

June 29, 2015

New York City Department of Environmental Protection
Via Email: ltcp@dep.nyc.gov

RE: Seeking public comment on the NYC Department of Environmental Protection's Bronx River Long Term Control Plan (LTCP)

Thank you for the opportunity to comment on the proposed alternatives for the NYC Department of Environmental Protection's (DEP) draft Long Term Control Plan for the Bronx River. The Nature Conservancy applauds DEP for taking measures to come into compliance with the Clean Water Act and for making investments that have led to the steady improvements New Yorkers have seen in the Bronx River, and to the growth of an active constituency of users.

The Nature Conservancy supports storm water management strategies that improve water quality, improve protection of human health and welfare, reduce the environmental impacts from combined sewer overflows and restore and enhance the natural and recreational benefits served by the City's river systems. Since 1951 The Nature Conservancy's more than 600 scientists, located in all 50 U.S. states and more than 35 countries, have been working to conserve the lands and waters on which all life depends. The Nature Conservancy's New York City Program promotes nature and environmental solutions to enhance the quality of life of all New Yorkers and is committed to improving New York City's air, land and water.

The Nature Conservancy submits these comments in response to the call for comments on the Bronx River Long Term Control Plan. Improved water quality is a priority for users of the Bronx River—needing the DEP's ongoing commitment to put key protections and infrastructure in place to meet primary contact recreation goals. Specifically, The Nature Conservancy calls on the DEP to:

Invest in key ecological enhancements in the Bronx River watershed

The LTCP does not specifically call for programming along the riparian corridor of the Bronx River to maintain the quality of this buffer zone. The United States Fish and Wildlife Service recommends maintaining a 200-foot buffer along wetlands and streams to create habitat and filter runoff from adjacent impervious surfaces. While The Nature Conservancy is not advocating for a 200-foot buffer along the Bronx River, this river is buffered by strips of riparian zones and forests owned and managed by the NYC Department of Parks and Recreation (NYC DPR), the Bronx Zoo, and the New York Botanical Garden. These open spaces can suffer from soil compaction due to heavy visitor use, which can cause tree mortality and erosion. Soil compaction reduces infiltration capacity and compromises the performance of natural areas. Bioswales and street trees also suffer from compaction; these forms of natural infrastructure also require stewardship to prolong their lifespan.

The Nature Conservancy supports investment in stewardship programs to monitor the health of riparian vegetation, bioswales, and street trees as well as programs to replace species that have suffered from compaction, trampling, or are aging and require additional care.

Together, groups like the Bronx River Alliance and NYC DPR have created stewardship opportunities for communities living along the river in these open spaces. The Nature Conservancy supports additional investment and green infrastructure grant opportunities targeted to this watershed, especially in places not owned or managed by NYC DPR, to support ongoing river cleanups, maintenance of parcels along the river, streambank stabilization projects, and riparian zone plantings in the natural buffer areas along the river before it reaches the mouth of the Long Island Sound.

One example of an underutilized but highly effective form of green infrastructure is a project under the Major Deegan/I-87 at Pier 5 along the Harlem River. The Bronx Council for Environmental Quality partnered with city and federal agencies to create a demonstration project - a pop-up wetland created with jersey barriers and structural soil that absorbs storm water from drains on I-87. Preliminary data indicates that the soils and plants engineered in the pop-up wetland were effective in diverting heavy metals and pollutants from the Harlem River. This project did not require excavation or remediation; and as such, it is a promising form of constructed wetlands that could be deployed elsewhere in the Bronx River watershed.

Accelerate the deployment and increase the scale of green infrastructure projects

The Nature Conservancy is pleased to see the inclusion and funding of key green infrastructure projects in the Bronx River watershed as well as the recent allocation of a \$61.5 million ten year commitment for the City's Green Infrastructure program. While we are excited to see this funding increase and to learn that the DEP Green Infrastructure Grant Program will now be a year-round program, acceleration of the size and number of projects in this watershed is vitally needed. To date, the DEP has installed 23 bioswales and 8 stormwater green streets in the Bronx River watershed. A handful of other projects are in the planning stages. Most projects are small (like bioswales) or are pilots of larger projects. More—and larger—green infrastructure projects (roofs, roads, lots) are needed.

For green infrastructure sites to provide regional or system-scale storm water management benefits, it is necessary to invest beyond pilot-sized projects, or to achieve a critical mass of project sites that together serve to capture storm water and improve infiltration in a systemic way.

A key example of a larger scale project is the Wildlife Conservation Society's Bronx Zoo's redesign and of the Asia Parking Lot and installation of permeable pavement with drainage layers beneath to slowly disperse water to the subsurface and improve water quality in the Bronx River.

The NYC DEP recently announced that some of its green infrastructure projects are outperforming expectations, in terms of reducing flow into the sewers. Earlier studies by the Department of Parks and Recreation and Drexel University also showed that green infrastructure are over-performing — indicating that green infrastructure can help not only reduce sewage overflows, but also neighborhood flooding. As green infrastructure is proving to be a cost-effective approach that also yields important co-benefits including urban heat island mitigation, community revitalization, and habitat provision, it is even more

important for the DEP to identify additional ways to increase the number and accelerate the implementation of currently planned investments.

Develop an action plan to deploy green infrastructure on private properties and roofs

Again, for green infrastructure sites to provide system-scale storm water management benefits, it is necessary to achieve a critical mass of project sites in the Bronx River watershed. Private properties—including roofs and parking lots—present unique opportunities to intercept and hold storm water, and incentivizing projects in those areas will go a long way in reducing flow to the City’s sewers, as with the previously referenced project at the Bronx Zoo.

The Nature Conservancy supports targeting the DEP Green Infrastructure Grant Program to key users within the Bronx River watershed, working more intentionally with local organizations to expand outreach to a broader audience, and working to provide technical capacity to potential applicants from these important segments. Developing an action plan to understand key areas of opportunity on private properties, targeting outreach to a broader audience of property owners, and increasing technical support for applicants may increase the number of grantees in this area, resulting in key benefits for the water quality of the Bronx River.

Recognize the ability of the City’s natural areas to improve local water quality

The City’s natural resources provide tangible and significant services to all New Yorkers, including contributing to its resiliency and biodiversity. Working with the City’s Department of Parks and Recreation, the DEP should invest in the restoration of riparian zones along the rivers in priority watersheds. Such a strategy would not only enable the City to reliably restore important habitats and reduce erosion, but the City could also leverage needed funding to improve water quality and alleviate local flooding via riparian restoration along the banks of the Bronx River. Stabilizing and planting riparian zones create more attractive natural corridors that are more usable by local residents as recreational spaces, while also increasing protection along adjacent transportation networks along the river.

The Nature Conservancy supports coordinating investments for the restoration and care of the City’s natural systems that in turn support the City’s health and well-being.

Analyze chlorination impacts on river ecology

The LTCP’s strategy for treating over 400 million gallons of water is disinfection through chlorination which, given the sheer volume of water that needs to be treated, may potentially deleterious impacts on the health and biodiversity of the Bronx River. The Nature Conservancy believes that intensive assessment and monitoring should accompany any plan to introduce this disinfectant to the Bronx River, and we strongly support the comments submitted by the Bronx River Alliance.

Address CSOs and upstream water pollution

Finally, while the potential of green infrastructure to improve water quality in the Bronx River and mitigate the impacts of CSOs is important and significant, it is clear that pollution discharges must be addressed for this body of water to achieve water quality goals. To have success and be cost-effective in

the long term, the DEP must decrease the annual volume of CSOs that are discharged into the river and to do so, continued investment in gray infrastructure is necessary.

In addition, upstream sources of pollution need to be reduced. The Bronx River Alliance conducted a citizen-science monitoring project in 2014 that found higher levels of bacterial loads close to the Westchester-Bronx boundary, indicating upstream pollution sources. Therefore, The Nature Conservancy strongly supports coordination with the City of Yonkers, as they represent a significant source of upstream pollution. Together, City agencies must act to reduce point source discharges to this water body.

In closing, The Nature Conservancy supports the draft Long Term Control Plan for the Bronx River and the Department of Environmental Protection's efforts to maintain and improve all water bodies in NYC. At the same time it is important to reduce CSO volumes through ongoing investment and upgrades to the City's gray infrastructure network, as it is critical to ramp up and expand the strategies proposed in the plan well past their pilot stages, as it is the density of these projects that will contribute to climate change resiliency, environmental quality of life, and recreational benefits for local communities.

Thank you for the opportunity to comment. Any questions can be directed to:

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