

The Utility of the Future Today -



**WATER
RESOURCES
UTILITY OF
THE
FUTURE
TODAY**

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Application Information

ELIGIBILITY

- ☐ Public and private water sector utilities of all sizes that can demonstrate achievement of the application requirements are encouraged to apply.
- ☐ Applicants must have no major violations of their National Pollutant Discharge Elimination System (NPDES) permit requirements for the previous year based on the date of application. If specific questions arise regarding what constitutes a major violation, applicants are encouraged to contact their state NPDES point of contact for further information. If the state has not been delegated authority to operate the NPDES program, applicants should contact their NPDES point of contact in the EPA Regional Office.

Application Requirements

Applicants should submit the required documentation as requested in this application package on the online application platform at <https://wef.secure-platform.com/a/solicitations/108/home> by **11:59 PM Eastern Time, April 12, 2023**. Attachments, graphics, charts, photos, and videos will be accepted as part of an application package. Videos may not exceed 500 MB. Should you have questions about the application, please contact UtilityRecognition@wef.org.

Basis for Recognition

Successful applicants will demonstrate that they are engaged in developing and growing an Organizational Culture that supports Utility of the Future implementation, as well as advancement in one of the following Activity Areas:

- ☐ Beneficial Biosolids Reuse
- ☐ Partnering and Engagement
- ☐ Energy Efficiency
- ☐ Energy Generation & Recovery
- ☐ Nutrient Reduction & Materials Recovery
- ☐ Water Reuse
- ☐ Watershed Stewardship

Details and instructions are provided below.

Reviewers will take into consideration an applicant's current engagement and performance, as well as projected future results.

Notification and Presentation of Recognition

Applicants will be informed whether they were selected for recognition by May 17, 2023, by email or phone. A ceremony to celebrate recognition of recipients will be held at WEFTEC 2023 in Chicago, IL (September 30 to October 4, 2023). Selected utilities will receive a Utility of the Future Today banner, and/or a 2022 flag, and a Certificate of Recognition. Recipients are not required to attend WEFTEC to receive recognition.

Recognition Duration

Utility of the Future Today recognition is granted for a three-year period – this applies to both the Organizational Culture narrative (Application Part 2), as well as the one selected Activity Area (Application Part 3). After three years, utilities must reapply to renew their recognition by 1) demonstrating advancements in Organizational Culture, and 2) either demonstrating advancement in a previously recognized Activity Area or applying in a new (not previously recognized) Activity Area.

Sponsoring organizations reserve the right to withdraw recognition from any recipient at any time.

Extension of Recognition

In the subsequent two years after receiving initial recognition, utilities are invited (but not required) to submit up to one additional Activity Area annually to receive further recognition during their three-year period of recognition.

For example: a utility recognized in 2020 in Watershed Stewardship may apply for recognition in 2021 and 2022 for one additional activity area per year by submitting materials only for that activity area. A new Organizational Culture narrative does not need to be created, however, the previously submitted narrative must be included in the online application to be included in the scoring process. In 2023, the utility may reapply to renew their recognition for an additional three-year period.

Application Part 1: Background Information

Utility Description (combine all plants if a multi-site system)		
Utility Name:		
Type (e.g., single plant, regional system, multiple plants, collection or distribution system only, stormwater, etc.):		
Service Area (square miles):	Average Annual Daily Flow or Demand (MGD):	
Population Served:		
Location		
Street Address:		
City:	State:	Country:
Zip Code/Country Code:		
Utility Representative Contact Information		
Name:	Phone:	Email:
<i>If this application has been prepared by another entity on behalf of the utility, provide the information of the preparer below</i>		
Name:	Title:	Contact Information (phone or email):
Previous Recognition		
If this utility has received recognition in the past, please indicate the year (s).		
<input type="checkbox"/>	2016	
<input type="checkbox"/>	2017	
<input type="checkbox"/>	2018	
<input type="checkbox"/>	2019	
<input type="checkbox"/>	2020	
<input type="checkbox"/>	2021	
<input type="checkbox"/>	2022	

Application Part 2: Organizational Culture Narrative

A Utility of the Future Today (UotFT) organization has demonstrated success in areas such as product quality; customer satisfaction; stakeholder understanding and support; financial viability; operational optimization; employee and leadership development; enterprise resiliency; infrastructure strategy and performance; community sustainability; water resource sustainability; and has leveraged that success to become an equitable and inclusive employer.

Organizational Culture is the backbone of a Utility of the Future Today. An organization's culture defines behavioral norms within the organization, and within the community served by the utility. This culture consists of shared beliefs and values established by leaders and then communicated and reinforced through various methods, ultimately shaping employee perceptions, behaviors and understanding. It also includes how the organization makes decisions, and how it treats its customers.

A UotFT organization has created and continues to grow and evolve an Organizational Culture that focuses on people, both within the utility and within the community served. People within the utility are focused on continuous improvement of their skills and services they provide, and on organizational performance. People throughout the organization feel respected by their leadership, with employee engagement strong at all levels. The UoTF culture encourages self-improvement, learning, innovation, collaboration, workforce/workplace flexibility and service to help address Triple Bottom Line community-wide economic, environmental, and social outcomes. The benefits of becoming a UotFT include enhancing the organization's ability to attract, retain and develop top-notch water sector leaders and staff with the capacity to facilitate mission and vision achievement.

The UotFT is taking actions to serve as an "Anchor Institution" in the community that is invested in the quality of life of the community that it serves; provides leadership within the community; is an employer of choice; an investor in placemaking; a community educator; and a compassionate service provider ensuring all customers receive equitable services—regardless of income. Above all, an anchor institution is committed to optimize environmental and public health outcomes for those it serves.

Each applicant must submit a narrative that provides an overview of its programs and practices relative to their utility's Organizational Culture, in support of the Utility of the Future Today model. **Please note that Organizational Culture is both internal to the utility and external within the community.** If your utility has been recognized previously and your current application is for a new Activity Area, please resubmit your Organizational Narrative.

Example practices and measures relative to Organizational Culture, including the role of an Anchor Institution, can be found in Appendices 1 and 2.

The narrative must be a minimum of 500 words, but no more than 1500 words, and should include what your utility is doing to evolve your Organizational Culture consistent with the attributes of a Utility of the Future.

Application Part 3: Activity Area Description

Each applicant is required to submit a description for the one Activity Area of their choosing – **the seven *Utility of the Future Today Activity Areas* are listed and defined on the following page**. The purpose of the description is to demonstrate robust engagement in that Activity Area.

Your description should be no more than 2000 words.

The description includes three main components:

1. **Overview Paragraph:** Describe the practices/actions/programs that your utility has engaged in relative to the chosen Activity Area. For reference, a list of example practices related to each Activity Area are included in **Appendix 1**. This list is not meant to be comprehensive, but instead demonstrates the types of actions that could be included in the scope of each area. Please include no more than 1-2 sentences per action that you describe in this section.
2. **Question & Answer:** Respond to the questions listed below in as much detail as possible to provide a guide to other utilities seeking to learn from your experiences and implement similar actions/practices at their system.
 - a. How did you go about implementing the practices/actions/programs that you described in your Overview Paragraph?
 - b. What type and level of resources were needed to support implementation? (e.g., financial, staff, other)
 - c. Did you partner with other stakeholders or organizations as a part of your implementation process?
 - d. What was the most critical obstacle that your utility had to overcome to be successful in this Activity Area, and how did you do that?
 - e. Has “smart” information technology supported your implementation/optimization in this area? If yes, please describe.
 - f. Where could other utilities go to find additional information on this Activity Area or the actions/practices/programs that you implemented?
3. **Performance Measures & Results:** Using the table below, please describe the measures that you use to gauge performance in this Activity Area, including the targets that you set for each measure and your actual outcomes to date. For your reference, a list of example measures for each Activity Area is included in **Appendix 2**. Because the Utility of the Future paradigm encourages resource recovery, the Utility of the Future Today Recognition Program provides an **optional** framework to report their resource recovery efforts for purposes of this application. **This framework** is based on the simplified survey form used in the determination of the WEF resource recovery baseline report (with support from the Utility of the Future partners WRF, NACWA, and WateReuse) on the 2017 baseline levels of resource recovery. However, if an applicant chooses to use the existing reporting format below for purposes of the application, they are welcome to do so.

Measure <i>What are you measuring?</i>	Targets <i>What was your goal/intended outcome?</i>	Outcomes <i>What were your actual outcomes?</i>

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Definitions of Activity Areas

ACTIVITY AREA 1: BENEFICIAL BIOSOLIDS USE

Wastewater-produced biosolids can be beneficially used to support agriculture, silviculture, horticulture, fire restoration, and general landscape maintenance through land application; production of marketable products such as compost, amended topsoil, or construction products (e.g., bricks, road bed); and land reclamation as a substitute for other fill materials. This Activity Area does not include use of biosolids to produce energy or recovery of resources from biosolids.

ACTIVITY AREA 2: PARTNERING & ENGAGEMENT

Partnering is collaboration with stakeholders to enable the utility to meet its own Utility of the Future goals while also enhancing the overall environmental, economic, and social wellbeing of the stakeholders and the community at large. Partnering between utilities (peer-to-peer exchange), whether offering or seeking such opportunities to advance utility performance, including, but not exclusive to, Utility of the Future goals, falls into this activity area. Engagement is the interaction with customers and other stakeholders to provide ongoing opportunities for dialogue along with communication and education related to utility operations and the value of water and utility services. Through partnering and engagement, the utility proactively engages with stakeholders and community decision makers to promote the utility as a valued, competent, and trustworthy community asset.

ACTIVITY AREA 3: ENERGY EFFICIENCY

Energy Efficiency is the reduction of overall energy use by the utility. A utility is more energy efficient if it delivers more services for the same amount of energy or the same services for less energy.

ACTIVITY AREA 4: ENERGY GENERATION & RECOVERY

Energy Generation & Recovery captures efforts to minimize the use of non-renewable energy; generate renewable (green) energy to the maximum extent practicable; and recover thermal, chemical, and hydraulic energy to the maximum extent possible. In doing so, the water Utility of the Future will not only seek to optimize its water quality performance, but also look to minimize its carbon footprint, reduce its vulnerability to climate change, and better manage energy costs and requirements.

ACTIVITY AREA 5: NUTRIENT REDUCTION & MATERIALS RECOVERY

Nutrient reduction in a cost effective and efficient manner is a desired outcome of many utilities. The use of creative operational protocols and innovative technologies to achieve reductions of nutrients discharged into the environment is an activity of utilities of the future of all sizes. Materials recovery is the extraction of ammonia phosphorus, nitrogen compounds, metals and other marketable commodities during the treatment process and includes lower tech activities such as recycling/reusing/repurposing paper, pallets, containers, and other

materials that otherwise would be “wasted.”

ACTIVITY AREA 6: WATER REUSE

Water Reuse covers opportunities to use treated waters fit for beneficial purposes such as irrigation, buffering saltwater intrusion, industrial processes, toilet flushing, fire protection, surface/groundwater augmentation, and ultimately, human consumption.

ACTIVITY AREA 7: WATERSHED STEWARDSHIP

Watersheds are the geographic areas that channel drainage into a river or stream system. They are defined by topographic boundaries and—depending on where they are located—might encompass complex natural ecosystems, highly urbanized landscapes, or elements of both. Watershed Stewardship refers to utility investments and actions to improve water flow (reduced flooding/increased local capture) and quality conditions outside of the traditional utility span of infrastructure operations and control.

It also draws on integrated growth planning to integrate wastewater infrastructure expansion, repair, and replacement with community development planning (i.e., area plans), stormwater management planning (i.e., Total Maximum Daily Load implementation plans), climate resiliency planning, and economic development planning to maximize the benefits and fully assess cost implications (i.e., triple bottom line feasibility analyses). Activities can include urban Green Stormwater Infrastructure investments, conservation easements to preserve the ecosystem functions of undeveloped lands, and stream channel restoration.

Application Part 4: Certification Statement

I, _____ [PRINT NAME], *an approved representative of my*

organization, _____ [ORGANIZATION NAME], certify that all data and information provided in this application package is accurate to the best of my organization's knowledge and has not been falsified. I certify that my organization is in good standing and has had no major permit violations in the 12 months prior to the date of submission of this application package.

_____ [UTILITY REPRESENTATIVE SIGNATURE]

_____ [DATE]

If this application has been prepared by another entity on behalf of the utility, preparer sign below:

_____ [PREPARER SIGNATURE]

_____ [DATE]

Appendix 1: Example Activities by Area

ORGANIZATIONAL CULTURE

Internal Culture

- Leadership proactively engaged in both internal organizational and broader discussions with community leaders on critical community priorities
- Effective Utility Management (EUM)-based continuous improvement program in place
- Business focus that delivers best environmental, economic, and community outcomes consistent with community values and needs
- Inclusive, participatory, and collaborative culture established, dedicated to continual learning, improvement, and innovation
- Workforce and leadership development program (that includes leadership and management skills training in support of formal and informal leadership opportunities) in place to assure recruitment, retention, and continuous competency of utility staff in support of utility's mission and community expectations
- Provides formal or informal mentoring for young (and seasoned) professionals to attract and retain top talent through commitment to their professional development and a supportive, encouraging culture.
- Shares work experiences (including internal "peer-to-peer" partnering), ensures internal understanding and greater support for the utility's key strategy relative to the Utility of the Future business model
- Establishes "peer-to-peer" relationships and actively partners with other utilities to offer and/or seek opportunities to advance the Utility of the Future goals broadly across the water sector
- Job enhancement and enrichment opportunities are available through a variety of standard and innovative job scope broadening techniques that support a strong business succession and overall integration of organizational spirit
- A Tuition Refund program is in place to encourage employee career advancement
- Problem solving is encouraged at all levels, and accepted solutions are adequately funded and supported for successful implementation
- Develops an integrated and well-coordinated senior leadership team
- Employs integrated organizational communications systems
- Opportunities provided for employees to find and fix inefficiencies, and share ideas for solutions to problems
- Awareness and commitment to workplace safety established as a key organizational expectation
- Victories for organization celebrated and recognized
- Process established for periodic tracking of progress toward meeting goals and milestones around organizational Utility of the Future commitments

- Mentoring program or other informal engagement with other utilities to help address key challenges and promote Utility of the Future practices established as an organizational practice
- Staff is recognized and rewarded for suggesting improvements that save time, money, resources and/or improve outcomes
- Organization adopts Core Values aligned with community needs and desires
- Intentionally uses diversity, equity, and inclusion factors to inform staffing, operational, and investment decision-making.
- Leadership actively seeks opportunities for employee engagement, including in the development and implementation of the organization's Strategic Business Plan, core values and annual/biannual budget.
- Stresses organizational efficiency by supporting decision making authority and responsibility at the lowest appropriate level in the organization
- The organization has a compelling and inspirational Vision and Mission that describes its desired organizational culture.

Leadership in Community, including Examples of Anchor Institution Activities:

- Cultivates collaborative community partnerships and serves as community conveners to advance shared utility and community goals and expand the collective impact of decisions and investments.
- Maximizes employment opportunities within the community as employers, through contracting and procurement, and through education, training, apprenticeship, and strategic investment programs.
- Creates multi-benefit investment policies, programs, and practices that achieve community benefits across the broad range of social, economic, and environmental community goals.
- Implements equitable and inclusive internal policies, evaluating how utility programs may disproportionately affect or burden low-income communities or communities of color
- Leadership proactively engaged with community leaders on critical community priorities
- Major capital and operating investments integrate both community priorities and triple bottom line decision making into the selection of investment alternatives that provide the greatest benefit to cost ratio, such as the Augmented Alternatives Analysis (AAA) or Envision Sustainable Infrastructure decision making process
- Provide active civic leadership and participates in and adds to the community quality of life
- Seeks to create co-benefits in the community, watershed and region, including multi-benefit capital infrastructure investments that also create community value (E.g., parks/soccer fields above underground wet weather storage basins)
- Support community and economic development in the region through partnerships and collaborations

- ❑ Provides job creation and contracting opportunities in the community
- ❑ Builds an effective workforce pipeline to underrepresented community members (e.g., minority populations, low-income residents)
- ❑ Beneficially impacts employment practices of service providers, suppliers and construction contractors
- ❑ Incubates local and regional workforce through strategic economic investment
- ❑ Develop partnerships that link community wellbeing to utility health
- ❑ Encourage enhanced public access and greenspace adjacent to utility facilities
- ❑ Creates/staffs a water environment center for educating the public on the value of water and wastewater services in protecting the environment and public health, while reducing climate impacts
- ❑ Provides resources, knowledge, and capacity to assist its community with projects that benefit the community, such as applying for funding or permits, that the community might not have the wherewithal to accomplish on its own
- ❑ Serves as a community liaison to other governmental divisions or agencies when problems arise, such as reaching out to Public Works, or the electric company, when there are challenges that the community may lack the capacity or expertise to address

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Appendix 2: Additional Example Performance Measures & Results by Area

ORGANIZATIONAL CULTURE

- ☐ Number of training sessions, % of individuals trained, and type of leadership/workforce development activities conducted (e.g., safety training)
- ☐ Internal Leadership and Supervisory Training programs in place
- ☐ Apprenticeship programs in place
- ☐ Mentoring program in place
- ☐ Level of employee engagement in the goals and vision of the Utility of the Future business model
- ☐ Active Wellness Program supported by organization
- ☐ Number of open positions that internal candidates can qualify for, as a result of employee training and enrichment programs
- ☐ Resource efficiency improvements related to staff utilization
- ☐ Employee job satisfaction (percent based on a comprehensive employee survey)
- ☐ Continuous improvement in Employee Engagement (via Employee Engagement Surveys)
- ☐ Percent of vacancies filled through the promotion of in-house candidates
- ☐ Peer-to-peer utility partnering program in place

ACTIVITY AREA 1: BENEFICIAL BIOSOLIDS USE

- ☐ Percent of biosolids beneficially used vs. total volume produced on an annual basis
- ☐ Quantification of natural resources conserved through substitution (e.g., pounds of phosphorus or other fertilizers substituted for by biosolids)
- ☐ Demonstrated performance against projected performance in business case (e.g., actual versus projected biosolids volume acquired for soil amendment by agricultural producers)
- ☐ Tons of carbon sequestered in the soil via land application of Class A and/or Class B biosolids
- ☐ Impact on customer rates
- ☐ Increase in agricultural land application
- ☐ Increase in silviculture land application
- ☐ Increase in agricultural or silviculture growth yields
- ☐ Increase in improved soil characteristics resulting from biosolids amended soils
- ☐ Amount of biosolids use for landscaping for green infrastructure projects
- ☐ Amount of biosolids use for recreational fields, golf courses, and domestic use

ACTIVITY AREA 2: PARTNERING & ENGAGEMENT

- ☐ Number and type of specific projects completed (e.g., rain gardens installed, innovative technologies, or other innovative practices adopted) associated with a partnership

- Number and type of formal recognitions of partnerships by outside groups (e.g., state or national award) and any associated results for the community (e.g., acres of green space added in the community)
- Performance improvements resulting from a partnership (e.g., reduced volume of flooding or reduced greenhouse gas emissions)
- Number of ongoing communications network actions/activities (e.g., website hits, newsletters, social media activity)
- Type and number of working agreements and collaborative initiatives for growth planning between and across different levels of government
- Type and number of changes in operating practices of other partners (e.g., nonpoint source controls by agricultural producers, food producers, consumers)
- Level of community support for the benefits and costs of becoming a Utility of the Future (e.g., annual survey results regarding community support for utility priorities)
- Support from and amount of contracting with local businesses
- Level of stakeholder involvement in decisions that affect them
- Number of outreach events conducted to publicize and build support for water and wastewater services
- Type and number of collaborations on data collection and assessment
- Amount and effectiveness of public outreach as an integral part of project planning
- Number of active utility-to-utility partnerships (can be providing or receiving services/training/resources, etc., from another utility)

ACTIVITY AREA 3: ENERGY EFFICIENCY

- KWh reductions in site energy use/intensity – to date or anticipated in the future (e.g., change in energy required per million gallons treated, or change in energy required per hour of pump operation)
- Translation of energy use/intensity reductions to greenhouse gas emission reductions – to date and anticipated in the future
- Current and anticipated investment (in USD) in energy efficiency projects or activities, and anticipated savings (in USD)
- USD value of other re-investments made as a result of the savings from reduced energy costs
- Percent of annual budget allocated to implementing priority energy efficiency improvements identified in energy audit

ACTIVITY AREA 4: ENERGY GENERATION & RECOVERY

- Reduced non-renewable energy use and carbon footprint (e.g., percent of non-renewable energy use reduction, percent of greenhouse gas emissions reduction)
- Reduced reliance on the power grid (e.g., percent reduction of energy utilization coming from the grid), and corresponding reduced vulnerability to climate change and energy price fluctuations
- Cost savings (e.g., return on investment proceeds and/or avoided energy costs)

- Percent increase in renewable energy production (e.g., solar generation) or utilization (e.g., purchase of renewable energy through the grid)
- Amount of carbon sequestered
- Amount of transmission losses eliminated when providing outside power to the facilities
- Increase in use of renewable energy sources, including Renewable Energy Credit generation, and/or percent of energy use that is renewable
- Percent of total plant power demand that is generated on-site from renewable sources

ACTIVITY AREA 5: NUTRIENT REDUCTION & MATERIALS RECOVERY

- Type and percent of materials recovered vs. materials available
- Revenue generated and/or costs avoided from materials recovery and marketing activities
- Demonstrated performance as projected in market assessment
- Number of external and/or public-private partnerships for recovered material sales
- Cost avoided through use of advanced technology to achieve nutrient reductions (e.g., capital cost avoided through more efficient use of existing infrastructure)

ACTIVITY AREA 6: WATER REUSE

- Water beneficially reused
 - Percent change of static water levels or reservoir due to new actions (augmentation)
 - Ratio of reuse quantity vs. wastewater volume processed (normalized change)
- Environmental benefits
 - Amount of movement or reduction of saltwater front (in feet)
 - Amount of decreased diversion of freshwater from sensitive ecosystems
 - Area irrigated solely by recycled water
- Local supply
 - Reduced dependence on purchased water and energy used to treat purchased water
 - Climate-independent water supply of reuse water
- Costs for, or sales of, treated water fit-for-purpose reuse
- Level of public acceptance of reuse commitments for non-potable opportunities
- Use of advanced treatment (ultrafilters (UF), reverse osmosis (RO), granular activated carbon (GAC))
- Type and use of enhanced disinfection of reuse water besides chlorine residual, such as UV light

ACTIVITY AREA 7: WATERSHED STEWARDSHIP

- Reduction in wet weather impacts (e.g., flooding, CSOs, SSOs, gallons of infiltrated water not reaching collection systems)
- Reduced unit costs for water quality improvements (e.g., financial benefits of a water quality trade)

- ☐ Enhanced pollution mitigation (e.g., sediment capture through green stormwater infrastructure)
- ☐ Increased hydrologic stability (e.g., reduction in flood-prone land area)
- ☐ Reductions (e.g., VSAT Risk Reduction Units change) in vulnerability to climate change
- ☐ Created or enhanced wetlands and riparian habitats (e.g., number of projects, or acres covered)
- ☐ Rate payer savings resulting from planning and projects between transportation and other public utilities

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