



ANN ARBOR
WATER

ANN ARBOR WATER STRATEGIC PLAN

Water Treatment Plant Facility Plan
2023

“

The WTP Facility Plan project is of great importance to the City of Ann Arbor and requires thorough strategic planning.”

Milton Dohoney Jr.
City Administrator
City of Ann Arbor



Ann Arbor's water treatment plant on Sunset Road

FOREWORD



I am excited to present the Ann Arbor Water Strategic Plan steering the design and implementation of the Ann Arbor Water Treatment (WTP) Facility Plan. This investment will enable our utility to uphold high-quality safe drinking water delivery and equitable access for the next 50 years.

We developed a forward-looking Strategic Plan through a collaborative engagement process. I want to thank everyone for your thoughtful participation that yielded strategic direction rooted in the principles of trust, community, accountability, sustainability, and knowledge.

Our plant currently serves the purpose of delivering exceptional water quality. It must be optimized to keep pace with evolving needs. The strategic planning process prompted us to establish a vision of integrated goals focused on rehabilitating aging infrastructure and addressing contaminants of concern. To this end, we must also prioritize workforce needs and diversify and protect our river and well water sources to address planned and unplanned challenges.

We have an opportunity to demonstrate commitment to the actionable strategies outlined in this Strategic Plan, and proactively maintain Ann Arbor's position at the forefront of innovation to meet evolving needs. Our team will continue to provide transparent and accessible information to facilitate understanding of the state of our drinking water.

Let us all use this plan as a guide for action and an accountability tool as we advance toward the future. We will continually update this document to reflect our accomplishments and changes in collective needs over time. I encourage everyone to provide feedback to inform water delivery and access across all communities served by Ann Arbor Water.

Glen Wiczorek, PE
Senior Utilities Engineer
gwiczorek@a2gov.org

A handwritten signature in black ink that reads "Glen Wiczorek". The signature is written in a cursive, flowing style.



Ann Arbor Farmers Social

“This is going to be the largest project in the history of the City’s water system, so it’s really transformational.”

Brian Steglitz, PE
Water Treatment Unit Manager,
Ann Arbor Water

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01 EXECUTIVE SUMMARY

Why strategic planning?

The Strategic Plan is the outcome of the Ann Arbor Water strategic planning process that involved diverse participants from September 2022 through February 2023. Strategic planning aims to help address anticipated and unpredictable events that affect water treatment. The Strategic Plan, the first for Ann Arbor Water, provides a directional and aspirational definition toward developing the WTP Facility Plan, and ultimately the 50-Year Roadmap. This plan sets the framework, priorities, and sequence of the work for Ann Arbor Water into immediate and future time frames.

What led to this work?

The City of Ann Arbor is embarking on a major investment in the water system with the WTP Facility Plan currently under development. This capital investment in the water system is the largest in Ann Arbor Water's history, and therefore is multi-year and multi-phase. The Ann Arbor Water system has successfully and progressively served the community for the previous 100 years, and current planning efforts will define success and preparations to be successful in the next 50 years.

Like most water systems across the country, the water treatment plant must maintain aging infrastructure, comply with regulations governing drinking water and anticipate threats to the sources used by the City. Through approval from City Council, rehabilitation of the oldest part of the water treatment plant is the investment focus, including current water quality challenges of new contaminants.

What's the plan?

The Strategic Plan lays the path for universal access to high-quality safe drinking water – today and well into the future. The [Strategic Framework](#) section describes Ann Arbor Water Guiding Principles, Aspirational Goals, and Tracking Measures. The Guiding Principles are foundational to the Plan, and will direct decision-making for the next 50 years at Ann Arbor Water.

ANN ARBOR WATER GUIDING PRINCIPLES DEVELOPED AS A DIRECT OUTCOME OF STAKEHOLDER ENGAGEMENT

WE CONSISTENTLY DELIVER. *Trust in level of service*

TRUST | Uphold trust and confidence in drinking water through reliable and resilient water treatment

WE ARE A COMMUNITY. *Value of our shared resource*

COMMUNITY | Prioritize inclusive service to the community of Ann Arbor through engagement to inform service delivery

WE ARE ACCOUNTABLE TO YOU. *Care in responsible management*

ACCOUNTABILITY | Demonstrate stewardship of resources by planning efficiently to deliver affordable, quality service

OUR FUTURE IS NOW. *Innovation for the future*

SUSTAINABILITY | Spark industry-leading solutions through collaboration in pursuit of an equitable, sustainable, and resilient future

KNOWLEDGE IS POWER. *Access to Information*

KNOWLEDGE | Transparent communication and access to information empowers all

How did we do it?

Strategic planning involved diverse groups of participants in active and participatory workshops attended by major customers and key City of Ann Arbor staff in a combined audience - rolling up sleeves and tackling the future of Ann Arbor Water together.

Strategic planning was a collective effort to align priorities across the City of Ann Arbor leadership, water treatment plant staff, major water customers, and community with attention to underrepresented groups, engaged through public events and surveys.

What's the bigger picture?

The Strategic Plan is the basis for the WTP Facility Plan, and the first project is the rehabilitation of the oldest part of the water treatment plant. The Strategic Plan will serve as a reference, inspiration, and guide for Ann Arbor Water as it continues to evolve, to adhere to changing conditions in a way that aligns with its strategic and aspirational goals.

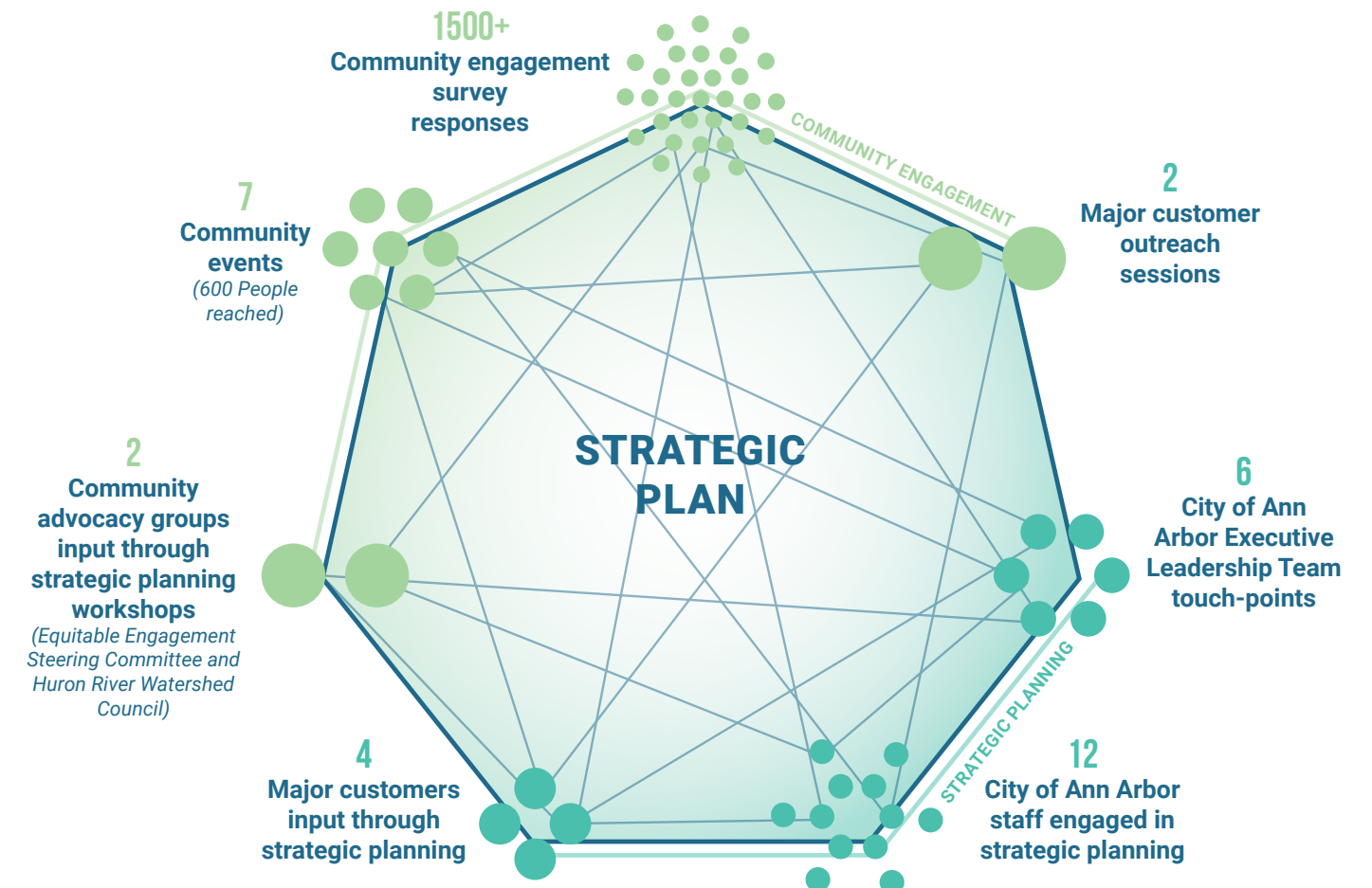
The WTP Facility Plan considers the operational, maintenance, and regulatory needs as required to

deliver water treatment services in the near-term with the flexibility to address future needs. It includes the design and construction phases of rehabilitating the oldest part of the water treatment plant, which is one of the key near-term focuses for the WTP Facility Plan.

The strategic planning process identified examples of tracking measures to monitor progress towards the set aspirational goals. The [Next Steps](#) section of this plan includes ideas that may be explored to transition the Strategic Plan into action.

The Strategic Plan is a living document to be reviewed and re-evaluated over time for alignment to current conditions, recommended every five years.

INCLUSIVE STRATEGIC PLANNING



02 PLAN PURPOSE

Purpose of strategic planning

Strategic planning is a process to define goals across time horizons, and identify how to achieve those goals. The Strategic Plan is a tool to foster accountability and transparency as all participants act collaboratively to achieve a set vision. It is the outcome of alignment of values, priorities, and aspirations across participants engaged in the process. This Strategic Plan is the first and one of three sequential deliverables of the WTP Facility Plan project. The second deliverable is the WTP Facility Plan which will assess water treatment needs and align plant site use towards aspirational goals. The third deliverable is the 50-Year Roadmap that will facilitate the alignment of Ann Arbor Water's short-term and future water treatment service goals.

Why strategic planning?

Ann Arbor Water conducted strategic planning as the first step in developing an overall WTP Facility Plan to guide the anticipated infrastructure investments over the 50-year planning horizon. With this investment, Ann Arbor Water conducted comprehensive strategic planning to address aging infrastructure, regulatory requirements, reliability, and delivery over a 50 year planning horizon. The WTP Facility Plan will enable equitable access to high-quality safe drinking water today and into the future.

How the Strategic Plan was developed

Ann Arbor Water will use the Strategic Plan for ongoing monitoring, evaluation, and adjustment to meet milestones and accomplish goals. The strategic planning process included: (1) defining the process and development milestones, (2) engaging participants for direct dialogue between major customers and City staff, (3) documenting outcomes to deliver the Strategic Plan, and (4) evaluating progress toward goals - recommended every five years. This is a living document to be reviewed and re-evaluated over time for alignment to current conditions.

Aerial of Ann Arbor water treatment plant



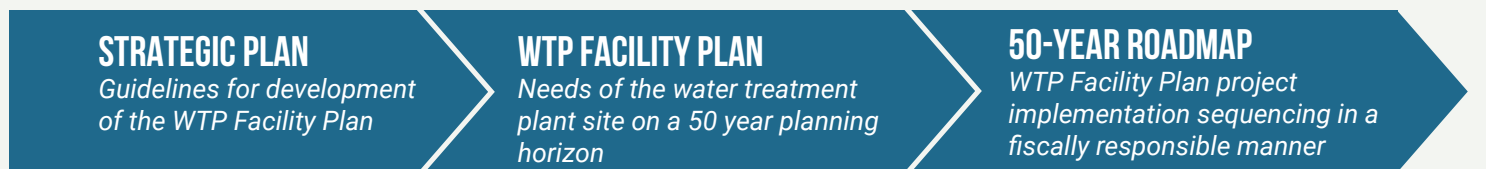
Ann Arbor water treatment plant



Interior of Ann Arbor water treatment plant



STRATEGIC PLANNING PROCESS



How the Strategic Plan and other components are driven and guided by one another

Community Profile

Ann Arbor is in Washtenaw County in Southeast Michigan. It is the fifth largest city in the state of Michigan with an estimated total population of 121,536 people per the 2021 U.S. Census. Ann Arbor is along the Huron River, the source of 85% of the drinking water provided by the City's water treatment plant.

Ann Arbor was founded in 1824 and chartered as a city in 1851. The University of Michigan relocated to Ann Arbor in 1837 and has contributed to the diversification of the City's population. The U.S. Census Bureau estimates the City population to be 67.6% white, 15.7% Asian, 5.5% Hispanic or Latino, and 6.8% black or African American (2021). The University of Michigan's population makes up approximately 39% of the City's population.

Economic growth and development are significant for Ann Arbor. The U.S. Census Bureau estimates that the median household income in Ann Arbor is \$73,300 (2021). The University of Michigan plays a significant role in the economy of Ann Arbor. The University of Michigan draws diverse talent and business to the City creating over 35,000 jobs, 12,000 provided by the University of Michigan Medical Center.

Ann Arbor's history, community, and economy contribute to Ann Arbor being one of the top tourist destinations in the Midwest and one of the most livable small cities in the USA in recent years.



Water treatment plant tour
10 | ANN ARBOR WATER



Water treatment plant open house



Water treatment plant control center

HISTORY OF LEADERSHIP IN DRINKING WATER

- 1913**
The City of Ann Arbor buys the Ann Arbor Water Company for \$470,000. There are 40 miles of water mains
- 1920**
Meters are installed for all customers, and water is billed based on use
- 1932**
A 6 million gallon covered reservoir is constructed on Sunset Road to replace the original 2-million-gallon, open-air reservoir
- 1937**
Ann Arbor begins using both river and well water as raw water sources for drinking water to City residents
- 1938**
Ann Arbor water treatment plant is commissioned
- 1949**
Construction of a new Barton pump station to replace the old steam-powered pump
- 1983 - 1985**
City signs agreements to supply water to Ann Arbor Township and Scio Township
- 1996**
Ozone building complete and operational to protect against pathogens present in the source water
- 2019**
PFAS improvement which includes modifications to the water treatment filter media
- 2020**
Implemented a new UV system to provide additional treatment for *Cryptosporidium* present in water sourced from the Huron River
- 2022**
WTP Facility Planning begins to guide rehabilitation of the oldest part of the water treatment plant, and treatment of contaminants of concern
- 2023**
WTP Strategic Plan is developed - a living document that will steer water treatment service delivery

Ann Arbor Water Profile

In 1913, the City of Ann Arbor bought the Ann Arbor Water company for \$470,000. The waterworks system at that time consisted of 40 miles of water mains. Today, the City of Ann Arbor, through Ann Arbor Water, is responsible for maintaining over 450 miles of water mains to more than 28,885 service connections (including 3,000 fire hydrants).

Ann Arbor Water sources 85% of its water from the Huron River, a 130-mile-long river, and 15% from three wells on the Steere Farm Well Field. Once treatment at the water treatment plant site is complete, water is pumped to homes, schools, and businesses, in Ann Arbor as well as to Ann Arbor and Scio Townships for resale to their customers. Ann Arbor Water also manages the City's water distribution system that supplies water to approximately 125,000 people at an average daily demand of 14 million gallons.

In 2022, the City of Ann Arbor rebranded its water department into [Ann Arbor Water](#). Today, the wastewater, stormwater, and drinking water departments are working together to deliver high-quality water services and maintain the public health for the Greater Ann Arbor community. Ann Arbor Water has established and outlined in this plan the guiding principles and aspirational goals that will steer water service delivery to achieve universal access for everyone and advance city goals.



- Ann Arbor Customer Locations
- Ann Arbor Infrastructure Locations

Key water features in Ann Arbor (Huron River, WTP Plant, Steere Farm, Barton Dam, Superior Dam, Argo Dam, Geddes Dam, Ann Arbor Township, Scio Township)

ANN ARBOR WATER SYSTEM FACTS



85%

OF WATER IS SOURCED FROM THE HURON RIVER



15%

OF WATER IS SOURCED FROM STEERE FARM WELLS



14

MILLION GALLONS OF WATER SUPPLIED ON A DAILY AVERAGE



175,000+

WATER TESTS CONDUCTED PER YEAR



100

CONTAMINANTS TESTED



28,885

SERVICE CONNECTIONS

Industry Trends | Consistent Themes Across Water Systems

Contaminants of concern

Water quality standards and regulations evolve over time to reflect advances in industry awareness of contaminants. Ann Arbor Water is investing in technology and research to maintain an understanding of contaminants and advance innovative treatment.

Aging physical infrastructure

Across the industry, water utilities are undertaking significant capital investments to rehabilitate or replace aging infrastructure to enhance resiliency and reliability. Ann Arbor Water is undertaking the largest capital improvement project in its history to rehabilitate the oldest portions on the site and update treatment technologies to uphold a high-quality service over time.

Aging workforce

Workforce recruitment and retention require a plan for knowledge transfer and succession planning. Ann Arbor Water is prioritizing strategies to facilitate the upcoming transition such as planned retirements through increasing the role of automation, and facilitating interest in the water industry as a career.

Population dynamics

Cities in the Great Lakes region expect to see impacts of climate migration from other parts of the USA, representing a new driver for population growth. Ann Arbor Water has sufficient supply and redundancy to meet demand in the short term; in the future this will need to be studied based on observed changes in population dynamics.

Climate change

The impacts of climate change such as rising temperatures, algal blooms, longer droughts, and flooding are causing fluctuations in the availability and quality of the river and groundwater used for drinking water. Ann Arbor Water sources 85% of its raw water from the Huron River, therefore opportunities for expanding the well water supply are being explored to diversify sources.

Customer expectations

Customers expect high-quality safe drinking water that they can rely on daily and that repairs occur promptly. Ann Arbor Water is developing interactive data dashboards to provide water quality information and improve access to water quality information for customers.

Technology and innovation

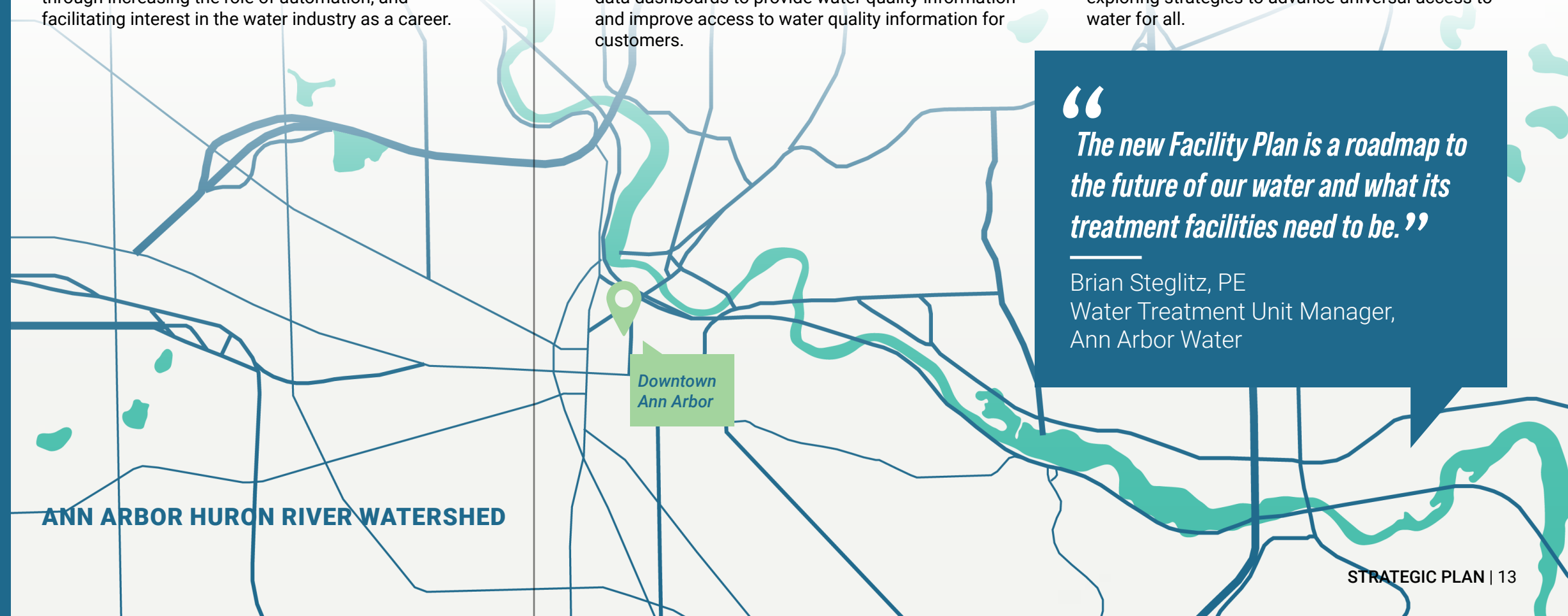
Water treatment service delivery is evolving along with technological advances in monitoring, treatment, distribution, and communications. The 50-Year Roadmap is designed with flexibility, to take advantage of future advances in treatment technologies to enhance adaptability, resiliency, and reliability over time.

Financial constraints

Water utilities face the challenge of balancing quality of service with affordable rates, in an ever-fluctuating economic environment. Ann Arbor Water is engaging in stringent fiscal planning for capital improvements, with key considerations for affordability, and will continue to seek government funding for infrastructure projects.

Equity

The goal across the water sector is to ensure access regardless of ability to pay. While water utilities within the state of Michigan must contend with rate subsidization constraints, the City of Ann Arbor is exploring strategies to advance universal access to water for all.



“
The new Facility Plan is a roadmap to the future of our water and what its treatment facilities need to be.
”

Brian Steglitz, PE
Water Treatment Unit Manager,
Ann Arbor Water

ANN ARBOR HURON RIVER WATERSHED

03 PLAN CONTEXT

The WTP Facility Plan project includes multiple efforts as described in the parallel efforts section of this document. Ann Arbor Water prioritized developing this Strategic Plan to serve as a guide for all the other ongoing efforts, and ensure planning and investments today (WTP Facility project) and in the future are made in alignment with community priorities. The WTP Facility Plan Project resulted from a series of events. In 2015, the City of Ann Arbor completed a Water Treatment Plant Alternatives Evaluation exploring the following options:

- Construct new well fields or expand existing well fields,
- Construct a new or rehabilitate the existing water treatment plant
- Join a regional water provider

Each alternative was assessed against the City's water quality goals, sustainability framework, customer service requirements, economic feasibility and regulatory compliance.

This 2015 study yielded a recommendation for the City to rehabilitate the existing water treatment plant, which was approved by City Council in September 2016. The Council recommendation included treatment improvements, considerations for redundant water sources, and rehabilitation of the oldest portion of the water treatment plant constructed in 1938 and 1949. The state of Ann Arbor Water evolved significantly after 2016 with recorded spikes in *Cryptosporidium*, discoveries related to PFAS, and 1,4 Dioxane requirements. These changes over time contributed toward initiating the WTP Facility Plan project.

The Council recommendation included treatment improvements, considerations for redundant water sources, and rehabilitation of the oldest portion of the water treatment plant constructed in 1938 and 1949.

In 2021, Ann Arbor Water designed the WTP Facility Plan project to define a roadmap for Ann Arbor Water and advance the recommendation to rehabilitate the oldest portion of the water treatment plant. The project scope is driven by considerations for aging infrastructure, new water quality challenges, and new contaminants detected or newly regulated since 2015. The WTP Facility Plan focuses on contaminants such as PFAS, *Cryptosporidium*, and 1,4-dioxane.

Ann Arbor Water has been in close coordination with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on this project. Previous discussions include source water challenges, community communications and engagement, plant site operational complexity, and treated water quality goals.



Water testing at the water treatment plant

EVENTS THAT LED TO STRATEGIC PLANNING

2015

City of Ann Arbor completed Water Treatment Plant Alternatives Evaluation



Analyze Future of Plant



Propose Rehab Existing WTP

2016

Rehabilitation of water treatment plant approved by City Council



Presented to Council



Approved

2021

Development of the WTP Facility Plan project to address aging infrastructure and emerging contaminants, Plant Rehabilitation re-affirmed by City Council



Project to Develop Rehab WTP



WTP Facility Plan

2022

Start of the WTP Facility Plan project, including strategic planning, community engagement, and evaluation of water treatment alternatives



Begin WTP Facility Plan



Establish the strategic framework

2023

WTP Facility Plan underway, pilot testing in construction, and communication ongoing with EGLE

04 STRATEGIC FRAMEWORK

The Ann Arbor Water strategic framework is the key outcome of the strategic planning process. It provides the guide rails for the development of the WTP Facility Plan, thereby steering the delivery of water treatment services for years to come. The strategic framework details the relationship between guiding principles and aspirational goals while also showing how tracking measures and next steps are used to implement this Strategic Plan.

This strategic framework aligns with the City of Ann Arbor’s vision, mission, values, and goals. Engagement with multiple City departments, major water customers, and a broad representation of the community, including renters and low-income households, shaped all components of the strategic framework.

The guiding principles of trust, community, accountability, sustainability, and knowledge are the foundation of this Strategic Plan. They reflect the priorities of the community and customers and therefore served as a baseline for defining specific aspirational goals. Altogether, the guiding principles guide Ann Arbor Water’s decision-making.

The strategic framework provides the guide rails for the development of the WTP Facility Plan, thereby steering the delivery of water treatment services for years to come.

THIS STRATEGIC PLAN BUILDS UPON THE CITY’S MISSION, VISION, VALUES, AND GOALS.

<p>MISSION The City of Ann Arbor’s mission is to deliver exceptional services that sustain and enhance a vibrant, safe, and diverse community.</p> <p>VISION A unified team, creating and sustaining excellence.</p>	<p>VALUES</p> <ol style="list-style-type: none"> 1. Accountability 2. Commitment to excellence 3. Integrity 4. Safety 5. Stewardship 6. Teamwork 	<p>GOALS</p> <ol style="list-style-type: none"> 1. Deliver exceptional service 2. Enable economic development 3. Ensure financial health 4. Integrate external engagement 5. Leverage information technology 6. Strengthen human capital
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The strategic framework (and overall Strategic Plan) is designed to foster equitable access to high-quality, safe, and affordable water for everyone. It prioritizes:

- Empowering residents with information to make informed water choices.
- Conducting meaningful engagement that informs service delivery.
- Managing available resources effectively and efficiently to optimize outcomes.
- Accounting for climate change and its impacts on water availability and access.
- Investing in workforce development, research and innovation.
- Promoting equitable access to high-quality safe drinking water for everyone.

All this can be achieved by establishing - and maintaining - a reliable and resilient water treatment system.

Measuring, monitoring, and evaluating progress is key to realize the intended outcomes of this Strategic Plan. Over time, Ann Arbor Water will develop specific tracking measures to monitor progress toward each aspirational goal. The following pages provide details for each guiding principle and its associated aspirational goals, along with examples of tracking measures and next steps that could be explored to transition this Strategic Plan into action.

ANN ARBOR WATER’S GUIDING PRINCIPLES



WE CONSISTENTLY DELIVER.

Trust in level of service

TRUST | Uphold trust and confidence in drinking water through reliable and resilient water treatment



WE ARE A COMMUNITY.

Value of our shared resource

COMMUNITY | Prioritize inclusive service to the community of Ann Arbor through engagement to inform service delivery



WE ARE ACCOUNTABLE TO YOU.

Care in responsible management

ACCOUNTABILITY | Demonstrate stewardship of resources by planning efficiently to deliver affordable, quality service



OUR FUTURE IS NOW.

Innovation for the future

SUSTAINABILITY | Spark industry-leading solutions through collaboration in pursuit of an equitable, sustainable, and resilient future



KNOWLEDGE IS POWER.

Access to information

KNOWLEDGE | Transparent communication and access to information empowers all

ANN ARBOR WATER STRATEGIC FRAMEWORK

This Strategic Framework represents the comprehensive elements of the Strategic Plan.

GUIDING PRINCIPLES

ASPIRATIONAL GOALS

TRACKING MEASURES

NEXT STEPS



Metrics used to measure, monitor and evaluate progress toward each aspirational goal and the outcomes of the Strategic Plan.

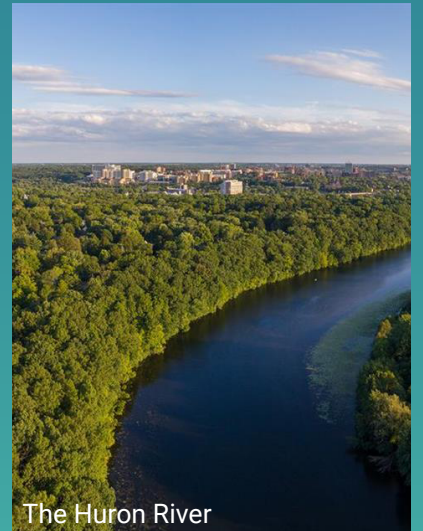
Over time, Ann Arbor Water will use the Strategic Plan to develop specific metrics for each aspirational goal to monitor progress. Review and update of tracking measures is recommended every two-three years.

Examples of tracking measures for each aspirational goal are provided on pages 21-43 for consideration when planning implementation of this Strategic Plan.

Ideas generated through the strategic planning process and explored to transition the Strategic Plan into action.

Over time, Ann Arbor Water will design work plans with specific tracking measures to support implementation of the Strategic Plan.

Next steps that emerged from the strategic planning process are highlighted on pages 48-49 for consideration when planning implementation of this Strategic Plan.



The Huron River



Ann Arbor Water Open House 2023



Gallup Park

WE CONSISTENTLY DELIVER. *Trust in level of service*

TRUST | Uphold trust and confidence in drinking water through reliable and resilient water treatment

GOAL

SOURCE WATER PROTECTION:

Establish a watershed management approach for river and well water sources that addresses known contaminants and safeguards against contaminants of concern.

The quality of service begins at the source – so it is critical for Ann Arbor Water to safeguard the quality of river and well water sources. Ann Arbor Water is vigilant about emerging contaminants and has established measures that investigate and address existing contaminants.

Source water protection strategies like protecting the area surrounding groundwater wells, treating contaminants at the source and using cutting-edge monitoring and tracking technology enables Ann Arbor Water to uphold the quantity and quality of the water at the source and potentially reduce treatment costs at the plant. Ann Arbor Water shares the river and well water sources they use with many other upstream communities whose activities impact the quality and quantity of water sourced by the plant. Source water protection is a collective endeavor that requires a watershed management approach to advance the goal of prevention versus treatment. Each individual in the community can play an important role in achieving source water protection. Ann Arbor Water will continue to establish partnerships with upstream users and educate the public on collective and individual actions that can safeguard the Huron River and the wells.

Project Highlight

In 2020, Ann Arbor Water installed ground water monitoring (sentinel wells) to detect and provide advanced warning of the migration of 1,4-dioxane. Sentinel wells safeguard the groundwater sources that supply drinking water. Ann Arbor Water is currently undertaking the development of a **Source Water Master Plan**. The plan will include an update of the City of Ann Arbor Surface Water Intake Protection Plan and the Wellhead Protection Plan. These plans are a continuing investment in monitoring and understanding climate change impacts and water source threats across the watershed. The plans enhance Ann Arbor Water's efforts to safeguard both river and well water sources, for reliable water delivery for years to come.



The Huron River

STRATEGIC FRAMEWORK KEY

WE CONSISTENTLY DELIVER.	→	SOURCE WATER PROTECTION // WATER QUALITY
WE ARE A COMMUNITY.	→	EQUITY AND AFFORDABILITY // WORKFORCE
WE ARE ACCOUNTABLE TO YOU.	→	RESILIENCY AND RELIABILITY // PHYSICAL INFRASTRUCTURE
OUR FUTURE IS NOW.	→	CLIMATE CHANGE // WATER SUPPLY
KNOWLEDGE IS POWER.	→	COMMUNICATION AND ENGAGEMENT // LEADERSHIP AND POLICY

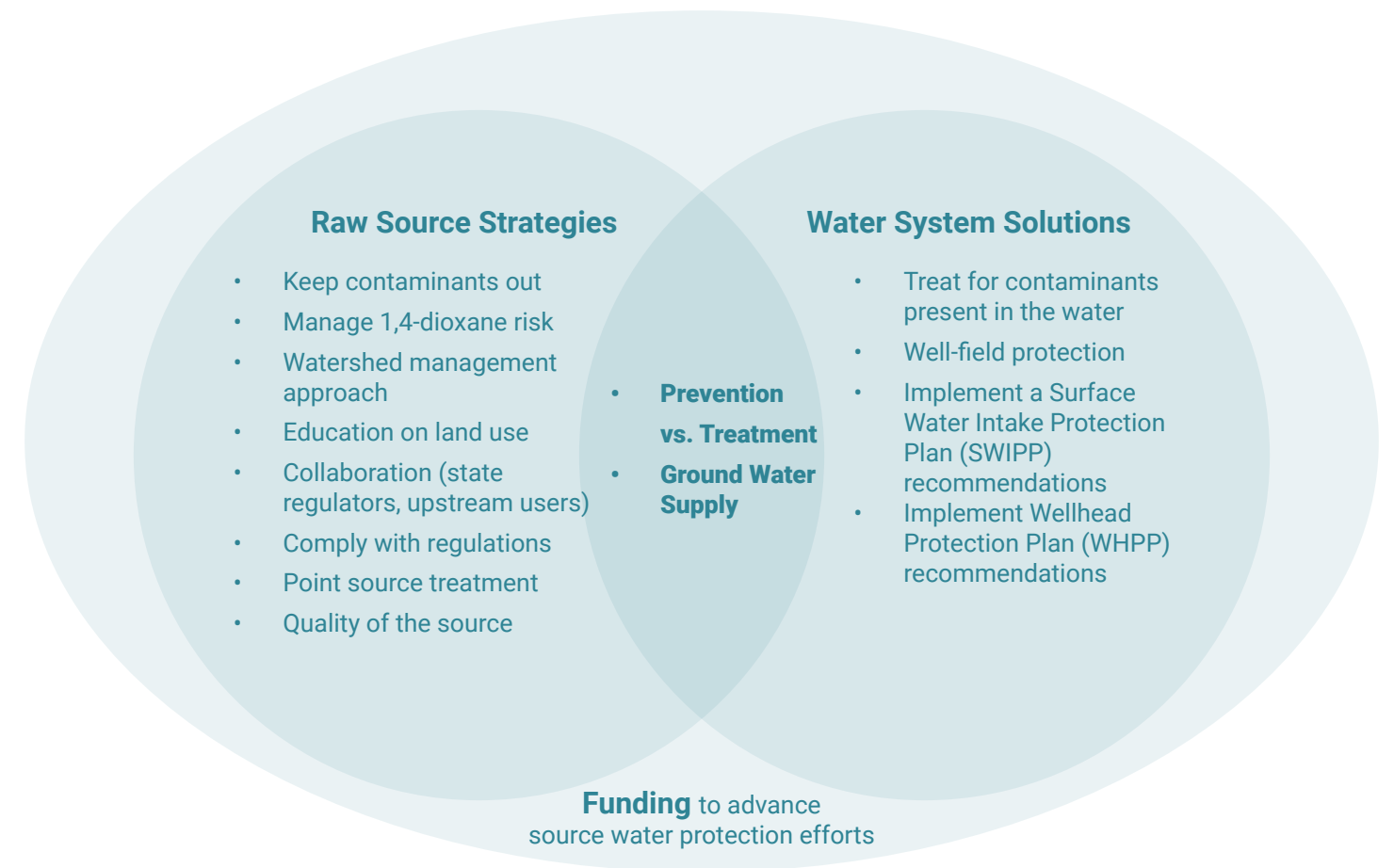
TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Source Water Protection goal:

- Tracking implementation of the Source Water Action Plan
- Number of wellfield inspections conducted annually

EXPLORING STRATEGIES FOR SOURCE WATER PROTECTION

This diagram documents ideas generated during the development of the Strategic Plan. These attributes are presented without editing and capture the ideas expressed during the workshops.



WE CONSISTENTLY DELIVER. *Trust in level of service*

TRUST | Uphold trust and confidence in drinking water through reliable and resilient water treatment

GOAL

WATER QUALITY:

Maintain status as the regional provider of high-quality safe drinking water through establishing partnerships to protect raw source waters and investing in treatment infrastructure to deliver high quality water for generations to come.

Ann Arbor Water has consistently delivered award winning water quality for decades and is committed to upholding this standard for generations to come. Maintaining community trust is not limited to consistently delivering high-quality safe water at the tap; Ann Arbor Water is equally committed to providing customers with timely data-driven information about drinking water treatment services. This transparency will foster customers' awareness and trust in Ann Arbor Water's ability to deliver a quality product. Ann Arbor Water aims to consistently deliver high quality water better than regulatory baseline requirements, and secure delivery of water for this community as an industry leader.

Project Highlight

Investment in the pilot plant for the WTP

Facility Plan: Ann Arbor Water has invested in a pilot plant to further understand and confirm how technologies recommended in the WTP Facility Plan will reduce contaminants such as PFAS and 1-4 dioxane in the drinking water. Ann Arbor Water is using the pilot plant to confirm that the recommended water treatment processes meet treatment and regulatory objectives before scaling them as full operations. This strategy demonstrates Ann Arbor Water's commitment to consistent and high-quality delivery of drinking water.



Pre-treatment tank (clarifier) for pilot testing

STRATEGIC FRAMEWORK KEY

WE CONSISTENTLY DELIVER.	SOURCE WATER PROTECTION // WATER QUALITY
WE ARE A COMMUNITY.	EQUITY AND AFFORDABILITY // WORKFORCE
WE ARE ACCOUNTABLE TO YOU.	RESILIENCY AND RELIABILITY // PHYSICAL INFRASTRUCTURE
OUR FUTURE IS NOW.	CLIMATE CHANGE // WATER SUPPLY
KNOWLEDGE IS POWER.	COMMUNICATION AND ENGAGEMENT // LEADERSHIP AND POLICY

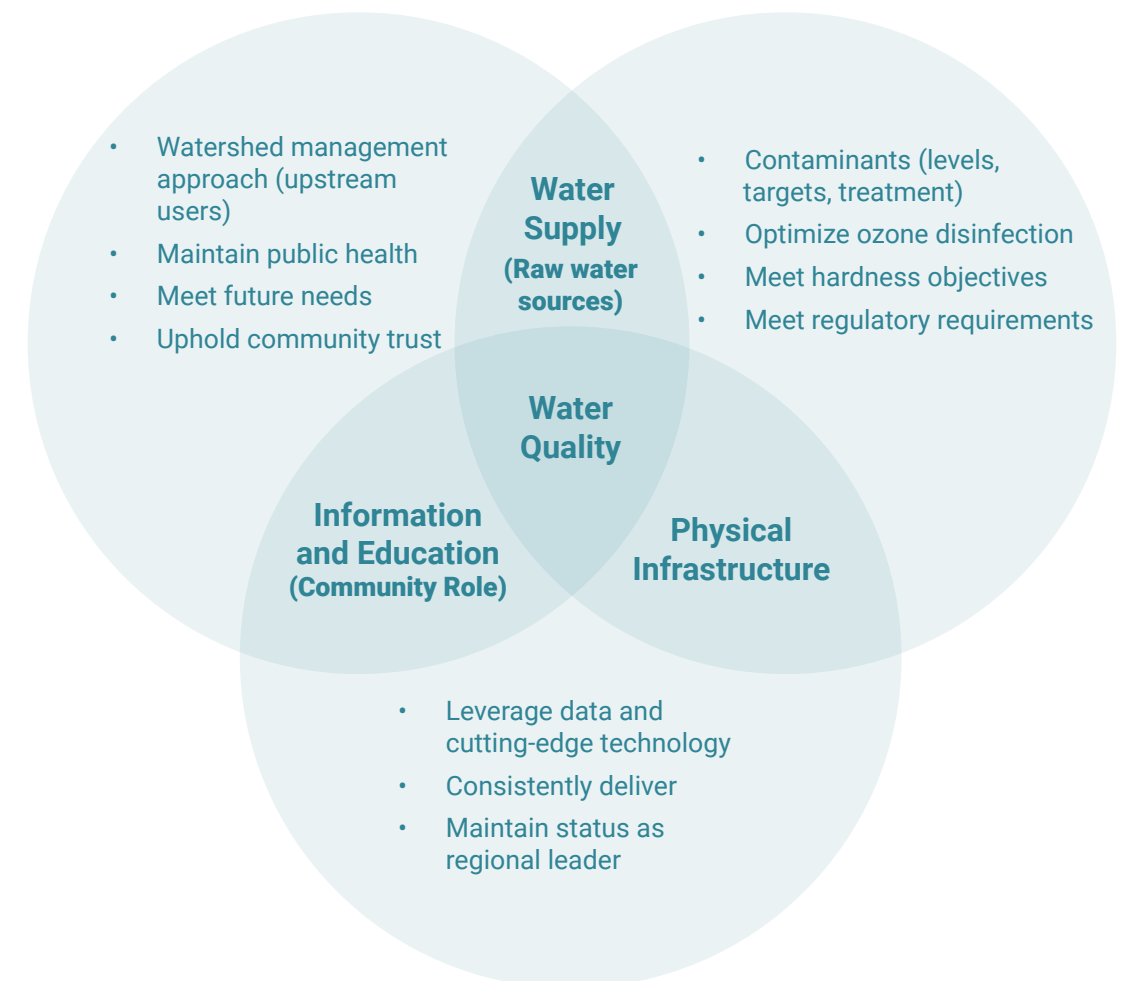
TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Water Quality goal:

- Number of water quality samples that meet or exceed regulatory limits
- Monitor and prepare a plan for the control of 1,4-dioxane

EXPLORING STRATEGIES FOR WATER QUALITY

This diagram documents ideas generated during the development of the Strategic Plan. These attributes are presented without editing and capture the ideas expressed during the workshops.



WE ARE A COMMUNITY. Value of our shared resource

COMMUNITY | Prioritize inclusive service to the community of Ann Arbor through engagement to inform service delivery

GOAL

EQUITY AND AFFORDABILITY:

Explore strategies that facilitate equitable drinking water access for everyone to realize the principle of water as a universal resource and basic need.

Ann Arbor Water serves a diverse community of customers within and beyond the City of Ann Arbor. Contextualization of equity considerations is necessary to fit local areas' needs across the various communities served. Conducting inclusive engagements, sharing information and capturing community feedback to inform key decision-making helps to achieve this. Reducing barriers of participation and access to information for all customers requires critical consideration.

Affordability was a major theme in strategic planning discussions related to equitable drinking water for all. The City provides information about community agencies such as Barrier Busters and state initiatives working to improve access to utility services for customers. Striving for equitable service also means considering the treatment-to-tap delivery of water for every customer. Differences in pressure and pipe material across different communities served by Ann Arbor may result in varied experience of water at the tap.

Project Highlight

Hiring the Director of Organizational Equity:

In September 2022, the City of Ann Arbor welcomed Laura Orta, the first Director of Organizational Equity. They are leading the diversity, equity and inclusion efforts with a focus on strategic planning to steer the City's diversity, equity, and inclusion goals.

Laura Orta was a member of the strategic planning team. They provided insight that guided the discussions through an inclusive lens, and informed recommendations on equity and affordability outlined in this plan.



STRATEGIC FRAMEWORK KEY

WE CONSISTENTLY DELIVER.	SOURCE WATER PROTECTION // WATER QUALITY
WE ARE A COMMUNITY.	EQUITY AND AFFORDABILITY // WORKFORCE
WE ARE ACCOUNTABLE TO YOU.	RESILIENCY AND RELIABILITY // PHYSICAL INFRASTRUCTURE
OUR FUTURE IS NOW.	CLIMATE CHANGE // WATER SUPPLY
KNOWLEDGE IS POWER.	COMMUNICATION AND ENGAGEMENT // LEADERSHIP AND POLICY

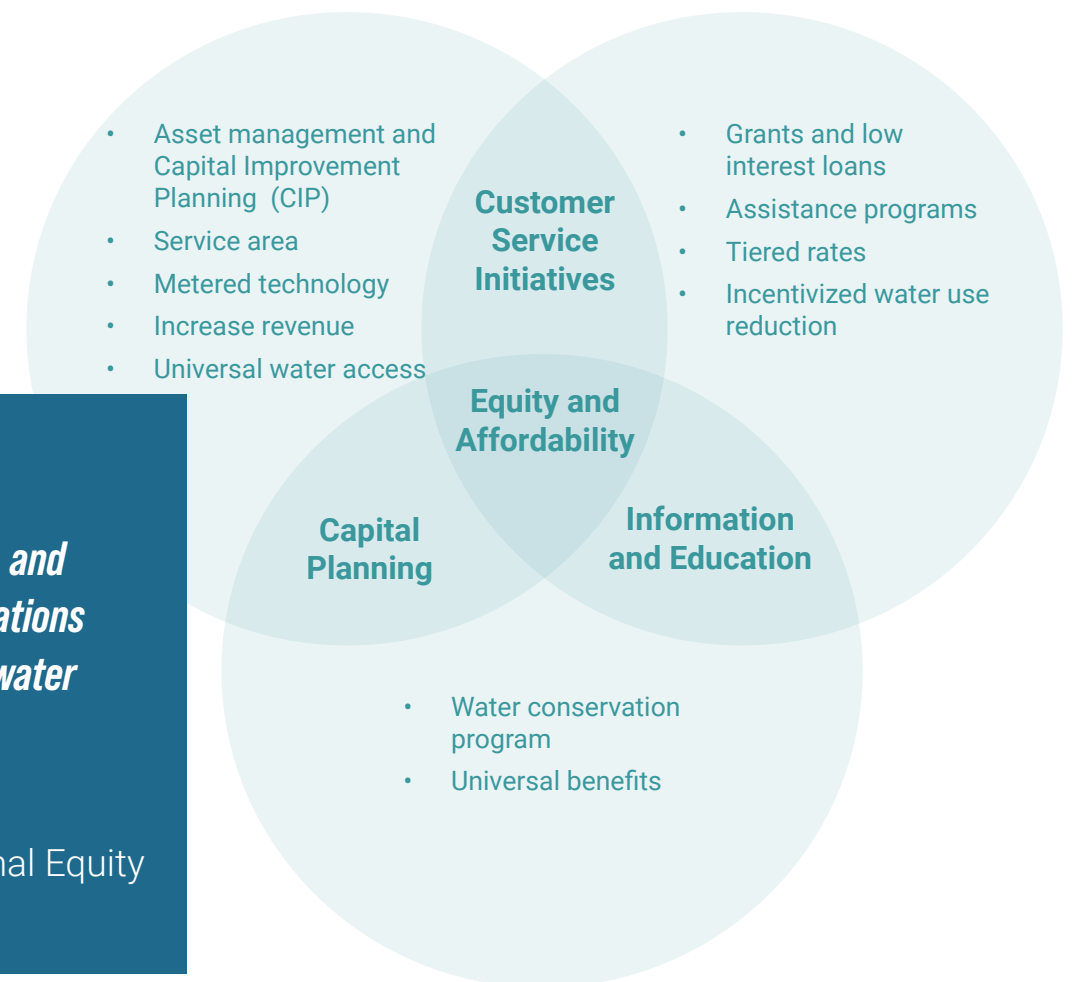
TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Equity and Affordability goal:

- Alignment of customer, workforce, and investment efforts with the City's DEIAJ+ initiative
 - a. Number of equity strategies explored
 - b. Number of communications issued to promote available assistance programs

EXPLORING STRATEGIES FOR EQUITY AND AFFORDABILITY

This diagram documents ideas generated during the development of the Strategic Plan. These attributes are presented without editing and capture the ideas expressed during the workshops.



“This is an opportunity to advance Diversity, Equity, and Inclusion (DE&I) considerations and prioritization within water planning.”

Laura Orta
Director of Organizational Equity
City of Ann Arbor

WE ARE A COMMUNITY. *Value of our shared resource*

COMMUNITY | Prioritize inclusive service to the community of Ann Arbor through engagement to inform service delivery

GOAL

WORKFORCE:

Prioritize workforce support, preparedness and adaptability to uphold exceptional delivery of water treatment services.

The workforce plays a fundamental role in Ann Arbor Water’s ability to deliver on its goals. Planning for an adequate and skilled workforce is considered in parallel to investment developments in technology and process improvement infrastructure. The workforce must have the necessary skills, training and education to operate and maintain processes and overall infrastructure at a quality standard.

Recruitment and retention drives workforce management. Ann Arbor Water continues to devise strategies to develop and retain new talent. Such strategies include investing in new technology and providing opportunities for continuing education. More workforce considerations may include investing in and upholding a diverse work environment and culture, one that is reflective of the diversity within the community Ann Arbor Water serves. Workforce considerations may begin with the end in mind: what steps will improve workforce satisfaction, and retention as a result of having a safe, healthy, and progressive work environment.

Project Highlight

Ann Arbor Water has **established a career progression program** through the Human Resources department that supports staff through stages of career development. The program provides opportunities and tools needed for skills training and continuing education. Ann Arbor Water tracks staff skill sets and works with the staff to develop training schedules that align with their career goals and WTP goals. The water treatment plant leadership collaborates on leading continuing education courses for staff licensing. Overall, this program is intended to increase staff satisfaction, readiness and productivity and yield workforce retention.



Water treatment plant staff

STRATEGIC FRAMEWORK KEY

WE CONSISTENTLY DELIVER.	→	SOURCE WATER PROTECTION // WATER QUALITY
WE ARE A COMMUNITY.	→	EQUITY AND AFFORDABILITY // WORKFORCE
WE ARE ACCOUNTABLE TO YOU.	→	RESILIENCY AND RELIABILITY // PHYSICAL INFRASTRUCTURE
OUR FUTURE IS NOW.	→	CLIMATE CHANGE // WATER SUPPLY
KNOWLEDGE IS POWER.	→	COMMUNICATION AND ENGAGEMENT // LEADERSHIP AND POLICY

TRACKING MEASURES

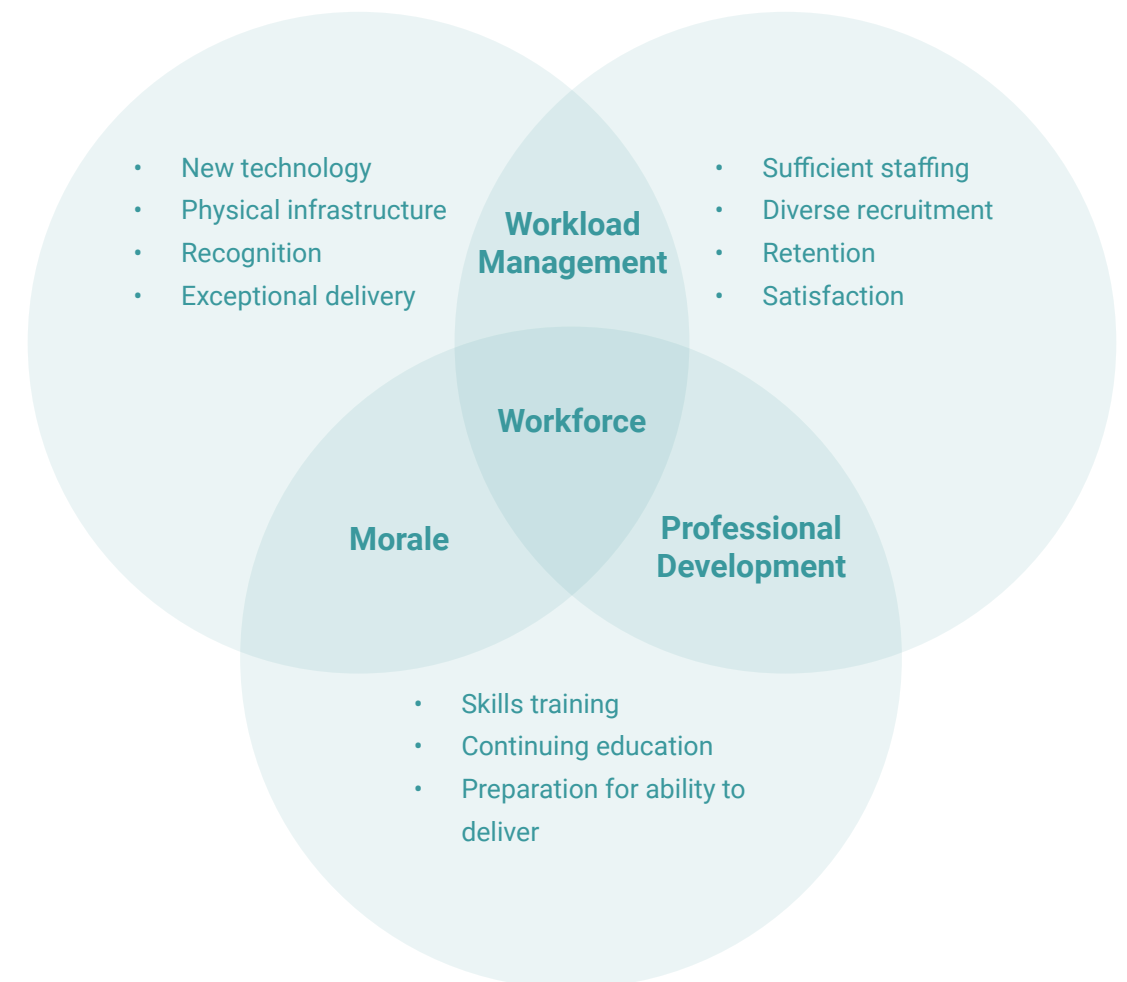
Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Workforce goal:

Number of workforce engagement surveys received annually

Total hours of continuing education per employee

EXPLORING STRATEGIES FOR WORKFORCE

This diagram documents ideas generated during the development of the Strategic Plan. These attributes are presented without editing and capture the ideas expressed during the workshops.



04 STRATEGIC FRAMEWORK

✓ **WE ARE ACCOUNTABLE TO YOU.** *Care in responsible management*

ACCOUNTABILITY | Demonstrate stewardship of resources by planning efficiently to deliver affordable, quality service

GOAL

RESILIENCY AND RELIABILITY:

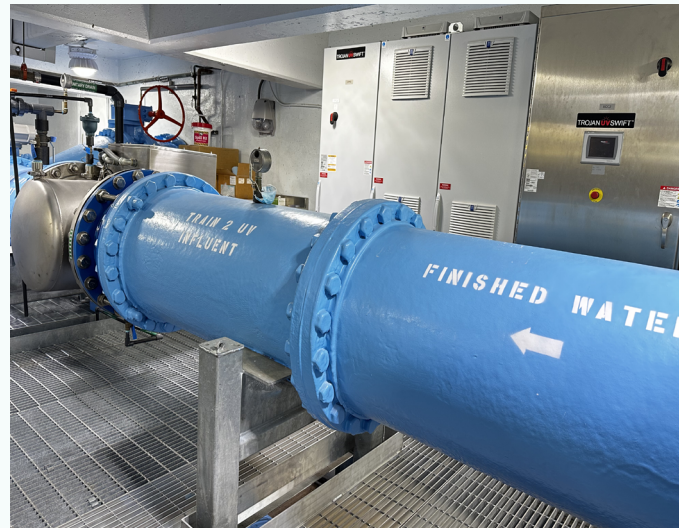
Anticipate and adapt to changes through flexible treatment technology and raw source water diversity to address unplanned events and provide consistent service for customers.

Resiliency focuses on establishing systems adaptive to anticipated or unplanned events with the aim of minimizing disruption in service to the customer. Emergency preparedness and adaptability require a flexible approach that leverages data, technology innovation and infrastructure. Training is used to equip the workforce with the necessary skills to confidently respond to changes or emergencies while maintaining quality delivery to everyone served by Ann Arbor Water.

Reliability focuses on having the flexibility to respond to changes that may affect the various aspects of drinking water treatment: how water is used (water demands), quality and quantity of water obtained from the river and well water sources, treatment of the source to make water potable, water storage and delivery to the customer. Threats to our drinking water include risk to digital assets and cyber security, and a need to protect the data integrity of the water system and its users.

Project Highlight

In 2020, Ann Arbor Water added **UV technology to the water treatment process** to treat *Cryptosporidium* present in the Huron River and accommodate annual maintenance practices at the plant. The new UV system provides a robust barrier for protection against parasites such as *Cryptosporidium* in drinking water. It enables Ann Arbor Water to check regulatory compliance and maintain reliable delivery of high-quality safe drinking water for both planned and unplanned events.



UV treatment system

STRATEGIC FRAMEWORK KEY

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TRACKING MEASURES

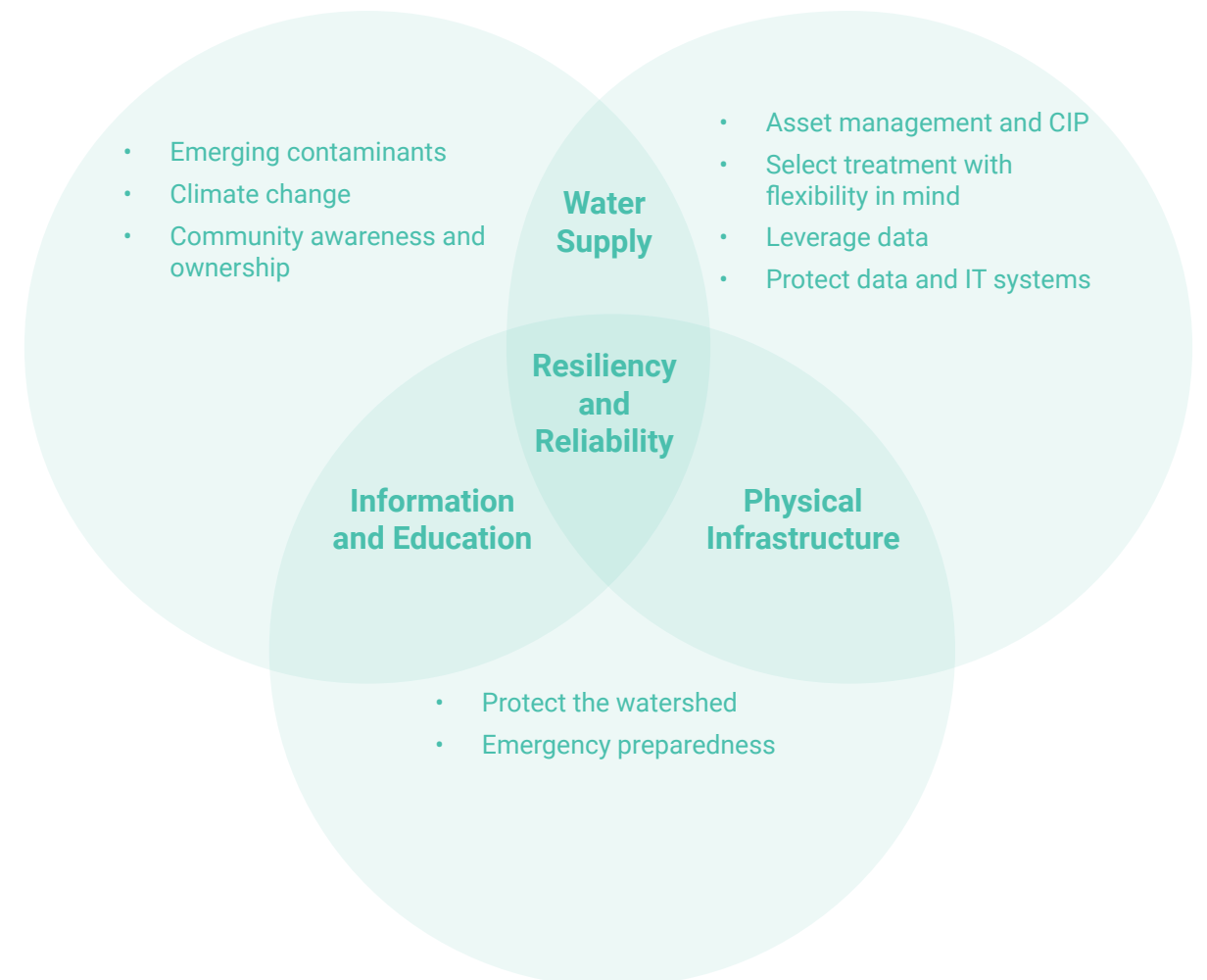
Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Resiliency and Reliability goal:

Ratio of preventative vs corrective maintenance hours performed per year

Percent of infrastructure rehabilitated per Asset Management Plan

EXPLORING STRATEGIES FOR RESILIENCY AND RELIABILITY

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WE ARE ACCOUNTABLE TO YOU. *Care in responsible management*

ACCOUNTABILITY | Demonstrate stewardship of resources by planning efficiently to deliver affordable, quality service

GOAL

PHYSICAL INFRASTRUCTURE:

Optimize physical infrastructure with investment in advanced technology, data-driven processes, and skilled workforce to establish efficient systems that meet evolving water needs.

Leveraging advanced technology and data to inform treatment processes can enhance the physical infrastructure's efficiency. Ann Arbor Water's aged physical infrastructure impacts all areas of treatment: water sourcing (Barton dam), treatment process at the oldest part of the plant, and distribution to taps. Aged infrastructure requires consideration for rehabilitating, replacing, or repairing as deemed most effective economically and operationally feasible. Infrastructure and softening technologies focused on innovation and operational simplicity will reduce overall plant maintenance requirements and improve workforce efficiency over time.

Ann Arbor Water conducts asset management and capital investment planning to maintain a resilient water system throughout water treatment services. As drinking water needs evolve, so does the need for space at the plant to accommodate infrastructural upgrades. The present planning and management efforts through the WTP Facility Plan account for existing and potential needs for physical space on site to sustain adequate delivery over time.

Project Highlight

Rehabilitation of the ozone system. One of Ann Arbor Water's priorities is to renew aging infrastructure. In 2023, WTP began the **electrical upgrades for the ozone generators**. This upgrade improved the operational efficiency of the ozone system used for the primary disinfection (removal) of microorganisms in the drinking water. Ann Arbor Water is evaluating how to upgrade the ozone system to treat 1,4-dioxane as part of the WTP Facility Plan.



Interior of the ozone building at the water treatment plant

STRATEGIC FRAMEWORK KEY

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TRACKING MEASURES

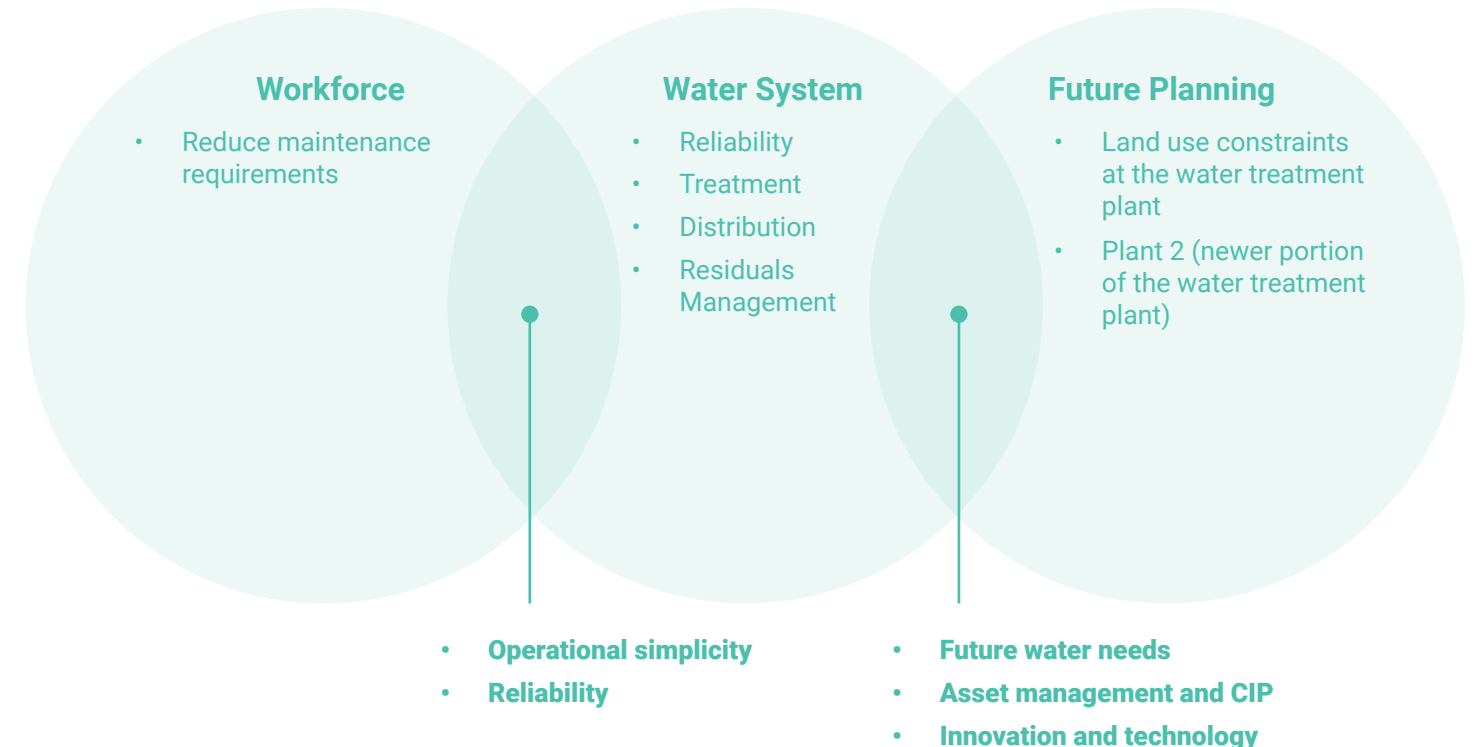
Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Physical Infrastructure goal:

Percent of condition assessments on water system performed quarterly

Ratio of CIP expenditure actuals vs budgeted

EXPLORING STRATEGIES FOR PHYSICAL INFRASTRUCTURE

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OUR FUTURE IS NOW. *Innovation for the future*

SUSTAINABILITY | Spark industry-leading solutions through collaboration in pursuit of an equitable, sustainable, and resilient future

GOAL

CLIMATE CHANGE:

Mitigate the effects of climate change using technology and processes that reduce greenhouse gas emissions and increase preparedness to meet future water needs.

Addressing the effects of climate change requires implementing policies and adopting technologies that reduce greenhouse gas emissions. Technological and operational choices may result in effective energy use and reduction of Ann Arbor Water’s carbon footprint. Establishing synergies with other City initiatives and strategic plans like A²ZERO strengthens advancement toward the City’s climate action and carbon neutrality goals. Ongoing initiatives include installing solar panels on top of the water treatment plant’s reservoir among other strategies to reduce carbon emissions from plant operations.

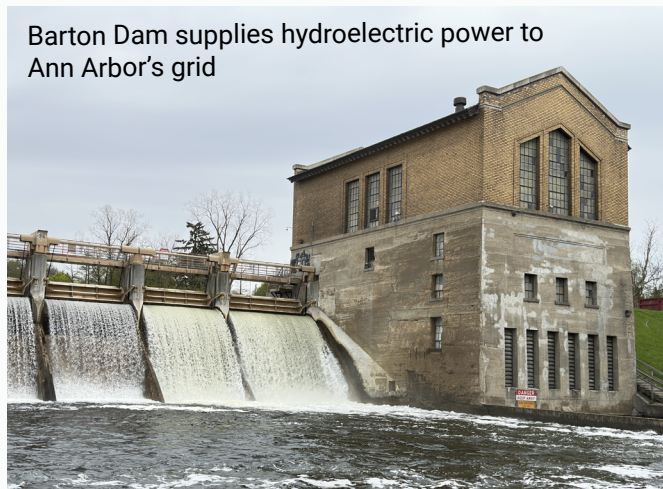
Michigan is anticipating a surge in [climate refugees](#) from other parts of the United States experiencing frequent floods, and drought as a result of climate change. The City of Ann Arbor is investing in flexible infrastructure that will address such anticipated population shifts to meet the evolving demand and future needs. Other strategies may include: securing back-up water sources, investigating river flows, and investing in flexible water treatment and delivery systems.

Project Highlight

The A²ZERO Carbon Neutrality Plan

In 2019, the City of Ann Arbor declared a climate emergency with a goal to achieve a just and community-wide transition to carbon neutrality by 2030. To advance the City’s carbon neutrality goals, WTP is partnering with A²Zero to install solar panels that supply electricity and offset the plant’s carbon footprint.

The City of Ann Arbor developed a [living A²ZERO Carbon Neutrality Plan](#) that outlines seven strategies and action steps to achieve carbon neutrality by 2030.



Barton Dam supplies hydroelectric power to Ann Arbor’s grid

STRATEGIC FRAMEWORK KEY

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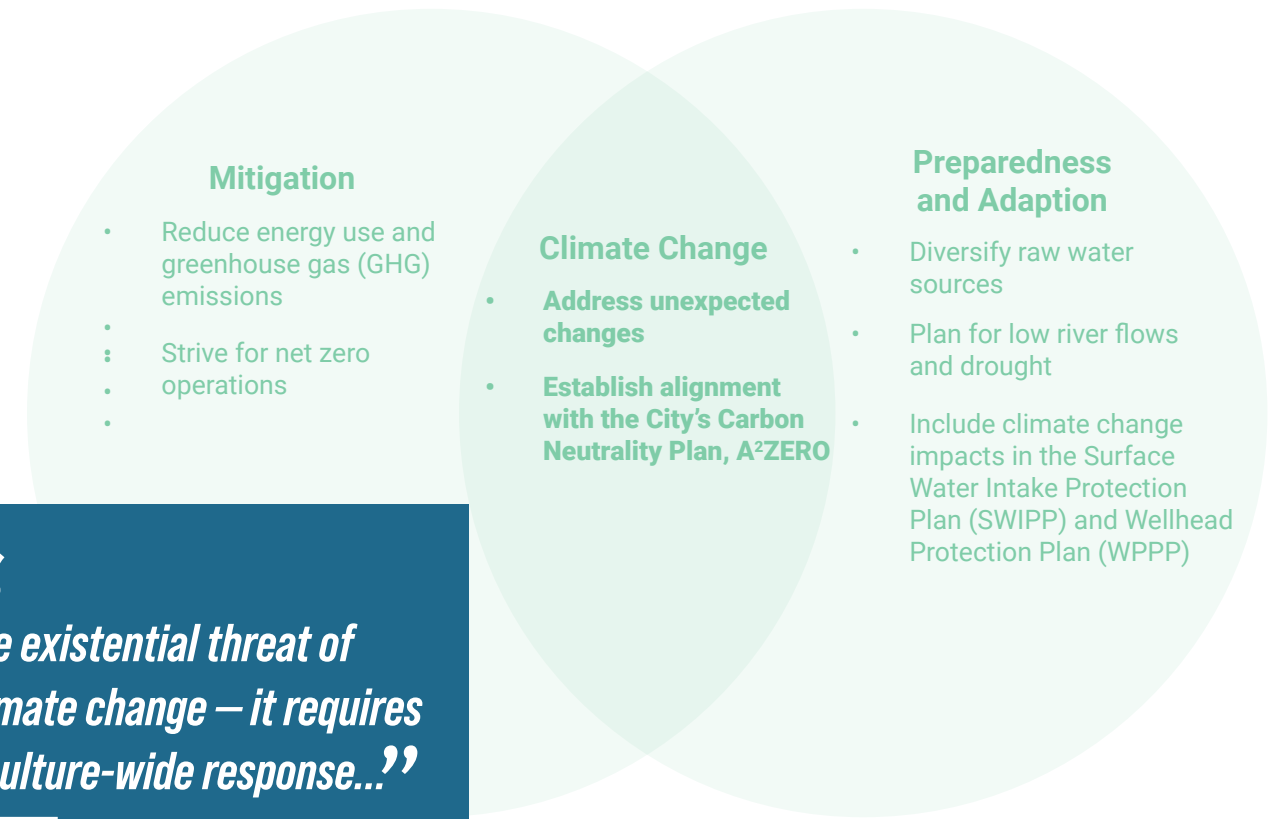
TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Climate Change goal:

- Alignment of operations, design, and construction efforts with the A²ZERO Carbon Neutrality Plan
 - a. Total energy used from each source
 - b. Total estimated greenhouse gas emissions generated per year

EXPLORING STRATEGIES FOR CLIMATE CHANGE

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“*The existential threat of climate change – it requires a culture-wide response...*”

Christopher Taylor
City of Ann Arbor Mayor

 **OUR FUTURE IS NOW.** *Innovation for the future*

SUSTAINABILITY | Spark industry-leading solutions through collaboration in pursuit of an equitable, sustainable, and resilient future

GOAL

WATER SUPPLY:

Identify and secure diverse river and well water sources to safeguard a supply that meets emergency and future water needs.

Having an adequate high-quality water supply is paramount for consistent and reliable delivery over time. Ann Arbor Water will continue to source raw water from the Huron River and the Steere Farm wells. The Huron River, which supplies 85% of Ann Arbor Water’s raw water is susceptible to drought, contamination, and emerging contaminants - among other impacts of climate change and land use.

Strategies to diversify river and well water sources require extensive fiscal investment and planning. In the future, Ann Arbor Water will explore strategies including securing alternative water sources, upsizing transmission mains, and expanding storage systems in anticipation of evolving treatment needs and future demand. These actionable steps will enhance Ann Arbor Water’s preparedness to promptly address any planned and unplanned emergencies. They will elevate the resiliency and overall sustainability of the plant to reliably deliver adequate and high-quality safe drinking water in the changing environment, as prioritized by the community of Ann Arbor in the 2022 city-wide survey.






Project Highlight

WTP is **expanding the raw water transmission main** to bring more well water from Steere Farm Wellfield to the plant site. This will increase the water supply and enhance the plant’s flexibility to consistently provide water.





Infrastructure along the Huron River raw water source

STRATEGIC FRAMEWORK KEY

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 KNOWLEDGE IS POWER.	→	COMMUNICATION AND ENGAGEMENT // LEADERSHIP AND POLICY

TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Water Supply goal:

-  Amount of raw water accessible from each source type
-  Length of well water transmission mains renewed

EXPLORING STRATEGIES FOR WATER SUPPLY

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KNOWLEDGE IS POWER. *Access to Information*

KNOWLEDGE | Transparent communication and access to information empowers all

GOAL

COMMUNICATION AND ENGAGEMENT:

Provide transparent, current information across varied and accessible communication channels to increase community awareness of water treatment services and evoke a shared sense of ownership.

This communications and engagement goal aims to diversify means of sharing information with the community about Ann Arbor Water. This may include specific accommodation for customers without computer or internet access, and those with reading and visual needs. Ann Arbor Water issues a monthly drinking water update newsletter, and an annual report with information about water quality data and treatment services. Other methods used for communication and engagement include customer calls and emails, A2FixIt, open house events, pop-up events, focus groups and social media.

Another goal for transparent communications and information sharing is to educate the public and facilitate understanding of the water system. This will promote understanding of where individual or collective actions of water conservation and land use may impact quality of water at the tap. In 2022, the City consolidated its drinking water, wastewater, and stormwater utilities under a single brand, [Ann Arbor Water](#). This action allowed the City to advance its One Water campaign by educating the community on the importance of water as a singular resource.

Project Highlight

WTP developed a **strategic communications and engagement plan** to steer inclusive engagement for all types of customers. WTP offers plant site tours to public schools as an opportunity to educate the young generation about where their water comes from, the impact of day-to-day activities on water quality, and the importance of protecting the Huron River watershed. Plant tours are also an opportunity to generate excitement around STEM education and careers, particularly related to water treatment.



Ann Arbor Water, Earth Day: Over 1,600 people and 13 schools visit the water treatment plant every year (pre-COVID-19)

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TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Communication and Engagement goal:

Number of people reached by outreach efforts annually

Number and diversity of methods used to capture community feedback and input

EXPLORING STRATEGIES FOR COMMUNICATION AND ENGAGEMENT

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KNOWLEDGE IS POWER. *Access to Information*

KNOWLEDGE | Transparent communication and access to information empowers all

GOAL

LEADERSHIP AND POLICY:

Engage the Ann Arbor community and its partners through proactive leadership to meet customer expectations as a regional and national example of excellence in drinking water delivery.

Effective leadership means acknowledging and aligning service delivery with community priorities while adapting to industry and environmental changes. Ann Arbor Water leadership will continue to embody accountability to all customers through effective planning and management, inclusive community engagement, and timely information sharing.

Demonstration of leadership may include exemplary delivery standards across treatment services to uphold Ann Arbor Water’s status as an industry leader. Proactive leadership is rooted in partnership and collaboration, to find forward-looking solutions. Leadership may also include Ann Arbor Water’s advocacy at the state and national level to effect policy change related to water treatment services, such as equitable delivery and access to water.

Project Highlight

Ann Arbor Water is **partnering with the University of Michigan to jointly operate a pilot plant** for the WTP Facility Plan to explore technical considerations for the WTP Facility Plan at a small scale before they are incorporated to full plant operation. This engagement is an opportunity to collaboratively develop water professionals and contribute toward the industry goal of building the water sector workforce.



Pilot testing with filter columns to assess PFAS removal

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TRACKING MEASURES

Examples of metrics that could be measured over time as an outcome of the Strategic Plan to demonstrate progress toward achieving this Leadership and Policy goal:

Number of staff engaged in regional and national organizations

Number of projects with a research and innovation focus

EXPLORING STRATEGIES FOR LEADERSHIP AND POLICY

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05 PROCESS AND PARTICIPANTS

Process

The Strategic Plan development process was designed to establish understanding and alignment of various participants' perspectives and priorities for water treatment services. The process was a comprehensive assessment to understand the path toward universal access to reliable high-quality safe drinking water for everyone, today and as needs evolve in the future.

This Strategic Plan is driven by community priorities. The community's preferences and priorities are key drivers for planning the future of Ann Arbor Water. Community input was consistently included throughout the process of developing this plan and is described in the Community Engagement section.

Ann Arbor Water convened various internal and external participants in the strategic planning process in order to deliver a community needs-based inclusive Strategic Plan.

The Executive Leadership Team (ELT) acted in an advisory capacity for development of the Ann Arbor Water Strategic Plan and WTP Facility Plan. The ELT convened to understand project progress and

provide executive leadership direction necessary to advance the Strategic Plan by establishing buy-in on project priorities that align with City policies across departments.

Strategic planning participants included: major customers, various City of Ann Arbor staff related to WTP Facility Plan development, and two Community Advocacy groups. Major customer representatives included Scio Township, Ann Arbor Township, Ann Arbor Public Schools, and the University of Michigan. Community advocacy representatives included the City of Ann Arbor's Equitable Engagement Steering Committee (EESC) and the Huron River Watershed Council (HRWC). The EESC was convened to ensure that community engagement was carried out to address engagement that is equitable, meeting water system users where they are at. The Ann Arbor WTP Facility Plan project is the first City planning project that has involved the EESC. The EESC served to uphold visibility and consideration of needs and experiences of historically under-represented communities throughout the process of developing this Strategic Plan. Representation by the HRWC added the perspectives shared by the coalition



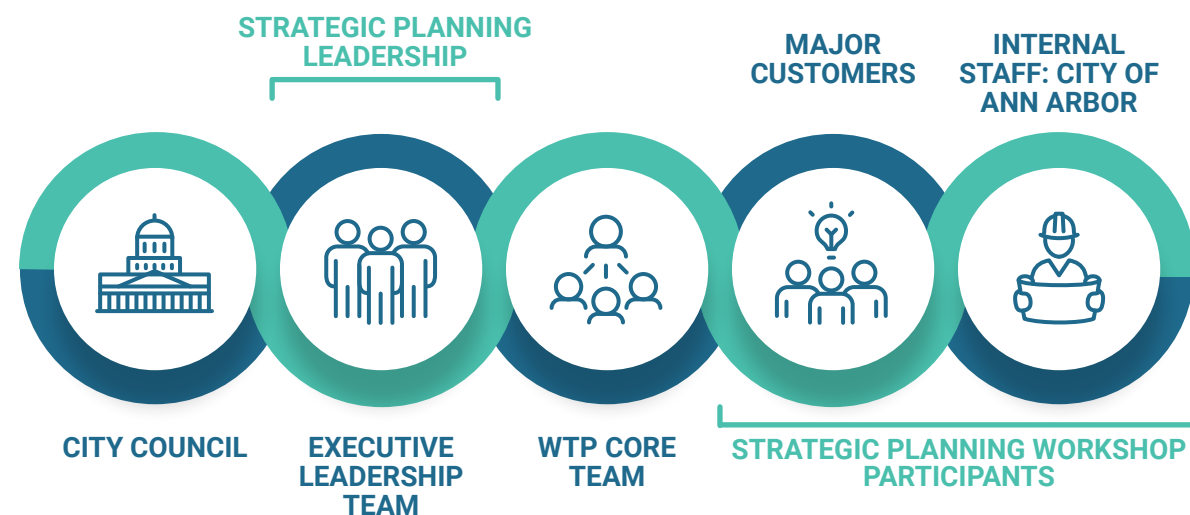
Ann Arbor Water public engagement at the Mayor's Green Fair, 2022

of residents, businesses and local governments dedicated to protecting the Huron River, its tributaries, lakes and ground water.

The EESC upheld visibility and consideration of needs and experiences of historically under-represented communities throughout the process of developing this Strategic Plan.

The Ann Arbor Water Core Team is a group of individuals responsible for managing the day-to-day operations of the water treatment plant. This team engaged throughout the strategic planning process to leverage their primary expertise the Ann Arbor Water treatment services and support the incorporation of plant operational and workforce considerations within the Strategic Plan.

TEAMS INVOLVED IN THE DEVELOPMENT OF THE STRATEGIC PLAN



STRATEGIC PLANNING PROCESS OUTCOMES



Workshops

Workshops were conducted sequentially and built upon each other to yield outcomes that culminated into this Strategic Plan. These workshops happened in parallel with the review of future water demands and evaluation of treatment technologies to answer questions raised during strategic planning, and community engagement to gather insight into community priorities. The diagram presents the framework that guided the order in which the different strategic planning elements were conducted.

STRATEGIC PLANNING WORKSHOPS SEQUENCE



Soar Analysis Workshop
Strengths, Opportunities, Aspirations, and Results (SOAR) Analysis is a framework used to assess current strengths and opportunities within an organization and create a vision of future aspirations and associated results. SOAR identifies what is going well, analyzes existing opportunities, and establishes aspirations for quality delivery of water treatment services.

The diagram to the right documents outcomes as generated during the SOAR Analysis Workshop.

SOAR ANALYSIS - DIRECT OUTCOME OF STRATEGIC PLANNING WORKSHOP

	Positives - to build upon	Outcomes - Seek to achieve
Current	Strengths <ul style="list-style-type: none"> Reliability High water quality - award winning Quantity Skilled staff (dedicated) Quality services to community Effective public communications Source water protection Public health protection 	Opportunities <ul style="list-style-type: none"> Changing water needs and regulations Knowledge of water brand (education) Improve on water sources (wells, etc) Protect existing water source Protect against emerging contaminants Partnerships with upstream users Renewal of aging infrastructure Aging distribution system Redundancy Focus on sustainable solutions Broadening customer base Improve communications (rate structure, etc.)
	Aspirations <ul style="list-style-type: none"> Equity in water access Financial assistance (affordability) Well maintained infrastructure system Watershed protection Maintain status as industry leader Resiliency: source, climate, and other threats Climate resiliency water policy Public health focused investments Improved community understanding and confidence One water - water management Education 	Results <ul style="list-style-type: none"> Customer satisfaction (happy customers) Happy operators Safe water while maintaining public trust More engaged users Quantifiable measures to address equity Water rates meet affordability metrics Meet regulatory requirements, and deliver at better standards Net zero operations Reliable water system
Future		

Aspirational Goals Workshop

This workshop focused on the aspirations quadrant of the SOAR Analysis. Aspirational themes emerged from the SOAR Analysis exercise including: drinking water quality, community, climate, threats and resiliency, treatment systems and customer satisfaction. Throughout the workshop discussion, goal statements were defined. They make guiding principles more actionable, so each goal developed aligns with one of the five guiding principles of this plan.

Tracking Measures Workshop

Key attributes corresponding to each goal were also reviewed as the building blocks to identify what progress and results would look like once each goal is achieved. Tracking measures were developed to serve as examples of standards for delivery of the aspirational goals outlined in this Strategic Plan.

Participants explored what the envisioned success could look like and how the community served by Ann Arbor Water will know if and when Ann Arbor Water achieves the set goals. Each tracking measure is an example of a specific metric to track the delivery and evaluate performance on set goals now and in the future.

Future WTP Plans Workshop

In the final workshop, Future WTP Plans, participants reviewed the details of the Strategic Plan and learned about the progress toward the WTP Facility Plan. The WTP Facility Plan status update provided details toward planning to rehabilitate the oldest portions of the water treatment plant, among other future needs included in the WTP Facility Plan.

The diagrams to the right document outcomes as generated during the workshops.

ASPIRATIONS

All 'Aspiration' discussion points mapped as a word cloud:

- Water
- Community
- Climate
- Threats
- System
- Drinking
- Customers
- Resiliency
- Well
- Treatment



WHAT COULD THE FUTURE OF ANN ARBOR WATER LOOK LIKE?

<p>5 years from now... Planning is complete</p> <ul style="list-style-type: none"> Robust investment in and planning for infrastructure Funding is secured for the implementation of the Facility Plan Prioritization of drinking water quality – maintain trust Building of transparent data and information systems 	<p>15 years from now... Construction is complete</p> <ul style="list-style-type: none"> Trust in the infrastructure – resiliency and reliability Equity: water access for all Ann Arbor Water as a leader in the industry Successful project implementation
--	--

STRATEGIC PLANNING TEAM FEEDBACK:

In 1-3 words, how would you describe your experience in the strategic planning process?

Collaboration Productive

Brainstorming Collaborative

Learning Opportunity Lots of Information Efficient

Meaningful Engagement

Engaging Feedback Incorporated

Open Thinking

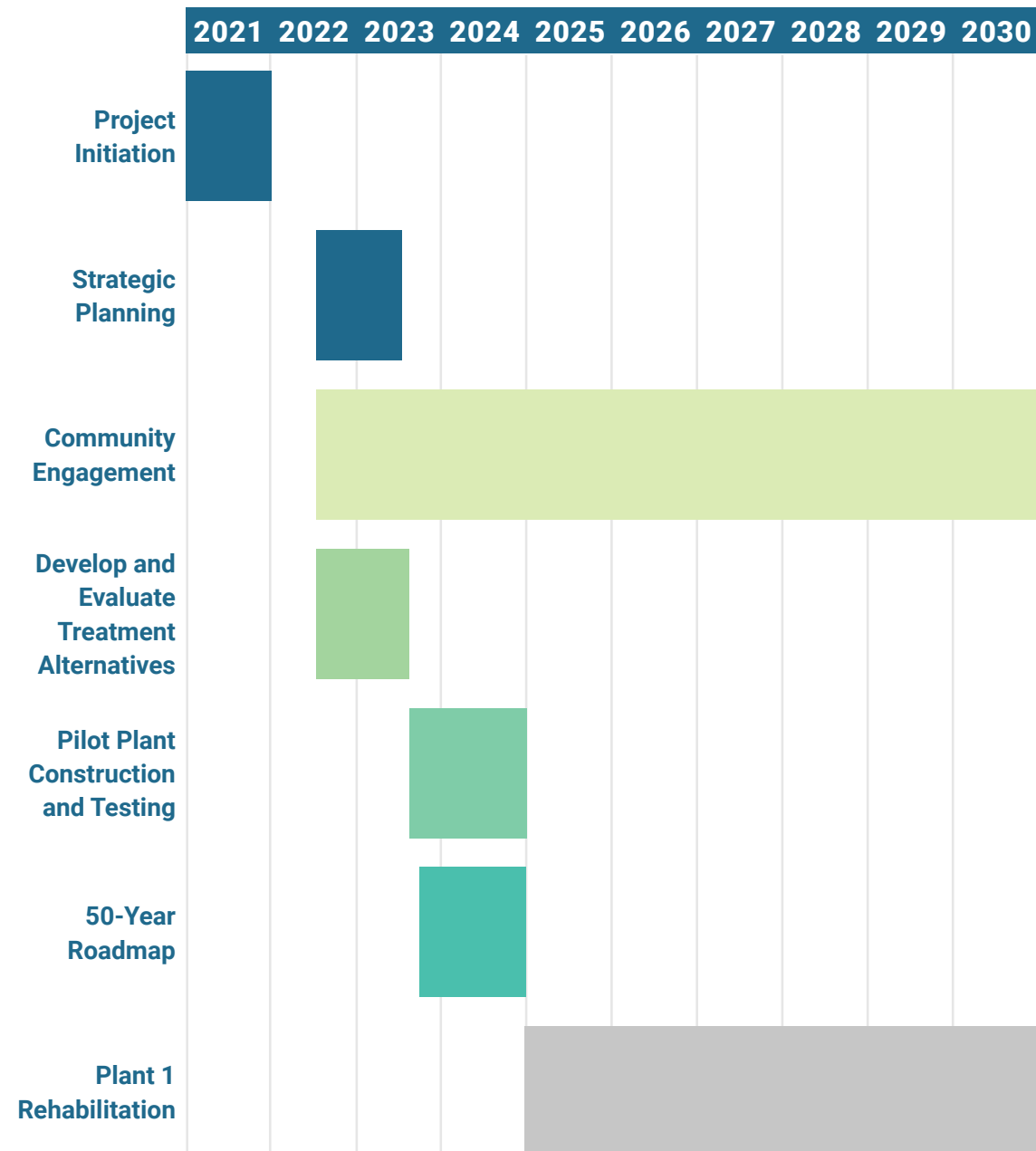
Interactive Two-Way Teamwork Test Informative

Innovative

06 PARALLEL EFFORTS

The WTP Facility Plan considers operational, maintenance and regulatory needs to deliver water treatment services in the near-term with the flexibility to address future needs. The WTP Facility Plan includes identifying the treatment upgrades and infrastructure renewal needs of the existing WTP site. The WTP Facility Plan development includes: community engagement, strategic planning, development and evaluation of treatment alternatives, pilot testing, a 50-Year Roadmap for the site, and plan to rehabilitate the oldest portions of the water treatment plant.

PARALLEL EVENTS TIMELINE



COMMUNITY ENGAGEMENT

The City of Ann Arbor is committed to meaningful and representative community involvement in its infrastructure projects. The Facility Plan's Community Engagement team worked closely with the City's Equitable Engagement Steering Committee on how and where to best engage with historically underrepresented groups in Ann Arbor and the surrounding communities. The structure for public input was timed to inform key decisions in this project and to demonstrate support from the community.



DEVELOPMENT AND EVALUATION OF TREATMENT ALTERNATIVES

This task considers the treatment alternatives available to manage threats in the source water, including *Cryptosporidium*, PFAS and potentially 1,4-dioxane. Alternative treatment regimens are assessed based on social, environmental, and financial factors – representing a triple bottom line approach. The assessment shapes a recommended approach to meet the City's projected water demands and water quality objectives over the 50-year planning horizon, including an effort to account for future unknown treatment needs.



PILOT TESTING OF NEW TECHNOLOGIES

To assess the feasibility of new technologies considered for Ann Arbor Water, a small-scale water treatment plant was built. The pilot plant includes softening, ozonation and filtration to mimic the operations and performance of the full-scale water treatment plant. The pilot plant is operated by students and researchers from the University of Michigan, who will use the pilot plant to assess hardness removal, disinfection by-product formation, and the control of 1,4-dioxane and PFAS. The Michigan Department of Environment, Great Lakes and Energy (EGLE) engages through recurring meetings, data sharing, and review of progress of the pilot testing.



50-YEAR ROADMAP

The WTP Facility Plan culminates in the 50-Year Roadmap for Ann Arbor Water. The Roadmap addresses space utilization of the water treatment plant site and presents this with a timeline and cost schedule to arrange the investment and treatment needs.



PLANT 1 REHABILITATION

Using the 50-Year Roadmap with the preferred treatment alternative and results from pilot testing, a plan to guide the implementation of the first major expected project is developed. The plan will rehabilitate the oldest part of the water treatment plant, Plant 1, constructed in the 1930s and 1940s. Funding sources to explore include loans and grants from state and federal agencies. The outcome of this task will be foundational for the future design, permitting, and construction to rehabilitate Plant 1.

Community Engagement

The City of Ann Arbor is committed to meaningful and representative community engagement in the development of the WTP Facility Plan. Ann Arbor Water is conducting different forms of engagement to inform all phases of the WTP Facility Plan project including this strategic plan, development and evaluation of water treatment alternatives, and implementation. Ann Arbor Water will continually provide updates on community engagements. Participants are invited to join in actively as the project team develops its recommendations. The goal is to ensure that project recommendations and outcomes reflect the community's perspectives and priorities.

The City of Ann Arbor is engaging diverse voices through an approachable and welcoming process, with the assistance of a local, woman-owned community engagement contractor. Members of the City of Ann Arbor [Equitable Engagement Steering Committee \(EESC\)](#) have joined the Ann Arbor Water Community Engagement Team and the Strategic Planning Team to ensure that community perspectives and priorities are reflected. All community engagement activities are vetted by

these individuals, who help the project team shape communications and tools to be more accessible. EESC members also provide valuable connections to historically underrepresented groups.

Direct engagement with community members

Community engagement and Ann Arbor Water team members interact directly with members of the public at events like the Mayor's Green Fair, the Farmer's Market, and Bryant Community Center, and conduct focus groups for those with special water needs, like medical providers and brewers. The project team uses the public's questions and concerns gathered at community events to inform project decision-making. The team provides public information about project activities via the [project website](#), [press releases](#), [videos](#), and [Ann Arbor Water newsletters](#).

Engagement with organizations representing diverse perspectives

Community organizations that advocate for low-income and historically underrepresented groups provide a system-wide perspective on topics related to water treatment services, leading to project recommendations that address equity and access

The project is strategically engaging young people through the Ann Arbor Public Schools to ensure that youth have a voice in determining the future of their drinking water.

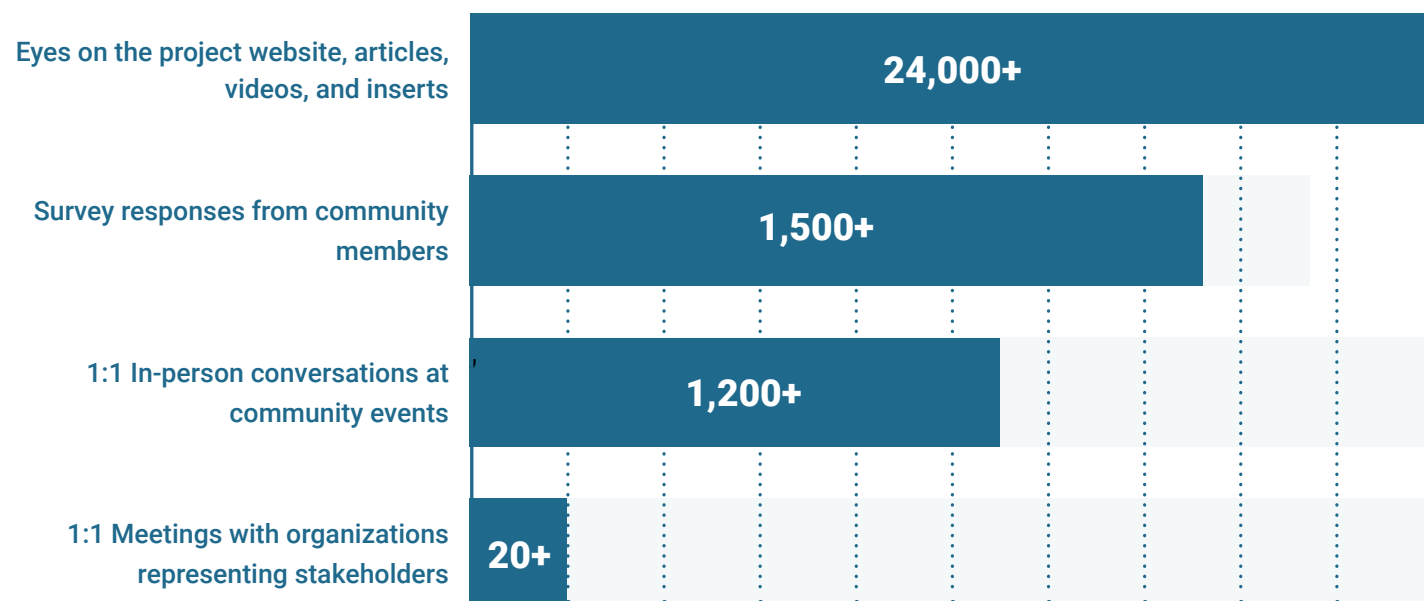
issues. Groups engaged to date include Avalon Housing, the Huron River Watershed Council, Community Action Network, Food Gatherers, and more. Major customers who represent water users – Scio and Ann Arbor Township, the University of Michigan, and Ann Arbor Public Schools – are also fully engaged to speak for water users and uses within their communities and organizations.

Engaging community-based organizations, Ann Arbor Water customers, and the EESC is the City's approach to ensuring that ratepayers' priorities are reflected in project decisions.

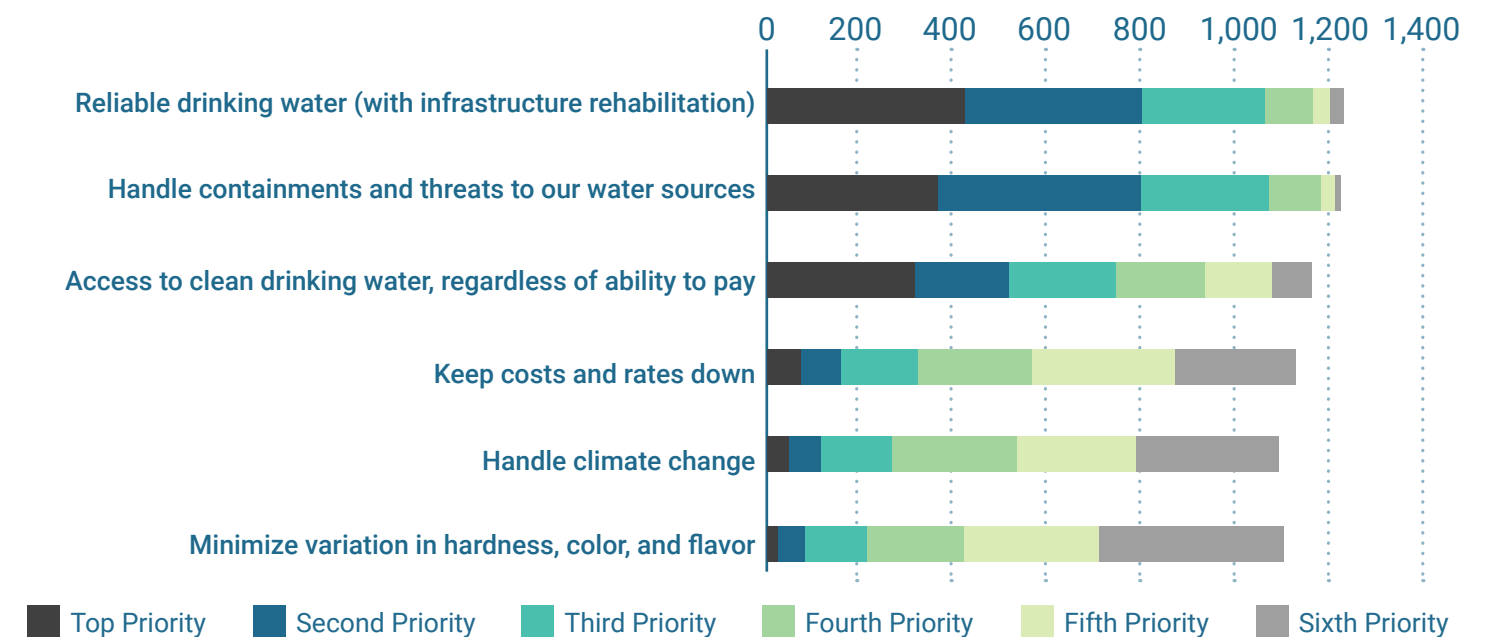
Make community-informed decisions

Continually monitoring project activities allows for identification of policy decisions that public priorities can and should influence. Engagement activities conducted to date provide insight into how the public prioritizes the project's environmental, technical, social, and cost factors. Ann Arbor Water captured the public's prioritization via a city-wide survey issued in September 2022. Survey results indicated that reliable and safe drinking water are the top priorities, followed by access to clean drinking water regardless of ability to pay. These priorities informed the recommendations outlined in this Strategic Plan and

COMMUNITY ENGAGEMENTS (AS OF 05/06/2023)



COMMUNITY PRIORITIZATION OF WATER QUALITY CONCERNS IN ANN ARBOR



07 NEXT STEPS

The Strategic Plan will serve as reference, inspiration, and guidance for Ann Arbor Water as it continues to address changing conditions to meet the evolving water needs of the community in a way that aligns with its strategic and aspirational goals. The defining outcome of this Strategic Plan is the strategic framework. This Framework is used to inform the WTP Facility Plan and the 50-Year Roadmap that governs implementation on the water treatment plant site. In the near term, the strategic framework is used to develop the WTP Facility Plan and inform decision-making on the first major capital project to rehabilitate the oldest portion of the plant.

Actionable steps were identified to advance strategic goals throughout the strategic planning process. These actions are detailed for each guiding principle. The Strategic Plan is a living document; to check alignment with current conditions, the next steps should be re-evaluated approximately every two to three years.



WE CONSISTENTLY DELIVER

Rehabilitate portions of the water treatment plant to address aging infrastructure and regulatory needs

Maintaining physical infrastructure to uphold high-quality delivery standards over time. Ann Arbor Water is planning the rehabilitation of the oldest part of the plant, which includes the following steps:

- Conduct pilot testing to evaluate the effectiveness of new water treatment technologies on a small scale before implementation at the full-scale water treatment plant.
- Select new treatment strategies with the flexibility to manage contaminants of concern and meet evolving regulatory requirements for *Cryptosporidium*, PFAS, and 1,4-dioxane.
- Evaluate alternative raw water supplies to improve reliability and resiliency of water sources in the event of an emergency.
- Use financial models as a tool to plan infrastructure investments and optimize use of resources.
- Explore funding sources such as low interest funds, grant opportunities, and partnerships from local, state, and federal agencies to support infrastructure rehabilitation and capital improvements.
- Ann Arbor Water understands the benefits of regionalization and will consider requests and inquiries by communities interested in its services and will evaluate on a case-by-case basis.



WE ARE A COMMUNITY

Ensure equitable access to water services for all Ann Arbor Water customers and community

Promoting access to high-quality, safe, and affordable drinking water for every customer requires exploring and implementing targeted equity strategies. Ann Arbor Water may advance water equity in the following ways:

- Incorporate WTP Facility Plan community engagement recommendations into future capital projects as part of improved and continuous community engagement.
- Evaluate, track and align Ann Arbor Water policies and programs with federal, state, and local programs, guidelines, and requirements for water affordability.
- Explore funding sources such as low-interest funds, grant opportunities, and partnerships from local, state, and federal agencies to support equity initiatives.
- Collaborate with local community groups to advance water affordability and equity initiatives.



WE ARE ACCOUNTABLE TO YOU

Equip Ann Arbor Water with the flexibility, reliability and resiliency to continue providing safe drinking water in the face of changing conditions

Establishing resilient water treatment services requires comprehensive planning and investment in adaptable and flexible systems that can meet changing needs. To elevate reliability and emergency preparedness, Ann Arbor Water may consider the following:

- Evaluate and incorporate increased resiliency and reliability for critical parts of the water treatment system.
- Explore treatment technologies to address contaminants of concern and their readiness for implementation.
- Determine content and frequency of updates for a dashboard to regularly present water quality data to the public.
- Review distribution system watermain replacement for alignment with the CIP and annual Asset Management Plan goals.
- Invest in the workforce by supporting continued education and technical skills training to maintain the quality of service.



OUR FUTURE IS NOW

Define path toward achieving net zero energy at the WTP

Aligning and advancing water treatment plant operations in parallel with the 'A²ZERO Climate Action Plan 4.0'. Ann Arbor Water may explore pathways for achieving carbon neutrality, or net zero energy consumption in the following ways:

- As part of the project to rehabilitate the oldest part of the plant, consider and implement technologies that move the WTP towards net zero energy consumption.
- Develop a plan to move Ann Arbor Water towards carbon neutrality; what measures such as renewable energy sources can be implemented now and in the future.
- Identify and quantify the emissions associated with existing water treatment practices, and use this as a benchmark for comparison for future upgrades and modifications.
- Consider green infrastructure at the water system facilities as a water management approach to protect, restore, and reflect the natural water cycle.



KNOWLEDGE IS POWER

Raise public awareness of drinking water and the shared responsibility to protect Ann Arbor Water sources

Providing the community with knowledge requires inclusive and transparent communications informed by scientific research. Ann Arbor Water may advance the development and sharing of accessible data-driven information in the following ways:

- Assess the effectiveness of existing communications to increase engagement.
- Prepare a Communications Plan for Ann Arbor Water.
- Plan targeted outreach to historically underrepresented communities and youth groups.
- Invest in research, development and innovation to increase resiliency of Ann Arbor Water treatment services.
- Collaborate with industry-leading organizations to influence and innovate.
- Establish partnerships with research and community organizations to advance scientific research.

This section documents ideas generated throughout the strategic planning process. Ann Arbor Water is exploring these ideas as actions to transition the Strategic Plan into next steps.

07 NEXT STEPS

Key takeaways about the Ann Arbor Water Strategic Plan and how it is used to facilitate delivery of high-quality safe drinking water for everyone today and for years to come.

What is the Ann Arbor Water Strategic Plan?

- A living document to be periodically reviewed and updated (recommended every five years) to ensure alignment with changing conditions.
- It is developed, reviewed, and updated through an iterative and inclusive community engagement process.
- It outlines community priorities and vision for Ann Arbor Water today and well into the future.
- It establishes the strategic framework (guiding principles, aspirational goals and examples of tracking measures) that informs decision-making.

The Ann Arbor Water Strategic Plan is a living document, periodically reviewed and updated (recommended every five years).

How does Ann Arbor Water use its Strategic Plan?

- Steer decision-making for water treatment service today and well into the future.
- Design work plans to transition the strategic framework and vision into action.
- Develop suitable metrics to measure and monitor progress toward aspirational goals and overall outcomes of the Strategic Plan.
- Uphold transparency and accountability to the community and customers.

Ann Arbor Water uses its Strategic Plan to develop actionable work plans with suitable metrics that transition the strategic vision into measurable actions.



Kayaking down the Huron River and Argo Cascades in Ann Arbor

ACKNOWLEDGMENTS

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Ann Arbor Public Schools
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Huron River Watershed Council
Rebecca Esselman, M.S

City of Ann Arbor Equitable Engagement Steering Committee
Andre' Watson

Drinking Water Quality Manager
Becky Lahr, PhD

Water Utility Maintenance Supervisor
Mike Switzenberg

SCADA Network Administrator
Ryan Justin

ANN ARBOR CHARTER TOWNSHIP



Diane O'Connell: Diane is the supervisor of Ann Arbor Charter Township. She enjoys Ann Arbor Township's many amenities and is dedicated to preserving its natural features and the environment.

"We are interested in having a voice in decisions made by the City of Ann Arbor that impact Ann Arbor Township. We appreciate being asked to participate in the strategic planning process and would like to continue to discuss issues that may emerge at any time in the future."

SCIO TOWNSHIP



Will Hathaway: Will serves as the Supervisor for Scio Township. He participated as the township's co-representative on the strategic planning team.

"Scio Township and the City of Ann Arbor partner in a variety of ways, but none more crucial than protecting our water. We were glad to engage in the planning process and look forward to working with the City to maintain safe water for our residents."

ANN ARBOR CHARTER TOWNSHIP



Rick Judkins: Rick is the Utilities Director of the Ann Arbor Charter Township and served as the township's co-representative on the strategic planning team.

"I am concerned about the impact of development on source water capacity and safety for customers and residents. How will Ann Arbor Water accommodate future regional needs?"

SCIO TOWNSHIP



Steve Wyzgoski: Steve is the Scio Township Utilities Director and resident. He has a background in water treatment services.

"I am interested in addressing treatment options for 1, 4-dioxane and delivering water services to other areas of Scio Township."

HURON RIVER WATERSHED COUNCIL



Rebecca Esselman, M.S: Rebecca is the Executive Director of the Huron River Watershed Council. Esselman is an ecologist with 22 years of experience in river restoration, climate adaptation and working with cities and towns in preparation for a changing climate.

"I would like the plan to integrate strategies to protect the quality of source water including upstream land protection."

EQUITABLE ENGAGEMENT STEERING COMMITTEE



Andre' Watson: Andre' is a Diversity, Equity and Inclusion advocate and member of the Equitable Engagement Steering Committee (EESC). He voiced perspectives of historically underrepresented groups of people through the strategic planning process.

"I appreciate the extra efforts provided to include as many voices from the community as possible. I hope that other departments follow in this direction, in order to break down some barriers that still exist here."

UNIVERSITY OF MICHIGAN



Brian Hall: Brian is the Director of Utilities at the University of Michigan and served as a university representative on the strategic planning team.

"This effort aligns well with U-M's current campus planning initiative. Both aim to support the development of sustainable and healthy communities."

ANN ARBOR PUBLIC SCHOOLS

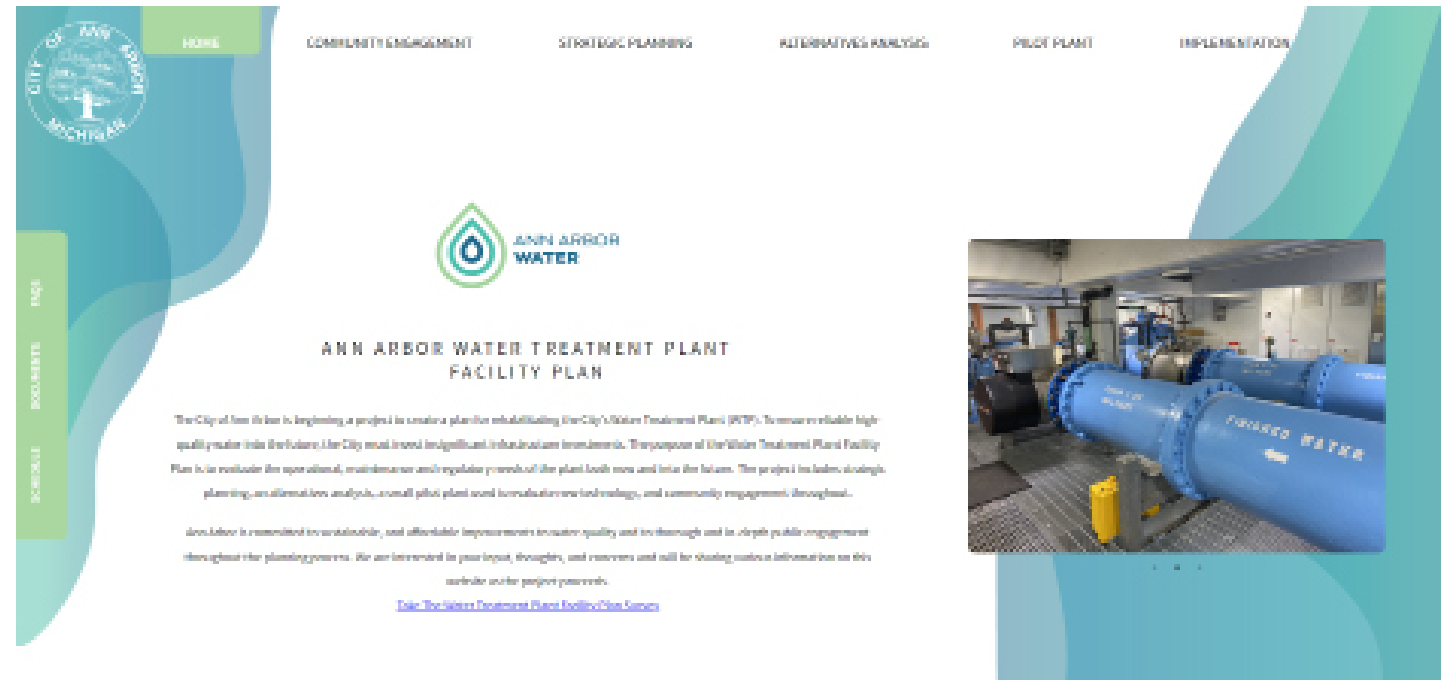


Emile Lauzzana: Emile is the Executive Director, Environmental Sustainability of Ann Arbor Schools. He represented Ann Arbor Public Schools in the strategic planning team.

"I am happy to be a part of the strategic planning team to create a plan that will enhance water security and quality in the Ann Arbor area."

RESOURCES

Please reference the [‘Ann Arbor Water Treatment Plant’ Facility Plan website](#) for further information:

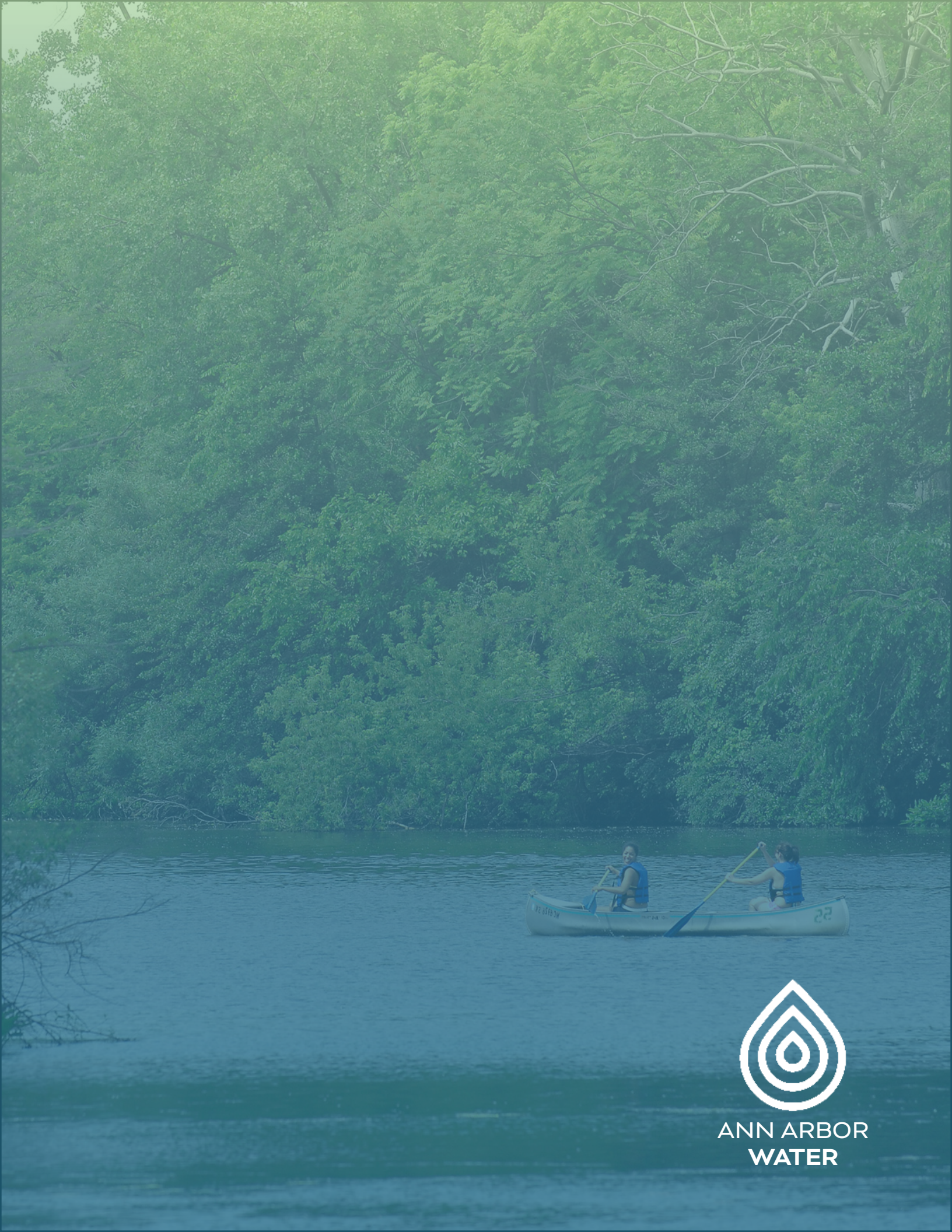


Relevant links within the website include:

1. [Strategic Planning](#)
2. [Documents](#)
 - a. [Project Updates](#)
 - b. [2021 Council Report](#)
 - c. [2021 Council Presentation](#)

“*This is a very comprehensive project, and the goal is really ensuring the continued supply of our award-winning water.*”

Glen Wiczorek, PE
Senior Utilities Engineer
Ann Arbor Water



ANN ARBOR
WATER