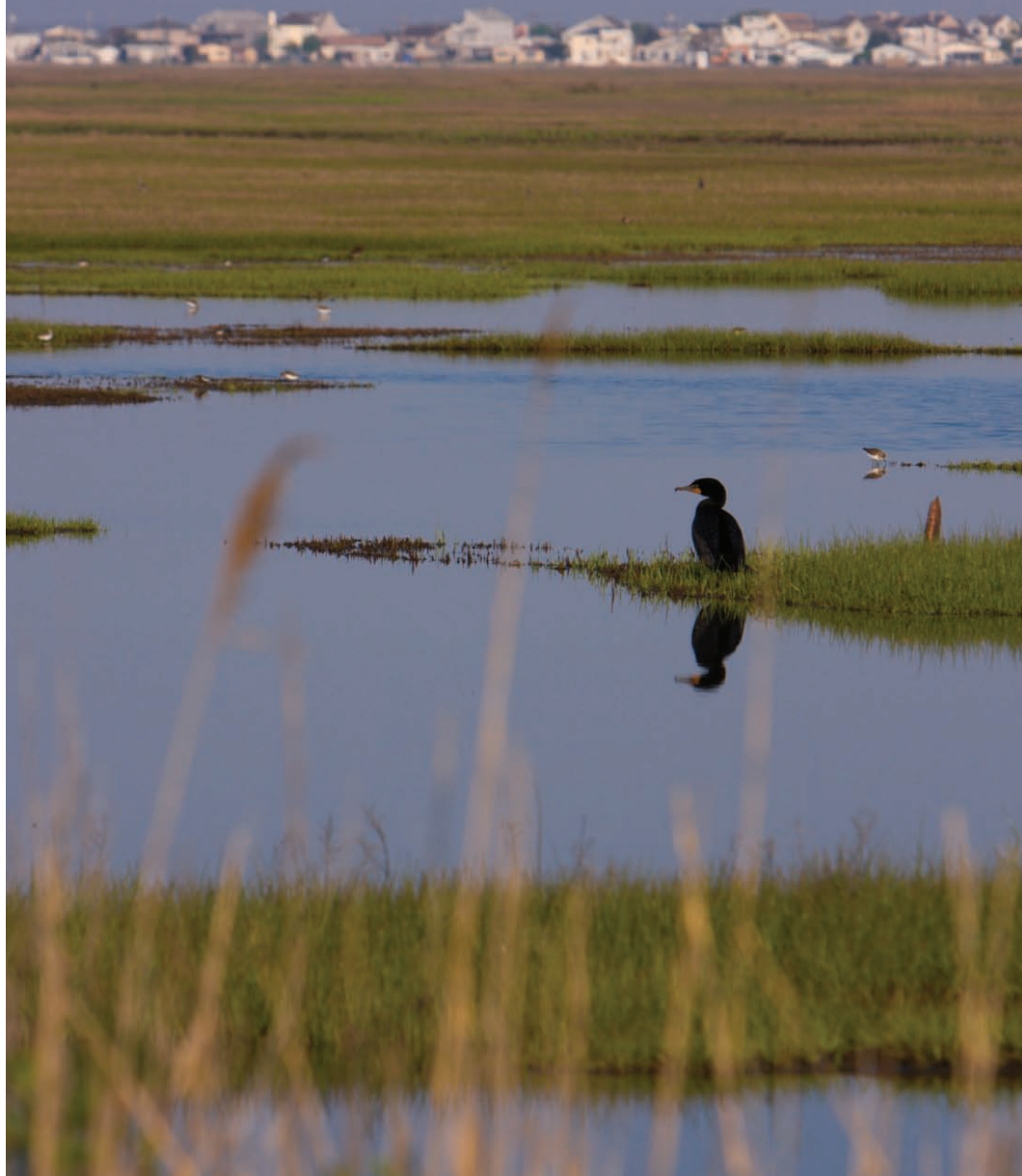


BARNEGAT BAY 2020

A VISION FOR THE FUTURE OF CONSERVATION



THE TRUST *for* PUBLIC LAND

CONSERVING LAND FOR PEOPLE

BARNEGAT BAY

TODAY & TOMORROW



For more than 20 years, The Trust for Public Land (TPL) has worked with local partners in New Jersey's Barnegat Bay watershed to conserve this nationally recognized refuge and recreation destination. While 24,000 acres have been protected, much more remains to be done, and TPL is strengthening its commitment to the region.

DID YOU KNOW?

- Ocean County is the fastest-growing county in New Jersey.
- Its population rose five-fold between 1960 and 2007.
- The current estimated population of 560,000 increases to more than 900,000 during the summer months.
- More than 30% of the bay watershed is developed, up from 18% in 1972.

Barnegat Bay, for many, is just a body of water that is necessary to cross, often in traffic, before arriving at the Jersey Shore for a weekend getaway or summer vacation. In a state more densely populated than any other in the U.S., the shore promises relief: sunning, swimming, fishing, and boating.

Similarly, the Pinelands National Preserve, a good portion of which drains into Barnegat Bay, is another geographical landmark often seen from the car window. But the health of the bay and its drainage area, or watershed, is crucial to the enjoyment of this part of the shore. Clean drinking water, safe-to-eat seafood, and open space for beachcombing and bird watching all depend on the viability of the 425,117-acre watershed. The Barnegat Bay watershed covers most of Ocean County and extends north to Freehold and Howell townships in Monmouth County. In the south, it ends at the inlet near the popular Beach Haven community—just 12 miles from Atlantic City. All creeks and rivers in the watershed flow into the 42-mile-long Barnegat estuary.

COVER: A double-crested cormorant feeding in the wetlands amid encroaching development. PHOTO BY SETH SHERMAN; ABOVE: Development along the shores of Barnegat Bay. PHOTO BY JIM DAVID; RIGHT: Lake Louise in Howell, NJ, where a housing development was proposed on 60 acres, but conservation by TPL prevented additional pollution. PHOTO BY JOHN RAE.

HOW DEVELOPMENT HURTS THE WATERSHED ECOSYSTEM

Rapid residential and commercial expansion has destroyed many of the bay's wetlands and much of the natural shoreline, seriously disturbing the sandy Pinelands area. Pavement, homes, and docks set on the natural, sponge-like riverside corridors and wetlands concentrate erosive runoff and make it harder for the ecosystem's built-in filters to clean the water supply. Habitat for many species of plants and animals is destroyed or compromised. Mining operations also have taken their toll and raise serious ecological questions. The compaction of soils and related increase of impervious land cover like asphalt and concrete makes streams more prone to flooding.

Perhaps the most visible side-effect of development is the pollution of Barnegat Bay caused by fertilizers from lawns and farms. Runoff containing fertilizer nutrients such as nitrogen stimulates an unnatural plant and algal bloom, which produces abnormally high levels of oxygen in water bodies. Conversely, when the plants and algae die, the decay process sharply reduces the amount of oxygen. These wide variations in oxygen can cause massive fish kills and are also linked to widespread appearances of stinging sea nettles, reducing visitors' enjoyment of the bay. Further, algal blooms prevent sunlight from reaching bottom-dwelling plants and animals that rely on the sun's energy.



ENCOURAGING NEWS

Problems from runoff are being addressed and can be further reduced through education and regulation. There are also many pockets of land that could be protected. Since 1985, TPL has been a major actor in this latter effort. In 1995, TPL published *The Century Plan*, both a citizens' guide to the bay area's extraordinary natural history and a regional conservation plan. TPL and its partners have protected more than 24,000 acres of the identified properties.

Now, TPL has completed *Barnegat Bay 2020: A Vision for the Future of Conservation*, a "greenprint" that defines TPL's commitment to the protection of the region and outlines an action plan for further progress.



With guidance from several dozen experts and citizen activists, TPL has set the following goals:

- **INCREASE LAND AVAILABLE FOR PUBLIC RECREATION & ACCESS** - These properties include additional boating sites, low-impact pedestrian and beach access, and conservation parcels close to the bulk of the residential population.
- **PROTECT WATER & HABITAT** - Targeted parcels contain undisturbed uplands, creek headwaters, wetlands, vegetated river and stream corridors, recharge areas, marsh migration zones, and lands upstream of drinking water intakes. Some of the land conserved will also be appropriate for recreation.
- **RESTORE WATER BODIES & HABITAT** - Needs include: rehabilitation of degraded surface water, restoration of riparian areas, and improvement of undeveloped shorelines adjacent to bulkheads, non-vegetated river and stream banks, and transitional uplands.
- **ENHANCE SCENIC PROPERTIES** - Forested land on the Garden State Parkway is also identified as a good conservation opportunity. Of this land, approximately 60 percent is at high risk of being developed.

TPL also set up a parcel prioritization committee with area groups that work on land conservation. Results of their analysis show about 900 priority parcels for protection totaling about 25,000 acres (see map on reverse). Many parcels meet multiple goals, combining features that make them desirable for conservation to protect water quality and to provide scenic views as well as recreational opportunities. Working with willing sellers, significant conservation could be achieved.

PROPERTY PROFILES

The following are descriptions of some important areas that could be acquired (the selection doesn't indicate a ranking or priority list).

- **HAVENSWOOD** (part of Reedy Creek area in Brick Township)

Acquisition of this site would help complete protection of the coastal and upland spaces in the Reedy Creek tidal stream system, which is within the Edwin B. Forsythe National Wildlife Refuge acquisition boundary. The striking number of bird species documented at Havenswood is testimony to the importance of wetlands and adjacent areas to wildlife. Seventy-six varieties of birds were sighted in the area during one half-day period, including five woodland thrush species. A walk on the DeCamp Wildlife Trail to the bay is a treat for the botanist, as numerous hollies, oaks, cherries, and blueberry bushes decorate the path. Also visible: the coastal variant of the fragrant sweet pepperbush; the delicate, elongated bracken fern; and the tiny, baby blue spring azure butterfly.

- **POND AT CLAYTON BLOCK**

An operating sand and gravel processing plant looms over this tranquil pond, fed by the Fourmile Branch. The site, in the township of Stafford, features numerous drainage strips and fields that are only slightly below surface and grassy, so they can be used as play areas. The township's regulations require home owners to filter runoff on-site or discharge directly into adjacent waters, so as not to cause erosion or pick up pollutants that would wind up in the bay.



“ TPL’S OPEN SPACE ACQUISITIONS IN THE COASTAL WATERSHED ARE AN IMPORTANT PART OF WHAT’S NECESSARY TO IMPROVE THE HEALTH OF BARNEGAT BAY. ”

— DR. MICHAEL J. KENNISH,
RESEARCH PROFESSOR, INSTITUTE
OF MARINE & COASTAL SCIENCES
AT RUTGERS UNIVERSITY

PREVIOUS PAGE: Barnegat Light. PHOTO BY SETH SHERMAN; THIS PAGE: A great egret along Reedy Creek. PHOTO BY JOHN RAE; RIGHT, TOP: A group surveys the Forked River Mountains. PHOTO BY SETH SHERMAN; RIGHT, BOTTOM: The Metedeconk River. PHOTO BY SETH SHERMAN; FAR RIGHT: Sunset fishing on Waretown Creek. PHOTO BY SETH SHERMAN.

• **BRICK TOWNSHIP
MUNICIPAL UTILITY
AUTHORITY (MUA)**

Acquisition of several upstream sites in the 70-square-mile Metedeconk River watershed could help protect drinking water that is processed and distributed by the MUA. In summer months, daily demand for water for the utility's 100,000 customers can increase by 80

percent. In the last decade, MUA officials say that the water they collect from the Metedeconk has declined in quality, increasing treatment costs. Among the upstream sites targeted is the Cabinfield Branch, partly rural and lined by old red maples, which begins in Monmouth County and then flows through Lakewood.



• **PEAK OF THE FORKED
RIVER MOUNTAINS**

At 184 feet, this is the highest point in the Pinelands National Reserve. From the peak, the Lakehurst Naval Base hangars are visible in the distance; but mostly, it is a tranquil view of a dark green sea formed by tops of the characteristic pitch pine. Throughout this 20,000-plus-acre wilderness, however, trails are gnashed from the peak by the ubiquitous all-terrain vehicles, which careen through the normally quiet expanse. The dry slopes shelter the headwaters of the Forked River and its marsh creeks provide habitat that support sport fish such as juvenile summer flounder. The uplands provide habitat for the threatened northern pine snake, wild turkeys, and other game birds. The ovenbird, with its “teacher, teacher, teacher” call, can be found amid the huckleberry bushes.



“ I GREW UP HERE AND
HAVE A REAL STRONG
PASSION FOR THE
OUTDOORS. I LEARNED
TO SCUBA DIVE NEARBY AND
CAN REMEMBER WHEN THE
WATER WAS CRYSTAL CLEAR.”

— JOHN SPODOFORA,
STAFFORD COUNCILMAN.



DID YOU KNOW?

- Each spring and fall tens of thousands of migrating ducks and geese, wading birds, and shorebirds concentrate at the Edwin B. Forsythe National Wildlife Refuge.

- WARETOWN CREEK & PARK

This creek and its black banks, adjacent to the Greenbriar Golf and Country Club in Ocean Township, are lined by a buffer of very spongy soil, high bush blueberry, and pepperbush.

Trident maples make up the canopy. The lake at Waretown Park, formed by damming the creek, is a popular site for fishing (pickerel and catfish are among the catches), swimming, picnics, and sunbathing. Trails lead through the woods to Oyster Creek and the township organizes hayrides in the fall around the shore, which also skirts an Atlantic white cedar swamp. Although the township does own properties in the area, there are unprotected lands both upstream and downstream of the lake.

These are just a handful of the many special and ecologically important sites throughout the Barnegat Bay watershed. Other such sites will be highlighted in the *Barnegat Bay 2020* report. This new greenprint maps out the plan for additional conservation by The Trust for Public Land and all who care about this important resource.

This project would not have been possible without the members of the Barnegat Bay 2020 Steering Committee who played a valuable role in shaping this vision of a bay conserved, protected, and enjoyed by everyone. The realization of this vision is dependent on the participation and support of individuals, groups, and governments at all levels throughout the watershed.

YOU CAN HELP

- Tell us about land that could be protected
 - Donate to support our efforts
- Download the *Barnegat Bay 2020* report

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THE
TRUST
for
PUBLIC
LAND



The Trust for Public Land is a national, nonprofit, land conservation organization that conserves land for people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places, ensuring livable communities for generations to come. To date, TPL has protected more than 25,000 acres throughout New Jersey, including approximately 60 properties in the Barnegat Bay watershed.



ABOVE: Barnegat Bay at sunrise. PHOTO BY SETH SHERMAN.



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