



WAVE

WATER, A VISION FOR EXCELLENCE

Miami-Dade Water and Sewer Department's **FIVE-YEAR STRATEGIC PLAN 2023 - 2028**



MIAMI DADE
COUNTY

WELCOME TO THE WAVE!

A MESSAGE FROM THE MIAMI-DADE COUNTY MAYOR



In my first 100 days as Mayor, my administration launched Thrive 305, the largest public engagement initiative in Miami-Dade County government's history. Built with the voices of our community, the results of the Thrive 305 survey set forth an action plan to build a stronger, more thriving Miami-Dade. The action plan outlined twelve key resident priorities focused on housing, jobs, public safety, transportation, small business development, resiliency, environmental stewardship, and government accessibility.

Access to clean, safe, affordable, and reliable water is at the center of the success of Thrive 305. Water is a vital resource that fuels our local economy and serves as a north star to understanding our region's environmental health and resiliency. As a coastal community surrounded by it, water fuels every aspect of our community.

WAVE, our Water and Sewer Department's (WASD) new strategic plan, captures the priorities from Thrive 305 and applies them directly to the mission of the department, which is to create a sustainable, resilient, and future-ready utility. Designed by more than 6,000 employees, customers, and partners, WAVE outlines key priorities and ensures that the critical water and wastewater services provided by WASD will continue to bolster exceptional public and environmental health.

I want to thank the County staff and partners who worked to build this strategic plan report. Their guidance, feedback, and leadership are critical as we look towards our next decade of WAVE and clean water. Within this report, you will find a thorough and forward-looking vision for our Water and Sewer Department now and in the future.

Daniella Levine Cava
Mayor, Miami-Dade County

A MESSAGE FROM THE WATER AND SEWER DEPARTMENT DIRECTOR



On behalf of the entire Water and Sewer Department employee family, I'm honored to share our five-year strategic plan, WAVE: Water, A Vision for Excellence! Built during the last twelve months harnessing the collective voice and passion of our workforce, customers and partners, the WAVE represents new direction for the Department while recognizing the groundbreaking and essential work our employees do every day to support the prosperity of Miami-Dade County.

The Department has much to be proud of as we ride the WAVE into the next five years. Just last year alone we debuted Connect 2 Protect, a multi-year program focused on converting vulnerable septic tank systems impacted by high groundwater levels to County sewer infrastructure. Our essential workers traveled to Fort Myers Beach to help a neighbor ravaged by Hurricane Ian regain water service. We executed an historic investment of more than \$550 million in a

12-month period as part of the largest Capital Improvement Program (CIP) in Miami-Dade County's history. This monumental work represents just a fraction of the critical service our employees provide to Miami-Dade County every day. Water flows through every aspect of our lives, and we know our lives depend on it.

The Department has much to look forward to as we ride the WAVE forward and I'm excited to share the following report that details our plan. The WAVE outlines the Department's most critical strategic themes, how and where the thousands of participants weighed in to build the plan, our new mission, vision and values statements, the compass that defines the Department's strategic direction, and the roadmap that we will follow to meet our vision.

Launching the WAVE is the first step of our transformative process. The next phase is to put the WAVE into action by developing and executing project plans. Given the caliber of our workforce and their commitment to our customers, I have no doubt that we'll ride the WAVE to a successful and prosperous future together!

Roy Coley, MBA
Director, Miami-Dade Water and Sewer Department

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BUILDING THE WAVE

~ 6,500 PARTICIPANTS

DISCOVER



Stakeholders shared their perspectives and needs to help define the Department's priorities.

Key Stakeholder Interviews

37 Stakeholders Interviewed

Plan Alignment

4 Plans Evaluated



Field Visits

150 Employees Participated



Employee Engagement Survey

451 Employees Participated



Retail Customer Survey

5,606 Customers Participated



The WAVE was built with the input of nearly 6,500 stakeholders, including Department staff, customers, and key partners.

DESIGN



Stakeholders helped develop the contents of the WAVE, including its overarching framework and actions.

Strengths, Weaknesses, Opportunities, Threats, and Trends (SWOTT)

75 Employees Participated

6 Workshops

Mission/Vision/Values Workshops

38 Employees Participated

3 Workshops



Partner and Wholesale Customer Interviews

7 Partner Agencies Interviewed



Wave Content Workshops

100 Employees Participated



DELIVER



Implementation of the WAVE will continue the meaningful partnerships that undergirded the planning process.

- Change Management Strategy
- Communications Strategy
- Internal Employee Wave Launch
- External/Public Wave Launch
- Implementation & Action Plan





DISCOVER

STRATEGIC THEMES

The purpose of strategic planning is not to define all the future work of the Department, rather the key priorities and investments that will propel and transform the organization. Therefore, step one of strategic planning is uncovering those key priorities. For the WAVE, the discovery phase started with conducting 37 key informant interviews with staff, partners and invested stakeholders.

The outcome of those interviews, along with employee/customer surveys and extensive field visits, yielded the following strategic themes.

Vibrant Organizational Culture

The Department has seen many years of leadership changes, resulting in morale and communication issues across the organization. Although staff is committed to providing quality work within their organizational divisions, groups are somewhat siloed and are not working effectively to solve issues that may affect, or require the coordination of resources from, multiple programs/divisions. With a highly-skilled and devoted complement of staff across all divisions, investment in the human capital of the organization, transparent and fair recruitment, retention, training and development, succession planning, and engagement will be required to increase morale, retain institutional knowledge, instill confidence, and improve workplace culture.

Exceptional Customer Experience

Growth in Miami-Dade County coupled with new regulatory, political, and environmental considerations have created a landscape of constant change. The Department should enhance its service and more effectively engage with stakeholders, particularly County Commissioners, ratepayers, wholesalers, regional partners, and its own workforce, to ensure the value of its service is well understood and customers have the very best experience.

Efficient and Innovative Organization

The Department provides a critical resource to the region and its operations are expected to perform at safe and optimal levels to meet current, future, and emergency demands. Given its 24/7 operations, the Department's business-related and operational systems should be at-the-ready and able to respond to variable conditions. Critical parts, essential positions, and technical support are often needed on an emergency basis to maintain operations. Further, as extreme weather events and customer habits (e.g., use of disposable wipes) become more commonplace, the Department should evaluate its current capacity to ensure its system can withstand and support variable extremes. In that vein, it is vital for the Department to formalize and expand its emergency protocols to improve communication and coordinated incident management.

Future-Ready Utility

Replacing and refurbishing assets in a cost-effective and data-driven manner is paramount. Infrastructure will need to be reconstructed and new infrastructure built to accommodate growth, climate change and more stringent environmental regulations. This will require completing the asset management initiative and the development of a Long-Range Capital Facilities Master Plan to ensure future capital infrastructure investments are planned effectively, address the goals and objectives of the utility and broader community, and are delivered when needed. This work should be complemented with a comprehensive succession plan, infrastructure financing plan, and rate analysis to ensure a cohesive and coordinated future-planning approach, and that the County Commission and their constituents understand the value and need for critical infrastructure investment and associated rate implications.



DISCOVER



PLAN ALIGNMENT

With the Strategic Themes identified, the second step in the discovery phase is to ensure the future direction of the Department supports County-wide and regional planning efforts. Four County and regional plans were analyzed to identify the goals and objectives that the Department should support. The following provides an overview of each plan and those aligned strategic themes.

THRIVE 305

Thrive305 is the largest public engagement initiative in Miami-Dade County government's history. The initiative engaged tens of thousands of residents, partners, and County staff to develop a blueprint for a stronger, more thriving Miami-Dade. The resulting Thrive305 Action Plan consists of twelve priorities designed to guide Mayor Daniella Levine Cava's Administration, and it captures the many ways that our County government is seeking to improve residents' quality of life, catalyze regional economic development and job opportunities, and protect the environment.

WAVE Alignment Themes:

- Accessible Government
- Engaged and Empowered Residents
- Investment in Blue-Green Jobs
- Resilient Communities
- Opportunities for Youth
- Strengthened Partnerships

Resilient305

Resilient305, the region's strategy to effectively tackle emerging global challenges and trends, is a living document created by Greater Miami and the Beaches (GM&B), a partnership of Miami-Dade County, the City of Miami, and the City of Miami Beach. The three parties that make up GM&B came together to build the region's resilience against the growing frequency and intensity of acute shocks such as hurricanes and infrastructure failures, and longer-term stresses such as sea level rise, flooding, severe traffic, and economic inequities.

WAVE Alignment Themes:

- Enhanced Natural Systems
- Safeguarded Urban Systems
- Increased Energy Efficiencies
- Stabilized Finances
- Strengthened Community Response
- Leveraged Experience
- Shared Resources
- Leveraged Dollars

County Climate Action Strategy

The County's Climate Action Strategy (CAS) outlines actions to reduce greenhouse gas (GHG) emissions by 50% by 2030. These actions are under three focus areas: Energy and Buildings, Land Use and Transportation, and Water and Waste. The CAS builds on the County's long-standing leadership on GHG reduction, which includes the completion of its first GHG inventory in 1998.

WAVE Alignment Themes:

- Energy Efficiency and Greenhouse Gas Reduction
- Expanded and Protected Green and Blue Spaces
- Converted Waste to Energy
- Reduced Waste and Water Use

County Strategic Plan

Miami-Dade County has had a strategic planning and performance measurement structure in place for twenty years. The countywide strategic plan crosses several service delivery areas including Public Safety, Transportation and Mobility, Health and Society, Neighborhood and Infrastructure, Recreation and Culture, Economic Development and General Government services. Through annual business planning and budgeting, County departments align their activities to the strategic plan, identify the performance measures they will use to gauge success, and identify the resources needed to execute their plans.

WAVE Alignment Themes:

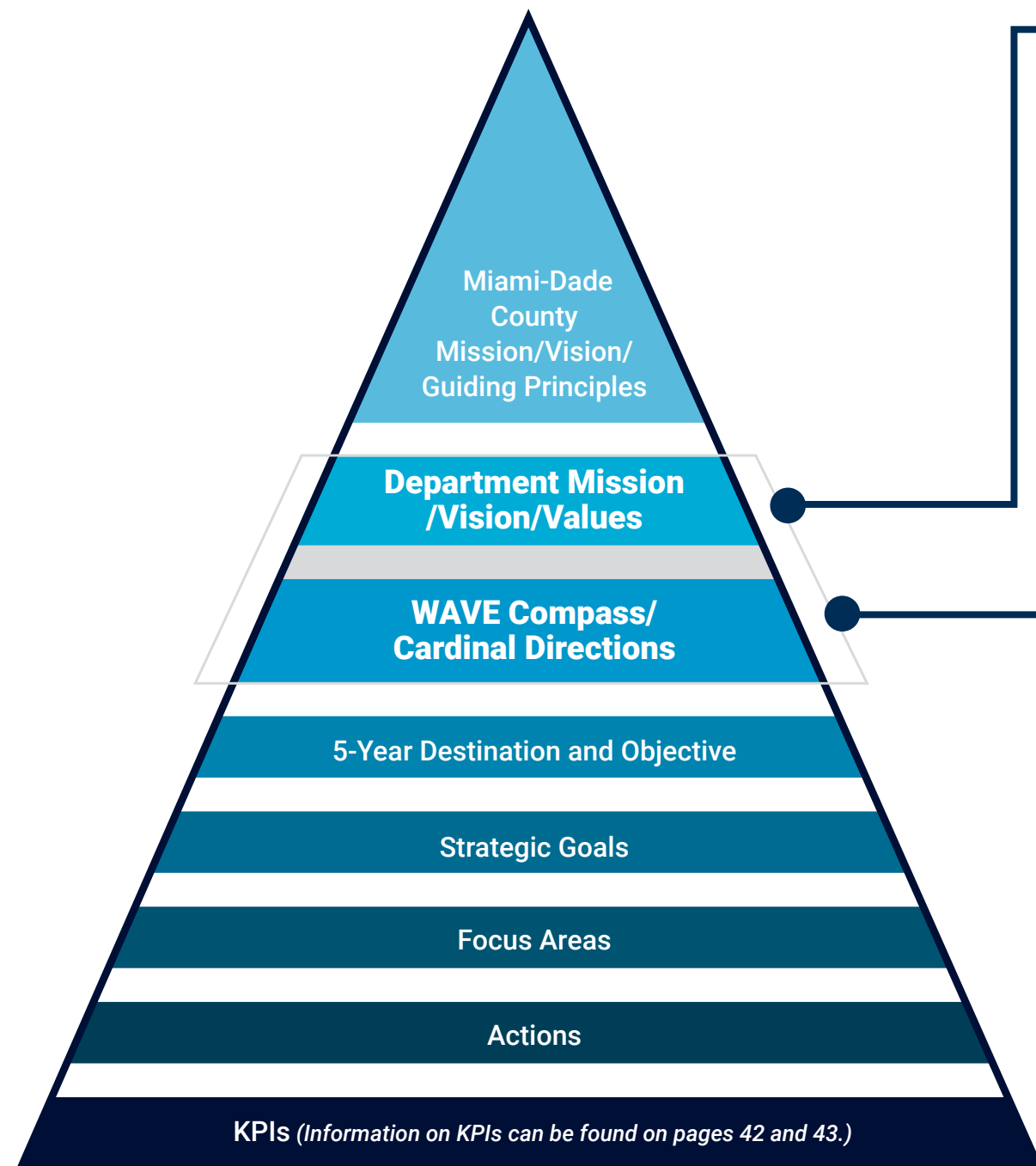
- Effective Emergency and Disaster Management
- Continuity of Clean Water and Community Sanitation Services
- Protected and Restored Environmental Resources
- Accessible, Equitable, Transparent, and Responsible Government
- Excellent, Engaged and Resilient County Workforce
- Optimal Internal Miami-Dade County Operations and Service Delivery
- Effective Leadership and Management Practices



DESIGN

FRAMEWORK

The critical first step of designing a strategic plan is identifying a framework. The WAVE's framework, as depicted below, aligns with a "pyramid of strategy" to ensure the goals and actions outlined in the plan fully support the overall mission and vision of the Department and guiding principles of the County.



The aspirational direction and daily work of the Department, incorporating the County's guiding principles and overall direction.

MISSION

We deliver high-quality, safe, and reliable drinking water and wastewater services in Miami-Dade County where customers know the value of every drop, employees take pride in their contribution, and the pursuit for efficiency and community resilience drives every business decision.

VISION

A model utility of excellence in reliability, resilience, and environmental stewardship, recognized as an essential partner in the protection of public health and an employer of choice in Miami-Dade County.

VALUES

Leadership: Our leaders inhabit each of our values in their decision-making and always seek to improve the services we provide through innovation and collaboration.

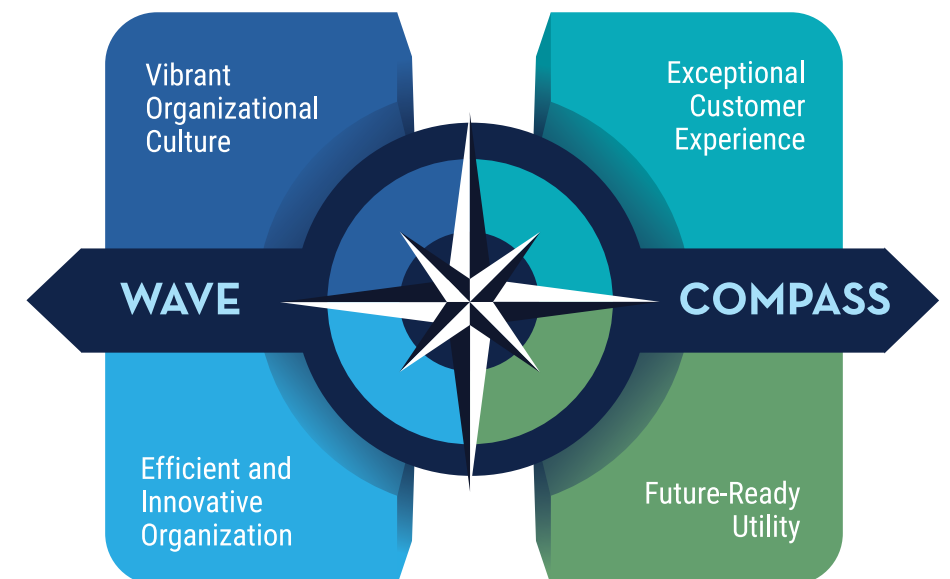
Public Trust: We serve our ratepayers with a standard of exceptional integrity, honor, equity, and respect through transparent and accessible communication and robust public engagement. We ensure financial stability and value to the customer through sound fiscal management and disciplined decision-making.

Employee Empowerment: We foster a workplace culture where mutual respect is paramount, organizational effectiveness and collaboration are valued, and employee safety, support and development are fundamental.

Service: We strive to exceed the expectations of all customers and stakeholders, and work proactively to support future community needs.

Stewardship: We protect our natural environment and employ an integrated watershed approach that values all water.

The Department's strategic direction for the next several years will be guided by **WAVE's Compass**. That compass has four distinct cardinal directions, focused internally on employee culture, organizational effectiveness, and operational efficiency, and externally on customer experience, resiliency, partnerships, and planning for the future.

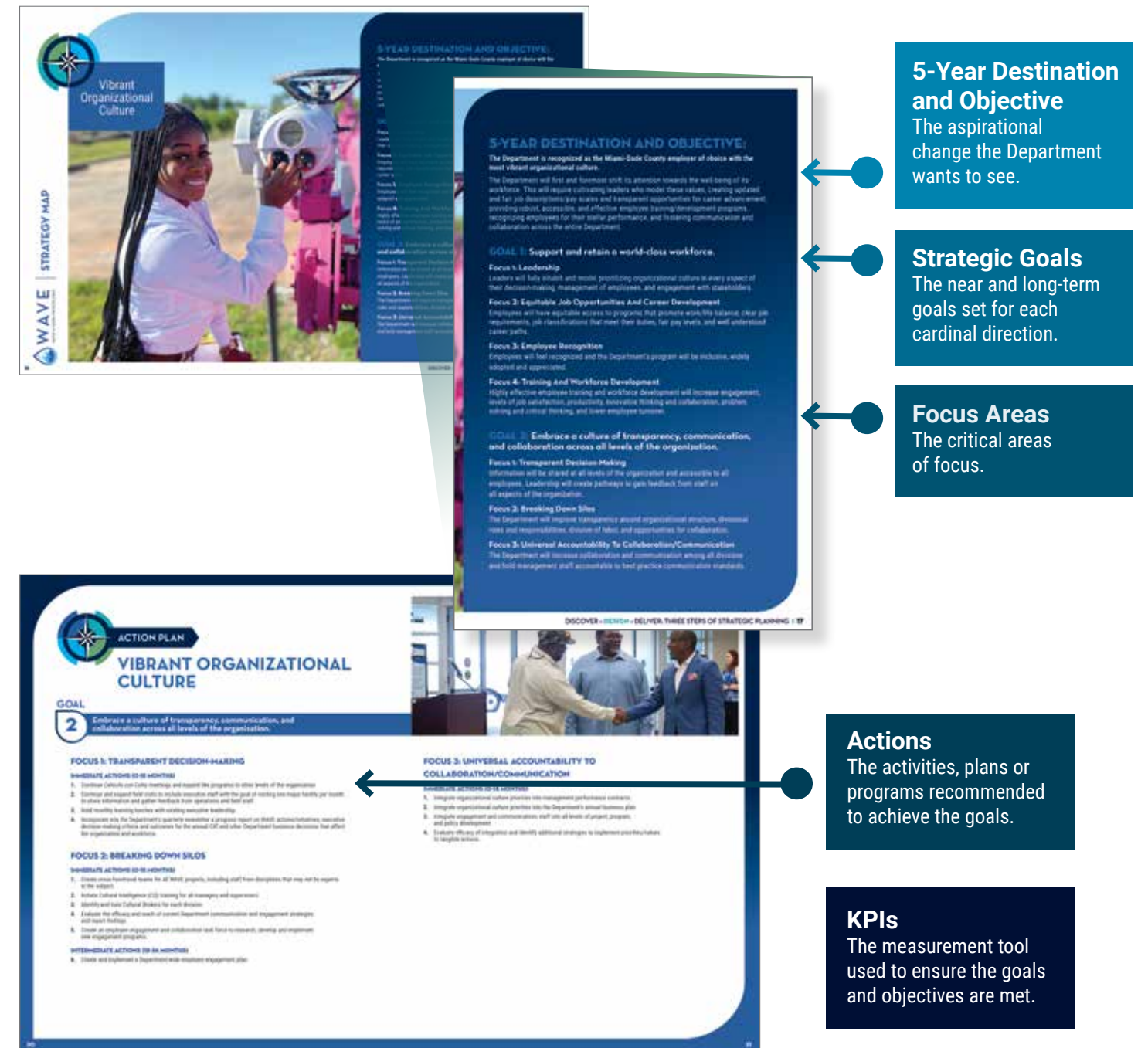
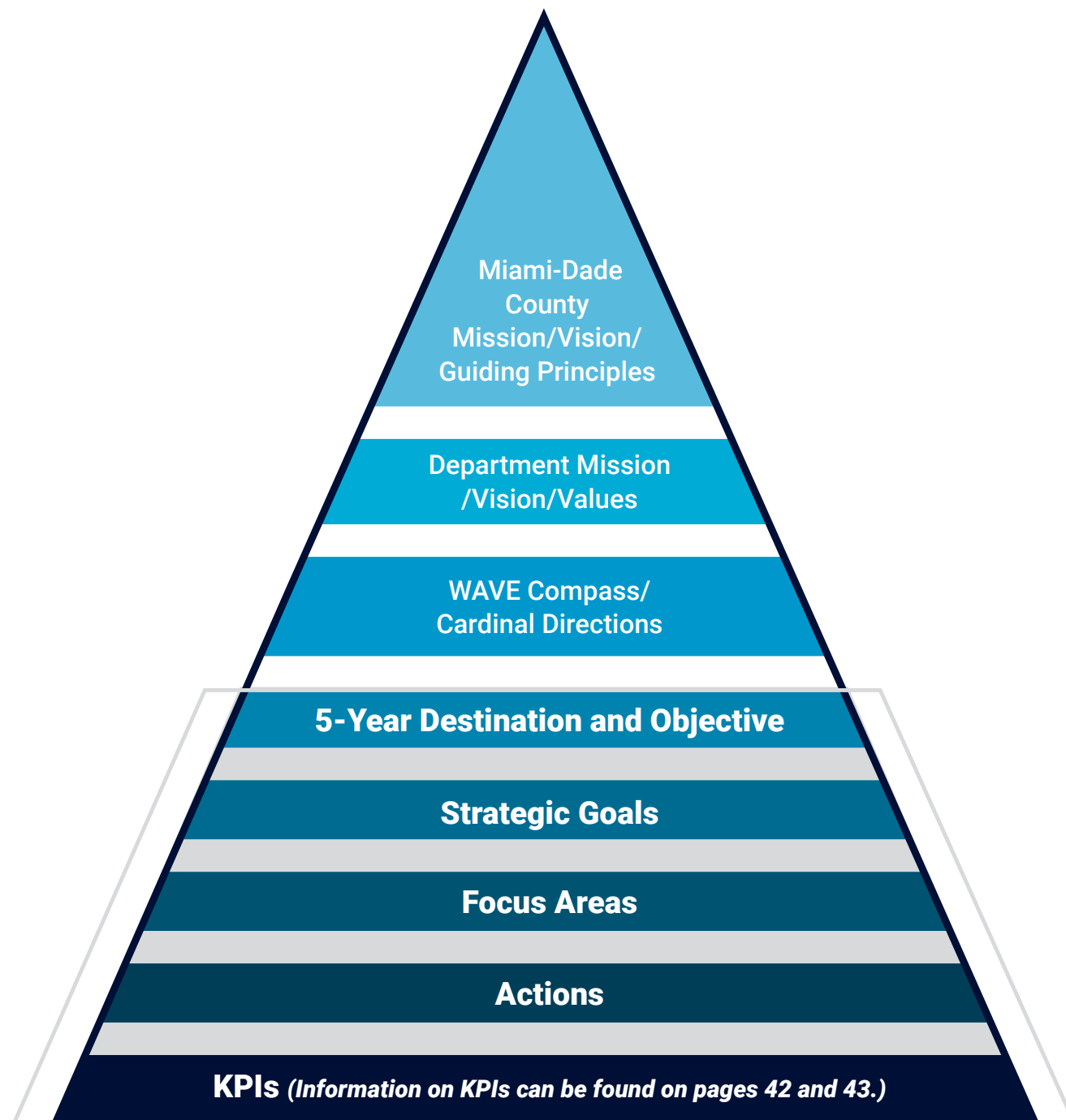




DESIGN

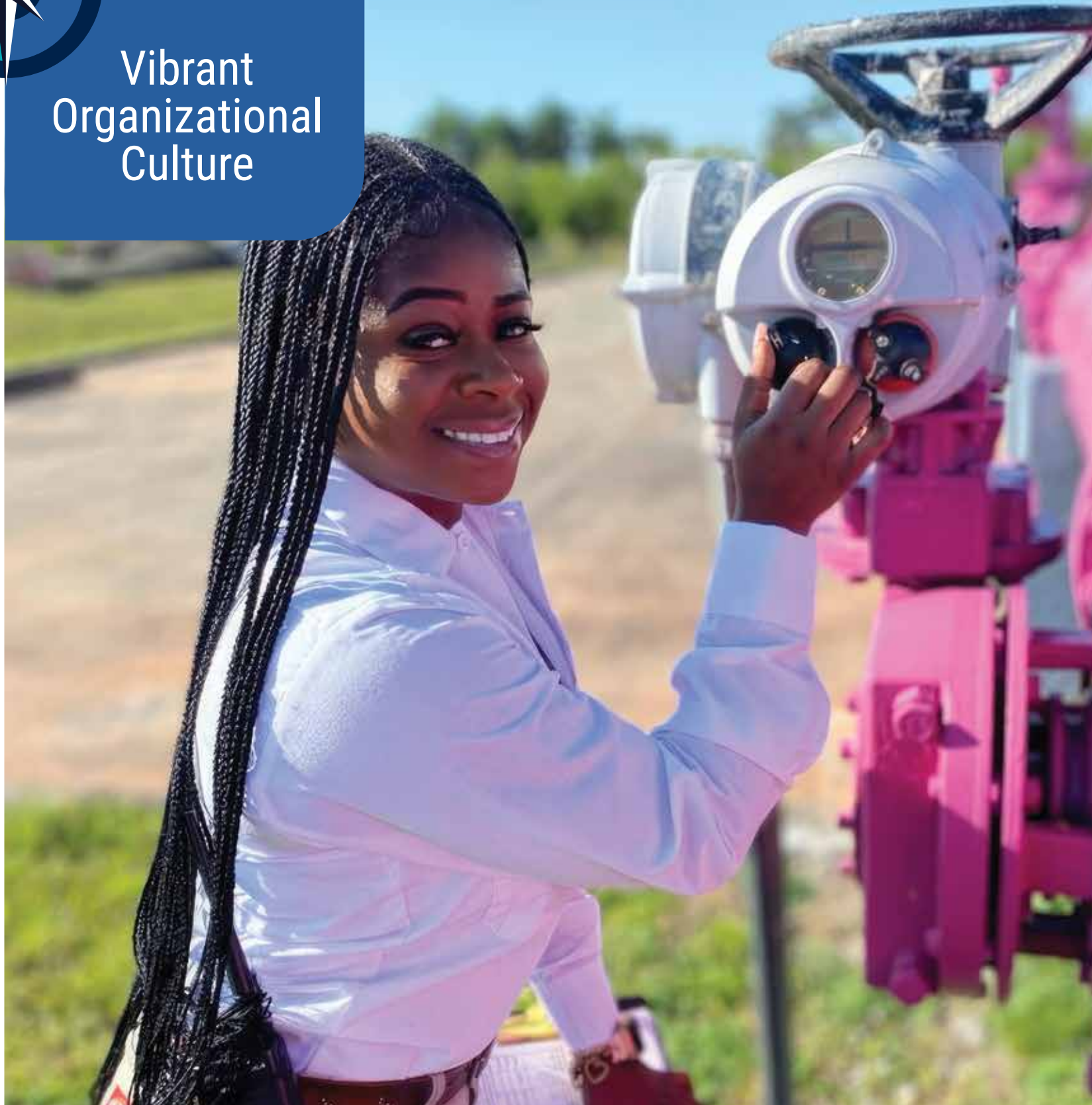
FRAMEWORK

The next step in design is to develop the plan's goals, objectives, actions and measurement tools. For the WAVE, each Compass Cardinal Direction is equipped with a Strategy Map and Action Plan that serve as roadmaps to reaching the Department's 5-Year Destination in that particular area of focus.





Vibrant Organizational Culture



5-YEAR DESTINATION AND OBJECTIVE:

The Department is recognized as the Miami-Dade County employer of choice with the most vibrant organizational culture.

The Department will first and foremost shift its attention towards the well-being of its workforce. This will require cultivating leaders who model these values, creating updated and fair job descriptions/pay scales and transparent opportunities for career advancement, providing robust, accessible, and effective employee training/development programs, recognizing employees for their stellar performance, and fostering communication and collaboration across the entire Department.

GOAL 1: Support and retain a world-class workforce.

Focus 1: Leadership

Leaders will fully inhabit and model prioritizing organizational culture in every aspect of their decision-making, management of employees, and engagement with stakeholders.

Focus 2: Equitable Job Opportunities And Career Development

Employees will have equitable access to programs that promote work/life balance, clear job requirements, job classifications that meet their duties, fair pay levels, and well understood career paths.

Focus 3: Employee Recognition

Employees will feel recognized and the Department's program will be inclusive, widely adopted and appreciated.

Focus 4: Training And Workforce Development

Highly effective employee training and workforce development will increase engagement, levels of job satisfaction, productivity, innovative thinking and collaboration, problem solving and critical thinking, and lower employee turnover.

GOAL 2: Embrace a culture of transparency, communication, and collaboration across all levels of the organization.

Focus 1: Transparent Decision-Making

Information will be shared at all levels of the organization and accessible to all employees. Leadership will create pathways to gain feedback from staff on all aspects of the organization.

Focus 2: Breaking Down Silos

The Department will improve transparency around organizational structure, divisional roles and responsibilities, division of labor, and opportunities for collaboration.

Focus 3: Universal Accountability To Collaboration/Communication

The Department will increase collaboration and communication among all divisions and hold management staff accountable to best practice communication standards.



ACTION PLAN

VIBRANT ORGANIZATIONAL CULTURE

GOAL

1

Support and retain a world-class workforce.

FOCUS 1: LEADERSHIP

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Review employee satisfaction survey reports of hostile/toxic working environments and rectify substantiated claims.
2. Implement an annual executive retreat on organizational culture.
3. Implement an executive and management onboarding/training program to focus on organizational culture, employee satisfaction, communication, and teambuilding.

INTERMEDIATE ACTIONS (18-36 MONTHS)

4. Develop and deploy an organizational culture investment plan to be updated annually that outlines:
 - Employee satisfaction survey template and dashboard.
 - Training, workforce development and onboarding programs.
 - Employee recognition effectiveness and outcomes.
 - Employee communication and engagement plan.
5. Deploy an annual employee satisfaction survey and transparent dashboard of outcomes.
6. Integrate organizational culture goals into all divisional leadership business plans and performance objectives.



FOCUS 2: EQUITABLE JOB OPPORTUNITIES AND CAREER DEVELOPMENT

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Evaluate efficacy and reach of flexible (telecommuting, etc.) work schedules and other Department programs that promote work/life balance and report findings.
2. Evaluate and standardize operator shifts of water and wastewater workforces.
3. Investigate employee satisfaction survey reports of unfair and inequitable hiring and promotional practices and report findings.

INTERMEDIATE ACTIONS (18-36 MONTHS)

4. Complete an organization-wide classification and compensation study.
5. Integrate professional development plans into all annual performance evaluations.
6. Develop and launch a Diversity, Equity, and Inclusion (DEI) plan and dashboard.

FOCUS 3: EMPLOYEE RECOGNITION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Hold WAVE employee recognition event to kick off all activities around Cardinal Direction: Vibrant Organizational Culture to signal the Department's commitment to meeting strategic goals in this area.
2. Evaluate efficacy and reach of current employee recognition programs and report findings.
3. Update and re-launch the Department's employee recognition program to acknowledge high levels of performance across the organization, ensure that each division participates, and transparently report outcomes.

INTERMEDIATE ACTIONS (18-36 MONTHS)

4. Host semi-annual Department-wide employee recognition events.
5. Each division hosts an annual employee recognition event.

FOCUS 4: TRAINING AND WORKFORCE DEVELOPMENT

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Evaluate efficacy of current employee onboarding (at Department and division level) to determine challenges and opportunities for improvement and report findings.
2. Launch a soft skills training program for all Department managers and supervisors, include soft skills in all management/supervisor performance evaluations, and include a soft skills assessment in all management/supervisory recruitments.
3. Conduct a Department-wide Training Needs Assessment (TNA) to evaluate what training needs exist, what currently is offered, and what gaps are present.
4. Evaluate the efficacy and reach of the current safety program to determine strengths and weaknesses and report findings.
5. Continue coordination with employee union organizations to increase mutually beneficial opportunities including gainsharing.

INTERMEDIATE ACTIONS (18-36 MONTHS)

6. Develop and re-launch a robust onboarding program for new employees that ensures all on-the-job training and resources are available within a specified amount of time.
7. Based on the results of the TNA, develop, and re-launch a comprehensive training and workforce development plan integrating best practices for water and wastewater utilities.
8. Based on the safety program evaluation, initiate a new, Department-wide safety program.
9. Create and implement a cross-divisional employee training and internal corporate mentorship program to introduce employees to other disciplines and opportunities.
10. Continue to expand internship/apprenticeship programs with academia to promote interest and develop career paths for key positions including future scientists, operators, and skilled trade professionals.



ACTION PLAN

VIBRANT ORGANIZATIONAL CULTURE

GOAL

2

Embrace a culture of transparency, communication, and collaboration across all levels of the organization.

FOCUS 1: TRANSPARENT DECISION-MAKING

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Continue *Cafecito con Coley* meetings and expand like programs to other levels of the organization.
2. Continue and expand field visits to include executive staff with the goal of visiting one major facility per month to share information and gather feedback from operations and field staff.
3. Hold monthly learning lunches with rotating executive leadership.
4. Incorporate into the Department's quarterly newsletter a progress report on WAVE actions/initiatives, executive decision-making criteria and outcomes for the annual CIP, and other Department business decisions that affect the organization and workforce.

FOCUS 2: BREAKING DOWN SILOS

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Create cross-functional teams for all WAVE projects, including staff from disciplines that may not be experts in the subject.
2. Initiate Cultural Intelligence (CQ) training for all managers and supervisors.
3. Identify and train Cultural Brokers for each division.
4. Evaluate the efficacy and reach of current Department communication and engagement strategies and report findings.
5. Create an employee engagement and collaboration task force to research, develop and implement new engagement programs.

INTERMEDIATE ACTIONS (18-36 MONTHS)

6. Create and implement a Department-wide employee engagement plan.



FOCUS 3: UNIVERSAL ACCOUNTABILITY TO COLLABORATION/COMMUNICATION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Integrate organizational culture priorities into management performance contracts.
2. Integrate organizational culture priorities into the Department's annual business plan.
3. Integrate engagement and communications staff into all levels of project, program, and policy development.
4. Evaluate efficacy of integration and identify additional strategies to implement priorities/values to tangible actions.



Exceptional Customer Experience



5-YEAR DESTINATION AND OBJECTIVE:

The Department is recognized as a world-class, one water utility that prioritizes an exceptional customer experience.

The Department will put its customers' needs at the forefront of all decision-making. This will require understanding customer pain points and increasing personalization of all customer interactions, increasing access to information and customer service through diverse channels, increasing proactive partnership and engagement with all stakeholders, and ensuring the Department's mission and vision are well understood by ratepayers and other decision-makers.

GOAL 1: Provide convenient, reliable, accessible, and friendly service to all customers.

Focus 1: Customer Experience Analytics and Strategy Development

Before the Department can create a comprehensive customer experience program, it should understand current conditions with the goal of better understanding customer needs, viewpoints, and experiences with its products and services, and agree on the Department's customer experience vision for the future.

Focus 2: Direct Customer Experience

The Department will focus resources to personalize and optimize customer-initiated service including the billing lifecycle, the experience of using the product and service, and any interaction customers have with staff.

GOAL 2: Embrace partnership, engagement, and collaboration with all stakeholders.

Focus 1: Indirect Customer Experience

The Department will focus attention and resources towards its customers' passive engagement and its own active outreach to critical stakeholders. This includes marketing efforts, value of service campaigns, partnership building, feedback collection and media relations.



ACTION PLAN

EXCEPTIONAL CUSTOMER EXPERIENCE

GOAL

1

Provide convenient, reliable, accessible, and friendly service to all customers.

FOCUS 1: CUSTOMER EXPERIENCE ANALYTICS AND STRATEGY DEVELOPMENT

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Develop and launch a customer experience analytics program.
2. Develop a Customer Experience Strategy to include:
 - Customer and stakeholder mapping and customer personas.
 - Customer experience business objectives.
 - Customer journey.
 - Measurement methodology and frequency.
 - Feedback collection and analysis.
 - Evaluation and improvement methodology.
3. Evaluate the efficacy and accessibility of the Department's website and identify opportunities to optimize.

INTERMEDIATE ACTIONS (18-36 MONTHS)

4. Annually gather customer experience analytics through a retail customer satisfaction survey.
5. Launch an annual wholesale customer survey and poll.

FOCUS 2: DIRECT CUSTOMER EXPERIENCE

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Prioritize interim updates to improve the current Interactive Voice Response (IVR) system.
2. Research and report findings of emerging intuitive/conversational IVR systems.
3. Audit and evaluate the effectiveness of all current direct customer service touchpoints delivered through the "Customer Care Center" including Advanced Metering Infrastructure (AMI), IVR, billing system, water meter/service requests, etc. as well as customer touchpoints delivered through digital channels (email, social media, website).

INTERMEDIATE ACTIONS (18-36 MONTHS)

4. Develop and establish a comprehensive direct customer experience program to optimize and personalize customer interactions through:
 - Face-to-face interactions with staff.
 - Over the phone.
 - Via email.
 - On social media.
 - Through chatbots.
 - On website support pages.
5. Create training programs and guidance documents to bolster a customer service culture across the organization.



GOAL

2

Embrace partnership, engagement, and collaboration with all stakeholders.

FOCUS 1: INDIRECT CUSTOMER EXPERIENCE

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Audit existing campaigns, communications methods and stakeholder groups, evaluate effectiveness, identify opportunities, and update communications plan accordingly.
2. Improve coordination between sister agencies to have a unified message.
3. Map wholesale customer/Department shared priorities and report findings.
4. Map regional stakeholder and partner/Department shared priorities and report findings.
5. Establish a recurring briefing for the Mayor, County Commissioners, local members of Congress, and other critical stakeholders to share proactive information on Department programming and collect feedback.
6. Implement an image/value of water campaign to increase customer and stakeholder awareness of the Department's services and value to the community, and to establish the basis for customer investment in water, wastewater, and environmental infrastructure through rates and charges.

INTERMEDIATE ACTIONS (18-36 MONTHS)

7. Develop and implement a wholesale customer and critical stakeholder engagement plan centered around increasing coordination and communication on shared priorities and problem-solving.



Efficient and Innovative Organization



5-YEAR DESTINATION AND OBJECTIVE:

The Department will set the standard of practice for increasing organizational efficiency by improving processes and integrating innovation.

The Department will optimize its internal business systems, CIP, and daily operations, and integrate innovation to the greatest extent possible. This will require improving recruitment procedures, enhancing the effectiveness of standardized policies, procedures, and work processes, decreasing procurement hurdles and fulfillment times, decreasing execution time for IT support, optimizing the CIP and asset management programs, and integrating innovative tools and programs across the organization.

GOAL 1: Optimize and standardize internal business systems.

Focus 1: Procurement, Recruitment, IT, and Vendor Payment

The Department will redesign existing procurement, recruitment, IT, and vendor payment processes to make them more efficient, streamline operations, upgrade communications, reduce errors and costs, and enhance workloads. These improvements should be continuous as businesses change, evolve, and expand, and new technologies are implemented.

Focus 2: Standardization and Knowledge Retention

The Department will standardize its business practices to capture institutional knowledge, ensure new employees have access to comprehensive and up-to-date work manuals, and high-performing staff are identified and trained to replace retiring workers.

GOAL 2: Effectively manage water supply and infrastructure assets through integrated planning and effective capital programs.

Focus 1: CIP Optimization

The Department will execute a highly effective capital improvement program to expand, renew, and rehabilitate water and sewer infrastructure, end federal oversight, and ensure a strong balance between water and wastewater infrastructure investments.

Focus 2: Integrated Planning

The Department will integrate all planning efforts including its Master Plan, CIP, and Asset Management Program, to maintain essential levels of service for its current and future residents and customers.

GOAL 3: Integrate innovation into all business systems.

Focus 1: Innovation

The Department will increase the coordination, decision-making criteria, and adoption of innovative technologies and practices.



ACTION PLAN

EFFICIENT AND INNOVATIVE ORGANIZATION

GOAL

1

Optimize and standardize internal business systems.

FOCUS 1: PROCUREMENT, RECRUITMENT, IT, AND VENDOR PAYMENT

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Perform workflow analysis of internal and centralized procurement processes to identify opportunities and challenges and ensure full implementation of emergent policies including purpose-driven procurement.
2. Evaluate current administrative capacity for procurement and purchasing across divisions and adjust to ensure adequate support.
3. Provide training for all employees on writing procurement scopes.
4. Provide P-Cards and use manuals to management staff to ensure critical/emergency purchases can be streamlined.
5. Perform workflow analysis of internal and centralized recruitment processes to identify steps and owners.
6. Evaluate internal recruitment policies and procedures to identify opportunities to streamline processes, increase advertising, allow for hiring authority flexibility on certain job requirements, and allow hiring authority flexibility on pay scale, etc.
7. Evaluate ITD/Department Memorandum of Understanding (MOU) for opportunities to streamline processes and bring additional IT support for critical organizational activities.
8. Automate accounts payable to ensure increased vendor payment efficiencies.

INTERMEDIATE ACTIONS (18-36 MONTHS)

9. Overhaul internal procurement processes to eliminate duplication of effort, create efficiencies and ensure adequate administrative support for each division.
10. Create and implement a new recruiting program that leverages local workforce institutions such as trade schools, universities, and high school districts.
11. Evaluate the feasibility of implementing an internal IT division that brings certain IT duties in-house while complementing the resources and support of centralized ITD.
12. Streamline payment approval process to improve efficiency in processing change orders and vendor payments.



FOCUS 2: STANDARDIZATION AND KNOWLEDGE RETENTION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Update delinquent/past due customer accounts cash collection model to current best practice standards. Eliminate in-person cash collection.
2. Develop Maintenance Manuals to include Work Instruction Manuals and Standard Operating Procedures (SOPs) for all critical positions.

INTERMEDIATE ACTIONS (18-36 MONTHS)

3. Standardize operating procedures and business processes across the organization.
4. Complete and implement an employee succession plan (including cross-training, mentoring plan, employee training programs, etc.).



ACTION PLAN

EFFICIENT AND INNOVATIVE ORGANIZATION

GOAL

2

Effectively manage water supply and infrastructure assets through integrated planning and effective capital programs.

FOCUS 1: CIP OPTIMIZATION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Continue the timely execution of key infrastructure programs including Consent Decree, Ocean Outfall Legislation, Water Reset, Pump Station Resilience, South District Expansion Projects, Inflow and Infiltration, and force main and water main renewal/replacements.
2. Implement the multi-pronged DROP Initiative (Design, Recharge, Optimize, Protect) strategy including aquifer storage and recovery, reservoir, wellfield, and plant design initiatives, and land acquisition programs consistent with the water allocations in the South Florida Water Management District (SFWMD) 20-Year Water Use Permit.
3. Implement a pump station pilot from the priority Asset Management Framework recommendations.
4. Implement Capacity, Management, Operations and Maintenance programs.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Complete key wellfield and plant design initiatives to be consistent with the water allocations in the SFWMD 20-Year Water Use Permit.

FOCUS 2: INTEGRATED PLANNING

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Develop the Water/Wastewater/Reuse system roadmap.
2. Review recommendations from Asset Management Framework and recommend phasing of initiatives.
3. Identify critical supply chain deficiencies related to regular operations. Change method of procurement for critical resources impacted by supply chain issues.
4. Continue to develop groundwater modeling tools to include data acquisition, model enhancements, updated model codes and data inputs using the latest technology including machine learning and artificial intelligence.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Develop the Integrated Master Plan (IMP) roadmap (to include facilities, etc.).
6. Develop updated water and wastewater resources master plans and complete companion water and wastewater Capital Improvement Program (CIP) for near-term (0 to 5 years) and long-term (5 years to buildout) planning horizons.
7. Inventory land resources for warehouse, storage, and other current and future needs.
8. Continue to support the hydrogeological research in South Florida through Joint Funding Agreements with the U.S. Geological Survey, and collaboration with academia and local, state and federal agencies.
9. Participate on the C-51 Not-For-Profit Board of Directors to ensure adequate oversight and Operations and Maintenance of the C-51 Reservoir.



GOAL

3

Integrate innovation into all business systems.

FOCUS 1: INNOVATION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Establish the Department's Advanced Metering Infrastructure (AMI) strategy and procurement efforts.
2. Establish an internal committee to maximize Department-led and Isle Technology Approval Group (TAG) emerging innovations and technologies.

INTERMEDIATE ACTIONS (18-36 MONTHS)

3. Develop an innovation and technology plan that defines the Department's incorporation of emerging technologies through objective selection criteria to include:
 - Use of Geographic Information Systems (GIS) to support better analysis of the Department's infrastructure.
 - Supervisory Control and Data Acquisition (SCADA) systems.
 - Use of the cloud.
 - Mobile solutions for field personnel.
 - Business Intelligence Architecture.
 - Self-service capacity/online resources.
 - Intuitive customer service programs.



Future-Ready Utility



5-YEAR DESTINATION AND OBJECTIVE:

The Department is prepared for risks and uncertainties in economic and climate conditions and contributes to a thriving community.

The Department will ready the organization for emergent and dynamic future conditions. This will require the Department to enhance emergency preparedness and response, advance its resilience framework, develop strong financial systems, increase sustainable practices, and adopt a one water approach.

GOAL 1: Maintain essential levels of service in the face of emergencies and dynamic future conditions.

Focus 1: Emergency Preparedness and Response

The Department will be recognized as essential and implement a comprehensive emergency response plan that protects the safety of its staff and recognizes their critical role, increases hazard resilience, and improves effectiveness and communication.

Focus 2: Resilience Framework

The Department will develop and advance key resilience initiatives including vulnerability assessments, facility hardening, design guidelines, tools, and standard operating procedures, to protect its personnel, resources, and critical assets in the face of changing conditions such as sea-level rise, rainfall frequency and intensity, heat, and other climate conditions.

GOAL 2: Build nimble and robust financial systems to support changing community needs and diversify revenue sources.

Focus 1: Financial System Planning

The Department will develop a comprehensive financial management plan that considers dynamic and changing community needs, maintains affordable rates, and maintains its bond rating.

Focus 2: Revenue Diversification

The Department will ready its capital budget planning process for expanding federal and state revenue sources focused on infrastructure, resilience, and energy-related programs.

GOAL 3: Utilize a “One Water” approach to sustainability, environmental stewardship, and regional partnership policies.

Focus 1: Sustainability

The Department will evolve its sustainability practices to meet environmental and social goals and Board directives by integrating standardized best practices, increasing energy efficiency and renewable sources, increasing conservation, and reducing waste and greenhouse gas emissions.

Focus 2: Connect 2 Protect

The Department will lead the region's efforts to implement septic to sewer conversions recognizing that 9,000 septic systems are vulnerable to compromise or failure under current groundwater conditions increasing to approximately 13,500 by 2040.

Focus 3: One Water

The Department will adopt an “Our Water / One Water” approach, one that recognizes the connection of its mission to the broader context of the watershed and all water sources; one that values all water and prioritizes the coordination of water management and services across all sectors to achieve public health and environmental protection through effective sanitation and flood protection services.



ACTION PLAN

FUTURE-READY UTILITY

GOAL

1

Maintain essential levels of service in the face of emergencies and dynamic future conditions.

FOCUS 1: EMERGENCY PREPAREDNESS AND RESPONSE

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Evaluate current emergency response requirements for volunteer vs. compensated duties to ensure adequate shift coverage and fair compensation during declared emergencies.
2. Obtain Director authority to define emergency positions and declare water and wastewater service emergencies.
3. Obtain County Department exempt classification and designate all Department employees as first responders.
4. Fully utilize the all-hazards Emergency Response Plan (ERP) developed pursuant to the America's Water Infrastructure Act.
5. Formalize, train and exercise drills employing the Incident Command Structure (ICS) and draft incident action checklists for all relevant hazards identified in the ERP.
6. Develop communication protocols and workflow for hurricanes and other incidents following the ICS structure.

INTERMEDIATE ACTIONS (18-36 MONTHS)

7. Expand the all-hazards ERP developed pursuant to the America's Water Infrastructure Act to include wastewater incidents.



FOCUS 2: RESILIENCE FRAMEWORK

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Identify existing and critical at-risk infrastructure projects to mitigate risk to water supply, water and wastewater systems and personnel, prior to scheduled asset management replacement to take advantage of grant funding opportunities.
2. Implement the recommendations (policy, operations and maintenance, and capital projects) from the 2020 Risk & Resilience Assessment (RRA) including flood mitigation and hardening plant buildings to protect personnel and provide continuity of operations during extreme weather events.
3. Continue to develop the robust saltwater intrusion monitoring network to increase operational efficiency of wellfield withdrawals and protect water supply and infrastructure.
4. Continue to monitor regulations for emerging contaminants, including per- and polyfluoroalkyl substances (PFAS), and collaborate with other stakeholders on policy development and resources to prepare for treatment requirements.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Decrease the impacts of heat on the workforce and infrastructure using existing and new assessments to guide development of mitigation strategies including design guidelines and infrastructure improvements.
6. Standardize planning and design practices for new assets through guidance tools including checklists, cost-benefit analysis for optimal operational flexibility and resilience, and documentation of final resilient design components and investment.



ACTION PLAN

FUTURE-READY UTILITY

GOAL

2

Build nimble and robust financial systems to support changing community needs and diversify revenue sources.

FOCUS 1: FINANCIAL SYSTEM PLANNING

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Review non-residential rates to ensure equity and restructure the fee schedule for ease of understanding by all stakeholders to support their financial planning and forecasting.
2. Evaluate and update all Department-related ordinances (utility service fee) to support growth and/or environmental programs as an allowable source for capital system expansion projects in vulnerable areas.
3. Improve cash flow projections for projects submitted as budget requests.
4. Increase transparency of budget process including prioritization criteria and outcomes through creating financial information dashboards.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Complete a comprehensive rate and revenue study and accompanying financing plan that can expand into a long-term projection.
6. Evaluate opportunities, and recommend programs, to reduce non-revenue water loss.

FOCUS 2: REVENUE DIVERSIFICATION

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Define roles and responsibilities across Department programs for the full grant life-cycle to effectively manage grant-funded projects.
2. Perform a gap analysis to right-size internal capacity to manage and execute the full workflow of grant funded projects to include engineering contracts meeting state and federal funding requirements.



GOAL

3

Utilize a “One Water” approach to sustainability, environmental stewardship, and regional partnership policies.

FOCUS 1: SUSTAINABILITY

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Operationalize the Envision Rating System and other Prescriptive Path requirements of the County's Sustainable Buildings Ordinance across planning, design, and construction by developing policies and implementation and reporting tools.
2. Continue the timely execution of key energy projects including the enterprise-wide energy audit (U.S. Department of Energy Better Plants partnership), the development of a complementary greenhouse gas emissions inventory to identify mitigation measures, the pilot implementation of the Energy Management ISO 50001 at Hialeah/Preston Water Treatment Plant, and all relevant water and wastewater actions outlined in the County's Climate Action Strategy.
3. Evaluate the recommendations of the Biogas Steering Committee to maximize the use of wastewater biogas and landfill gas to offset the use of electricity at the South and Central District Wastewater Plants and advance other actions identified in the Energy Management Plan for Wastewater Treatment (2019) to achieve 30 percent (30%) energy intensity savings and the County's Climate Action Strategy's cogeneration targets by 2030.
4. Implement the Department's Industrial Water Reuse Strategy.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Implement findings of the ASHRAE Level 2 audit of Department office buildings.
6. Establish energy efficiency and renewable energy master plans and adapt energy management standards for water production and conveyance, wastewater collection conveyance, and office building energy consumption.
7. Evaluate the adoption of international sustainability standards (ISO or equivalent) in areas of Asset Management (55000), Environmental Management (14001), and Quality Management (9001).
8. Actively participate in the development of the County's Zero Waste Strategy in conjunction with advanced biosolids management strategies.



ACTION PLAN

FUTURE-READY UTILITY

GOAL

3

Utilize a “One Water” approach to sustainability, environmental stewardship, and regional partnership policies.

FOCUS 2: CONNECT 2 PROTECT

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Perform a gap analysis to right-size Department resources needed to execute all components of the Connect 2 Protect program.
2. Continue prioritization efforts to identify the most impactful strategies.
3. Advance the actions outlined in the “December 2020 Plan of Action - A Risk-Based Approach to Septic Systems Vulnerable to Sea Level Rise.”
4. Work with stakeholders to identify sources of funding for private property connections, including grants, other County-funded programs, earmarks, financial tools, etc.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Create awareness campaigns to engage private properties in the planning phase of project development and establish a resource to facilitate the process of private connections.



FOCUS 3: ONE WATER

IMMEDIATE ACTIONS (0-18 MONTHS)

1. Implement cross-Department and municipality efforts that reduce inflow and infiltration of stormwater into the wastewater collection system.
2. Implement campaigns engaging residents to reduce impacts from rags, wipes, fats, oils, grease, etc.
3. Continue to coordinate with academic, local, state and federal agencies on environmental restoration projects and research.
4. Continue Department participation in key regional planning efforts including the Biscayne Bay Southern Everglades Restoration Project, the U.S. Army Corps of Engineers Back Bay Study, and the South Florida Regional Climate Compact.

INTERMEDIATE ACTIONS (18-36 MONTHS)

5. Identify opportunities for onsite non-potable water reuse.
6. Expand the effectiveness of the high efficiency fixture and landscape irrigation rebate programs.
7. Engage wholesale customers to analyze water consumption and wastewater flows to support coordination on conservation, leak detection, and inflow and infiltration strategies.



DELIVER

Designing the WAVE creates the strategic roadmap for the Department; riding the WAVE into the future will require several additional steps. These include:

- developing a change management strategy and plan to ensure employees understand, support and champion the new direction of the Department,
- developing a comprehensive communications and engagement plan to create continuous dialogue between employees, customers, and partners,
- developing a holistic WAVE Implementation and Action Plan to define the personnel, budget, resources, and project plans required to carry forward WAVE's initiatives, and, lastly,
- developing a plan for measuring WAVE's long-term success.



Change Management

The Department will implement Kotter's 8-Step Change Management Model to capitalize on the momentum and sense of urgency already created during the strategic planning process, formalize WAVE leadership teams to enable action, and continue the strong employee and stakeholder engagement that are the hallmarks of WAVE's development.

Communications and Marketing

The Department will implement a three-phase communications and marketing strategy for the WAVE, coinciding with related change management steps. Each communications phase will include identified audiences, key messages, and tactics to ensure strong message saturation, feedback collection and overall reach.

- Catch the WAVE: Building Shared Understanding and Excitement.
- Build the WAVE: Building Teams, Coalitions and Champions.
- Ride the WAVE: Implementing the WAVE's Actions and Initiatives.

Implementation and Action

Translating the WAVE into action will require significant effort, resources, coordination, and accountability. Over the next several months, Department teams will come together to develop project-level action plans, which grouped collectively, will become WAVE's multi-year Implementation and Action Plan.

WAVE PERFORMANCE METRICS



The Department has established hundreds of key performance indicators (KPIs) for monitoring and reporting purposes during the last 20 years. The County's Strategic Plan was recently updated to align with key County-level plans including the Thrive 305 Plan. An important recommendation of the WAVE is to refresh and streamline Department KPIs to inform continuous improvement, integrate current planning efforts, and align the Department's success measures with County-level metrics. Department and program KPIs are required to measure overall performance and drive individual priorities.

While this effort extends beyond the strategic plan, sample KPIs for each WAVE cardinal direction are provided on the following pages. The WAVE Action and Implementation Plan will further develop Department-wide and project/program-level KPIs. These samples were developed using the County's Strategic Plan, the Department's Annual Business Plan, and a review of best practice KPIs adopted by other water/wastewater utilities.



Vibrant Organizational Culture

An annual employee satisfaction survey will evaluate overall employee satisfaction on subjects such as:

- Compensation and benefits.
- Management.
- Professional development and long-term advancement opportunities.
- Work and teamwork.
- Procedures.
- Fairness and respect.
- Positive work environment.
- Recognition for achievements.
- Internal communication.

A retention study will evaluate metrics such as:

- Voluntary turnover.
- Retirement turnover.
- Experience turnover.
- Promotion rate.
- Employee salary competitiveness relative to market rate.
- Training hours per employee.
- Diversity rate of employees.



Exceptional Customer Experience

Customer service and overall experience will be measured by an annual customer experience survey assessing topic areas such as:

- Product quality.
- Service reliability.
- Billing accuracy.
- Customer service.
- Costs/rates/value.
- Crew courtesy.
- Notification around street construction/service interruptions, etc.

In addition to the annual survey, the Department will conduct instantaneous customer polls to gather Customer Satisfaction Scores (CSAT) and Net Promoter Scores (NPS).



Efficient and Innovative Organization

Business system, operational and CIP effectiveness will be measured by tracking such topics as:

- Recruitment data including time to hire, time to interview, source of hire, etc.
- Hiring process including offer acceptance rate, quality of hire, interviews to hire, etc.
- Succession planning such as key position vacancies.
- Procurement data such as spend under management and procurement cycle times.
- IT effectiveness such as percentage of projects on time and average issue handle time.
- CIP execution rates.
- Percentage of actual CIP spending to budgeted CIP spending.
- Asset inventory coverage.
- Asset renewal/replacement rate.
- Non-revenue water (NRW).
- Collection system failure rate (SSO and BBU).
- Water supply adequacy.
- Water reuse rate.
- Permit review and approval time.
- Compliance with drinking water standards.
- Compliance with wastewater standards.



Future-Ready Utility

To evaluate the future-readiness of the utility, the Department will measure data such as:

- Emergency Response Plan (ERP) coverage and preparedness.
- Vulnerability management.
- Protective Measures Index (PMI).
- Resilient Utility Index.
- Service affordability.
- Bond rating.
- Revenue diversification.
- Sustainability measures such as carbon footprint, energy consumption, water conservation, product recycling rate, etc.
- Number of homes on private drinking wells and number of homes served by septic tank systems.



WAVE

WATER, A VISION FOR EXCELLENCE



MIAMIDADE.GOV/WATER

MISSION STATEMENT:

Miami-Dade Water and Sewer delivers high-quality, safe, and reliable drinking water and wastewater services in Miami-Dade County where customers know the value of every drop, employees take pride in their contribution, and the pursuit for efficiency and community resilience drives every business decision.

**Special thanks to the WAVE's Project Team,
Steering Committee, and hundreds of staff
who helped build the plan.**

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