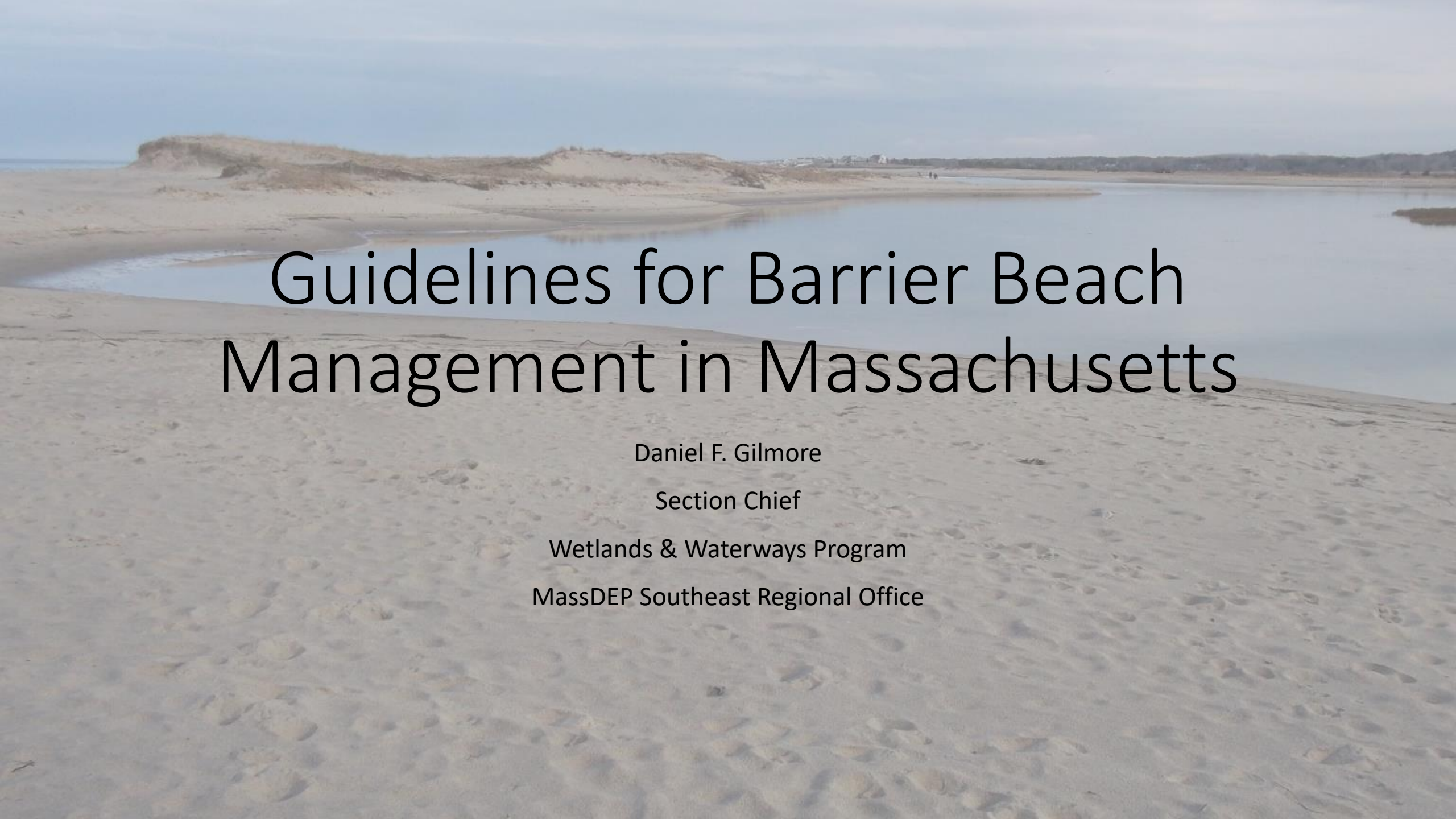

Guidelines for Barrier Beach Management in Massachusetts

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Wetlands Protection Act (M.G.L. c. 131, §40)

Resource Areas:

- Barrier Beach - 310 CMR 10.29
- Coastal Beach – tidal flats - 310 CMR 10.27
- Coastal Dune - 310 CMR 10.28
- Salt Marsh - 310 CMR 10.32
- Land Subject to Coastal Storm Flowage

Barrier Beach – 310 CMR 10.29

- low-lying strip of land
- generally consisting of coastal beaches and coastal dunes
- extending roughly parallel to the trend of the coast
- separated from the mainland by a narrow body of fresh, brackish or saline water or a marsh system
- may be joined to the mainland at one or both ends.

Coastal Beach – 310 CMR 10.27

- unconsolidated sediment subject to wave, tidal and coastal storm action
- forms the gently sloping shore of a body of salt water and includes tidal flats.
- extend from the mean low water line landward to the dune line, coastal bankline or the seaward edge of existing human-made structures, when these structures replace one of the above lines, whichever is closest to the ocean.

Coastal Beach – Tidal Flat 310 CMR 10.27

- any nearly level part of a coastal beach which usually extends from the mean low water line landward to the more steeply sloping face of the coastal beach
- which may be separated from the beach by land under the ocean.

Coastal Beach – 310 CMR 10.27

WHEN A COASTAL BEACH IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION, FLOOD CONTROL, OR PROTECTION OF WILDLIFE HABITAT, 310 CMR 10.27(3) THROUGH (7) SHALL APPLY:

- Any project on a coastal beach, except any project permitted under 310 CMR 10.30(3)(a), shall not have an adverse effect by increasing erosion, decreasing the volume or changing the form of any such coastal beach or an adjacent or downdrift coastal beach.
- Notwithstanding 310 CMR 10.27(3), beach nourishment with clean sediment of a grain size compatible with that on the existing beach may be permitted.

Tidal Flat – 310 CMR 10.27

WHEN A TIDAL FLAT IS DETERMINED TO BE SIGNIFICANT TO MARINE FISHERIES OR THE PROTECTION OF WILDLIFE HABITAT, 310 CMR 10.27(6) SHALL APPLY:

- In addition to complying with the requirements of 310 CMR 10.27(3) and (4), a project on a tidal flat shall if non-water-dependent, have no adverse effects, on marine fisheries and wildlife habitat caused by:

  (a) alterations in water circulation;

  (b) alterations in the distribution of sediment grain size; and

  (c) changes in water quality, including, but not limited to, other than natural fluctuations in the levels of dissolved oxygen, temperature or turbidity, or the addition of pollutants.

Coastal Dune – 310 CMR 10.28

- any natural hill, mound or ridge of sediment landward of a coastal beach
- deposited by wind action or storm overwash.
- sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control.

Coastal Dune – 310 CMR 10.28

WHEN A COASTAL DUNE IS DETERMINED TO BE SIGNIFICANT TO STORM DAMAGE PREVENTION, FLOOD CONTROL OR THE PROTECTION OF WILDLIFE HABITAT, 310 10.28(3) THROUGH (6) SHALL APPLY:

Any alteration of, or structure on, a coastal dune or within 100 feet of a coastal dune shall not have an adverse effect on the coastal dune by:

(a) affecting the ability of waves to remove sand from the dune;

(b) disturbing the vegetative cover so as to destabilize the dune;

(c) causing any modification of the dune form that would increase the potential for storm or flood damage;

(d) interfering with the landward or lateral movement of the dune;

(e) causing removal of sand from the dune artificially; or

(f) interfering with mapped or otherwise identified bird nesting habitat.

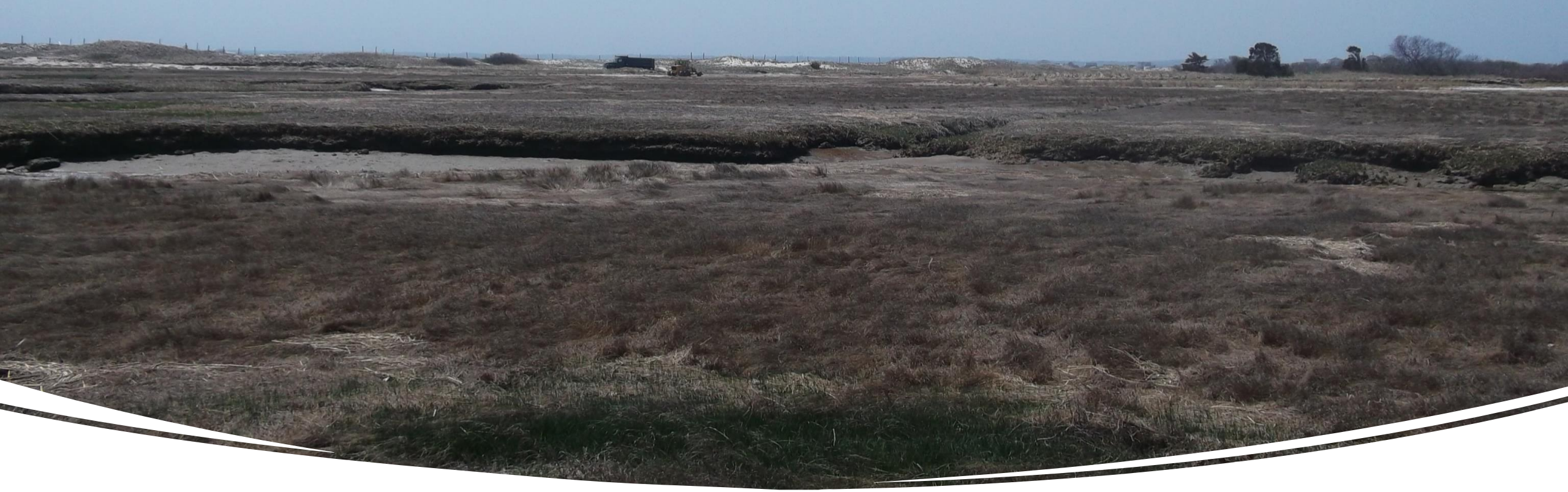
Coastal Dune – 310 CMR 10.28

The following projects may be permitted, provided that they adhere to the provisions of 310 CMR 10.28(3):

(a) pedestrian walkways, designed to minimize the disturbance to the vegetative cover and traditional bird nesting habitat;

(b) fencing and other devices designed to increase dune development; and

(c) plantings compatible with the natural vegetative cover.



Salt Marsh – 310 CMR 10.32

- coastal wetland that extends landward up to the highest high tide line, that is, the highest spring tide of the year,
- characterized by plants that are well adapted to or prefer living in, saline soils
- dominant plants within salt marshes typically include salt meadow cord grass (Spartina patens) and/or salt marsh cord grass (Spartina alterniflora)
- plants may also include, without limitation, spike grass (Distichlis spicata), high-tide bush (Iva frutescens), black grass (Juncus gerardii), and common reedgrass (Phragmites)
- A salt marsh may contain tidal creeks, ditches and pools.

Salt Marsh – 310 CMR 10.32

WHEN A SALT MARSH IS DETERMINED TO BE SIGNIFICANT TO THE PROTECTION OF MARINE FISHERIES, THE PREVENTION OF POLLUTION, STORM DAMAGE PREVENTION OR GROUND WATER SUPPLY, 310 CMR 10.32(3) THROUGH (6) SHALL APPLY:

- A proposed project in a salt marsh, on lands within 100 feet of a salt marsh, or in a body of water adjacent to a salt marsh shall not destroy any portion of the salt marsh and shall not have an adverse effect on the productivity of the salt marsh.
- Alterations in growth, distribution and composition of salt marsh vegetation shall be considered in evaluating adverse effects on productivity.

Salt Marsh – 310 CMR 10.32

- a small project within a salt marsh, such as an elevated walkway or other structure which has no adverse effects may be permitted
- a project which will restore or rehabilitate a salt marsh, or create a salt marsh, may be permitted.

ORV Use impacts on Barrier Beaches

- Coastal beaches may be impacted through the churning of tires;
- tidal flats and salt marshes may be impacted through compaction of the substrate;
- coastal dunes and salt marsh vegetation may be destroyed; and
- dunes may be destabilized.

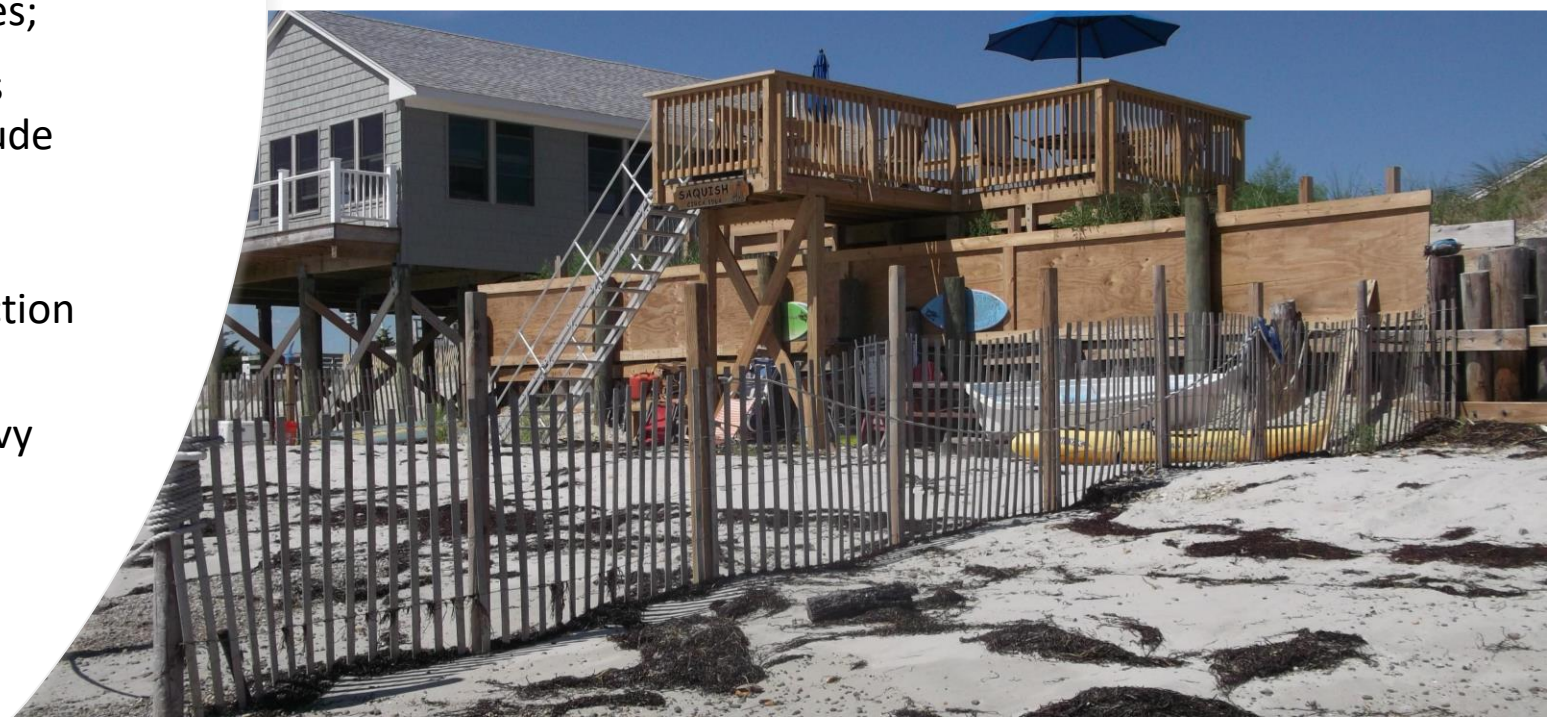
ORV Impacts (continued):

- Vehicle travel through the coastal dune can destroy the vegetated mat and can contribute to erosion of dune form and function.
- Travel over salt marshes can destroy the vegetated mat and cause erosion.
- Shellfish resources may be impacted due to compaction of soil and crushing existing organisms, depending on the depth of shellfish and other organisms, substrate type, weight and use of vehicle.
- Vehicles degrade shorebird habitat, disrupt feeding and resting, and create ruts that can trap chicks.

DEP Guidelines – June 30, 1993

Activities to be Regulated Under the Wetlands Protection Act

- construction of buildings, walkways, roads, parking areas, and other facilities;
- ORV use and access to Barrier Beaches (310 CMR 10.29), which generally include Coastal Dunes (310 CMR 10.. 28) and Coastal Beaches (310 CMR 10.27);
- beach nourishment and dune construction or restoration projects; and
- beach cleaning activities involving heavy equipment (e.g. tractor).



DEP Guidelines – June 30, 1993

Activities Not Generally Regulated under the Wetlands Protection Act

- "passive" recreational activities that are not likely to alter barrier beaches.
- foot traffic,
- boating, and
- horseback riding.

BBMP Components

- **Public Use/Recreational Activities:**
  - Pedestrian Uses, including
    - Hunting,
    - Fin and Shellfishing,
    - Kite-flying,
    - Pets, and
    - Hiking;
  - Camping, including Fires;
  - Watercraft, including Boats and Jet-Skis;
  - Plant Harvesting;
  - Non-Motorized Transport, including Horseback Riding and Bicycles;
  - Fireworks; and
  - Off-Road Vehicle Use.

BBMP Components

- **Restoration and Management Activities:**
  - Erosion Control and Restoration Techniques,
  - Beach Cleaning of:
    - stone and gravel;
    - litter; and
    - wrack (including day-to-day, storm, and winter wrack);
  - Construction of Facilities,
  - Nuisance Control, including:
    - insects; and
    - exotic plants;
  - Rare Species Predators;
  - Other Wildlife Issues; and
  - Trash