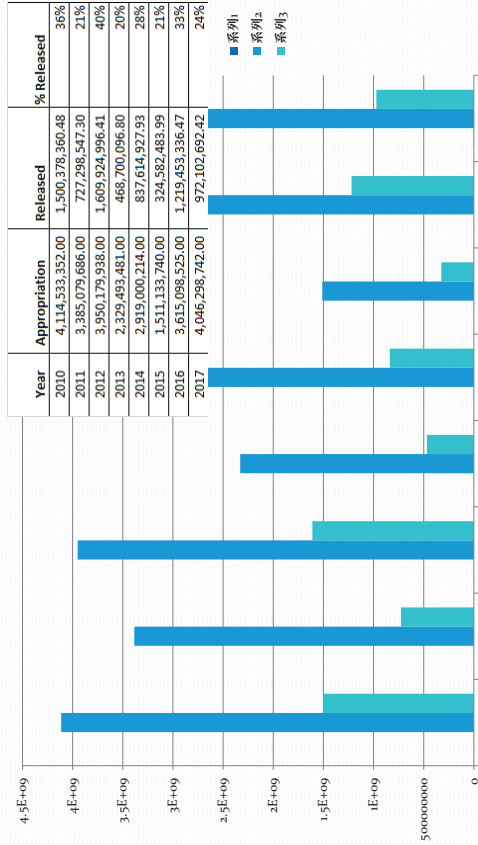
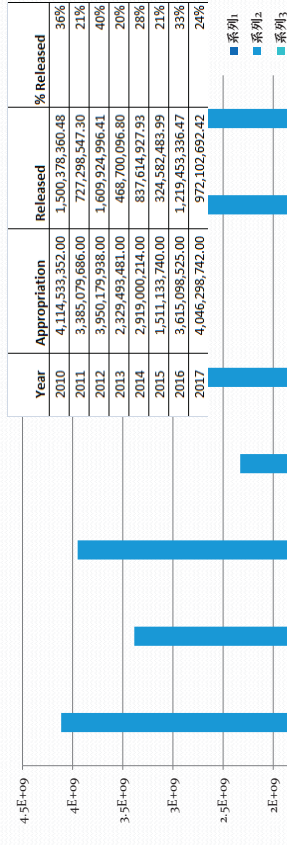




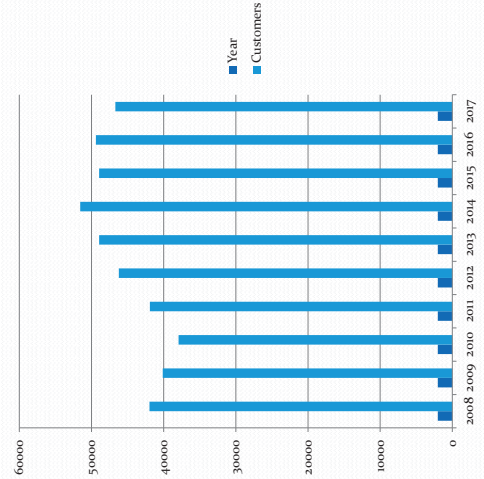


## Eight Years Data on Budget Allocation & Released (2010 -2017)



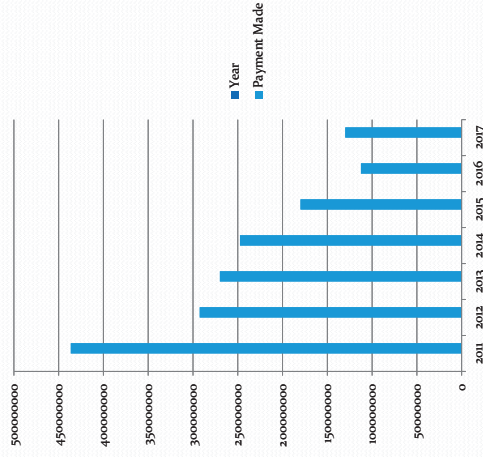
## Our score card-3

- Customer data base: the growth is redundant and stagnant in the space of ten years, % growth of 11%
- **NEED TO CARRY OUT CUSTOMERS RE-ASSESSMENT & ENUMERATION**



## Our Score card-2

- **Running cost:**
- sharp decline in both allocation and released from N45M (2011) to N10M (2017)



## Our Score Card-4

- Chemical Usage
  - Alum: TP 1 & 2: 20 tons (400 bags)/wk
  - TP 3&4: 12 tons (240 bags)/wk
  - Lime: TP 1 & 2: 5 tons (100 bags)/wk
  - Chlorine Gas, TP 1&2: 1 cylinder (1 ton/day)
  - Chlorine Gas, TP 3 & 4: 3 cylinders(1.5 ton capacity/day)
- Production
  - Quantity: = 358,904m<sup>3</sup>/day
  - Cost of Production: Ni,500/M<sup>3</sup> (To be re-confirm)



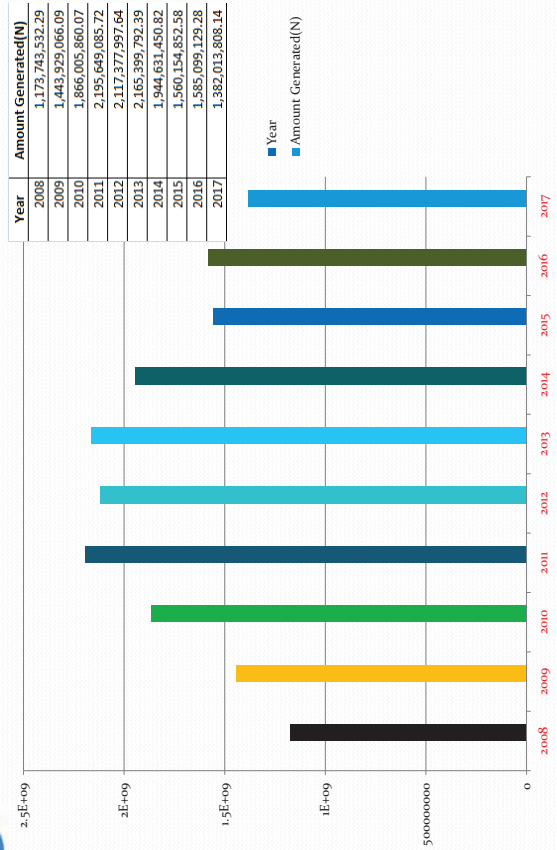
## Our Score Card-5

- Service Coverage
- ❖ About 4 o% FCC
- ❖ About 30% Rural Settlement
- NRW Ratio: 50-60%
- ❖ Billing Collection Ratio: 25-30%
- ❖ No of person/connection: 10-15

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## Ten Years Data of Revenue Collection(2008- 2017)



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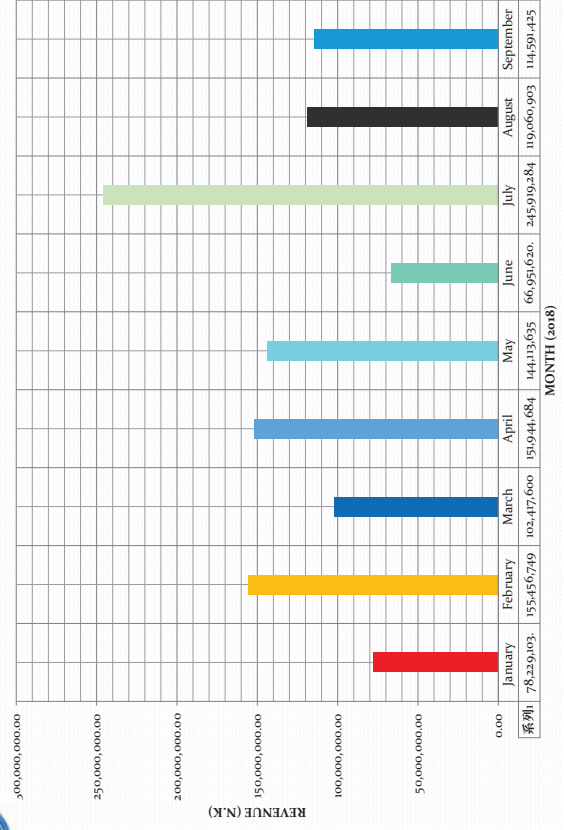
## Our Score Card-6

- Meter Installation
- ❖ AMR =11,935
- ❖ Pre-paid= 4,800
- ❖ Conventional= 34,480
- ❖ Flat Rate = 3,372
- Revenue Collection(10 years record)
- ❖ Decline in collections/ revenue
- ❖ See graph & table in next slide

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## Year 2018 Monthly Revenue(Millions N)



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## Quick notes on production & metering system

- **Real Capacity T. Plants (1-4) = 720,000m<sup>3</sup>/day**
- **Due to ageing of T. Plants 1 & 2 + old & weak electro-mechanical equipments etc) there is inadequate production system;**
- **Present Average Water Production (daily) = 358,904m<sup>3</sup>/day**
- **Water Demand daily < 500,000m<sup>3</sup>/day**
- **Gaps: production, transmission, distribution**
- **The \$470 million Greater Abuja Water Project will reduce the gaps to some extent!**
- **Types of metering & Billing System: AMR, Pre-paid & Conventional Meters**
- **Cost of producing 1M3 = N1,500**
- **Selling at N80/M3 (domestic)**
- **By analysis, Govt is subsidising with = N1,420/M3 (domestic)**

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## Operational Plan Contd.

Plan	Strategy	Duration	Estimate/ Remarks	Impacts
Update Customers Enumeration	Re-validate Customers data; Enlist new customers to data bank,	2017-2020	N20M	Improved Billing & collection, Reduce water theft, better customers relations & services More productivity at all levels
Development of Organization Working Guidelines	To standardise our operation and working systems for effectiveness and efficiency	2017-2018	N5M	
Human Resources Development & Enhancement	*through On-Job Training *In-House Training Plan *Tailor made training plan	2017-2020	N50M	Enhanced Productivity & better performance on job
Improved Commercial Activities/ System	Automation of our Accounting and Billing system, Online real payments, bill dispatch & customers relation e-platform, construction of organization website, etc	2017-2019	N45M	Better Transparency, Accountability, and Integrity
Reduce Non-Revenue Water by 20-30% in other Area Offices	Upscale NRW project to other Area offices through NRW Strategic Plan	2017-2023	N200M	Improved efficiency, Revenue collection increase by 40-50% *Accelerated infrastructural development *increase water coverage *Financial viability *Attain Cost Recovery
Attain Self Autonomy	Establishment step by step & formulate Institutional Framework for Self Autonomy * Implement road map for reform & investment opp *Partnership from Private Sectors (PSP/ppp)	2017-?	*More Advocacy, enlightenment, seminars and workshops on Organization Corporation & Services, MOUs, Agreement, etc	

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## Operational Plan (2017-2023)

Plan	Strategy	Duration	Estimate/ Remarks	Impacts
Revamp & Optimize production & pumping system	Technical evaluation of all Electro-Mechanical equipment	June 1 <sup>st</sup> -Aug 30 <sup>th</sup> 2017	Tech. Evaluation completed, Report submitted to former PS, N206M needed to rehabilitate & replace bad equipment (Pictures in Gallery)	More production and pumping efficiency, better revenue, better well-being in FCT
Improve water distribution system	Technical evaluation of all water distribution networks in FCC	June 1 <sup>st</sup> - Aug 30 <sup>th</sup> 2017	Tech. Evaluation completed, Report submitted to former PS, N240M needed to rehabilitate & replace bad distribution networks	Better, good pressure water distribution, reduce leakages & pollution
Reduce Non-Revenue Water through improved payment from water kiosks & public taps connections	Evaluate, confirm & update water kiosks/taps connections/ metered users, reconcile payments of all water kiosks and public taps.	June 1 <sup>st</sup> - Sept 30 <sup>th</sup> 2017	Activities is on-going, with good results, some of non-metered users are now metered with improved revenue collection	Improved Revenue collection and reduction of water wastages
Increase Access of Potable Water Supply in FCC	*Implementation and Completion of all-redundant projects; completion of loops 1& 6, 2&5 of water distribution networks *Completion of Treatment Plants (TPs) 3 & 4 Trunk lines	2017-2020	Activities on-going, FCDA/ FCTA handling (Greater Abuja Water Project)	Water supply coverage and networks increase with 20-30% in FCC
Optimization of Treatment Plants (TPs) 1-4	Rehabilitation of TPs 1-4	2017-2020	Evaluation report almost ready	Production capacity increase from 60% to 90%
Increase Revenue Generation by 100%	Enhanced Periodic meter reading, Bill printing & distribution. Disconnection of erring customers, Install 10,000 meters in non-metered properties in FCC	2017-2020	Strategies already yielding good results; Revenue as at August has been increased by over 50%	Reduction of NRW by 20-25%; Better revenue collection by 100%, attract more partners & investors

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## Achievements so far.....

- Despite our challenges, we still have the following success stories:
  - ❖ Serving the City with potable water has increased gradually in line with the Board's mandate; up to 40% supply coverage in FCC
  - ❖ Re-engineering the use of prepayment metering to boost revenue collection and also control water wastage
  - ❖ Re-engineering AMR meters to enhance billing efficiency and revenue generation.
  - ❖ Installation of bulk meters & zonal meters to curb NRW through JICA
  - ❖ **Creation of Customer Care Desks in all Area Offices and Constant interaction via structured Customer Forums.**
  - ❖ **Completion of the 1.2 MW solar power project by JICA**
  - ❖ **Completion of the NRW Project by JICA**
  - ❖ **Reduction of NRW rate at the 3 Pilot Areas (more details in the next presentation)**

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## Achievements contd.

- **INTRODUCTION OF ELECTRONIC REVENUE COLLECTION ADMINISTRATION SYSTEM (ERCAS) FOR REVENUE COLLECTION, PROCESSING AND RECONCILIATION MANAGEMENT FOR FCT WATER BOARD**
- Successfully integrated FCTWB on Nigeria Inter-Bank Settlement System (NIBSS) e-bills pay through:
  - Bill payment possible across at least 20 Banks at their respective branch teller points
- Bank Awareness and Sensitization. In partnership with NIBSS training and sensitization of Bank Tellers on the availability and use of NIBSS ebills pay for processing of FCT Water Board Water Bills.
- Reconciliation of past Records.
- **Monthly reduction in volume of un-reconciled payment records**

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## Achievements contd.

- **Introduction of integrated billing system:** Payment and reconciliation of customer accounts (Conventional, AMR) has been simplified with the introduction of the use Customized Tellers/Bills which have special features that aid customer accounts' identification and makes updating of customer records more efficient and prompt (90% completion).
- **Intelligent increment of Revenue Collection (min N100M Benchmark/mth)**
- **Passage of the Act of establishment of the Board**

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## Challenges/Constraints

- **Insufficient & dwindle monthly operational funds to operate & maintain WIS (sharp decline from 45M to 22.5M to 10M)**
- **Insufficient plumbing and electro-mechanical materials to carry out repairs & rehabilitation**
- **Increase in Population without corresponding increase in Water Supply Infrastructure like additional water treatment plants, transmission lines, storage tanks and distribution networks**
- **Ageing Infrastructure**
- **Weak synergy between FCTWB and other relevant MDAs like AGIS**
- **Insufficient of Technical Staff at mid-level**
- **Lack of a Befitting Office Accommodation**
- **Non completion of outstanding projects provided in the Abuja Water Master Plan especially Completion of Trunk line to (Tanks 1 & 6 by FCDA)**
- **Implementation of Enabling ACT and Road Map to self autonomy**

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## Challenges / constraints contd.

- Vandalisation of appurtenances on the trunk mains (air valves etc)
- Enclosure / building on water mains / refusal to have access to meters in some premises.
- Non-Revenue Water (NRW)
- Illegal connections
- Outstanding debts (bad debts)
- Inadequate Utility vehicles improve our efficiency and improved service delivery
- Insufficient Machineries and Equipment
- Multiple water inlets to some high-rise structures.
- Lack of As-built drawings (Water Distribution Network) for some districts and Estates developed by private Estate developers
- Lack of Maintenance Manual
- Insufficient Man Power/ Human Resources
- Insufficient on-job specialize training
- Insufficient meters to reduce Non-Revenue Water
- Insufficient Computer system and printers for our commercial, accounting, billing, auditing, network system and Area offices etc

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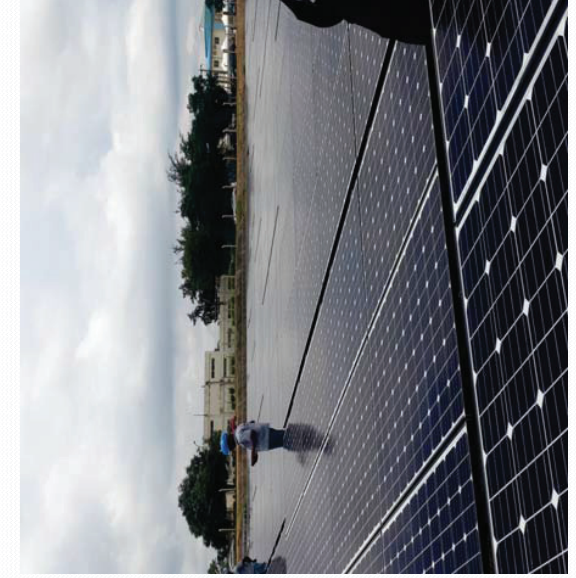
## Board's Collaboration

- International: Japan International Cooperation Agency (JICA)
  - JICA (On-going): Reduction of Non Revenue Water in FCT (2014-2018)
    - Benefits:
      - ❖ Installation of bulk meters, zonal meters, telemetry, solar panels; procurement of water leakages detectors etc
      - ❖ **N20M treated water will be saved monthly through the cooperation in the 3 pilot areas!**
    - JICA (Completed): Generation of 1.2MW Solar Electricity energy at Lower Usuma Dam
      - ❖ **N30M cost of production saved annually through the cooperation.**

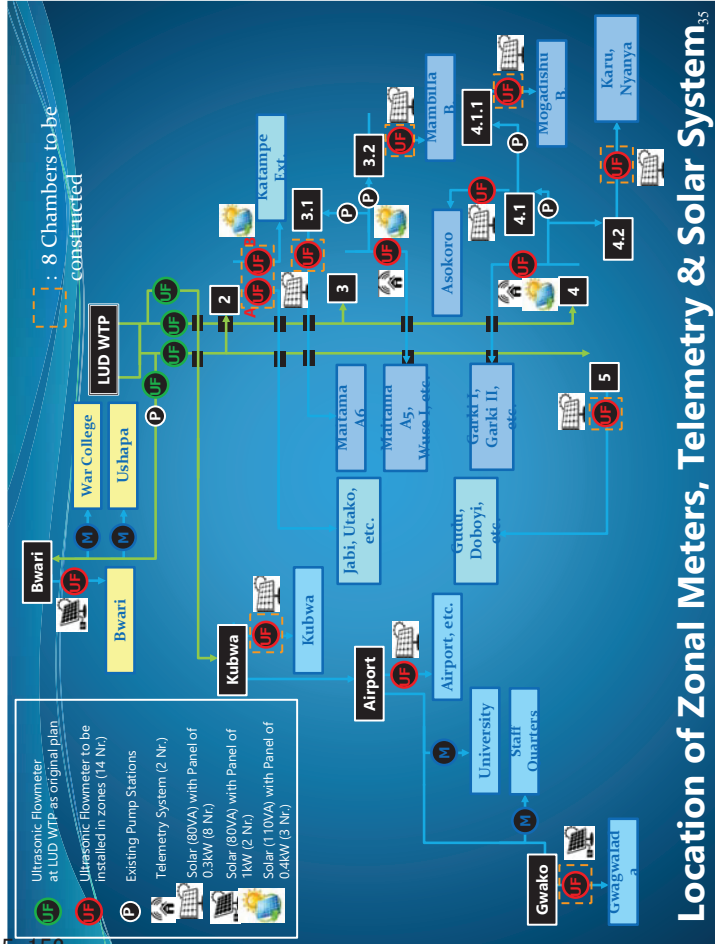
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## JICA Collaboration with FCTA & FCTWB(Generation of 1.2MW Solar Electricity at LUD) Completed



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Annex 5 - 152

Location of Zonal Meters, Telemetry & Solar System<sup>35</sup>





## Way Forward

- Implementation of the Board's Act and Road Map to self autonomy
- Increase monthly operational funding for better water services & revenue collection
- Rehabilitation & replacement of the ageing infrastructure, distribution networks, electromechanical equipment & appurtenances on the trunk mains (air valves) etc
- Provision of working equipments & tools, utility vehicles, office equipments
- Develop synergy and cooperation with relevant MDAs for data sharing
- Construction of a befitting office accommodation both at HQ and Area offices
- Implementation of JICA NRW Strategic Plan
- More Collaboration with Development Partners

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## FCTWB Road-Map contd.

s/n	Activity	Sub-activity	Status	2017	2018	2019-2025
6	Formation of driving force	GM become MD, etc	ND			
7	Priority work: fixed asset assessment, cash magt, network IT system, MTP, technical matters, commerce & customers matters, area offices matters	External audit, Annual budget, personnel matters, Financial magt system	ND			
8	Take off working capital	N500M (estimated)	ND			2020

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## FCTWB Road-Map

### Towards to (self) autonomy

s/n	Activities	Sub-activities	Status	2017	2018	2019-2025
1	Enactment of Bill		Done	√		
2	Proclaim new offices	GM, 5-AGMs etc	partially		√	
3	Inaugurate Board Member		Done		√	
4	Creation & Reg of New Water Board	Reg. at CAC etc	Not done			
5	Start up new FCTWB	New name, logo etc	ND		fl	



## RECENT AND ON-GOING ACTIVITIES ON THE PATHWAY TO BETTER SERVICES & IMPROVED REVENUE

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CONSTRUCTION WORKS ON THE FAILED CONTROL VALVES AT NYANYAN WATER SUPPLY



41

REHABILITATION WORKS ON THE PULL-OUT OF D500MM & 250MM DUE TO EROSION IMPACT NYANYAN & KARU LINES



43

REHABILITATION WORKS ON THE PULL-OUT OF D500MM DUE TO EROSION IMPACT ALONG THE LINE AT NYANYAN AXIS



42

CONSTRUCTION WORKS ON THE PIPE BURST AT CENTRAL AREA, KARU & WUYE



44



CONSTRUCTION WORKS ON THE COLLAPSED WASH OUT CHAMBER AT CENTRAL AREA BY SUPREME COURT JUDGES QTRS HANDLE BY BERGER CO. PLC



45

MAINTENANCE WORKS ON THE PLANTS 1 & 2



47

CONSTRUCTION WORKS ON BURST D<sub>500</sub>MM LINES AT JABU & KUBWA VILLAGE



46

REPAIR WORKS ON CONTROL PANEL AND HIGH LIFTING PUMP AT LUD



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CONSTRUCTION WORKS ON BURST PIPE AT CENTRAL AREA & WUSE



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REPLACEMENT OF FAILED BUTTERFLY VALVE D500MM AT NYANYAN



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## LUD AT A GLANCE: THE MACHINE RM

Usuma Dam Water Works is the major source of municipal water supply to the Federal Capital Territory (FCT). Its management is such that will ensure continuous supply of potable water that meets both National and International regulatory standards. In line with global best practices, the Water Works considered inclusion of **on-line measuring devices, chlorine gas scrubber, sludge treatment plant, solar power generating units, hi-tech control systems and Supervisory Control and Data Acquisition (SCADA) System**, for compliance to statutory water and environmental laws and regulations.

The treatment plant has a **laboratory** equipped with state-of-the-art facilities for the analysis of raw water, in-process water, and treated water in conformity with the Nigerian Standards for Drinking Water Quality (NSDWQ) and World Health Organization (WHO) recommendations before distributing to various storage tanks in the territory.

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## PHOTO GALLERY

- LUD
- Existing Infrastructure
- ❖ Dams & Intake Tower
- ❖ Spill ways
- ❖ Treatment Plants
- ❖ Cascades
- ❖ Aerators, Clarifiers etc



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## LOWER USUMA DAM WATER WORKS



**RAW WATER SOURCE AT USUMA DAM WATER WORKS**



- A- Lower Usuma Dam showing the intake tower structure
- B- Gurara Dam showing bottom outlet structure linking transfer pipe to Lower Usuma Dam
- C- Gurara inter-basin water transfer showing Gurara water outlet structure at Lower Usuma Dam during full discharge
- D- Lower Usuma Dam showing augmentation through discharge from Gurara Dam.



## Cascade Aerator & Clarifier



## IN-TAKE & SPILL WAY OF LUD



## The Filters

