#### PARKER, IPSWICH, ESSEX RIVERS' RESTORATION





# Why Improve Our Neighborhood?

## COMMITTEES

#### WATER RESOURCES

Kerry Mackin, IRWA; Marilyn McCrory, DCR; Bill McDavitt, ICC; Laila Parker, DEC

#### 2 WATERSHED STEWARD-SHIP

Kathryn Glenn, MCZM; Cynthia Ingelfinger, IRWA; George Comiskey, PRCWA; Kerry Mackin, IRWA; Marilyn McCrory, DCR

#### 3

## LIVING RESOURCES AND HABITAT RESTORATION

Robert Buchsbaum, MAS; Kevin Correa, TU: Jim MacDougall, IRWA; Nancy Pau, USFWS; Tim Purinton, DER; Peter Phippen, 8TotB; David Santomenna, ECGA; Lou Wagner, MAS

## LAND USE AND HABI-TAT PROTECTION

Vanessa Johnson, ECGA; Anne Gagnon, MFW; Christine Berry, DCR; Graham Taylor, USFWS. The Parker, Ipswich and Essex River Watersheds and the Great Marsh offer extensive high quality natural resources and have the potential to function as a regional bio-reserve. These river basins are also the subject of an outstanding body of scientific research by the Marine Biological Laboratory at Woods Hole (MBL), the U.S. Geological Survey (USGS) and others.

However, the rivers and marsh are also under significant threats. A number of conservation organizations are working to address specific problems affecting these vital resources; we need a common vision, strategy and leadership to function most effectively.

Our individual organizations' work includes protecting land and wildlife, promoting low-impact development to reduce development impacts, advocating better water management regionally and statewide, helping communities save water to help address low-flow problems, removing dams and other river obstructions, educating the public about the values these rivers provide and the threats they face, organizing recreational programs, and conducting research and monitoring. Several organizations are working to help the region's

#### Partners:

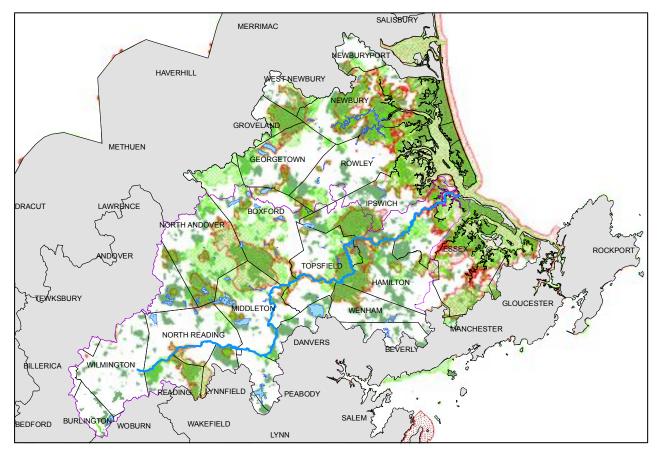
- \* Eight Towns on the Bay
- \* Essex County Greenbelt
- Ipswich ConsCom
- \* Ipswich River Watershed
- \* Mass. Audubon Society
- \* Mass. Coastal Zone Management
- \* Mass. Div. Ecological Restoration
- \* MA Dept. Fish & Game
- Mass, Dept. of Conservation Recreation
- \* Parker River Clean Water
- \* The Trustees
- \* Trout Unlimited
- U.S. Fish and Wildlife Service -Parker River NWR.

communities become better stewards of our water resources.

We have made significant progress, especially in addressing the Ipswich River's low-flow problems that led it to be ranked the third most endangered river in the nation in 2003. Now, it is time to look at the big picture of how to restore these rivers to the healthiest condition that we can realistically achieve. This means looking at a wider range of issues that are part of a comprehensive restoration program. The Partnership's mission is to restore and protect the ecological functions of the Parker, Ipswich and Essex Rivers and the Great Marsh to the extent feasible, addressing the following broad issue areas:

- Water: addressing low-flows and floods, cleaning up and preventing pollution, and ensuring that people have safe, adequate drinking water
- Mature: protecting biodiversity and ecological integrity
- Land protection and use: protecting the most critical lands and habitats and linking ecologically important areas
- Water-wise communities: working at the local level to manage water wisely
- Adaptation: employing adaptive strategies to reduce the impacts of climate change

The Partnership scope includes building the river community, highlighting what is so special about the rivers and watersheds, addressing impacts on the region's water resources, and preparing for future changes so that our rivers and the region's ecological communities can be as healthy and resilient as possible.



## BioMap2 for PIEr2

1 inch equals 3.79 miles

This is the extent of our restoration effort and its relative position to the Great Marsh. The dark green is existing protected open space. The lighter green and red outline show BioMap2's exemplary habitats.

# Goals

## How do we succeed?

## Goal I: Water Quantity

Restore the natural flow in our rivers so they have enough water to support both human and environmental needs.

## A. Meet human water needs and maintain ecological functions

Promote water conservation regionally. Reduce lawn watering and other non-essential water uses.

## B. Develop flow-triggered thresholds to address low-flow problems

Maintain streamflows and groundwater levels that support fish and other river life, recreation, navigation, and the ecological functions of coastal streams and rivers.

## C. Minimize the risks of extreme floods

Reduce paving and "effective impervious cover", Preserve natural landscapes, vegetation and drainage patterns, Protect floodplains, Promote Low-Impact Development Capture and store runoff

### Goal 2: Water Quality

Ensure the water in the Parker, Ipswich and Essex Rivers and the Great Marsh estuary is clean, meets drinking water standards and supports aquatic life and other uses.

## A. Protect Drinking Water

Help communities improve drinking water protection Protect land that affects the quality of drinking water Reduce the use of pollutants Identify gaps in protection (SWAP) Help communities manage pharmaceuticals and personal care products

## **B.** Protect healthy stream sections and tributaries

For those rivers, streams and other waters that are healthy to pristine, the goal is to protect them so that they do not become degraded.

#### C. Clean up pollution

For those waters that are degraded, the goal is to restore them so that they support shellfish, fish and other aquatic life as well as recreation, aesthetics and other functions.

# Goals

## How do we succeed?



## Goal 3: Protect the water, protect the land

## A. Restore and maintain ecological processes

Restore water levels, remove migration barriers, reduce invasive plants and animals, and maintain ecosystem functions and services provided by the native plants and animals of wetlands, floodplains, shore-lands, grasslands and forests.

## B. Protect critical ecosystems that sustain exemplary plant and animal communities

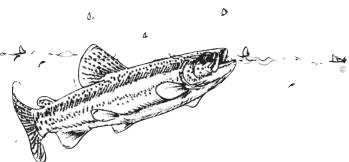
BioMap2 has identified the lands of highest conservation value that are undeveloped and unprotected, use this to develop a protection strategy for them. Maintain, improve or protect migratory pathways between exemplary habitats.

## Goal 4: Build support for River Restoration

## Engage more partners and the public in restoring and protecting PIEr<sup>2</sup>-Great Marsh.

Provide tools and resources to help communities, businesses and residents save water, protect habitats, protect biodiversity and reduce pollution. Provide science-based information about the PIEr<sup>2</sup> - Great Marsh and watersheds to community leaders, practioners and landowners.





For more info visit:

http://web.mac.com/jm3/PIEr2/