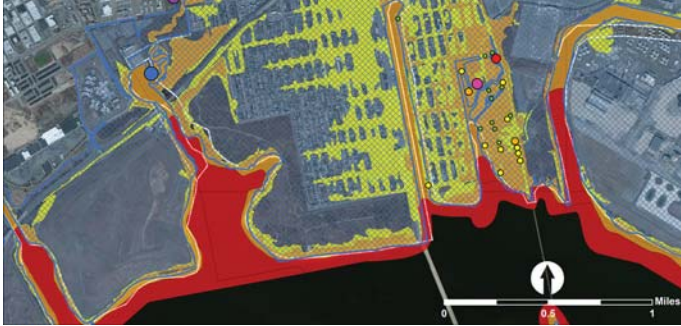


New York City CSO-PlaNYC Green Infrastructure Initiatives— Jamaica Bay Watershed Ecological Atlas

New York, New York



A Geographical Information System (GIS) provides a comprehensive view of the Jamaica Bay watershed so that managers can strategically target vacant lots for potential ecological restoration, stormwater BMPs, and green infrastructure projects. This pilot system can ultimately be applied to watersheds throughout the state of New York.

conditions, and created GIS data for proposed restorations and stormwater management practices at each site. These data were then incorporated into the database. The mapping product is a living document that can easily be updated and used by restoration practitioners to compare sites and track projects.

The site selection model is executable within GIS, and is extremely versatile. It allows for adding and removing variables as needed and weighting the variables according to their desired importance. It was also accurate. The final model was able to classify over 90% of sites to match subjectively assessed control sites.

The Jamaica Bay watershed contains one of the largest coastal wetland ecosystems in New York, provides habitat for wildlife, and acts as a protective buffer to Brooklyn and Queens in the event of a storm. In accordance with the Jamaica Bay Watershed Protection Plan, the New York City Department of Environmental Protection contracted Biohabitats to inventory the lands within the watershed that are owned by city agencies

and to assess them for both ecological restoration and stormwater management potential.

Biohabitats used GIS to create a comprehensive database of the watershed's ecology, landcover, hydrology and infrastructure. After using these data to locate vacant lands, Biohabitats staff conducted field surveys of over 2,000 city-owned lots, developed sketches of their existing

The next step was to create site selection metrics and a prioritization scheme to close in on the best sites for restoration and conservation. To narrow the hundreds of parcels into an actionable and prioritized list, Biohabitats staff developed transparent site-selection criteria and a prioritization scheme based on a combination of GIS data and the information gathered during the field assessments.

Biohabitats generated new data and a concise analysis for thousands of vacant parcels, and provided NYCDEP with robust tools for future conservation, restoration and stormwater management planning.

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