Metropolitan Water Reclamation District of Greater Chicago

STRATEGIC PLAN

2021–2025

(2022 Update)

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UPDATE TO THE 2021-2025 STRATEGIC PLAN (Updated September 2022)

The 2021-2025 Strategic Plan concluded its first year in June 2022 and is approximately 15 percent completed. Achievements from this first year include:

- Expanded District biosolids utilization as a soil amendment. New sites included an Illinois International Port District brownfield, a Costco construction site in Plainfield, the vegetation of a constructed berm at a quarry in Lyons, and multiple area golf courses;
- Convened an advisory committee of collaborative governmental entities and agencies comprising several local, County, and State agencies to provide input to stormwater planning activities being led by the District, including site-specific master plans as well as the development of a Volumetric Approach tool to assess overall flood storage needs towards addressing urban flooding;
- Added an employer-funded health reimbursement arrangement account to the District employee benefits plan to pay for qualified out-of-pocket medical, dental, and vision expenses for the employee and eligible dependents;
- Established a Community Partnership Council (formerly known as Community Advisory Council) at the Calumet Water Reclamation Plant to hear and focus on the needs of the surrounding communities;
- Lobbied for and received legislative authority to issue up to $600.0 million of Pension Obligation Bonds to supplement funding to the Retirement Fund and improve its funded ratio;
- Launched a public-facing Strategic Plan Hub (https://mwrd.org/strategic-plan-0). The Hub is designed to provide District stakeholders with periodic updates on Strategic Plan progress and developments, and it will incorporate more robust data and improve the user experience as it undergoes subsequent updates.

A review of the Strategic Plan is required on an annual basis and its first update was completed in September 2022. The Strategic Plan Implementation Team, Executive Team, and Steering Committee performed a high-level review of the published Plan in light of trends and changes that occurred during the past year. No changes to the five main Strategic Goals were required, but revisions were needed to their Strategies, Success Measures, and associated Targets.

The updated Strategic Plan follows and can also be found on the Strategic Plan Hub linked above.

INTRODUCTION

In the fall of 2020, the Board of Commissioners of the Metropolitan Water Reclamation District of Greater Chicago (MWRD) and the MWRD Executive Team began working together to develop the 2021-2025 Strategic Plan. This new plan builds on the accomplishments of the 2015-2020 Strategic Plan by:

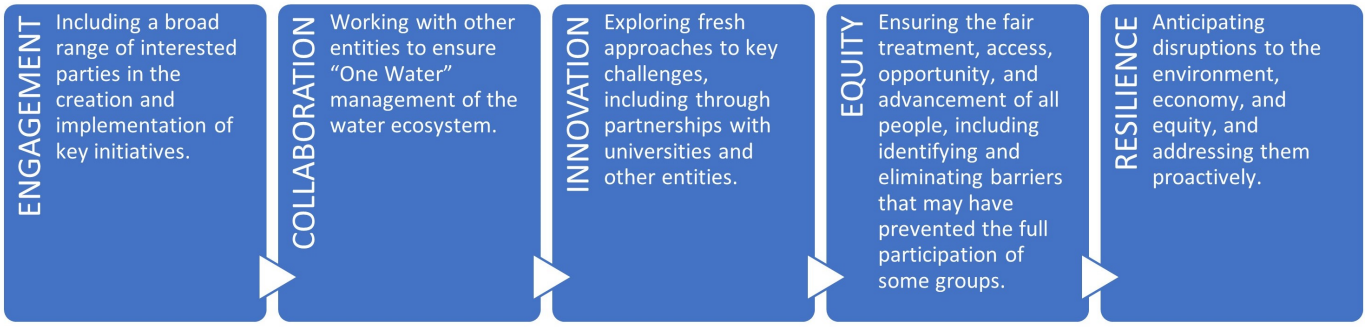
- Articulating the MWRD's strategic goals for the next five years;
- Identifying a set of strategies and initiatives to achieve those goals;
- Providing measures (both qualitative and quantitative) and targets to assess progress;
- Establishing a framework to review and update the Strategic Plan on an annual basis.

A Steering Committee was formed to oversee the effort, which includes the following members:

Commissioner Marcelino Garcia, co-chair
Commissioner Debra Shore, co-chair
Brian Perkovich, Executive Director
Mary Ann Boyle, Treasurer
Susan Morakalis, General Counsel
John Murray, Director of Maintenance and Operations
Catherine O'Connor, Director of Engineering

From September 2020 through February 2021, the Steering Committee led a multi-phase strategic planning process, against the backdrop of a global pandemic and the growing threat of climate change, using the lens of racial and social equity in the communities served by the MWRD.

Outreach was a critical part of the process - including outreach to MWRD staff, local governments, members of the public, and others - to ensure the inclusion of a range of perspectives in the development of the Strategic Plan. During that outreach, several consistent themes emerged. Those themes are reflected in the following guiding principles, which informed the development of strategies and initiatives for the new Strategic Plan:



Strategic Planning Process

The strategic planning process included significant engagement from a range of interested parties to gather their perspectives on the MWRD's strategic direction, including:

- In-depth interviews with the MWRD's Executive Team and Board of Commissioners;
- A **Workshop**, facilitated by Arup, which engaged approximately 50 attendees, including local governments, community organizations, regional planning and policy organizations, environmental organizations, and others;
- An **Employee Survey** that garnered almost 550 responses from MWRD staff;
- **Public-facing Survey**s that provided the opportunity for more than 200 members of the public to offer their ideas and feedback;
- A review of internal documents and existing performance measures.

The Steering Committee then participated in a two-day **Strategic Planning Workshop** to consider input from the engagement process and align on five overarching strategic goals for the new Plan.

Working Groups were then formed around each strategic goal that included representatives from the MWRD's Executive Team, Board of Commissioners, and more than 50 members of MWRD staff who were selected based on their expertise and commitment to the MWRD's ongoing success. These Working Groups were tasked with the continued development and finalization of 32 strategies that support the five strategic goals, as well as measures to gauge progress.

The following pages summarize the MWRD's 2021-2025 Strategic Plan. It includes an overview of the MWRD and the community it serves; the MWRD's mission, vision, and values; the overarching strategic goals that will guide the MWRD over the next five years; and strategies to achieve each of those goals. Each strategy is supported by an internal action plan that includes specific initiatives, activities, and timeframes that will be tracked throughout the implementation of the Strategic Plan.

The ongoing implementation of the Strategic Plan, as well as the annual update process described below, will be led by the Steering Committee with oversight from the Board of Commissioners.

Annual Strategic Plan Update

The MWRD will update the 2021-2025 Strategic Plan on a yearly basis. The update process will include:

- A high-level review of trends to identify any changes that may affect strategies and initiatives. For example, this review will consider any needed updates to the assumptions about climate change, as well as any new trends that need to be taken into account;
- An assessment of any major organizational changes that may impact the Strategic Plan;
- An evaluation of strategies, baseline and stretch targets, and initiatives (which are included in the internal action plan). Progress against each strategy will be evaluated, successes and failures will be examined, and any new issues that need to be addressed will be incorporated into the updated Strategic Plan.

The update process will be led by the Steering Committee, supported by the Working Groups that were assigned to specific strategic goals, with oversight from the Board of Commissioners. It will be coordinated with the annual budget process, which will allow the consideration of updates that require additional resources during the budget process and will ensure that the updated Strategic Plan and annual budget are aligned.

OVERVIEW

The Metropolitan Water Reclamation District of Greater Chicago (MWRD) is an award-winning, special-purpose district responsible for treating wastewater and providing stormwater management for residents and businesses in Cook County. With 1,957 employees, it has an annual budget of $1.6 billion and maintains AAA/AA+ credit ratings. A nine-member Board of Commissioners governs the MWRD; each Commissioner is elected at large and serves a six-year term.

The MWRD owns and operates seven water reclamation plants, 560 miles of intercepting sewers and force mains, 23 pumping stations, 33 stormwater detention reservoirs, and three Tunnel and Reservoir Plan reservoirs. In addition, the MWRD controls 76.1 miles of navigable waterways, which are part of the inland waterway system connecting the Great Lakes with the Gulf of Mexico. Each day, the MWRD cleans an average of 1.3 billion gallons of wastewater, while recovering and reusing valuable resources such as energy, biosolids, algae, phosphorus, nitrogen, and other nutrients that are removed from the wastewater stream.

The wastewater collection and treatment processes are performed in compliance with discharge permits issued by the Illinois Environmental Protection Agency (EPA). The MWRD's high level of performance is reflected in its 100% overall compliance with the EPA's National Pollutant Discharge Elimination System (NPDES) requirements in 2021, as well as recognition from the National Association of Clean Water Agencies - including six Platinum and one Gold Peak Performance Awards. In addition, as the stormwater management agency for Cook County, the MWRD partners with communities to build capital improvement and green infrastructure projects that address regional and local flooding issues. The MWRD also administers the Watershed Management Ordinance and manages a flood-prone property acquisition program that removes homes built in the floodplain. Through these and other efforts, the MWRD is working to manage stormwater, prevent flooding, and build a more resilient Cook County.

Mission, Vision, Values

The MWRD's mission, vision, and values, illustrated below, serve as a high-level framework for the 2021-2025 Strategic Plan. By comparison, the specific goals, strategies, and success measures included in the Strategic Plan provide a detailed roadmap for the MWRD over the next five years.

The mission statement describes the MWRD's role within its service area and remains unchanged since the last Strategic Plan. However, as a result of the strategic planning process, the desired future state summarized in the MWRD's vision has been updated, and the MWRD's core values have been expanded to include the values of equity and diversity.

Mission	The MWRD will protect the health and safety of the public in its service area, protect the quality of the water supply source (Lake Michigan), improve the quality of water in watercourses in its service area, protect businesses and homes from flood damages, and manage water as a vital resource for its service area.
Vision	We will continue to be a world-leading wastewater and stormwater management utility focused on flooding mitigation, resource recovery, sustainability, resilience, and innovation.
Values	**Excellence** We believe excellence is a never-ending journey to exceed the expectations placed upon us as individuals and as an organization. **Respect** We create an atmosphere of open communication that rewards commitment and performance and is responsive to the needs of our employees and communities. **Innovation** We endeavor to foster a culture of creativity to find solutions to the operational and environmental challenges facing us in order to build a more resilient region. **Safety** We are dedicated to safeguarding our greatest assets, our employees, as well as the environment and our communities. **Equity and Diversity** We strive in all areas of our work to treat people in a fair and just manner, to have a workforce and work practices that reflect the diversity of our region, and to ensure the full participation of all groups in our programs and services. **Accountability** We fulfill our responsibilities by being accountable to the people we serve, each other, and our environment in a prudent manner.

History

The MWRD has been improving the environment and protecting public health since its inception as the Sanitary District of Chicago in 1889. At that time, a polluted river flowed directly into Lake Michigan, contaminating the water supply for the City of Chicago and causing waterborne illnesses. The Sanitary District's first priority was reversing the flow of the Chicago and Calumet River Systems to prevent the discharge of sewage into Lake Michigan. Instead, flow was diverted into the Des Plaines River, followed by the Illinois River, and eventually the Mississippi River.

To reverse the river system, the Sanitary District had to construct a 61.3-mile system of canals and waterway improvements that cut through the subcontinental dividing ridge, allowing the river to flow by gravity away from the lake.

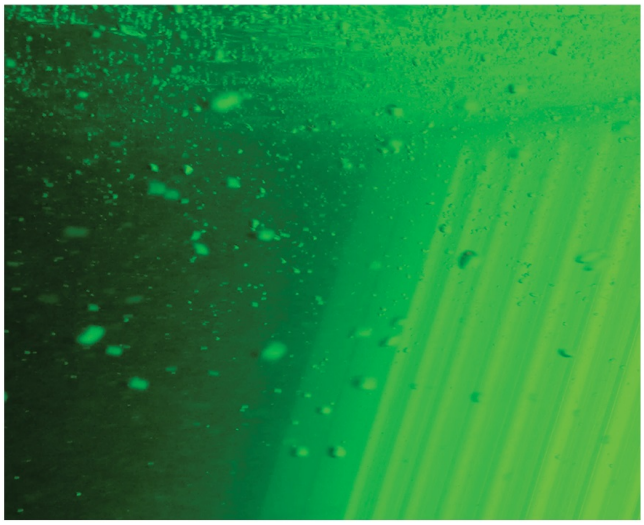
This engineering marvel not only improved environmental conditions for the residents of Chicago but also helped to distinguish the agency around the world and set a tone of visionary environmental engineering accomplishments and scientific breakthroughs. The Sanitary District went on to build a hydropower plant, intercepting sewers, pumping stations, and water reclamation plants to clean water, and the agency's mission grew from protecting the lake to creating a flourishing new waterway system.

The groundbreaking construction of the Chicago Sanitary and Ship Canal led to the creation of the Chicago Area Waterway System (CAWS) and the reversal of the Chicago River to protect the region's water environment.

Bubbly Creek in the early 1900s (L) and the same area of Bubbly Creek today (R).

These early advancements were followed by a century of innovation, including the construction of the Tunnel and Reservoir Plan (TARP), flood control facilities, aeration stations, nutrient recovery facilities, and green infrastructure projects. From 1955 through 1988, the District was called the Metropolitan Sanitary District of Greater Chicago. In 1989, the name was changed to the Metropolitan Water Reclamation District of Greater Chicago to more accurately reflect the agency's expanding functions and responsibilities.

Today, the MWRD operates the world's largest water reclamation facility, the world's largest nutrient recovery facility, the world's largest wastewater treatment ultra-violet (UV) disinfection installation, and the world's largest combined sewer reservoir.



Clockwise from top left: Construction of Des Plaines Tunnel; construction of Thornton Reservoir; SEPA 5 aeration station; phosphorus recovery at Stickney Water Reclamation Plant, UV disinfection facility at O'Brien Water Reclamation Plant; green infrastructure in Pilsen.


DANIEL J. CORKERY SCHOOL
Wilson
adidas

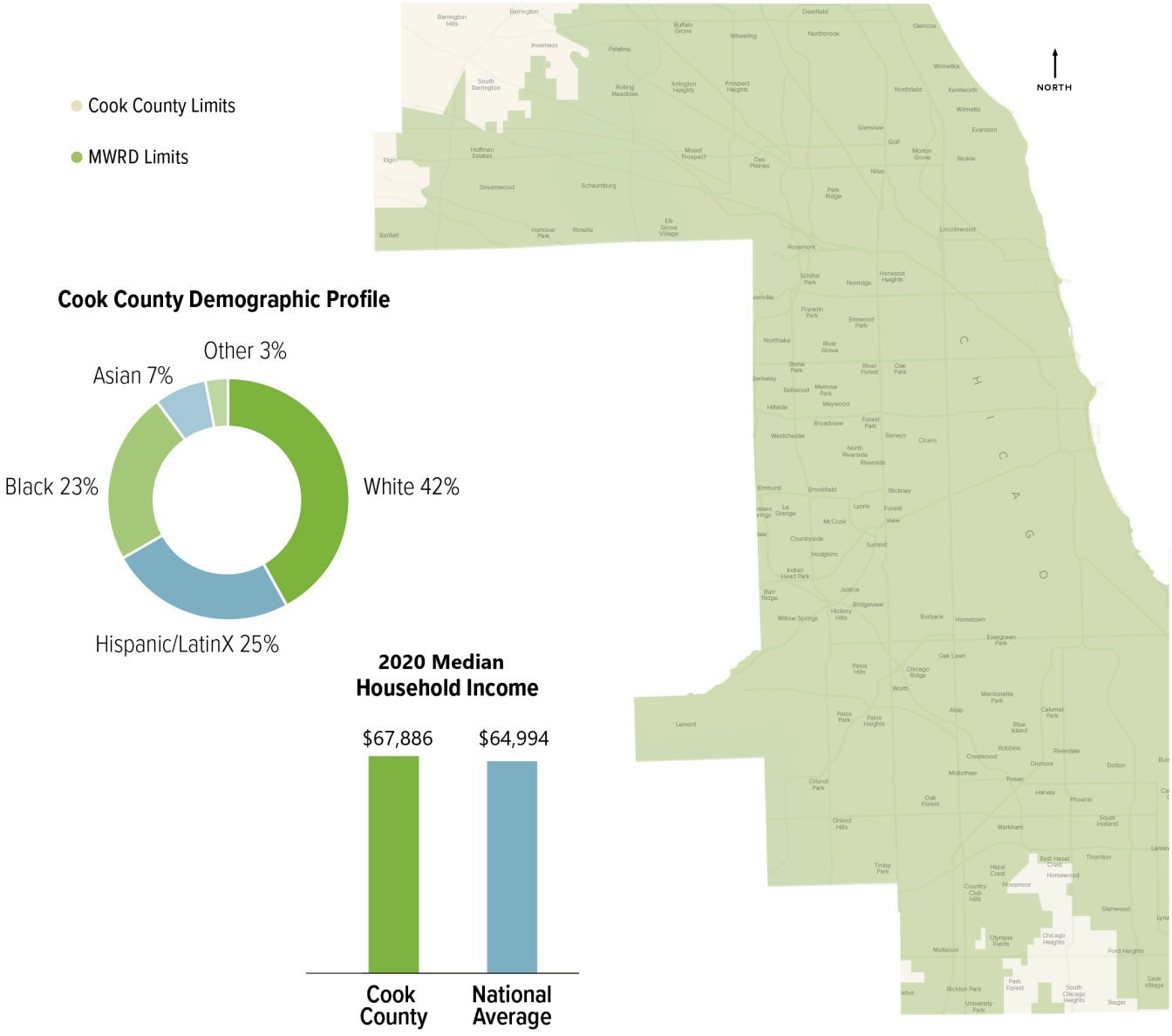
Community Profile

The MWRD's service area encompasses 882.1 square miles and includes the City of Chicago and 128 suburban communities throughout Cook County. It serves an equivalent population of 12.72 million people; 5.16 million real people, a commercial and industrial equivalent of 5.32 million people, and a combined sewer overflow (CSO) equivalent of 2.24 million people..

As illustrated in the map below, the MWRD provides wastewater treatment services for those communities that lie within its corporate boundary - including most of Cook County. By comparison, the MWRD is the stormwater management agency for all of Cook County.

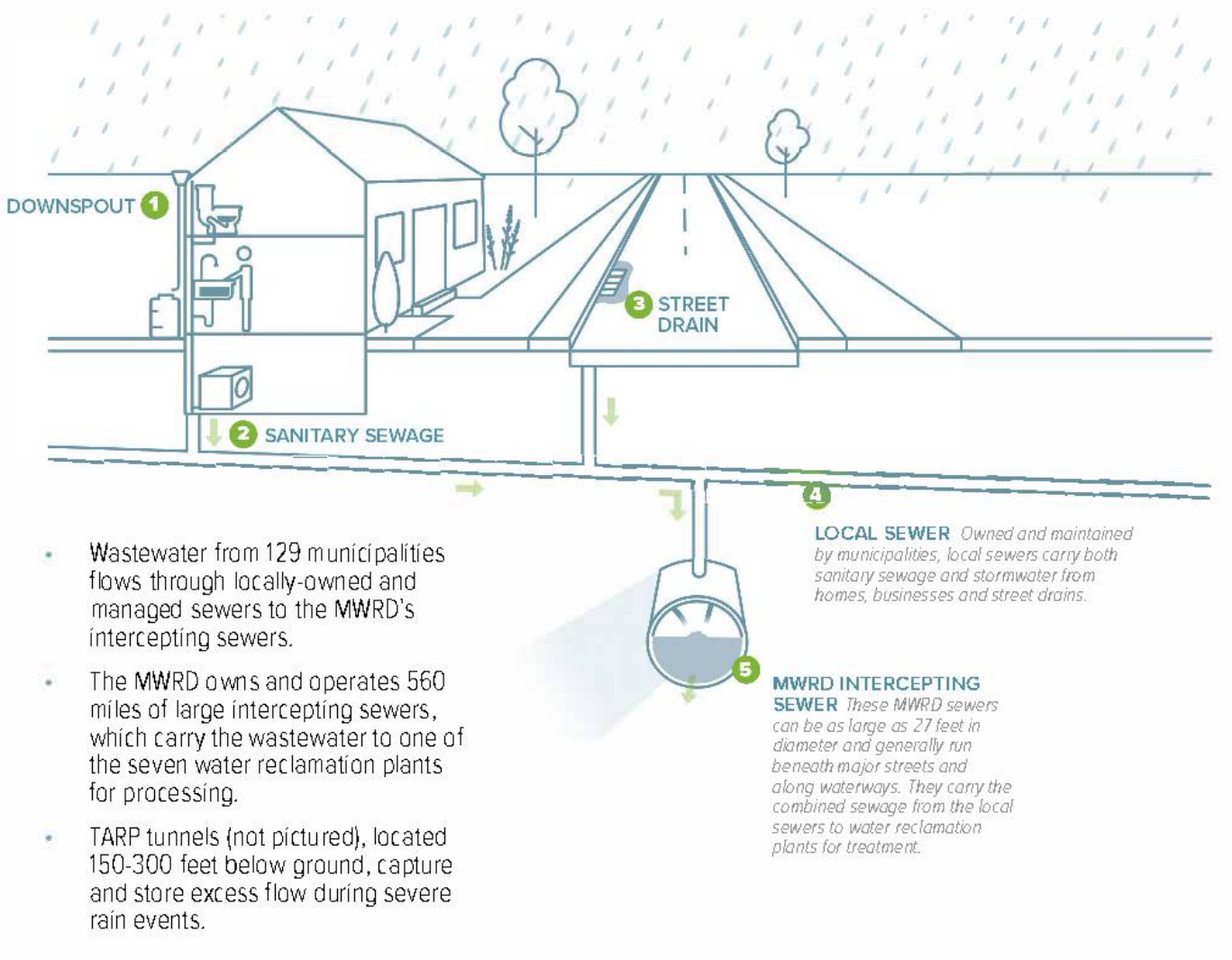
Cook County is the largest county in Illinois and second-largest in the United States. Cook County's population is diverse, with a demographic profile that is approximately 42% White, 25% Hispanic/LatinX, 23% Black, 7% Asian, and 3% other categories, and reported a median household income in 2020 ($67,886) that was higher than the national average ($64,994). However, this summary view obscures significant disparities in the average household income of Cook County's 129 municipalities, which reflect long-standing racial inequities in the region.

Cook County and Metropolitan Water Reclamation District of Greater Chicago



Source: *Data USA, Cook County, IL; https://datausa.io/profile/geo/cook-county-il#:~:text=Median%20 Household%20Income, -%2463%2C353&text=Households%20in%20Cook%20County%2C%20 IL,represents%20a%203.17%25%20annual%20growth.*

How Sewers Work In Cook County

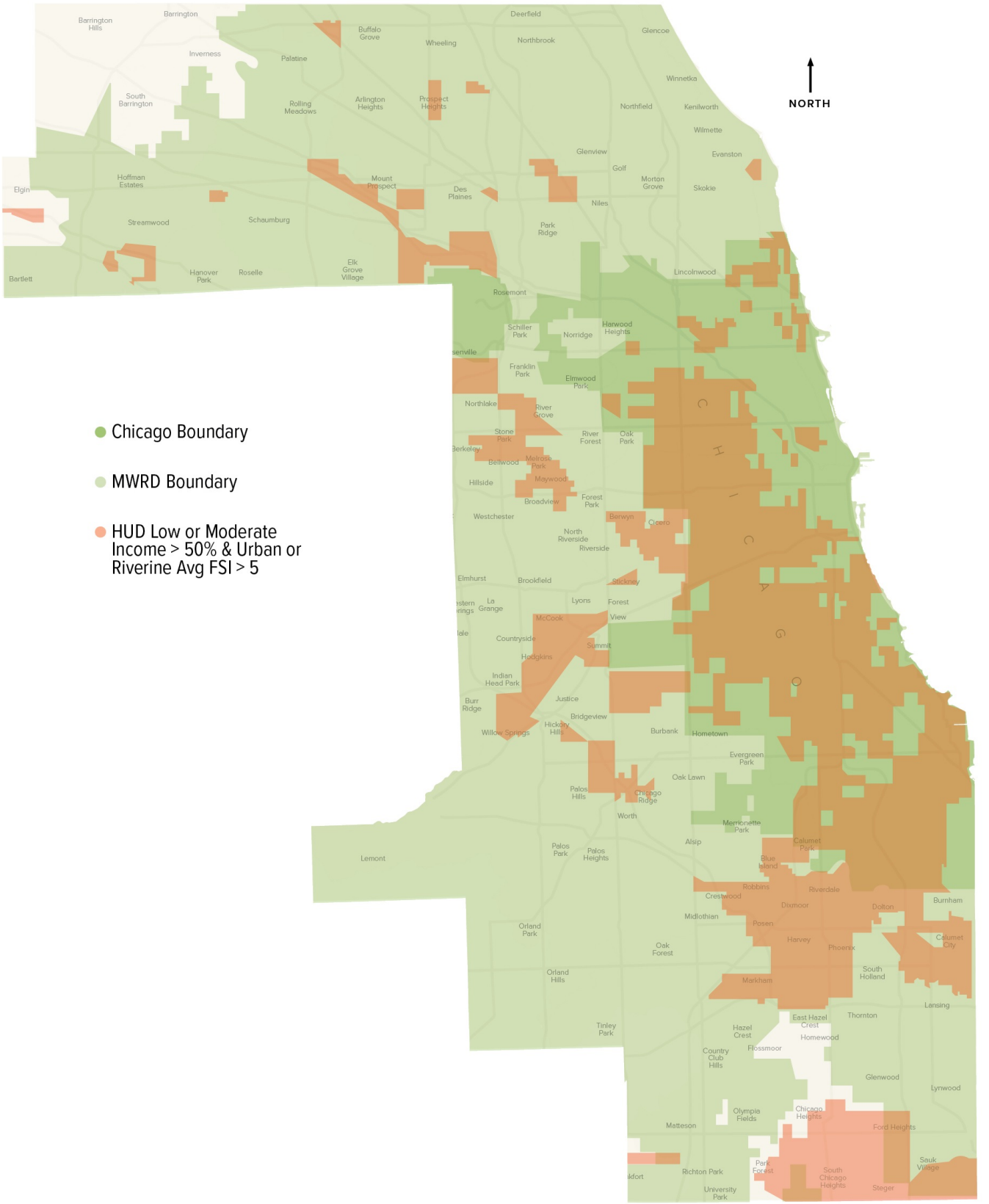


These disparities impact the MWRD because, as illustrated above, individual municipalities–not the MWRD–own and operate their local sewer systems. The MWRD owns large intercepting sewers that receive wastewater from these local systems.

Because different entities own different parts of the sewer system in Cook County, efforts to implement stormwater solutions and alleviate local flooding require close collaboration and partnership between impacted communities and the MWRD. Low- and moderate-income communities may not have the same capacity to partner with the MWRD as high-income communities, and these capacity constraints may serve as a barrier to the equitable implementation of stormwater projects across Cook County.

To support participation by all impacted communities regardless of their capacity, the MWRD has identified certain communities as disproportionately impacted areas (DIAs). These communities, illustrated on the following map, are low-to-moderate income areas that may be more susceptible to flooding. Efforts to identify and eliminate barriers to participation are a key focus of the new Strategic Plan.

Disproportionately Impacted Areas (DIAs) in Cook County



Disproportionately impacted area (DIA): *An area that has a Chicago Metropolitan Agency for Planning (CMAP) Urban or Riverine Flood Susceptibility Index (FSI) mean value of 5-10, as of July 24, 2018, and is within a Low to Moderate Income Area as defined by the U.S. Department of Housing and Urban Development (HUD).*

TRENDS AND OPPORTUNITIES

The new Strategic Plan must be responsive to significant trends, both positive and negative, that will impact the MWRD and its future success. The impact of climate change is discussed below, as well as key industry trends – Utility of the Future and circular economy – that continue to spur innovation and collaboration in the water industry.

Utility of the Future

A Utility of the Future represents an agency that is forward-thinking, innovative, a leader in sustainability and resilience, and transformative in the way that it recovers resources. The Utility of the Future Today recognition is a joint initiative led by the Water Environment Federation (WEF), the National Association of Clean Water Agencies (NACWA), the Water Research Foundation (WRF) and the WateReuse Association and is supported by the Environmental Protection Agency (EPA) Office of Wastewater Management, and the Department of Energy (DOE) Office of Energy Efficiency & Renewable Energy.

The MWRD was named a Utility of the Future Today in 2020 for its organizational culture, leadership, and innovation in stormwater management and wastewater treatment. The MWRD also earned this distinction, which is active for three years, in 2017.

The MWRD is committed to water stewardship and applied this approach during the development of the new Strategic Plan by including strategies such as maintaining a high level of performance, pursuing opportunities to recover and reuse resources, mitigating flooding through an equitable stormwater management program, and engaging with the community. While the recognition as a Utility of the Future Today is a premier achievement, the MWRD is responding to, and planning for, an uncertain tomorrow by considering key trends and opportunities such as climate change and circular economy.

Climate Change

The earth's climate is changing because of increased levels of greenhouse gases (GHGs) in the atmosphere; these changes are expected to produce a number of negative outcomes. First, as temperatures rise, sea levels will rise due to warmer ocean temperatures and melting glaciers. Rising temperatures are expected to produce two important seasonal conditions in our region: warmer and shorter winters, and warmer and more drought-prone summers. Lastly, warming is expected to accelerate and amplify the hydrological cycle, producing more intense rainfall events.

Northeastern Illinois has already experienced such adverse weather events, including record-breaking flooding, heat, and drought. The region broke the record for the most consecutive days above 100°F during the Midwest's drought in 2012, followed by flooding in 2013 and 2019 that warranted Presidential Disaster Declarations.

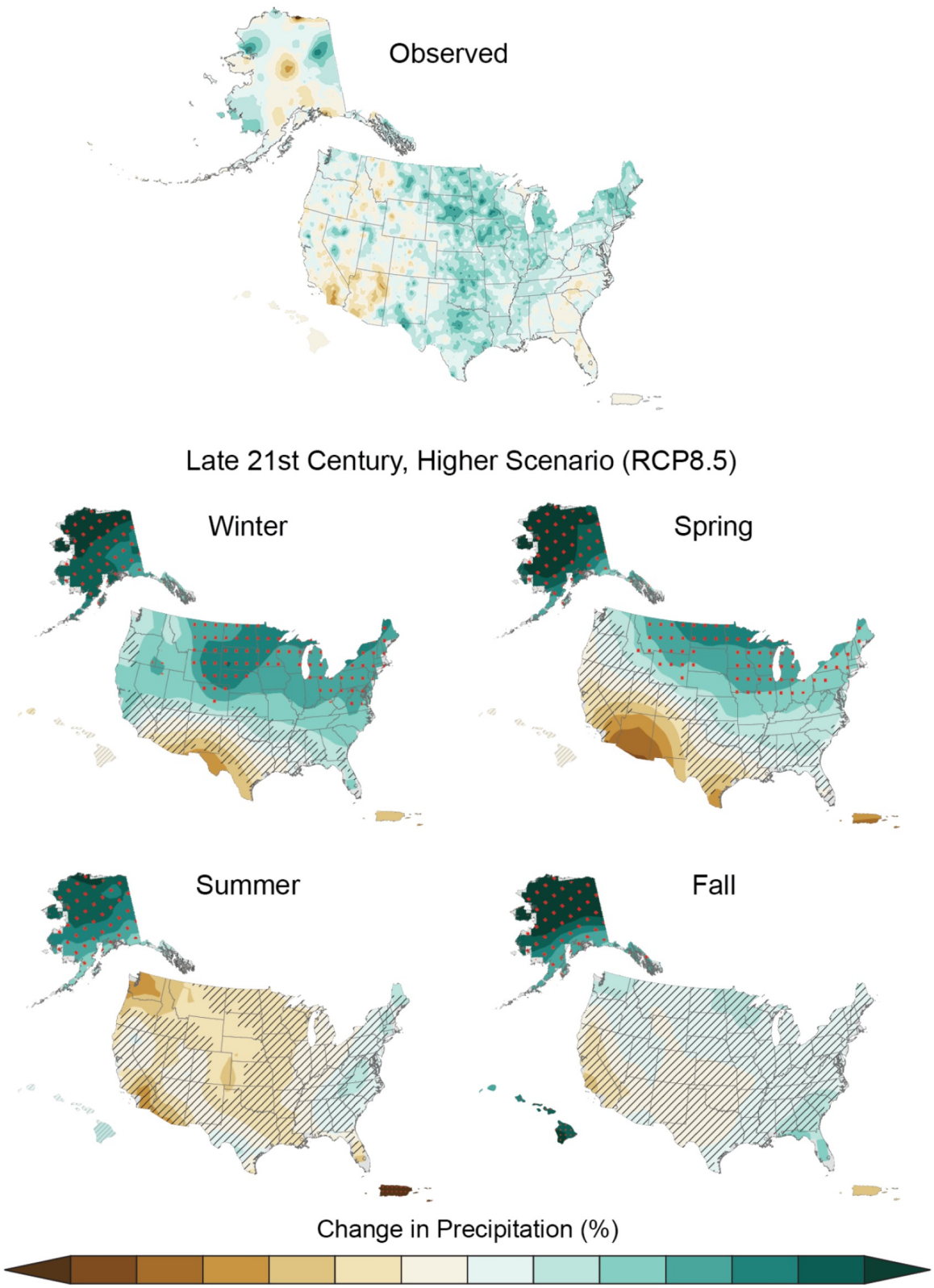
The impacts of climate change have significant implications for the region's economy, built environment, ecosystems, and residents. Flooding has led to major road, rail, and utility outages, sewer overflows, mold, damaged property, disruptions to freight traffic, and financial losses for local residents and businesses. Heat waves have caused illnesses, hospitalizations, and deaths in vulnerable populations, and drought has had significant adverse effects on the region's agricultural sector and natural areas.

The effects of climate change are also changing our assumptions about water resources, which are predicted to be one of the first significant areas impacted. As climate change warms the atmosphere and alters the hydrological cycle, changes in the amount, timing, form, and intensity of precipitation will continue. The following maps depict projected changes in seasonal precipitation across the United States in the late 21st century. These impacts are likely to affect water and wastewater utilities and efforts to protect water quality, public health, and safety.

The MWRD recently completed a draft of its Climate Action Plan (CAP), which was developed by an interdepartmental task force. The purpose of the CAP is to forecast changes in wastewater treatment and stormwater management capacity requirements and water quality goals to (1) guide future infrastructure planning, (2) support "climate resiliency infrastructure investment" decisions, (3) guide mitigation of the MWRD's greenhouse gas emissions that contribute to climate change, and (4) adapt to climate change-related impacts.

The first draft of the CAP was submitted to the Board of Commissioners in 2020 and was an important consideration in the development of the new Strategic Plan. The draft CAP was issued for Public Comment from July 8, 2022 to August 8, 2022. Information collected form these comments will be addressed and incorporated into the next version expected in the first quarter of 2023. One of the Strategic Plan's overarching goals, Enterprise Resilience, includes efforts to "achieve climate change and environmental justice protections."

Observed and Projected Changes in Seasonal Precipitation



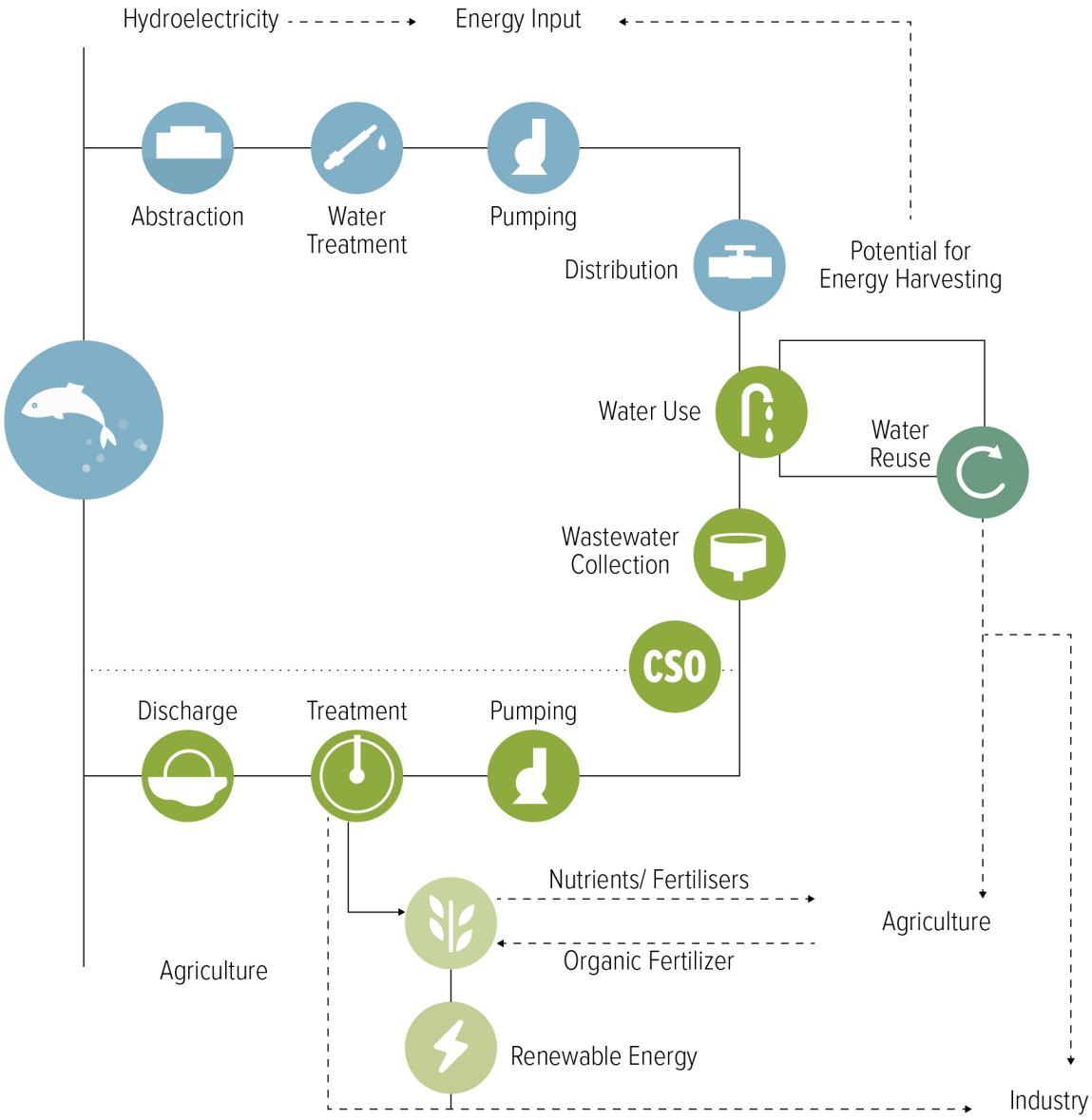
Source: *https://nca2018.globalchange.gov/downloads.*

Circular Economy

The three principles of circular economy are designing out waste externalities, keeping resources in use, and regenerating natural capital. Using this approach, materials, water, and products are managed in loops to maintain them at their highest possible intrinsic value.

The diagram below illustrates circular economy principles as applied to a typical water system.

Simplified View of the Components of a Municipal Water System



Source: *"Water and Circular Economy: A White Paper," Arup, Ellen MacArthur Foundation, Anteagroup, November 2019, p. 17.*

Implementing a circular economy approach over the next five years will enhance the MWRD's current operating business model, thereby improving asset productivity, reducing costs and delivering wider benefits, and regenerating the environment.

Circular economy enhancements are included across all aspects of the new Strategic Plan and include:

- New sources of value creation from waste flows and current assets, e.g., resource recovery at water reclamation plants;
- Significant resource productivity improvements (especially energy and chemicals);
- Equitable deployment of nature-based solutions and green infrastructure through partnerships;
- New collaborative ventures across the value chain;
- Creation of new value chains to generate social capital, employment opportunities, and community benefits – including education and skills attainment;
- Greater business resilience and reduced risk; and
- Platforms for long term collaboration and innovation.

STRATEGIC GOALS

The Strategic Planning Steering Committee aligned on five strategic goals to serve as the foundation of the 2021-2025 Strategic Plan.

Strategic Goal #1: Resource Management	Maintain a high level of performance on the core mission of protecting the public health and area waterways while pursuing opportunities to recover, reuse, and monetize resources.
Strategic Goal #2: Stormwater Management	Continue to mitigate flooding across Cook County through a proactive, equitable stormwater management program, including implementation of gray and green infrastructure, enforcement of the Watershed Management Ordinance, and acquisition of flood-prone property.
Strategic Goal #3: Workforce Excellence	Invest in the future by investing in employees; continue to recruit, develop, and retain best-in-class employees as the foundation of the MWRD's ongoing success.
Strategic Goal #4: Community Engagement	Engage with the community to position the MWRD as a critical community asset and to ensure that the MWRD is a responsive neighbor and inclusive business partner.
Strategic Goal #5: Enterprise Resilience	Ensure ongoing services that are reliable, equitable, and cost-effective; achieve climate change and environmental justice protections; prepare for other manmade and natural events; strengthen the MWRD's operational and financial positions.

Working Groups then developed strategies that will be implemented over the next five years to achieve these goals, as well as success measures and targets to gauge progress. The following pages present the identified strategies and selected success measures and targets for each of the five strategic goals. Baseline target refers to the present level of performance upon which future performance levels will be compared. To achieve a stretch target, staff must develop new strategies.

Strategic Goal #1: Resource Management

Goal

Maintain a high level of performance on the core mission of protecting the public health and area waterways while pursuing opportunities to recover, reuse, and monetize resources.

Current Efforts

The MWRD's seven water reclamation plants treat residential and industrial wastewater and achieved 100% overall compliance with the EPA's National Pollutant Discharge Elimination System (NPDES) requirements in 2021. As regulatory requirements continue to evolve (e.g., upcoming regulations limiting phosphorus contained in treated effluent), the MWRD is implementing innovative technologies and processes to maintain its record of compliance.

In addition, the water that flows into the MWRD's water reclamation plants is treated as a collection of raw resources to be recovered and reused. The MWRD produces clean water as well as sustainable resources like biosolids, energy, and nutrients like phosphorus that are increasing in scarcity and value. Resource recovery is a new frontier that benefits the environment and offers opportunities to recover operational costs.

The MWRD launched the Tunnel and Reservoir Plan (TARP) in 1972 to meet water quality standards in the 375 square mile combined sewer service area; the TARP is on schedule to be completed by 2029. The goal of the TARP is to reduce combined sewer overflows, thereby providing both pollution control and flood control, and it has already demonstrated its value in achieving this goal:

- In the south suburbs, combined sewer overflows have been nearly eliminated since the 7.9 billion gallon Thornton Composite Reservoir was completed in 2015.
- In 2018, during its first year in operation, the McCook Reservoir Stage 1 was filled 39 times and captured 27.2 billion gallons of water that would have overwhelmed area combined sewer systems and flooded streets, homes, and communities. When completed, the McCook Reservoir is estimated to provide more than $143 million annually in flood reduction benefits to 3.1 million people in Chicago and 36 suburban communities.

Not only do the tunnels and reservoir systems protect from flood damage, findings from a recent water quality monitoring study showed water quality improvements (e.g., decreases in concentrations of mean fecal coliform and total suspended solids) in the Calumet River System.

As part of its efforts to further improve water quality, the MWRD is working to identify per- and polyfluoroalkyl (PFAS) discharges to our collection system and urging regulators such as the EPA to use their tools to stop these chemicals at the source.

2021 - 2025 Resource Management Strategies

	SELECTED SUCCESS MEASURES AND TARGETS		
Strategy	**Success measure**	**Baseline target**	**Stretch target**
Strategy #1: Maintain high level of permit compliance as requirements evolve; continue efforts to improve water quality	NPDES permit compliance	100%	100% for 5 consecutive years
Strategy #2: Monitor and continue to reduce CSOs into area waterways	TARP completion	80% of McCook Stage 2 Mining and 100% of Des Plaines Inflow Tunnel	85% of McCook Stage 2 Mining and 100% of Des Plaines Inflow Tunnel
	Outreach to Chicago/ other municipalities regarding TARP, using green infrastructure to reduce CSOs, etc.	Develop outreach program and team	Hold regular meetings; develop additional joint projects to address CSOs
Strategy #3: Manage MWRD assets to maintain optimal long-term performance and sustainability	TBD	TBD	TBD
Strategy #4: Pursue resource recovery opportunities to increase sustainability and recover costs	Biogas utilization	Develop plan to achieve 100% utilization	100% utilization
	Biosolids used locally	20,000 dry tons/year	30,000 dry tons/year
	Internal effluent reuse	1% of total treated effluent used internally	3% of total treated effluent used internally
Strategy #5: Develop innovation ecosystem; drive innovation through partnerships with water associations, universities, labs, water technology firms, etc.	Number of ongoing pilot/ full-scale research studies	10 studies	15 studies
	Number of external partner projects aligned with strategic goals	20 projects	25 projects

** The targets' due dates are the end of the five-year Strategic Plan unless otherwise specified.*

Stickney Water Reclamation Plant

Strategic Goal #2: Stormwater Management

Goal

Continue to mitigate flooding across Cook County through a proactive, equitable stormwater management program, including implementation of gray and green infrastructure, enforcement of the Watershed Management Ordinance (WMO), and acquisition of flood-prone property.

Current Efforts

The MWRD partners with communities to build capital improvement and green infrastructure projects that address regional and local flooding issues and manages a flood-prone property acquisition program that removes homes built in the floodplain. Today, the MWRD has nearly 100 stormwater management projects in design or construction. These projects incorporate elements of both gray and green infrastructure, ranging in size from massive reservoirs to green alleys and permeable parking lots. One example is the Space to Grow program, which implements green infrastructure in schoolyards while creating vibrant places to play and learn through a partnership with Chicago Public Schools, the Chicago Department of Water Management, Healthy Schools Campaign, and Openlands.

Cook School before (L) and after (R).

Davis School before (L) and after (R).

The MWRD also administers the WMO, which regulates sewer construction within the MWRD's service area and development within suburban Cook County.

A recent update to the WMO reflects current conditions, including increasing stormwater detention requirements based on the Illinois State Water Survey's Updated Bulletin 75 rainfall data (published in March 2019), which indicated that annual average rainfall across Illinois has increased by 11 percent over the past century.

2021 - 2025 Stormwater Management Strategies

	SELECTED SUCCESS MEASURES AND TARGETS		
Strategy	**Success measure**	**Baseline target**	**Stretch target**
Strategy #1: Develop comprehensive framework to guide proactive implementation of stormwater solutions across Cook County	Coverage of Stormwater Masterplans	75% of service area	100% of service area
Strategy #2: Partner with local communities to significantly increase stormwater management projects	Expansion of green infrastructure (GI) project and local stormwater partnership project (LSP) partnerships with municipal agencies	92 projects	120 projects
	Expansion of GI and LSP partnerships with non-municipal agencies (e.g., park districts, school districts, etc.)	30 projects	45 projects
Strategy #3: Ensure that stormwater management programs support participation by all communities, regardless of local capacity	Increased number of projects in underserved areas prone to flooding: -Local projects -Green infrastructure	Develop specific metrics to apply to stormwater programs; use for targeted outreach to ensure underserved areas have access	Develop specific metrics to apply to stormwater programs; use for targeted outreach to ensure underserved areas have access, implemented by 2024
Strategy #4: Identify and pursue opportunities for partnering on multi-benefit projects and for coordination with other agencies to minimize cost of stormwater management projects	Portion of projects that receive funding from agencies and organizations other than the MWRD and the immediate partnering agency	20%	25%
Strategy #5: Identify and pilot stormwater management best practices and innovation; scale most promising practices	Number of best practices for which pilot study has started in past 5 years	2 practices	3 practices
Strategy #6: Partner with climate scientists to model long-term regional climate changes and impact on flooding	Number of partnerships with agencies and universities on climate research related to impacts of flooding	1 partnership	2 partnerships
	Number of watersheds where hydrologic and hydraulic models are updated with new rainfall data	2 out of 6 watersheds	3 out of 6 watersheds

** The targets' due dates are the end of the five-year Strategic Plan unless otherwise specified.*

Strategic Goal #3: Workforce Excellence

Goal

Invest in the future by investing in employees; continue to recruit, develop, and retain best-in-class employees as the foundation of the MWRD's ongoing success.

Current Efforts

The MWRD is committed to building a talented and diverse workforce that reflects the communities it serves and currently employs over 1,700 full time employees with an overall minority workforce rate of 44% and an overall female workforce rate of 26%. A wide range of recruitment strategies are used to source qualified and talented candidates, including leveraging online job boards and social media to advertise employment opportunities, and regularly participating in job fairs sponsored by career and community development offices, on-campus student organizations, and state workforce development agencies. The MWRD works hard to source talent for historically underrepresented job classifications, taking additional steps to increase outreach among ethnically diverse and female candidates. This includes an internship program focused on diversity and inclusion that exposes this potential future candidate pool to careers in wastewater treatment, stormwater management, and resource recovery.

The MWRD is also committed to the continued growth and development of current employees - employees have an annual 24-hour training goal to foster personal and professional development. A robust and customizable online training platform facilitates the individual training needs of all employees and helps in meeting their development goals. In addition, the MWRD strives to provide management soft skills and compliance training annually through in-person and on-line training, as well as industry-specific and technical training in a variety of operating departments. For employees interested in furthering their education, the MWRD offers a generous tuition reimbursement program.

Treatment plant operators at the Egan Water Reclamation Plant discuss operations to remove nutrients from wastewater using the most efficient, economical ways possible that also reduce the District's energy and carbon use.

2021 - 2025 Workforce Excellence Strategies

	SELECTED SUCCESS MEASURES AND TARGETS		
Strategy	**Success measure**	**Baseline target**	**Stretch target**
Strategy #1: Foster a culture that recognizes the value of every employee	Employees feel they are valued equitably (including intrinsic rewards, feelings of respect, job satisfaction)	Establish a baseline score for job satisfaction by the end of 2023	Continual improvement in annual employee satisfaction survey score through 2025
Strategy #2: Provide a workplace environment that meets evolving needs	Employees understand their value and role in accomplishing the MWRD's mission	Establish a baseline score for employee engagement by the end of 2023	Continual improvement in annual employee engagement survey score through 2025
Strategy #3: Ensure that the performance evaluation system tied to measurable competencies and distinguishes between different levels of performance	Employees are participating in their individual personal development plans	Provide training/ communication regarding inclusion of personal development plans in performance evaluations in 2023	80% of performance evaluations include a personal development plan by 2025
Strategy #4: Ensure that roles and descriptions evolve with industry trends and strategic direction	Classification plan and organizational structure align with operational needs and strategic goals	Review 30% of the job classifications by the end of 2023	Review 100% of the job classifications by 2025
Strategy #5: Provide ongoing training to supervisory staff regarding coaching and giving feedback	Employees are receiving coaching from their managers	100% of supervisors have received management and coaching training by the end of 2023	100% of staff are receiving annual management and coaching training by 2025
Strategy #6: Continue to offer all staff a baseline training allocation	Supervisors are mentoring employees or sharing their knowledge	75% of staff are meeting established training targets by 2024	100% of staff are meeting established training targets by 2025
Strategy #7: Identify and scale existing best practices for staff advancement and promotion within civil service system	Employees are pursuing promotional opportunities	Establish a baseline percentage of eligible promotional candidates participating in civil service exams by the end of 2023	Year-over-year improvement in the percentage of eligible promotional candidates participating in civil service exams through 2025
Strategy #8: Continue to develop targeted recruitment, mentoring, and professional development programs to increase diverse representation in key job categories	Internal candidates are mentored to encourage interest in promotional opportunities	Increase Labor Force availability rates in key job categories by 2025	Increase Labor Force availability rates in key job categories by 2024

** The targets' due dates are the end of the five-year Strategic Plan unless otherwise specified..*

Strategic Goal #4: Community Engagement

Goal

Engage with the community to position the MWRD as a critical community asset and to ensure that the MWRD is a responsive neighbor and inclusive business partner.

Current Efforts

The MWRD's Board of Commissioners and talented staff of scientists, engineers, and water experts speak in communities and classrooms and take leadership roles in professional organizations. In addition, the MWRD hosts thousands of visitors for tours of its water reclamation plants, pumping stations, and other facilities to educate members of the public and encourage their participation in helping to protect the water environment. The MWRD also holds open houses for all ages, distributes Exceptional Quality (EQ) Compost and free oak tree saplings, and participates in public outreach events.

The MWRD educates thousands of visitors and empowers them to join efforts to protect the water environment.

The MWRD's Diversity Section continues to fulfill its community leadership role regarding contract and employment diversity in the MWRD's service communities by establishing and monitoring goals for Minority-owned Business Enterprises, Women-owned Business Enterprises, and Small Business Enterprises.

2021 - 2025 Community Engagement Strategies

	SELECTED SUCCESS MEASURES AND TARGETS		
Strategy	**Success measure**	**Baseline target**	**Stretch target**
Strategy #1: Develop and express consistent branding and messaging to all audiences	Branding and graphic standards in place and used consistently across all MWRD touch points	80% in use	95% in use
Strategy #2: Raise public awareness of the value of the MWRD's work and encourage public involvement	Number of requests for educational services and speakers	80% increase	100% increase
Strategy #3: Expand partnerships, outreach and engagement to new audiences	Number of new partnerships	10% increase by December 2022	20% increase by December 2022
	Number of social media followers (Facebook, Twitter, LinkedIn, YouTube)	10% increase by December 2022	20% increase by December 2022
	Number of attendees who participate in outreach events and presentations	10% increase by December 2022	20% increase by December 2022
	Number of website visits	10% increase by December 2022	20% increase by December 2022
Strategy #4: Enhance the experience of vendors that do business with the MWRD	Number of bidders on contracts	10% increase	20% increase
	Reduction in the time from award to start date of the contract and agreement	Within 45 days of award	Within one month of award
Strategy #5: Increase diverse participation in MWRD contracts	Number of diverse vendors newly engaging with the MWRD	Year-over-year increase	Year-over-year increase by 2024
Strategy #6: Expand partnerships and focus outreach (internal and external) on specific groups	Number of new partnerships	Year-over-year increase	Year-over-year increase by 2024

** The targets' due dates are the end of the five-year Strategic Plan unless otherwise specified.*

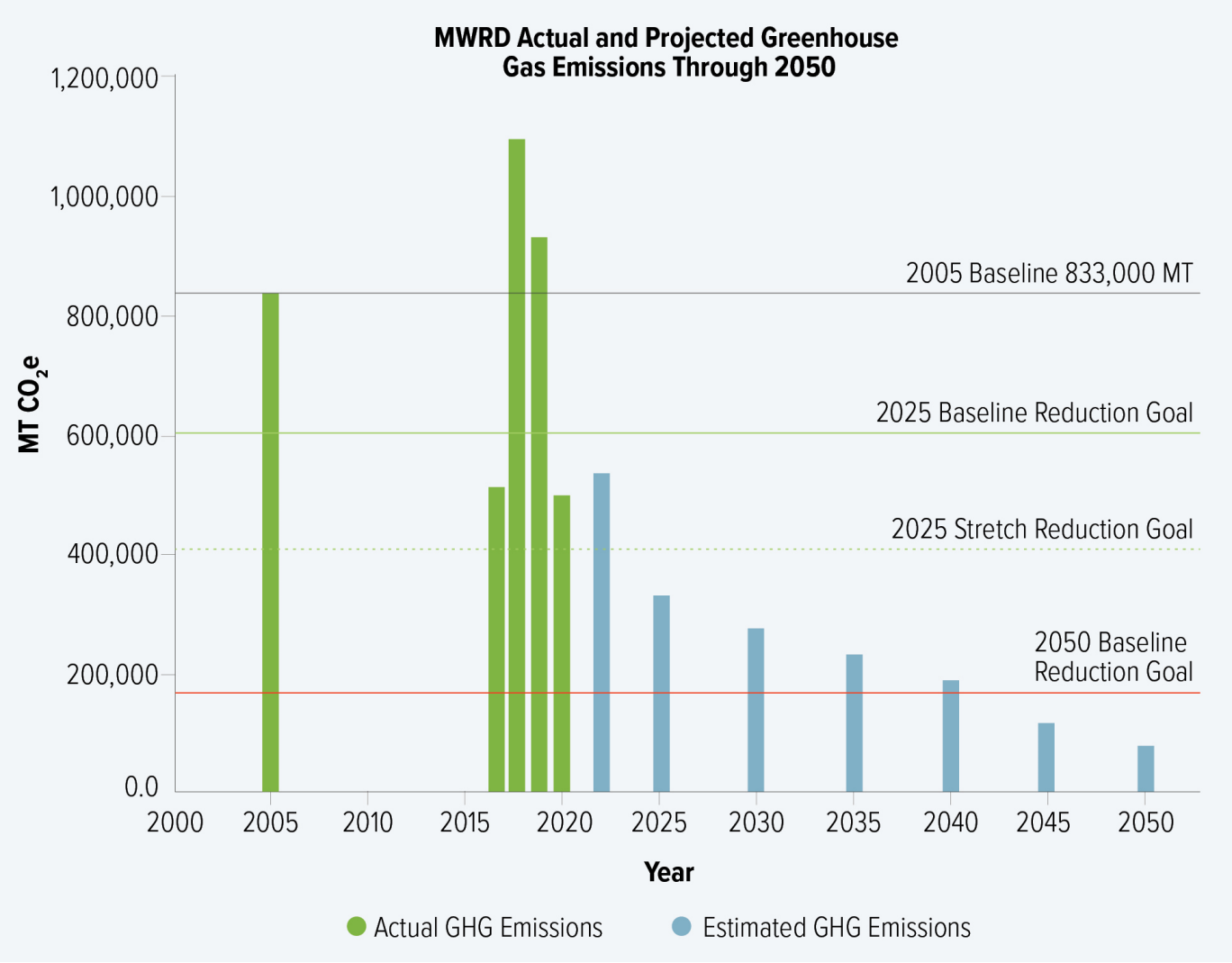
Strategic Goal #5: Enterprise Resilience

Goal

Ensure ongoing services that are reliable, equitable, and cost-effective; achieve climate change and environmental justice protections; prepare for other manmade and natural events; strengthen the MWRD's operational and financial positions.

Current Efforts

The MWRD established interdepartmental task forces to draft a Climate Action Plan (CAP) to reduce the agency's greenhouse gas emissions in accordance with the Paris Agreement and to draft a Sustainability and Resiliency Action Plan (SARAP) to provide an integrated approach to addressing challenges in continuing to deliver affordable wastewater treatment and stormwater management services. Both plans have been submitted to the Board of Commissioners for their review and approval.



The agency has also implemented ongoing efforts to assure the continuity of operations in adverse circumstances, including annual updates to the agency's Emergency Operations Plan (EOP), Business Continuity Plan (BCP), and Critical Operational Guidance Documents (COGs), as well as regular exercises to test its emergency response plans.

The MWRD continues to maintain a AAA bond rating from Fitch Ratings and a AA+ bond rating from Standard & Poor's. Its funding policies for both its Retirement Fund and Other Postemployment Benefits Fund demonstrate a commitment to long-term fiscal management and contribute to the MWRD's strong credit ratings.

2021 - 2025 Enterprise Resilience Strategies

	SELECTED SUCCESS MEASURES AND TARGETS		
Strategy	**Success measure**	**Baseline target**	**Stretch target**
Strategy #1: Proactively expand efforts to strengthen functionality in the face of future events; finalize and implement climate change and resiliency plans*	Reduction of greenhouse gas (GHG) emissions in accordance with Paris Agreement and Board Resolution File #17-0728	28% reduction of 2005 GHG emissions	50% reduction of 2005 GHG emissions
Strategy #2: Assure agency resilience and readiness for effective response to emergencies that could put at risk the health and safety of employees, negatively affect operations, disrupt essential services, or put at risk the general public	Emergency plans are updated regularly, incorporating learnings, as appropriate	Annual update	Real time, if online
	Emergency exercises are conducted	Annual exercise	2-3 exercises/year
	Risk assessment activities are conducted periodically and inform emergency plans and exercises	Risk assessment project undertaken in Year 3 (June 2023 – July 2024)	Risk assessment project undertaken in Year 2 (June 2022 – July 2023)
	Cyber security maturity assessment (baseline document)	Maintain Level 3	Progress to Level 4
Strategy #3: Support innovation and harness problem solving capacity at all organizational levels	Number of employees publicly recognized for innovation and problem solving	10% year-over-year increase	20% year-over-year increase
	Number of problems solved annually through task forces	Increasing	Doubled
Strategy #4: (merged with strategy #3)			
Strategy #5: Standardize operations –streamline and automate internal processes; scale lessons learned from pandemic response	Number of processes that have been improved	1 process per year	Up to 2 processes per year
Strategy #6: Maintain strong fiscal management; identify and leverage opportunities for cost reduction and cost recovery	Maintain strong credit ratings	AAA/AA+	AAA/AAA
Strategy #7: Increase visibility around goals and performance indicators	Centralized, public facing, interactive reporting around Strategic Plan and goals that is easy to use	One operational system online by the end of December 2022	One operational system online by December 2022

** The Board of Commissioners will be discussing and adopting a Climate Action Plan in 2023 that will include policy direction on net energy neutrality, carbon neutrality, and greenhouse gas reduction goals, including becoming energy-neutral and eventually energy-positive.*
*** The targets' due dates are the end of the five-year Strategic Plan unless otherwise specified.*

CONCLUSION

Since undertaking the extraordinary feat of reversing the flow of the Chicago River to protect Lake Michigan, the MWRD has engaged in more than a century of progress and continuous innovation to care for the region's water environment. Today, that record of innovation continues as the agency works to develop comprehensive solutions to manage stormwater and prevent flooding, while implementing emerging technologies to improve water quality and protect a river that is soaring in popularity. The MWRD is developing new systems to reduce nutrients in treated water, decreasing greenhouse gas emissions, conserving and reusing water, recovering renewable resources, and maintaining a tradition of reliability and resourcefulness.

The 2021-2025 Strategic Plan lays out the specific goals, strategies, and success measures that will guide the MWRD over the next five years. It was developed with significant engagement from the Board of Commissioners, MWRD leadership and staff, local governments, members of the public, and others. The implementation of the Strategic Plan will continue to prioritize collaboration - actively forming new partnerships and engaging with communities - to build a more resilient Cook County.