

Resilient Coastal Management Strategies

from the world's leading authority in enduring solutions: NATURE

In the 3.8 billion years that life has existed on Earth, nature has developed brilliant solutions to its own challenges. When it comes to protecting shoreline communities, nature's solutions have included dunes, wetlands, reefs, floodplains, and vegetation. Ever evolving and adapting to changing conditions, nature's solutions typically deliver stacked benefits like habitat, erosion control, and filtering of damaging substances.

When it comes to protecting human communities, Biohabitats takes

inspiration from nature's genius to create "living infrastructure" that delivers the same kind of benefits. Over the last three decades, Biohabitats has embraced this approach as a way to not only improve health and safety, but also quality of life.

Biohabitats has been collaborating with nature for over 30 years.

We understand that the power of living systems is matched by their complexity, and we have studied and worked with diverse ecosystems over the years to better understand these intricacies.

When applied to your coastal project and combined with a holistic approach to green infrastructure, this knowledge yields a solution that contributes to the health and well being of people and the broader, ecological community.

When viewed and treated as a living system that is not separate from humans, nature-based designs deliver much more than you ask of them. They will help to protect economic infrastructure and improve water quality, and will create communities that are not only more desirable, but more resilient to climate change and other pressures.

COASTAL HABITAT RESTORATION (selected examples)

TIDAL WETLAND RESTORATION

Tidal Wetland Mitigation for Cox Creek Dredge Material Containment Facility, *Baltimore, MD*

Fort McHenry Tidal Wetland Restoration, *Baltimore, MD*

Saltworks-Redwood City Tidal Wetland System Restoration, *Redwood City, CA*

BENEFICIAL USE OF DREDGE MATERIAL

Lizard Hill Sand Mine Reclamation and Treatment Wetlands, *Ocean City, MD*

Kenilworth Marsh Tidal Wetland Restoration, *Washington, DC*

Kingman Lake Wetland Restoration, *Washington DC*

COASTAL REGENERATIVE STORMWATER CONVEYANCE (RSC)

Arundel on the Bay Regenerative Stormwater Conveyance, *Anne Arundel County, MD*

Swan Harbor Regenerative Stormwater Conveyance, *Havre de Grace, MD*

SHELLFISH AND SUBMERGED AQUATIC VEGETATION RESTORATION

Jamaica Bay Oyster Restoration Pilot Project, *New York City, NY*

Jamaica Bay Eelgrass Restoration Pilot Project, *New York City, NY*

DUNE AND BEACH RESTORATION

Beach Renourishment-Threatened and Endangered Species Monitoring, *NJ*

Fostering Resilient Ecological Development Design, Leading Innovation in Resilient Waterfront Design Award, For A Resilient Rockaway (FARROC) Design Competition, *New York City, NY*



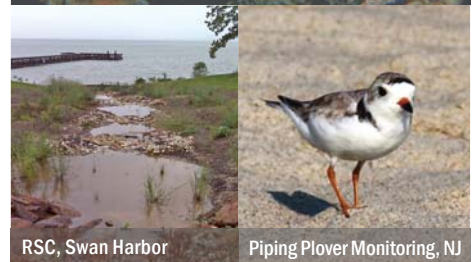
Cox Creek Tidal Wetland Restoration



Beneficial Use of Dredge Material, Kenilworth Marsh



Oyster Restoration, Jamaica Bay



RSC, Swan Harbor

Piping Plover Monitoring, NJ



SEA LEVEL RISE AND COASTAL RESILIENCY PLANNING

(selected examples)

Galveston Island State Park Ecological Master Plan,
Galveston County, TX

Gibbstown Levee Alignment, *Gibbstown, NJ*

Saltworks–Redwood City Tidal Wetland System Restoration, *Redwood City, CA*

Blackbird Reserve Ecological Master Plan,
New Castle County, DE

Delaware City Eco-tourism Ecological Assessment and Concept Plan,
New Castle County, DE

Tidal Schuylkill River Master Plan, *Philadelphia, PA*

COASTAL REGENERATIVE DESIGN

(selected examples)

LIVING SHORELINES

Freshkills Park–North Park Tidal Wetland Restoration with Living Shoreline,
Staten Island, NY

Nereid Boat Club Living Shoreline, *Passaic River, NJ*

Lardner's Point Park Living Shoreline, *Philadelphia, PA*

Holts Landing State Park Living Shoreline, *Indian River Bay, DE*

Arundel on the Bay Living Shoreline, *Anne Arundel County, MD*

Leonardtown Wharf, *Leonardtown, MD*

Indian Head Naval Propellant Plant Living Shoreline, *Charles County, MD*

FLOATING ISLANDS

Jamaica Bay Floating Island Wave Attenuator Pilot Project, *New York City, NY*

Baltimore Harbor Floating Island Wetland Pilot Project, *Baltimore, MD*

GREEN BULKHEAD

Cuyahoga Green Bulkheads, *Cuyahoga County, OH*

Baltimore Harbor Living Bulkheads, *Baltimore, MD*

ALGAL TURF SCRUBBER®

Jamaica Bay ATSTM™ Pilot Project, *New York City, New York*

Baltimore Harbor ATSTM™ Pilot Project, *Baltimore, MD*

Durham ATSTM™ Feasibility Study, *Durham, NC*

COMMUNITY PARTICIPATION

Washington Avenue Green Design-Build, *Philadelphia, PA*

Baltimore Harbor Floating Island Wetland Pilot Project, *Baltimore, MD*



Biohabitats

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