Shoreline Characteristics Analysis for determination of desired future conditions in Jamaica Bay Gateway National Recreation Area
National Parks Service, Jamaica Bay Unit

In the 1950s, New York City commissioned a series of high definition aerial photos of the entire urban region. The photos for the Jamaica Bay section are being compared to current satellite imagery in order to analyze shoreline characteristics and help determine desired conditions for the Jamaica Bay.

The shoreline of Jamaica Bay (including Broad Channel Island) and its primary creeks is roughly 80% natural and 40% human-modified (see table above for exact figures). The majority (roughly 70%) of the natural coastline contains vegetation with the remainder comprised of sand beaches. It is important to keep in mind, though, that these natural shorelines often do not extend back very far before reaching developed areas. The majority (roughly 80%) of the human-modified areas are comprised of structures (mostly residential and commercial) built directly on the shoreline, with the remainder mostly comprised of bulkheads in front of developed areas. This analysis is being used to identify priority sites for hardened shoreline reclamation in short and long term plans for the bay.

Shoreline Characteristics

<table>
<thead>
<tr>
<th>Developed Residential Beach</th>
<th>Non-developed Beach</th>
<th>Developed Commercial</th>
<th>Non-developed Commercial</th>
<th>Developed Levee</th>
<th>Non-developed Levee</th>
<th>Developed Natural Coastal Dunes</th>
<th>Non-developed Natural Coastal Dunes</th>
<th>Developed Rock Technologies</th>
<th>Non-developed Rock Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>13%</td>
<td>56%</td>
<td>21%</td>
<td>7%</td>
<td>3%</td>
<td>8%</td>
<td>6%</td>
<td>3%</td>
<td>6%</td>
<td>3%</td>
</tr>
</tbody>
</table>

Potential vulnerabilities site (skim) and typical shorelines condition (below)

Historic Change

Present Conditions