

### DIVERSITY AND OPPORTUNITY

The Sandy Creeks Watershed, including the eastern shoreline of Lake Ontario, supports a great variety of natural resources and recreational attractions. Dunes, wetlands, creeks, and ponds harbor a vast array of plants, birds, fish and other animals, including many rare species. We have the opportunity and challenge to manage these resources in a way that is best for these creatures and for the people who value them.

### HUMAN USES



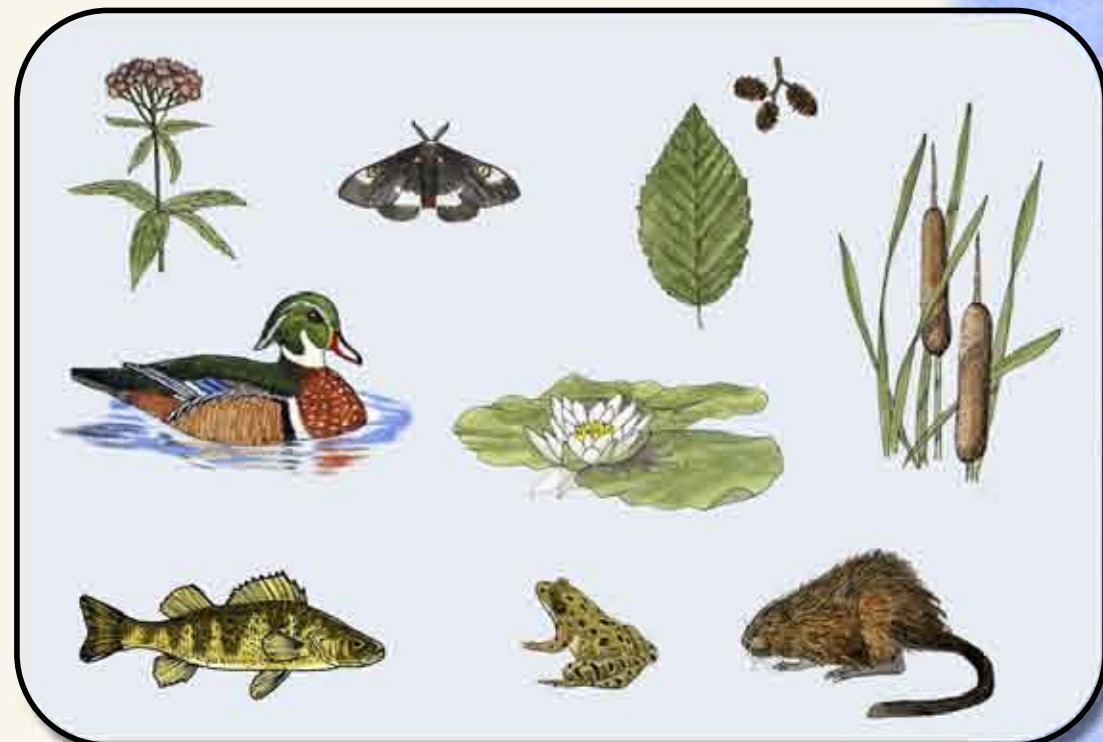
The natural resources of the shoreline area provide valuable economic and recreational opportunities. The New York State Department of Environmental Conservation (NYSDEC) assures access to fish with permanent easements through the Public Fishing Rights program. Public access is also available at wildlife, unique and natural areas along the sandy shoreline of Lake Ontario. Marinas, restaurants, and lodging facilities serve recreational users and feed the local economy.

### DUNE FORMATION



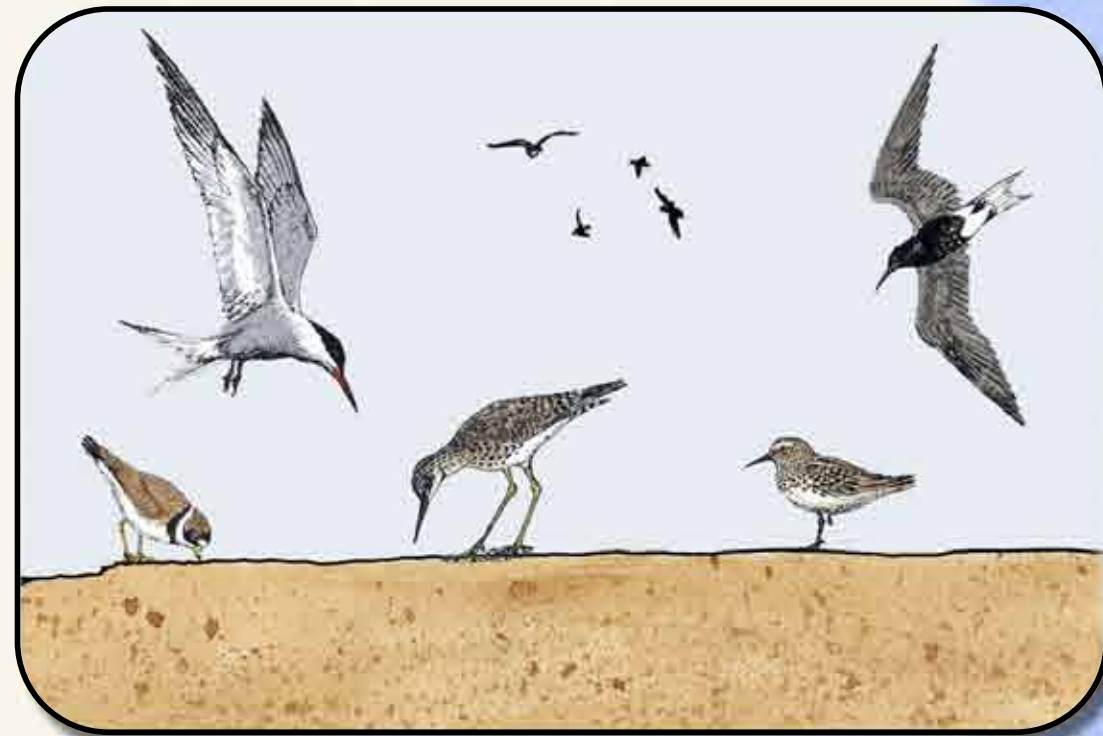
Dunes form from the action of wind, waves and currents on sand. The dunes are held in place by a few specialized plants that can tolerate the harsh natural conditions found at the shoreline, but are sensitive to trampling by people, pets, and vehicles.

### WETLANDS



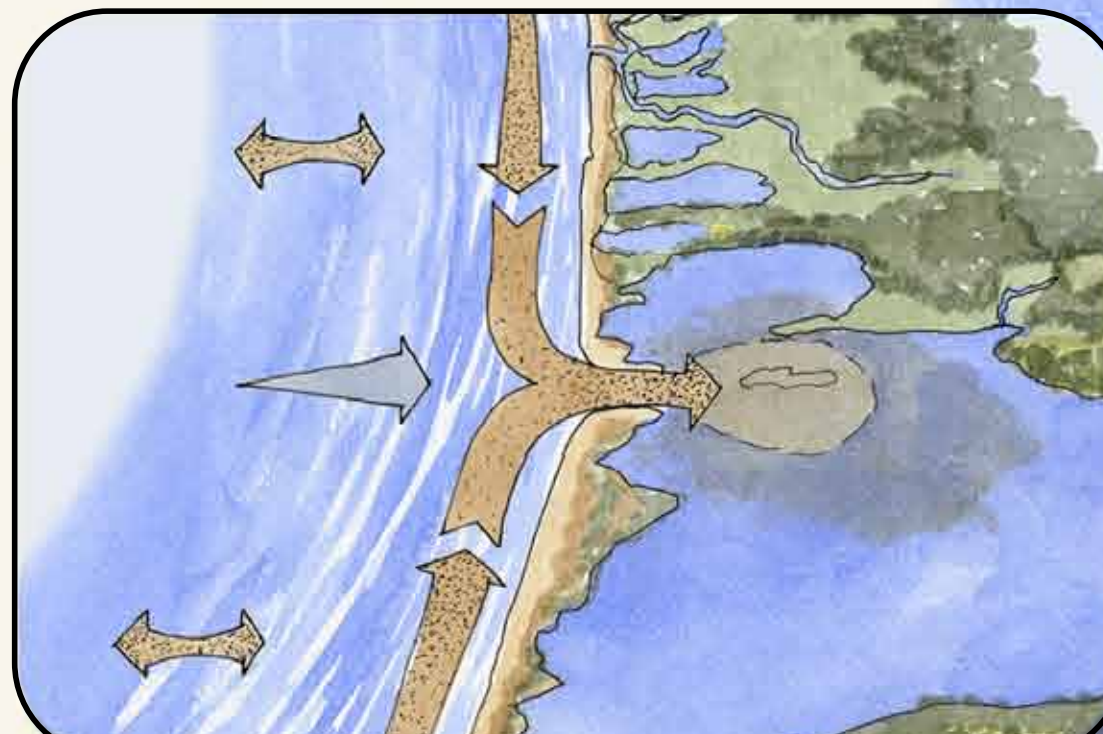
Dunes shelter low-lying areas to their east, while west-flowing streams provide abundant water. The resulting wetland habitats vary greatly and provide a mix of habitats for plants, fish, mammals, birds, insects and other species.

### BIRD SANCTUARIES



Beaches, dunes, and wetlands attract many kinds of breeding and migrating birds throughout the year. Critically important beach areas have been set aside to allow birds to care for their young and rest during the long spring and fall migrations. Please enjoy the birds from a distance.

### SAND TRANSPORT



Sand is essential to supply beaches and maintain dunes. Eastern Lake Ontario sand moves in every direction, changing the shoreline day by day and seasonally. On shore or underwater, the sand that is there today is all there will ever be. Sand that is transported into the ponds is lost from the beaches and dunes forever.



### ECOSYSTEM-BASED MANAGEMENT (EBM)

Ecosystem-based Management (EBM) is an integrated approach to management that considers the entire ecosystem, including humans.

An ecosystem is a dynamic complex of plants, animals (including humans), microbes, and physical environmental features that interact with one another.

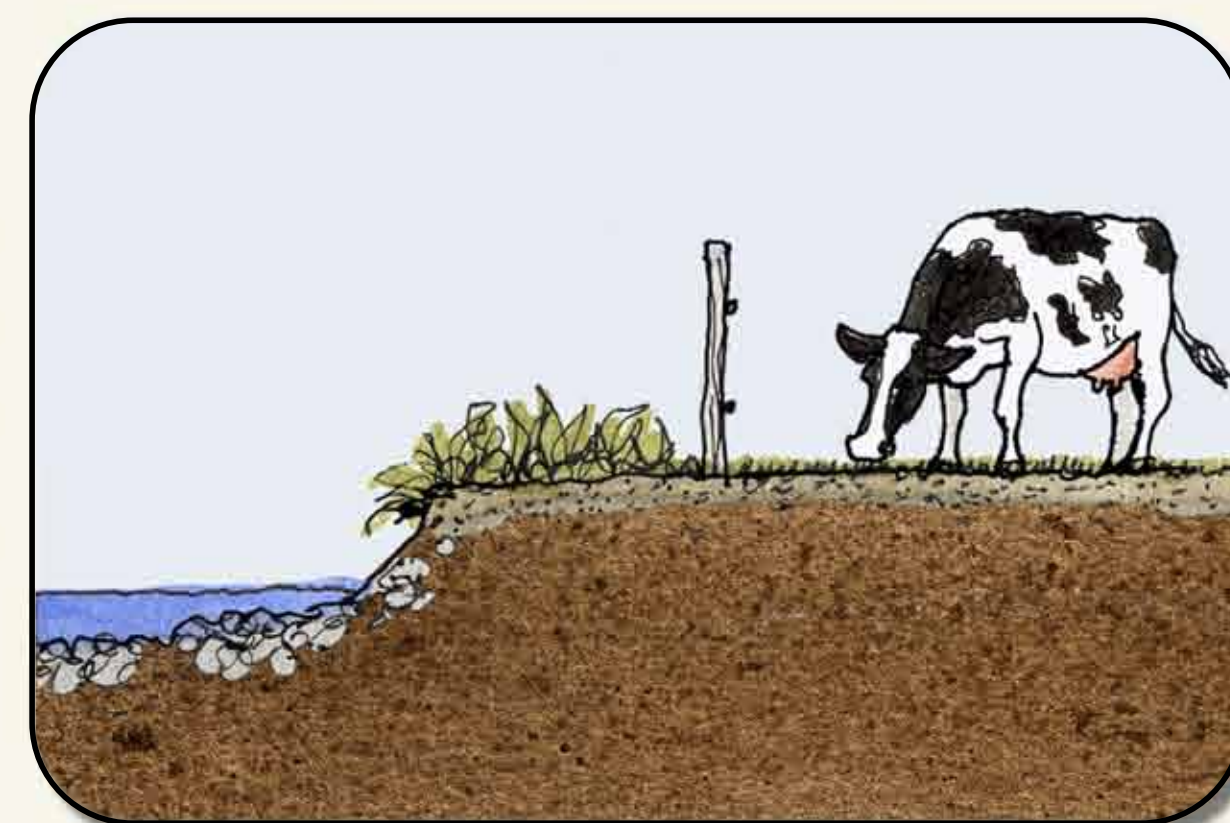
#### EBM Guiding Principles:

- 1) Activities in and uses of coastal ecosystems are sustainable
- 2) Ecological health and integrity are maintained
- 3) Ecosystems' interconnections among land, air and water are recognized
- 4) Understanding of coastal ecosystems is enhanced
- 5) Decisions are informed by good science
- 6) When risks are uncertain, caution is applied
- 7) Broad public participation occurs in planning and decision making

### PARTNERSHIPS

The 2006 New York Ocean and Great Lakes Ecosystem Conservation Act created the New York Ocean and Great Lakes Ecosystem Conservation Council to implement EBM and provide for better coordination among the nine State agencies charged with managing human activities affecting the State's ocean and Great Lakes ecosystems. The Council works with local governments, non-profit organizations, and local citizens to develop, fund, and implement EBM. This panel is one example of an EBM product.

### RIPARIAN AREAS



One of the projects in the Sandy Creeks Watershed EBM Demonstration Area involved riparian restoration of a stretch of Skinner Creek. An exclusion fence prevents streambank erosion and siltation of the streambed, and minimizes introduction of organic wastes. Streamside vegetation prevents soil erosion and protects stream water quality as well as habitat for aquatic organisms. Areas degraded by erosion from channel straightening and vegetation loss are being restored along some creeks that feed shoreline wetlands.

#### LEGEND

- Interpretive Panel
- Upland Forest and Agriculture
- Wetland Complexes
- Beach and Dune

