

# Consolidated Edison Company of New York, Inc.'s Strategic Action Plan on Biodiversity

Goals & Initiatives May 2024

## What is Biodiversity and Why Does it Matter?

Biological diversity, or biodiversity, refers to all life on Earth, and recognizes the value of maintaining a variety of living species. Biologically diverse environments are important for the integrity of Earth's ecosystems because variation improves the resiliency of all species. Species are commonly interdependent on one another, relying on certain biological processes or life cycles to survive. These interdependent relationships provide "ecosystem services" such as buffering from extreme weather events, protecting soils, regulating temperatures in urban environments, reducing food insecurity, and regulating hydrological cycles. Ecosystem services are considered some of the natural benefits of a healthy environment that humans rely on for survival and quality of life. Key ecosystem services that support human life include the pollination of food crops, filtration of waterways, carbon capture, and shoreline resiliency.

In general, biodiversity loss is attributed by the scientific community to these factors:

- Changes in Land & Sea Use
- Exploitation & Over Development
- Climate Change
- Pollution
- Invasive Species

Protecting biodiversity is of growing importance for Consolidated Edison Company of New York, Inc. (CECONY). In late 2022, the Intergovernmental Panel on Climate Change (IPCC) Working Group II released its report, "Climate Report 2022: Impacts, Adaptation & Vulnerability," which stated that over 20% of species found in threatened ecosystems will be at risk of extinction if humans do not reduce emissions and limit temperature rise to 2°C. That is why CECONY is exploring ways to help preserve biodiversity and enhance natural resources both through our operations and on company property.

## CECONY & Its Commitment to Biodiversity

CECONY maintains more than 4,000 acres of Transmission Line Right-of-Way and is the second-largest owner of waterfront property in New York City. CECONY's service territory includes the five boroughs of New York City and Westchester County, comprising both a heavily urban environment as well as forests, wetlands, and numerous waterways all of which can be impacted by the drivers of biodiversity loss. CECONY's mission to help protect biodiversity is an important element in the overall success of our company.

CECONY is committed to promoting and supporting biodiversity in our service territory. As a corporation with deep roots in our communities, we have the power to help protect high biodiversity value areas to foster a thriving natural environment. We are focused on reducing our emissions and pollution impacts and implementing sustainable design practices. We set high expectations throughout our operations and are aiming for a "net-positive impact" on biodiversity. This responsibility is supported by our Board of Directors and aligns with our mission to improve the quality of life in the communities we serve.

## Strategic Goals for Biodiversity Protection

CECONY recognizes the vision of the [United Nations Convention on Biological Diversity](#) and the importance of upholding the integrity of the surrounding environment. The Convention's agreement finalized in December 2022 reflects the need to protect habitat in an increasingly hostile environment. Likewise, last year, we set goals that focus on increasing biodiversity on our properties and reducing our impact on local ecosystems. In this report, we will provide updates on our progress that demonstrate our alignment with our corporate climate goals stated in [Our Clean Energy Commitment](#).

Our approach will be guided by the following principles:

- Strengthen our corporate governance and awareness around biodiversity
- Understand potential drivers of biodiversity loss across our company's value chain
- Promote biodiversity by implementing the initiatives listed below
- Be transparent in monitoring and reporting efforts by using industry-approved metrics
- Prioritize initiatives that have a focus on economically disadvantaged communities
- Educate and partner with local stakeholders to help preserve biodiversity and address local environmental threats

## Initiatives to Combat Biodiversity Loss

### Project Design Process

Our existing Design Review process satisfies the Global Reporting Initiative (GRI) section 304-5, Management of Biodiversity-Related Impacts, sub-section a, mitigation hierarchy. This process reviews project designs, allowing for subject matter experts (SMEs) to suggest alternatives that would cause no or less impacts to natural resources and/or biodiversity. This process is also used to help ensure that environmental permits (including, but not limited to wetland permits) are in place before physical work begins. This helps ensure compliance with environmental regulations, and in some cases, mitigation requirements.

### Rewilding Program – 2023 Update

**Goal: Rewild 10 acres of CECONY property by 2030**

- **3 acres by the end of 2024.**
- **6 acres by the end of 2026.**

Rewilding is a conservation approach that allows the land and its ecosystems to return to a more natural state supported by natural systems. There are two primary ways to rewild land. The first is to leave an area of land to its own devices and conduct minimal maintenance over an extended period. The second is to actively replant the area with native species, which allows for an expedited repopulation of native flora and fauna. In both situations, the success of the rewilding effort is dependent on eventually leaving the area to maintain itself with minimal human involvement. Overmanaging this effort could inhibit natural processes.

In 2023, CECONY identified two opportunities for rewilding: to utilize our Transmission line Right-of-Way (TROW), and to identify unused areas of company property that could be transformed into habitat for native species. Areas with large, manicured lawns have received our initial focus, turning heavy foot traffic locations into aesthetically pleasing native habitat, while helping to educate employees and local communities on the rewilding process and its benefits.

Since the announcement of our Rewilding Program in 2022, CECONY has transformed 1.1 acres of land into native meadow habitat at our Rye Headquarters and our Eastview Service Center in Westchester. These acreage goals are considerable when put in context with the population density of our service territory, as well as the multiple uses that occupy our properties.

At Eastview, we established an entire acre of rewilded habitat using two seed mixes, one devised as a general pollinator mix and the other tailored to promote milkweed as a dominant aid for monarch butterfly populations. After establishing the native habitat at Eastview, sequential updates have shown that the area is prospering, with many animals inhabiting the area since its launch.

A test site encompassing 0.1 acres at Rye Headquarters has been set aside to pilot a “bio benchmarking” study. The study will provide us with a baseline level of species present and an estimate of the biodiversity onsite before the plots mature into rewilded meadow. Five different habitat types were planted: a native grassland, a pollinator patch, a monarch butterfly patch, an edible garden, and a controlled “no mow” test area. We plan to expand these areas in 2024, as we transform more manicured lawn at Rye Headquarters to reach our three-acre goal by the end of the year.

Future locations planned for planting in 2024 include a company site in Millwood and various locations throughout the five boroughs of New York City. CECONY is focused on adding rewilding areas to the Bronx and Staten Island in the upcoming year on parcels located near the Sherman Creek Substation, Yonkers, and the former Prince’s Bay substation. We will prioritize disadvantaged communities when selecting future New York City locations to increase available green space in those areas. CECONY’s efforts focus on benefiting multiple stakeholders.

## **Pollinator Habitat Creation**

Pollinators are species, including bees, butterflies, and hummingbirds, that collect pollen from flowers within the same plant species. As a pollinator travels from one flower to another, pollen is transferred between flowers, enabling the reproduction of most flowering plants, including those that produce food. They pollinate 35% of the world’s food supply, yet many are under severe threat, with half of bee species in decline and one-quarter at risk of extinction due to habitat loss and fragmentation, pesticides, and climate change.

With pollinators at risk in key areas of our territory, CECONY has developed our partnership with City Growers, which promotes education on pollinator habitat, community gardens in urban areas and innovative roof designs that are advantageous for beekeeping and vertical agriculture. City Growers teaches young students in NYC how they can conserve the environment around them and help pollinators flourish in NYC. Similarly, CECONY is a proud partner of the Bee Conservancy which helps build habitat for pollinators and greenify spaces in parts of NYC. The Bee Conservancy held more than 35 events over 2023 involving stewardship weekends at the Urban Farm on Governors Island, located near CECONY’s storage container farm project, which grows up to 2.5 acres (about the area of a Manhattan city block) worth of produce annually. Looking ahead, CECONY and the Bee Conservancy have planned partnership events for the spring and summer of 2024, revolving around our joint efforts to emphasize habitat creation for pollinators and highlight renewable energy work CECONY is completing in NYC.

In 2023 CECONY and Orange and Rockland Utilities, Inc. (O&R) jointly applied to become members of the Candidate Conservation Agreement with Assurances (CCAA), led by the University of Chicago to allocate land for the endangered monarch butterfly. In tandem with CECONY’s rewilding initiative, CECONY’s monarch butterfly CCAA application is in the final stages of review for our entire TROW. The CCAA is a voluntary agreement between a utility provider and the federal U.S. Fish & Wildlife Service to undertake conservation practices for monarch butterflies, a pollinator species that inhabits our TROWs. Once the agreement is finalized, it will signify that CECONY is preserving vital habitat for migratory Monarch butterflies in a way that is consistent with the TROWs’ continued use for utility purposes. The U.S. Fish & Wildlife Service is currently planning on issuing a decision on whether to list these butterflies as endangered under the federal

Endangered Species Act by December 2024; however the International Union for Conservation of Nature (IUCN) already lists the Monarch butterfly on its separate Red List for threatened species.<sup>1</sup> We plan to incorporate more pollinator friendly seed mixes at sites in these areas and within NYC to help transform our property into a sustainably integrated ecosystem.

## **Biodiversity Assessment of Transmission Line Right-of-Ways**

As stated previously, CECONY maintains approximately 4,000 acres of TROWs. The diverse landholdings within the TROWs present an opportunity to increase biodiversity in our region in a way that is consistent with the TROWs' continued use for utility purposes. These lands are either owned or leased by CECONY, and they are all maintained according to established vegetation management procedures primarily aimed at keeping trees from growing under and interfering with transmission wires.

Last year, CECONY started a biodiversity assessment within our TROWs working with State University of New York College of Environmental Science & Forestry (SUNY ESF). Sixty acres from the company's TROWs were selected as a sample for this assessment, which will continue over a four-year period. This study will assess the ecosystem contributions and economic benefits of CECONY managed lands. The first year of the study, which was completed last winter, was to create a baseline assessment of biodiversity richness within our TROWs. Eventually, other studies, based on the first assessment, will determine ways to improve vegetation management, check invasive species growth and increase biodiversity where opportunities exist.

Some key findings from the study's first year are the identification of over 277 flora (plant) species and over 149 fauna (insect and bird) species throughout the TROWs, including rare pollinators that rely on open-meadow or shrubland habitat, which is decreasingly available in our region.

The report revealed that the most common native shrub/flowering species found within our TROWs were Yarrow, Wrinkle-leaved Goldenrod, Wood Sorrel, and ground strawberries. When these plants are present in abundance, pollinators can flourish because the shrubs provide excellent resources of nectar and pollen. One study location in Kent, NY supported the highest concentration of unique shrubs and flowering plants accounting for 24 species, including Black Raspberry, Highbush Blueberry and White Meadowsweet.

The assessment revealed that certain of our TROWs host several rare bee species, *Nomada Electella* and *Epeoloides Pilosulus*, both kleptoparasitic species that take over other beehives by killing the queen and inserting their own in the colony. This phenomenon is beneficial because it reduces the risk of a particular bee species from becoming too dominant in a region where a vast network of bee species inhabit.<sup>2</sup> *Epeoloides Pilosulus* has not been spotted in New York State for over fifty years. Vulnerable species like the Golden Northern bumble bee were also discovered in certain TROWs emphasizing the importance of documenting these interactions to understand how strengthening the habitat in these areas will repopulate vulnerable species.

There were 223 unique plant-insect interactions recorded for 82 bee/fly taxa and 41 flowering plant species across all CECONY sites. The native plant that supported the highest number of pollinator species was Early Goldenrod, with 15 unique pollinator partners. Understanding these interactions is vital for verifying the plants to which pollinators have an affinity, and what locations could be rewilded to add more resources for these species.

It is evident that certain of our TROWs serve as a hub for native species, and we are looking for ways to improve maintenance efforts to hinder invasive species growth that threaten these native plants and insects. As we learn more from the ongoing biodiversity assessment, we will map out areas within our TROWs where we can restore and improve habitat for these species.

## Invasive Species Mitigation Strategy

Invasive species are organisms introduced, whether intentionally or accidentally, to an area where they are not native.<sup>3</sup> To be considered invasive, a non-native species must cause, or have the potential to cause harm to its new location. This implies that the species easily thrives in its new environment, either because it has no natural predators, outcompetes native species for food and nutrients, or destroys the natural habitat of native species. Invasive species can cause harm on many levels. The worst invasive species have costly economic impacts, contribute to environmental decline, and can transmit disease. An invasive grass species, for example, can inhibit the growth of other plant species, which alters the food supplies available to small animals, destabilizing the entire food web.

CECONY has incorporated best management practices to help combat the spread of invasive species within key areas of our operations. In our plan, we offer employees ways to identify, monitor, and remove invasive species that insert themselves on our property. For example, CECONY has instituted cleaning policies for all company vehicles within project areas that may have invasive species. In addition, CECONY cleans our own trucks when performing mutual aid in service territories of other utilities and enforces the same policy when they reciprocate within our service territories. We remove and stockpile invasive plants onsite and then properly dispose of them at affiliated facilities. Wood waste has been designated to remain onsite and be verified by a registered forester. When removing trees, we chip the trees into 1" or smaller fragments to destroy larva inside the infected vegetation. CECONY regularly updates our information on new invasives that have reached our territory based on guidance from the New York State Department of Environmental Conservation.

CECONY sends routine communications to employees about invasive species within our territory, including the Spotted Lanternfly, the Emerald Ash Borer, Tree of Heaven, the Princess Tree, and others. When employees identify invasive species on our sites, our team carefully removes the species from our property and disposes of it off-site.

## Threatened and Endangered Species Protection

Threatened species are expected to become endangered soon. An endangered species is at high risk of becoming extinct. Habitat loss due to development or climate change is the primary driver of extinction today. When a population becomes smaller, it generally lacks genetic variation. This lack of genetic diversity means that a species may become less adaptable to change, which can threaten its future.<sup>4</sup>

CECONY policies include procedures to help avoid impacts to wetlands, New York City parks and trees, and from construction using erosion and sediment controls. It is important to address these impacts because they can threaten or endanger a species' existence. Our employees are required to follow the guidelines stated within each policy to minimize impacts on natural resources within our service territory.

Additionally, an environmental review team analyzes designs for projects before work is scheduled. This process determines if crews should be aware of any environmental impacts that could be associated with the project location. The project's designers are asked to adjust the project design to minimize identified impacts.

## Marine Habitat

In 2023, CECONY committed to implementing living shorelines at future waterfront projects. The National Oceanic and Atmospheric Administration defines a "living shoreline" as:

[...] a protected, stabilized coastal edge made of natural materials such as plants, sand, or rock. Unlike a concrete seawall or other hard structure, which impede the growth of plants and animals, living shorelines grow over time. Natural infrastructure solutions like living shorelines provide wildlife habitat, as well as natural resilience to

communities near the waterfront. Living shorelines are sometimes referred to as nature-based, green, or soft shorelines. They are an innovative and cost-effective technique for coastal management.

Living shoreline projects will help us restore marine habitat for native species and naturally protect our waterfront property and surrounding communities. One living shoreline methodology is to use marine-friendly concrete with a balanced PH and a texturized design that provides marine species easy locations to attach to and create colonies, supporting marine life. CECONY will look to integrate marine-friendly concrete into project proposals throughout 2024.

The company is currently exploring living shoreline work at a facility on Newtown Creek in Brooklyn. The project seeks to replace degrading bulkhead structures with a stone revetment that naturally slopes into the waterway. This stone revetment would serve as a barrier from wave action and passing vessels.

Once this barrier is implemented a diverse marsh would be constructed consisting of low, high, and upland marsh area. Plantings will include trees, shrubs, different graminoids (grasses) and flowering plants that would help increase pollinator habitat in a disadvantaged community. Reincorporating tidal marshes along the waterways of New York City is the goal for our Shoreline Resiliency initiative, installing up to 500 feet of living shoreline annually.

In 2024, CECONY plans to implement a marine enhancement study at the Company's Pier 98 facility on the Hudson River; this effort coincides with an impingement and entrainment (IM&E) study assessing how our operations may affect aquatic life beneath the pier. The IM&E study performed at Pier 98 is to comply with our operational State Pollutant Discharge Elimination System (SPDES) permit. The additional marine enhancement study for Pier 98 will be a collaborative effort with our partners at Hudson River Park Trust and the Electric Power Research Institute. The study aims to determine if we can promote the growth of marine life under the pier while also showing that our operations have minimal impacts on aquatic life. We plan to install oyster habitat underneath Pier 98 and take annual samples to determine growth and mortality rates. CECONY hopes this program can demonstrate how we can use our property beneficially to create long-term habitat for marine species and determine if similar projects could be feasible at other locations.

## **Green Infrastructure**

Green infrastructure systems like rain gardens, green roofs, and permeable pavements absorb rainwater as it falls. In certain circumstances, green infrastructure can replace traditional forms of stormwater management such as gutters and pipes (e.g., gray infrastructure), which are built with the intent of rerouting stormwater to treatment facilities or into waterways. Stormwater runoff can carry various forms of pollution that damage the natural ecosystem and harm local species. Green infrastructure systems absorb rainwater, reduce runoff, and help protect waterways from pollution while helping to prevent or reduce flooding.

Our Brooklyn Clean Energy Hub, which commenced construction in the first quarter of 2024, will incorporate solar panels, rain collection systems, and other sustainable infrastructure currently being proposed as additions to the design. The building will also be LEED-certified and featured as one of the main hubs to connect offshore renewable energy to the NYC power grid. Eventually, as third party developers connect to the Brooklyn Clean Energy Hub from the marine side of the facility, CECONY anticipates proposing living shoreline elements to the waterfront.

## Looking Ahead at 2024

As we progress with our initiatives mentioned above, we will focus on completing certain goals by the end of 2024:

- The Candidate Conservation Agreement with Assurances certification for CECONY's Right-of-Way area as habitat for threatened pollinator species, highlighting the Monarch butterfly. Discussions with the U.S. Fish and Wildlife Services are ongoing and CECONY anticipates receiving our certification before the end of 2024.
- CECONY anticipates completing 3 acres of rewilding at various locations in our service territory by the end of 2024. Three parcels scheduled for rewilding in 2024 are in Environmental Justice areas, which will add greenery to disadvantaged communities. These are in Yonkers, Staten Island, and northern Manhattan.
- Newtown Creek's living shoreline project is under review and, if adopted, would commence later in 2024 rehabilitating native marshland along CECONY's property in Brooklyn.
- The second annual biodiversity assessment report of our TROW conducted by SUNY ESF. We plan to use this assessment to understand and improve biodiversity within the TROW.

We look forward to the upcoming year to help revitalize our environment, spread awareness about the importance of biodiversity conservation and help bring sustainable innovations to the utility industry.

<sup>1</sup> Carranza, Katia. "Migratory Monarch Butterfly Now Endangered - IUCN Red List." IUCN, 1 Nov. 2022, [www.iucn.org/press-release/202207/migratory-monarch-butterfly-now-endangered-iucn-red-list](http://www.iucn.org/press-release/202207/migratory-monarch-butterfly-now-endangered-iucn-red-list).

<sup>2</sup> Written By Dana Duran, "Cuckoo Bumble Bees: Important Species for Diverse Ecosystems - Minnesota Valley National Wildlife Refuge: U.S. Fish & Wildlife Service." FWS.Gov, 7 June 2023, [www.fws.gov/story/2023-06/cuckoo-bumble-bees-important-species-diverse-ecosystems-minnesota-valley-national](http://www.fws.gov/story/2023-06/cuckoo-bumble-bees-important-species-diverse-ecosystems-minnesota-valley-national).

<sup>3</sup> IUCN. "Invasive Alien Species." IUCN, [www.iucn.org/our-work/topic/invasive-alien-species](http://www.iucn.org/our-work/topic/invasive-alien-species).

<sup>4</sup> NOAA Fisheries. "Preserving Genetic Diversity Gives Wild Populations Their Best Chance at Long-Term Survival | NOAA Fisheries." NOAA, 15 Nov. 2021, [www.fisheries.noaa.gov/feature-story/preserving-genetic-diversity-gives-wild-populations-their-best-chance-long-term](http://www.fisheries.noaa.gov/feature-story/preserving-genetic-diversity-gives-wild-populations-their-best-chance-long-term).