MANAGEMENT CHALLENGES

Natural resource marsh managers have had to develop ways of dealing with and adapting to threats like community development and invasive species — and the changes they bring. Solutions are challenging because:

- Managers have to make sure both humans and wildlife are happy.
- Working with ever-changing nature means different situations all the time.

FRAGILE: HANDLE WITH CARE

Both humans and natural sources are threats to marshes. Human threats include:

- Development of homes and businesses.
- Changes to the shoreline, like adding a seawall.
- Runoff (pollutants that “run off” the area they were applied to) like pesticides used on crops, fertilizers used on lawns, or grime on roadways left from vehicles.

When marshes are invaded from human-related threats, there can be an increased risk of invasions from non-native species, for example mute swans and Phragmites.

UNDER ATTACK!

Non-native species are a natural threat to marshes. For example, the invasive plant Phragmites australis (common reed) has moved in and taken over many wetland areas. Invasive species disrupt environments by reducing habitat or food available for native species or by preying directly upon native species. Because they are new, invasive species usually don’t have predators yet — meaning they can grow and reproduce unchecked. “Attacking” the habitat before the environment can catch up. Invasive species are often called “biological pollutants” because they can have such a negative impact.

WHAT IS RESTORATION?

Restoration is the act of returning something to a formal, original, normal or unimpaired condition.

MANAGEMENT TOOLS

Wetland managers generally work to protect wetlands that are healthy, restore those that have been damaged, and actively modify only those that have been so disturbed that they no longer naturally function. Managers have a set of tools they can use to accomplish these things. Techniques for managing may include:

- Flooding, changing water levels, diking;
- Removing plants through mowing, dredging or burning;
- Application of herbicides or other chemicals to help prevent the growth and spread of invasive species; and
- Adding nest structures, plants and other habitat improvements.

Look around the surrounding marsh outside. Do you think it would be easy to manage this kind of habitat? What kinds of tools would you use?