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Riverkeeper/Guardians of Flushing River

# Flushing Creek Green Infrastructure Retrofit

Queens, New York



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*A community driven alternatives analysis identifies a nature-based retrofit approach for a constrained waterfront greenway that can be applied to sites along Flushing Creek and throughout NYC.*

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## **SERVICES**

Climate Adaptation  
Coastal Resilience  
Ecological Restoration

Over the past century, Flushing Creek has become heavily channelized with hardened shorelines and limited access to the water. Riverkeeper and Guardians of Flushing Bay (GoFB) were interested in creating a green infrastructure retrofit pilot to restore ecological function and integrity to Flushing Creek while providing a model, nature-based design for other constrained waterfront sites throughout New York City. Waterfront greenway at SkyView Mall is their pilot site.

Biohabitats conducted an assessment to identify project constraints, evaluate infrastructure, and develop design alternatives. The site analysis included insights into Flushing Creek and the site's soils, stormwater, drainage infrastructure, and local ecological benchmarks. In addition to tidal and hydrodynamic assessments, Biohabitats worked with project partners at City University of New York to study water quality data. The team explored four green infrastructure retrofit alternatives and examined permitting requirements, constructability, site suitability, operations and maintenance requirements, and replicability. Biohabitats prepared detailed assessments of each alternative, including site-specific considerations.

Riverkeeper/GoFB selected a living shoreline design to develop to 30% concept-level design. Biohabitats produced a report summarizing the design process and refinements to the critical design parameters, potential permitting requirements, order of magnitude costs, and maintenance considerations. With this, Riverkeeper/GFB is poised to advance at the pilot.