

# LOCAL AUDIT REPORT ON THE ACCOUNTS AND REGISTERS OF THE PUBLIC HEALTH DIVISION (KWA), KOCHI FOR THE PERIOD 2017-18

## Part I

### a. Introductory

Public Health Division (KWA), Kochi attends to the maintenance of various Water Supply Schemes and collection of water charges under its jurisdiction. The Division has five Sub Divisions viz., Water Works Sub Division, Kochi, Water Works Sub Division, Kaloor, Water Works Sub Division, Vyttila, Water Works Sub Division, Kochi-05 and Sewerage Sub Division, Kochi-16. The Executive Engineer is the head of the Division.

The local audit under section 19 (3) of the CAG's DPC Act 1971 was conducted from 30 July 2018 to 09 August 2018.

As on 31 March 2018, the Public Health Division, Kochi had 1,76,373 consumers under various classes. The total revenue towards water charges during the year 2016-17 was ` 74.52 crore

### b. Officer in charge

Smt.M.A.Jessy Jose.N, Executive Engineer from 01 April 2017 to 31 March 2018.

### c. Financial analysis – 2016-17

( ` in lakh)

<i>Category</i>		<i>Amount</i>
Expenditure	Works	533.00
	Establishment	435.25
Revenue Collection		7452.32

### d. Internal Audit/Inspection

No Internal Audit was conducted during the period under audit.

### e. Objective and Scope of Audit

The objective of Audit was to ensure effective internal control system in the Division, to check whether the execution of works and revenue collection was carried out economically, efficiently and effectively. The scope of Audit included verification of the records relating to works viz., work register, tender/agreement register, work files, cash book, monthly accounts and vouchers, documents relating to collection of water charges etc.

## **PART II**

### **A. Significant audit findings**

**Nil**

## **PART II**

### **B. Other incidental findings**

#### **I. Shortage of materials at site on physical verification - `60.61 lakh liability to be recovered against the contractor**

The work '**Replacement of 700 mm premo clear water pumping main from Perumanoor to Thevara for a length of 2220 meters, by using the unused balance (1450 meters) of 700 mm DI pipes from a JNNURM/KSUDP work and the balance 765 meters on supplying and laying basis using State fund under Head 19-replacement of old pipes**' was tendered during January 2015, and awarded to a contractor (Shri MV Viswanathan) for ` 2.5 crore (24.29% above) with time of completion 9 June 2016 based on the estimate for ` 3.20 crore which includes provision for road restoration charges amounting to ` 1.15 crore,. The PWD demanded ` 2.26 crore as road restoration charges as against ` 1.15 crore anticipated by KWA (estimate). Due to tender excess and hike in road restoration charges, the total outlay worked out to ` 4.8 crore which is `1.6 crore more than the amount earmarked in the AS. All efforts made by KWA in obtaining road cutting sanction went in vain due to paucity of funds for remitting the road restoration charges.

The balance pipes from the JNNURM/ KSUDP work (1450 meters) for which an amount of ` 2.01 crore ( ` 13806 per meter) was incurred by KWA, was transferred to the subject work and handed over to the contractor vide USB dated 16 December 2015. However the contractor did not supply the 765 meters of 700 mm pipes as per the terms of the contract, even though necessary certificate to avail excise duty exemption was issued by the Collector during April 2016. Based on the request by contractor (August 2016) to relieve him from the work due to non availability of work front, the Managing Director ordered (January 2017) to foreclose the

subject work which had NIL physical progress and include the subject work under KIIFB after obtaining revised AS . Accordingly, the Executive Engineer directed the Assistant Engineer to prepare a list of shortage of materials at site and report on the final liabilities against the contractor. Based on the report furnished by the Assistant Engineer, the Executive Engineer finalized the total liabilities outstanding against the contractor as follows:-

	<b>Item</b>	<b>Amount(`)</b>
1	Shortage of 700 mm DI K9 (105.9 meters)	15,36,855
2	Shortage of specials	32,500
3	Total value of materials short at site	16,91,355
	Storage charges 20%	3,38,271
	Supervision charges (2.5%)	42,284
	Taxes and other recoveries (10%)	1,69,136
	<b>Total liability</b>	<b>22,41,046</b>

To ascertain the correctness of the statement, the Audit Party conducted joint site verification along with the Assistant Engineer in charge of the work at the site where the pipes were stacked. The pipes and specials were stacked in the Thammanam pump house compound and along the sides of the pipe line road at Thammanam. It was observed that the pipes for which ` **2.01 crore** was expended by KWA were dumped in a haphazard manner by the contractor, on the eastern side of the Thammanam pipe line road. Moreover, since the pipes were left at site unattended for more than a year, shrubs, creepers and waste materials had covered a major portion of the stacked pipe, making the physical count very difficult. While taking the physical count, the Assistant Engineer noticed that 6 pipes which were unloaded on the eastern side of the pipe line road (estimated value ` 5 lakh) were missing from the site. The physical count revealed that 183 pipes were at site. Since the site is a common dumping ground for unused materials from other works, the physical count taken by the Audit party might include pipes from other works. The precise measurement of the materials at site can be taken only if the site is cleared of the garbage and vegetation. This has to be done urgently and a certificate of balance materials at site forwarded to Audit for further verification.



**PIPES WORTH ` 2.01 CRORE, STACKED AT THAMMANAM PIPE LINE ROAD COVERED WITH VEGETATION AND GARBAGE**

On further analyzing the liability certificate issued against the contractor, it was observed that the liability fixed at ` 22.41 lakh by the Division is incorrect due to the following reasons:-

- Since the materials worth ` 2.01 crore were handed over to the contractor vide USR dated 16 December 2015, the contractor is responsible for the materials at site till the unused materials are handed back to the Division vide ‘**Materials Return Note**’. In this case, the contractor had not handed over the unused materials to the Division while foreclosing the work and hence the responsibility of the unused materials at site is still with the contractor. Out of 1450.70 meters of pipe, 198.39 meters of pipe were used by KWA for other works. On physical verification, 1006.5 meters of pipe (i.e 183 pipes \* 5.5 meter) was only available at site as against the required 1251.8 Meters. The liabilities on account of shortage of materials are as follows:-

Shortage of 700 mm DI K9 (245.3 meter * Rs 14500 per meter based on PRICE list	35,56,850
Shortage of specials	32,500
Total value of materials short at site	35,89,350
Storage charges 20%	7,17,870
Supervision charges (2.5%)	89,734
Taxes and other recoveries (10%)	3,58,935
Total liability	`47,55,889

- The District Collector had issued excise duty exemption certificate to the contractor for purchasing 765 meters of pipe during April 2016. The approximate value of excise duty exemption available for purchasing 765 meters of pipe will be ` 12.95 lakh (i.e

765 \* 13806\*12.26%). Since the contractor did not supply the pipes as per the terms of the contract, the Division should have ensured that the contractor did not misuse the excise duty exemption certificate for purchasing pipes for other non departmental works. If the contractor fails to surrender the excise duty certificate in original, it could be assumed that the certificate has been used by the contractor for other works and hence ` 12.95 lakh liability has also to be fixed against the contractor.

- Hence the total liability against the contractor works out to ` 60.51 lakh . The Division should ensure that the contractor remits the amount failing which request should be sent to the Head Quarters to adjust the amount against the contractors' future bills or from any retention /security amount due to the contractor.  
No reply furnished.

## **II. Improper planning- Replacement of old and damaged 700mm premo pipe by 700mm DI K9 pipe in Kathrikadavu to Pulleppady road.**

Government accorded (24 October 2013) Administrative Sanction for the work 'Replacement of old and damaged 700mm premo pipe by 700mm DI K9 pipe in Kathrikadavu to Pulleppady road' for ` 1.90 crore. Technical Sanction was issued (December 2013) by the CE CR) Kochi for the same amount.

The work was awarded (03 March 2014) to Shri.Sunil Mathew for `157.67 lakh with a period of completion of 5 months. The abstract of estimate for the subject work included ` 52.30 lakh for road restoration charges. The request for 'road cutting permission' was forwarded to the Corporation on 20 July 2015 with reminders on 24 February 2016 and 30 June 2016. The EE reported to the SE (21 June 2016) that the road was handed over to the PWD for widening and hence request was forwarded to the PWD on 24 February 2016 for permission. The Suptdtg. Engineer, Kochi Municipal Corporation informed (28 February 2017) the EE to remit an amount of `47.42 lakh towards restoration charge.

Accordingly, the FM&CAO was requested (23 March 2017) to release the ( ` 47.42 lakh) fund with reminder letters to the SE on 2 June 2017, 20 October 2017, 28 October 2017.

As per agreement the work was to be completed by 07 September 2015. The contractor could not commence the work as permission for road cutting was not obtained. The contractor had executed a supplementary agreement for extension of due date upto 31 March 2016. Meanwhile, the contractor requested (01 February 2016) the SE to release payment towards the total cost of pipes and specials as against ₹71.42 lakh released on 31 January 2015 (being 80% of the cost of materials supplied at estimate rate). As the request was not considered, the contractor filed a case before the Hon. High Court and the Court in its judgment dated 23 November 2016 directed KWA to take a decision in accordance with law, if required after giving an opportunity of hearing to the petitioner within three weeks. The EE directed (02 December 2016) the contractor to commence the work as the Corporation had agreed to road cutting but the contractor did not turn up to execute the work. In the minutes for the Task force meeting held on 12 June 2018 by the SE, it was remarked that the work will be completed by 31 December 2018 after the liability of the contractor for foreclosure and estimate for the balance work are received from the EE.

In this connection Audit observed the following:

- i. There was inordinate delay (more than three years) on the part of KWA in getting permission for releasing the requisite fund for remitting the road cutting charges to the Kochi Municipal Corporation.
- ii. The scheme for which administrative sanction was accorded by the Government in 2013 was not started for the past four and a half years and the objectives were not achieved. The up to date expenditure of ₹1.21crore (₹0.71crore paid + ₹0.50 crore Pending payment) has become unfruitful so far.
- (iii) According to the KPW Manual, Funds of plan schemes provided under the various major heads will have to be allotted on the basis of the annual plan/allotment towards the respective schemes. The annual plan/allotment for each of the plan schemes are fixed by the Planning Commission in consultation with the State Government. As the above scheme was accorded by Government as early as on 24 October 2013, request for release of funds, particularly for road restoration charges should have been taken up with Government during tendering stage itself.

No reply furnished

**III. AMRUT 2015-16 – Replacement of existing 525mm distribution cum pumping main with 600mm rider pumping main from Karuvelippady to Koovappadam in Kochi Corporation – non-commencement of the work.**

Government of Kerala accorded (23 February 2017) Administrative Sanction for ` 3.65 crore for Replacement of existing 525mm distribution cum pumping main with 600mm rider pumping main from Karuvelippady to Koovappadam in Kochi Corporation under Atal Mission for Rejuvenation and Urban Transformation (AMRUT). Technical Sanction was accorded by the Technical Committee of the AMRUT in May 2017. The general abstract of estimate included an amount of ` 86.27 lakh towards road restoration charges. The work was tendered by the SE, Kochi and was awarded to the contractor, Sri MV Jayaraj at his offered amount of ` 2.23 crore against the TPAC of ` 2.40 crore vide work order dated 5 February 2018 with a time of completion of six months. The expected date of completion was 4 August 2018.

On 4 October 2017 the Division requested the Corporation Engineer, Kochi for road cutting permission for length of 85m to be laid through Corporation Road. The EE, Roads Division, PWD, Kakkanad was requested (4 October 2017 & 17 January 2018, 26 February 2018, 28 February 2018) to inform the road restoration charges required by PWD for cutting the road for laying pipes. The EE, PWD informed (28 March 2018) that the pipe line had to be laid along the PWD road which was under Defect Liability Period (DLP). The EE, Roads Division informed to remit ` 1.34 lakh towards Security Deposit of the road, `1.59 crore for road restoration charges and `7.64 lakh towards restoration charges already carried out in Kattiparambu-Kalathara road. The Executive Engineer, PH Division Kochi requested the Secretary, Kochi Corporation to remit the restoration charge so as to commence the work immediately (10 April 2018). While preparing the DER in 2017, the road restoration charges amounting to ` 86.27 lakh was included in the estimate. But the PWD had informed to remit an amount of ` 1.59 crore and ` 1.34 lakh towards Security Deposit causing an increase of ` 74.01 lakh in road restoration charges from the earlier estimated ` 86.27 lakh. As the financial commitment exceeded the originally sanctioned amount for the project, the Division was not

in a position to go ahead with the work unless the road restoration charges are remitted by the Corporation.

In this connection Audit observed the following

- a) The Corporation had remitted an amount of `86.27 lakh (29 June 2018) towards road restoration charges limiting to the estimate provision as against the demand raised by the PWD for ` 1.59 crore. Additional funds for road cutting has not been released by the Corporation (August 2018) and the project is yet to be commenced within the agreed time of completion.
- b) There were planning level lapses in the implementation. Though the estimates were approved and the administrative sanction was accorded by Government in 2017, a rough cost estimate for the road restoration charge could have been obtained from the PWD at estimate stage itself so as to ensure adequate funds for road cutting.

No reply was furnished

#### **IV. Augmentation of Kochi WSS – Improvement of water supply to Divisions 13 to 16 of Edakochi area**

As per the DER, the drinking water to Edakochi area (Divisions 13 to 16) in Kochi Corporation which lies in the southern tip of western Kochi region is being supplied from Palluruthy pump house which receives water from Elamkulam sump. The existing water supply level in the area is very poor and the coverage is only 40 per cent. Presently, 3.0 mld water is being supplied as against the requirement of 6.80 mld. In order to improve the water supply level to the Divisions 13 to 16, it was proposed to take up the work into two phases with the following components:

Name of the componets	Estimate PAC (` in crore) Original	Revised	Details of AS& TS (` in crore)	Technical status
Phase I –(a)laying 450mm DI pumping main from Aroor Poojapura Junction to south end of Aroor – 1500m (450mm DI pipe			GO(Rt)681/2015/WRD dated 11.8.15 for ` 3.00 crore. TS issued by the CE(CR) Kochi (29.12.15) under LAC-ADS.	The contractor executed the work by supplying the pipe departmentally. (Pipes available under JNNURM) The work was completed on 30.6.2017. The agreed PAC of he work is `



				46.04 lakh. Total value of work done was for ` 36.02 lakh (Ist and final bill pending for payment). An amount of ` 203.09 lakh was also paid towards road restoration charges and cost of pipes. Thus the total expenditure incurred on the package was ` 239.11 lakh.
<p>(b) Laying 450mm DI pipe from North end of Aroor-Edakochi bridge to tank site Pampayimoola, Edakochi for a length of 2050m including 500mm HDPE under water (500m) which was later split into two works</p> <p>(i) laying 500mm HDPE under water (650m) and 450mm DI from Northend of Aroor Edakochi North end to inform of KENT construction (1000m)</p> <p>(ii) Laying 450mm DI 1050m from Pambaimoola to in front of KENT Construction.</p>	<p>TBML</p> <p>Work shifted to JNNURM Dn. Kochi and pipe for the work has been supplied by the contractor.</p>	<p>4,32,13,839 (SOR revision)</p>	<p>GO(Rt)268/2016/WRD dated 4.3.16 for ` 4.95 crore.</p> <p>4,60,00,000</p>	<p>HDPE laid except interconnection work. 160m DI pipe laid out of 1000m.</p>
<p>Construction of 15 lakh litres capacity GL sump and pump house at Pampaimoola, Edakochi</p>	<p>` 2.78 (SoR 2012)</p>	<p>` 3.46 crore (DSR 2014). Due to change in design</p>	<p>Govt. accorded sanction for ` 2.78 crore vide GO(Rt)205/16WRD dated 29.2.2016 – under MLA-LAC ADS. Govt. also accorded sanction for ` 0.68 lakh MLA-</p>	<p>At estimate stage. Piling works completed.</p>

			ADS(24.2.2018) ` 0.70 crore (vide order RD5 1369/2017 dated 27.1.2018) MLA PAC-ADS	
Phase II (a) construction of 15 lakh litres capacity OH tank at Pampaimoola at Edakochi	Handed over to JNNURM. Work not taken up.			
(b) strengthening distribution network.				

The work laying 500mm HDPE (650m) pipe from underneath of Aroor Edakochi bridge and 450mm DI K9 pipe (1050m) from north side of Aroor Edakochi bridge to Pambaimoola at Edakochi along old NH and connecting to the existing distribution network was tendered and awarded to (16 August 2017) to M/s.TBML Ltd. Kochi for ` 4.60 crore. Work order was issued to the firm (19 August 2017) with time of completion by 18 December 2017. The contractor has completed 50% of the total work (30 July 2017). Out of 1000m DI pipe to be laid the contractor laid 165 m only. In this connection, the following observations are made.

- As per the records, execution of two components of the scheme viz. construction of 15 lakh litres capacity OH tank at Pampaimoola at Edakochi and Laying 450mm DI 1050m from Pambaimoola to in front of KENT Construction, were entrusted to the JNNURM Division, Kochi and the works are yet to be started.
- Though requisite funds were received for the construction of 15 lakh litres capacity GL sump and pump house at Pampaimoola, the detailed estimate has not been prepared and sanctioned by the CE so far (August 2018). There were planning level lapses in the implementation.
- The improvement of water supply level to 150 lpcd to the residents of Edakochi area to a population of 39424 (2016) has not been achieved. The expenditure that is being incurred on the scheme will remain infructuous until other components of the work are tendered and completed.

No reply furnished

**V. Improving water supply to Ambalavanan road (South Kadavanthra ) in Division no 28 by laying 160 mm PVC pipe.**

Financial sanction for the subject work was accorded by the CE (CR) on 9 October 2014 for ` 9 lakh. Based on the tenders, the work was awarded to a contractor for ` 4.56 lakh with the condition that the pipes would be supplied by the Department. The Executive Engineer placed orders (25 May 2015) with M/s Kamal Pipes for supplying 160 mm dia PVC pipes for ` 3.63 lakh.

Scrutiny of the file revealed that the work could not be commenced due to want of road cutting sanction. The contractor had not executed the agreement stating that hindrance free work front is not made available to him. The Executive Engineer directed (July 2015) the Engineer in charge of the work to contact the Corporation authorities to obtain road cutting sanction. The Executive Engineer again reminded (June 2016) the Engineer in charge of the work of the urgent necessity of obtaining road cutting sanction. No further progress in this regard is seen in the file.

In this connection the following observations are made:-

- The formal orders of the Executive Engineer in respect of tabulation and finalization of tender is not seen recorded and filed.
- Even though the Executive Engineer placed orders before M/s Kamal pipes for the supply of pipes, no records in the file suggest whether the pipes have been supplied by M/s Kamal pipes and where the pipes are stacked. Improper accounting of receipts and issue of materials will lead to loss of stock.
- It is observed from the work file that no action is seen taken beyond June 2016 to expedite the work. As per the progress register, the physical status of the work is seen recorded as 'Dropped'. However, no formal orders are made by the Executive Engineer to drop the work and how the unused materials for the work will be accounted.
- The above deficiencies points to the fact that the 'Internal Control Mechanism' of the Division is weak in monitoring the physical progress of the work and also detecting lapses in receipt and issue of materials issued to work .

No reply was furnished

**VI. Improving water supply in Padivattom area-Replacing old and damaged 150mm AC pipe with 160mmPVC pipe in Edappally- Arkkakadavu road in old Division no-34(New-41) of Kochi Corporation-Non-commencement of the work**

The proposal was to lay 160mm PVC pipe 800mm replacing the damaged 150mm AC pipe for improving the water supply in the Padivattom area. AS for the work was accorded (31 July 2014) by General Administration (Minority Welfare) Department for ` 20.30 lakh. The MD/KWA accorded sanction for arranging the work (23 April 2015). The estimate for ` 20.30 lakh included cost of materials ( ` 3.93 lakh), working charges ( ` 6.12 lakh) road restoration charges for ` 10.24 lakh and ` 1000 towards unforeseen items. The work was tendered awarded to Shri MP Aneer, Kochi for ` 4.55 lakh excluding cost of materials. Work order was issued to the contractor (25 October 2016) fixing date of completion **by 9 December 2016**. The Executive Engineer placed orders (1 November 2016) with M/s.Kamal Pipes Ltd. The firm supplied the pipes on 22 November 2016.and payment of ` 3.15 lakh was made to the firm on 30 January 2017.

The Division had requested (6 January 2017) the EE Roads Division, Kakkanad to furnish estimate for road restoration for the pipe to be laid along Edappally-Trippunithura Road. Reminders were sent on 12 April 2017, 12 July 2017, 5 October 2017, 17 January 2018 and 7 February 2018. The EE, PWD had intimated (16 May 2018) that an amount of ` 42.28 lakh may be paid as road restoration charges. The work is yet to be commenced. The Executive Engineer, has directed the Asst.Executive Engineer, Kalloor to explore the possibility obtaining additional funds viz. MLA fund, deposit from Corporation etc. for the restoration charges.

Audit observes that as against the provision of ` 9.25 lakh for road restoration charges provided in the estimate, the PWD had requested (16 May 2018) to remit an amount of ` 42.28 lakh. Due to non-remittance of the road restoration charges, the pipe laying work has not been taken up so far.

Due to laxity on the part of the Division in obtaining road cutting permission (request for the road cutting permission was forwarded (6 January 2017) to the EE, PWD after the date of completion of the work), pipes supplied are lying idle and objective of the scheme has not been achieved so far.

No reply furnished

**VII. Maintenance of Guest House at Cemethery Mukku – Painting, furnishing, electrical and pumbing work – delay in completion of the work**

Government of Kerala accorded sanction (November 2016) for ` 733.53 lakh for the renovation of existing civil structures owned by KWA. The MD/KWA accorded sanction (November 2016) (i) for the maintenance of guest house at Cemetary Mukku – painting, furnishing, electrical and plumbing for ` 15 lakh and (ii) for the Maintenance of Inspection Bungalow at Cemetary Mukku – painting, furnishing, electrical and plumbing work for ` 10 lakh.

(a) The work Maintenance of Guest House at Cemetary Mukku – Painting, furnishing, electrical and plumbing was tendered and awarded to Shri Ramesan at his quoted amount of ` 16.23 lakh. Work order was issued on 2 September 2017 with time of completion within 150 days. The work was to be completed by 1 February 2018. As per the progress report furnished, the contractor has completed 80% of the work (July 2018). No payment has been made to the contractor.

In the completed work, various defects were noticed and the EE vide letter dated 9 July 2018 directed the contractor to rectify the following defects:

- Leakages through the tiled portion of the open varandha into Ist and ground floor of the guest house was noticed,
- Defective placement of the main door of the building, etc.

The EE also directed the contractor that the work “construction of compound wall, renovation of gate, garden” has not been attended to so far.

The minor work which was entrusted to a contractor with time of completion by 150 days, has not been completed even after 181 days after the due date of completion. Action taken to

complete the balance items of work and rectify the defective items of works may be intimated to audit.

(b) Maintenance of IB at cemetary mukku – paining, furnishing, electrical and plumbing-delay in completion of the work

The work was awarded to Shri TP Salim at his quoted amount of ` 10.85 lakh. Work order was issued on 24 November 2017 with time of completion by 23 April 2018. The contractor has completed 50% of the work (July 2018).

Audit observed that the minor repair works for which funds were available under maintenance could not be completed even after granting extension of time equal to the original time of completion.

No reply furnished

#### **VIII. Non collection of sewerage charges from consumers**

As per GO (MS) 88/2014/WRD dated 25.9.14, sewerage charges were introduced at 10% of water charges payable by those consumers who have availed sewerage connections.

As per office records, there are 1,184 water consumers having sewerage connections, (as reported by Asst. Executive Engineer) under the Sewerage Division, Kochi of the PH Division, Kochi. In order to realize the sewerage charges from those consumers having water connection, the Sewerage Sub Division, Kochi shall transmit the details to the PH Sub Division concerned so that those consumers can be linked to the e-ABACUS. In addition to the 1184 consumers, the Sub Division could locate another 530 consumers having both water connection and sewerage connection. Thus there are 1714 (1184+530) consumers sewerage connection.

Out of the 1714 consumers, only 488 sewerage consumers are linked to the e-ABACUS and sewerage charges @10% of the water charges are being realized. Sewerage charges from the remaining 1226 consumers has not been realized as the data were not linked to the e-ABACUS.. As the responsibility of realizing the sewerage charges rests with the Division, appropriate notice to execute the agreement for the sewerage connection may be issued to the consumers along with the water bills, failing which the water connection of the above consumers will be disconnected.

It was replied that action is being intimated to execute agreement for the sewerage connection and direction will be issued to the Asst.Executive Engineer concerned to bill the sewerage charge along with water charge bills based on the audit observation

**Reason for dropping: Already commented in CAG's Audit Report for the year ending March 2018 under 'e-abacus'.**

## IX. Revenue Recovery – reg.

The following table shows the status of RR cases pending realization of various classes of consumers as on 31 March 2018.

(` in lakh)

Sub Division	RR cases registered through online		Cases settled		RR cases initiated directly		Cases settled	
	No.of cases	Amount	No.of cases	Amount	No.of cases	Amount		
Pallimukku	543	1659.37	103	26.37	181	178.11	26	8.15
Kaloor	Not furnished							
Karuvelipady	Not furnished							
Vyttila	197	174.63	34	37.96	nil	Nil	Nil	Nil

Regardless of the repeated remarks of audit, the RR cases are gradually increasing in all the sub divisions. Earnest efforts may be taken to realize the revenue.

## X. Non-Revenue Water

Non-Revenue Water (NRW) indicates the revenue receivable from water lost through leakage, theft, etc. Reduction in NRW to acceptable levels is vital for the financial sustainability of the water utility. According to the Ministry of Urban Development, 20 per cent of total production can be considered as a bench mark value of NRW.

In a reply to Audit Enquiry, it was stated that as against 236 MLD of water supplied, the total quantity billed was only 165.200 mld with 30 per cent loss. The estimated revenue loss on account of NRW in PH Division, Kochi alone worked out to ` 2.72 crore per year (236.000-165.200 = 70.800mld x 1000=70800 KL x average rate per KL at ` 32).

It was replied that action has already been taken to reduce the NRW and the observation of audit will be brought to the notice of the field staff as well higher officials.

## XI. Quality of drinking water – non conformation to IS standard 10500 : 2012

The analysis of water quality in respect of PH Division, Kochi, has been entrusted with Quality Control Division, Nettoor and QC District Lab at Aluva.

According to Table 2 – General Parameters concerning substances undesirable in excessive amount, the requirement (acceptable limit) of free residual chlorine in the drinking water sample shall be 0.2 mg/liter, Turbidity acceptable limit is 1.0 (NTU). A scrutiny of report on water quality analysis conducted in the PH Division, Kochi revealed that the drinking water provided by the Division did not meet the prescribed standard in terms of IS 10500 : 2012 as detailed below:-

Scheme	Source of sample	Date of testing	Turbidity	Actual content of residual chlorine mg/liter	Date of testing	Turbidity	Actual content of residual chlorine mg/liter
<b>Commented in the IR for 2016-17</b>					<b>Present status</b>		
<b>I. WSS to Chittoor – Cheranallor</b>	<b>Periyar, Pachalam sump, Aluva Plant, street tap</b>	<b>15.6.16 to 14.7.16</b>			<b>12.7.18 to 13.7.18</b>		
Treated water at Pachalam sump			1.3	0.60		2.4	1.00
Aluva sump						3.4	1.40
Near Vaduthala railway gate				0.80			1.00
<b>II.WSS to Chellanam – Kumbalanghy</b>	<b>Periyar, 100 MLD WTP at Maradu, Kumbalanghy sump</b>	<b>30.4.16 to 30.5.16</b>		<b>Between 1.3 and 2.4</b>			
Treated water from WTP at Maradu							1.00
Treated water from Kumbalanghy sump							460.00
Street taps (near) Vinus tailoring, Tagore Vayanasala, St.Joseph saw mills, PHC, Kumbalanghy							
<b>III.WSS to Palluruthy</b>	<b>Periyar, plant at Aluva, Pallaruthy sump and street tap</b>	<b>30.4.16 to 30.5.16</b>		<b>Between 1.1 and 1.4</b>	<b>21.6.18 to 28.6.18</b>		
Treated water from Aluva plant	-do-			1.60			1.40
Treated water from Palluruthy sump	-do-			1.00			0.40
<b>IV.WSS to Mulavukadu – Kadamakkuzhy</b>	<b>Periyar, Aluva plant, Pizhila PH, Vaduthala sump</b>	<b>1.7.16 to 14.7.16</b>					
<b>Treated water from Aluva plant</b>	<b>-do-</b>						<b>1.40</b>

From the table it is seen that as against the accepted limit of the residual chlorine (0.2 mg/1.Min), in several samples tested the RC content exceeds the acceptable limit, and in some



cases the RC content is 'Nil'. The water quality analysis report shows that wherever the RC content was 'Nil', coliform bacteria and e-Coli were detected. As per IS standards, the values in excess/under 'acceptable standards' render the water unsuitable for drinking. Appropriate action may be taken to supply safe drinking water to the public.

## **XII. Non operative accounts – lack of monitoring – Non Reconciliation**

In the Circular (No. KWA/JB/FM/F1/2477/09) dated 05.03.2009, of the Managing Director, KWA, on the reconciliation of Non operative account of KWA, all the Divisions were directed to submit details of non operative account operated under the division office with account number, name of bank, branch and amount transferred from the account in the prescribed proforma. Separate statement shall be collected from each unit before 5<sup>th</sup> of every month. The details shall be submitted to the Head of Office before 10<sup>th</sup> of every month. The details shall contain the total amount transferred from the non operative account to Head office account with a break up of details like water charges and other revenue collected. All Circle Officers, Chief Engineers were also directed to submit the details of non operative accounts and amount transferred to Head Office before 10<sup>th</sup> of every month.

On a scrutiny of the cash book of the Karuvelippady Sub Division, audit noticed that the water charges collected and deposited in the Non-operative account held in SBT and Federal Bank were shown accounted as transferred to head office account even though the amounts were actually held in the respective account. This has resulted in minus balance in the cash book and accumulation of deposits in the Bank account as shown below:

Date	Cash book balance	Bank balance
31.01.2016	(-) 80,909	6,21,620
31.7.2018	(-)1,98,13,106	38,37,892

For the period from December 2014.to July 2018, though the monthly accounts were finalized, the incorrect entries remain in the cash book.

Audit observes that the lapse went unnoticed since the Division failed to reconcile the cash balance as per cash book and pass book on a regular basis. Necessary corrections may be made in consultation with the FM & CAO.

## **XIII. Revenue pending collection**

- a) The Demand Collection & Balance Statement of water charges 2017-18 showing the arrears under various categories is given below

Class of consumer	Arrears as on 31.3.2017 lakhs	Arrears as on 31.3.2018	Increase in Arrears	Percentage of increase
Domestic	1478.97	1767.85	288.88	19.53
Non Domestic	8693.36	9862.82	116.95	13.45
Industrial	125.58	151.08	25.5	20.31
Panchayath	102.61	125.54	22.93	22.34
Corporation	4632.31	6368.10	1735.8	37.47

- b) Huge amount is due from Kumblangi panchayath towards water charges ( ` 102.61 lakh as 31.3.2017 which increased to ` 125.54 lakh as on 31.3.2018 ) and from corporation ( ` 4632.31 lakhs as 31.3.2017 and ` 6368.10 lakhs as 31.3.2018) the collection from the corporation is 'Nil' during the year 2017-18

The dues of various LSGDs are given below

SI No	Name of the institution	Arrears as on 31.03.2017 lakhs	Arrears as on 31.03.2018 lakhs
1	Kochi Corporation	4632.31	6368.1
2	Kumblangi Panchayath	102.61	125.54

The matter may be taken up the Government for effecting the recovery of arrears from the maintenance grants released to the respective local bodies.

- c) Defaulters having huge arrears-above Rs 50,000/-

The total number of defaulters with arrears exceeding ` 50000 under various sub divisions are given below

SI No	Name of sub division	Numbers consumers having arrears ` 50000	Amount In lakhs
i	Vytilla	313	1379.65
ii	Karuvelipady	188	639.89
iii	Pallimukku	20	322.19

iv	Kaloor	230	929.76
	Total	751	3271.49

From the table, it is seen that there are 751 consumers whose arrears exceeds ` 50000 amounting to ` 3271.49 lakh under this division. Section 14© of KWA (Water supply) Regulation 1991 empowers KWA to disconnect the water supply if the water charges were not paid within the prescribed time limit. However no action has been taken as per the above provision to realize arrears.

Earnest efforts may be taken to realize the arrears and the results intimated to audit.

**(d) Unidentified connections**

It was reported that total unidentified connections under WS division, Kochi as given below

Sub Division	Number of unbilled/ unidentified connections	Arrears as on 31.03.18 in lakhs
Pallimukku	1492	1421.73
Kaloor	858	430.64
Kavelipady	348	110.78
Vyttila	Not furnished	Not furnished

Efforts may be taken to locate the unidentified water connections so as to enable prompt billing and collection. A report on this regard is waited.

**Reason for dropping: Already commented in CAG's Audit Report for the year ending March 2018 under 'e-abacus'.**

**XIV. Disposed of lapsed/unclaimed deposits.**

A review of the SD/EMD registers and the original SD's/EMD's kept in the office revealed that FDR's/DR's/TDR's NSC's etc received as SD's/EMD's from contractors/suppliers against the work/supply orders received in the office were kept for long period without any action. The value of the lapsed/unclaimed deposits pending disposal comes to ` 15.10 lakh.

As per Para(15.4.1)(III) of KPWA code balance unclaimed for more than 3 years should be credited to revenues lapsed deposits.

Urgent action may take to forfeit the lapsed/unclaimed securities to the credit KWA under intimation to audit.

It was replied that the unclaimed deposit will be forfeited.

### PART III

#### Follow up of outstanding Paras of previous LARs

Year	Para No.	Audit Objection
2008-09	<u>Part II B</u> Para I	Non-achievement of objective due to delay in arranging the terminated work at the risk and cost of contractor.
2008-09	Para II	Estimated extra liability of Rs.5.03 lakhs due to delay in re-arranging the terminated work.
2010-11	<u>Part II B</u> Para IV	Deposit works - Expenditure incurred in excess of the amount deposited.
2011-12	<u>Part II A</u> Para I	Non- initiation of timely action resulting in revenue loss Rs. 50 lakh.
2011-12	<u>Part II B</u> Para I	Undue delay in crediting lapsed deposits to non-operative account.
2011-12	Para II	Non remittance of water charges by Kadamakudy Panchayath.
2012-13	<u>Part II A</u> Para I	Short collection of connection fee in respect of flats amounting to Rs 70.49 lakh
2012-13	<u>Part II B</u> Para II	Exorbitant rate allowed for the supply of material
2013-14	<u>Part II A</u> Para I	KSUDP—Strengthening of distribution network in Kochi—Abandoning the work due to insufficient planning resulting in wasteful expenditure of `3.26 crore
2013-14	<u>Part II B</u> Para I	Deposit work – Ernakulam Water Supply Scheme (EWSS) –rerouting of existing 300mm./225mm. CI/AC pipe with 300mm./250mm. DI K9 pumping mains to Navy and Port – Idle investment of `29.01 lakh
2013-14	Para VII	Suspected case of encroachment of KWA property—follow up regarding
2013-14	Para VIII	Idling of oil tanker regarding
2013-14	Para XI	LSGD Account-- Non reconciliation-- Escrow accounts --reg.
2013-14	Para XIV	Internal Control
2014-15	<u>Part II B</u> Para I	Improper planning leading to idle investment
2014-15	Para II	Shortage of materials in Stock
2014-15	Para III	Idling materials in stocks
2014-15	Para IX	Accounts—discrepancies

2014-15	Para X	Irregular sanction of service weightage for PR 2004 and 2009 and Time Bound Higher Grade Promotion to Smt.Sosamma Daniel, LDC, HG.
2014-15	Para XI	Irregular sanction of reoptionfor Time Bound Higher Grade.
2015-16	Para II	Implementation of the work – Delay – reg.
2015-16	Para IV	Non collection of long outstanding dues towards water charges ` 125.09 Crore–non initiation of action to locate the unidentified consumers or initiate revenue recovery proceedings
2015-16	Para V	Discrepancies in Trial balance.
2015-16	Para VI	Non initiation of timely action for repairing the department vehicle – tanker lorry –KL-01B -5917 of the Sewerage Sub Division, Pallimukku
2015-16	Para X	Non deduction of income tax on Medical Allowance.
2015-16	Para XI	Internal control
2016-17	<u>Part II B</u> Para I	Replacement of old 300 mm. CI pipe line in Mattancherry & Fort Kochi areas – Excess procurement of pipes and payment of road restoration charges to PWD on inflated rates – loss of ` 30.06 Lakh
2016-17	Para II	Non collection of sewerage charges from consumers
2016-17	Para III	Delay in execution of work resulting in blocking up of fund – ` 71,41,832
2016-17	Para IV	Non Completed/Partially Completed Schemes – Improvements to Water Supply Scheme of Chellanam Panchayath – Revised AS pending sanction
2016-17	Para V	Scrap and other unserviceable materials – disposal – reg.
2016-17	Para IX	Revenue Recovery – reg.
2016-17	Para X	Huge water charges pending
2016-17	Para XII	Unidentified connections – action – reg.
2016-17	Para XIII	Pump Sets – Idling – action – reg.
2016-17	Para XV	Water connections – Pending – reg.

#### **PART IV**

##### **Best Practices noticed during the course of audit**

Substantial points were not observed.

#### **PART V**

##### **Acknowledgement indicating co operation of Audit.**

The audit expresses its gratitude for the cooperation extended by providing the records during the course of audit.

**Deputy Accountant General (SGS II)**

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RAO/KWA/III/IR/2-481/2017-18  
ÉÊn /Date: 6 September 2018

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ÉÊ´É-ÉaÉ/ Sub: - Local Audit Report of PH Division Kochi for the period  
2017-18 –reg

The Local Audit Report (LAR) of **PH Division, Kochi** for the period 2017-18 was forwarded by the SA Party VIII.

2. Para I Part II B – **‘Shortage of materials at site on physical verification - `60.61 lakh liability to be recovered against the contractor’**. Since para involves recovery of substantial amount from contractor, we may transfer it to Part IIA.

3. Para VIII Part II B- **Non collection of sewerage charges from consumers** and XIII (d) Part II B – **Unidentified consumers’** are already commented in CAG’s Audit Report for the year ending March 2018 under ‘e-abacus’. Hence we may drop the paras.

. Edited version of the draft LAR is submitted for approval

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