# Sewerage and Water Board of New Orleans

2022-2027

## STRATEGIC PLAN





# Message from the Executive Director

To the people who call New Orleans home, to the millions of people who visit each year, and to the businesses that help our community to thrive – we hear you.

In its long history serving this community, the Sewerage and Water Board has been an innovator and leader, but in order to focus on the future, we must recognize our current shortcomings. The teamwork and resilience that allowed us to continue to come together to address the devastating effects of hurricanes and climate change remain, but our progress is compromised with each of these major disruptions.

It can be argued that as a city and as a utility we have been operating in a reactive manner which has compromised our ability to look to the future. Each day we are faced with repairing our infrastructure in the face of limited resources and little time to waste. The last several decades have been marked by underinvestment, not only in our infrastructure, but also our technology and our workforce; and the impacts are being felt by our customers in the form of infrastructure failures, increased rates, irregular bills and frequent organizational turnover. While these are common issues, faced by most urban water systems in the United States, our customers deserve better.

Our challenges are well-defined, but not insurmountable. Over the last few years, we've established a new leadership team with the expertise and energy to change the course of our utility. Transformational change takes time; however, our efforts are already underway, and you'll see many of them featured in this plan. Efforts like upgrading to smart water meters will give customers more information about water consumption, catch leaks faster, and most importantly ensure billing accuracy. Installing green stormwater infrastructure is a proven path to mitigate flooding and reduce the stress on our drainage system; and increasing the resiliency of our electrical generation systems and pursuing low-cost funding options through the EPA's infrastructure loan programs are steps to secure our future resilience. And, as you'll also see, there's more to come – we have big plans for the next five years across each of six critical focus areas.

Through this combination of new and existing initiatives, dedicated leadership, engaged employees and a supportive Board of Directors, SWBNO is committed to improving its operations and addressing its longstanding challenges. I'm proud of the level of commitment and input that we received as we developed this plan, which created this roadmap for our path forward and seeks to meet the needs of our customers, now and in the future. We will continue our work to become a model utility that earns and holds the trust and confidence of our customers, community, and partners with reliable and sustainable water services.

We have heard you. This is our commitment to action for you and for our future generations.

**Ghassan Korban**
*Executive Director of SWBNO*



# Message from the Mayor

On behalf of the Board of Directors, I am thrilled to introduce this Strategic Plan that sets a course for improving the Sewerage and Water Board. When I took office four years ago, I promised our residents that restoring trust in SWBNO would be my top priority. In that time, we've brought in a new leadership team, helped secure a historic agreement to dedicate our fair share of tourism dollars to SWBNO's infrastructure, and leveraged State and Federal monies to create a resilient power system for our pumping and water systems. This is our time.

When Hurricane Ida struck our region as a Category 4 storm this summer, this utility was able to sustain on its own self-generated power and continued to provide our residents the safe water they needed as temperatures rose. That would not have been possible without bold leadership, dedicated staff, and millions of dollars spent to harden the power supply for precisely this situation – they did exactly what they were supposed to do. This is proof, as clear as it can be, that we can rely on the things in which we invest. When the dollars are there to build and maintain large scale projects they hold up, literally.

Together, we are championing sustainable solutions and utilizing federal investments to rapidly implement green, blue and traditional grey infrastructure improvements in a city with some of the oldest, most neglected streets and deteriorating water, sewer and drainage lines in the country. We are learning to live with water in New Orleans and that is evident through investments in these projects that allow us to utilize parks, vacant lands, and innovative streetscaping to hold rain during severe weather events while our pumping system catches up.

While we've made tremendous progress on some of our biggest challenges, we still face several years of hard work to ensure this utility is the model we all know it can be. The effects of climate change, which we feel already, paired with the historic underinvestment in our infrastructure citywide has left us in an especially difficult position. The time to kick the can down the road is over, and this utility and its Board of Directors is dedicated to picking it up and moving us forward. I can't think of a better way to help us do this than implementing all six focus areas in this strategic plan.

As we move toward implementation, we thank and celebrate the dedicated employees of this utility for their extensive involvement in developing this plan while continuing to do the essential work they do every day. I am confident that the future of this utility and this city is brighter today that is has been in a very long time.

**LaToya Cantrell**
*Mayor of the City of New Orleans*
*President of SWBNO*

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# Introduction

**The Sewerage and Water Board of New Orleans (SWBNO), like many utilities, has long faced challenges - operational, financial, geographic, and workforce-based, to name a few. In 2021, the utility initiated a strategic planning process to serve as a catalyst for organizational change and to guide the next phase of rebuilding the organization for the future.**

The strategic framework included in this document represents both the challenges faced by the utility and SWBNO's response. It will guide organizational goals, support budget development, and provide a structure for regular progress updates to ensure that progress is being made against the organization's long-term focus areas over the next five years.



# This is New

The City of New Orleans is located in Louisiana on the Mississippi River, near the Gulf of Mexico. The city has an estimated population of 383,997 according to 2020 Census data, and occupies 180 square miles including the urban center, residential neighborhoods on both sides of the Mississippi River, and the Bayou Sauvage National Wildlife Refuge. Since the early settlement in 1718, the city's location has been vital to its character and growth. Initially, the city provided trade access to much of North America through the Mississippi River and the rest of the world through the Gulf of Mexico. Now, through these channels and access to major railways and roadways, as well as close proximity to the Louis Armstrong New Orleans International Airport, the city provides multimodal connectivity for international commerce. New Orleans' strategic location along the Mississippi River and unique culture continue to be its strongest assets.

The City, which celebrated its Tricentennial in 2018, is known worldwide for its unique architecture, food, music, and its dynamic cross-cultural and multilingual heritage. This culture was developed over nearly 100 years of French and Spanish influence. The Louisiana Purchase helped establish New Orleans as the principal Southern City as a result of commodities trading from surrounding sugar and cotton plantations.



# Orleans

At the turn of the 20th century, New Orleans reinvented itself modernizing transportation, ports, and developing a manufacturing sector. During this time, the Sewerage and Water Board of New Orleans emerged as a global model in governance reform and innovation, combining water, sewer, and drainage under a single, independent, and public agency.

The population of the city today is both young, with a median age of 38 years, and diverse. According to the "US Census 2019 American Community Survey," the population is 59.5 percent Black or African American, 33.9 percent White, 2.9 percent Asian, 0.2 percent American Indian and Alaska Native, 1.9 percent two or more races, and 5.5 percent Hispanic or Latino.

This diverse mix of people built the culture of New Orleans, making it one of the most unique cities in the world.



As New Orleans has grown, the city has emphasized the retention of its historic buildings and distinct architectural style. Today, New Orleans is home to both centuries-old shotgun homes and modern skyscrapers.

The major economic sectors in the city are energy, advanced manufacturing, international trade, healthcare, and tourism, with the largest companies including the Ochsner Health System, Tulane University, Entergy Corporation, Whitney Holding Corporation, Lockheed Martin, and Boh Bros Construction. The Port of New Orleans is the 4th largest port in the United States, and also hosts the 6th largest Cruise Ship Terminal, which support nearly 20,000 direct jobs and generates approximately $4 billion in output locally. The presence of universities, hospitals, legal firms, and other professional services further diversifies the city's economic base. The success of each of these economic drivers can only be supported with high performing water, sewer, and drainage infrastructure. Tourism is a driving force of the City's economy. Attractions such as the French Quarter, Mardi Gras events, festivals, cultural arts performances, professional sports, and special events draw millions of visitors to the City annually. Visitors and residents alike enjoy the multitude of local restaurants, art galleries, boutiques and antique stores, and live music. Prior to the Covid-19 related slowdown in tourism, the City saw nearly 18 million visitors annually, with a $8.7 billion contribution to the economy.





The City's neighborhoods are split between renter and owner-occupied, with the ACS estimating that 48.3 percent of housing units are owner-occupied (2015-2019). The median value of owner-occupied housing units is $231,500, with a median monthly owner cost of $1,714 (with a mortgage). Median gross rent was $998 per month. The 2019 ACS reports the median household income (in 2019 dollars) at $45,615; 23.2 percent of persons in New Orleans are living below the poverty threshold. Of persons over the age of 25 years, 39.7 percent have a bachelor's degree or higher.

The City of New Orleans has developed into an international city, home to diverse people who have created a deep and distinct culture. Despite their successes, New Orleans and The Sewerage and Water Board continue to recover from Hurricane Katrina; which ravaged the city taking 1,500 lives and displacing almost the entire population. In addition to the physical and financial loss of Katrina, long-term deferred maintenance and ongoing revenue challenges have limited the Sewerage and Water Board's ability to cultivate a culture of proactive maintenance and continuous improvement. Recent efforts by the utility's Board and Leadership to identify new revenue streams and undertake a first in a generation master planning process are leading the utility in the direction towards more strategic, innovative, and integrated planning.

# Sewerage and Water Board




The history of New Orleans has been shaped by water, and the Sewerage and Water Board has played an integral role since its founding. When New Orleans was initially settled by the French in 1718, the settlement was located on high ground adjacent to the Mississippi River, just 14 feet above sea level. The topography meant the city was subject to periodic flooding from the Mississippi River, Lake Pontchartrain, and the high intensity rainfall in the region. Residents were often forced to wade through streets or be rowed in small boats to take care of daily business. Added to the unique flooding challenges were the typical challenges of a growing 19th century city: the need for clean drinking water, access to water for fire protection, and safe sewage collection and disposal. City leaders recognized that further growth would depend on addressing these issues and began planning for the drainage, water, and sewerage systems in 1893.

In 1896, the New Orleans Drainage Commission was organized to implement the master drainage plan for the city. Three years later, at the request of voters, the Sewerage and Water Board was authorized by the Louisiana Legislature to construct, operate, and maintain a water treatment and distribution system and a sanitary sewerage system for the city. Then, in 1903, the Drainage Commission merged with the Sewerage and Water Board, consolidating the drainage, water, and sewerage programs under one agency for more efficient operations. This combined organization maintained all drainage, water, and sewerage responsibility until 1991, when management of the local drainage system, including 1,600 miles of smaller drainage pipes and more than 85,000 catch basins, was transferred to the city's Department of Public Works.

Today, the Sewerage and Water Board continues to serve as a model for "one water" governance and is directed by an 11-member Board, consisting of the Mayor, the chair of the Public Works, Sanitation and Environment Committee of the New Orleans City Council or their designee, two members of the Board of Liquidation, and seven citizen members who meet various expertise and area-distribution requirements. This governing body is responsible for overseeing the utility's operations and management, setting policy, and proposing rates and bond issuances to the Board of Liquidation and City Council.

**The men and women of the utility faced this challenge with experience, with dedication, and more importantly resolve. It was amazing to watch our team calmly – and with a lot of confidence – prepare for the challenges of the storm.**

**When we say 'All Hands on Deck,' that means in excess of 400 employees reporting to duty... But one thing that cannot be lost on us is that our folks left their families at home or sent them away to be safe and then reported to work, not knowing how long they were going to be at work, stranded, because we didn't know the impact of the storm. And again, that is true dedication to leave your family... there are not enough words to acknowledge that sacrifice.**

**Ghassan Korban**
Executive Director of the
Sewerage and Water Board

## *Spotlight on* Hurricane Ida and the SWBNO

On August 29, 2021, Hurricane Ida became the second-most damaging and intense hurricane to make landfall in the State of Louisiana, behind only Hurricane Katrina in 2005. While New Orleans' levees worked as designed, nearly all of the city and more than a million people in Louisiana lost power, due to major damage to transmission lines. Power was not fully restored for more than a week after the storm.

With generators serving as New Orleans' only power source, there were significant concerns for SWBNO's pumping system, which relies on electricity to power drainage. Prior to the storm, Turbines 4, 5, and 6, as well as additional back-up generators, were in place to support 96 drainage pumps around the city. When all Entergy power was lost, SWBNO teams shifted quickly to self-generated power sources, which allowed the utility to continuously drain stormwater and provide uninterrupted drinking water to the city. For nearly a week after the storm, SWBNO was the only water utility in the Metropolitan area supplying potable water to its residents and was also supplementing the needs of surrounding communities in partnership with the State of Louisiana.

As in Hurricane Katrina, SWBNO employees continued to staff the emergency operations center and triage emerging situations throughout the storm and after. Damages sustained during the storm brought several sewer pumping stations offline, which caused back-ups. As soon as the city was safe to traverse, teams brought mobile, rotating generators to the pump stations to relieve the pressure and prevent overflows.

SWBNO's response to Hurricane Ida and its ability to provide uninterrupted service through severe power outages demonstrates the progress that the organization has made over the last several years.


EDC
S&WB
New Orleans

# Operational Overview

The Sewerage and Water Board is an organization employing over 1,300 high-performing individuals who work together to produce drinking water, clean wastewater, and move stormwater for 383,000 residents. On average, customers consume 112.52 million gallons of water every day produced at two water plants in Carrollton and Algiers, which pull source water from the Mississippi River. The two wastewater treatment plants, the East Bank Plant and West Bank Plant, collect, treat, and safely return up to 147 million gallons of clean water a day to the environment. The drainage system boasts 99 major drainage pumps, 21 constant-duty pumps to manage groundwater intrusion in its canals, 24 pump stations, 200 miles of canals, and another 1,500 miles of underground drainage pipes. Uniquely, the Sewerage and Water Board produces its own power to run the majority of water and drainage pumps that are essential to the city's system.

Living in a city surrounded by water will undoubtedly present a unique set of challenges for any utility. Through this strategic plan, the Sewerage and Water Board is committing to focusing on addressing challenges and adapting to changes to ensure a bright future for the city.

The work done at the Sewerage and Water Board of New Orleans is critical to ensuring the health and safety of residents and visitors to the city.



# Industry Trends and Local Context

**The services provided by SWBNO are essential to the growth and vitality of the community, as well as the economy of its service area.**

To achieve continued success, the organization must recognize its operating context and the external forces that shape future action. As it initiated development of its strategic plan, SWBNO's Leadership Team reviewed a series of regional and industry-specific trends to consider how each may impact the utility into the future.





TREND 1

# Local Operating Context

SWBNO operates in a large metropolitan area, which includes a diverse mix of industries ranging from tourism to health sciences to supply chain and logistics. The population of New Orleans is 383,997 according to the 2020 Census, which is a 13.5% increase from the population in 2010 (343,829).

The median household income in the City of New Orleans is $41,604, as compared to $49,469 for the State of Louisiana and $62,843 for the United States, with almost 25% of residents falling below the federal poverty line. With a relatively low-income service area, balancing service affordability with recovering sufficient revenues to maintain and improve SWBNO's systems is a challenge. When the coronavirus pandemic hit in March 2020 and brought further economic uncertainty for residents, utilities around the country, including SWBNO, stopped turning water service off for payment delinquency. The associated loss of revenue for the utility led to negative operational impacts, but the utility continues to focus on increasing its efficiency by maintaining its aging infrastructure, implementing capital projects, and identifying and addressing water loss within its system. Decreased revenues limit SWBNO's ability to invest in capital improvement projects and continued financial challenges could ultimately result in decreased customer satisfaction and confidence in SWBNO.

SWBNO works closely with the City of New Orleans to address financial and political issues that arise. SWBNO's eleven-member Board is appointed by the Mayor of New Orleans to four-year terms, with members serving a maximum of two consecutive terms of office. While SWBNO is responsible for its management and operations, the utility must obtain the approval of both the City Council and the Board of Liquidation prior to issuing debt or increasing water or sewer rates and can only override these bodies if the rate increase is necessary to pay for existing debt. Public desire to keep rates low has created challenges for the utility as it works to provide high-quality, reliable service.

TREND 2

# Financial Considerations

Financially, the water, sewerage, and drainage systems have been separated since 1967. As noted in the previous section, SWBNO's reliance on the City Council and the Board of Liquidation for rate increases has historically proven to be a significant challenge for the organization. For the last half-century, the general pattern included sporadic but substantial rate increases, followed by long periods of minimal or no adjustment. Between 1987 and 2007, water rates increased only once, and from 1986 to 2000, sewer rates were not adjusted at all. Long periods of inactivity were preceded and followed by multiple years of double-digit rate increases. The drainage system is supported by tax revenue – meaning drainage services do not appear on the monthly bills customers receive. New Orleans has an unusually high proportion of "exempt" properties due to homestead and non-profit or governmental exemptions leaving roughly 60% of the city's assessed real property value off the tax rolls and paying nothing for drainage service.

During the late 1990s, the Environmental Protection Agency (EPA) sued SWBNO and the City of New Orleans, which resulted in a Consent Decree to address the city's persistent sewer problems. Sewer rates increased annually until 2006 and then remained unchanged until 2013, when programmatic increases of 10% per year over the next eight years were implemented. On the water side, adjustments were tied to bond issuances but receiving City Council approval to fund necessary improvements was generally contentious. For drainage, millage rates were rolled back due to a city reassessment in 2010. SWBNO requested a roll-forward but was blocked by the City Council. Supplemental drainage fees were rejected by voters in 1985 and City Council failed to act on a similar proposal in 1998.

SWBNO has been forced to respond to its financial situation by cutting operating costs, deferring system maintenance, funding some capital projects on a pay-as-you-go basis, and postponing others. The deferred maintenance and capital investment has increased the long-term costs of operating the systems.


SEWERAGE & WATER BOARD OF NEW ORLEANS



TREND 3

# Environmental and Regulatory Impacts

Meeting regulatory requirements are part of the core functions of any water utility, and new regulations or changes are always on the horizon. The utility currently complies with all local, state, and federal regulations, but SWBNO expects additional environmental regulations and enforcement actions at the federal level in the future. From an operational perspective, flooding and sanitary sewer overflows (SSOs) may continue to increase as infrastructure ages and system needs outpace the utility's ability to invest in preventative maintenance. As SWBNO works to adapt to and mitigate the impacts of climate change, including more frequent and severe storms, it will be increasingly important for the utility to be proactive in external communication and outreach efforts to build trust and community support.

TREND 4

# Workforce Trends

New Orleans is a highly competitive labor market. SWBNO is challenged to attract and retain talented employees for skilled trades and other specialty positions, especially as compared to organizations in the private sector. The City of New Orleans' Civil Service directs SWBNO's processes relating to hiring employees, compensation and benefits, and position descriptions or titles. This relationship has slowed the organization's ability to evaluate and modernize position descriptions and classifications to meet its operational demands for the future.

Staff access to training and other professional development opportunities is vital, both to minimize the institutional knowledge loss caused by retirements and other turnover and to ensure that employees are prepared to assume higher-level responsibilities when positions open within the utility. Nationally, the skills and competencies required to operate utility systems are changing; employees are required to have higher levels of certification and technical expertise.

TREND 5

# Technology Modernization

Technology is an important tool for maximizing the efficiency and effectiveness of a utility's operations and for connecting with customers. While the use of technology can carry risks, particularly related to cybersecurity, it is essential to delivering quality water services. SWBNO has made an effort to replace critical software systems and is in the process of implementing technology advancements to support system integration and collaboration efforts, on both the operational and administrative sides of the business. Investments in technology will also require staff evaluation and training to ensure SWBNO has the capacity to fully utilize and support current and future technology enhancement.

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TREND 6

# Customer Expectations

Expectations of utility services have increased, with customers demanding services that are fast, high quality, straightforward, and inexpensive. These expectations continue to evolve as new technology is developed and customers prefer additional convenience options with continued service reliability. As New Orleans continues to be affected by climate change, resource demand has increased and many stakeholders expect the current infrastructure to continue to handle environmental challenges, including increased flooding. Building and maintaining customer confidence has challenged the organization as well; process issues related to the utility's customer information system upgrade affected many customers negatively. Additionally, SWBNO's water meters are read manually, which leads to estimated or inaccurate bills when the meters can't be accessed or read by SWBNO's team. SWBNO is continuing its intentional outreach to educate customers on the value of its services and the positive impact that SWBNO has on the community.

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TREND 7

# Power and Energy

Avoiding extended interruptions in utility service is essential for maintaining public trust and protecting public health and the environment. To provide uninterrupted services, water, and wastewater systems require an acceptable level of power reliability. Every utility is unique with respect to its vulnerability to electric supply disruption and must undertake a critical assessment of the issue based on specific local conditions. While there are known deficiencies in SWBNO's power operations, the utility is developing increased resiliency. SWBNO completed a Power Master Plan in 2020 in which new technology will support enhanced power management and a reduced carbon footprint. Future phases will include automation, battery storage, and electric vehicles. SWBNO will increasingly have opportunities to innovate by leveraging grants and implementing pilot projects.



TREND 8

# Increased Risk Profile

SWBNO faces many potential risks that could impact its ability to reliably provide safe, high-quality water, wastewater, and stormwater services to its customers. The Gulf Coast region, and New Orleans in particular, has endured numerous natural disasters and extreme weather events in recent years, including hurricanes, tornadoes, ice storms, and flooding from heavy rainfall. These types of events will continue in the future, and their impact is likely to become more intense due to climate change. Other risks faced by SWBNO include cybersecurity concerns, the potential for a malicious attack on the water supply, and the potential for unintentional water supply contamination. SWBNO, like the rest of the world, is also weathering the impact of a global pandemic. Variants of COVID-19 will continue to cause challenges and SWBNO will need to continue to protect employees by monitoring the situation and encouraging safe work practices.













TREND 9

# One Water

"One Water" embodies the core principles of water equity, water affordability, and water access. SWBNO is organized to allow for strong coordination between water, wastewater, and stormwater. This "one water" approach considers the total water environment during planning efforts. While the stormwater system is divided, with SWBNO responsible for large diameter pipes and pumping and the City of New Orleans responsible for smaller diameter pipes, the two organizations frequently collaborate to ensure effective service delivery. SWBNO is initiating an integrated master planning process to help leadership and staff communicate the utility's challenges and goals to customers and stakeholders. In addition, SWBNO is redefining affordability for the 21st century, as well as leveraging private partnerships and investments to address infrastructure needs.

# Strategic Planning Process

**While the SWBNO did not have a strategic plan prior to this effort, considerable activities were underway across the organization to improve operations, resiliency, and customer satisfaction. Specific goals of the project included:**

- Building trust among internal and external stakeholders
- Developing actionable goals and measurable results
- Increasing communication and collaboration across the organization

**To ensure that existing initiatives and plans were considered within the context of the strategic planning initiative, SWBNO's planning process involved input from a broad group of internal and external stakeholders. Major elements of the engagement process included:**

- Interviews and work sessions with SWBNO's Board of Directors and the Board's strategy committee
- Interviews and work sessions with the Executive Director and leadership team
- Six employee focus groups and an employee survey with more than 325 respondents
- Individual and group interviews with key stakeholders, including the SWBNO Customer Advisory Committee, Greater New Orleans Foundation, GNO, Inc., Water Wise Gulf South, and the Urban Conservancy New Orleans.

> **We are members of the community who are personally vested in the success of the agency and the city.**
>
> **SWBNO Employee**



# Strategic Framework

**This strategic framework, based on an extensive strategic planning process that considers both SWBNO's present circumstances and its future goals, will serve as a blueprint for decision-making moving forward. It contains a vision, mission statement, and values that address SWBNO's current challenges and help ensure continued success in operations and the management of resources and assets.**

## Vision

To be a model utility that earns and holds the trust and confidence of our customers, community, and partners through reliable and sustainable water services.

## Mission

Our team of experts serves the people of New Orleans and improves their quality of life by reliably and affordably providing safe drinking water; removing wastewater for safe return to the environment; and draining stormwater to protect our community.

## Values

The SWBNO Team is committed to making these shared values a part of everything we do. We are:



**Customer Focused**



**Accountable**



**Safety-Minded**



**Transparent and Honest**



# Financial Stability

## Practice strong fiscal stewardship and ensure timely revenue recovery while balancing customer affordability with investments necessary to deliver critical services

### Key Issues

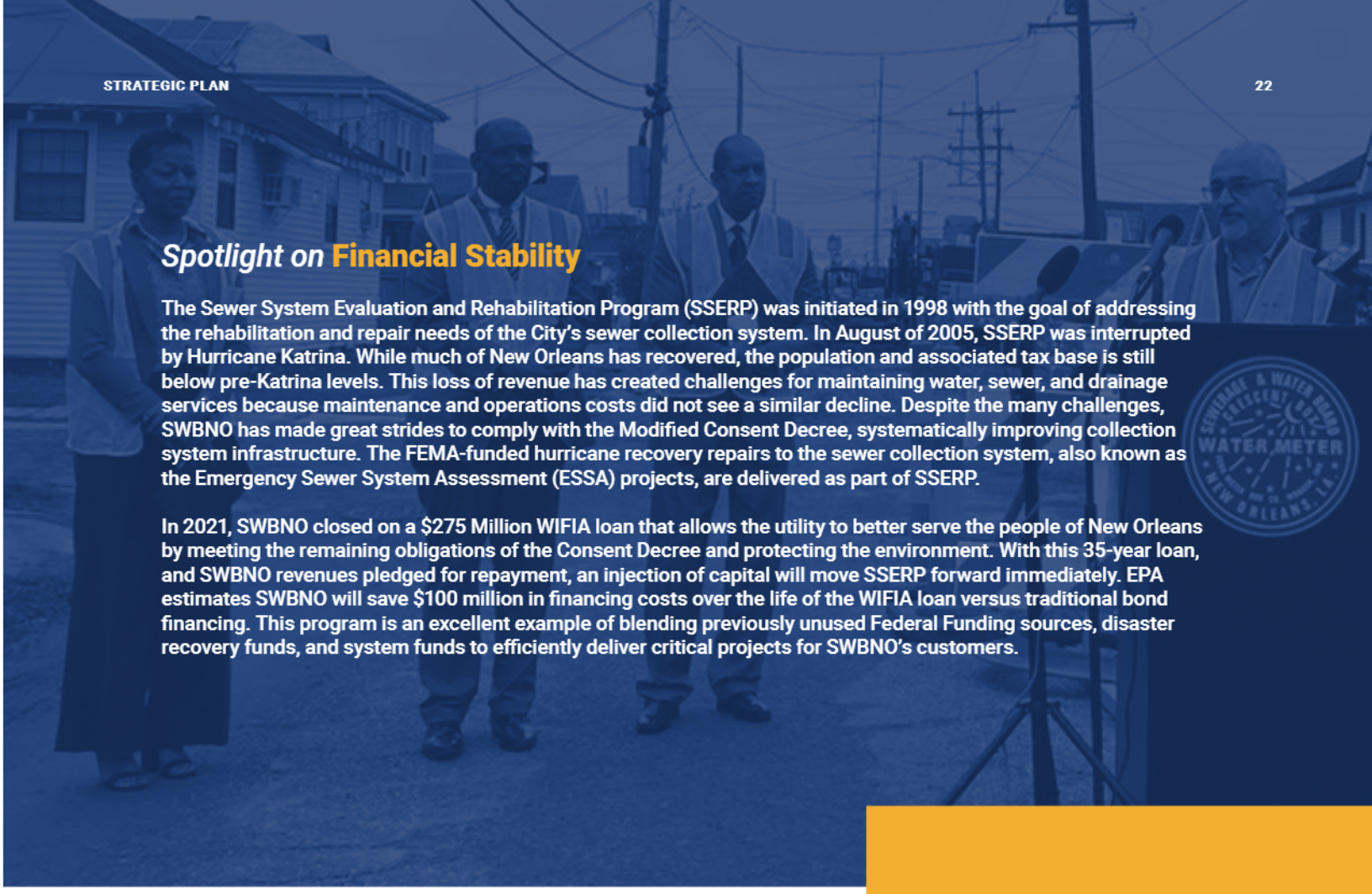
- Policy and procedure disconnect between budget and actual spending, need for more financial accountability
- Large number of past due and disputed bills, slow to pay vendors, need for more financial predictability
- Missed opportunities for new revenue and recovery of revenue from existing operations
- Affordability programs do not address customer needs

### Goals

- Optimize capital and operational spending
- Enhance budget development and management processes
- Improve timely revenue realization/ recovery and leverage new and alternate revenue sources
- Enhance affordability programs to better meet community needs

As discussed in the Financial Considerations section, SWBNO exists in a highly political environment and has historically struggled to ensure appropriate funding to support its infrastructure and operational needs. While many utilities find themselves in similar circumstances, a less affluent customer base and pressure to keep rates low has had major impacts on the organization. Ensuring financial stability is paramount to successfully navigating the other challenges that are faced by SWBNO.

The organization has numerous activities underway that support this focus area. For example, budget monitoring has improved through the analysis and communication of monthly budget reports focused on identifying and understanding variances. Additionally, the budgeting process is being streamlined to provide more timely, relevant data, and the budget staff are participating with operations directly to improve understanding of the nature and timing of key initiatives. Other efforts to enhance budget performance include a comprehensive project underway with



## *Spotlight on* Financial Stability

**The Sewer System Evaluation and Rehabilitation Program (SSERP) was initiated in 1998 with the goal of addressing the rehabilitation and repair needs of the City's sewer collection system. In August of 2005, SSERP was interrupted by Hurricane Katrina. While much of New Orleans has recovered, the population and associated tax base is still below pre-Katrina levels. This loss of revenue has created challenges for maintaining water, sewer, and drainage services because maintenance and operations costs did not see a similar decline. Despite the many challenges, SWBNO has made great strides to comply with the Modified Consent Decree, systematically improving collection system infrastructure. The FEMA-funded hurricane recovery repairs to the sewer collection system, also known as the Emergency Sewer System Assessment (ESSA) projects, are delivered as part of SSERP.**

**In 2021, SWBNO closed on a $275 Million WIFIA loan that allows the utility to better serve the people of New Orleans by meeting the remaining obligations of the Consent Decree and protecting the environment. With this 35-year loan, and SWBNO revenues pledged for repayment, an injection of capital will move SSERP forward immediately. EPA estimates SWBNO will save $100 million in financing costs over the life of the WIFIA loan versus traditional bond financing. This program is an excellent example of blending previously unused Federal Funding sources, disaster recovery funds, and system funds to efficiently deliver critical projects for SWBNO's customers.**

capital budgeting to identify the sources and uses at a project level, developing a mutual understanding of needs, and navigating multiple sources. SWBNO is developing a clearer understanding of budget constraints by clearly tracking the "Paygo" portion of revenues being utilized for cash financing to supplement external funding sources.

Efforts are also underway to leverage federal funding that will enhance the organization's capacity to make investments necessary to deliver critical services. Examples of this include funding from the Infrastructure Investment and Jobs Act (IIJA) and the Joint Infrastructure Recovery Request (JIRR) program with the City. The JIRR effort is focused on ensuring FEMA funding from Hurricane Katrina is fully utilized by the June 2023 deadline. SWBNO is also leveraging federal funding to complete the Southeast Louisiana Urban Flood Control Project in partnership with the U.S. Corps of Engineers. This project is 75% federally funded and 25% SWBNO funded. The organization utilized the Water Infrastructure Finance and Innovation Act (WIFIA) capital financing program to meet sewer consent decree deadlines as well.

To support customer affordability, SWBNO is working with the state and Total Community Action (TCA) to assist customers with federal funding through the low-income household water assistance program.

Moving forward, SWBNO's focus is on continuing to enhance budget management and financial reporting to support improved visibility and financial communication; optimizing spending and identifying alternative and new revenue sources to improve revenue sufficiency; and continuing to enhance affordability programs to meet community needs.



# Technology Modernization

## Modernize technology and system integration to improve reliability and efficiency of operations and enhance customer service

### Key Issues

- Lack of centralization of technology procurement decisions
- Aging legacy software systems that are beyond their useful life which inhibits efficiency
- Need for additional resilience for cybersecurity and disaster preparedness and recovery
- Technology adoption is piecemeal across departments based on user comfortability with tools

### Goals

- Identify and update critical/core technology software solutions and resources
- Enhance cybersecurity and technology systems resiliency
- Improve adoption and integration of current and new technology systems

One of the results of long-term budget shortfalls is evident in the state of SWBNO's technology. While sporadic system upgrades have occurred, technology investment has generally not been considered a top priority. This has historically led to one-off solutions rather than systematic approaches, deferred projects, and implementation problems. Ultimately, technology has a major impact on how well the organization functions, with a lack of resources in this area causing process inefficiency and a diminished customer experience.

As far as existing technology modernization initiatives, SWBNO has already begun to make key improvements related to upgrades, enhancements, and replacements of current technology systems. Completed projects include updating the call management system for the call center to a cloud-based system and updating the automated accounts payable system for accounting. Upgrades are being planned for the human resources and payroll system and the billing system, and a contractor has been selected to lead the procurement of the new financial system and new asset management system. Additionally, the organization has begun convening a technology governance committee that will focus on strategic decisions for technology enhancements.

Enhancements to cyber security have also been made and will be expanded over the next several years. For example, firewalls have been installed at multiple key locations, such as drainage pump stations, and additional firewall projects are underway in other places, including at the Carrollton plant. Other enhancements that have been completed include segmenting the fiber network at Carrollton into separate networks for SCADA, security, and information systems, setting up dual authentication programs, and rolling out regular security awareness training and phishing tests. A new data center is also being planned for increased security and resiliency.

A major focus area for SWBNO is improving meter and billing accuracy through upgraded meter infrastructure, which is a large multi-year project already underway. SWBNO has begun making immediate improvements to the current meter and billing processes so that the transition to smart water meters will be smooth. SWBNO has coordinated with the City of New Orleans on its Smart Cities effort to ensure these projects align and has connected with Entergy to understand potential coordination points between the systems of both utilities.

To continue to address its challenges and capitalize on the efforts already underway, SWBNO is focused on improving data quality, access, and accessibility; reducing cyber risk, providing accurate bill and meter readings; and ensuring the organization is using advanced and updated technology systems that are well integrated and practical to use. SWBNO is also dedicated to ensuring that sufficient training and resources are provided to employees to support current and new technology.

## *Spotlight on* Technology Modernization

**SWBNO is actively responding to customer demand for more accurate water bills. By installing Smart Metering technology (also known as Advanced Metering Infrastructure or AMI), SWBNO is upgrading its systems with proven 21st century capabilities.**

**With near-real-time consumption information provided by the Smart Metering technology, SWBNO can detect and help customers locate leaks faster, alert customers of unusual water usage, and enable customers to track their actual water consumption on a daily basis. This helps customers make informed water use choices and better manage their water bill. This new system will also help provide easily accessible water use information to customers and customer service representatives, which can expedite solutions to billing and plumbing-related issues.**

**SWBNO has completed surveying existing meters and project planning. Funds have been identified for the first phase and meter replacements are expected to begin by early 2023.**



**SWBNO**
**SMART WATER METERING**
PROGRAM



# Workforce Development and Enrichment

## Support and develop a high-performing team that is skilled, committed, inspired, rewarded, engaged, and accountable

### Key Issues

- No present pathway for improving Civil Service outcomes or adopting an alternative solution
- Lack of basic performance management training for managers to increase staff accountability and development
- Internal communications are inconsistent and ineffective for many field staff
- No clear succession planning procedures; DROP program inconsistent with good succession planning principles

### Goals

- Evaluate workforce model options, including Civil Service and others, and determine an appropriate approach for SWBNO
- Enhance resources for employee training and development
- Motivate and train supervisors and leaders to improve employee and team performance
- Strengthen internal communication and information sharing to increase collaboration across departments
- Improve knowledge capture, transfer, and succession planning

Workforce challenges are myriad, for both SWBNO and the utility industry. Nation-wide, approximately one-third of the water sector workforce is eligible to retire within the next ten years, and technologies are increasingly advanced, which means that the workforce of tomorrow will look very different than the workforce of today in terms of skills and competencies. This shift has proven to be challenging for SWBNO, as working within the confines of the Civil Service Commission has hampered the organization's ability to be flexible and adapt to changing conditions to ensure that SWBNO has the workforce it needs in place.

SWBNO is already working to address these challenges. The organization has instituted biweekly meetings with Civil Service leadership to hold strategic discussions on upcoming organizational changes within the city that impact SWBNO. For example, the City Council recently approved a minimum wage increase to $15 per hour. This increase will impact SWBNO operations in a variety of ways, so the organization worked with Civil Service to share information about the financial impacts to create common understanding of these changes and impacts to the budget.

The meetings between SWBNO and Civil Service Leaders help to maintain transparency in communication and to build clear understanding of the unique needs of SWBNO. They also help provide understanding in how to navigate and utilize Civil Service regulations to attract and retain qualified personnel. These sessions will aid in the evaluation and modifications of the approach to Civil Service that may be necessary to meet the needs of the organization.

The organization has considered ways to increase the number of applicants for many positions. Sometimes, minimum qualifications for certain positions may immediately eliminate a large portion of the applicant pool, but the organization has found that the qualifications are not necessary to start the position and can be attained in the future once employed. To address this, SWBNO is working with Civil Service to update the minimum qualifications for utility positions. These changes will widen the potential candidate pool.

Moving forward, SWBNO's focus is ensuring that employees have access to tools for advancement; developing a clear understanding of career paths and options within the organization; creating strong connections between management and employees; and increasing programs that ensure SWBNO is an employer of choice in the region.





# Customer Service Excellence and Stakeholder Engagement

**Continuously meet and exceed the service needs of our customers and proactively communicate and engage stakeholders**

## Key Issues

- Lack of general customer service knowledge, awareness, and expectations across all levels of staff
- Inconsistent communications with customers, particularly around billing and payments
- Ineffective internal policies create inefficient service delivery including meter to cash process
- Communication, both internal and external, is largely reactive and does not address needs

## Goals

- Foster a culture of customer service throughout the organization
- Expand convenience systems and capabilities to improve self-service options for customers
- Elevate core customer service delivery performance
- Advance proactive communication and outreach programs

SWBNO customers have often been challenged by SWBNO operations. For example, a somewhat tumultuous billing system implementation in 2016 led the utility to investigate more than 26,000 complaints about high bills over the following two years. Chronic issues with manually reading over 138,000 meters every month continue to lead to high levels of estimated bills.

SWBNO is already making progress in improving in this area. For example, the utility is working with Verint on updates to the customer relationship management (CRM) software to enhance staff and customer experience. Development of an expanded customer service specific training curriculum is also in progress, which will be used for both onboarding and continuation training and will enhance the service provided to customers. Other efforts underway include enhanced leadership training and redistributing and reassigning workloads and responsibilities to better meet and exceed the service needs.

Enhancing meter reading and billing is a major area of focus for SWBNO. To that end, the organization has begun re-purposing existing SWBNO vehicles to accommodate an increase in meter reading staff and is in the process of acquiring additional vehicles. The organization is also hiring laborers to perform meter maintenance and routine cleaning ahead of the meter readings to improve efficiency, productivity, and the quality of meter reads.

Both the Board of Directors and employees have identified increasing both internal and external communication as a top priority for SWBNO. SWBNO has contracted with a public relations firm for communication support to expand its activities and outreach. The efforts of this firm will include sentiment research, website analysis, improvements and updates, increased social media content, educational videos, Lead and Copper Rule messaging, and employee newsletters.

To continue to make progress on resolving billing and other issues facing customers, SWBNO is committed to streamlining the customer experience with opportunities for self-service; improving communication to ensure clear expectations and timeliness of resolution; proactively engaging with customers and stakeholders to strengthen understanding and support; and enhancing overall customer service accuracy and delivery.



## *Spotlight on* Customer Service Excellence and Stakeholder Engagement

**While SWBNO has worked to improve phone and online solutions to serve customers, there has still been significant demand for in-person consultation when resolving customer issues and initiating processes, which still requires visiting a customer service center. In early 2021, SWBNO began servicing customers at two satellite offices in the Lower 9th Ward and New Orleans East. These centers allow customers to ask questions about their bills, raise concerns or issues with their accounts, set up payment plans or receive help in paying their bills. This service has allowed the utility to meet customers where they are and improve the customer experience.**



# Infrastructure Resiliency and Reliability

## Improve efficiency and resiliency of current and future infrastructure by leveraging partnerships and innovative approaches to funding and sustainable design

### Key Issues

- No clear predictive maintenance strategy for infrastructure or asset management system
- High non-revenue water due to infrastructure failures
- Lack of coordination between infrastructure project partners and stakeholders leads to project outcomes that don't meet customer expectations
- No centralized strategy for mitigating climate impacts or developing adaptation projects to enhance community resilience

### Goals

- Shift maintenance planning and workflows from reactive to preventative through comprehensive asset management
- Replace and renew aged infrastructure using integrated approaches
- Successfully deliver all critical capital improvement projects by improving collaboration with project partners
- Develop long-range system master plans to renew infrastructure incorporating community vision, green infrastructure, and climate adaptation

In 2021, the American Society for Civil Engineers gave America's infrastructure an overall grade of C-. Drinking water infrastructure scored a C-, wastewater infrastructure scored a D+, and stormwater infrastructure only a D. Like other utilities around the country, SWBNO struggles to proactively maintain and manage its aging infrastructure, especially with limited financial resources. For example, almost half of the city's 1,500+ miles of water lines were installed prior to 1940, and recent estimates suggest that SWBNO loses 55% of the water it treats to leaks.

The organization has made considerable progress in improving its water, wastewater, stormwater, and power infrastructure. SWBNO continues to work with the City of New Orleans to execute the Capital Improvement Program, which includes the Joint Infrastructure Recovery Request (JIRR) Program, Hazard Mitigation Grant Program (HMGP), Department of Transportation and Development (DOTD) projects, and more.

Within SWBNO's current Capital Improvement Program, more than ten percent of water mains will be replaced. Pumping stations are also being upgraded, which will improve system reliability. Current emphasis is on replacing the four pumps at Claiborne Pumping Station, with Panola and High Lift next on SWBNO's priority list.

The Southeast Louisiana Drainage Program is ongoing and is focused on improvements to multiple major thoroughfares and canals. Examples of areas under construction currently include St. Ferdinand Street to Peoples Avenue, and Wall Boulevard to Behrman Place. Design and planning are underway for additional West Bank work, including General De Gaulle Drive to Nolan Canal, Donner Canal, and Algiers Outfall Canal. Additionally, Orleans and London Avenue Drainage Basins are being studied for needed improvements.

The Sewer System Evaluation and Rehabilitation Program (SSERP) is ongoing within the South Shore, Mid City, and Carrollton Basin; this work is to be completed by the end of 2025. This program is funded by a loan through the WIFIA program and is related to the sewer consent decree.

Power is an important area for reliability and resiliency for SWBNO. Currently, the West Power Complex upgrades are underway, with C7/C8 site preparation nearly complete.

Moving forward, SWBNO's infrastructure focus is on continued coordination on joint infrastructure projects, utilizing innovative infrastructure approaches, replacing aging infrastructure, and proactively managing infrastructure condition and maintenance needs.



## *Spotlight on* Infrastructure Resiliency and Reliability

**SWBNO completed the Stormwater and Nature Center at the Paul Habans Charter School in Algiers in 2021, which consists of a rainwater detention pond, rain gardens, boardwalk, and native trees and plantings, all of which will help mitigate the flooding that can occur when heavy rains fall. The site is designed to hold over 12,000 cubic feet of stormwater and is used daily by Habans students to learn about urban water management in New Orleans.**

**The project was made possible as a result of the Sewerage and Water Board's Green Infrastructure Grants Program. The grant to Habans and Spackman Mossop Michaels, an international landscape architecture firm, was awarded in 2019 and provided more than $375,000 to fund the project. Additional support for the Stormwater and Nature Center came from Saving Our Urban Landscape (SOUL) and the Louisiana Green Corps.**



# Organizational and Operational Improvement

## Optimize organizational structure, alignment, and capacity to ensure safe operations and efficient service delivery

### Key Issues

- Organizational structure and staffing limits efficiency and ability to retain highly qualified staff
- Limited adoption of safety standards across departments and levels of staff
- Business processes and standard operating procedures are inconsistently documented, with no continuous improvement or change management system in place to drive performance
- No central data collection source for performance metrics or benchmarking tracking and reporting

### Goals

- Evaluate and modify organizational structure and staffing levels to improve service delivery
- Enhance and elevate safety culture
- Implement programs and training related to change management, process standardization, and continuous improvement
- Develop and share organizational performance metrics internally and externally

In many ways, SWBNO is a fire-fighting organization. Historically, it has not had the financial, technological, or workforce resources to proactively address the organizational challenges it faces. The final focus area for SWBNO allows for assessment and improvement of both the organization and its operations to provide enhanced service delivery for customers and the city.

## *Spotlight on* Organizational and Operational Improvement

**In 2019 SWBNO began the process of shifting from a manual, paper-based Accounts Payable process to an automated system. This decision was driven by inefficiency in the existing process that resulted in frequent miscommunication and delays in payments to vendors.**

**Benefits of this include increased automation, a significant reduction in paperwork for both department staff and accounts payable staff, and a subsequent reduction in days from invoice receipt to vendor payment. The new system was rolled out in October 2021, with training for staff conducted prior to implementation.**

SWBNO has several existing initiatives underway to support this focus area. In relation to organizational structure and alignment, SWBNO has completed a review to ensure staff are aligned with the utility's operational needs. This has resulted in recommendations for new deputy superintendent positions. Additionally, the organization has considered the West Power Complex transition and how this will impact operations. SWBNO has identified that new skillsets and positions are needed for the new equipment that is part of this transition and training opportunities are needed for existing staff, as well as developed standard operating procedures relating to critical operations of the complex. Relating to project processes, the organization has developed a new procurement policy and procedures manual.

Change management is important to the success of new processes and changes to operations. To address this, the organization has created a Continuous Improvement Officer position which will be introduced to the customer service department. In the next few years, the organization will build on this position and determine the best way to manage large-scale changes within SWBNO.

Another area where SWBNO has already made progress is in developing a strong safety program. SWBNO's program is expanding into a Safety Management System, which has benefited from the seamless partnership between Safety, Risk Management, and the Workers Comp Teams. The Safety Management System is a data driven and proactive program, which includes implementing the safety walkthrough inspection program throughout all facilities with a reporting and follow-up system. Changes are also being made to enhance the mishap investigation process, increase the safety knowledge baseline across the whole organization through Occupational Safety and Health Administration (OSHA) training, and identify standard operating procedure and training gaps in field operations.

Future activities in this area include enhancing access to data and tracking to ensure understanding of current performance and areas for improvement, and increasing collaboration and efficiency across the organization.

# STRATEGIC FRAMEWORK

### Vision
To be a model utility that earns and holds the trust and confidence of our customers, community, and partners through reliable and sustainable water services.

### Mission
Our team of experts serves the people of New Orleans and improves their quality of life by reliably and affordably providing safe drinking water; removing wastewater for safe return to the environment; and draining stormwater to protect our community.

### Core Values
The SWBNO Team is committed to making these shared values our reality.

**We are:**
Customer Focused
Accountable
Safety Minded
Transparent and Honest

## FOCUS AREAS

### Financial Stability
Practice strong fiscal stewardship and ensure timely revenue recovery while balancing affordability with investments necessary to deliver critical services

### Technology Modernization
Modernize technology and system integration to improve reliability and efficiency of operations and enhance customer service

### Workforce Development and Enrichment
Support and develop a high-performing team that is skilled, committed, inspired, rewarded, engaged, and accountable

### Customer Service Excellence and Stakeholder Engagement
Continuously meet and exceed the service needs of our customers and proactively communicate and engage stakeholders

### Infrastructure Resiliency and Reliability
Improve efficiency and resiliency of current and future infrastructure by leveraging partnerships and innovative approaches to funding and sustainable design

### Organizational and Operational Improvement
Optimize organizational structure, alignment, and capacity to ensure safe operations and efficient service delivery

| GOALS | RESULTS |
| --- | --- |
| 1. Optimize capital and operational spending<br>2. Enhance budget development and management processes<br>3. Improve timely revenue realization/recovery and leverage new and alternate revenue sources<br>4. Enhance affordability programs to better meet community needs | + Fewer capital project change orders<br>+ Lowered aged accounts receivable<br>+ Reduction in unbilled (non-revenue) water<br>+ Increased utilization of assistance programs |
| 5. Identify and update critical/core technology software solutions and resources<br>6. Enhance cybersecurity and technology systems resiliency<br>7. Improve adoption and integration of current and new technology systems | + Increased customer self-service utilization<br>+ Increased customer service efficiency<br>+ Fewer billing errors<br>+ Increased employee adoption of core technology systems |
| 8. Evaluate workforce model options, including Civil Service and others, and determine an appropriate approach for SWBNO<br>9. Enhance resources for employee training and development<br>10. Motivate and train supervisors and leaders to improve employee and team performance<br>11. Strengthen internal communication and information sharing to increase collaboration across departments<br>12. Improve knowledge capture, transfer, and succession planning | + Increased workforce productivity<br>+ Reduction in open positions<br>+ Increased and improved employee training<br>+ Increased employee morale |
| 13. Foster a culture of customer service throughout the organization<br>14. Expand convenience systems and capabilities to improve self-service options for customers<br>15. Elevate core customer service delivery performance<br>16. Advance proactive communication and outreach programs | + Reduction in customer complaints<br>+ Increased customer service first call resolution<br>+ Increased customer satisfaction rating<br>+ Increased social media interactions<br>+ Improved positive media sentiment |
| 17. Shift maintenance planning and workflows from reactive to preventative through comprehensive asset management<br>18. Replace and renew aged infrastructure using integrated approaches<br>19. Successfully deliver all critical capital improvement projects by improving collaboration with project partners<br>20. Develop long-range system master plans to renew infrastructure incorporating community vision, green infrastructure, and climate adaptation | + Increased time spent on preventative maintenance<br>+ Increased feet of pipeline replacement<br>+ Fewer water main breaks<br>+ Fewer sewer overflows<br>+ Increased number of green infrastructure projects |
| 21. Evaluate and modify organizational structure and staffing levels<br>22. Enhance and elevate safety of culture<br>23. Implement programs and training related to change management, process standardization, and continuous improvement<br>24. Develop and share organizational performance metrics internally and externally | + Improved service delivery<br>+ Fewer workforce accidents and injuries<br>+ Increased number of specific operational process improvement projects |

# Implementation Activities

**The focus areas, along with the associated goals and results, contain a series of initiatives and projects that, when implemented, will move SWBNO toward achievement of its desired outcomes.**

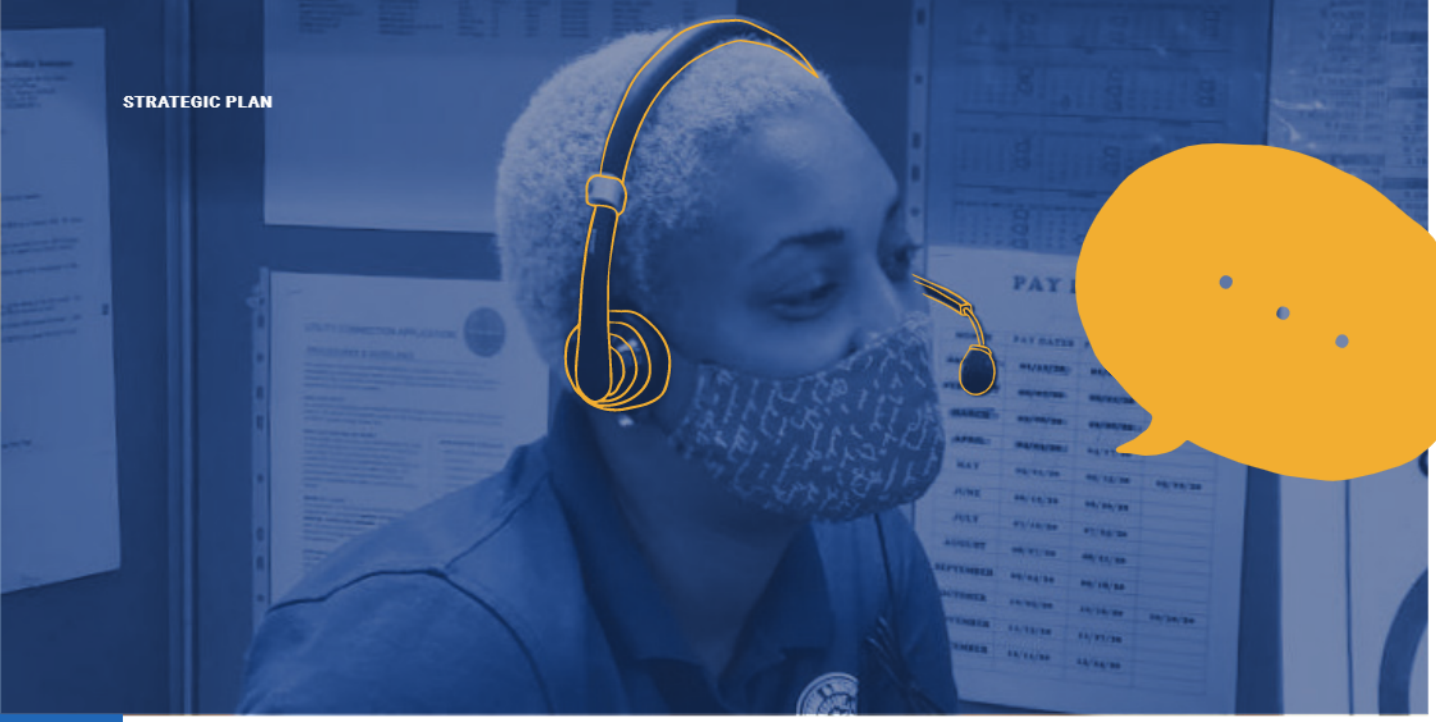


However, it is important to note that for the desired results to be achieved, the strategic plan must be effectively implemented. Therefore, careful attention and focus on sustained strategy execution is essential for achieving the desired outcomes.

Elements of the implementation process for SWBNO include leveraging internal subject matter expertise and continuing to use key staff members and small teams that are knowledgeable, energized, and committed to the achievement of the strategic plan. These subject matter experts and teams will develop detailed implementation plans that advance the organization toward goal achievement, including:

+ Tasks necessary for implementation
  - Assigned individuals or groups
  - Due dates for key tasks
  - Resources required
+ Frameworks for monitoring and sharing implementation progress
+ Reporting on implementation progress to SWBNO's leadership and the Board of Directors
+ Reviewing and updating implementation tasks on at least an annual basis

The full Implementation Workplan for 2022 has already been developed and activities are underway. Each year, the subject matter experts and teams will report on progress, celebrate success, and update their workplans for the following 12-18 months.



# Communications

## Through this strategic plan, SWBNO has committed to improving internal and external communication and collaboration.

Effective communication is critical not only for the successful implementation of the plan, but also for SWBNO's overall success. The issue of communication, which surfaced in the stakeholder input process, is called out specifically within the Customer Service Excellence and Stakeholder Engagement focus area, but also cuts across the other focus areas. Communications could be enhanced through several efforts, including:

- Collaborating with municipalities, stakeholders, and community groups
- Increasing brand awareness
- Engaging employees in SWBNO's work through collaboration, communication, and cooperation
- Increasing the use of multi-disciplinary teams to manage issues and projects
- Improving SWBNO's responsiveness to customers' needs
- Building customer awareness and support for SWBNO's goals and direction

Enhanced communications will be a major initiative throughout the organization to ensure that all teams and individuals are working towards SWBNO's ultimate vision and mission.




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