

# 2018 Strategic Plan *Year One Progress Report*





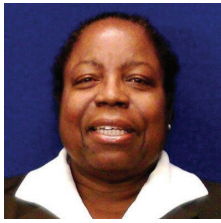
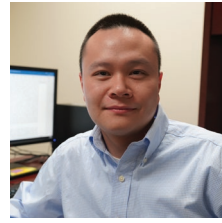
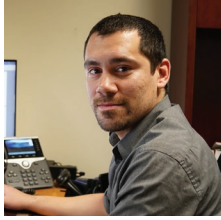


Stream Sampling in Phoenicia

## Introduction

Last summer, DEP released our *2018 Strategic Plan: Enriching our Legacy*, which outlined our vision to be a world class water and wastewater utility while building a sustainable future for all New Yorkers. To accomplish this, we set forth seven broad goals that further our mission of enriching the environment and protecting public health for all New Yorkers by providing high quality drinking water, managing wastewater and stormwater, and reducing air, noise, and hazardous materials pollution.

The 2019 Progress Report provides an overview of DEP's progress on the 43 specific initiatives outlined in the Strategic Plan and provides accountability to our ratepayers and other stakeholders.



# DEP Value Ambassadors

This year, DEP launched the Value Ambassador program to highlight the individuals who make up this agency and embody the eight values we hold most dear. As part of this program, we recognized the hard work and dedication of 35 employees from 10 of our bureaus.



## INNOVATION

In the water and wastewater utility world, innovation is more important than ever. We are faced with rapidly evolving treatment and information technologies; growing recognition of the need to increase the sustainability of our operations; and a challenge of aging infrastructure. Our Innovation Value Ambassadors are Chris Martell, Paul Sheane and Alan Cohn.



## DIVERSITY

Diversity is essential to organizational excellence and promoting diversity is a shared responsibility for all employees at DEP. Our agency is committed to building a workforce that reflects the composition of the communities we serve, while promoting a workplace where everyone is valued and positioned to succeed. Our Diversity Value Ambassadors are Veronica Andreassen, Victoria Rubino, Adrienne Blanford, and Joanne Nurse.



## SUPPORT

At DEP, we support a culture of respect and we invest in the professional growth and development of our workforce. We encourage all employees to conduct themselves with civility and have respect for their colleagues. Our Support Value Ambassadors are Natasha Harper-Nguer, Emily Perrin, Karen E.B. Moore, Oscar Gonzalez, and Fay Jacques.



## SERVICE

Providing excellent service at DEP means listening to and understanding our customers' needs so we can exceed their expectations. Our Service Value Ambassadors are Wei Yu, Mary Ann Wright, Kiah Miller, Paul Puglia, and Joe Anzuet



## INTEGRITY

Integrity means conducting oneself in a manner that is ethical, professional, and honest. At DEP, that means following the law, but also keeping your word to your colleagues, subordinates, and your boss, and promptly reporting bullying, disrespectful behavior, and sexual harassment. Our Integrity Value Ambassadors are Vincent Malveaux, Nicole Diunte, Geoffrey Martin, and Morlan Ty Rogers



## SUSTAINABILITY

Sustainability is core to DEP's DNA as we strive to maximize the economic, environmental, and social benefits of our investments and responsibilities. Our Sustainability Value Ambassadors are Melissa Enoch, Jennifer McDonnell, Christopher Tang, and Erika Jozwiak.



## TRANSPARENCY

At DEP, transparency means that we maintain clear and coherent lines of communication, both within and between agency staff and bureaus, and with our external stakeholders including regulators and most importantly the public. Our Transparency Value Ambassadors are Diana Dellafiora, Janet Amaro, Girma Moges, and August (Augie) Buffa.



## SAFETY

We put safety first and are committed to creating the safest workplace for everyone involved in our work. Every employee deserves to work in a safe environment and return home safely at the end of each day. Our Safety Value Ambassadors are Melinda Sherer, Patrick Lambert, Captain Shane Turk, Eddie Wright, Bonita Lee, and Chandan Saha.



# GOAL

## Provide world-class and sustainable water and wastewater services now and for future generations

Pepacton Reservoir

Ensuring the longevity of our system requires DEP to protect the health of our ecosystems, safeguard our network, and mitigate the risks of damage to our infrastructure. Over the last year, we have continued to make progress on each of these fronts.

To strengthen our cyber security posture and mitigate security risks, we rolled out mandatory security training videos and quizzes, distributed newsletters, and provided in-person classroom technical IT security training. Although there is still more training to do, the successful rollout of on-line cyber security training increases the resiliency of our network and protects us from phishing attacks every single day.

In December 2017, the New York State Department of Health granted DEP a 10-Year Filtration Avoidance Determination (FAD) that detailed the requirements for DEP to continue operating the unfiltered Catskill-Delaware water supply. DEP has made great progress managing the requirements of the FAD, including completing 27 contract actions. These contracts are necessary to administer and implement specific watershed protection programs consistent with all mandated deliverables and due dates.

In January 2019, DEP launched a behavior change campaign to educate New Yorkers about what is and is not okay to flush into our sewer system.

Focusing primarily on wipes and grease, the campaign used vivid and clear images placed strategically in subways and bus-shelters throughout the City. While it is too early to tell if these ads will change what New Yorkers are flushing, the effort generated significant media coverage for our campaign and is the largest such effort the agency has undertaken.

DEP has made significant progress in expanding outreach and enforcement efforts to protect the water supply from cross-contamination. In 2018, we began working closely with commercial cleaners and laundromats that did not have the proper protections in place. To verify the accuracy of self-certified reports, we have started a pilot auditing program. We also began manually reviewing all existing records to verify the accuracy of our database, published new guidance on our website, and created targeted letters that will be included in customers' quarterly bills going forward.

In early 2019, DEP conducted an employee survey to gauge the health of our safety culture. We will compile and release the results later in the year and we will use the information identify opportunities to engage our employees around safety.

Strategic Initiative	Status
1 Develop a coordinated long-range master plan for our water and wastewater systems.	●
2 Manage our assets to ensure the long-term sustainability and optimal efficiency of our water and wastewater services.	●
3 Maintain rates and sustain revenue to fund DEP's operations now and in the future.	●
4 Strengthen DEP's environmental health and safety culture.	●
5 Leverage technology to increase the security of DEP's infrastructure and network.	●
6 Manage the watershed to ensure long-term protection of New York City's water supply.	●
7 Support the development of backup supplies for upstate water supply systems in our region.	●
8 Expand outreach and enforcement efforts to protect the water supply system from cross-contamination.	●
9 Enhance sewer planning efforts.	●
10 Expand sewer infrastructure to underserved areas.	●
11 Reduce sewer backups and improper disposal of grease.	●
12 Transition wastewater treatment plants to wastewater resource recovery facilities.	●
13 Launch a comprehensive effort to reduce the improper disposal of "flushable" wipes.	●

- Complete   ● On Track   ● Delayed
- Cancelled   ● Not Started





# GOAL

## Control local sources of pollution to improve quality of life

DEP Chemist

To protect all New Yorkers from exposure to airborne pollutants, DEP increased the amount of asbestos inspection audits and is maintaining a 10% audit rate on asbestos surveys submitted. In addition, DEP promulgated rules requiring heavy duty waste hauling vehicles to retrofit their engines to reduce harmful emissions.

DEP also established rules to protect our waterways from runoff during construction. We also continued monitoring and investigation work at the Newtown Creek Superfund site. In March 2019, the United States Environmental Protection Agency approved the focused feasibility study for Newtown Creek, which will allow DEP to continue progressing work on the design of a 39MG CSO storage tunnel. DEP also launched the Trash Free Waters Challenge Phase 1, a behavioral campaign that strives to reduce pollution in our waterways by reducing plastic bag distribution by 5%.

DEP has taken steps to prioritize odor control at DEP facilities including our 14 wastewater resource recovery facilities, grit chambers, pump stations, CSO facilities, and marine vessels. In 2017, DEP issued a new protocol to address specific and general odor control problems respectfully, responsibly, and proactively to ensure we continue to be good neighbors to surrounding communities. To date, DEP has performed assessments, identified options, and delivered solutions to control possible odor generating sources

at five of our fourteen wastewater resource recovery facilities. Solutions include sealing windows and other openings, covering containers, applying odor counteractant, and replacing odor-absorbing carbon media. As a result of this effort, there has been a 70% decrease in confirmed odor complaints attributed to our facilities from 2016 to 2018.

Strategic Initiative	Status
<b>14</b> Improve air quality by reducing airborne pollutants.	●
<b>15</b> Improve the quality of our waterways.	●
<b>16</b> Minimize odors from our industrial facilities.	●
<b>17</b> Reduce noise pollution throughout New York City.	●
<b>18</b> Increase asbestos audits.	●
<b>19</b> Participate in the remediation of Superfund-designated sites.	●

- Complete    ● On Track    ● Delayed
- Cancelled    ● Not Started





## GOAL

### Reduce our carbon impact and mitigate the effects of climate change

Rain Garden, Bronx




Emissions from water and wastewater systems are responsible for nearly 20 percent of City government emissions, largely driven by wastewater treatment. Improving the efficiency of wastewater treatment, increasing the production of biogas, and capturing and beneficially using all biogas as a renewable energy source significantly reduces or offsets those carbon emissions. In February 2019, DEP completed the repair of the Wiggins gasholder at Newtown Creek Wastewater Resource Recovery Facility, allowing DEP to begin beneficially using anaerobic digester gas at the facility. Additionally, by July 2018 we virtually eliminated all fugitive emissions of anaerobic digester gas at the 26th Ward facility. Lead by the new Office of Energy and Resource Recovery, a number of green energy feasibility studies were completed or are on track for completion this year at our WWRFs and our upstate facilities. All of these efforts make DEP a more energy efficient and sustainable agency and work to bring us closer to the Mayor’s goal of reducing City government emissions 35% by 2025.






At DEP, water demand management requires an integrated approach consisting of residential toilet replacements, municipal plumbing upgrades, and stormwater reuse programs. In June 2019, DEP concluded our five-year long Toilet Replacement Program, which led to the retrofit of more than 14,000 toilets in multi-family buildings across the city. DEP also made significant progress in reduc-

ing municipal water use. We completed Harlem Hospital fixture retrofits and are initiating additional retrofits at several other NYC hospitals. We conducted three water audits at our wastewater resource recovery facilities and will soon upgrade equipment, expanded our water challenge to six universities to reduce their water consumption, and secured funding for stormwater recirculation and infrastructure upgrade projects at Central Park and Prospect Park to reduce their potable water consumption and for additional fixture retrofits in public schools. To date, DEP’s Water Demand Management Program has saved over 10 million gallons per day, with an additional 10 million gallons planned by 2022.

As part of the green infrastructure program, which includes the installation of more than 4,000 assets, DEP also launched an “Adopt a Rain Garden” program to encourage New Yorkers to keep litter out of rain gardens in their communities. All of these efforts reduce the stress on our drinking water supply, reduce flow to sewers and wastewater resource recovery plants, promote community and ecosystem health and resiliency, and mitigate climate risks. A map with DEP’s completed water conservation projects, along with associated energy and greenhouse gas savings, is available at [nyc.gov/dep/conservation](https://nyc.gov/dep/conservation).



Strategic Initiative	Status
<b>20</b> Reduce greenhouse gas emissions and expand renewable energy sources.	
<b>21</b> Restore natural habitats throughout New York Harbor.	
<b>22</b> Expand the green infrastructure program.	
<b>23</b> Expand integrated water management through water conservation, water reuse, and resource recovery.	

-  Complete
-  On Track
-  Delayed
-  Cancelled
-  Not Started



# GOAL

## Increase public awareness of our operations and improve service to our customers and the business community

Trout in the Classroom 2019, Bronx

Public engagement and outreach is a key component to ensure that the public understands the critical service we provide and the environment around them. In the past year, DEP worked closely with teachers and students from more than 500 public, parochial and independent schools throughout New York City and the City’s watershed communities, engaging approximately 10,000 students. With more than 110 visits in the last year, Newtown Creek Visitor Center continues to serve as a popular field trip site for New York City schools, community and education organizations, cultural institutions, youth and environmental groups, and other agencies.

In addition, we collaborated with more than 40 partner organizations to strengthen their capacity to develop relevant exhibitions, programs and resources and to teach young people and adults about DEP’s areas of responsibilities, careers, and stewardship opportunities. More than 1,500 formal and non-formal educators have already participated in conferences, field trips, workshops, and more. In 2019, DEP was approved by the New York State Education Department to offer continuing education hours for NY State teachers attending DEP’s professional learning opportunities.

Strategic Initiative	Status
<b>24</b> Increase the public’s awareness of DEP’s mission and responsibilities.	●
<b>25</b> Expand education opportunities for local communities and external stakeholders.	●
<b>26</b> Enhance the customer’s experience when calling DEP.	●
<b>27</b> Employ digital communication to better serve our customers and employees.	●
<b>28</b> Streamline the permitting process for water and sewer connections.	●
<b>29</b> Increase opportunities for minority and women-owned business enterprises (M/WBE).	●

- Complete    ● On Track    ● Delayed
- Cancelled    ● Not Started



# GOAL

## Cultivate a diverse and highly qualified workforce to meet future challenges

Police and Security Graduation

At DEP, we recognize that the ability to succeed in fulfilling our mission and serving our customers is dependent upon attracting and retaining a diverse workforce. In August 2018, DEP deployed a 2-year training plan including Sexual Harassment Prevention training, LGBTQ: The Power of Inclusion training, and other diversity and inclusion related topics. Additionally, DEP has increased the number of Diversity and Inclusion events this year, promoting awareness with a mix of panels, discussions, and engagements in recognition of Domestic Violence Awareness, Suicide Prevention, Veteran’s Day, Lunar New Year, Black History Month, Women’s History Month, Black History Month, Irish-American heritage, and much more.

Thinking to the future, DEP must also continue to engage strategic approaches for succession planning, as well as talent acquisition, retention, and development. DEP will provide feedback to DCAS on minimum qualifications for upcoming civil service exams, identifying opportunities where we can reduce barriers to entry and attract additional qualified applicants. We also developed, and will grow, a list of potential recruitment partners to support targeted title-specific outreach, hosted a DEP Career Fair, and attended career fairs at colleges across the City. DEP also kicked off an analysis of the hiring process by meeting with senior staff to establish baselines for current hiring times. Over the next year, we will streamline the current hiring process and train key staff in

the use of our internal personnel actions tracking system.

Working collaboratively, DEP also launched a pilot program to train employees in the City Seasonal Aides title in the skills needed to become future Water Use Inspectors. This and other training programs being developed are helping to provide career opportunities to historically underrepresented populations.

Strategic Initiative	Status
<b>30</b> Attract and hire highly qualified, diverse talent.	
<b>31</b> Provide career opportunities to communities or demographics that have been historically underrepresented.	
<b>32</b> Leverage workforce diversity, employee engagement, and inclusion in the workplace.	
<b>33</b> Enhance the talent pipeline for the future.	

- Complete
- On Track
- Delayed
- Cancelled
- Not Started



# GOAL

## Maximize operational efficiencies across the agency

Cleaning UV bulbs at the disinfection facility

Significant efforts are underway to expand in-house capabilities so that DEP employees can take on a broader range of engineering activities and projects. Over the last year, DEP has added 11 projects to our In-House Construction Management portfolio, a 79% increase. We have also added seven projects to the In-House Design portfolio, a 78% increase. These increases are the result of internal process improvements and a new workforce-planning tool that optimizes in-house resources and plans staff transitions.

We have also worked to increase the efficiency of the procurement process for projects not delivered in-house. During this past year, we have centralized a number of procurement steps and processes, including creating templates for several types of professional services request for proposals and consultant contracts, training evaluation committee members, and creating a standardized rating template for evaluation committee members to rate proposals.

Agency-wide data visualization projects are ongoing across the agency. For example, we have launched an online interactive map showing the locations of after-hours noise complains. We have also developed a live interactive portal application that displays flooding, catch basin, and sewer back up complaints citywide. This application is currently being piloted with our Emergency Management Unit for when the NYC Flash Flood Emergency Plan has been activated.

Strategic Initiative	Status
<b>34</b> Insource in strategic areas to improve capital program delivery and operations.	●
<b>35</b> Streamline procurement processes.	●
<b>36</b> Use predictive analytics to drive operational efficiency.	●
<b>37</b> Develop agency-wide data visualization systems.	●
<b>38</b> Optimize DEP's vehicle fleet.	●

- Complete    ● On Track    ● Delayed
- Cancelled    ● Not Started



# GOAL

## Leverage innovative approaches to improve performance

Outlet Tunnel at Schoharie Reservoir

To stay at the forefront of the industry, staff from all across the agency must work together to conduct research that maximizes our efficiency and prepares us for future challenges. In 2019, we formed an interdisciplinary team responsible for ensuring that the agency stays abreast of cutting-edge research and works to influence national policy-making. Over the past year, the team established database for tracking DEP research efforts and identifying research gaps, ensuring that our research agenda aligns with our most critical goals. The team also piloted software to streamline employee access to relevant scientific articles and improve document management.

In 2018, DEP developed an in-house group to assist with process improvement projects and as needed efficiency projects. Several process improvements were initiated last year across the agency; highlights of the progress and cost savings will be issued in next year's report.

Strategic Initiative	Status
<b>39</b> Engage in cutting-edge research and influence national policymaking.	●
<b>40</b> Improve DEP's environmental, health, and safety (EHS) measurement and performance.	●
<b>41</b> Develop an integrated water quality and hydrodynamic model of New York City's open waters.	●
<b>42</b> Build in-house capacity to facilitate process improvement projects.	●
<b>43</b> Expand the use of technology to improve performance.	●

- Complete   ● On Track   ● Delayed
- Cancelled   ● Not Started

# Summary of Strategic Initiatives

Cannonsville Reservoir

## Provide world-class and sustainable water and wastewater services now and for future generations

- 1 Develop a coordinated long-range master plan for our water and wastewater systems. ●
- 2 Manage our assets to ensure the long-term sustainability and optimal efficiency of our water and wastewater services. ●
- 3 Maintain rates and sustain revenue to fund DEP's operations now and in the future. ●
- 4 Strengthen DEP's environmental health and safety culture. ●
- 5 Leverage technology to increase the security of DEP's infrastructure and network. ●
- 6 Manage the watershed to ensure long-term protection of New York City's water supply. ●
- 7 Support the development of backup supplies for upstate water supply systems in our region. ●
- 8 Expand outreach and enforcement efforts to protect the water supply system from cross-contamination. ●
- 9 Enhance sewer planning efforts. ●
- 10 Expand sewer infrastructure to underserved areas. ●
- 11 Reduce sewer backups and improper disposal of grease. ●
- 12 Transition wastewater treatment plants to wastewater resource recovery facilities. ●
- 13 Launch a comprehensive effort to reduce the improper disposal of "flushable" wipes. ●

## Control local sources of pollution to improve quality of life

- 14 Improve air quality by reducing airborne pollutants. ●
- 15 Improve the quality of our waterways. ●
- 16 Minimize odors from our industrial facilities. ●
- 17 Reduce noise pollution throughout New York City. ●
- 18 Increase asbestos audits. ●
- 19 Participate in the remediation of Superfund-designated sites. ●

## Reduce our carbon impact and mitigate the effects of climate change

- 20 Reduce greenhouse gas emissions and expand renewable energy sources. ●
- 21 Restore natural habitats throughout New York Harbor. ●
- 22 Expand the green infrastructure program. ●
- 23 Expand integrated water management through water conservation, water reuse, and resource recovery. ●

## Increase public awareness of our operations and improve service to our customers and the business community

- 24 Increase the public's awareness of DEP's mission and responsibilities. ●
- 25 Expand education opportunities for local communities and external stakeholders. ●
- 26 Enhance the customer's experience when calling DEP. ●



- 27 Employ digital communication to better serve our customers and employees. ●
- 28 Streamline the permitting process for water and sewer connections. ●
- 29 Increase opportunities for minority and women-owned business enterprises (M/WBE). ●

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#### Cultivate a diverse and highly qualified workforce to meet future challenges

- 30 Attract and hire highly qualified, diverse talent. ●
- 31 Provide career opportunities to communities or demographics that have been historically underrepresented. ●
- 32 Leverage workforce diversity, employee engagement, and inclusion in the workplace. ●
- 33 Enhance the talent pipeline for the future. ●

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#### Maximize operational efficiencies across the agency

- 34 Insource in strategic areas to improve capital program delivery and operations. ●
- 35 Streamline procurement processes. ●
- 36 Use predictive analytics to drive operational efficiency. ●
- 37 Develop agency-wide data visualization systems. ●
- 38 Optimize DEP's vehicle fleet. ●

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#### Leverage innovative approaches to improve performance

- 39 Engage in cutting-edge research and influence national policymaking. ●
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  - 41 Develop an integrated water quality and hydrodynamic model of New York City's open waters. ●
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  - 43 Expand the use of technology to improve performance. ●
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Bill de Blasio  
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