



**DELTA STATE URBAN
WATER CORPORATION**



**CORPORATE
PLAN**

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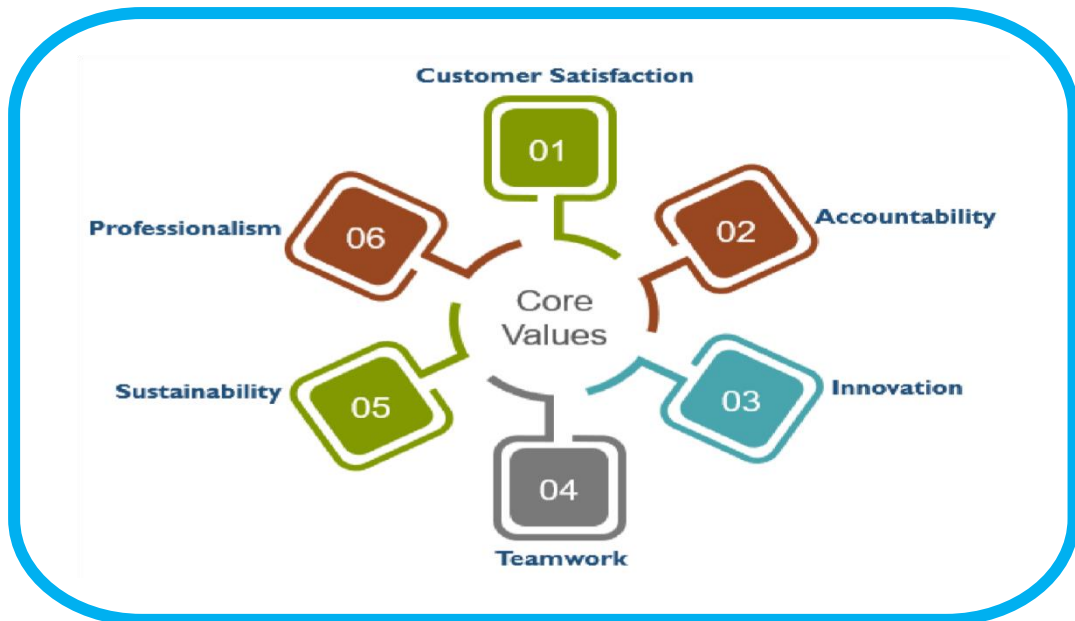
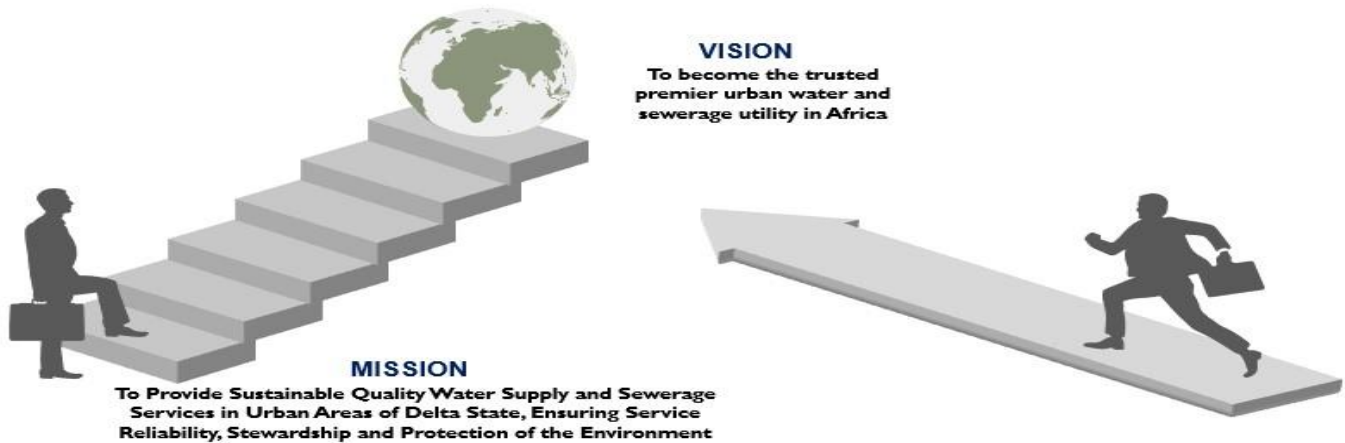
LIST OF ABBREVIATION

ACP	Asbestos Concrete Pipes
AFDB	African Development Bank
BEDC	Benin Electricity Distribution Company
BH	Borehole
BODs	Board of Directors
CM	Centimeter
CRM	Customer Relations Management System
CSOs	Civil Society Organization
DSTG	Delta State Government
DESUWACO	Delta State Urban Water Corporation
ERP	Enterprise resource Planning
EU	European Union
E-WASH	Effective Water Sanitation and Hygiene
FGN	Federal Government of Nigeria
FM	Financial Management
HDPE	High Density Polyethylene Pipes
HP	Hose Power
HQ	Head Quarters
HRD	Human Resource Department
HR	Human Resource
ICT	Information Communication Technology
IPSAS	International Public Sector Accounting Standards
JMP	Joint Monitoring Program
KM	Kilometers
KPIs	Key Performance Indicators
KVA	Kilo-Volt-Ampere
MDGs	Millennium Development Goals
MLD	Meters Liter Per Day
MM	Millimeters
MWRD	Ministry of Water Resource Development
NAP	National Action Plan
NRW	Non-Revenue Water
OCCR	Operating Cost Coverage ratio
OD	Organization Development
PIP	Performance Improvement Plan
PPP	Public-Private Partnership
SDGs	Sustainable Development Goal
SIP	Service Improvement Plan
SOPs	Standard Operating Procedures
TOWS	Threats, Opportunities, Weakness and Strength
UPVC	Unplasticized Polyvinyl Chloride
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WAN	Wide Area Network
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization
WTP	Water Treatment Plant

MANDATE, VISION, MISSION AND CORE VALUES

MANDATE: Provision of *Water Supply and Sewerage Services to the urban areas of Delta State through the “Delta State Water Law” of 2018, which established the Delta State Urban Water Corporation (Sections 31-44: Water Supply, Distribution and Consumption)*

CORE IDEOLOGY



COMMISSIONER'S STRATEGIC HIGHLIGHTS

The development of this Corporate Plan is a strategic step towards the actualization of one of the goals of the Government, which is to improve water and sanitation services delivery in the State.

The Ministry of Water Resources Development is equally cognizant of Delta State Government's responsibilities to support DESUWACO achieve its overall mandate with the financial implication of meeting this objective estimated at 21 Billion Naira.

The Ministry will also continue to work for the strengthening of the nascent governance structure and bolster the institutional framework that guarantees a conducive environment for the Corporation to perform at optimum efficiency. The government is hopeful that this Corporate Plan will provide strategic thrust for DESUWACO in the following areas:

1. Developing infrastructure to improve access in service areas through leveraging the opportunities presented by the government of Delta State, USAID E-WASH Program, other intervention programs and Development Partners, by implementing a sound asset management strategy.
2. Continuous strengthening and driving of a transformation agenda that supports inclusivity and reduces inequality and unemployment, with specific emphasis on women and youths.
3. Using the strength of cash flows and balance sheet in a sustainable manner to provide services to a broader base.
4. Embracing innovation and digital revolution, harnessing process efficiency and effectiveness, taking advantage of the Enterprise Resource Planning (ERP) system implementation supported by USAID E-WASH.
5. Increasing leadership, management and staff skills and capacity, and implementing change management initiatives to drive social cohesion within DESUWACO.

As the Ministry responsible for Water Resources in Delta State, we are committed to mobilizing the required resources to fund the expected surge in the capacity of DESUWACO to meet the water demand of the Urban populace, to provide support and policy guidance to its Board and Management especially during this turnaround period, and to progressively expand services to urban areas of Delta State.

Rt. Hon. Barr. Martin Okonta PhD

Commissioner for Water Resources Development

STATEMENT FROM THE BOARD CHAIRMAN

Safe drinking water, sanitation and good hygiene are fundamental to health and economic development. However, due to several factors, access to these necessities are still a challenge especially among the poor who reside in the urban areas of Delta State.

Most people are unable to access drinking water from safe sources, while many others lack basic sanitation. We continue to record water borne diseases such as diarrhea, typhoid, dysentery and cholera, which claim lives especially among under-five children.

The diseases place a lot of pressure on State Treasury as large sums of money are spent on medicines, hospital infrastructure and other essentials. The importance and seriousness of the mandate of supplying potable water and providing sanitation services bestowed on Delta State Urban Water Corporation cannot be over emphasized.

Therefore, the development of this 5-year Corporate Strategic Plan (2020-2024) is a clear demonstration of the Corporation's resolve and commitment to address the challenges and deliver on its mandates. DESUWACO's vision and mission statements have been realigned to respond to the new drive to restore water and sanitation services and to be a sustainable public utility in Delta State. The rapid pace of urbanization, and its overreaching effects on present infrastructure will require a major effort such as responding to a huge backlog of coverage within urban Delta, which are not served with water supply and sanitation.

We are, therefore, glad that DESUWACO continues to receive support from the cooperating partners through the government. This renewed commitment has been demonstrated by the State Government's unequivocal endorsement of the global best practice template introduced by development partners requiring introduction of strong policy, legal and institutional framework for WASH institutions with the specific objective of creating dynamic service providers and a regulatory framework to achieve sustainable WASH services in the State.

To this effect, the State Government has developed a WASH Policy and WASH Law (2018) and to underscore this, the Governor declared a State of Emergency in the WASH sector, set up an Inter-Ministerial WASH Steering Committee and established a Regulatory Committee.

Significant progress has been made in recent years and I am optimistic that with a well implemented Corporate Plan, we will continue on this path in the State's relentless efforts to improve access to the most basic human needs of water and sanitation for residents in Urban areas.

Hon. Talib Tebite

Chairman, Governing Board
DESUWACO

GENERAL MANAGER'S MESSAGE

Delta State Urban Water Corporation (DESUWACO) is responsible for the provision of water and sanitation services in the urban areas of the State. Like most water utilities in Nigeria, DESUWACO is facing numerous challenges heightened by rapid population growth and inadequate investment in infrastructure to meet the demand for Water and Sanitation Services.

In addressing these challenges, the USAID E-WASH Program has supported DESUWACO to develop this 5-year Corporate Strategic Plan (2020-2024) that includes business analysis and review of past performance of DESUWACO. The Corporate Strategic Plan was developed after wide stakeholder consultations through various engagement platforms organized by USAID E-WASH. This Corporate Plan is a blueprint for excellence as it defines in clear terms, how DESUWACO can effectively respond to its daunting challenges and position it for robust service delivery in a sustainable way under the new policy and legal regimes.

This Corporate Plan outlines the specific goals, strategies, timelines, implementation schedule, financing and investment costs, and objectives to be pursued vigorously to move DESUWACO from where it is to where it is supposed to be, and establishes a set of criteria to measure progress going forward. The initiatives, goals, and objectives set forth in this Corporate Plan will serve as a guide towards accomplishing DESUWACO's day to day operations while building a better future for the utility, customers, stakeholders, and employees.

We have incorporated the principles of fiscal responsibility, sustainability and prudent use of resources that will improve our efficiency and effectiveness in all areas of our operations and minimize the risks in our operating environment. The major projects DESUWACO is implementing in many operational areas will help manage the impacts of inadequate water supply and aging infrastructure, while adapting creatively to a changing environment, and addressing organizational changes in a reform process. Proactively responding to these conditions requires careful planning, embracing change, advancing research and development, innovation and use of ICT in order to ensure long-term organizational and financial sustainability.

Many thanks to the Board of Directors of DESUWACO, the Ministry of Water Resources Development, my fellow employees, the USAID E-WASH Team and all our Stakeholders for their policy guidance and technical know-how, which has enriched this Corporate Plan in no small measure.

As the General Manager of this fast-improving utility, I am honored to present this Corporate Plan (2020-2024) and it is my earnest hope that it will be fully implemented, thereby aiding DESUWACO achieve its goal of becoming a leading water utility in Africa.

Engr Nosa Okoh

General Manager
DESUWACO

EXECUTIVE SUMMARY

By 2030, Nigeria and other nations are expected to achieve 100% access to safe water and sanitation services according to the Sustainable Development Goals (SDG, 2015). The implication on Delta State is that, it's over 4 million population should have access to safe water and sanitation services. Delta State Urban Water Corporation is responsible for the provision of safe drinking water to the teeming urban population of about 2.9 million. This mandate demands that it produces and distributes about 233, 833 m³ of water per day to over 200,000 households in the Ten (10) operational zonal areas of delta, consisting of Agbor, Asaba, Bomadi, Kwale, Ogwashi-Uku, Orerokpe, Ozoro, Sapele, Ughelli, and Warri. But current operations fall far short of water demand, with installed capacity of 141,757m³, which is a shortfall of 51% of water demand. More disturbing is that only three water schemes are producing with an average of 2 hours of service daily, operating at 2% of installed capacity.

As a result of this, DESUWACO is unable to connect many customers, with only 668 active customers and unable to generate enough revenue to sustain its operations. This has kept the corporation in a state of inactivity with divisions like administration and operations gone into oblivion, with majority of the pumping schemes either down or non-functional due to lack of energy and reliable pipe network, which has lost old customers to self-service.

This Corporate Plan (2020-2024) is the blueprint for excellence, with an articulated action plan on how to address the current gaps and system operational deficiencies. It also incorporates the principles of fiscal responsibility, sustainability and prudent use of resources that will improve DESUWACO efficiency and effectiveness in all areas of its operations and minimize the risks on the operating environment.

The overall strategy as supported by overarching objectives to be achieved over 2020-2024 are as follows:

- Bring existing water production facilities to 100% capacity utilization and prospect for development of new surface water schemes to add about 100,000m³ per day capacity to meet water demand.
- Extensively reduce Non-Revenue Water (NRW) from the current 98% and maintain an average NRW of 40%, even as capacity is increased to deliver water to more customers by replacing all Asbestos Cement pipes and non-serviceable valves, then introduce district meters.
- Expand connections to maximize water available within a service area, with most of the schemes to be redeveloped
- Improve the efficiency of water pumping operations to further reduce the cost of delivering water by rehabilitating the pumping stations and connecting them to the 33KV BEDC grid
- Increase customer connection in an aggressive manner by customer engagement, subsidized connection cost and improved customer relations management
- Intensify collections by adopting the universal policy that all customers must pay by implementing standard practices and procedures for billing, collections, disconnection of delinquent customers and by introducing penalties for reactivation.
- Increasing tariffs for all customer classes at the commencement of the five-year period.
- Installing and making operational systems for billing, payroll, management information and reporting while sustaining the policy of universal metering

The situation therefore informs the strategic themes of this corporate plan. After various consultative process involving all relevant stakeholders, these themes, which are the key performance areas in which an organization must excel in to achieve its mission and vision, and deliver value to stakeholders were developed. They are broad areas of focus for the planning period namely: restore quality water production,

storage, transmission and distribution; reconnect and earn customer confidence; revenue growth and financial efficiency; human resource management and organizational re-engineering; and fecal treatment. The themes have corresponding goals, objectives, strategies and actions to be carried out with their respective timeline and cost implication, totaling N21 billion naira, with about N11 billion budgeted for building new water treatment plants at Ogwashi-Uku Dam and by Ethiope River in the southern part of the state. See table I for details.

Table I: Strategic Themes, Objectives and Cost

Strategic Themes and Objectives	Cost (000,000)
Theme 1: Restoration of Potable Water Production, Storage, Transmission and Distribution	
Objective 1: Improved capacity to meet 50% of demand for water (currently, 98% shortfall) by 2024	1,483
Objective 2: To expand production capacity to meet 100% demand in 2020 targeting over 100MLD production	15,200
Objective 3: To ensure 100% compliance to WHO and Nigerian National Water Quality Standard	860
Objective 4: To increase network coverage from 16% to 33% in 2024	1,565
Theme 2: Reconnection and Earning the Customer Confidence	
Objective 1: Improved capacity to meet 50% of demand for water supply (currently a 98% shortfall on demand) by 2024	66
Objective 2: Gradually increase system performance reliability from 2 hours/day in just two schemes to 14 hours/day in all the WTP by the end of the five-year business plan horizon by 2024.	1,085
Objective 3: To establish a brand identity and increase the number of people with willingness to connect from 38,000 to 60,000	65
Theme 3: Revenue Growth and Financial Efficiency	
Objective 1: To increase billing efficiency from 50% to 80% by 2024	130
Objective 2: Reduce non-revenue water from 98% to 45% by 2024	115
Objective 3: Increase the current annual revenue from current baseline of about N5M to N170 in 2024 and increase Operating Cost Covering Ratio (OCCR) from 0.01 to 0.33 by 2024	62
Objective 4: Achieve 100% metering by the end of the five-year business plan horizon in 2024.	315
Theme 4: Human Resource Management and Organizational Re-engineering	
Objective 1: Put in place administrative and operational manuals and standard operating procedures (SOPs) in the first year of the strategic plan horizon	16
Theme 5: Fecal Sludge Treatment	
Objective 1: To efficiently treat and dispose of Fecal sludge in an environmentally friendly manner by 2024 in Asaba and Warri	120
Total Cost of the Corporate Plan Activities	21,082

The successful implementation of the Corporate Plan is predicated upon a stable political environment, commitment of government to funding of the sector and functionality of the institutional framework established by the WASH Policy and the Law. A robust MEL plan has been developed and fashioned after that of USAID E-WASH to strengthen DESUWACO's monitoring and reporting capacity to ensure data driven management and operational decision making.

CHAPTER I: INTRODUCTION



SIGNING OF THE DELTA STATE WASH BILL INTO LAW BY HIS EXCELLENCY THE GOVERNOR SEN. DR. IFEANYI OKOWA ON MAY 16, 2019.

CHAPTER I: INTRODUCTION

I.1 Delta State Background

Delta State lies roughly between Longitude 5000 and 6045' East, and Latitude 5000 and 60.30' North. The total land area of the State is 17,440 km² and about one third of this is swampy and waterlogged. Delta State is bounded in the North by Edo State, the East by Anambra State, and the South by Rivers and Bayelsa State. The Atlantic Ocean forms the Western boundary with that on the Northwest by Ondo State. Delta State is endowed with many rivers and waterways. The major rivers are the Niger, Ase, Forcados, Warri, Ethiope, Jamiesson, Benin, Escravos and Ossiomo.

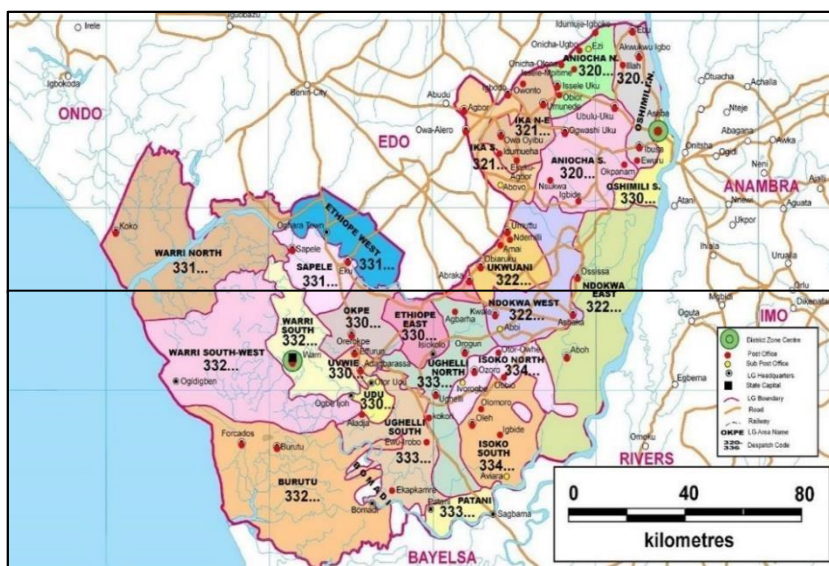


Figure I: Map of Delta

Delta State is one of the leading producers of oil and gas in Nigeria. One third of the daily volume of oil production comes from the State, which also has some of Nigeria's major oil-based industries and facilities. These include a refinery, a petrochemical complex, a gas plant, a steel complex, two gas-fired electricity stations and an oil export terminus.

I.2 Urban Population

Delta State urban population is estimated at 2,842,908, a projection from the 1996 population census at the average annual growth rate of 0.0318. Between the 1991 and 2006 National Population Census, the population of the state increased by 60% from 2,570,181 (1,273,208 males and 1,296,973 females) to 4,112,445 (2,069,309 males and 2,043,136 females). A state with an annual population growth of about 3.2% does not only need a Water and Sanitation Policy but a policy that can be considered gender strategic that meets the needs of both sexes, given the almost 50-50 distribution between male and female populations.

I.3 General Hydrological Information

Delta State is a region built up by the sedimentation of the Niger Delta and consists of the delta in various stages of development. Four major physiographic units are identifiable.

- i) The freshwater swamp which is the most active area. It is located close to the River Niger, where annual flooding and deposition occurs up to 45 km from the river's course.
- ii) The mangrove swamp area described as an intermediate delta stage. It is much lower and a great proportion of it is brackish, having been invaded by the sea since large amounts of freshwater have ceased flowing into it.

iii) The upland and swamp, which is also called the coastal plain. It lies between the flood plain and Benin lowlands. The swamps are more restricted to broad drainage channels created when this area was an active delta.

iv) The upland Niger valley, which is a narrow strip above the delta and relatively flood free. The town of Asaba is in this region.

1.4 General Information on Delta State Urban Water Corporation

Delta State Urban Water Board was established by the defunct Bendel State Government of Nigeria's Edict No. 6, 1988 and became, Delta State Urban Water Board through the Law of 2000. It recently assumed a corporate status by the enactment of the Delta State WASH Law in 2019 to become Delta State Urban Water Corporation (DESUWACO). It currently has eight departments: Administration, Finance, Commercial, Technical Services, Project Development, Hydrology and Hydrogeology, Corporate Affairs, and Planning Research and Statistics. Each department is headed by a Director. Technical operations in the utility are handled by Technical Services, Hydrology & Hydrogeology, Project Development and Planning Research and Statistics (PRS). H & H are responsible for geophysical survey, borehole drilling and logging. The Technical Services department on the other hand, oversees operations of water supply, zonal operations, maintenance of both water supply and distribution networks and management of the maintenance workshop. The Project Development is responsible for design and supervision of water supply projects, civil structures construction and maintenance. It also oversees laboratory and water quality analysis. The PRS department collects and collate data from all water supply schemes for appropriate decision making.

DESUWACO has ten (10 Nos) zonal offices which oversee Districts which are the coordinating offices of several water supply schemes. Each zone has technical, commercial, finance, Audit, and maintenance units. These zonal offices carry out; water production, distribution, maintenance of distribution networks, billing and revenue collection.

1.5 Corporate Plan (2020–2024)

This Corporate Plan (2020–2024) is established in principle, on the following international, national, and local development agenda.

1.5.1 Context and Objectives

The Global Development Agenda: Sustainable Development Goals (SDGs)

SDGs for WASH are much more demanding than MDGs:

Water SDG (6.1): By 2030, achieve universal and equitable access to safe and affordable drinking water for all.

Sanitation SDG (6.2): By 2030, achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation (paying special attention to the needs of women and girls and those in vulnerable situations).

1.5.2 National Perspective

Although Nigeria achieved the Millennium Development Goal (MDG) for water, and 61 percent of citizens have access to improved water, only 7 percent possess piped water on premises. Moreover, while 13 percent of the population in capital cities enjoy access to piped water on premises, only 4 percent of the rural population have such access. In terms of access to improved water and piped water on premises,

Nigeria lags behind many other countries in the region. According to the WHO/UNICEF JMP report 2015, the sanitation sector is in a worse situation. Nigeria was unable to achieve the MDG for sanitation. Only 29 percent of Nigerians have access to improved and unshared sanitation facilities, and there is no significant disparity between rural and urban areas. Less than 6 percent make use of sewerage systems. Approximately 27 million to 46 million Nigerians—between 15 and 25 percent of the population—practice open defecation.

In response to this challenge, a National Action Plan (NAP) was developed by the Federal Government of Nigeria (FGN) and State governments with the support of the World Bank setting out a three-phase plan to revitalize the WASH sector, comprising:

- An 18-month Emergency Plan, up to October 2019
- A 5-year Recovery Program, up to December 2022
- A 13-year Revitalization Strategy, through end-2030

The plan jointly commits the FGN and willing States to: urgently establish the institutional and funding foundations for sustainable WASH services and engage the Urban and Rural WASH sectors on an accelerated development path towards the 2030 SDGs. The NAP has five area of focus with its respective vision namely:

- Governance Vision

WASH sector governed by reformed policy, legislative, institutional, and regulatory frameworks through which service providers (public and private) are accountable to customers and government, and provide efficient, sustainable and equitable services.

- Sustainability Vision

Autonomous and functional service providers are equipped with the necessary capacity to provide efficient, sustainable, and equitable service delivery for all.

- Funding and Financing

By 2030, every Nigerian will have access to safely managed sanitation and hygiene facilities in cities, small towns, and rural communities

- Monitoring and Evaluation Vision

Service providers generate revenue to cover their operations and maintenance expenses, with the intention to partially, if not completely, fund their capital investments in the long run. Communities without access to networked services are supported with the education, training and financial mechanisms necessary to achieve sustainable access to safely managed water supply and sanitation facilities.

To ensure availability of reliable data to inform decision making, manage performance and contribute towards improved public accountability.

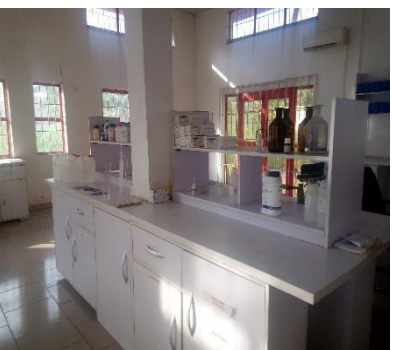
1.5.3 Corporate Planning Process

The Corporate Plan (2020–2024) was prepared through a participatory and consultative process involving the Ministry of Water Resources Development, DESUWACO Management, and staff representatives at various levels. In addition, the exercise involved benchmarking of best practices with other leading institutions. The process also entailed a detailed review of the performance from 2019 and draws much inference from the baseline assessment studies, organizational capacity assessment (SWACAT), service improvement program (SIP), performance improvement program (PIP) and organizational development (OD) diagnosis and design. A key component of the OD assignment was the development of the strategic

plan, which involved a two-day workshop for design and validation of the DESUWACO strategic plan. The Strategic Plan forms the nucleus of chapter 3 of this Corporate Plan.

To crystalize these engagements, a Pause and Reflect/Corporate Planning retreat was organized in December 13 and 14, 2019. Another two days of meeting on the prioritization of projects after the retreat took place with Directors of the MWRD, Management of DESUWACO and Zonal Managers. After this, a draft Corporate Plan document was developed and discussed with a collection of 50 DESUWACO staff, comprising top and middle management staff and Labor Union leaders to validate the plan. The outcome of these activities informed the Strategic Focus for the next five years (2020–2024).

CHAPTER 2: SITUATION ANALYSIS

		
NEW BUT IDLE EQUIPMENT	OBSOLUTE EQUIPMENT	ABANDONED INFRASTRUCTURE
		
OLD INFORMATION MANAGEMENT	BOMADI WTP MIXING CHAMBERS	UNDER-UTILIZED LAB

CHAPTER 2: SITUATION ANALYSIS

2.1 Institutional Policy Reform Mechanisms

2.1.1. Sector Institutions and Mandates

The roles and responsibilities of WASH institutions and the framework for implementing the WASH reform in Delta State is clearly spelt out in the approved WASH policy of 2018. It expressly commits the Delta State government and other stakeholders to promoting an integrated approach to water supply and sanitation delivery that is people-centered and ensures that water and sanitation facilities are used efficiently to optimize the current benefits and recognize the needs of future generations. These WASH institutions and their interrelationship are captured in the following institutional framework

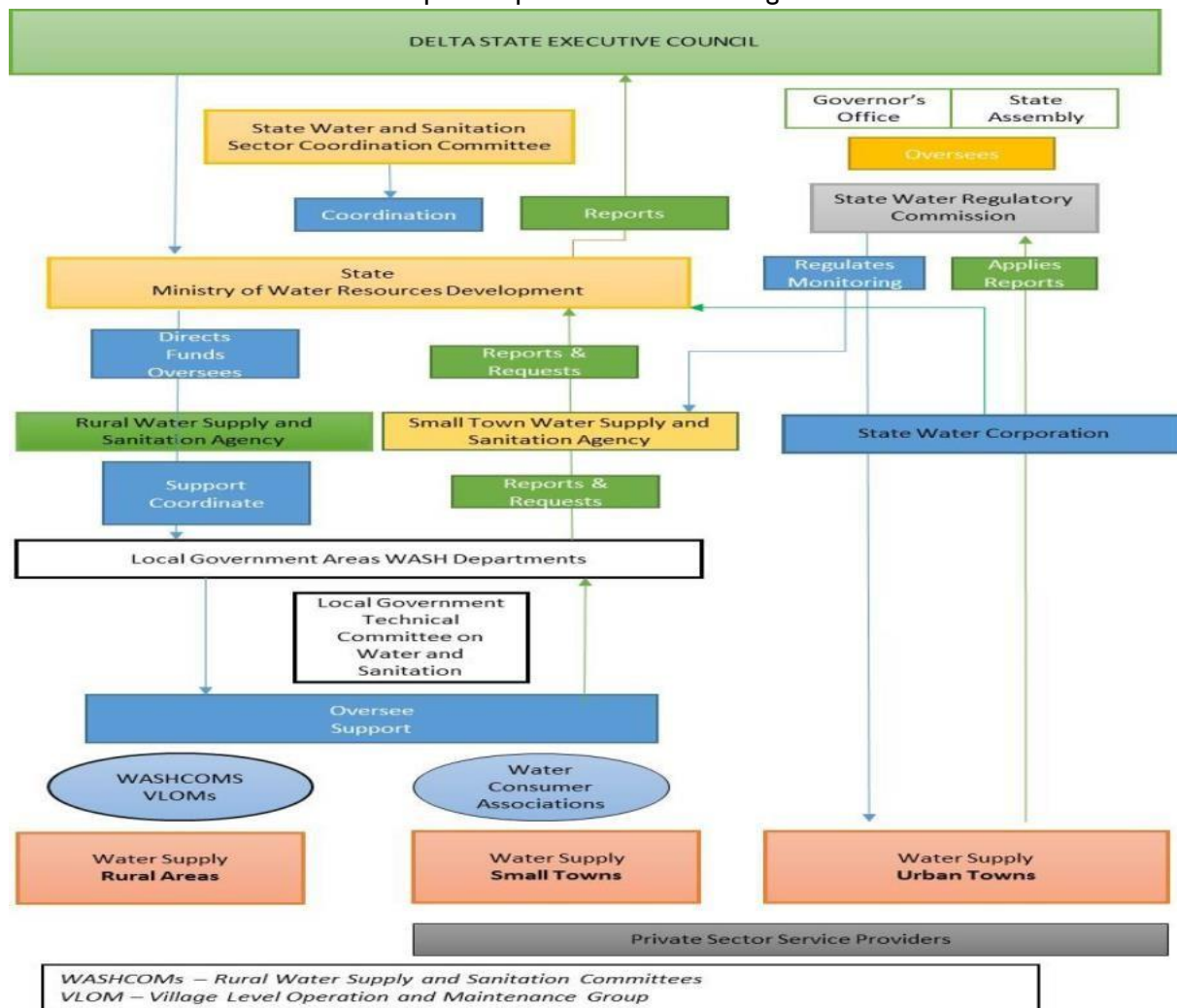


Figure 2: Institutional Framework for the WASH Sector (Source: Delta State WASH Policy)

2.1.2 The Legal Framework

The 2019 Delta State Water Law provides the basis for full implementation of the policy's legal and institutional framework in the WASH sector. It also provides a framework for the corporatization and autonomy of water agencies and the implementation of the regulatory framework.

The urban sanitation component was also embedded in the new law for the State Water Corporation while the other components of sanitation will be handled by the agencies under the Ministry of Environment, Health, and Basic Secondary School Education, Delta State Waste Management, Delta State Environmental Protection, Delta State Primary Health care and Delta State Basic Secondary Education.

2.1.3 Regulatory Commission and Regulation

The **Regulatory Commission** as a Regulatory body for the WASH sector is provided for in the new law and its functions are clearly spelt out including its power, Governing Board, tariff regulation etc.

2.1.4 Funding of WASH Activities

A further issue is that the profile of state budgets is low, with spending agencies typically receiving lower allocations than set out in the approved budget. Execution is characterized by discretionary cash rationing, at least partly driven by dependence on unpredictable transfers from the federal government. There is also limited information on the processes for planning and budgeting at the local government level. Sector finance is low as the capital expenditure on WASH sector in the state, falls short of the recommended projected per capital spending on capital expenditure from the National Action Plan.

Delta State budget performance, and status as of December 2019 is contained in the table below and show increasing trend from 2016 to 2018 in cash releases of 5.5% to 18.8%. 2019 performance as of September 2019 shows a decline to 14.4%.

Table 2: WASH Sector Capital Budget and Performance 2016 – 2019

Description	2016	2017	2018	2019
Capital Budget	1,394,420,741	1,181,500,000	1,600,000,000	1,668,278,222
Capital Award	77,709,244	231,633,764.87	509,834,737.70	673,678,361
Capital Released	77,318,244	176,110,111.53	300,731,291.52	240,000,000
% Performance	5.5%	14.9%	18.8%	14.4%

2.2 Corporate Governance and Organizational Development

2.2.1 Corporate Governance and Autonomy

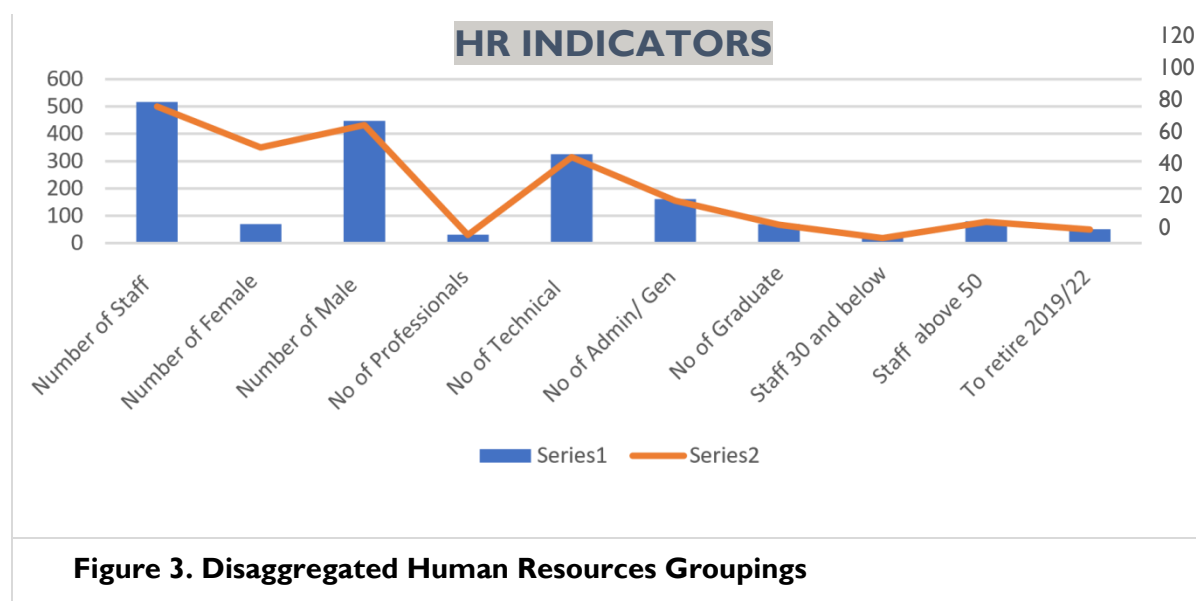
On governance, DESUWACO has a Board of Directors (BOD) with all members appointed by the State Governor with a four-year tenure. The BOD has a charter or code of conduct. The General Manager, a member of the BOD is appointed by the Governor.

The Law provides for the following key important issues that will assist in improving governance of the corporation; Corporatization, Board of Directors, their composition, remuneration, tenure, function, quorum, vacation of office and re-establishment of the Delta State Urban Water Corporation (DESUWACO) with its functions, power, staff composition and departments specified. The issue of Rates (Tariff) and scales of charges, revenue collection and retention are also clearly spelt out.

2.2.2 Organizational Development and Human Resources Development

In the bid to strengthen the Corporation's corporate culture, the USAID E-WASH program supported DESUWACO to develop its corporate statements — vision, mission statements, core values and a strategic plan. Currently, business plans are been developed. The organizational structure is well laid out, but established reporting lines are not strictly followed. Administrative processes are manually driven and data management and record keeping practices are poor. There are very few computers at the headquarters and none at the zones. On human resources, DESUWACO is guided by civil service rules

in human resources management issues; so also, are staff remuneration, annual appraisal system and recruitment. DESUWACO has skilled, experience and qualified management staff. Staff recruitments are made upon approval by the State Government. The total number of staff employed by DESUWACO from the staff log is 453, including 385 males (85%) and 68 females (15%). There is a total of 51 university graduates out of which 8 are Engineers. 107 staff are in the Head Quarters, 69% of which are male, while 31% are female. With the zones added, the female percentage decreases to 15%. Similarly, about 277 are of technical cadre consisting 61% of total staffing. To address the inherent gaps, USAID E-WASH program carried out an Organizational Development assignment which has produced the following documents that are critical to efficient administrative and operational activities: **Training Reports**; HRD Strategy and Training Plans, Staff Redeployment Plan, Work force Analysis Training Needs Assessment Report, Staff Redeployment Plan, HRD Strategy and Training Plan, Staff Redeployment Plan, Workforce Analysis. **Change Management Reports**; DESUWACO Communications Management Plan, Report of Change Management Workshop, Stakeholder Analysis Report. **HRD Reports**; Compensation plan, Performance Management Manual, Recruitment Policy, Retention and Disengagement Policy, SOP and Operational Manual, Staff Development Policy, Succession Plan. **OD Reports**; Business Plan, Job Descriptions, Implementation Plan, Organizational Structure, Strategic Plans. The expected outcome of the implementation of the report are: [1] A new proposed organizational structure that can fit into and sustain the utility under a corporatization arrangement. [2] A new utility HR management and instruments, and policies/guidelines and procedures. [3] Utility staff and leadership for transition into a corporate organization.



2.2.4 Financial Management System

The existing financial system is the public sector financial management system. Accounts are prepared on accrual basis, but the practice still fall short of international accounting standards required for a corporate entity operating on enterprise principles. There is weak internal control and budgeting system is not zero based. Tariff fixing is not informed by evidence-based study; cost reflective or ability to pay. To address this, USAID E-WASH recently concluded a Financial Management (FM) development assignment to strengthen staff capacity and improve the financial operating system of the corporation. Computers have

recently been supplied and the procurement of an enterprise resource planning software has been deployed with staff trained on ERP processes and modules. As a result of the FM assignment, DESUWACO has now prepared the 2017 and 2018 statements of operating revenues and expenses based on best available data which include: an analysis of Federal and State Government, donor agencies and multinationals corporate social responsibility budgets; releases and payments for capital projects in the urban WASH for the years 2017/2018 in the State; projection of 2019-2021 operating revenues and expenses; brief report on SWC Financial Diagnostics and Credit Risk Assessment. Also developed are; manuals and standard operating procedures (SOPs) for utility accounts processes; financial management manual, training plan and the associated IPSAS training report; status and review report of FM systems/processes, technical specifications for the accounting software, and procurement documents.

2.3 Access to Urban Water and Sanitation Services and Service Delivery

Access to water supply from the public source in the 10 urban zones as listed in table below reveals an enormous supply shortfall of 98%. But if all existing plants are brought up to 100% capacity, 53% of water demand will be met for the current year. Information on sanitation is not available.

Table 3: Access to Urban Water and Customer Profile

Zones	Population	Water Demand	Installed Capacity M ³ /day	Volume Produced M ³ /day	%Operating Capacity	Capacity Gap M ³ /day	% Shortfall Capacity	% Shortfall Operating
Asaba	179,987	14,399	7,247	237	3	7,152	50	97
Ogwashi-Uku	181,273	14,502	4,276	366	9	10,226	71	91
Agbor	370,988	29,679	5,315	193	4	24,364	82	96
Kwale	186,775	14,942	5,540	-	-	9,402	63	100
Sapele	488,075	39,046	5,807	-	-	33,239	85	100
Ozoro	266,118	21,289	14,406	-	-	6,884	32	100
Ororokpe	134,123	10,730	4,550	-	-	6,180	58	100
Ughelli	217,255	17,380	20,387	-	-	(3,007)	-17	100
Warri	873,631	69,890	69,890	-	-	53,633	77	100
Bomadi	49,693	3,975	4,339	-	-	(363)	-9	100
Total	2,947,918	235,833	141,757	796	15	147,710	491	985
Average %					5		49	98

2.3.1 Utility Information

Table 4: Performance of the DESUWACO Estimated Indicators for 2019.

DESUWACO's Key Indicators	2019 (Estimated)
Estimated Population	2,947,917.65
Estimated Water Demand (M3/Day)	235,833.41
Installed Capacity M3/Day	141,757.30
Supply Shortfall (M3/Day)	147,709.60
% Shortfall Capacity	51.45
Volume Produced	801.00
Operating Capacity %	1.55
Estimated Household in coverage area	221,495.78
No of household serviceable	1,251.56
Network Coverage	0.16
Potential Customers (Willingness to connect)	35,439.32
Connection Efficiency	0.01
Connected Customers *	519.19
Billing Efficiency	0.50
Billed Customers	259.59
Collection efficiency	0.50
Paying Customers	129.87
Tariff/Customer *	750.00
Revenue from Sales (AV Monthly) *	97,405.83
Revenue from Sales per Year *	1,168,870.00
Connection Fees	-
New Connections	324.00
Revenue from new connections	-
Other Revenues *	4,010,000.00
Total Revenue	5,178,870.00
OPEX	419,161,428.55
Covering Ratio	0.01
Cash Operating Margin *	(413,982,558.55)

*The Indicators in * are actual figures.*

2.3.2 Service Areas

The state has 25 Local Government Areas spread across its three Senatorial districts of Delta Central, Delta North and Delta South. The major cities in the state include Asaba, the state capital, Agbor, Ughelli, Kwale, Ozoro, Oghara, Sapele, Koko, Burutu, Okpanam, Ogwashi-Uku, Warri, Ororopke, Bomadi, among others. The utility has water schemes in 125 towns and communities.

2.3.3 Water Services

Delta State Urban Water Board provides water supply through ground water extraction only. Though there are surface water resources, these have not been exploited. Three hundred and thirty-five (335) boreholes are spread across the state in batteries and sometimes solo, constituting one hundred and twenty-five (125) water supply schemes. Most of the schemes have overhead tanks of various capacities and connected to public standpipes and/or extended into the community. The systems are powered by one or a combination of public power supply, solar energy or generating sets. For water distribution, the purpose of distribution system is to deliver water to consumers with appropriate quality, quantity and pressure, even though currently, the variability and age of the pipe materials make it easy for a large chunk of water to be lost under pressure.

Table 5: The Inventory and State of DESUWACO Assets

Description	No	Description	No
Functioning Schemes	48	Vandalized Network	53
Operational Schemes	122	Solar Pump & Panels	64
Non-Functional Schemes	165	Reservoir	73
Blocked BH	13	Generator	87
Need Fishing	10	Transformer	42
Burnt/Stolen Pump	89	Riser Pipes	44

(USAID E-WASH baseline report 2018)

2.3.4 Service Coverage

The estimated population of the states' urban area is 2.94 million with an estimated total water demand of 235,000 m³ per day. Ongoing network mapping reveals that, the major cities' coverage is less than 10% and could be lower when the integrity of the network is known.

2.3.5 Water Production

Most of the water supply schemes have not been operational for a protracted period. Similarly, for the period during which water was produced, there were no flow meters on the boreholes, no record of pumping rate and time, borehole and pump characteristics are hardly known by operators and the record of diesel or energy used is not available. Therefore, volume of water produced which is given at an estimated figure of 9,547.17m³ monthly and 154,044.25m³ per year is at best an assumption and not supported by any documentation.

2.3.6 Non-Revenue Water

DESUWACO does not have any monitoring systems for assessing water losses, and it also does not have a reporting system that collect and consolidate information on water utility performance. Neither zones nor headquarters have accurate records of Non-Revenue Water (NRW) trends. Estimates available are very inaccurate. There are neither network groups assigned to search and report leaks or bursts, nor hot lines for customers to report same. Network failures and repairs data collection is not systematically done since pipe replacements and (re)locations are neither documented at the zones nor at the headquarters and this presents a big challenge to planning. Leaks and bursts handled by headquarter or the zones are not recorded anywhere. Response time to leaks/bursts is not tracked and when they are repaired is not registered anywhere. Lack of transport, tools and equipment are operational barriers for technical field staff. Lack of leakage detection equipment restricts DESUWACO to passive and reactive leakage/burst in water loss management. The NRW figure provided by the technical team is 93.8% (unverifiable). There is therefore the need to establish NRW baseline through installation of appropriate pilot production and distribution system meters before subsequently commencing the monitoring of NRW KPI. However, DESUWACO has developed NRW management strategy with the support of USAID E-WASH, but requires enormous funding to improve the state of pipe network in its service area. E-WASH also supplied 17 production meters to be installed in the corporation's major production centers.

2.3.7 Metering Practices

DESUWACO is desirous of installing prepaid meters for all its customers. With about 4100 prepaid meters in its store, it has demonstrated the will to achieve this. There are however concerns about the slow pace of installation and adaptation of the meter payment technology. As at the end of 2019, only 89 prepaid meters have been successfully installed

2.3.8 Network Performance

The pipe network mains are of various material including asbestos cement (AC), galvanized iron (GI), unplasticized polyvinyl chloride (uPVC), ductile iron (DI), cast iron (CI), steel, high-density polyethylene (HDPE) and pre-stressed concrete; with various diameters. Although the network runs in the right of way, it has often suffered devastation and dislodgement by road construction contractors. Also, as the age of the pipe increases the roughness of the pipe tends to increase due to the accumulation of various elements around the internal surface of the pipe, which results to a decrease in performance of the pipeline network systems. Some of the AC pipes were installed in the 1960s and as at today have very low performance, as they fail under slight stress, however, efforts are been made to replace some old AC pipes with unplasticized polyvinyl chloride (uPVC) and high-density polyethylene (HDPE) pipes.

2.3.9 Sustainability Service Delivery and Tariff

DESUWACO lacks capacity to achieve sustainable financial health and be able to meet routine administrative, operational and maintenance expenditures through customers chargers and as well as establish cost reflective rates consistent with their customers' expectations and acceptability. DESUWACO covers an average of 0.6% of its operating expenses from internally generated revenue and receives the remaining 99.4% from government (see appendix). Revenue from sales of water averaging about N1,112,060 yearly (see table 6 below) covers only 0.2 percent of the operating expenses. The utility is not providing services in most of its schemes and therefore has no basis to charge customers.

Table 6: Summary of Internally Generated Revenue and Recurrent Expenditure (2017 to 2019)

	DESUWACO INCOME/EXPENDITURE 2017,2018 & 2019				
REVENUE	2017		2018		2019
Borehole	1,787,367		3,648,750		3,700,000
Hiring of Equipment	1,965,000		555,000		510,000
Water Sales	1,084,760		1,056,450		1,194,970
Total Revenue IGR	4,837,127		5,260,200		5,404,970
Total OPEX	440,060,386		426,174,332		419,925,685
OCCR	0.011		0.012		0.013

Sustainability of DESUWACO is therefore predicated on improved production, appropriate tariff, and high level of billing, and collection efficiency. The current tariff structure as shown in Table 7 indicates that the average household with a maximum of 6 individuals pays N750 per month. (see appendix for the new tariff rates as per 2017 amendment). A tariff review to introduce volumetric charges and cost reflective principles is in the offing.

2.3.10 Water Quality

DESUWACO shares a water analysis laboratory, with the Ministry of Water Resources Development which is in its premise. This laboratory is meant to serve the whole sector. There are no available water quality records for DESUWACO and MWRD, until recently when USAID E-WASH supported the Delta State Water Sector Regulatory Committee to carry out water quality assessment across the three (3) Senatorial districts of the State. It is important to note that only Bomadi had a functional treatment plant until the state government commissioned in February 2020, new treatment facilities in Ogbe-ogonogo (Asaba).

2.3.11 Assets

The utility has an asset register. Inventory of water supply infrastructures such as pipes, valves, ground/overhead tanks, buildings, pumps etc., is available. With USAID E-WASH support, a substantial geospatial mapping of the corporation assets has been carried out. It will produce assets information on the GIS platform and asset register.

2.3.12 Sanitation

The new law supports the establishment of a Regulatory Commission, Delta State Waste Management, Environmental Protection Agencies and Primary Health Care to play different roles on Sanitation, and it assigns the management of liquid sanitation in urban areas to DESUWACO. However, in current practice, the private sector handles fecal sludge disposal.

To complement E-WASH proposal of building a fecal sludge treatment plant, the State Government has released a piece of land at Industrial Park, Ibuzo Road for its citing.

2.3.13 Development Partner Intervention

a) The EU supported NDSP

Though it focused more on small town WASH, the program extended its activities to engaging Civil Society Organizations (CSOs) and provision of limited infrastructure and equipment to DESUWACO. It also supported the development of the Delta State WASH Policy and draft Law.

b) USAID E-WASH

The objective of the USAID sponsored Effective Water, Sanitation and Hygiene Services (E-WASH) program is to assist the GoN to expand and improve urban water service delivery by strengthening the governance, financial and technical viability of select SWBs in Nigeria. The E-WASH program concentrates on solidifying state, municipal, and utility-level governance gains, manifested in improved water supply services, and an improved ability to regulate, manage, and expand sanitation services.

To address the enormous need for urban WASH services in Nigeria, the program focuses on reforming SWB governance, which will lead to cost recovery, increase investment in infrastructure, and expand access to water and sanitation to large unserved and underserved populations.

By doing so, E-WASH will help the SWBs demonstrate that better-performing water boards will raise the quality of services for their customers, facilitate services-driven economic performance, improve state finances by increasing cost recovery and reducing subsidies, and increase the states' capacity to sustainably serve all customers in selected urban areas, including the poor. E-WASH works toward achieving the following mutually reinforcing objectives:

- Create professionally managed and commercially oriented SWBs
- Improve the financial and operational viability of SWBs
- Strengthen policy, institutional, and regulatory frameworks for improved WASH services
- Build national and state WASH advocacy, coordination, and communications for reform

The USAID E-WASH program objectives are clearly defined in the specific objectives, activities and tasks laid out in the Service Improvement Plan that has been signed with the Ministry of Water Resources Development and DESUWACO with specific objectives expanded below:

SIP Objectives	SIP Specific Objectives
1. Create Professionally Managed, Commercially Oriented DESUWACO	1. Increase Political and Managerial Autonomy 2. Develop Incentives and Performance-based Contracts (PBCs) 3. State Government and DSUWB agree on and are implementing a performance-based contract aimed at guiding, motivating and monitoring staff performance. 4. Strengthen Corporate Culture that Motivates and Inspires Staff to Excel and Achieve Its Mission 5. Support Human Resources Development within the DSUWB 6. Shift Toward a More Customer-Oriented Organization
2. Improve Financial and Operational Viability of DESUWACO	1.2. Explore Options for Private Sector Participation - Improve Business Processes, Financial Management Practices, Billing and Collection, and Customer Service - Promote and Support the Implementation of Tariff Increases 4. Develop Performance Improvement Plans (PIPs) 5. Develop Asset Maintenance Management (AMM) Systems 6. Design and Operationalize a Utility Support Fund for Emergency Repairs and Small-scale Improvements to Increase Operational Efficiency 7. Reduce Non-Revenue Water (NRW)
3. Strengthen Policy, Institutional, and Regulatory Frameworks for Improved WASH Services	1. Design and Support the Implementation of Specific Policy Reforms 2.3. Establish or Strengthen Regulatory Unit or Commission - Design and Implement a Strategy to Improve the Financing of WASH Service 4.5. Delivery Expansion and Improvement 6. Establish Public Accountability Tools - Enhance Social Accountability and Institutional Transparency - Map and Develop Plans for Sanitation Service Improvement 7. Design and Operationalize a Small Grants Fund Program
4. Build Coordination, Advocacy and Strategic Communication to Promote Reforms in the WASH Sector	1.2.3. Build the Capacity of National and State-Level WASH Coordination Agencies 4. Develop and Implement Communications for Reform Strategy - Develop and Execute Knowledge Management Strategy and Action Plan - Carry Out and Support Research to Build Political Support for Reform

Some key Projects; Game Changer” in Delta Water Supply

Current analysis shows that if DESUWACO operate at a 100% installed capacity, it will only meet just about half of existing water demand hence the need for increase in water production capacity. Sustainability is also strongly linked with capacity to connect customers and sustain production. Two projects offer the best possible quick wins to achieve these: the Warri-Effurun Africa Development Bank (AfDB) water treatment plant and Ogwashi-Uku Dam.

Warri Effurun WTP

The project has an installed capacity of 68,000m³ per day with several pipes covering 198km of various sizes ranging from 100mm to 1,000mm diameter. The project has been stalled for over 5 years with the Headworks lying idle, and the pipe network partially destroyed by road construction. A concession contract has been concluded to allow a private operator to run the plant. This is the quickest opportunity available to the Delta State government for accelerating access to potable water, especially to the city of Warri with over 500,000 people.

Ogwashi-Uku Dam

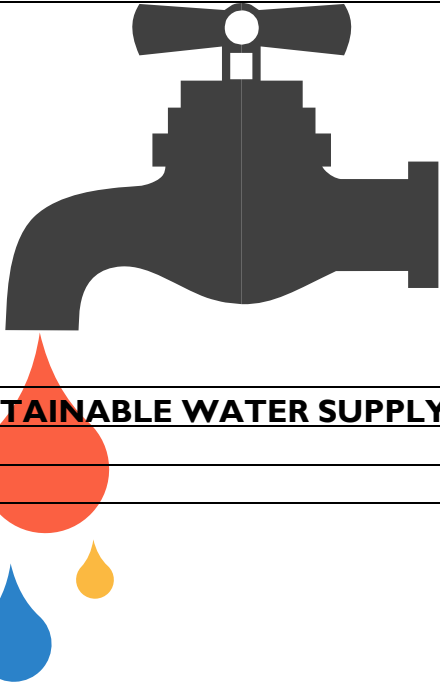
Delta State Government can work with the Federal Government to complete the Ogwashi-Uku Dam by building the intake and headworks. This can add another 50,000 to 100,000m³ daily supply to the Delta North area of the state in the next three years.

2.4 Summary of Current Success and Challenges

SUCCESSES	CHALLENGES
▪ Training & retraining (Capacity Building) by EWASH ▪ Changing from DSUWB to DESUWACO ▪ Knowing the stakeholders of the corporation ▪ Knowing the functions of the corporation ▪ Pipeline extension in the zones ▪ Repairs of broken-down boreholes ▪ Supply of replaceable materials ▪ Repairs of utility vehicles ▪ Reforms been introduced by EWASH ▪ Setting up mode of communication/reporting of challenges via WhatsApp. ▪ Monitoring of pipelines and recording findings ▪ Successful maintenance of busted pipelines at different locations ▪ Successful laying of pipelines ▪ Teamwork & attitudinal change ▪ Introduction of solar power to schemes ▪ Rehabilitation and Construction of pipelines in Burutu ▪ Construction of 100,000 gallons ground tank in Burutu ▪ Transporting water across the bridge using booster pump. ▪ Functionalizing zonal offices	▪ Lack of tools and equipment ▪ Lack of adequate supply of potable water ▪ Lack of good treatment plant ▪ Lack of utility vehicles ▪ Low motivation of personnel ▪ Decayed infrastructure and pipelines ▪ Lack of payment of traveling allowances ▪ High-handedness ▪ Not producing bottled water ▪ Lack of monitoring & accountability ▪ Lack of appropriate job schedule ▪ Inability to connect houses to main pipelines & metering ▪ Inability to connect existing schemes to BEDC ▪ Inability to sustain constant water supply ▪ Inadequate supply of diesel to operate stations ▪ Non release of funds for official assignment ▪ Inability to repair bust pipes due to paucity of funds ▪ Increase in non-revenue water due to lack of repairs ▪ Poor work environment ▪ Square pegs in round holes ▪ Non connectivity of pipelines already laid ▪ Operational system not functioning ▪ Provision of untreated water to the populace ▪ Lack of proper awareness among zonal staff about the transition to corporation

▪ Lack of professionalism in handling jobs ☐ Non release of funds to carryout jobs ☐ Change Management. ▪ E-WASH Team availability for intervention ▪ Implementation of mission statement ▪ Analysis of water samples ▪ Hand washing day observed 15/Oct. ▪ Monthly operational data report by each staff ▪ Provision of some office equipment's like chairs & tables ▪ 5 km pipelines laid in 10 zones ▪ Meeting with households ▪ Developed leave plan for the Headquarter staff ▪ Non utilization of quality manpower ▪ Wrong placement of staff	▪ Low capacity. ▪ Over interference of the ministry ▪ Payments without vouchers ▪ Improper record keeping ▪ Noncompliance with accounting standards ▪ Maintenance of buildings and gates ▪ Communication gap between management and staff ▪ Lack of funds to provide working tools for cleaners and security personnel ▪ In adequate security personnel ▪ Failure to Computerize the registry due to paucity of funds.
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CHAPTER 3: THE STRATEGIC PLAN

	
FULLY IMPLEMENTED INSTITUTIONAL FRAMEWORK	CAPACITY BUILDING
	
ENTERPRISE RESOURCE PLANNING	SUSTAINABLE WATER SUPPLY

CHAPTER 3: THE STRATEGIC PLAN

3.1 Threats, Opportunities, Weaknesses and Strengths (TOWS)

THREATS	OPPORTUNITIES	WEAKNESSES	STRENGTHS
▪ Vandalization of pipelines and facilities ▪ Construction of road networks ▪ Undue Political interference ▪ Youth restiveness ▪ Bottlenecks and bureaucracy ▪ Contracting of jobs to unqualified contractors ▪ Destruction of facilities e.g. pipelines ▪ Threat to life during revenue drive ▪ Market competition ▪ Misuse of power ▪ Nepotism and ethnicity ▪ Poor management ▪ Customers not adequately informed ▪ Proliferation of private boreholes ▪ Water Law not yet in force ▪ Lack of stewardship ▪ Lack of payment of water rates by customers	▪ Training & retraining by USAID EWASH program ▪ Funding and support from EU, USAID ▪ Exposure to other water corporations' activities ▪ Hoping to get new donors, e.g. World Bank ▪ Large market ▪ Quality of water produced ▪ Intervention from external bodies ▪ Concrete and steel tanks as adverts spaces ▪ Rigs & cranes ▪ Presence in almost every major town ▪ Advocacy for quality water ▪ Provision of Mobility for Commercial personnel ▪ Readiness of customers to pay for services rendered ▪ Production of bottled/pure water. ▪ Creating awareness about the quality of water been served	▪ Lack of funds/poor funding ▪ Lack of motivation and incentives ▪ Lack of working tools and equipment ▪ Lack of Infrastructure in the zonal areas ▪ Shortage of manpower ▪ Poor Administration ▪ Lack of conducive working environment in most zonal offices ▪ High rate of indiscipline ▪ Absence of accountability ▪ Weak management ▪ Negative mindset and fear of the unknown ▪ Lack of maintenance of infrastructure ▪ Poor service to customers	▪ Good personnel management in place ▪ Good organization structure ▪ Good assets in place ▪ Adequate professional staff ▪ Good water law in place ▪ Funding from government ▪ Available structures and assets ▪ Experienced manpower ▪ Drilling rigs and cranes ▪ Quality infrastructure, such as concrete tanks ▪ Water quality Lab ▪ Professional personnel in the corporation ▪ Willingness to work by staff ▪ Staff training for all trades ▪ To strengthen policy, institutional and regulatory framework. ▪ Readiness of customers to pay for services delivered. ▪ Ability to perform primary assignment

▪ Not paying attention to damaged pipelines ▪ Community attacks on personnel on duty. ▪ Other water vendors ▪ Customer data not available ▪ No treatment of water ▪ Poor ICT infrastructure ▪ Indiscipline in the system ▪ Obsolete assets ▪ Insecurity ▪ Weak financial base ▪ Weak financial support from govt. ▪ Fear of downsizing ▪ Alternative sources of water	▪ Willingness of donor agencies to support the corporation ▪ Urbanization ▪ 216 schemes – large market	▪ Wrong placement of personnel on job schedule ▪ Lack of adequate training for personnel ▪ Low maintenance culture ▪ Provision of inadequate service to customers ▪ High handedness of management ▪ Lack of working tools ▪ Unfriendly working environment ▪ Lack of modern technological facilities ▪ Decayed and aged facilities ▪ Operational autonomy lacking ▪ Poor accountability ▪ No clear functional boundaries ▪ Unrealistic timetable for the corporatization ▪ Competing on limited resources ▪ Untrained personnel ▪ Rigs not maintained ▪ Frequent borehole collapses due to bad maintenance	
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		▪ Low production capacity ▪ Retirement without replacement ▪ Lack of foresight on the part of management ▪ Lack of coordination in harnessing limited resources by mgt.	
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3.2 Stakeholders' Analysis

DESUWACO has many stakeholders implementing its core functions, some of whom are identified below:

S/N	Stakeholder	DESUWACO's Expectations	Stakeholder's Expectations
1	Employees	High productivity and commitment	Clear terms and conditions of service Prompt payment of emoluments Timely communication Good working conditions Fair treatment
2	Customers	Customer loyalty prompt payment	Quality Service Timely communication
3	Union	Sound industrial relations	Recognition and enhancement of members welfare Prompt remittance of emoluments
4	Board of Directors	Sound leadership and good policy	High performance and Good Governance
5	Government	Support and autonomy Enabling policies and legislation and support	Improved service to justify government releases Improved revenue generation to reduce dependence on government funds

6	Suppliers	Quality goods, services and works Timely delivery and after sale service	Prompt payment Fair treatment
7	Development Partners	Favorable terms and conditions Timely disbursement of funds	Good governance, transparency, and accountability Effective utilization of funds Operating by commercial principles Efficient service delivery
8	Community	Support and Cooperation in area of protection of utilities infrastructure	Corporate Social Responsibility Efficient Service Delivery
9	Media	Factual and Fair coverage	Information disclosure
10	CSOs	Collaboration and Partnership in creating awareness of reforms and activities in the WASH sector. Mobilize customers to patronize WASH services	Citizens input in governance of the sector Partnership and Collaboration Transparency and Accountability to the citizens of the State. Improved WASH service delivery
11	Reform Champion Team	Support and push for increased interest in the WASH sector.	Transparency and Accountability to the citizens of the State.
12	Aligned MDAs	Support and Collaboration	Transparency and Accountability to the citizens of the State. Improved WASH service delivery

3.3 Strategic Themes

Strategic themes are the key performance areas in which an organization must excel to achieve its mission and vision while delivering value to stakeholders. They are the organization's pillars of excellence. The following were identified as the broad areas of focus for the planning period:

1. Restore quality water production, storage, transmission, and distribution
2. Reconnect and earn customer confidence
3. Revenue growth and Financial efficiency
4. Human resource management

5. Brand Improvement and Institutional strengthening
6. Sanitation

3.3.1 Restoration of Potable Water Production, Storage, Transmission and Distribution

To meet the demand for water, DESUWACO intends to take measures aimed at restoring water supply services regularly to all urban communities in Delta State. Capacity utilization of the existing plant is less than 1%. Only Ogwashi-uku, Agbor, Ogbe-Ogonogo and SPC Asaba, operate on an average of three hours per day. DESUWACO with the intervention of the Ministry of Water Resources and the support of USAID E-WASH, plans to rehabilitate and install treatment facilities in all schemes in the ten zones. Also, the challenge of energy supply and dilapidated network, impairs service provision and operational efficiency. This has resulted in high non-revenue water levels. The corporation plans to put measures in place that will ensure increased water coverage while ensuring efficiency in the distribution process.

3.3.2 Reconnection and Earning the Customer Confidence

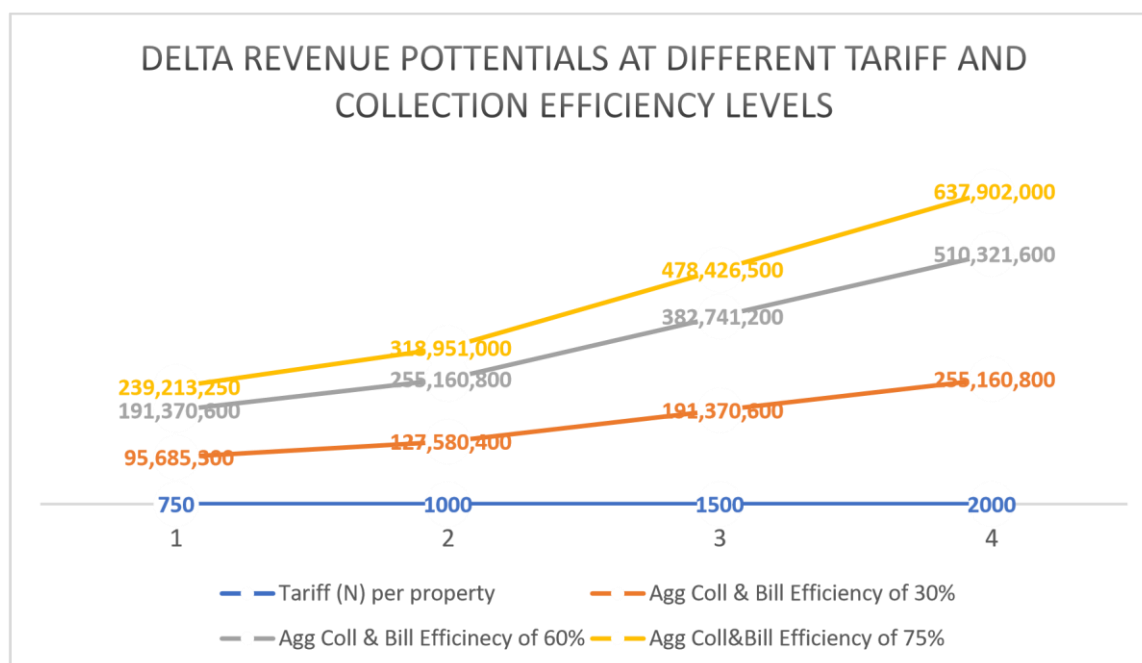
Because water customers have been without public water supply for up to ten years in most urban communities, there is a general apathy to customer connection due to loss of confidence. Customer enumeration report revealed that in some large cities like Asaba, Agbor and Warri, citizens express unwillingness to connect. DESUWACO is aware of the loss of customer confidence, but its desirous of demonstrating willingness to sustain efficient supply and earn customer confidence. The corporation plans to pursue strategies aimed at meeting customer needs, increasing customer base, and focus on excellent customer service delivery as a way of enhancing its performance.

3.3.3 Revenue Growth and Financial Efficiency

Revenue generation through right tariff, efficient billing and collection system is central to DESUWACO's drive for improved revenue. To forestall commercial losses, DESUWACO plans to reinforce its principle of universal metering, ensuring that its stock of prepaid meters is optimized for such purpose. Right tariff will be introduced to ensure cost recovery. Efficient billing and collection system, and proper resource utilization will aid the Corporation in ensuring financial resources are harnessed and costs associated with operations maintained at optimal levels. As a way of improving on efficiency and effectiveness, DESUWACO plans to increase the level of automation in its operations. Recent projections as illustrated in table 7 and figure 4, indicates the financial potentials of DESUWACO under different tariff and performance scenario. Planning with 38,429 potential customers pooled from the list of respondents that expressed willingness to connect within network coverage area during the USAID E-WASH supported block mapping and customer enumeration exercise, and assumed aggregate of billing and collection efficiency under four average tariff regime revenue potential for DESUWACO, peaked at about N637 million per year at 75% billing/collection efficiency, if average of N2,000 is paid per property.

Table 7: Revenue Potentials of DESUWACO

Tariff (N) per property	Agg Coll & Bill Efficiency of 30%	Agg Coll & Bill Efficiency of 60%	Agg Coll. & Bill Efficiency of 75%
750	95,685,300	191,370,600	239,213,250
1000	127,580,400	255,160,800	318,951,000
1500	191,370,600	382,741,200	478,426,500
2000	255,160,800	510,321,600	637,902,000

**Figure 4: DESUWACO Revenue Potentials**

3.3.4 Human Resource Management and Organizational Re-engineering

For DESUWACO to achieve its objectives, it intends to adopt best practices in human resource management. The corporation plans to put in place an appropriate organization structure with optimal human resources. The staff will need to be equipped with the necessary skills and tools to increase productivity. It will implement the OD deliverables consisting of change management, human resource manual, training plan, staff performance management program and other HRM tools to drive the corporation into efficiency.

3.3.5 Brand Development and Institutional Strengthening

DESUWACO has identified brand development as one of the aspects to improve as a way of strengthening the institution. The Corporation therefore intends to pursue strategies that will enhance its visibility and collaboration with various partners.

3.3.6 Fecal Sludge Treatment

In response to its newly acquired institutional mandate on urban sanitation, DESUWACO intends to commence fecal sludge management, counting on the partnership with USAID E-WASH.

3.4 Goals and Targets (2020 – 2024)

1. Improved capacity to meet 50% demand for water supply (currently a 98% shortfall on demand) by 2024.
2. To expand production capacity to meet 100% demand in 2024 targeting over 100MLD production
3. To ensure 100% compliance to DESUWACO water quality standard as adopted from World Health Organization (WHO) and Nigeria water quality standard.
4. To increase network coverage from 16% to 33% by 2024.
5. To increase the customer base from the current 663 to 15,000 by 2024:
6. Gradually increase system performance reliability from 2 hours/day in just two schemes to 14 hours/day in all the WTP by the end of the *five-year* business plan horizon in 2024.
7. To establish a brand identity and increase the number of people with willingness to connect from 38,000 to 60,000.
8. To increase billing efficiency from 10% to 80% by 2024
9. Reduce non-revenue water from 93% to 45% by 2024
10. Increase the current annual revenue from current baseline of about N5M to N170M in 2024 and increase Operating Cost Coverage Ratio (OCCR) from 0.006 to 0.33 by 2024
11. To achieve 100% metering by the end of the *five-year* business plan horizon in 2024.
12. To institute administrative and operational manuals and standard operating procedures (SOPs) in the first year of the strategic plan horizon.
13. To efficiently treat and dispose of Fecal sludge in an environmentally friendly manner by 2024 in Asaba and Warri.

Table 8: Performance Indicators Baseline and Projection

KPIs	2019	2020	2021	2022	2023	2024
Estimated Population	2,947,917.65	3,041,661.43	3,138,386.27	3,238,186.95	3,341,161.29	3,447,410.22
Estimated Water Demand (M3/Day)	235,833.41	243,332.91	251,070.90	259,054.96	267,292.90	275,792.82
Installed Capacity M3/Day	141,757.30	143,146.20	145,439.39	147,805.51	150,246.87	152,765.86
Supply Shortfall (M3/Day)	147,709.60	161,357.61	169,095.60	177,079.66	122,361.05	128,341.97
% Shortfall Capacity	49.06	53.95	55.37	56.75	50.17	51.39
Hours of service	2.00	6.00	8.00	10.00	12.00	14.00
volume Produced	796.00	11,414.55	45,408.92	53,306.91	60,830.19	68,471.15
Operating Capacity %	1.55	11.80	34.50	41.50	47.50	50.00
Estimated Household in coverage area	221,495.78	223,665.93	227,249.05	230,946.10	234,760.73	238,696.66
No of household serviceable	1,243.75	17,835.24	70,951.43	83,292.04	95,047.18	106,986.17
Network Coverage	0.16	0.16	0.16	0.20	0.23	0.30
Potential Customers (Willingness to connect)	35,439	35,786.55	36,359.85	46,189.22	53,994.97	71,609.00
Connection Efficiency	0.02	0.06	0.14	0.17	0.20	0.21
Connected Customers	568	2,068	5,069	8,069	11,069	15,000
Billing Efficiency	0.50	0.80	0.80	0.80	0.80	0.80
Billed Customers	284	1,655	4,055	6,455	8,855	12,000.00
Collection efficiency	0.46	0.70	0.70	0.70	0.70	0.70
Paying Customers	129.87	1,158.34	2,838.40	4,518.41	6,198.41	8,400.00
Average Tariff/Customer	750.00	750.00	1,500.00	1,500.00	1,500.00	1,500.00
Revenue from Sales (AV Monthly)	97,405.84	868,754.26	4,257,592.68	6,777,617.45	9,297,615.91	12,599,999.74
Revenue from Sales per Year	1,168,870	10,425,051.14	51,091,112.18	81,331,409.40	111,571,390.95	151,199,996.84
Connection Fees	-	-	5,000.00	5,000.00	5,000.00	5,000.00
New Connections	324.00	1,500	3,000	3,000	3,000	3,931.41
Revenue from new connections	-		15,000,500.94	15,000,147.43	14,999,990.84	19,657,046.58
Other Revenues	4,010,000.00					
Total Revenue (Turnover)	5,178,870.08	10,425,051.14	66,091,613.12	96,331,556.84	126,571,381.79	170,857,043.42
OPEX	419,161,428.55	420,000,000.00	441,000,000.00	463,050,000.00	486,202,500.00	510,512,625.00

Covering Ratio	0.01	2.48	14.99	20.80	26.03	33.47
Cash Operating Margin	(413,982,558.47)	(409,574,948.86)	(374,908,386.88)	(366,718,443.16)	(359,631,118.21)	(339,655,581.58)
NRW %	98	70	60	55	50	40
Quality Compliance Standard %	0	100	100	100	100	100

The figures for the year 2019 are estimated, while 2020 to 2024 are projections

3.5 Strategic Analysis Framework

The strategic analysis framework provides essential linkages between strategic themes and their corresponding goals, objectives, and strategies

Strategic Themes	Objectives	Strategies
Restoration of Potable Water Production, Storage, Transmission and Distribution	Improved capacity to meet 50% of demand for water supply (currently a 98% shortfall on demand) by 2024	Restore existing Schemes to 100% operating capacity. Revisit Warri-Effurun AFDB WTP.
	To expand production capacity to meet 100% demand in 2024 targeting over 100MLD production	To commence feasibility study on the plants. To construct two new regional water treatment plant in Ogwashi-Uku Dam (50 MLD) and on Ethiopie River 50 MLD) by 2024.
	To ensure 100% compliance to DESUWACO water quality standard as adopted from WHO and Nigeria water quality standard.	Introduce treatment facilities in all the water schemes. Procure chemicals for water treatment. Equip the Delta State Lab. Strengthen the Regulatory Unit to conduct quality assurance investigation.
	To increase network coverage from 16% to 33% in 2024	Develop a comprehensive asset management system. Replace all AC pipes and introduce flow regulating valves. Conduct hydraulic analysis. Lay new secondary and tertiary pipes to unreached areas.
	To increase the customer base from the current 663 to 15000 by 2024:	Introduce aggressive marketing strategy Introduce incentive-based performance improvement program.

Reconnection and Earning the Customer Confidence	Gradually increase system performance reliability from 2 hours/day in just two schemes to 14 hours/day in all the WTP by the end of the <i>five-year</i> business plan horizon in 2024.	Connect all existing schemes to 33KV BEDC source. Increase funding for diesel as a backup till DESUWACO can generate revenue to cover energy cost.
	To establish a brand identity and increase the number of people with willingness to connect from 38,000 to 60,000	Implement a customer engagement strategy. Commence communication program to sensitize the public about the benefits of treated water. Procure a customer relation management system (CRM).
Revenue Growth and Financial efficiency	To increase billing efficiency from 10% to 80% by 2024	Procurement of billing system and introduction of electronic billing. Installation of pre-paid meters to new customers. Conduct tariff study and implement.
	Reduce non-revenue water from 93% to 45% by 2024	Introduction of district meters at source nodes on the network. Establish, train, and equip leak detection and repair teams in the technical department.
	Increase the current annual revenue from current baseline of about N5M to N170 in 2024 and increase Operating Cost Covering Ration (OCCR) from 0.006 to 0.33 by 2024	100% automation of all business processes. Introduce customer friendly payment system. Introduction of incentive-based PIP.
	Achieve 100% metering by the end of the <i>five-year</i> business plan horizon in 2024.	Procure more pre-paid meters. Intensive training for Utility staff.
Human Resource Management and Organizational Re-engineering	Put in place administrative and operational manuals and, standard operating procedures (SOPs) in the first year of the strategic plan horizon. And implement the staff performance system.	Implement the already developed SOPs, human resource management manuals, succession plan etc.
Sanitation	To efficiently treat and dispose of Fecal sludge in an environmentally friendly manner by 2025 in Asaba and Warri.	Conduct a state-wide sanitation survey. Build a fecal sludge treatment plant Support private sector operator in fecal sludge disposal.

Chapter 4: Implementation Plan



Ogwashi-Uku Dam: Water Production and Power Generation Prospect

Chapter 4: Implementation Plan

THEME 1: Restoration of Potable Water Production, Storage, Transmission and Distribution

Objective 1: Improved capacity to meet 50% of demand for water supply (currently a 98% shortfall on demand) by 2024

S/N	Strategy	DESUWACO Department Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (Naira Million)
1	Restore existing Schemes to 100% operating capacity	DESUWACO - Technical	Drill new boreholes in 15 schemes	Volume of Water Produced	DSTG/DESU WACO/Donor (E-WASH USAID) and any other entrants.	2020-2023	450
			Repair 13 blocked boreholes				250
			Fishing of 10 BH				30
			Replace 89 burnt and stolen pump				150
			Clean and sandblast 15 reservoirs	NRW and Water Quality			3
2	Revisit Warri-Effurun AFDB WTP	MWRD, DESUWACO	Open negotiation with the contractor	Agreement Signed	DSTG/MWRD/DESU WACO/Donor (E-WASH USAID) and any other entrants.	2020-2023	
			Conclude the PPP arrangement				
			Or determine the contract and hand over to DESUWACO	Contract determined			
			Replace vandalized equipment and pipes	Volume of Water Produced			500
			Commence aggressive customer drive	No of new customers			100
	Total Cost						1,483

Objective 2: To expand production capacity to meet 100% demand in 2024 targeting over 100MLD production

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
I		DESUWACO - Project Development	Engage consultants for feasibility study and Design		DSTG/DESUWAC O/Donor (E-	June 2020	200
S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
	To commence feasibility study on the plants	DESUWACO - Hydrology and Hydrogeology	Present the study to prospective investors	Volume of Water Produced	(E-WASH USAID) and any other entrants		
2	To construct two new regional water treatment plant in Ogwashi-Uku Dam (50 MLD) and on Ethiopie River 50 MLD) by 2025	DESUWACO - Project Development Hydrology and Hydrogeology	Access funding for building of Ogwashi-Uku headworks and reticulation		DSTG/DESUWAC O/Donor (E-WASH USAID) and any other entrants.	2021	7,000
			Construction of Ogwashi-Uku headworks and reticulation			2022-2025	
			Access funding for building of Ethiopie Dam, headworks and reticulation			2023	8,000
			Commence construction of Ethiopie Dam			2024 – 2026	
	Total						15,200

Objective 3: To ensure 100% compliance to DESUWACO water quality standard as adopted from WHO and Nigeria water quality standard.

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
	Introduce treatment facilities in all the water schemes	DESUWACO - Sanitation and Quality Control	Complete and commission Asaba and Ughelli WTP	Water quality compliance to drinking water standard	Govt	Feb 2020	40
			Reactivate treatment facilities of all schemes		Govt/USAID E-WASH	2020 – 2021	500
	Procure chemicals and equipment's for the water Treatment Laboratory.	DESUWACO - Sanitation and Quality Control	Provide funding for procurement of chemicals		Govt/DESUWACO	2020 – 2024	300
			Equip DESUWACO Lab		E-WASH	E-WASH	10
	Regulatory Commission to conduct quality assurance investigation	DESUWACO - Sanitation and Quality Control, Regulatory Commission	Provide mobile testing kit		E-WASH	E-WASH	5
			Commence monitoring and inspectorate activities		Regulatory Unit	Regulatory Unit	5
	Total						860

Objective 4: To increase network coverage from 16% to 33% in 2024

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N Million)
	Develop a comprehensive asset management system	DESUWACO - Technical Services	Develop network maps	Network coverage	DSG/DESUW ACO/E-WASH	2020	15
			Develop planned preventive, preemptive and corrective maintenance policy, SOP and training		DSG/DESUW ACO/E-WASH	2020	25
	Replace all AC pipes and introduce flow regulating valves	DESUWACO - Technical Services	Carry out hydraulic modelling Develop BEME	NRW	DSG/DESUW ACO/E-WASH	2020	10
					DSG/DESUW ACO/E-WASH	2020	15
	Lay new secondary and tertiary pipes to unreached areas	DESUWACO - Technical Services	Replace/Construct new network		DSG/DESUW ACO/E-WASH	2020 to 2024	1500
	Total						1565

THEME 2: Reconnection and Earning the Customer Confidence**Objective 1: Increase the customer base from the current 663 to 15000 by 2024:**

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N Million)
1	Introduce aggressive marketing strategy	DESUWACO - Commercial	Strengthen the commercial department at the zones and train staff	No of staff trained	DESUWACO EWASH	2020	2
			Introduce subsidized connection fees	New connections	DESUWACO E-WASH	2020-2021	50
			Simplify connection procedure and intensify communication efforts	New connections	DESUWACO E-WASH	2020	5
2	Introduce incentive-based performance improvement program	DESUWACO Management and Zones	Develop PIP	New connections	DESUWACO E-WASH	Continuous	2
			Introduce cash rewards to staff for new connections		DESUWACO		5
			Sign Internally Delegated Performance Contract with zones		DESUWACO E-WASH		2
	Total						66

Objective 2: Gradually increase system performance reliability from 2 hours/day in just two schemes to 14 hours/day in all the WTP by the end of the five-year business plan horizon in 2024.

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N-Million)
1	Connect all existing schemes to 33KV BEDC source	DESUWACO - Technical	Purchase 300KVA transformers and install in 88 schemes	No of hours of service	MWRD/Ministry of Energy/DESU WACO/EWASH/BEDC	2020-2021	840
			Invite BEDC to connect (with support of Min of Energy)			2020-2021	
			Conduct an “Energy for Water” summit			2020	5
2	Increase funding for diesel as a backup till DESUWACO can generate revenue to cover energy cost	DESUWACO - Finance and Budget & Planning	Draw up diesel need and Justification			2020-2024	240
			Raise special Memo to government on special fund for diesel				
	Total						1085

Objective 3: To establish a brand identity and increase the number of people with willingness to connect from 38000 to 60000

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N-Million)
1	Implement a customer engagement strategy	DESUWACO - Commercial	Conduct workshops targeting commercial and distribution staff	No of staff trained	DESUWACO E-WASH	2020	5
			Establish customer care centers with toll free lines	Customer satisfaction index		2020-2021	20
2	Commence communication program to sensitize the public about the benefits of treated water	DESUWACO - Communications	Develop communication strategy and implementation plan	New connections	DESUWACO E-WASH	2020	50
			Develop communication products			2020-2022	
			Expose communication products				
3	Procure a customer relations management system (CRM)	DESUWACO - Commercial	Procure ERP (CRM Module)	Customer satisfaction index	DESUWACO E-WASH		10
			Train staff				5
			Introduce WAN for real-time interface with zones				
	Total						90

THEME 3: Revenue Growth and Financial Efficiency**Objective 1: To increase billing efficiency from 10% to 80% by 2024**

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
1	Procurement of billing system and introduction of electronic billing	DESUWACO - Commercial	Procure and install ERP. Develop and employ a mobile billing App.	Billing efficiency	E-WASH DESUWACO	2020 2021	40 20
2	Installation of pre-paid meters to new customers	DESUWACO - Commercial and Technical	Domesticate the meter vending server and train staff to recharge Installation of 5000 procured meters	Metering Efficiency Collection Efficiency	DESUWACO	2020	5 50
3	Conduct tariff study and implement	DESUWACO - Commercial	Conduct Study Implement recommended tariff policy and structure	Billing efficiency And pro-poor considerations	E-WASH		15
	Total						90

Objective 2: Reduce non-revenue water from 93% to 45% by 2024

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N-Million)
1	Introduction of district meters at source nodes on the network	DESUWACO - Technical	Procure and install bulk production meters	NRW	E-WASH DESUWACO	2020	8
			Procure and install district meters in 6 schemes zones	NRW		2020	6
			Procure and install district meters in all the schemes	NRW		2021-2024	15
2	Establish, train and equip leak detection and repair teams in the technical department	DESUWACO - Technical	Establish leak management groups	NRW		2020	
			Procure vehicles for routine surveillance and rapid response	NRW		2021	80
			Procure leak detection equipment	NRW		2020	6

Objective 3: Increase the current annual revenue from current baseline of about N5,260,200 to N170M in 2024 and increase Operating Cost Covering Ratio (OCCR) from 0.012 to 0.33 by 2024

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
1	100% automation of all business processes	DESUWACO – Commercial, Finance and Account	Implement the ERP	Revenue Collected OCCR	DESUWACO E-WASH	2020	10
			Train Staff	Revenue Collected OCCR	DESUWACO E-WASH	2020	2
			Computerize operations at the zone and loop into a WAN	Revenue Collected OCCR	DESUWACO	2021	25
2	Introduce customer friendly payment system	DESUWACO – Finance and Account	Develop payment apps on phone	Revenue Collected OCCR	DESUWACO E-WASH	2021	15
			Interface with all on-line payment platforms especially the interbank switching companies, bank e-wallet and short code			2021	
3	Introduction of incentive-based PIP	DESUWACO - Management, PRS and CAC	Develop PIP with revenue generation targets	Revenue Collected, OCCR		2020-2021	5
			Sign Internally Delegated Management Contracts with Zones	Revenue Collected, OCCR		2021	5

Objective: 4 Achieve 100% metering by the end of the five-year business plan horizon in 2024.

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N-Million)
1	Procure more prepaid meters to achieve over 95% billing efficiency	DESUWACO - Commercial	Procure additional meters with expansion project	Billing efficiency	DESUWACO/ E-WASH and any other entrants	2022	300
2	Intensive training for Utility staff	E-WASH	Intensive training on meter technology	Metering efficiency	DESUWACO/E-WASH	2021	15

THEME 4: Human Resource Management and Organizational Re-engineering

Objective 1: Put in place administrative and operational manuals and standard operating procedures (SOPs) in the first year of the strategic plan horizon

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (N=Million)
1	Implement the already developed SOPs, human resource management manuals, succession plan etc.	DESUWACO - Administration	Implement the human resource manual	Staff Productivity	DESUWACO E-WASH	2021	2
			Implement the staff performance evaluation system				2
			Implement staff succession and retention policy			2021	2
			Implement the training manual				
2	Develop administrative and accounting business flow process and implement.	DESUWACO - Administration Finance and Accounts	Develop administrative business flow	Staff Productivity	E-WASH	2021	5
			Develop accounting business flow using the developed accounting manual and SOP	Financial Accountability	E-WASH		5

THEME 5: Sanitation

Objective 1: To efficiently treat and dispose of Fecal sludge in an environmentally friendly manner by 2024 in Asaba and Warri

S/N	Strategy	Institution Responsible	Proposed Actions	Output Indicator(s)	Implementing Actor(s)	Timeframe	Cost Estimates (USD Million)
1	Conduct a statewide sanitation survey	DESUWACO – Sanitation and Quality Control	Engage Consultant	City wide Sanitation plan	DESUWACO E-WASH	2021	10
			Develop as implementation plan				5
			Conduct study and survey				5
2	Build a fecal sludge treatment plant	E-WASH, MWRD, DESUWACO	Build a fecal treatment plant	Volume of fecal sludge treated	DESUWACO E-WASH		50
3	Support private sector operators in fecal sludge disposal	DESUWACO - Sanitation and Quality Control	Train private operators on safe practices	Safe sanitation practice	DESUWACO, E-WASH	2021	50
			Build capacity to access credit for acquiring modern evacuation trucks	Safe sanitation practice			

CHAPTER 5 MONITORING AND REPORTING ARRANGEMENTS OF RISK MANAGEMENT

5.1 Monitoring and Reporting Arrangements

The Monitoring, Evaluation, and Learning (MEL) Plan is a key element of efficient service delivery which drives the process of monitoring, evaluation, research, learning, and adapting (MERLA) outcomes toward targeted goal-oriented performance improvements. DESUWACO will leverage the robust MEL Plan of the USAID E-WASH program to develop capacity to measure, evaluate and use the results to institutionalize data-driven decision-making.

The MEL Plan will outline information requirements for generating accurate and timely monitoring and evaluation (M&E) related data and designates learning pathways for robust knowledge management (KM). The MEL Plan will enable DESUWACO adapt to changes and make midcourse adjustment as necessary during quarterly performance review.

The DESUWACO MEL Plan will be fashioned after E-WASH MEL plan and is designed to do the following:

- Map critical component causal linkages and Key Performance Indicators (KPIs) to inform decision-making for overall performance improvements toward the attainment of DESUWACO corporate goals;
- Establish a learning plan for DESUWACO strategy and implementation approach;
- Propose a robust framework for all MEL-related activities during activity implementation;
- Articulate MEL methods and approaches to data collection for performance monitoring and outcome reporting.

5.2 RISK MANAGEMENT

General Business and Political Environment Assumptions. To achieve the above goals and objectives, the following key assumptions are made.

- I. Government and Donor funding will be secured in time to finance the planned capital projects.
- II. Government will meet all its bill payments and financing obligations in time.
- III. Procurement of capital projects will proceed uninterrupted.
- IV. Stable macro-economic environment.
- V. No major changes in the institutional arrangement and governance.
- VI. Political stability.
- VII. Social harmony.

APPENDICES**2017 REVISED TARIF, RATES, LEVIES, FINES, FEES ETC FOR DELTA STATE URBAN WATER
COPORATION**

S/N	Categories	Old Rate N	New Rate
1	Accommodation Room Type		
a	House of 1-6 room	300.00	750.00
b	House of 7 rooms and above	600.00	1,500.00
2	Accommodation Flat Type		
a)	Two bedrooms flat	600.00	1,500.00
b)	Three and Four bedroom flat	900.00	2,250.00
c)	Five- and six-bedrooms flats/Mansion/Duplex	1,500.00	3,750.00
3	Building Sites		
a)	Private Building	300.00	7,500.00
b)	Commercial Building Site	7,500.00	18,750.00
c)	Corporate Building Site	15,000.00	37,500.00
4	Industrial Consumers		
a	Large Industry	45,000.00	45,000.00
b	Small Industry	15,000.00	15,000.00
c	Small scale industry	2,500.00	2,500.00
d	Fixed demand charge of meter	15,000.00	15,000.00
f	Meters for industrial use	50,000.00	50,000.00
5	Commercial Consumers		
a	Highly commercialized organizations, water sachet companies, Petrol Stations, Car Wash, fast food centers and hotels with 15 rooms and below	3,000	3,000
b	Hotels with 15 – 30 rooms	5,000	5,000
c	Hotels with 31 rooms and above	10,000.00	10,000.00
d	Hairdresser salon	500.00	500.00
F	Drycleaners	500.00	500.00
g	Poultry farms	1,000.00	1,000.00
h	Supermarkets/chemist shop	1,000.00	1,000.00

I	Modern Market	25,000.00	25,000.00
6	Restaurant and Canteen		
a	Standard restaurant	1,500	1,500
b	Local restaurant	500.00	500.00

7	Banks		
a	Banks	10,000.00	10,000.00
8	Schools		
a	Public school (day)	5,000.00	5,000.00
b	Private school (boarder)	10,000.00	10,000.00
c	Private school (day)	10,000.00	10,000.00
d	University/college/polytechnic	20,000.00	20,000.00
9	Hospital		
a	Government and private hospital	10,000.00	10,000.00
10	Government Offices		
a	Ministry	10,000.00	10,000.00
b	Board/Agency	5,000.00	5,000.00
c	House of Assembly	5,000.00	5,000.00
d	Government House	50,000.00	50,000.00
e	Commissioners' Quarters	5,000.00	5,000.00
f	PS Quarters	2,000.00/bungalow	2,000.00
g	SSG/HOS/Judges'/Quarters/Government Guest House	10,000.00	10,000.00
11	Army/Navy Barracks Effurun	50,000.00	50,000.00
12	Police Barracks throughout the State	50,000.00	50,000.00
13	Church/Mosque		
	Big	1,000.00	1,000.00
	Small	500.00	500.00
14	Amusement Park/Fountain	5,000.00	5,000.00

15	Garage/Motor Park	2000.00	2,000.00aaa
a	Garage/Motor Park	2,000.00	2,000.00
b	Mechanic Village	5,000.00	5,000.00
15	Water Connection Service		
	Application form	1,000.00	1,000.00
	New water connection fee	4,500.00	4,500.00
	Inspection Fee	1,000.00	1,000.00
	Reconnection Fee	2,000.00	2,000.00

17	Tankers Services by Water Board		
a	500 litres	500/trip	500/trip
b	1 000 litres	1,000/trip	1,000/trip
c	2,000 litres	2,000/trip	2,000/trip
d	5,000 litres	3,000/trips	3,000/trips
18	Domestic/Industrial/Commercial Borehole		
a	Application form	1,000.00	1,000.00
b	Inspection fee	1,000.00	1,000.00
c	License fee: • Domestic • Commercial • Industrial/Govt	2,500 p.a 35,000 p.a 50,000 p.a	2,500 p.a 35,000 p.a 50,000 p.a
19	Ministries/Dept/Agencies/Corporate Bodies e.g. Banks/Govt, Hospitals/Hotels with 31 rooms and above • Private Hospitals • Churches/Mosques • Industries using water as raw materials	10,000 p.a 5,000 p.a 50,000 p.a	10,000 p.a 5,000 p.a 50,000 p.a

PLANNED ACTIVITIES FOR FY 2020 - 2024 BY MWRD, DESUWACO & USAID E-WASH									
S/No	Zone	Scheme	Actions/Steps	Person Responsible	Period / Deadline				
1	OGWASHI-UKU	OGWASHI-UKU HEADWORKS	Construction and maintenance of 2 Nos. 250mm borehole. Perimeter fencing (block wall). Installation of water hydrants. Renovation of offices and landscaping of premises. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Gen. Set servicing and maintenance. Provide and install 1 No. 200mm production meter and 2 Nos. 250mm, 1 No. 200mm and 1 No. 160mm distribution meters. Provide and install pre-paid meter. Replacement of 2 Nos. 250mm and 2 Nos. 160mm damaged sluice valves. Supply and install 1 No. 200mm gate valve. Replacement and laying of 3KM 250mm AC pipes to UPVC, 4KM 160mm AC to UPVC and 4KM 110mm UPVC pipes. Expansion of distribution network and pressure testing of pipelines.	USAID E-WASH	2020	2021	2022	2023	2024
			Expansion of Distribution network in Ogwashi-Uku to cover 70% of the population						
			Expansion of Distribution network in Ogwashi-Uku to cover 100% of the population						
		Ogwashi-Uku Regional WTP (Dam)	Construction of 100MLD Ogwasbi-Uku New Treatment Plant at the Dam Rising and Trunk Mains (to serve, Asaba, Agbor and Ogwasbi-uku Zones)	MWRD/DEV PARTNER /PPP					
		ISSELE-UKU HEADWORKS	Reactivation, equipping and interconnection of 1 No. 250mm borehole. Gen. Set servicing and maintenance. Provide and install pre-paid meter. House connection. Connection materials and metering.	DESUWACO					

			Replacement of 1KM 250mm AC pipes to UPVC pipes and expansion of distribution network.	MWRD					
			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Renovation of offices and landscaping of premises. Laying of 200mm, 160mm and 110mm UPVC pipes. Pressure testing of pipelines.	USAID E-WASH					
			Expansion of distribution network to cover 70% of Isele-uku	MWRD					

			Expansion of distribution network to cover 100% of Isele-uku	MWRD					
3	AGBOR	IKA GRAMMER SCHOOL HEADWORKS	Reactivation, equipping and interconnection of 4 No. 250mm borehole. Provide and install pre-paid meter. House connection. Connection materials and metering.	DESUWACO					
			Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line. Provide and install 160KVA Gen. Set. Renovation of offices and landscaping of premises. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 1 No. 200mm production meter and 4 Nos. 250mm distribution meters. Replacement of 200mm distribution outlet to 250mm. Replacement of 2 Nos. 250mm, 2 Nos. 200mm and 2 Nos. 160mm damaged sluice valves. Supply and install 1 No. 200mm gate valve. Relaying of 4KM 250mm UPVC, 6KM 200mm and 2KM 160mm UPVC pipes. Pressure testing of pipelines.	MWRD	Jan - Dec 2020				
		Agbor Network	Increase network coverage to 50%	MWRD					
		Agbor Network	Increase network coverage to 70%	MWRD					
4		UMUNEDE HEADWORKS	Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Relaying of 4KM 250mm UPVC, 6KM 200mm and 2KM 160mm UPVC pipes. Pressure testing of pipelines.	USAID E-WASH					
		UMUNEDE HEADWORKS	Increase in network coverage	MWRD					
			Increase in network coverage	MWRD					
		OWA Communities	Increased Coverage	MWRD					

5	SAPELE	SAPELE HEADWORKS	Reactivation and equipping of 4 Nos. borehole. Perimeter fencing (block wall). Cleaning and disinfection of overhead concrete tank. Hook up dedicated transformer to BEDC 33KV line.	DESUWACO					
			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Replacement of 2 Nos. 250mm, 2 Nos. 200mm, 2 Nos. 160mm and 2No. 100mm damaged sluice valves. Provide and install 1 No. 200mm production meter and 2 Nos. 250mm, 1 No. 200mm and 1 No. 160mm distribution meters. Expansion of distribution network. Pressure testing of pipelines.	MWRD					
6		KOKO WSS	Drilling and equipping of 1 No. 200mm borehole. Rehabilitate 1 No. existing 250mm borehole. Provide and install 1 No. 200mm production meter and 2 Nos. 250mm distribution meters. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Gen. Set service and maintenance. Renovation of offices and landscaping of premises. Expansion of distribution network. Pressure testing of pipelines.	USAID E-WASH					
7	OREROKPE	OVIORIE HEADWORKS	Drilling and equipping of 2 Nos. 200mm borehole. Replacement of faulty starters and armored cables. Reactivation of Orerokpe scheme I. Gen. Set servicing and maintenance. Cleaning and disinfection of overhead concrete tank. Renovation of offices and landscaping of premises. Provide and install 1 No. 200mm production meter and 2 Nos. 200mm and 1 No. 160mm distribution meters; 1 No. gate valve.	DESUWACO					
			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line. Laying of 10KM 110mm UPVC pipes and pressure testing	MWRD					

			of pipelines. (5KM at Oviore, 3KM at Ovu and 2KM at Orerokpe).						
8	OZORO	OZORO HEADWORKS	Reactivation and equipping of 4 Nos. borehole with 25HP. Provide and install 1 No. 200mm production meter and 2 Nos. 250mm, 1 No. 200mm and 1 No. 160mm distribution meters. Installation of existing 120KVA Generator Set at the headworks. Renovation of offices and landscaping of premises.	DESUWACO					
			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Replacement of aeration tank. Connect station to BEDC 33KV line. (500m from source). Replacement of 1KM 250mm, 1KM 200mm, 1KM 160mm and 2KM 110mm AC pipes to UPVC pipes and pressure test line. Expansion of distribution network.	MWRD					
9	KWALE	KWALE HEADWORKS	Drilling and equipping of 2 Nos. 250mm boreholes. Rehabilitate 1 No. existing 250mm borehole. Cleaning and disinfection of overhead concrete tank. Provide and install 2 No. 250mm production meter and 4 Nos. 200mm distribution meters. Provide and install Gate Valve. Renovation of offices and landscaping of premises. Perimeter fencing (block wall).	DESUWACO					

			Supply and install 100KVA Generator Set. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line. Replacement of AC pipes to UPVC pipes and relaying of 1KM 250mm, 6KM 200mm (3KM each on both sides of the main road), 2KM 160mm and 2KM 110mm UPVC pipes. Pressure testing of pipelines.	MWRD					
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10		UBIAROKO HEADWORKS	Redevelopment and equipping of 2 Nos. 200mm boreholes. Replacement of faulty starters and 285m (125+95+65) of 50mm armored & 135m of 50mm submersible cables. Generator Set servicing and maintenance. Perimeter fencing (block wall). Cleaning and disinfection of overhead concrete tank. Renovation of offices and landscaping of premises. Provide and install 2 Nos. 200mm production meter and 2 Nos. 200mm and 2 Nos. 160mm distribution meters; 1 No. gate valve.	DESUWACO					
			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line (500m from source). Replacement of trunk main 9KM 250mm and 5KM 160mm AC pipes to UPVC. Pressure testing of pipelines.	MWRD					
11	ASABA	OGBEOGONOGO HEADWORKS	Renovation of offices and landscaping of premises. Cleaning and disinfection of overhead concrete tank. Generator Set servicing and maintenance. Provide and install 2 No. 250mm production meter and 4 Nos. 200mm distribution meters.	DESUWACO					
			Seal up all abandoned borehole. Reconstruction of distribution system within the Headworks using 250mm (20 bar) UPVC pipes; 2 Nos. 250mm and 3 Nos. 200mm sluice valve. Replacement of 10KM 1600mm AC pipes to UPVC pipes (5KM each on both sides of the main road) and interconnect all existing pipes	MWRD					

12	WARRI	WARRI HEADWORKS	Renovation of offices and landscaping of premises. Cleaning and disinfection of overhead concrete tank. Generator Set servicing and maintenance. Perimeter fencing (block wall).	DESUWACO					
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			Drilling and equipping of 2 Nos. 250mm boreholes. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line (500m from source). Laying of 6KM (250mm, 200mm & 160mm) UPVC pipes and pressure testing of pipelines.	MWRD					
13		EFFURUN HEADWORKS	Redevelopment of 2 Nos. boreholes and equipping with 2 Nos. 50HP pumps. Renovation of offices and landscaping of premises. Cleaning and disinfection of overhead concrete tank. Generational Set servicing and maintenance.	DESUWACO					
			Drilling and equipping of 2 Nos. 250mm boreholes. Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line (500m from source). Laying of 6KM (250mm, 200mm & 160mm) UPVC pipes and pressure testing of pipelines.	MWRD					
14	BOMADI	BOMADI HEADWORKS	Renovation of offices and landscaping of premises. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line (500m from source). Connection of borehole to overhead tank and reconstruction of distribution system within the Headworks using 100m of 160mm (20 bar) UPVC pipes.	DESUWACO					
15		PATANI	Redevelopment of borehole and equip with 25HP submersible pumps. Perimeter fencing (block wall). Renovation of offices and landscaping of premises.	DESUWACO					

			Refurbish or replace faulty water treatment plant unit. Improve treatment processes in the plant, dosing unit and chemical dosing pumps. Supply and install 100KVA Generator Set. Laying of 2KM 110mm UPVC pipes and pressure testing of pipeline.	MWRD					
16	UGHELLI	UGHELLI	Completion of old Zonal Office and relocation of 106KVA Perkins Generator Set to its proper place Landscaping of premises. Cleaning and disinfection of overhead concrete tank. Overhauling of Generator Set. Provide and install 1 No. 250mm production meter and 1 No. 160mm and 2 No. 160mm distribution meters. Provide and install 1 No. 250mm sluice valve. Repair 675m³ leaking concrete reservoir	DESUWACO					
			Provide and install 300KVA dedicated transformer and hook up to BEDC 33KV line (500m from source). Extend 10KM 160mm UPVC pipes (5KM each on both sides of the main road), 4KM 110mm UPVC pipes and interconnect all existing pipes.	MWRD					



USAID E-WASH Goal/Overall Objective	Reform of the Urban Water and Sanitation Sector of Delta State
	Increased access to sustainable WASH services to the urban population in Delta State
USAID E-WASH Components	1. Create Professionally Managed, Commercially Oriented Delta State Urban Water Corporation (DESUWACO) 2. Improve Financial and Operational Viability of DESUWACO 3. Strengthen Policy, Institutional, and Regulatory Frameworks for Improved WASH Services. 4. Build Coordination, Advocacy and Strategic Communication to Promote Reforms in the WASH Sector.