



Committed to Progress



2021

Corporate
Sustainability
Report

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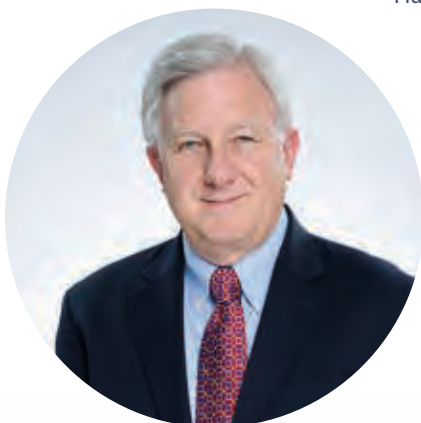
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CEO Message



Dear Stakeholders,

We are pleased to provide this updated Corporate Sustainability Report. This report highlights progress made since our inaugural report issued in March 2020 in which we detailed many Environmental, Social and Governance (ESG) factors material to our business. This document predominantly addresses data collected in 2020 and further demonstrates our ongoing commitment to sustainability by operating our business in a way that demonstrates responsible citizenship, positively impacts our planet and enables our employees to thrive in a supportive and inclusive culture.

2020 proved to be a challenging year as our nation and the world grappled with the uncertainties of the pandemic. Yet Middlesex Water stood strong providing life sustaining, safe, and reliable utility services to our customers, caring for its employees and addressing critical needs in the communities we serve. Sustaining operational and fiscal strength under these challenging unforeseen circumstances is a testament to our people, our culture, our formal emergency and business resiliency plans and underscores our important role in supporting public health and safety.

Our [2020 Annual Report](#) to Shareholders addressed the topics of preparedness, resiliency, risk management and our overall sustainability under emergency conditions of all types. Our business requires us to anticipate and prepare for ESG risks and opportunities of all kinds while our mature Enterprise Risk Management Program, helps us to identify, anticipate and mitigate these threats.

Our financial results in 2020 are one indicator of our overall business performance. But of equal importance is our commitment to delivering trusted utility services, to investing in the integrity of our infrastructure, the security of technology driving critical business processes, the soundness of our governance structures, and the way we interact with each other, our environment and the communities we serve. We view ESG as an important part our company's long-term financial sustainability. As we advance in our sustainability journey, we are committed to making meaningful progress in our ESG practices and related disclosure.

Our mission and core values serve as the foundation guiding our continued sustainability. Our talented and passionate employees and all of our stakeholders are partners in this journey. We are excited about the progress we have made and encourage you to read about our commitment to operational excellence and to continuous improvement.

Sincerely,

Dennis W. Doll
Chairman, President and CEO
Middlesex Water Company





Who We Are

Middlesex Water Company is a public water utility with corporate headquarters located in Iselin, New Jersey and has been in operation since 1897 as a water utility. MWC provides a full range of regulated and non-regulated water, wastewater utility and related services primarily in New Jersey and Delaware and serves a population of nearly 500,000.

Middlesex is subject to regulation by the New Jersey Board of Public Utilities (“NJBPU”), New Jersey Department of Environmental Protection (“NJDEP”) and the United States Environmental Protection Agency (“USEPA”).

The Middlesex System serves Woodbridge Township, the Boroughs of Carteret and Metuchen, the City of South Amboy, portions of Edison and South Plainfield and to a minor extent, a portion of the Township of Clark in Union County, NJ. These retail customers include a mix of residential customers, large industrial concerns, commercial and light industrial facilities.

The company’s subsidiaries include Tidewater Utilities, Inc.(Tidewater), Pinelands Water Company, Pinelands Wastewater Company, Utility Service Affiliates, Inc., Utility Service Affiliates (Perth Amboy) Inc., Utility Service Affiliates – Avalon and Tidewater Environmental Services, Inc. Tidewater’s wholly-owned subsidiaries include Southern Shores Water Company, LLC and White Marsh Environmental Systems, Inc. Please refer to our Middlesex Water 2020 Annual Report and Form 10-K for additional information.

The Company’s largest subsidiary, Tidewater and its wholly owned subsidiary Southern Shores Water Company, LLC, are subject to regulation by the Delaware Public Service Commission (“PSC”), Delaware Department of Natural Resources and Environmental Control (“DNREC”), Delaware Department of Public Health (“DPH”).

Through its affiliated companies, Middlesex delivers quality water and wastewater service and works to deliver technical and management expertise that creatively address challenges such as aging infrastructure and increasing regulatory pressures faced by municipalities, developers and small system owners.

Middlesex Water at a Glance 2020

NASDAQ Stock Market Symbol	Headquarters	Employees	2020 Revenue	Net Income	Utility Plant	Diluted Earnings Per Share
MSEX	Iselin, NJ	348	\$141.6M	\$38.4M	\$982.0M	\$2.18



Our Culture

“Do RIGHT by each other, our customers and our shareholders.”

Our values serve as a road map for daily decisions in the work place.

Living these values and putting them into practice creates long term benefits for customers, employees, shareholders, suppliers and the communities we serve.



Respect

We respect our co-workers and are courteous and responsive in our interactions with our customers and shareholders.



Integrity

We are transparent in our actions, stand behind our promises and comply with laws, regulations, policies and procedures.



Growth

We have high standards and set ambitious and strategic goals that drive our performance as an industry leader in our core business activities.



Honesty

We are committed to being open, trustworthy and transparent in our dealings with all stakeholders.



Teamwork

We look for opportunities every day to contribute, communicate and collaborate.

United in Our Values

OUR VALUES



Employees or employee groups demonstrating one or more of the company values are routinely given “shout outs” by their peers and provided company wide recognition in our Employee “Do Right” Spotlight.



Committed to Creating Long Term Value

Corporate Sustainability

Middlesex Water is committed to making meaningful progress in matters of Environment, Social and Governance (ESG) as part of our current and long-term plans for sustainability. The way we manage our business activities, including our governance and management of our environmental and social capital, is essential to creating long-term value for our customers and shareholders.

We are committed to the highest standards of ethical behavior, further growing diversity, equity and inclusiveness in our workforce, making prudent investments in aging infrastructure, maintaining public health, safety and economic stability in the communities we serve and serving as a trusted and reliable resource to our customers and communities now and for generations to come. Carefully balancing current operational priorities while further integrating ESG continues to be driving focus.

Our ESG Priorities

In 2020, we engaged an ESG consulting firm to help us develop a foundational sustainability strategy. We focused in 2020 on enhancing our ESG program to create internal processes and procedures to capture and track the great work we do and better meet stakeholder expectations on managing ESG risks and opportunities. We also benchmarked our approach and reporting relative to our peers and in the water sector, investors and other internal and external stakeholders. Working with the firm, we developed a list of key ESG topics from various sources and identified which United Nation's Sustainable Development Goals (SDGs) with which our activities are most closely aligned.

We developed a matrix of metrics and prioritized topics for disclosure, including identifying reporting gaps. This information, with input from the Board of Directors and senior management team, formed Middlesex Water's sustainability strategy for near to mid-term ESG priorities. We also developed a calculation methodology for reporting the Company's environmental impact and carbon assessment data. This report documents metrics outlined in Sustainability Accounting Standards Board (SASB) standards for the Water Utilities and Services industries and covers the period of January 1, 2020 through December 31, 2020, unless otherwise noted.



ESG Strategy

While we believe we have long operated in a sustainable manner, we only recently began reporting on our actions in last year's inaugural report. This transparency not only offers customers, shareholders and regulators clearer insight into how we operate beyond our financials, but the capturing of key ESG operational performance metrics also helps us to understand our environmental and social footprint, drives accountability through credible disclosure and better positions our operations for the long term.



Our approach to sustainability involves:



Fostering accountability through improved alignment around ESG areas and expanded Board and management oversight of ESG Risk



Identifying those metrics that connect to our business strategies and are relevant to stakeholders



Increasing our internal focus on ESG and establishing organizational frameworks and tracking practices to advance year over year disclosure



Engaging external stakeholders to better understand ESG expectations



Improving transparency and disclosure on material topics



Integrating ESG aspects in our decision making and planning



Analyzing data collected to establish targets and integrating continual improvements as we move forward



Material Topics

Environment	Social	Governance
Drinking Water Quality	Employee Health & Safety	Board Independence & Diversity
Water Supply Resilience	Data Security & Customer Privacy	Business Ethics
Distribution Networks Efficiency & Impacts of Climate Change	Employee Engagement, Diversity, Equity & Inclusivity	Vendor Management
Water Affordability & Access	Community Support	Enterprise Risk Management
Energy Management		
Carbon Emissions		
End Use Efficiency		

Much of our disclosure generally relates to the following key areas:

- ➔ Protecting the health and safety of our employees and the economic stability of our communities
- ➔ Ensuring safe drinking water by making investments in infrastructure that mitigate anticipated impacts of climate change while enhancing service delivery, reliability and resiliency of our operations
- ➔ Efforts in place to secure our strong compliance record, good governance practices and the highest standards of ethical behavior
- ➔ Our commitment to building a diverse, inclusive and high performance workplace culture

Supporting Sustainable Development Goals

We recognize the [United Nations Sustainable Development Goals](#) (SDG's) and believe all businesses and individuals can take action to build a more sustainable future for all. [Examples of our specific support or contributions towards each of these goals can be found here.](#) >>



Zero Hunger End hunger, achieve food security and improved nutrition and promote sustainable agriculture



Decent Work & Economic Growth
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent



Good Health and Well Being Ensure healthy lives and promote well-being for all at all ages



Industry, Innovation and Infrastructure
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Gender Equality Achieve gender equality and empower all women and girls



Clean Water and Sanitation Ensure availability and sustainable management of water and sanitation for all



Sustainable Cities and Communities
Make cities and human settlements inclusive, safe, resilient and sustainable



Stakeholder Engagement

Effective stakeholder engagement and collaboration is crucial to our ability to continually improve our operations and respond to sustainability challenges and opportunities.

Key Stakeholder Groups Most Impacted by Our Business

How We Engage



Investors

We engage frequently with investors through different methods to provide updates on company operations and strategy and better understand their expectations. This dialogue supports their ability to make informed decisions about their investments.

Annual Shareholder Meeting
Roadshows
Conference Calls
Analyst Ratings
Presentations
Regulatory Filings

Annual Report
Proxy Statement
Website
Corporate Sustainability Report
Shareholder Letters
Transfer Agent Website



Customers

Communicating with our customers helps them better understand our operating processes and the value of the services we offer and provides our team valuable feedback.

Customer support through phone/email
Learning from and sharing customer insights
Consumer Confidence Reports

Social Media engagement
Inquiries through website
Direct Mail
Newsletters/Blogs
Customer Updates



Employees

Employees who are engaged and committed to their jobs generate long-term value for business. We continuously seek feedback on employees' views, ideas and concerns in order to build an even better workplace culture.

Frequent Updates on Company Intranet
Employee Engagement Surveys
Employee meetings
Video Message updates
Company sponsored Volunteering events
Anonymous whistleblower hotline

Employee recognition and appreciation events
Department Meetings
Company wide announcements
Newsletters on wellness and cyberhygiene
Employee newsletters and resources



Society

We actively participate with community organizations to drive positive change in the areas we serve. We support industry associations through membership. We engage with governmental and regulatory bodies to share capital projects and provide periodic updates.

Municipal leadership
Chambers of Commerce
Thought leadership on industry issues
Regulatory
Police/Fire/OEM
Developers/builders

Charitable activities
Volunteering
Business and industry groups/conferences
Meetings
Career Fairs
School Visits



Our COVID-19 Response

Supporting Our People, Our Customers and Our Communities

The COVID-19 pandemic brought challenges no one could have anticipated. The virus took a human and economic toll on many and our hearts go out to all who were impacted.



Throughout the crisis, our employees never missed a beat. We worked diligently to create protocols that helped keep our workforce and customers safe, all the while keeping disruptions to our operations at a minimum. We have included our response to the pandemic in this report because our approach speaks to the sustainability of our company even under trying conditions.

Being able to provide uninterrupted service delivery during one of the most serious public health crises of our time – when many customers remained indoors and depended on water for hygiene and sanitation – is a result of dedicated employees, critical business continuity and crisis management planning. We continue to monitor the impacts of COVID-19 on our business and adapt our plans as needed.



We thank all of our employees – our teams working remotely, laboratory personnel, workers responsible for the day to day operation of treatment plants, and crews in the field responding to water and wastewater service emergencies.



Employee and Customer Safety

Emergency response and business continuity plans were issued early on to focus on our people, customers, operations, technology and finances and adapted, as necessary, to address changing circumstances. It was critical that we supported public health and the economic stability of our communities through the uninterrupted delivery of life sustaining services.



Other measures taken to protect our teams yet maintain business continuity were:

- ➔ To minimize exposure and prevent the spread of COVID-19 in our workplace and in our communities, we transitioned to a remote work status for about 35% of our workforce who were able to do so and employed measures to ensure essential employees felt safe in their work environments.
- ➔ We implemented extensive human resource actions including enhanced health and safety practices at all of our facilities to include new policies, process changes, signage, eliminating all business travel, providing masks and sanitizer, establishing strict social distancing guidelines, enhanced cleaning and sanitizing measures, requiring daily temperature checks reporting and digital COVID-19 questionnaire completion by all employees.
- ➔ We required adherence of our construction partners to all government safety protocols before moving forward with critical Company infrastructure investment projects.
- ➔ To ensure public health and safety for all customers, we suspended water shutoffs for nonpayment and restored service to those whose service had been discontinued for non-payment.
- ➔ Although walk-in customer payments and in-home service visits were suspended to limit exposure, we maintained consistent communications and provided seamless customer service to address customer needs and keep them informed.



Communication with all Stakeholders, particularly during uncertainty, is a key commitment.



Maintaining Governance and Consistent Communications

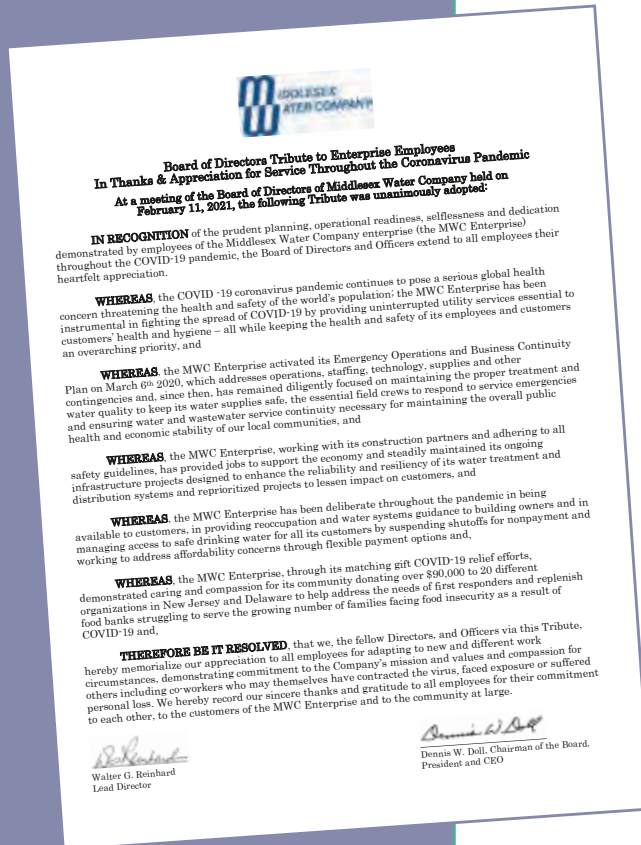
The Board of Directors was deeply involved in the Company's strategic COVID-19 response and received frequent virtual meeting updates from management regarding the Company's pandemic approach including impact on the company's employees, operations and customers. Measures being implemented to protect employee, customer and contractor health and safety were of and continue to be of paramount importance.

- ➔ Informal interim calls were held to discuss progress on critical construction projects, risk management and legislative and regulatory impacts on the business.
- ➔ Provided ongoing education regarding water safety and COVID and about available relief measures to our customers facing financial difficulties.
- ➔ Maintained consistent and regular engagement to remain connected with all stakeholders during this time of isolation and social distancing.
- ➔ Collaborated regularly with regulatory, industry, and governmental representatives to coordinate efforts for appropriate COVID-19 measures and programs.
- ➔ To highlight its appreciation of employees for their dedicated service during the early months of the pandemic, the Board issued a resolution in tribute, which was posted on the Company intranet.

Business Continuity

Few things are more important than safe drinking water. Our professionals delivered outstanding performance behind the scenes every day. Operators maintained treatment plants, lab workers ensured water quality parameters were tracked and crews responded to water main breaks – all examples of essential workers whose job is essential to keeping water flowing for our residential, commercial and industrial customers. The COVID-19 pandemic heightened public appreciation for safe and reliable water service. Our pre-existing business continuity and emergency response plans enabled us to respond quickly and efficiently, and to adapt our business to prevent any interruption of service to our customers.

- ➔ Information technology tools such as remote access applications, cloud services and virtual private networks helped the Company nimbly pivot to a remote work structure to support operations. Business processes were evaluated to ensure they worked seamlessly for both on premise workers and our remote workforce.
- ➔ To protect against security risks involved with a remote workforce, we strengthened our technology defenses and implemented increased monitoring and cyber training and awareness, along with well-implemented and more frequent security testing.
- ➔ We modified construction project plans and programs to maintain schedules and adapted where necessary so that we could maintain continued upgrades to aging water infrastructure throughout the distribution system.



RELIABLE

TRUSTED

RESPONSIVE

TRANSPARENT



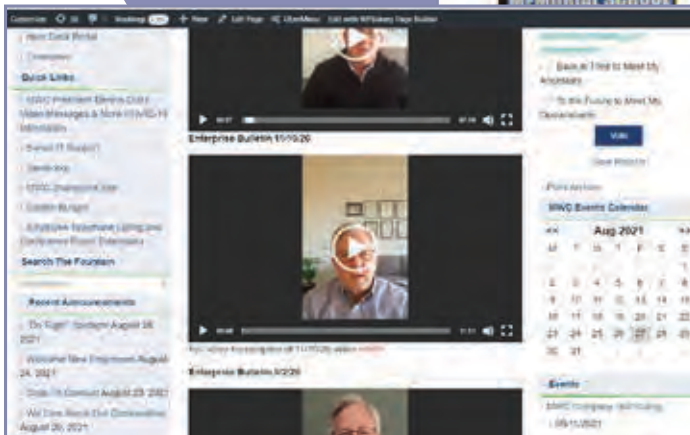
Employee Engagement During Covid

With 35% of our workplace working remotely and those essential employees at their posts practicing social distancing it was important to keep our employees engaged and informed.

CEO Dennis Doll delivered frequent video messages during this time of uncertainty to all employees providing company updates, safety reminders and general anecdotes to help keep our teams focused. Early on, he formally committed to employees that there would be no COVID-19 related layoffs and no reduction in employee benefits throughout the public health crisis. Employees leveraged new communication platforms to continue to collaborate and be responsive to each other.

Ensuring the health, safety and mental well-being of employees and their families became a key focus. Information related to COVID-19 prevention, tips on maintaining physical and mental wellness were distributed frequently. The company also adopted flexible schedules for working parents with school age children, telehealth options, carry over vacation credits, and voluntarily extended benefits under the Families First Corona Virus Response Act.

Each year, employees are recognized for their years of service. The Company was unable to host its Annual Employee Awards Dinner due to social distancing concerns. Instead, we celebrated employees achieving years of service milestones through a virtual Awards Dinner flipbook, which was posted on the company intranet and delivered to all honorees.



CEO Dennis Doll delivered video messages regularly to employees over the employee intranet.





Governance and Compliance



Our governance framework and policies are designed to foster accountability and ethical behavior and promote compliance with applicable laws and regulations while simultaneously supporting our company, employees, customers, shareholders and other stakeholders.

Management of the Company is under the general direction of the Board of Directors who are elected by the Company's shareholders. The Company's business is managed under direction of the Board in accordance with the New Jersey Business Corporation Act and our Certificate of Incorporation and By-Laws. The Company's ByLaws, found in the Governance section of the Investors section of our website, discuss the composition of the Board, leadership structure, board independence and other governance matters. Additional information related to Board independence and the responsibilities of Board committees can be found in our Proxy Statement. The Board plays an integral role in shaping Middlesex Water's strategy, governance and culture.

Corporate Governance Highlights

- ➔ All directors are independent, other than the CEO
- ➔ Board committees are comprised entirely of independent directors
- ➔ Lead independent director has clearly defined responsibility
- ➔ Commitment to corporate social responsibility and sustainability
- ➔ Advisory vote on named executive officer compensation is held annually
- ➔ Prohibitions against hedging and borrowing against Company stock
- ➔ Stock ownership guidelines for Directors and Executive Officers
- ➔ Compensation Committee oversees alignment of pay to performance
- ➔ Transparent process for shareholder communications with the Board
- ➔ Annual Board and Committee Self-Evaluations





Board of Directors Leadership Structure

The Board annually evaluates its leadership structure to ensure it remains appropriate. In order to ensure that the Independent Directors play a lead role in the governance of the company, the Board maintains a Lead Director position. It also regularly reviews our governance policies and Board composition to assure we are aligned with the interests of our shareholders. At the 2020 Annual Meeting of Shareholders we announced the appointment of Walter G. Reinhard as Lead independent Director. As of July 2021, new directors named to our Board include [Joshua Bershad, M.D.](#) and [Vaughn L. McKoy, Esq.](#)

The Board maintains standing committees to assist with the performance of its responsibilities. They include:

- ➔ Audit
- ➔ Compensation
- ➔ Corporate Governance and Nominating
- ➔ Pension
- ➔ Ad Hoc Pricing

Charters governing responsibilities of each committee can be found on our website under Governance. See primary areas of Risk Oversight at right.



Committee Primary Areas of Risk Oversight

Audit

- ➔ Risks Related to Financial Reporting and Controls
- ➔ Reviews work performed by the independent registered public accounting firm
- ➔ Supervises our independent and confidential Ethics hotline reporting system which encourages and allows employees to raise concerns
- ➔ Has a direct reporting relationship with our internal audit functions
- ➔ Reviews and approves related party transactions, if any

Compensation

- ➔ Oversees human capital risks
- ➔ Risks related to compensation and benefits program for executive management
- ➔ Risks related to organizational development including recruitment, retention and engagement

Corporate Governance and Nominating

- ➔ Risks related to overall corporate governance, including related policies and practices
- ➔ Risks related to Board composition, Board structure and Board and executive officer succession planning
- ➔ Enterprise Risk management including operational, financial and brand risk
- ➔ Risks related to information technology and data security
- ➔ Risks related to corporate social responsibility and Environmental, Social and Governance (ESG) matters including climate related risks



Governance of ESG

Our board of directors maintains overall oversight of the Company’s business strategy while our Corporate Governance and Nominating Committee is responsible for ESG oversight, sustainability and Enterprise Risk Management. ESG issues are discussed as a standing agenda item at each Corporate Governance and Nominating Committee meeting.

The executive team holds routine discussions with the Corporate Governance and Nominating Committee on all matters of risk, including ESG risks and related initiatives and progress toward sustainability goals. The senior leadership team provide input on reporting and strategy. The Vice President of Corporate Affairs heads a cross-functional working group to identify and collect available data and monitor reporting. Updates on emerging sustainability issues and identified gaps are provided to the senior management team regularly.

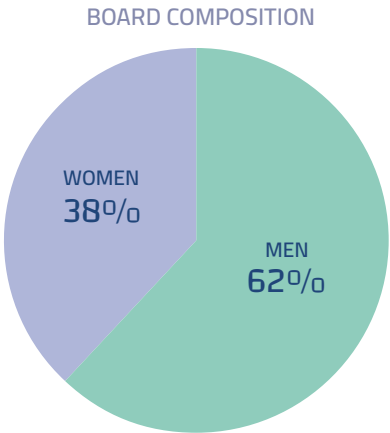
Oversight of Environmental, Social and Governance is the responsibility of the Corporate Governance and Nominating Committee of our Board of Directors.

2020 BOARD STATS

Percentage of Women on Board	Director Median Age	Independent Lead Director	Average Tenure	Tenure
38%	58.5 years	Yes	8.5 years	5-years or less 3 6-10 years 2 More than 10-years .. 3

Board Independence

The Company’s Common Stock is listed on the Nasdaq Global Select Market. Nasdaq listing rules require that a majority of the Company’s directors be “Independent Directors” as defined by Nasdaq corporate governance standards. With the exception of Mr. Doll, who is an Executive Officer of the Company, the Board has determined that each member of the Board is independent under the Nasdaq listing standards. This determination is based primarily on a review of the responses of the Directors to a comprehensive annual questionnaire regarding employment and compensation history, affiliations, family and other relationships, together with an examination of those companies with whom the Company transacts business. The Directors certify individually as to their representations.



Board Diversity

The Board represents a diverse group of accomplished directors who bring a broad range of backgrounds and skills to the company. When identifying potential board members, we seek individuals that demonstrate sound business judgment, personal and professional integrity, utility, financial and technical expertise and management experience. We also consider diversity, broadly defined as a variety of opinions, diversity of thought, personal and professional experience and backgrounds, such as gender, race, age and ethnicity differences as well as other differentiating characteristics.

Women held 3 out of 8 seats on the Middlesex Water Board in 2020. Researchers have found that companies with three or more female directors tend to outperform, on average, companies where this threshold is not achieved.



Code of Conduct

Our Code of Conduct (“Code”) is fundamental to responsible corporate governance and outlines the principles that provide guidance for everyday decisions for all associated with Middlesex Water Company. Middlesex Water Company conducts its business, operating under its Code and with the highest of ethical standards. The code aligns with the Company’s stated values to DO RIGHT (Respect, Integrity, Growth, Honesty and Teamwork) by its employees, customers and shareholders. The Code complements our Values and applies to all Directors, Officers and other Employees of Middlesex Water Company and each of its subsidiary companies. The Code supplements Company policies and practices and all employees are required to be familiar with the Code, to annually review, comply with and attest annually to the Code and be guided by the detailed standards of professional behavior described therein.

Employees are kept aware of the relevance of the Code to their everyday working lives as well as kept aware of various company policies and Ethics hotline procedures on an ongoing basis. All employees were required to review the Code and affirm, with their signature, that they read and understood the provisions of the Code. Employees are also informed that they have an ongoing obligation to consult with the General Counsel over any question or potential conflict of interest.

COMPANY WIDE EMPLOYEE ATTESTATION
TO THE CODE OF CONDUCT IN 2020



NOTE: The Code of Conduct was significantly expanded and received approval from the Board of Directors at the time this report was in production. Due to its importance in overall governance we are including reference to the amended Code in this report. The amended Code, which additionally includes guidelines of behavior for board members and suppliers, was effective August 20, 2021 and can be found on the Company website. Employee training in the new, amended Code of Conduct is expected to occur in 2021 and 2022.

The Code includes such topics as:

- Fair Dealing
- Customer Privacy
- Vendor Relationships
- Antitrust and Competition
- Anti-Corruption
- Equal Employment and Working Conditions
- Handling Sensitive Information
- Health and Safety
- Contract Review and Approvals
- Gifts and Business Courtesies
- Government Relations
- Anti-Bribery
- Anti-Discrimination
- Proper Use of Company Assets
- Insider Trading
- Maintaining Books and Records
- Conflicts of Interest

Employees with questions related to the Code of Conduct or other ethical matters are advised to raise concerns with management or speak directly with the Company’s General Counsel at their discretion. Middlesex Water also maintains a confidential Ethics Hotline, commonly known as a “Whistleblower’s Hotline,” available to all employees and external stakeholders, including suppliers and customers for reporting possible illegal, unethical or otherwise improper conduct. Employees are encouraged to access this hotline when communications to management through the Company’s organizational hierarchy by the reporting individual is believed to be infeasible, based on the individual facts and circumstances. The Ethics Hotline is only accessed by the Chair of the Audit Committee of the Board of Directors and any employee may make a report by leaving a voicemail on the following dedicated number: (732) 638-7508. The Ethics Hotline procedures may be found on the Company’s Intranet website (“the Fountain”) or at the Company’s website at [Middlesexwater.com](https://www.middlesexwater.com)

The Company conducts an annual awareness campaign reminding employees about the Code, and the Whistleblower Hotline, where to seek guidance for ethics questions and how to report violations.

ETHICS HOT LINE

CALLS RECEIVED IN 2019:



CALLS RECEIVED IN 2020:



[View our Code of Conduct »](#)



Insider Trading Policy

Middlesex Water expanded its Insider Trading policy on December 15, 2020 to further support and reinforce high standards of ethical conduct surrounding the trading of company stock, comply with insider trading laws and regulations and to prevent the appearance of insider trading. The policy applies to the Company's Directors, Officers and Employees. Some additional provisions are applicable to two categories of Middlesex Water Company personnel relative to Section 16 Individuals and Key Employees. The first category is "Section 16 Individuals" and is based on the requirements of Section 16 of the Securities and Exchange Act of 1934. Section 16 Individuals are generally the Directors and Officers of Middlesex Water Company plus family members and others in their households. The second category is "Key Employees" who are generally employees who have met the eligibility requirements to receive restricted stock awards from the Company but are not necessarily considered Section 16 Individuals.



EMPLOYEES WHO REVIEWED AND SIGNED THE FORM ACKNOWLEDGING THEIR RESPONSIBILITIES UNDER THE INSIDER TRADING POLICY IN 2020:

100%

No Section 16 Individual may trade in Company securities until:

- ➔ the individual has notified the General Counsel in writing, at least three business days prior to the proposed trade(s), of the amount and nature of the proposed trade(s), and
- ➔ the individual has certified to the General Counsel in writing, no more than three business days prior to the proposed trade(s), that he or she is not aware of material nonpublic information regarding the Company.

Employees may not trade in the securities of certain other companies when they are aware of material nonpublic information about that company. This policy against "insider trading" applies to trading in Company securities, as well as to trading in the securities of other companies, such as the Company's customers, distributors, suppliers and companies with which the Company may be negotiating a major transaction. In addition, employees may not convey material nonpublic information about the Company or another company to others, or suggest that anyone purchase or sell any company's securities while they are aware of material nonpublic information about that company.





Vendor Management

Contractor Prequalification

MWC has an established contractor prequalification process that helps to maintain safety as well as mitigate further risk to our business operations. Contractors are required to submit an application of qualifications including but not limited to their OSHA Safety Record and any citations; record of failed or incomplete projects, bonding capability, project experience, financial history, equipment used and related insurance documents. The Company also requests additional certifications including background checks, safe worksite attestation records and anti-harassment training certification.

Supplier Code of Conduct

Middlesex Water Company and its subsidiary companies are committed to an open, transparent and high integrity workplace. We are also committed to conducting business in an ethical and lawful manner. As a result, we require our business partners, suppliers, vendors, contractors, consultants, agents and other providers of goods and services who wish to conduct business with us to act responsibly and to share this commitment to ethical business practices by complying with all applicable laws and regulations and performing their work with respect, integrity and transparency. Establishing standards and working cooperatively helps to reduce supply chain risk.

To help guide our contractors, vendors and suppliers, Middlesex Water recently created a Supplier Code of Conduct, which took effect August 20, 2021, which outlines our expectations that our business partners demonstrate a commitment to ethics, care for the environment, support for human rights and for treating all workers with dignity and respect.

Among the topics covered under our Supplier Code of Conduct are:

- Fair Competition**
- Anti-Corruption**
- Safeguarding Company Data**
- Safe and Healthy Working Conditions**
- Anti-Discrimination and Anti Harassment**
- Child Labor**
- Fitness for Duty**
- Forced Labor, Slave Labor and Human Trafficking**
- Reporting Illegal Conduct**
- Human Rights and Fair Treatment**
- Compliance with Environmental Laws**
- Schedules and Compensation**
- Supplier Diversity**

Vendor Procurement Process

We require our vendors and suppliers to comply with all local, state and federal laws and regulations. We strictly prohibit child or forced labor and encourage them to align with the UN guiding principles for Business and Human Rights.

Our procurement process includes an internal ethics review, including examination of any conflicts of interest and adherence to competitive bidding practices. Vendors are additionally screened for safety and security practices along with historical adherence to environmental protection.

NUMBER OF WORK-RELATED
FATAL ACCIDENTS
AMONG CONTRACTORS WORKING
ON OUR PROJECTS IN 2020:



Contractor Evaluation and Safety

Contractors who perform construction activities for us must go through a prequalification process before they are approved to work. We screen contractors for specific criteria, including safety performance, experience qualifications, financial history and personnel/partner disclosures and review.

We require qualifying contractors to disclose the last three years company-wide OSHA 200 log “Summary of Occupational Injuries and Illnesses” and detail their safety record and program, including providing any OSHA citations, in the last five years.



Enterprise Risk Management

Our business is subject to numerous inherent risks as described in our Annual Report to Shareholders and Securities & Exchange Commission Form 10-K. These include operational, regulatory, financial, climate related, security and general risks.

We have long had a formal Enterprise Risk Management Program which builds awareness among all employees of the need to identify, report and develop strategies to mitigate, transfer or eliminate identified risks. Our teams work to identify and prioritize risks which are reviewed and evaluated by senior management and ultimately the Board. The Corporate Governance & Nominating Committee of the Board has formal responsibility for oversight of our enterprise-wide Risk Management Program. We routinely discuss risk of all kinds at those meetings, as well as our strategies for eliminating, mitigating or transferring risk.

Risk Assessment and Management

Internal Audit Risk Assessment

Middlesex Water's Internal Audit Department performs an enterprise-wide risk assessment annually which consists of a broad set of business risk assessment procedures and activities. The audit evaluates processes considered high risk as well as other areas, and provides a roadmap for opportunities for improvement.

This assessment evaluates the following business areas:

- ➔ Corporate Finance & Accounting
- ➔ Customer Service
- ➔ Information Technology
- ➔ Engineering
- ➔ Water Production and Treatment
- ➔ Distribution and Maintenance
- ➔ Human Resources
- ➔ Payroll
- ➔ Accounts Payable/Purchasing
- ➔ Risk Services
- ➔ Regulatory & Compliance

The Internal Audit risk assessment considers qualitative, quantitative, and executive management dimensions unique to the Company. Select members of the organization's core leadership team participate in the assessment, which assigns a quantitative risk rating of low, medium or high reflecting an aggregate assessment of risk relative to the area's business, financial and operating environment, information technology, governance, internal controls and compliance.

The audit assesses each of the Company's major process areas, identifies key associated risk areas and assigns a composite risk ranking associated with those areas and processes. It identifies controls in place to address risk as well as the experience/knowledge of management in the specific area and any suggested changes in systems, processes or procedures. The risk assessment serves as the foundation for continued development of Internal Audit Plans, identifies compliance and other testing and is prepared for, and discussed by, the Audit Committee of the Board of Directors.

As discussed later in this report, Middlesex also prepared a Risk and Resiliency Assessment as part of compliance with America's Water Infrastructure Act, which identified those assets most vulnerable to climate variability or malicious acts and identifies response measures and preventative actions that improve the ability to prevent, respond to and recover from natural hazards and malevolent threats.



Cybersecurity & Data Privacy

Cybersecurity

Middlesex Water Company is dedicated to the protection of company assets, customer and employee data. We have increased our focus on cybersecurity in recent years. In 2020, we employed significantly more technology towards this effort, underscoring its importance to our overall sustainability.

With 35% of the Company's workforce working remotely during the pandemic, embracing new platforms and implementing strong cybersecurity best practices became an even more critical aspect of business continuity. Restricting cyber intrusions by reducing vulnerabilities to cyberattacks has grown more critical as threats continue to evolve and gain more stealth. A continued and increased focus on cybersecurity training is helping our teams anticipate, identify and mitigate cyber risks.

Oversight

Even with a skilled and vigilant Information Technology (IT) team, strong firewalls, spyware, anti-virus protection and other protocols in place, no absolute protection exists against cyber intrusion. We believe strongly in the philosophy that vigilance over security is everyone's responsibility and that creating a culture of awareness around physical and cybersecurity risk and reporting such risks is essential in the workplace. We also work with local regulatory bodies, local authorities, the Department of Homeland Security and other organizations to implement and maintain security best practices.

We designed a governance structure that starts at the very top, with our Board members. The Corporate Governance and Nominating Committee of the Board plays a distinct role in oversight of the cyber security program. The IT Department is responsible for safeguarding the confidentiality, integrity, and reliability of all information systems and data as such that the Vice President of Information Technology discusses cyber security matters with the Board at every Board meeting.





Cyber Compliance

As a largely regulated utility company, we adhere to multiple cybersecurity regulations and data privacy laws. We adopted the United States Department of Commerce National Institute of Standards and Technology (NIST) Cybersecurity Framework. All of our cybersecurity policies, procedures, and programs are designed to align with the NIST framework. We must also comply with laws, regulations and standards set forth as follows:

The Sarbanes-Oxley Act

The Payment Card Industry Data Security Standard

American Water Infrastructure Act (AWIA)

New Jersey Board of Public Utilities

Statement on Standards for Attestations Engagements (SSAE 16)

MWC uses Supervisory Control and Data Acquisition (SCADA) for process control monitoring purposes, which is technology used for gathering and analyzing real-time data at our treatment plants. SCADA is used at MWC as a data collection tool to monitor water production, quality and distribution and display the information in a logical and organized fashion.

We secure our water treatment plant's operational SCADA network by utilizing the NIST SP800-53 key areas of control:

- ➔ Identification and Authentication
- ➔ Access Control
- ➔ Audit and Accountability
- ➔ System and Communications Protection

We work to protect critical utility infrastructure assets, as well as the technology and information assets of the Company from unauthorized access, theft and destruction. These assets include, but are not limited to, the following components: computer hardware, Central Processing Units (CPU's), disc drives, Email, web, application servers, PC systems, application software, system software, laptops, tablets, smartphones, servers, etc. application software and database programs, communications network hardware and software and other tools.

In addition to internal and external cyber risk prevention measures, the Company maintains cyber security insurance coverage as a risk mitigation approach that is structured to help the Company pay for costs associated with major cyberattacks. This coverage helps protect the Company against losses related to computer crimes such as; phishing attacks, ransomware demands, data privacy breaches and other network exposures.

Audit and Controls

To assist with validating the effectiveness of our controls we engage several different experts to conduct penetration testing of our data and SCADA networks. We regularly work with the U.S. Department of Homeland Security (DHS) and other external partners to conduct periodic social engineering and penetration testing exercises of our systems. We conduct regular phishing exercises and adjust our program to address any gaps. We collaborate with companies that follow strict adherence to Payment Card Industry data security standard and SSAE 16.

We also believe in only collecting customer information necessary to support our business processes, and no more. Our customers, employees and other stakeholders expect us to safeguard and protect their information and we are committed to that goal.

NUMBER OF COMPLAINTS OF BREACHES
OF CUSTOMERS DATA PRIVACY
IN 2020:





Cyber Related Policies

Numerous policies and procedures are in place governing cybersecurity, use of technology and data privacy. These include the following and are updated regularly and posted on the Company's intranet.

- ➔ Information Technology Cyber Security Policy
- ➔ Email and Internet Usage Policy
- ➔ Employee Confidentiality Policy
- ➔ Laptop Security Policy
- ➔ Computer Software Usage Policy
- ➔ Electronic Property Policy
- ➔ Social Media Policy
- ➔ Remote Access and Connecting to Third Party Networks Policy
- ➔ Voice and Data Communications Policy
- ➔ Privacy Policy
- ➔ Security Incident Reporting Procedure

Cybersecurity Training & Awareness

Training is paramount to any defense strategy when it comes to protecting the confidentiality and integrity of our systems and facilities. The company has taken steps to implement a comprehensive cybersecurity awareness program.

Our employees play a pivotal role in keeping our infrastructure secure. Our training program is designed to give employees the knowledge and other tools they need to fill that role. Employees and contractors receive online security awareness training designed to help them fully understand our security policies, procedures, and best practices. We administer training on a consistent basis by using the micro-learning approach of short videos. Security Tip e-newsletters containing important cybersafety and scam alert information are distributed monthly and archived on a dedicated section of our employee intranet that hosts specific cybersecurity articles and relevant news and tips. Keeping our environment safe requires a comprehensive approach that includes the right tools, processes, practices, policies and procedures and a commitment to continuous improvement.

Leveraging Technology to Reduce Travel and Collaborate

While business travel was eliminated in 2020 due to COVID-19 by employing social distancing and other safety protocols, our remote teams were able to leverage technology to ensure seamless business processes. The Company deployed platforms such as Microsoft Teams and Zoom to enable employees, regardless of location, to meet virtually and collaborate. We expect to use similar tools in the future to curtail business travel, where possible. Not only does this means of communication help to reduce stress and fatigue on persons traveling, but this approach also helps reduce our overall green house gas emissions.

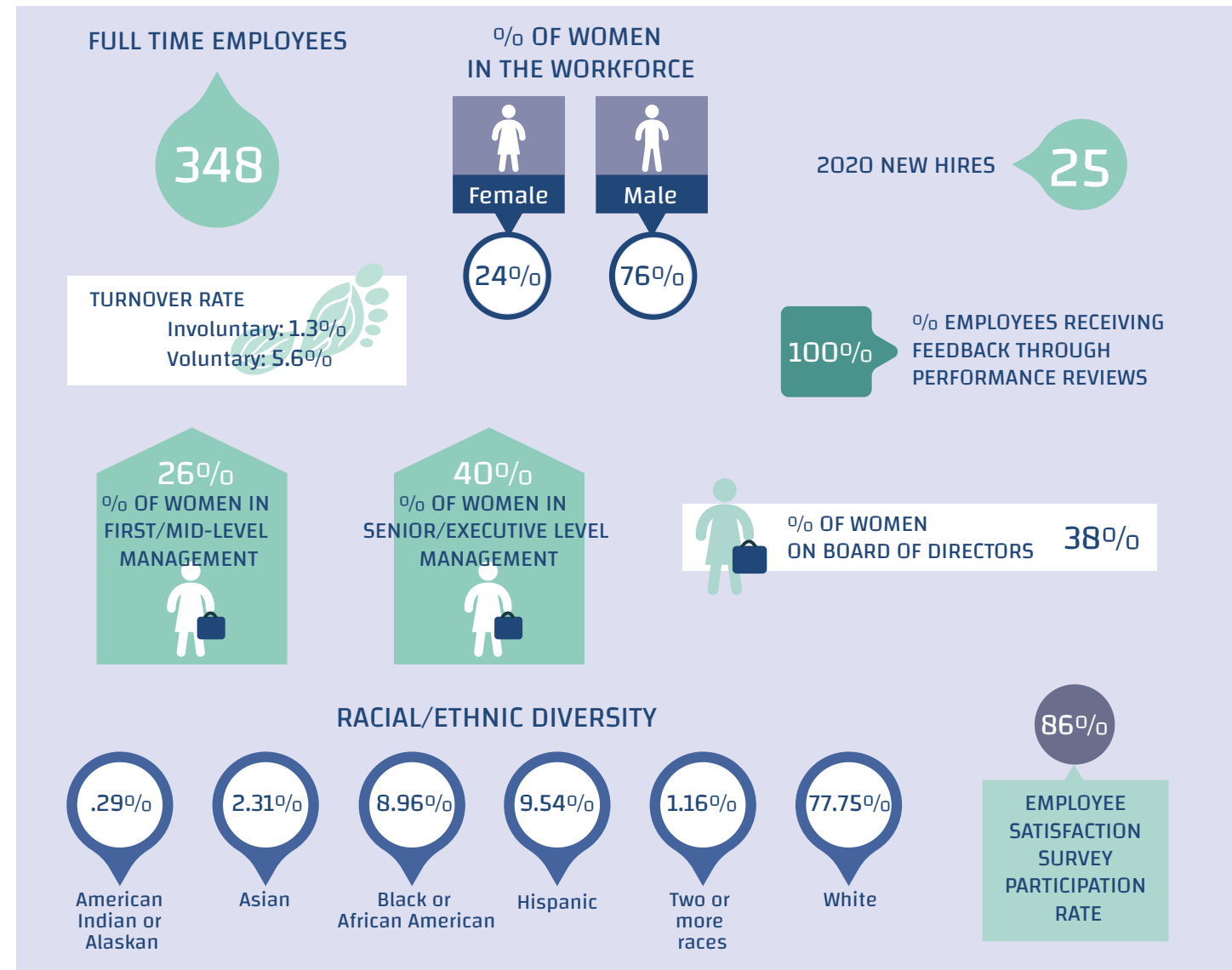




Social Impact

At a Glance 2020

These stats reflect the entire Middlesex Water family of Companies.





Workforce Prosperity



When employees perform meaningful work and feel valued and appreciated, satisfaction rises for both our employees and the stakeholders they serve. 2020 was a year of unprecedented challenge as employees adapted to new roles and rules, policies and ways of working. Our employees play an essential

role in delivering critical life sustaining utility services to communities we serve and we are committed to supporting their physical, mental and emotional wellbeing. We also have policies and procedures in place to help keep our employees and customers safe.

The Company is committed to giving employees the opportunity to succeed through health and welfare benefits. We invest in training programs and opportunities for continuing education outside of the Company. We work with rising talent to create individualized programs and plans for personal growth. We promote knowledge sharing at all levels and mentorship programs that build upon our industry leadership and service.

Promoting Work Life Balance

The remote work model is nothing new, but there is no denying that the shift brought on by the pandemic certainly accelerated this course and profoundly changed the future landscape of the “office” as we know it. A particular focus area paid special attention to this past year has been the physical and mental health of our employees. We found that the flexibility that comes from working remotely has positively affected our people’s performance, satisfaction, stress levels and overall work/life balance.



MIDDLESEX WATER COMPANY WAS NAMED A TOP NEW JERSEY WORKPLACE IN 2020

The Company conducted an employee engagement survey to identify strengths and opportunities to build an even more positive work culture. The results reflected high marks from employees. As a result, the Company was honored to be recognized as one of the Top Workplaces in New Jersey in 2020 by [NJ.com](#). The list of top New Jersey workplaces is based solely on employee feedback gathered through a third-party survey and administered by employee engagement technology partner [Energage, LLC](#). The anonymous survey uniquely measures fifteen drivers of engaged cultures, which are critical to the success of any organization—including alignment, execution and connection.

Employee 2020 Training At A Glance

Hours of Employee Training: 4,325

Average hours of training per employee: 2020 = 12.4

% of employees receiving regular performance reviews: 100%

Percentage of employees that have participated in management/leadership development programs: 20%

Positive, productive and engaged employees are better able to provide quality service to our customers and value to our shareholders and society. We offer employees a robust compensation and benefits package that includes:

Benefits

- Competitive Wages
- Medical, Dental, Vision and Prescription Coverage
- Convenient Telemedicine support
- Flexible Spending Accounts for Medical and Dependent Care
- Life and Disability Insurance
- Estate Planning
- Commuter Benefits
- Tuition Reimbursement
- 401(k) Plan with Company Match
- Employee Stock Purchase Plan (via Payroll Deduction)
- Paid Vacation and Personal Days
- Paid Holidays
- Employee Assistance Program
- Pet Insurance
- On the Job Training
- Licensing and Certification Programs & Bonuses
- Training and Development
- Employee Recognition Program



28⁰/₀

OF EMPLOYEES PARTICIPATED IN THE COMPANY'S TUITION AND LICENSE CERTIFICATION REIMBURSEMENT PLAN IN 2020.

The Tuition Assistance Program provides for company-subsidized tuition and other costs associated with degree and other programs at colleges, universities and other learning institutions.



The water industry offers numerous exciting professional career opportunities.

EAP –Employee Assistance Program

Utilization of our Employee Assistance Program increased in 2020 as workers took active steps to maintain their mental health, remain positive and sought counsel to resolve personal and work-related challenges. Over 58% of employees utilized our EAP program in 2020.

Fair and Transparent Pay Practices

The Company benchmarks its wages with other companies in our industry and the local labor market. We conduct salary surveys to ensure fair and equitable wages for work performed. Employee performance is reviewed semi-annually, annually in performance reviews. Employees are provided provided with career planning, support, and individual development plans to promote personal growth and to help ensure robust enterprise-wide succession planning. The Company aims to promote from within and works to identify in-house candidates prior to recruiting externally. Promotions and wage increases are authorized based on merit, improved skills or capabilities, advanced license achievement, and other factors. Bonuses are awarded for successful overall performance or completion of special projects. We work diligently to ensure full compliance with applicable wage, work hours, overtime and benefits laws.

A Discrimination Free Workplace

The Company prohibits harassing or discriminatory conduct in the workplace, whether based upon age, sex, race, color, ancestry, religion, creed, citizenship status, disability, national origin, marital status, military status, sexual orientation, gender identity or any other protected status or activity.

In keeping with this commitment, we provide training on harassment prevention and will not tolerate harassment of Company employees by anyone, including any supervisor, co-worker, vendor, client or customer of the Company. Harassment consists of unwelcome conduct, whether verbal, physical, or visual, that is based upon a person's protected status, such as sex, sexual orientation, color, race, ancestry, religion, national origin, age, physical handicap, medical condition, disability, marital status, veteran status, citizenship status, or other protected group status. Harassment has been shown to lead to lower productivity, higher costs from lower efficiency, increased absenteeism, damage to a company's public image, court awards and settlements and deterioration of employee morale and organizational climate.

The Company will not tolerate harassing conduct that interferes with an individual's work performance, or that contributes to an intimidating, hostile, or otherwise offensive working environment. We will thoroughly investigate any allegation of harassment, and if determined that harassment of any kind has occurred, the Company will take immediate appropriate disciplinary action, up to and including discharge.





Diversity, Equity and Inclusion

Diverse teams bring different perspectives and offer new and innovative ways of solving problems. The Company fosters diversity, equity and inclusion at all levels throughout the organization. The Company is an Equal Opportunity Employer and its workforce reflects the diversity of the communities we serve. Our workforce represents a cross-section of nationalities, gender identities, religions, age groups and sexual orientations – each contribute positively to the company’s culture and its overall success. They bring varied life experiences, backgrounds, unique perspectives and skill sets which help our company innovate and best serve our customers. We work to foster an internal culture that values diversity of talent and ideas in pursuit of our business objectives. We take numerous steps to support our diverse talent pool, celebrate differences and continually promote an inclusive environment where employees feel they belong and are accepted for who they are as individuals. This includes raising awareness on our company intranet of different cultural observances, through education and employee appreciation events.

In 2020, we launched a Diversity, Equity and Inclusion (DEI) employee survey designed to better understand diversity in our work force and any related gaps in our culture. We were pleased with the 86% employee survey participation rate and the positive feedback. The results are a helpful tool in driving our strategy to further expand and promote enterprise wide DEI efforts. Following the survey, we held ten video town hall meetings hosted by the CEO and VP of Human Resources to foster open dialogue to share life experiences and promote the importance of diversity, equity and inclusion within our company and our industry. One of the discussions included the need to attract more diverse candidates to the water industry. We are pleased that our internship program and the apprenticeship

opportunities we support are opening doors to a whole new diverse pipeline of talented water professionals. We continue to focus on building greater inclusivity by holding focus group discussions with the core leadership team to discuss survey results. We plan to create and adopt a new formal company wide policy related to Diversity, Equity and Inclusion in the near future.

Diversity Training with a specific focus on the concepts of Equity and Inclusion was delivered to all employees in 2020.

The Company has numerous formal policies and related training in place to help ensure a work environment free from all forms of harassment and discrimination.

Treating all stakeholders with dignity and respect is fundamental to the long term success of our business.

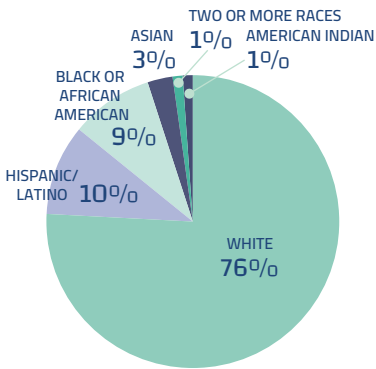
[View our Statement on Human Rights »](#)

Related Policies*

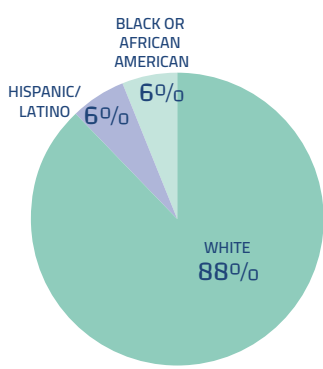
- Performance Appraisal Policy
- Equal Employment Opportunities
- Harassment Prevention
- Workplace Violence
- Whistleblower Hotline Procedures
- Americans with Disabilities Act

*These policies, among others are available to employees on our Company Intranet.

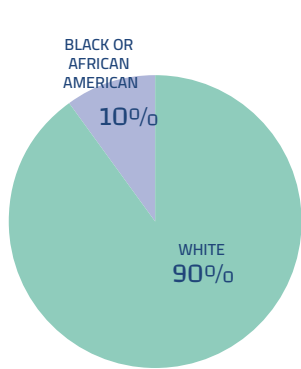
FIELD & OFFICE PERSONNEL



FIRST/MID-LEVEL MANAGEMENT



EXECUTIVE/SENIOR LEVEL MANAGEMENT





Equal Employment and Working Conditions

The Company is committed to providing equal opportunity in all aspects of employment and does not tolerate any illegal discrimination, harassment or retaliation of any kind. All employment practices and decisions, including those involving recruiting, hiring, transfers, promotions, training, compensation, benefits, discipline and termination, must be conducted without regard to age, sex, race, color, ancestry, religion, creed, citizenship status, disability, national origin, marital status, military status, sexual orientation, gender identity or any other protected status or activity, and must comply with all applicable laws. In addition, the Company will provide reasonable accommodation for disability and religion as required by law. We consider employees from all backgrounds. As part of our commitment to full and equal employment, we continue to focus on building female and minority representation that reflects the areas in which we do business. Our approach is through thoughtful and intentional diversity recruitment. By prioritizing cultural inclusivity, prospective employees will recognize our organization as a welcoming workplace where they can learn, grow and have a rewarding career.

Apprenticeships/Partnerships

As the water industry is evolving more rapidly than ever in terms of increasing regulation, an aging workforce and increasing customer expectations, attracting talent, building critical skills and capturing institutional knowledge is more important than ever. In addition to internal mentoring programs, the Company is a Participating Employer in the Apprenticeship USA Program and the National Rural Water Association in both New Jersey and Delaware to train and license water and wastewater operators. It also promotes opportunities through local college and military job boards.

Management Development Training

Ongoing leadership training was delivered to all supervisory levels in 2020. This training included Effective Decision Making, Managing Change and Communications, among other topics.

A Health and Safety Culture

At Middlesex Water Company, keeping our employees and our customers safe while delivering high quality water service is a core priority that every employee learns from day one. Our business has inherent dangers as our crews often work with heavy equipment, near ongoing traffic, in trenches and confined spaces and potentially high water pressure environments. We work to ensure a safe and healthy workplace and comply with applicable safety and health laws and regulations, as well as internal requirements. We work to provide and maintain a safe and productive workplace by addressing and remediating identified risks of accidents, injury and other health impacts. Employees receive safety training which is applicable to their role and responsibilities. This typically includes formal classroom training, virtual training, safety meetings or on-the-job training. Safety training records are maintained by the Human Resources Department. In addition, the Company conducts medically supervised pre-employment drug testing and Under Federal Motor Carrier Safety Regulation 49CFR, Parts 382, periodically tests all employees required to maintain a Commercial Driver License.



Monthly wellness reminders are sent to all employees with tips to support their physical and mental wellbeing.



NUMBER OF WORK-RELATED FATAL ACCIDENTS AMONG EMPLOYEES IN 2019 AND 2020:

0

% OF EMPLOYEES RECEIVING SAFETY TRAINING:

100%

The Company's Safety committee oversees and monitors existing compliance strategies, develops compliance strategies associated with applicable OSHA sub part standards and drives messaging that the safety of our employees and customers is a top priority. The Committee performs a monthly assessment of subpart compliance for each operating unite. It also examines root cause analyses and designs corrective actions. The Company meets annually with its external insurance providers to review safety matters and discuss continuing safety education and training.



Our Safety Philosophy

Safety is a critical component of everything we do. The wellbeing of our employees, our customers and the public at large is essential to successful business operations. Our Safety Policy is available to employees on our company Intranet.

We strive to maintain a safety culture where:

- ➔ Working safely and reporting unsafe conditions is every employee's responsibility.
- ➔ Employees come to work and return home safely every day with no employee ever required to work in unhealthy or otherwise unsafe conditions.
- ➔ Customers know their water is safe to drink and meets or is better than state and federal drinking water standards.
- ➔ The ultimate goal is always zero accidents and zero injuries.
- ➔ Compliance with company safety zero is considered a condition of continued employment.
- ➔ In the rare event where an employee sustains an injury, upon returning to work they participate in a Return to Work program to assimilate back into their roles.

Employees returning after injuries participate in a Return to Work program to support their assimilation to their roles in the workplace.

Safety Training

The Company is invested in a rigorous industry established and government sanctioned safety program that includes Occupational Health & Safety Administration's (OSHA) Safety Training, First Aid and CPR, Defensive Driving and Cyber Security.

An employee's role determines their required level and scope of training. A new employee's onboarding process includes instructor-led safety training in appropriate OSHA subparts before they actively engage in physical work. All aspects of safety are monitored and tracked through continual, on-site audits. Our crews working in the field, and supervisors at job sites must visually observe all worksites and operations, checking for worker safety and ensuring personal protective equipment is being used as prescribed. Workplace injuries, damage to equipment or property, or other job hazards encountered must be reported immediately to senior levels of management.

To support continued compliance with the OSHA standards, the Company employs a subpart-based training approach which is implemented by designated On-Site Program Administrators (OSPA's), who are in-house enterprise resources.





The following safety training was delivered virtually through J.J. Keller and in person by our internal safety team in 2020:

- Hearing Protection PPE Employee Essentials
- Hand & Power Tools for Construction
- Bloodborne Pathogens: Safety in the Workplace
- Hazwoper 40 Hour
- Hazwoper 8 hour Refresher
- Egress and Emergency Action
- First Aid – Medical Emergencies
- Permit Required & Non-Permit
- Logging and Chainsaw Safety
- Personal Protective Equipment
- Intro to Safe Material Storage
- Flammable and Combustible Liquids
- Excavation, Trenching and Shoring
- Work Zone Safety
- Walking/Working Surfaces
- Aerial and Scissor Lifts
- Respirator Clearance
- First Aid CPR
- Defensive Driving

Safety Mentoring

As our workforce demographics change, seasoned utility professionals retire and new, younger employees join our ranks. This transition can lead to potential safety gaps. To proactively address the risks associated with this reality, and further expand on a supportive and encouraging culture, we focus on a “hands on” training approach that includes additional full days of on-site training several times a year. We place our most senior field workers with our junior Utility Service Representatives (USR’s) to leverage their deep knowledge of our safety practices and reinforce institutional knowledge sharing.

Ensuring and Measuring Health and Safety Effectiveness

The Company works closely with our risk teams and insurance providers to better track, understand and prevent injuries on the job. We work to preclude incidences of injury through various training methods. For example, repetitive work may contribute to back strain injuries so the Company creates training opportunities to create awareness of exercises and techniques to avoid such conditions.

The Company hired a Safety Coordinator in 2019 to formalize a consistent approach to safety across the enterprise. In 2021, a Safety Manager is being hired to better identify trends, formalize safety targets and drive results.

In 2020, the total number of hours worked decreased when compared to 2019, largely due to less overtime and employee leave related to the COVID-19 pandemic. **Overall in 2020 we saw a decrease in total number of recordable injuries, total number of lost time injuries and number of days away from work. In addition, the number of vehicular accidents (38) represents a 60% reduction from 2019 (63).** We attribute these improvements to an increased focus on safety training and consistent approach provided by our commitment and communication regarding safety.

MWC’s Days Away Restrictions and Transfers (DART) Rate:

2019 = 1.49
2020 = 3.29

Lost Work Day Incidence Rate: 1.19

Number of OSHA Work-related Recordable Injuries:

2020 = 2.68

Number of Productive Hours Worked: 2020 = 669,580

Number of Vehicle Incidents Enterprise-Wide:

2020 = 38



Stop Work Authority Card

Our operations personnel working in the field are empowered to stop work at a job site if they believe their own safety or that of a co-worker is in danger. Employees understand safety is paramount in the

workplace and are empowered with the authority to stop a

job in circumstances where work conditions are unsafe; a tool is defective, any worker lacks required safety equipment or the knowledge to perform the job in question or if any worker is experiencing a physical or emotional event that prevents them from doing the job safely. The card gives an employee the authority to immediately stop any work they feel is unsafe.



WE SUPPORT CHARITIES THAT SUPPORT THE ENVIRONMENT, HEALTH, WELLNESS, EDUCATION AND HELP BUILD STRONGER COMMUNITIES.

Total amount donated to local non-profits, Community, philanthropic organizations (across subsidiaries):



\$170,000

Community Engagement

Helping Communities in Need

We continually seek ways to create value and further enhance the quality of life in the communities where we work and serve. We support and invest in our local communities through in-kind donations, financial contributions, engaging in and encouraging employee volunteerism and philanthropically supporting an array of programs that help strengthen our community connection. Many of our employees serve in leadership roles on community organizations such as Chamber of Commerce, Workforce Development boards, local service organizations and industry working groups. For example, Middlesex Water Company supports the Women's Leadership Connection, an initiative of the Woodbridge Township, NJ Chamber of Commerce, which seeks to enhance the personal and professional development of women through education, mentoring, recognition, networking and social opportunities.

As protectors of public health, safety and economic stability, we are committed to supporting the health and well-being of our communities. To help our communities cope amid the COVID-19 crisis, the Company and its employees' fundraising efforts contributed over \$100,000 in total to 20 local organizations, which included providing personal protective equipment for first responders and assisting local food banks in replenishing supplies during a time where lockdowns caused unprecedented challenges and food insecurity for so many. We worked closely with local officials in our residential service areas to identify these urgent local community needs and our employees were generous and quick to respond.

The Middlesex Enterprise supported these organizations among others in 2020:

-  **Feeding Middlesex County**
-  **JFK Foundation**
-  **Perth Amboy COVID-19 Help**
-  **Court Appointed Special Advocates (CASA) of Middlesex County**
-  **Carteret Business Partnership**
-  **Metuchen Downtown Alliance**
-  **Vincentown United Methodist Church Food Pantry**
-  **We Feed Woodbridge**
-  **St. Mary's Food Pantry and First Presbyterian Church**
-  **Kent Ecumenical Food and Crisis Fund**
-  **Sussex County Police Chiefs Association**
-  **Nanticoke Senior Center - Food Fund**
-  **Seaford Community Food Closet**





Recognizing Our Community Support

Middlesex Water Company employees were recognized and received the “Mayor’s Award for Meritorious Community Service 2020 COVID-19 Pandemic” from Woodbridge Township, NJ during the Township’s COVID-19 Heroes Ceremony for providing essential service and for their generosity in supporting local foodbanks.



Middlesex continued critical construction projects which kept people working to support our local community.

Employee Volunteerism

Mobilizing volunteer efforts was a bit more challenging in 2020 with many employees working remotely. Nonetheless, our employees participated in outdoor and on-line volunteer opportunities in our communities, which included Adopt-A-Highway roadside clean-ups at our Delaware subsidiary as well as National Public Lands Clean-up Day at the Sewaren Waterfront Park in Sewaren, New Jersey, among other events.

Awards and Recognition

Middlesex was awarded numerous honors in 2020. The Company is active in several industry and trade associations and our professionals can often be found presenting sessions, facilitating a group discussion or chairing/serving on industry committees. Our VP of Operations was among several water industry professionals whose efforts to share and identify best practices in operational resiliency, in response to the COVID-19 pandemic, were honored by the New Jersey Water Association.



ISS PRIME DESIGNATION

Awarded By: ISS ESG

2020 TOP NJ WORKPLACE

Awarded By: NJ.Com

2020 SUPERSTARS IN BUSINESS

Awarded by: Delaware State Chamber of Commerce

2020 PROFESSIONAL EXCELLENCE AWARD

Awarded By: New Jersey Law Journal

TOP 10 INFLUENTIAL WOMEN OF WATER AWARD

Awarded By: Mazars Women in Water Summit

WATER SECTOR RESPONSE TO COVID-19 AWARD

Awarded By: New Jersey Water Association

LIVING WATER AWARD FINALIST

Awarded By: National Association of Water Companies





Public Policy

MWC works to keep legislators and policy makers informed about current and future water infrastructure challenges, needs and opportunities and their impact on the company, its customers and the community. We view this communication and collaboration as essential to delivering sustainable outcomes. We monitor changes in the regulatory and legislative landscape to assess their impacts on our business and our operations. We work through our industry affiliations to improve potential legislation and drive policy development.

In its daily operations, the Company works to maintain ongoing cooperative, respectful and transparent interactions with officials within our service territories. We also work to provide responses in a timely manner. The Company provides its municipal partners with updates related to new projects, regulations which may impact residents, and our role in providing meaningful employment in the region and supporting economic development.

The Company actively works with numerous associations including the National Association of Water Companies, the National Association of Regulatory Utility Commissioners, the American Water Works Association and the New Jersey Utilities Association to influence and drive policy. In 2020, MWC advocated for numerous public policy initiatives including water equity (ensuring policies that further the provision of safe, adequate and proper water service while balancing affordability) and for more thorough examination of the concept of Fair Market Value in utility valuations. The Company also worked to ensure regulatory enforcement of New Jersey’s Water Quality Accountability Act (WQAA) across all public community water systems including municipal and county operated water systems. In addition, the Company worked to hold alleged PFAS polluters accountable for costs associated with rehabilitation of one of our treatment facilities. Through dialogue and careful review and feedback on impacts of proposed laws, we help play a critical role in developing responsible water policies.

Regulatory Framework

Middlesex Water Company maintains best-in-class regulatory relations with the key New Jersey and Delaware regulatory bodies through steady execution of its core business model which includes executing prudent capital and operational system improvements and our willingness to take independent, principled and at times contrarian stands from its peer groups on certain policy issues. The Company’s commitment to being principled stands on effective execution and its independent thinking within the regulated investor-owned water utility industry boosts credibility with both New Jersey and Delaware regulators and ratepayer advocates.

Total expenditures
for lobbying purposes
which includes
contributions to
relevant industry associations:



\$20,000





Customer Service



Maintaining positive relationships with customers is the core of our business and their satisfaction is key to our success. Our Customer Service Representatives (CSR's) receive ongoing training, they take time to listen and address customer concerns to better shape the overall customer experience. Our CSR's provide timely, attentive, caring service to our customers and are committed to resolving all inquiries with courtesy and respect. We are available 24/7 to address emergencies.

OUR CSR'S DEPLOY
OUR CREWS WHO
RESPOND TO
EMERGENCIES
WITHIN 60-MINUTES
95% OF THE TIME.

Our CSR's are eager to help customers better manage their utility service by identifying usage patterns, suggesting water efficient fixtures or answering questions about water quality and/or their bills. We offer a secure online account portal, which provides easy access to their account and provides varied payment options.

Please refer to our 2020 COVID-19 section to learn more about how we supported our customers' needs during the pandemic.

Our CSR's handle, on average, over **8,563** calls monthly.

Our average speed of answer is **20 seconds**.

Abandoned Calls Rate: **1.9%**

We strive to answer calls into our call center promptly. Our service goal is to resolve any questions without transfer and to answer 80% of all the calls within 30 seconds.

Customers Served (Middlesex System) IF-WU-000.A

	2020	2019
Residential	56,285	56,355
Commercial	2,281	2,293
Total	58,566	58,648

Total Water Delivered from the Middlesex System IF-WU-000.C

	2020	2019
Residential	3.9 Billion gallons (515,356,700 CF)	3.6 Billion gallons (480,601,890 CF)
Commercial	1.7 Billion gallons (226,940,080 CF)	1.7 Billion gallons (220,858,840 CF)
Industrial	1.2 Billion gallons (154,029,030 CF)	1.2 Billion gallons (162,075,030 CF)



Safeguarding Our Customers' Information

Middlesex Water Company understands that personal information is important and private and we are committed to making every reasonable effort to protect the security of information provided to us by our customers. Employees who are involved in the collection, processing or maintenance of personal information receive training on why this information should be properly safeguarded. Customer Service staff are required to validate relevant information from our customers discussing their account. If the caller cannot answer the correct qualifying basics, such as account name, phone number, mailing address, our representatives cannot continue speaking with the customer. In further specific areas when a customer allows a relative to speak to us on their behalf, they primary account holder must validate their information and then verbally allow us to proceed. We do not share information. In addition to training in handling customer information, our Customer Service Staff are also required to take and successfully pass quarterly Cyber Security classes and daily phishing exercises administered by our Information Technology Department.

The Company does not capture any customer financial information (bank account number, credit card information, etc.) or store any such information in our Customer Care and Billing system. Customer information may be accessed, shared, discussed or otherwise used internally for legitimate business needs only. Any employee who accesses or uses such information for any purpose, other than a legitimate business need, is subject to disciplinary action, up to and including termination.



Privacy Policy

While we understand our responsibility for safeguarding customer and employee personal data, we also expect the same protection of customer privacy from our service providers. Service providers are expected to have appropriate safeguards in place to protect the security and confidentiality of information you provide to them. Our Privacy Policy, which addresses the information Middlesex Water gathers from its customers and visitors to [MiddlesexWater.com](https://www.middlesexwater.com) and [WaterforTomorrow.com](https://www.waterfortomorrow.com), and the privacy policies of our third party partners can be found on our website. We encourage our customers and visitors to our sites to read these Privacy Policies carefully.



Middlesex Water Met All Primary Drinking Water Standards in 2020.

Number of acute
health-based drinking
water violations: 0

Number of non-acute
health-based drinking
water violations: 1

Number of non-health-
based drinking water
violations: 1

Number of incidents of
non-compliance concerning
the health and safety
impacts of products
and service: 0

IF-WU-250a.1

Drinking Water Quality

The Company conducts thousands of water quality tests each year using advanced equipment that can detect contaminants down to the part per trillion level. We report on the quality of our drinking water supplies through an Annual Water Quality Report, also known as a Consumer Confidence Report or CCR. In 2020, the Company delivered water that met or was better than federal and state primary drinking water standards set by the United States Environmental Protection Agency, the New Jersey Department of Environmental Protection and the Delaware Department of Natural Resources and Environmental Control. We make regular improvements in our utility infrastructure and other assets to maintain consistent and reliable service and quality water.

Partnership for Safe Water

The Company is a long-term member of the Partnership for Safe Water since 1996. The Partnership is a program developed by the U.S. Environmental Protection Agency, the American Water Works Association and associated partner organizations, to improve the quality of water delivered by optimizing water system operations. In 2001, Middlesex Water received the Directors Award and has been in good standing since then, receiving the 15-year Director's Award in 2016.

The Partnership for Safe Water is a voluntary self-assessment and optimization program for water treatment plant and distribution system operation. More than 250 utility subscribers, collectively serving more than 100 million people, are committed to the Partnership's goals of providing safe, high quality drinking water through achieving operational excellence in water treatment.

IN 2020, THE MIDDLESEX SYSTEM HAD 0 VIOLATIONS OF
ENVIRONMENTAL LAWS AND REGULATIONS IF-WU-140B.1

Environmental Compliance

In addition to delivering water that meets state and federal drinking water standards, our systems comply with federal and state regulations as established under the Safe Drinking Water Act, the Clean Water Act, America's Water Infrastructure Act and the Water Quality Accountability Act, among other statutes. We work to minimize any adverse effects of our operations on the environment. We review our environmental policies and procedures regularly to seek ways to further enhance our compliance.

[See our Environmental Policy »](#)

Customer Safety

In 2020, to further ensure employee safety and protect our customers, all in home service visits were temporarily suspended to limit risks to employees and customers. We also started accepting all service applications on line.

COVID-19 Vacancies Internal Plumbing Reminders

The Company issued reminders for Building Owners and Managers on how to prepare their building for eventual reoccupation after COVID. Water that has been sitting idle within plumbing systems of unoccupied or partially occupied buildings and facilities could harbor microbial and other inorganic matter which, over time, can become a health issue. Middlesex worked to promote awareness that building managers conduct a review of their internal building plumbing prior to implementing their re-opening and return to office plans.



Abundance of Caution Boil Water Recommendations

During routine repair work, we may issue a boil water recommendation by placing door hangers on residences potentially affected. This is different from an “advisory” because this type of notification is not required by our environmental regulators and typically affects only a small number of homes or streets as repair work on the water mains may be occurring in these areas. The Company employs this “abundance of caution” approach as a protective measure for its customers because we feel that our customers should know that there is the potential, no matter how small, that during repairs, the water may not be up to normal standards where there is a small risk that contamination may occur, largely due to external environmental conditions. While these boil water recommendations may be an inconvenience to customers, they really are a true example of how Middlesex Water Company goes above and beyond any regulatory requirements to ensure the public health protection of the communities we serve. The Company feels that all customers, from new parents caring for young infants to the immuno-compromised, to pet owners, all have a right to know, even when it is not required by Federal or State regulation, of the potential that water quality may be compromised by repair work in their area.

End Use Efficiency

According to a United States Geological Survey (U.S.G.S) report, it’s estimated that each American uses an average of 82 gallons of water a day at home (USGS, Estimated Use of Water in the United States in 2015). By installing water-efficient fixtures and appliances, domestic water usage can be reduced by 20%.

Middlesex issues regular conservation messaging in its publications and on social media to help its customers grow more aware of water saving opportunities and to practice better wise water use.

We are a U.S. Environmental Protection Agency (EPA) WaterSense partner. WaterSense is a voluntary partnership program by the EPA that offers a simple way to make product choices that use less water through water efficient practices, products and services. We work to educate customers about WaterSense labeled appliances such as showerheads, toilets, faucet aerators and irrigation controllers that save customers money while protecting the environment.

We also educate our customers on ways to protect pipes from breaking, how to check for leaks and offer conservation tips related to both indoor and outdoor use. Our Company participates yearly in Fix a Leak Week to promote awareness of water loss through leaking faucets and toilets.

Middlesex Water promotes ongoing customer education through its newsletters, blogs, mailings, website and social media postings to encourage wise water use and other sustainable practices.

IF-WU-420a.2





Business Continuity Planning and Emergency Response

To ensure uninterrupted water and wastewater service and maintain the continued trust and confidence of our customers in any emergency, the Company has a detailed Emergency Response and Business Continuity plan. The Plan outlines actions our Company's various operating units take to prepare for, mitigate, respond to and recover from an emergency that might impede our ability to provide utility services. The plan, which includes multiple annexes, is viewed and updated annually, outlines guidelines and procedures including organizational and communication protocols. This plan includes response measures to numerous events including:

- ➔ Loss of Source (Material, structural, mechanical, accidental, intentional)
- ➔ Liquid and Gaseous Chemical Releases
- ➔ System Contamination
- ➔ Cyber Attack
- ➔ Transmission Main Failure
- ➔ Production System Failure
- ➔ Contamination or Source or Finished Water
- ➔ System Depressurization

Planning for such emergencies includes internal training, resource preparation, external coordination with local police, fire, health and emergency management and partnerships with other utilities, vendors and service providers and simulated training and response exercises.



Backup generation helps support plant operations in the event of power failure.

The Company uses the National Incident Management System, which helps us to more efficiently work within a chain of command framework, coordinate with local and interagency officials and neighboring utilities and thoughtfully react and respond to emergencies. While our enterprise Risk Management Plan helps to identify operational vulnerabilities and prevent emergencies, these plans include more comprehensive detail on mitigation, operational resiliency and recovery. The Business Continuity and Emergency Response Plan anticipates various climate scenarios, and includes physical and security threats to our water sources, threats to our facilities, our assets, our employees and our customers. We provide ongoing training and communications to our employees to raise awareness and employ procedures to review and modify physical and security measures. We also hold emergency preparedness drills involving key employees and back-up personnel to enhance our teams' operational readiness.





Water Affordability/Access

Numerous factors can influence the cost of tap water. These include:

- ➔ **Aging water infrastructure** – To ensure reliable service, we need to prudently invest in upgrading aging water mains, facilities, wellfields, storage, etc.
- ➔ **Rising treatment costs** – New drinking water regulations are driving investment in new treatment technologies. As detection methods grow more granular and sophisticated, tighter and more stringent water quality regulations may often result in increased testing, treatment costs and required infrastructure upgrades.
- ➔ **Increasing costs of power** – Pumping, treating and delivering water (at 8.34 lbs. per gallon) over long distances to thousands of customers requires a significant amount of energy.
- ➔ **Legislation/Regulation**

Regulatory oversight of our rates charged to customers for service ensures fair pricing and overall affordability of water rates. The Middlesex System is under the jurisdiction of the New Jersey Board of Public Utilities, Division of Water, an independent state agency. For our Delaware companies, customers' rates are regulated by the Delaware Public Service Commission.

These agencies assess water and wastewater infrastructure needs including long-term construction plans for capital expenditures; analyze growth impacts on water and wastewater costs and availability; review sustainability of future growth; unaccounted-for water (non-revenue water); water reuse; depletion of aquifers; service interruptions; terms and conditions of water and wastewater service and management contracts, conservation initiatives and financing.

Middlesex System IF-WU-240a.2

- ➔ The annual residential cost of drinking water at 45,000 gallons of water: **\$465.28**.
- ➔ The typical monthly residential water bill for residential customers is **\$38.77**.
- ➔ Commercial & Industrial customers are billed using the same General Metered Rate schedule as Residential Customers.
- ➔ General Water Service Consumption Charges: Rate per Thousand Cubic Feet: **\$45.9275**



Operating efficiently and making improvements to our drinking water infrastructure helps us maintain operating costs.

The Company posts its utility rates online on its website under **Rate Information »**

IF-WU-240a.2



On March 18, 2020, to lessen the financial impact on our customers in New Jersey and Delaware struggling with economic uncertainties posed by COVID-19, the Company voluntarily suspended shutoffs of water service for non-payment and restored service to those who had been previously shut off for non-payment. That policy continued throughout 2020. Customers financially impacted by COVID-19 were regularly encouraged to speak with a Customer Service Representative to manage their financial obligation through flexible payment arrangements. To be fair to all customers, we remain committed to working with those facing economic hardship for whatever the reason, by developing payment plans that fulfill their responsibilities for service against their needs and abilities. IF-WU-240a.4



Water Access

Human Right To Water

Middlesex Water Company believes that all people should have access to safe, clean and affordable water when they need it for human consumption, cooking and sanitary purposes in accordance with State and Federal statutes, laws and regulations.

Everyone has the right to clean safe drinking water. We make infrastructure improvements throughout our systems to help ensure that. Improvements are prioritized based on hydraulic demands and other operational drivers, which supports water equity in the communities we serve.

We believe that everyone has a right to water that is safe to drink and complies with standards of the Safe Drinking Water Act and U.S. Environmental Protection Agency regulations.

We believe water should be priced equitably to accurately reflect the cost of treating and delivering the water and we work with our regulators to provide the detailed background that informs their determination in the rate setting process.





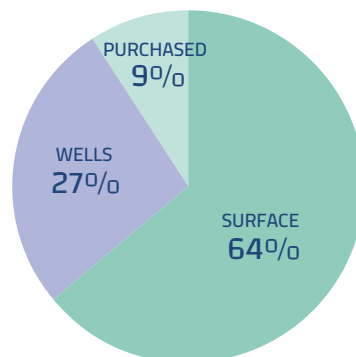
Environmental Stewardship

Maintaining the quality of our drinking water, investing in water and wastewater infrastructure improvements and reducing our environmental footprint are all ways we seek to drive customer satisfaction, operational excellence and promote environmental stewardship. As we move further along our ESG journey, we are committed to increased transparency on our environmental impacts. Information presented in this section relates to the Middlesex system in New Jersey only, unless otherwise noted.

Water Source and Availability

The Middlesex system's water supply includes 64% surface water, 27% ground water and a small amount of purchased water (9%) sourced from a third party. We are under contract, through November 2023, with the New Jersey Water Supply Authority (NJWSA), for average purchases of 27.0 million gallons per day from the Delaware & Raritan Canal, part of the Raritan Basin Water Supply System whose source is the Delaware River. This water supply networks is operated and maintained by the NJWSA.

TOTAL WATER SOURCED
MIDDLESEX SYSTEM
IF-WU-000.B



A Reliable and Dependable Source of Supply

The NJWSA works to maintain a dependable supply of water to central New Jersey residents, and preserve and enhance source water quality and quantity through planning, preservation, and assessment and rehabilitation of critical watershed parcels. Through its reservoir system, specifically the Raritan Basin system, which consists of the Round Valley and Spruce Run Reservoirs, the NJWSA provides a water supply for over a million and a half people in central New Jersey, including customers of Middlesex Water Company. Both reservoirs were constructed by the State of New Jersey in the 1960s following a historic drought and serve as supplemental sources of raw drinking water for our Company and other water purveyors.

The Spruce Run Reservoir, an 11 billion gallon on-stream water storage reservoir, is an integral part of a water supply system that also consists of the Round Valley Reservoir and the Delaware & Raritan Canal Transmission Complex. Together, they have the capability of delivering 241 million gallons of raw water per day. The Round Valley Reservoir, the largest reservoir in New Jersey is a 55-billion gallon water storage reservoir. These reservoirs combined can provide approx. 180 million gallons a day of safe yield in the event of drought. The yield of the aforementioned on-stream reservoirs can be increased by pumping from another water source. The NJWSA reviews population estimates out to 2040 to determine residential supply demand to support the long-term population growth projected for our service area. New Jersey typically enjoys ample precipitation, on average. This, along with large quantities of groundwater and the large surface reservoir systems from which we draw, position us with the ability to keep pace with demand. More information about availability can be found in the [New Jersey Water Supply Plan 2017-2022](#).



The Company’s Middlesex system ground water supplies are comprised of 27 wells in our company-owned Park Avenue wellfield in South Plainfield, and another wellfield in North Edison. A small amount of additional supply of treated water is purchased from a third party supplier.

Tidewater Utilities, our largest Delaware water utility, delivered 2.5 billion gallons of water through its 87 production plants with 176 wells that vary in pumping capacity from 46,000 gallons per day (gpd) to 4.4 million gpd. Water is transported to customers through 836 miles of transmission and distribution mains. Tidewater maintains 47 water storage tanks, with an aggregate capacity of 8.0 million gallons in 55 active water district.



Water Supply Management

The Middlesex system in New Jersey supplies water through two water treatment plants, the Carl J. Olsen (CJO) Water Treatment Plant with a production capacity of 60 million gallons a day (mgd) and the Park Avenue wellfield, which produces 12 mgd, on average. Water supply is managed through contracts and diversion permits through state agencies.

In addition to the water treatment facilities, the Middlesex system in New Jersey has numerous active and emergency interconnections throughout the Company distribution system used to provide water supply with adjacent water systems should they experience a system wide outage or other emergency in their distribution system and need our supply to meet their own customer demands. Interconnections with a neighboring investor-owned water system is available to us on a contract basis and provides a small base-loaded supply as well as a backup water supply source during peak usage periods and emergency situations. In these scenarios, we activate emergency interconnections, execute appropriate valve operations and coordinate closely with these systems to increase and reduce flows as needed to maintain service and pressures. We can at times, draw more or less from these water sources depending upon specific area needs and circumstances. We maintain ongoing contact with our source water providers in line with our commitment to being a responsible water purveyor and partner.

To maintain a sufficient water supply for fire flow purposes, emergency conditions and times of peak water usage, Middlesex Water Company owns and operates several storage facilities in the form of elevated water tanks with a combined capacity of 19 million gallons. We are currently in the planning stage to site additional storage facilities within our distribution system. Elevated water storage tanks are used to store water for fire protection and for potable drinking water purposes. They allow the natural force of gravity to produce consistent water pressure throughout the system on and ongoing basis.

Water Supply Resilience

Total Water Delivered	
2019	2020
13.5 Billion Gallons	13.7 Billion Gallons

The Middlesex System provides water service to approximately 61,000 retail customers, primarily in central New Jersey. We also provide water service under contract to government-owned municipal systems in central New Jersey with a total population of approximately 300,000.

The primary water sources in the Middlesex System include local surface water, groundwater and purchased treated water.

As a water utility responsible for delivering a supply of clean, safe water to a large population, public health and safety is our highest priority. Coupled with that is our ongoing need to anticipate and manage risks not only to our operations but to our water sources.

The NJWSA maintains the 60-mile long Delaware & Raritan Canal and monitors it 365 days year. Routine maintenance of the canal includes tree management, periodic dredging to maintain flow, leaf removal, repair of leaks in embankments caused by tree root systems and maintenance of retaining walls, spillways, waste gates, culverts, aqueducts and other flow control facilities.



The 1981 New Jersey Water Supply Management Act directs the Department of Environmental Protection (NJDEP) to develop and periodically revise the New Jersey Statewide Water Supply Plan in order to improve the management and protection of the State's water supplies.



Source Water Assessment IF-WU-140b.2

Discharges of pollution into waterways, including groundwater, pose public health risks to drinking water supplies. For that reason, NJDEP is work to enhance the protection of our sources of supply through its Source Water Assessment Program (SWAP.) SWAP was developed to study existing and potential threats to the quality of public drinking water sources throughout the state. Our Company includes this information, which describes susceptibility ratings for various contaminants for each source in its distribution system, in the Company's annual water quality report.

A public water system's susceptibility rating (Low, Medium or High) is a combination of two factors:

1. How sensitive the water supply is to potential contamination
2. How often a contaminant is used or exists near the source water. The ratings are based on the potential for a contaminant to be at or above 50% of the MCL (High), between 10% and 50% of the MCL (Medium) and less than 10% of the MCL (Low).

Managing Potential Impacts to our Water Supply IF-WU-440a.3

Our Company employs several strategies to plan for potential impacts to critical water supply sources or accidental loss of source water supplies. These include:

- ➔ An ongoing inspection, assessment and monitoring program;
- ➔ Daily inspections at all major pumping facilities;
- ➔ Compliance with industry standards for the operation and maintenance of supply sources;
- ➔ Strict operating procedures for the operation and maintenance of its wellfields;
- ➔ Inspection of work performed by service contractors;
- ➔ Regular communication with the NJWSA, NJDEP and other authorities regarding impacts to source water
- ➔ Security measures in place at critical facilities;
- ➔ Daily laboratory testing and ongoing monitoring of its water supplies.
- ➔ Maintenance of an inventory of interconnections, including status, associated flows and prioritization for supply;
- ➔ Utilization of a production vs. demand model, including theoretical reserve capacities to guide decisions regarding the need to curtail demand and/or impose restrictions/conservation measures.
- ➔ Operating procedures for staffing, initial response and event assessment and notification;
- ➔ Protocols, system maps and other resources for activating emergency interconnections and valves;
- ➔ Securing fuel availability and delivery to supply auxiliary power-generating equipment;
- ➔ Maintenance of tools and equipment for repairs;
- ➔ Maintenance of emergency contacts of decision makers as well as lists for critical customers, energy suppliers, repair contractors, neighboring water utilities, equipment suppliers and material vendors to quickly share information.



WaterSuite

We conduct a comprehensive evaluation of risks that can compromise our watersheds. Through the WaterSuite data management software tool, we are able to assess, prioritize and investigate potential sources of contamination and to monitor water quality within a watershed. This involves analyzing consolidated data, an emergency spill sampling plan, identification of designated laboratories on stand-by and annual stakeholder drills.

Water Quality Accountability Act

The New Jersey Water Quality Accountability Act (WQAA) became law in New Jersey July 21, 2017. The WQAA established new standards of operation for water utilities including setting new requirements for asset management consistent with standards set by the American Water Works Association, development of cybersecurity programs, hydrant and valve maintenance and testing requirements, violations reporting and mitigation plans as well as compliance with state and federal drinking water regulations.

Middlesex Water Company formally submitted its 2020 certification asserting compliance with all requirements of the WQAA.

Cross Connection Control

We maintain a Cross Connection Control program to protect the distribution system from hazards originating on or in a customer's premise, through permanent or temporary connections, that may impair or otherwise alter the water quality in the potable water system.

Hydrant Flushing and Maintenance

Regular hydrant flushing helps to maintain the integrity of the water distribution system and piping network, removes sediment and rust from water and widens the pathway for water to flow more freely. Flushing also helps to maintain the proper chlorine residual throughout the distribution system further ensuring high water quality.

Maintaining Our Infrastructure

Water for Tomorrow IF-WU-140a.2

Middlesex Water Company's current major infrastructure initiative, known as Water For Tomorrow® involves numerous projects designed to upgrade and replace utility infrastructure and enhance the integrity of system assets to better serve current and future generation of water users. Investing in infrastructure and maintaining those assets under a well-designed and strategic asset management program is key to our sustainability goals. These upgrades include replacing water mains, valves, fire hydrants, supplemental water mains, construction of a new ozone treatment facility and addition of elevated water storage.

Middlesex Water Company invested approximately \$124 million in 2020 to enhance the integrity, reliability and resiliency of its assets. Significant expenditures included:

- ➔ Enhanced treatment process at the Company's largest water treatment plant in Edison, New Jersey, to mitigate the formation of disinfection by-products that can develop during the water treatment process;
- ➔ Enhanced treatment processes at the Company's primary wellfield in South Plainfield, New Jersey to comply with new more stringent water quality regulations and integrate surge mitigation along with revisions to corrosion control and chlorination;
- ➔ Replacement of approximately eight miles of water mains including service lines, valves, fire hydrants and meters in Metuchen, Edison and South Amboy, New Jersey;
- ➔ Relocation of water meters from inside customers' premises to exterior meter pits to allow more timely access by crews in emergencies, enhance customer safety and convenience and reduce non-revenue water;
- ➔ Additional standby emergency power generation.





PERCENTAGE AND VOLUME
OF NON-REVENUE
REAL WATER LOSS

2019: 10.3% | 2.68 MGD
2020: 12.0% | 3.43 MGD

IF-WU-140a.2



TOTAL WATER DELIVERED
BY MIDDLESEX SYSTEM:
13.7 Billion Gallons



INVESTMENTS IN INFRASTRUCTURE
FOR WATER MAIN REPLACEMENTS

2019: \$18,655,175
2020: \$26,951,793



TOTAL INVESTMENT IN
WATER SYSTEM INFRASTRUCTURE

2019: \$73,080,043
2020: \$85,011,521



LINEAR FEET OF WATER MAINS
REPLACED OR INSTALLED

to prevent water loss
through leaks or main breaks

2019: 34,497 feet
2020: 58,854 feet



NUMBER OF PUMP STATION
REPLACEMENTS

1



NUMBER OF PERMANENT BACKUP
POWER GENERATOR INSTALLATIONS

3



MIDDLESEX MET
ALL NEW JERSEY
WATER QUALITY
ACCOUNTABILITY ACT
REQUIREMENTS?

YES



RENEW 2020

Under the Company’s 2020 RENEW Program, Middlesex Water Company invested over \$14.0 million in Metuchen, Edison and South Amboy, New Jersey to upgrade water mains, as well as service lines, valves and fire hydrants to help enhance overall service quality and improve fire flows. We coordinated our construction schedule and related road openings with another utility also working in the area to mitigate disruptions to customers and to integrate with the paving programs of local municipalities to further mitigate disruption and cost. 2020 marked the 25th year that the Company has been methodically upgrading aging infrastructure through its annual RENEW program.

CJO Surface Water Treatment Plant Upgrade

Middlesex Water Company is upgrading its CJO Water Treatment Plant to include Ozone intermediate treatment, enhanced emergency standby power generation and the replacement of the electrical incoming power feed.



Addressing Disinfection By Products

Middlesex Water Company is being proactive in sustaining water quality and addressing current and anticipated regulations by improving the quality of drinking water delivered to its customers.

Middlesex Water Company first began exploring integrating ozone into the treatment process in 2014 to address disinfection byproducts (DBPs). Currently, treatment includes sodium hypochlorite to provide primary disinfection at the CJO water treatment facility and secondary disinfection administered in the water distribution system. Compliance monitoring data collected for the USEPA’s Stage 2 Disinfection Byproduct Rule (DBPR) indicated that upgrades to the plant were needed to reduce the DPB concentrations which occur further out from the treatment plant in the distribution system. In a proactive effort to reduce DBPs including trihalomethanes (THMs) and haloacetic acids (HAA5s), MWC Operations began the application of powdered activated carbon (PAC), year round, that helps remove the naturally occurring organic material that forms DBP in the presence of chlorine. However, this process produced significant residuals and was inefficient. Ozone was concluded to be the viable solution. Ozone, a powerful oxidant and disinfectant, breaks double bonds in the natural organic material and makes it more readily available to biodegradation. Organics are removed across biologically active filters. The new process allows for chlorine to be added after filtration to allow a residual in the distribution system for customer safety. This treatment process results in the lowest concentrations of DBPs, results which were confirmed through a yearlong pilot-testing study.

As a result of these findings, we began the \$72 million upgrade to the CJO Water Treatment Plant in 2019 to include ozone intermediate treatment. Ozone also offers the following key benefits:

- Provides a treatment barrier for emerging contaminants of concern such as pharmaceuticals, personal care products, endocrine disruptors, pesticides and cyanotoxins (algal toxins).
- Reduces the quantity of chlorine added to the water
- Eliminates the need for the application of powdered activated carbon for the removal of naturally occurring organic material
- Reduces the production of solid residuals from the CJO plant. Prior process required disposal of approx. 2400 dry lbs./day of solids.
- Improves stability of the chlorine residual in the distribution system, resulting in improved microbial quality
- Improves the taste and odor of the water through effective oxidation of taste and odor causing compounds

Another key upgrade includes the augmenting of emergency power generation at the plant with emergency standby power generation to ensure that it can maintain operations under a variety of natural weather hazards while providing a safer environment for its employees. This upgrade also included replacement of the electrical incoming power feed.

Water Stress IF-WU-440a.1

The scale of the CJO Treatment Plant’s water use and withdrawal was 37,172 cubic meters in 2020, drawn from locations with low water stress.



Managing Contaminants of Emerging Concern

IF-WU-250a.2

A long time member of the Water Research Foundation and the American Water Works Association, Middlesex Water Company participates in and subscribes to the latest research developments to stay current with emerging contaminants and the latest treatment technology. As members of the aforementioned organizations, MWC professionals attend seminars, webcasts and conferences and training regarding emerging contaminants, methods of detection and rules for compliance.

Middlesex Water participates in the Unregulated Contaminant Monitoring Rule program. Any compounds detected as part of the program are listed in Middlesex Water Company’s yearly Consumer Confidence Report. In addition, those detections are then monitored regularly and compared to potential legislation to ensure compliance.

PFAS

One group of contaminants gaining increasing public attention and concern includes per- and polyfluoroalkyl, substances more commonly referred to as PFAS. PFAS is a family of chemicals that have been used in the manufacturing process for over 70 years and are found in everyday household products such as cookware, paper goods, shampoo, packaging, firefighting foams and pesticides. It has been determined that PFAS may present adverse health effects, resulting in the need for water quality regulation under the Federal Safe Drinking Water Act (SDWA). Middlesex Water Company reports on detected PFAS in its groundwater sources in its annual Water Quality Reports.

Sampling conducted under the Unregulated Contaminant Monitoring Rule, (UCMR3) at the Company’s Park Avenue Plant wellfield showed the presence of PFAS at the point of entry into the distribution system. In anticipation of new MCL’s for certain PFAS in water by the NJDEP, Middlesex Water Company proactively took action to modify its processes to remove these compounds. The Company is currently designing an expansion to its existing treatment facility to include granular activated carbon (GAC) for removal of PFOA and PFOS, two elements of PFAS for which New Jersey has adopted MCL’s. We are also replacing our existing ortho-polyphosphate storage and feed system, our gas chlorination system with a liquid sodium hypochlorite feed system and a new backwash wastewater tank along with various piping, power and control system upgrades. Simultaneously, we have also been conducting a field pilot study to select the optimal filter media and to further evaluate operational parameters. We have provided the NJDEP with a schedule of action to construct the expansion of the new treatment plant, which will help the Company attain and maintain compliance with the newly established regulations. MWC anticipates achieving compliance by August 1, 2023. The new treatment process will also be effective in addressing new compounds of emerging concern including endocrine disrupters and solvents.

Middlesex Water Company has filed a lawsuit against the alleged PFAS polluters to recover the costs to upgrade our treatment facility required to remediate PFAS.

Lead

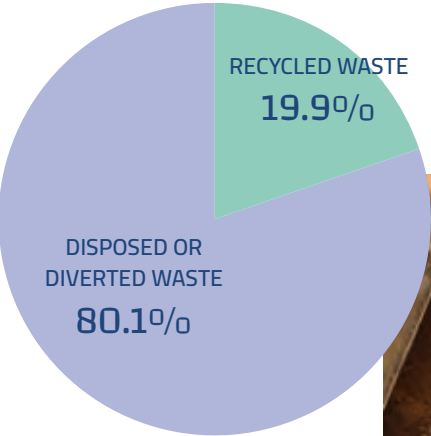
Middlesex Water Company is currently in compliance with the U.S. Environmental Protection Agency’s Lead and Copper Rule, which sets standards for sampling for lead in drinking water. In addition, our Company eliminated all of the documented Company owned lead service lines more than 30 years ago. Lead and Copper Rule Revisions (LCRR) being proposed by the EPA requires several anticipated changes to be in place by October of 2024 consisting of lead service line materials inventories, compliance and system sampling, school and daycare sampling, corrosion control and public education. Recently passed legislation requires water utilities to submit a service line materials inventory by January 22, 2022 and that all lead service lines, including on the customer side, be removed by July 2031. Middlesex is currently formulating a program to manage compliance with the Lead and Copper Rule Revisions.

We add corrosion control to the water leaving our treatment facility in New Jersey to further protect customers from the potential of lead entering their drinking water as a result of any lead plumbing fixtures that may still be present in their homes. We perform routine lead sampling throughout our water distribution system and report results in our annual water quality reports. We work to educate customers about the dangers of lead as a public health risk through our website and social media platforms.



Non-Hazardous Waste Management

Middlesex Water is focused on responsibly managing waste generated from its facilities in compliance with all legal and regulatory requirements. Residual matter from the water treatment process at its CJO treatment Plant is innocuous and pumped to the Middlesex County Utilities Authority (MCUA) regional wastewater treatment plant. Middlesex tracks recycled waste and waste disposed to a landfill. These diverted materials reflect waste that is diverted from landfills through recycling and source reduction activities. The Tidewater Campus reflects combined data collected from two sites, its headquarters and engineering facility.



	CJO Plant	Tidewater Campus
Solid Waste Disposed & Diverted		
2020	55.04 Tons	9.45 Tons
2019	67.01 Tons	10.87 Tons
Diverted Materials		
2020	9.22 Tons	3.77 Tons
2019	9.05 Tons	2.83 Tons
Diversion Rate		
2020	16.8%	39.9%
2019	13.5%	26.0%

Our environmental stewardship information included in this report is preliminary, unaudited, and subject to revision.

Distribution Network Efficiency

Asset Management

The majority of Middlesex Water Company’s fixed assets are large water treatment and pumping facilities and transmission and distribution systems. Our operations in New Jersey are highly centralized, with a central water treatment plant located in Edison, NJ and a main well field located in South Plainfield, NJ. There is a transmission and distribution network consisting of water mains installed along public and private rights-of-way, for delivery to customers in eastern Middlesex County, New Jersey.

Middlesex Water Company uses a Geographic Information System (GIS) to capture and inventory water and wastewater physical asset data. The GIS is also used to update hydraulic models and identify how water main replacements or extensions as well as changes in customer usage patterns affect system performance. MWC uses a Pipeline Prioritization Model to determine the probability of water main failure based on a 20-factor criteria checklist. This data is then used to direct and support planning decisions and focus capital investments on areas selected for water main replacement in a risk based approach.

Maintenance on the distribution system and water treatment system is recorded in GIS, whether by repair or replacement. Physical inventories of both large and small materials are also maintained in GIS. The Company continues to explore efficiency improvements related to its distribution network including more mechanized equipment mounted on excavating machinery, to break through pavement and compaction during the excavation process when performing work on water mains. While not completely eliminating the need for this work to be done manually, it has significantly reduced the amount of work of this type that is ergonomically repetitive in nature.



Our Distribution Network IF-WU-140a.1/IF-WU-000.E

Investing in our distribution infrastructure remains a critical component of our overall strategy to maximize efficiency and maintain the long term reliability of our distribution network.

THE TOTAL LENGTH OF TRANSMISSION
AND DISTRIBUTION MAINS
IN THE MIDDLESEX SYSTEM: **741 miles**

MWC SYSTEM WATER MAIN REPLACEMENT IN FEET:
2020: 58,854 ft. | 2019: 34,497 ft.

MWC SYSTEM WATER MAIN REPLACEMENT RATE:
2020: 1^o/_o | 2019: 0.87^o/_o

Managing Water Loss

Identifying water leaks in our distribution infrastructure prevents water loss and helps mitigate further damage to our nearby infrastructure and other property not owned by our Company. Early detection of leaks helps identify system failure points before they impact service to customers. Our leak detection efforts in our New Jersey distribution system are more aggressive than in our Delaware distribution system for the fact that our Delaware system is relative new and leakage rates are very low. Historically, we have utilized a leak detection contractor to conduct a manned leak detection survey of one-quarter of the New Jersey distribution system per year with the intent of surveying the entire system over four years. This survey is in addition to the traditional methods of visual inspections of all stream and aerial crossings.

Recently, we field tested a new acoustic-based leak detection technology using state of the art sensors that detect noise generated by a leak in a pressurized pipe. This technology system detects and captures leak/noise data before leaks become detectable by conventional methods. This early detection capability enables us the ability to prioritize repairs based on identified need and offers greater pinpoint accuracy in identifying potential leakage sites which should be excavated.

In managing water loss, we aim to:

- ➔ Identify leaks early
- ➔ Monitor leak progression
- ➔ Significantly reduce pipe repair costs
- ➔ Achieve greater water efficiency

We also collect failure information on leaks and water main breaks in order to help update our Distribution System Prioritization Model, which is used to prioritize our capital replacement projects. The tool has been helpful in reducing non-revenue water and extending pipe asset life. We have already piloted this leak detection approach in one municipality and are employing it in another in 2021. Our goal is to maintain non-revenue water at the lowest feasible level. The Company also maintains a customer meter testing and replacement program to help control water loss, which is executed in concert with our annual RENEW program.

Proactively addressing aging infrastructure – on a planned replacement schedule – reduces the likelihood of future disruptive and costly emergency repairs.





Energy Management

Given the unique position of our business as a supplier of a life sustaining service, we are growing ever more aware of climate variation and the very real challenges it can pose for society and our industry. We are committed to doing our part and in 2020, we grew more determined to better understand our environmental impact in terms of energy usage, greenhouse gas emissions (GHG) and potential risks to our business from climate change.

Our Approach

While our first priority remains making prudent investments in drinking water infrastructure to maintain and enhance the overall quality of our service, we also want to do our part to reduce our carbon footprint. In 2020, we put a framework in place to identify, collect, calculate and quantify our key greenhouse gas emissions sources. We determined to begin with our largest facilities, including our CJO Water Treatment Plant in New Jersey and at our Delaware headquarters campus. The collection of this data will help us to better identify and understand carbon reduction opportunities. We are now developing long-term goals and processes that support our commitment to operating within a sustainable framework in setting targets appropriate for our business.

We began tracking and measuring our GHG emissions through the U.S. Environmental Protection Agency and the U.S. Department of Energy’s Energy Star Program which promotes energy efficiency. Emissions tracking is a means for us to gauge our operational efficiency and sustainability by tracking the GHG emissions generated by the electricity needed to maintain our operations.

Tracking and reporting emissions helps us:

- Increase transparency with our customers, investors, and the public
- Increase efficiency and lower unnecessary energy costs
- Increase knowledge of energy consumption trends

Energy Consumption IF-WU-130a.1

Moving water through a massive array of pipes, pumps and treatment equipment requires vast amounts of energy. Electricity accounts for most of our energy needs, including powering our offices.

	CJO Plant	Tidewater Campus	TOTAL
Electricity Use (GJ) ¹			
2020	65648.2	598.7	66246.9
2019	60744.6	720.0	61464.6

Purchased and Generated from on-site Renewable Systems. ¹ GJ = gigajoule

Natural Gas (therms)			
2020	50494.0	1898.3	52392.3
2019	59047.0	1847.2	60894.2

Our environmental stewardship information included in this report is preliminary, unaudited, and subject to revision.

TOTAL ENERGY CONSUMPTION (GJ)

2020 CJO PLANT/TIDEWATER CAMPUS: 71,775

We had already incorporated cleaner fuel such as solar energy into our CJO Plant. Renewable energy contributes approximately 4% of our total electricity needs at the water treatment plant. We strongly consider energy efficiency as a critical component in all construction projects.

Green House Gas Emissions

Latest climate studies* indicate that higher temperatures, more frequent larger storms, heavier rains and rising seas are already affecting New Jersey and are set to worsen in coming decades. One way we can contribute to the lessening of the effects of climate change is by reducing carbon emissions.

*As referenced in the 2020 New Jersey Scientific Report on Climate Change.

	Scope 1 (MT CO2e)	Scope 2 (MT CO2e)	Total (MT CO2e)
2020			
Carl J. Olsen Plant	268.2	5895.9	6164.1
Tidewater Campus	10.1	54.3	64.4
Combined Facilities	278.3	5950.2	6228.5
2019			
Carl J. Olsen Plant	313.6	5455.0	5768.6
Tidewater Campus	9.8	68.2	98.0
Combined Facilities	323.4	5523.2	5866.6

Our environmental stewardship information included in this report is preliminary, unaudited, and subject to revision.



In 2020, we conducted a baseline history of our Scope 1 Natural Gas (direct) and Scope 2 Electricity (indirect) emissions of the three key locations in New Jersey and Delaware comparing 2020 and 2019. Scope 1 emissions reflect fuel used to heat our buildings and Scope 2 is electricity purchased to power the water treatment process. Our findings indicate that at our CJO Plant, while Scope 1 (direct) emissions were down from 2019, our Scope 2 (indirect) and Total Emissions increased between 2019 and 2020. This can be attributed to increased pumpage and water production during 2020 as more people were home requiring frequent access to water for public health and hygiene. Major construction activity relative to our new ozone treatment facility at the CJO Plant during 2020 also contributed to the rise in total GHG emissions at this site. We will continue to track and monitor these GHG metrics acknowledging that until construction of the upgrade of the CJO Plant is finalized, results from this location could fluctuate.

In Delaware, at our Tidewater campus, which includes our headquarters and Engineering Buildings, Total GHG emissions and Scope 2 emissions declined from 2019 to 2020 with a small increase in Scope 1 (direct) emissions noted. The overall decline in total GHG emissions at our DE campus can be attributed to lower building occupancy due to remote work patterns adopted by the Company to keep employees safe during COVID-19.

Leveraging Variable Frequency Drives

With hundreds of pump and motors in service throughout our distribution network and booster stations, we employ variable frequency drives (VFD's) to reduce energy use, optimize efficiency and reduce maintenance costs.

Network Resiliency & Impacts of Climate Change

**2019: 349 service disruptions
8,849 customer premises affected
8 hours**
**2020: 325 service disruptions
5,728 customer premises affected
8 hours**

IF-WU-450a.3

Main breaks occur for a variety of reasons and our crews work to restore service to customers as quickly and safely as possible. As water utilities, we must constantly be planning for extreme weather events which may disrupt our operations. Since we plan for the long term, we also need to anticipate uncertain future climate in the regions in which we operate. Because so many people rely on the water we provide for drinking, sanitation and firefighting, we need to be prepared for extreme weather impacts and maintain resilient operations when weather impacts our business. For example, emergency generators and redundant back up power supplies help keep pumps operating when the power goes out. Elevated storage tanks use gravity to maintain water flows and pressures within the water distribution system when water supply is impacted. Staffing plans are a critical component in responding to and assessing emergencies.



Middlesex Water addressed a key risk in its overall water transmission network by constructing a 4.5 mile supplemental transmission main. This main was completed and placed into service in 2020.





Planning for Climate Events IF-WU-450a.4

Flooding, severe storms, extended periods of warmer temperatures, power outages and droughts all have the ability to impact water supply and/or threaten water quality. Our climate change strategy includes identifying and better understanding risks resulting from climate variability and establishing plans to assess, manage and mitigate the effects. Identifying the impact of prolonged extreme weather on supply water sources and our infrastructure such as pipes, intake stations and treatment equipment; coordinating availability of power, chemicals, equipment and technically proficient staff and maintaining communications protocols internally and externally for swift decision making are all important components in support of operational readiness and resiliency.

Oversight of climate related risks and the impact of unpredictable weather is the responsibility of the Corporate Governance and Nominating Committee under our Enterprise Risk Management Program which reports to the Board of Directors on climate related matters.

Risk and Resiliency

Risks to our Company are identified and assessed through our Enterprise Risk Management system and maintained on an ongoing Risk Register. These risk are reviewed by management, discussed with the Corporate Governance and Nominating Committee Committee and the Board. To understand risks related to climate change, the vulnerabilities of our assets and potential impacts on our ability to deliver a reliable supply of quality water, including risks related to climate change, we conducted an assessment of natural and man-made threats in connection with the America's Water Infrastructure Act (AWIA) Risk and Resiliency Assessment (RRA) & Emergency Response Plan.

AWIA requires community water systems serving more than 3,300 people to complete an assessment, develop an Emergency Response Plan and certify its RRA with the U.S. Department of Environmental Protection. We conducted RRA of 52 critical assets central to our mission, based on the American Water Works Association (AWWA) Risk and Resilience Management of Water Systems methodology and we submitted our certification in March 2020. Natural hazards evaluated in this analysis include drought, floods, major storms and severe weather, based on research informed by the NJ Office of Emergency Management - New Jersey Hazard Mitigation Plan, the NJ Department of Environmental Protection, Division of Water Supply, the U.S. Drought portal and the U.S. Federal Emergency Management Agency's Flood Mapping tools. Risks were calculated based on an assessment of the vulnerability of the asset to damage, likelihood and consequence of threats.

General findings concluded:

- ➔ Due to the close proximity of our assets to the Atlantic Coast, exposure to natural hazards such as hurricanes and coastal storms should be factored into our planning.
- ➔ Drought management and monitoring practices and plans in place by the NJDEP supplement our plans to prepare for drought conditions.
- ➔ New Jersey's Water Supply Plan (2017-2022) includes policies and regulatory actions to help ensure statewide water supply availability in the event of an emergency.

- ➔ Water use restrictions could be imposed and interconnections activated to shift supply from areas of more available water to areas most affected by drought.
- ➔ Our Company's resiliency to droughts is strengthened by our active leak detection and asset management programs which use a risk-based management approach in support of replacement, rehabilitation and condition assessments for our distribution system.
- ➔ Impositions on water use in a drought could impact revenue. However, our regulated rate structures contemplate recovery of overall costs and rate-regulated profits regardless of the amount of water sold, which contributes to strong likelihood of financial recovery and therefore, low financial vulnerability.

The Risk Assessment provided the foundation for facilitating resiliency improvements in our Emergency Response Plan. Based on assessment results, the Company has incorporated the following measures to ensure the sustainability of our operations:

- ➔ Implemented new physical and cybersecurity strategies and resources to improve resilience;
- ➔ Enhanced plans, procedures, and equipment for responding to and lessening impacts of natural hazards or malevolent acts;
- ➔ Incorporated additional staff trainings in these areas.



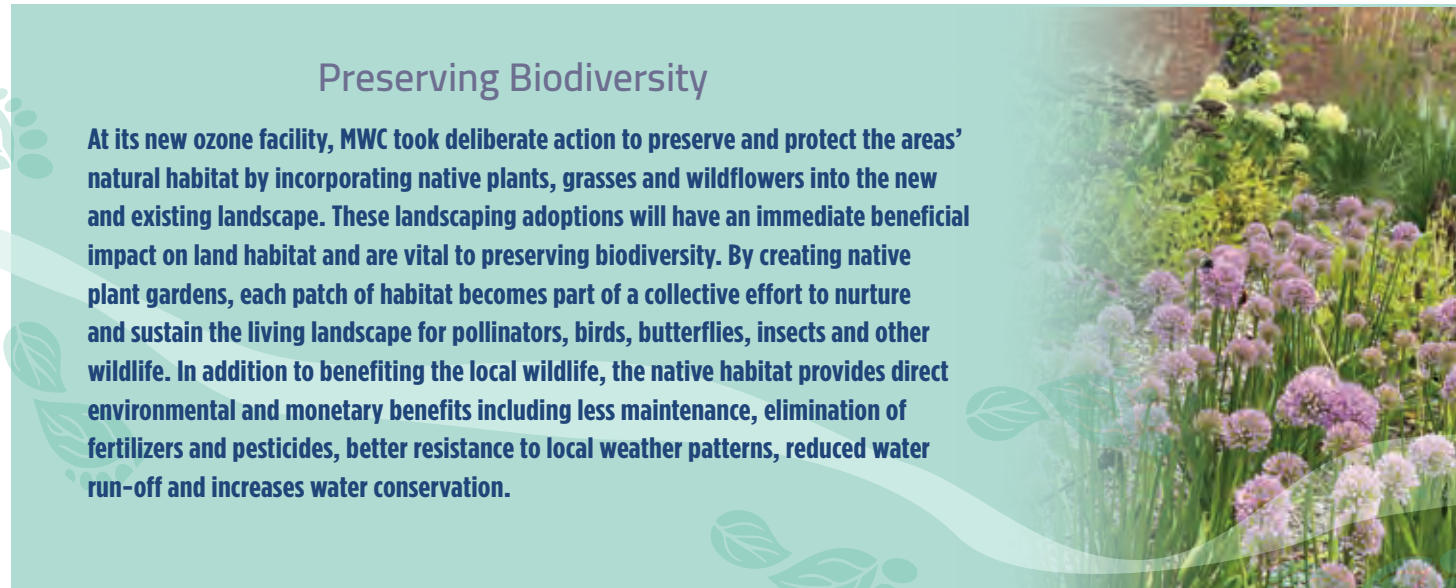


Preparing for risk starts long before an event tests our capabilities. Part of our planning involves incorporating climate change into our asset management planning where we identify how a proposed transmission main or treatment plant meets current and future needs and how it might maintain operations even in the most adverse weather conditions. For example, improvements we are making currently under our Water for Tomorrow capital investment program are specifically geared to support reliability, resiliency and service quality for generations to come.



Flood Hazards IF-WU-450a.1

To determine water treatment capacity within areas designated as a special flood hazard area by the Federal Emergency Management Agency (FEMA), we conducted a Flood Risk Assessment of our CJO Treatment Plant and based on risk of a 500-year (0.2%), 100-year (1%), and a nuisance flood event. The results of this assessment were reviewed with FEMA Flood Insurance Rate Maps. While the CJO Treatment Plant is not included in existing FEMA floodplain studies, a FEMA study for the neighboring transect suggests the Plant may be at a 0.2% chance of being impacted by a flood due to the proximity of a nearby creek. Therefore, our plans presume that the Plant may be subject to flooding and as such, we have incorporated mitigation strategies into our resiliency planning.



Preserving Biodiversity

At its new ozone facility, MWC took deliberate action to preserve and protect the areas' natural habitat by incorporating native plants, grasses and wildflowers into the new and existing landscape. These landscaping adoptions will have an immediate beneficial impact on land habitat and are vital to preserving biodiversity. By creating native plant gardens, each patch of habitat becomes part of a collective effort to nurture and sustain the living landscape for pollinators, birds, butterflies, insects and other wildlife. In addition to benefiting the local wildlife, the native habitat provides direct environmental and monetary benefits including less maintenance, elimination of fertilizers and pesticides, better resistance to local weather patterns, reduced water run-off and increases water conservation.



SASB Content Index: Water Utilities and Services Sustainability Accounting Standard

Material Topic	SASB Disclosure	Location or Direct Response
Energy Management		
Climate Change, Energy and Emissions	IF-WU-130a.1: (1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable	Energy Consumption
Distribution Network Efficiency		
Water System Efficiency and Conservation	IF-WU-140a.1: Water main replacement rate	Our Distribution Network
	IF-WU-140a.2: Volume of non-revenue real water losses	Water For Tomorrow
Effluent Quality Management		
Environmental Management and Compliance	IF-WU-140b.1: Number of incidents of non-compliance associated with water effluent quality permits, standards and regulations	Environmental Compliance
	IF-WU-140b.2: Discussion of strategies to manage effluents of emerging concerns	Source Water Assessment
Water Affordability and Access		
Water Affordability and Access	IF-WU-240a.1: Average retail water rate for (1) residential (2) commercial and (3) industrial customers	Water Affordability
	IF-WU-240a.2: Typical monthly water bill for residential customers for 10C of water delivered per month	Water Affordability
	IF-WU-240a.3: Number of residential customer water disconnections for non-payment, percentage reconnected within 30 days	Water Affordability
	IF-WU-240a.4: Discussion of impact of external factors on customer affordability of water, including the economic conditions of the service territory	Water Affordability
Drinking Water Quality		
Drinking Water Quality and Customer Safety	IF-WU-250a.1: Number of (1) acute health-based, (2) nonacute health-based and (3) non-health-based drinking water violations.	Drinking Water Quality
	IF-WU-250a.2: Discussion of strategies to manage drinking water contaminants of emerging concern	Managing Contaminants of Emerging Concern



End-Use Efficiency

Water System Efficiency and Conservation	IF-WU-420a.2: Customer water savings from efficiency measures, by market	End Use Efficiency
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Water Supply Resilience

Water Supply Management, Reliability and Resilience	IF-WU-440a.1: Total water sourced from regions with High or Extremely High Baseline Water Stress, percentage purchased from a third party	Water Stress
	IF-WU-440a.3: Discussion of strategies to manage risks associated with the quality and availability of water resources	Managing Potential Impacts to our Water Supply

Network Resiliency and Impacts of Climate Change

Climate Change, Energy and Emissions	IF-WU-450a.1: Water treatment capacity located in 100-year flood zones	Flood Hazards
Climate Change, Energy and Emissions	IF-WU-450a.3: (1) Number of unplanned service disruptions and (2) customers affected, each by duration of category	Network Resiliency and Impacts of Climate Change
	IF-WU-450a.4: Description of efforts to identify and manage risks and opportunities related to the impact of climate change on disruption and wastewater infrastructure	Planning for Climate Events

Activity Metric

Customer Service	IF-WU-000.A: Number of (1) residential, (2) commercial and (3) industrial customers served, by service provided	Customers Served
Water Supply Management, Reliability and Resilience	IF-WU-000.B: Total water sourced, percentage by source type	Water Source and Availability
Customer Service	IF-WU-000.C: Total water delivered to (1) residential, (2) commercial, (3) industrial and (4) all other customers	Total Water Delivered
Water System Efficiency and Conservation	IF-WU-000.E: Length of (1) water mains and (2) sewer pipe	Our Distribution Network

Corporate Sustainability Report 2021



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