : No observation well along the river stretches)							
1.5.4	For regulating use of ground water for irrigation purpose, adopting good irrigation							

	practices (Earlier status : The total irrigation draft in the area ranges from 49.14 - 870.97 ha.m.)							
	6. ACTION PLAN BY VARIOUS GRAMA PANCHAYATHs- Thalakkad, Vettom, Mangalam							
No.	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
1.6.1	Protection of Thirur Ponnani River	Thalakkad grama panchayath hand over fund to District Panchayat	31.03.2020					
1.6.2	Installation of CC TV camera on Yetterikadavu Kunjulikkadavu Mangattiri Bridge, Aikkanchiri Bridge, Paravanna Bridge	Vettom - KS SECURITY SYSTEM	Spill over due to lack of fund					
1.6.3	Installation of CC TV camera	Mangalam grama panchayath Win Plus Agency, Kondotty	Completed					
1.6.4	Haritha Keralam Thirur-Ponnani puzha protection	Mangalam grama panchayath Nirmithi Kendra, Kozhikkodu	31.03.2020					

ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN TIRUR RIVER

FOR THE MONTH OF JULY 2025

SI NO	Name of point	PARAMETERS				
		pH	DO (mg/l)	BOD (mg/l)	COD (mg/l)	FC(cfu/100ml)
1	Drain near Tirur Railway station	6.7	4.9	1.9	3.4	20
2	Thazhepalam drain	7.1	6	2.8	4.1	80
3	Naduvilangadi drain (old ponnanihodu)	Dried				
4	Annassery drain	Dried				
5	Canal at CV Land	Dried				
6	Canal at Mangalam thuruth	7.3	5.7	2.6	4.6	80
7	Canal at Pullooni	6.8	5.1	2.8	4.8	100
8	Drain near Mangattiri bridge	Dried				
9	Drain near Ettirikkadavu bridge	6.9	4.1	1.2	3.2	20
10	Epothingal	6.6	4.9	1	3.4	80
11	Asarikkadav	7.5	5.9	1.8	3.2	680
12	Kandanathkadav	Dried				
13	Pancharamoola	6.8	4.8	1.3	3.4	100
14	Kakadav	7.2	4.5	1	3.6	140
15	Kanathkadav	7.3	4.5	1	4.1	120
16	Drain near tirur railway station	Dried				
17	Payyanangadi (kadayithodu)	7.4	6.3	3.7	4.8	260

**ANALYSIS REPORT OF POLLUTED STRETCH POINTS IN KADALUNDY RIVER
JULY 2025 ALONG WITH HAJIYARPALLY**

Sl.No	Name of point	PARAMETERS				
		pH	DO (mg/l)	BOD(mg/l)	COD (mg/l)	FC (cfu/100 ml)
1	Valiyangadi drain	7.1	6.7	1	3.9	240
2	Valiyangadi bypass drain	6.7	5.5	1.6	4.2	440
3	Valiyathod drain	7.2	7.3	1.8	3.6	260
4	Hajiyarpally	7.1	7.2	1.6	3.8	440



ASSISTANT SCIENTIST

ACTION PLAN FOR RIVER KALLAYI , KERALA

Kerala State Pollution Control Board,District Office,Kozhikode

NATIONAL MISSION FOR CLEAN GANGA

Format for submission of monthly progress report by state/UTs

(Hon’ble NGT in the matter of OA.No.673/2018dated6/12/2018) For

the month of JULY 2025– Kallayi polluted river stretch

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		
2	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STP must be ensured.		
3	Timeline for completing all steps of action plans including completion of setting up STP and their commissioning		
4	Chief secretaries may setup appropriate monitoring mechanisms at the state level ● Specifying accountability of nodal authorities not below the secretary level ● Chief secretaries may have an accountable Person attached in their office for this purpose		
	● Monitoring at the state level must take place		

5	Progress report may be furnished by the state/UTs to ● Secretary,ministry of Jal Shakti ● Member secretary,CPCB		
5.1	Progress report may be comprised of details along with completion timeline on: (i) Identification of polluting source including drains contributing to river pollution and action as per NGT order on in situ treatment. (ii) <u>status of STPs,I&D and sewage networks</u> Details of Existing Infrastructure,Gap Analysis,Proposed along with completion timeline (iii) <u>status of CETPs</u> Details of existing CETP and ETP infrastructure,Gap analysis,proposed along with completion timeline,No.of industries and complying status. (iv) <u>status of solid waste management&details of processing facilities</u> Details of existing infrastructure,Gap analysis proposed along with completion timeline (v) Latest water quality of polluted river,its tributaries,drains with flow details and ground water quality in the catchment of polluted river; (vi) preventing dumping of waste and scientific waste management including bio-medical waste plastic waste and decentralizing waste processing,including waste		

	generated from hotels,ashrams etc. (vii) Ground water regulation (viii) Adopting good irrigation practices (ix) protection and management of flood plain zones(FPZ), (x) Rainwater harvesting (xi) Maintaining minimum environmental flow of river (xii) Plantation on both sides of the river (xiii) Setting up bio diversity parks on flood plains by removing encroachment		Monthly progress report enclosed
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KOZHIKODE CORPORATION

No.	Activity	Implementing agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
1	Identification of illegal outlets into storm water drain and issue Notice to such units	Kozhikode Corporation	30.12.2020			Continuing random inspections and imposing fine regularly	Continuing random inspections and imposing fine regularly	On going
2	Waste to energy project proposed at Njeliyamparamba	KSIDC	30.06.2021			Project dropped		
3	Establishment of Aerobic compost units	Kozhikode Corporation	Completed and functioning			Completed and functioning	100%	
4	Segregation of solid waste at source-level and treatment of household wastes	Kozhikode Corporation	30.06.2019			Completed	100% Coverage	

5	Setting up of rendering treatment plant for chicken stall wastes	Kozhikode Corporation	30.06.2019			Rendering plant installed in Thamarassery Panchayath(Fresh cut rendering plant).Chicken waste generated from chicken stalls under Kozhikode corporations are being transported to rendering plant at Thamarassery. 217chicken stall handed over the chicken waste in in to fresh cut rendering plant	100% Coverage	Functioning
6	Implementation of Green protocol unit	Kozhikode Corporation	30.06.19			On going		Ongoing
7	Setting up of common STP of (13MLD) (6 MLD At Kothibridge)&(7 MLD At Avikkal	Kozhikode Corporation	31.03.2020			Project dropped due to Public protest and court cases..	Project dropped	

8	Implementation of 27 MLD STP at Kottoli(Sarovaram)					After receiving Council approval, the project was submitted to the Government for Administrative sanction. The AS was deferred and directed to revise the proposal to increase the number of connections. KWA is revising the proposal. The administrative sanction for constructing a 27MLD STP at Kottoli(Sarovaram) was received on 08.01.2024. Technical sanction is pending with the KWA		27 MLD STP with 220 KLD FSTP as co-treatment with 54 km network
9	Cleaning of Canoli canal	Kozhikode Corporation	Periodical			Periodical cleaning		Continuous - seasonal
10	Purchasing of Solar Boat for Canoli canal cleaning	Kozhikode Corporation	31.03.2020			Project dropped		Project dropped

11	Installation of CCTV Camera for the Identification and monitoring of illegal activities	Kozhikode Corporation				On going		On going
12	Establishment of Mobile Septage Units	Kozhikode Corporation	31.03.2020			Project dropped		Project dropped
13	Action taken against dumping of wastes into river and public places	Kozhikode Corporation	On going action			Continuing random inspections and imposing fine regularly	Continuing random inspections and imposing fine regularly	Continuous
14	Cleaning of B.K canal	Kozhikode Corporation	31.03.2020			Completed	100%	
15	Establishment of treatment plant at Medical college (3MLD plant) 15.1-2 MLD plant proposed 15.2-1 MLD plant proposed	Kozhikode Corporation	31.03.2020			Completed and functioning.	100%	Functioning

16	Construction of drains at Y.M.RC Ayyankarcolony	Kozhikode Corporation	31.03.2020			90% coverage	90%	Progressing
17	Provide facility for MRF,RRF,Super MRF Three units existing 17.1 Njeliyanparamb 17.2 Industrial estate 17.3 Mayor Bhavan jayanthi nagar colony	Kozhikode Corporation				3.MRFand 5.MCFare already existing. New project going on.		New project under consideration
18	Identification of illegal outlets from house to storm water drain and issue Notice to such Houses	Kozhikode Corporation				On going - Continuous process	On going - Continuous process	Continuous
19	Establishment of Plastic shredding unit	Kozhikode Corporation				Project started		
20	Establishment of slaughtering unit	Kozhikode Corporation				Project under Consideration	Project under Consideration	Not reported
21	Cleaning of drains in Kozhikode Town	Kozhikode Corporation				On going - Continuous process		Continuous

Perumanna Grama Panchayath

No	Activity	Implementing agency	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
1	Outlets into storm Water drain and issue notice	Perumanna Panchayat, kozhikode			Inspection conducting regularly	Continuous	
2	Establishment of six aerobic compost units in panchayat	Perumanna Panchayat , Kozhikode through MGNREGS			Work completed(100% coverage)	100% coverage	Completed
3	Collection and segregation of solid waste in the river	Perumanna Panchayat			Work completed	Completed	
4	Setting up of 360 soak pit plant in all houses near the river area and panchayat	Perumanna Panchayat through MGNREGS			Progressing 80% completed	80% completed	Progressing
5	Implementation of 360 compost unit near river side and panchayat	Perumanna Panchayat , Kozhikode through MGNREGS			80% completed Progressing	80% completed	Progressing
6	Implementation of water flow project (Aluvangal Thazham Perumbatta Elamanapadam, Valiyapadam. Mampuzhthode	Perumanna Panchayat			Technical sanction obtained. Tender procedure completed.		

	Naveekarana, project no 260/2021 project cost 16.67 Lakhs).						
8	Cleaning of Mambuzha river (project name : Mambuzha water flow restoration, project no 01/2018-19	District Panchayat , Kozhikode			Work has been completed by District Panchayat, Kozhikode	Completed	
9	Establishment of 18 nos of mini MCF in different wards including Payyathi methal where the river is flowing	Perumanna Panchayat , Kozhikode through MGNREGS			Completed.	Completed.	
10	Collection of plastic Waste from the river	Perumanna Panchayat			Process will be done every year	Continuous	Continuous

Peruvayal Grama Panchayath

No .	Activity	Implementing agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	%works completed	Details of works remaining
1	Outlet in storm water drain and issued notice	Peruvayal G P	Continuous process			Ongoing		Continuous
2	Establishment of 56 units anaerobic composed unit in panchayat.	Peruvayal GP through MGNREGS	04/2023 to 03/2021			Ongoing	Ongoing	Continuous process
3	Setting up of 379 soak pit plant in all houses	Peruvayal G P	04/2023 to 03/2024			Completed	Completed	Completed
4	Cleaning of Mambuzha river (Mambuzha renovation) project no :190/2017-18	District panchayat Kozhikode	2017-2018			Completed	Completed	

5	Establishment of 8 numbers of mini MCF	Peruvayal GP through MGNREGS	04/2023 TO 03/2024			80% completed	80% completed	No further progress reported
6	Collection of plastic waste from the river	Peruvayal GP	Continuous process			Work completed	100% coverage	
7	Collection and segregation of solid waste in the river	Peruvayal GP	Continuous process			Ongoing	Ongoing	Continuous process
8	Establishment of Bio gas plant	Peruvayal GP	2023-24			Work completed (70% coverage)	70% coverage	No further progress reported
9	Well recharge	Peruvayal GP through MGNREGS	2023-24			Work completed (60% coverage) .	60% coverage	No further progress reported

Mavoor Grama Panchayat

No.	Activity	Implementing agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% Work completed	Details of work remaining
1	Transportation of waste management to refinement unit	Konnari Advanced Polymers Limited	2022-23			Completed	100%	
2	Cleaning of Cherupuzha (Kuniyakadav to Thenghilakadav)	Mavoor GP	2022-23			Completed	100%	
3	Valayannor Thodu cleaning	MGNREGS	2022-23			Completed		
4	Arayancode kalchira Thodu Cleaning	MGNREGS	2022-23			Completed		
5	Vellaram Kandi Chirakkal thazham thodu	Mavoor GP	2023-24			Completed	100%	
6	Ring compost	Mavoor GP	2023-24			Completed		
7	Kadayan thodu	MGNREGS	2023-24			Completed	100%	
8	Chalippadam Punchappadam thodu	MGNREGS	2023-24			Completed	100%	
9	Puthiyottil thazham Elaram thodu	MGNREGS	2023-23			Completed	100%	

OLAVANNA GRAMAPANCHAYAT

No	Activity	Implementing Agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% Works Completed	Details Of Remaining
1	Collection of plastic waste from the river	Olavanna Gramapanchayat	Continuou s process			Completed	Completed	
2	Collection of segregation of solid waste in the river	Olavanna Gramapanchayat	Continuou s process			Completed	Completed	
3	Cleaning of Mambuzha river	Olavanna Gramapanchayat	Continuou s process			Completed	Completed	Completed
4	Well recharge	Olavanna Gramapanchayat through MGNREGS	4/2023 To 3/2024			Completed	100%	
5	Setting up of soak pit in houses	Olavanna Gramapanchayat through MGNREGS	4/2022 To 3/2024			Completed	100%	
6	Action taken against dumping of waste in to river	Olavanna Gramapanchayat	Continuou s process			Process continuing	100%	Completed
7	Collection of non-biodegradable waste	Harith karma sena	Throughout the year			Process continuing	Process continuing	Continuous

IRRIGATION DEPARTMENT

N o	Activity	Implementing Agency	Timeline	Progress in the month of MAY 2024	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% Works Completed	Details Of Remaining Work
1	Desilting of Kallayi river from Kaduppini to Kothi in Kozhikode Corporation	Irrigation department	31.03.2021	Desiltation of Kallai river under urban agglomeration scheme SHO on 12.09.2024 and Dredging work started, Work Completed 10 %(Work halted due to off season)			10%	
2	Provide fencing on the sides of the Bridge	Irrigation department	31.03.2021	SHO on 22.08.2024 for providing chain linked fencing on Kothi bridge(Work in progress 30% completed) & SHO on 20.07.2024 for provididng chain linked fencing for Mooriyad road bridge(Work 100% completed)				
3	Dredging , Desilting & removal of weeds from E K canal (11.21 km)	Irrigation department	31.07.2019	Work entrusted to Kerala Waterways & Infrastructure Ltd (KWIL)				
4	Bio park in Kozhikode District	Irrigation department		Land for the proposed bio park is to be demarcated by the Revenue authorities after necessary boundary survey and subsequent bio cover works are to be done by the Social Forestry Department				
5	Flood prone mapping in Kozhikode District	Irrigation department		Action to be taken by the Hydrology Wing of Irrigation Department as this needs data collection, scientific analysis and modelling skills				

Kerala State Pollution Control Board

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
1	River water quality monitoring-Kallayi river National Water Quality Monitoring Programme (NWMP)	KSPCB	Ongoing ; monthly frequency			Process continuing		
2	River water quality monitoring-Kallayi rivers State Water Monitoring Programme,KSPCB fund(SWMP)	KSPCB	Ongoing. Seasonal monitoring- pre-monsoon , monsoon , post-monsoon			Process continuing		
3	Inspection and effluent quality monitoring of the flats,industrial units,service stations, hospitals, Hotels etc. In Malappuram Municipal area	KSPCB	Ongoing Interval: Red- 1 month. Orange-3months. Green-6months.			Process continuing		

Suchitwa Mission

No. (as per Action Plan)	Activity	Implementing agency	Timeline	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
1	Board displaying messages against dumping to be placed in river banks	Suchitwa Mission	15.07.19			Process continuing		

Action Plan by Ground Water Department

No. (as per Action Plan)	Activity	Implementing agency	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
B(i)	Ground Water resources and regulation of ground water extraction by industries particularly in over exploited as critical zones / blocks	Ground Water Department			As per Ground water resources of Kerala,2017 estimate, Kozhikode Block comes under the Kallai river basin and the block is safe with stage of ground water Extraction 68.49%		
B(ii)	Ground water recharging/ rain water harvesting	Ground Water Department			The average pre - monsoon ground water level is 7.23 mbgl. Ground water Department has implemented 3 no of dug well recharge schemes at Kozhikode block		
B(iii)	Periodic ground waste quality assessment and remedial actions in case of contaminated ground water tube wells/ bore wells or hand pumps	Ground Water Department			Ground water Department has 1 observation Piezometer (BW) in the river stretch.)		
B(iv)	For regulating use of ground water for irrigation purpose, adopting good irrigation practices	Ground Water Department			The total irrigation draft in the Block area is 488.76 ha.m.)		

Action plan by irrigation Department

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of MAY 2025	Progress in the month of JUNE 2025	Progress in the month of JULY 2025	% works completed	Details of works remaining
E	Dredging and desilting	Irrigation Department	3 years			Desiltation of Kallai river under urban agglomeration scheme SHO on 12.09.2024 and Dredging work started, Work Completed 10 %(Work halted due to off season)	10%	
E	E-flow (by micro water shed management)	Irrigation Department	3 years			Action to be taken by the hydrology wing of irrigation department as this needs data collection, scientific analysis and modeling skills. The matter has been communicated to the Hydrology wing Assistant Engineer at Kozhikode.		
E	Flood plain zone (protection and management)	Irrigation Department	3 years			Action to be taken by the hydrology wing of irrigation department. The matter has been communicated to the Hydrology wing.		
E	Greenery development (plant in trees on the banks)	Irrigation Department	3 years			Not reported		Not reported

Scientist in charge

National Mission for Clean Ganga

**Format for Submission of Monthly Progress Report by States/UTs
(Hon'ble NGT in the matter of OA No.673/2018 dated 06.12.2019)**

RIVER UPPALA, KASARGOD

S. 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		
	Commencement of setting up of STPs and connecting all the drains and other sources of generation of sewage to the STPs must be ensured		
2	Timeline for completing all steps of action plans including completion of setting up STPs and their Commissioning		
5	Chief Secretaries may set up appropriate monitoring mechanism at state level • Specifying accountability of nodal authorities not below the Secretary level • Chief Secretaries may have an accountable person attached in their office for this purpose		
	• Monitoring at State level must take place		
6	Progress report may be furnished by the State/UTs to • Secretary, Ministry of Jal Shakti • Member Secretary, CPCB		
6.	Progress Report may be comprised of details along with		

1	completion timelines on: (I) Identification of polluting sources including drains contributing to river pollution and action as per NGT order on in-situ treatment. (II) <u>Status of STPs, I&D and sewerage networks</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (III) <u>Status of CETPs</u> Details of Existing CETP and ETP Infrastructure, Gap Analysis, Proposed along with completion timeline, No. of industries and complying status (iv) <u>Status of Solid Waste Management & Details of Processing Facilities</u> Details of Existing Infrastructure, Gap Analysis, Proposed along with completion timeline (v) Latest water quality of polluted river, its tributaries, drains with flow details and ground water quality in the catchment of polluted river; (vi) Preventing dumping of waste and scientific waste management including bio-medical waste, plastic waste and decentralizing waste processing, including		
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	waste generated from hotels, Ashrams, etc. (vii)Ground water regulation (viii) Adopting good irrigation practices (ix) Protection and management of food plain Zones (FPZ) (x) Rain water harvesting (xi)Maintaining minimum Environmental flow of river (xii) Plantation on both sides of the river (xiii)Setting up biodiversity parks on flood plains by removing encroachment		
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ACTION PLAN FOR RIVER UPPALA, KERALA

No. (as per Action Plan)	Activity	Implementing agency	Time line	Progress in the month of May 2025	Progress in the month of June 2025	Progress in the month of July 2025	% works completed	Details of works remaining
C(ii)	Material collection facility. Operation	Mangalpady Grama Panchayath	2019	Not submitted	Not submitted	Not submitted		
C	Waste management including	Mangalpady Grama	2019-	Not submitted	Not submitted	Not		

	purchase of vehicle to collect waste.	Panchayath	2020			submitted		
E	Installation of camera	Mangalpady Grama Panchayath	March 2020	Not submitted	Not submitted	Not submitted		
C	Electrification of material collection facility	Manjeshwaram Grama Panchayat	2019-2020	Electrified	Electrified	Not submitted		
C	Transportation of collected waste	Manjeshwaram Grama Panchayat	March 2020	20210 KG REJECTED WASTE TRANSPORTED	11670 KG REJECTED WASTE TRANSPORTED	Not submitted		
E	Installation of camera	Manjeshwaram Grama Panchayat	March 2020	CCTV INSTALLED AT 4 PLACES BY KELTRON, CONNECTED TO POLICE STATION AND PANCHAYATH OFFICE INSTALLATION OF 14 CC CAMERA, CAMERA INSTALLATION COMPLETED	CCTV INSTALLED AT 4 PLACES BY KELTRON, CONNECTED TO POLICE STATION AND PANCHAYATH OFFICE INSTALLATION OF 14 CC CAMERA, CAMERA INSTALLATION COMPLETED	Not submitted		
C	Tying of net on both sides of the bridge	Irrigation Department				A letter has sent to The Project Director Project implementation Unit NHAI Kannur for including fencing on both		

						sides of bridges across uppala river which are under construction as part of NH 66 widening		
E	Continuous vigil on waste dumping on roads	Police Department						
A(a)	Water quality monitoring	KSPCB	Being done regularly					

UPPALA RIVER - UPPALA BRIDGE (Existing NWMP Station)		
Sampling Point		Uppala Bridge
NWMP Station Code		2306
Latitude		12°41'41.7"N
Longitude		74°54'16.9"E
Date of Sampling		23.07.2025
Nature and flow of the river		Moderate flow
Sl.No	Parameters	Uppala Bridge
1	Temperature, 0C	26
2	Dissolved Oxygen, mg/l	7.5
3	pH	8.1
4	Conductivity, µmhos/cm	82
5	BOD, mg/l	1.3
6	Nitrate-N, mg/l	3.2
7	Turbidity, NTU	1.6
8	Phenolphthalein Alkalinity, mg/l	...
9	Total Alkalinity, mg/l	18
10	Chloride, mg/l	13
11	COD, mg/l	3.8
12	TKN, mg/l	...
13	Ammoniacal-N, mg/l	0.1
14	Total Hardness as CaCO ₃ , mg/l	20
15	Calcium as CaCO ₃ , mg/l	11
16	Magnesium as CaCO ₃ , mg/l	9
17	Sulphate, mg/l	5.1
18	Calcium (Ca ²⁺), mg/l	4.4
19	Magnesium (Mg ²⁺), mg/l	2.2
20	Sodium, mg/l	9.3
21	Total Dissolved Solids, mg/l	57
22	Total Fixed Solids, mg/l	42
23	Total Suspended Solids, mg/l	153
24	Phosphate, mg/l	0.01
25	Boron, mg/l	0.3
26	Potassium, mg/l	1.1
27	Fluoride, mg/l	0.55
28	Total Coliform, cfu/100 ml	6600
29	Fecal Coliform, cfu/100 ml	2100
30	Fecal Streptococcus, cfu/100 ml	300
31	% SODIUM	48.6
32	SAR	0.9

UPPALA RIVER - UPPALA RIVER NEAR BHAGAVATHI TEMPLE (Bhagavathi Gate) - (Proposed NWMP Station)			
Sampling Point		Uppala River Near Bhagavathi Temple (Bhagavathi Gate)	
Distance from existing NWMP Station		878.66 m	
Latitude		12°41'20.1"N	
Longitude		74°54'34.0"E	
Date of Sampling		23.07.2025	
Nature and flow of the river		moderate flow	
Sl.No	Parameters	Unit	Uppala River Near Bhagavathi Temple (Bhagavathi Gate)
1	Temperature	° C	26
2	pH	-	7.4
3	Conductivity	µmhos/cm	94
4	Turbidity	NTU	0.4
5	BOD	mg/l	2.0
6	Dissolved Oxygen	mg/l	6.1
7	Total Coliforms	cfu/100ml	4800
8	Fecal Coliforms	cfu/100ml	2400
9	Fecal Streptococcus	cfu/100ml	460
10	Chlorides	mg/l	14
11	Total Alkalinity	mg/l	34
12	Total Hardness	mg/l	25
13	Calcium Hardness	mg/l	17
14	Magnesium Hardness	mg/l	8
15	Calcium	mg/l	6.8
16	Magnesium	mg/l	1.9
17	Total Dissolved Solids	mg/l	60
18	Sodium	mg/l	7.1
19	Potassium	mg/l	1.1
20	Nitrate	mg/l	8.7

Sd/-
Assistant Scientist

Monthly Analysis report of river -Pullur- JULY 2025		
Sampling Date: 14/07/2025		
Station Name	RIVER PULLUR AT PULLUR BRIDGE	
Type of Water body	RIVER	
Sl.No	Determinants	Values
1	Temperature, 0C	25
2	Dissolved Oxygen, mg/l	6.9
3	pH	7.6
4	Conductivity, μ mhos/cm	68
5	BOD, mg/l	1.9
6	Nitrate-N, mg/l	3.2
7	Turbidity, NTU	0.8
8	Phenolphthalein Alkalinity, mg/l	-
9	Total Alkalinity, mg/l	14
10	Chloride, mg/l	5
11	COD, mg/l	5
12	TKN, mg/l	-
13	Ammoniacal-N, mg/l	0.1
14	Total Hardness as CaCO ₃ , mg/l	20
15	Calcium as CaCO ₃ , mg/l	12
16	Magnesium as CaCO ₃ , mg/l	8
17	Sulphate, mg/l	4.8
18	Calcium (Ca ²⁺), mg/l	4.8
19	Magnesium (Mg ²⁺), mg/l	1.9
20	Sodium, mg/l	3.8
21	Total Dissolved Solids, mg/l	41
22	Total Fixed Solids, mg/l	30
23	Total Suspended Solids, mg/l	143
24	Phosphate, mg/l	0.004
25	Boron, mg/l	0.3
26	Potassium, mg/l	1.0
27	Fluoride, mg/l	1.0
28	Total Coliform, MPN/100 ml	6400
29	Fecal Coliform, MPN/100 ml	4200
30	Fecal Streptococcus, MPN/100 ml	320
31	% SODIUM	28.0
32	SAR	0.37

Sd/

ASSISTANT SCIENTIST