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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Office of Water Management



Pennsylvania Coastal Resources Management Program

CRM Program Overview for:

PA DEP's ***Citizen's Advisory Council***

July 16, 2013

Introduction

- **What is the Coastal Zone Management Program...**

The Federal Coastal Zone Management Program is a Partnership between 34 Coastal and Great Lakes States, Territories and Commonwealths.

- **Goals of the Partnership:**

To preserve, protect, develop, restore, and enhance the nation's coastal resources.

- **Funded by US Department of Commerce, through NOAA.**

- **Authorized by the Coastal Zone Management Act of 1972.**

Introduction

Coastal Zone Management Overview:

- Coastal Zone = *“the coastal **waters** (including the lands therein and thereunder) and the adjacent **shorelands** (including the waters therein and thereunder), strongly influenced by each other and in **proximity to the shorelines...**”*

➤ Coastal Resources Management in Pennsylvania

- PA's participation in the Coastal Zone Management Program dates back to 1980, when it was accepted by NOAA.

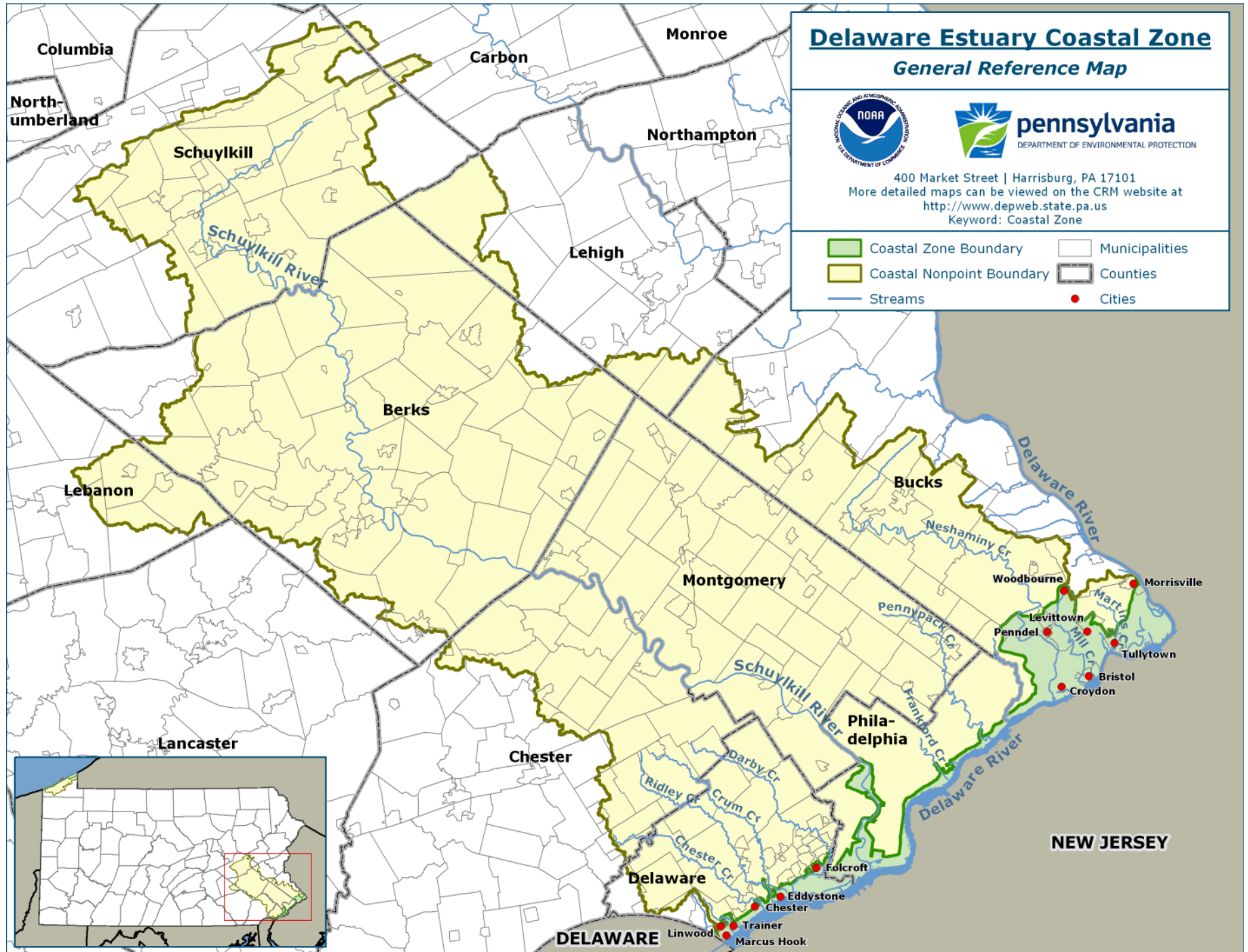


▶ Two Coastal Zones exist in Pennsylvania:

- **The Delaware River Estuary**

112 miles in length, and traverses through 3 Counties and 26 Municipalities.





➤ Two Coastal Zones exist in Pennsylvania:

- The **Lake Erie Coastal Zone**

76.6 miles in length, and is located in one County, and traverses through 10 Municipalities. Approximately 925 properties, with about 700 individual owners, are located along the Lake Erie Shoreline.



Lake Erie Coastal Zone

General Reference Map

- Coastal Zone Boundary
- Coastal Nonpoint Boundary
- Streams
- Municipalities



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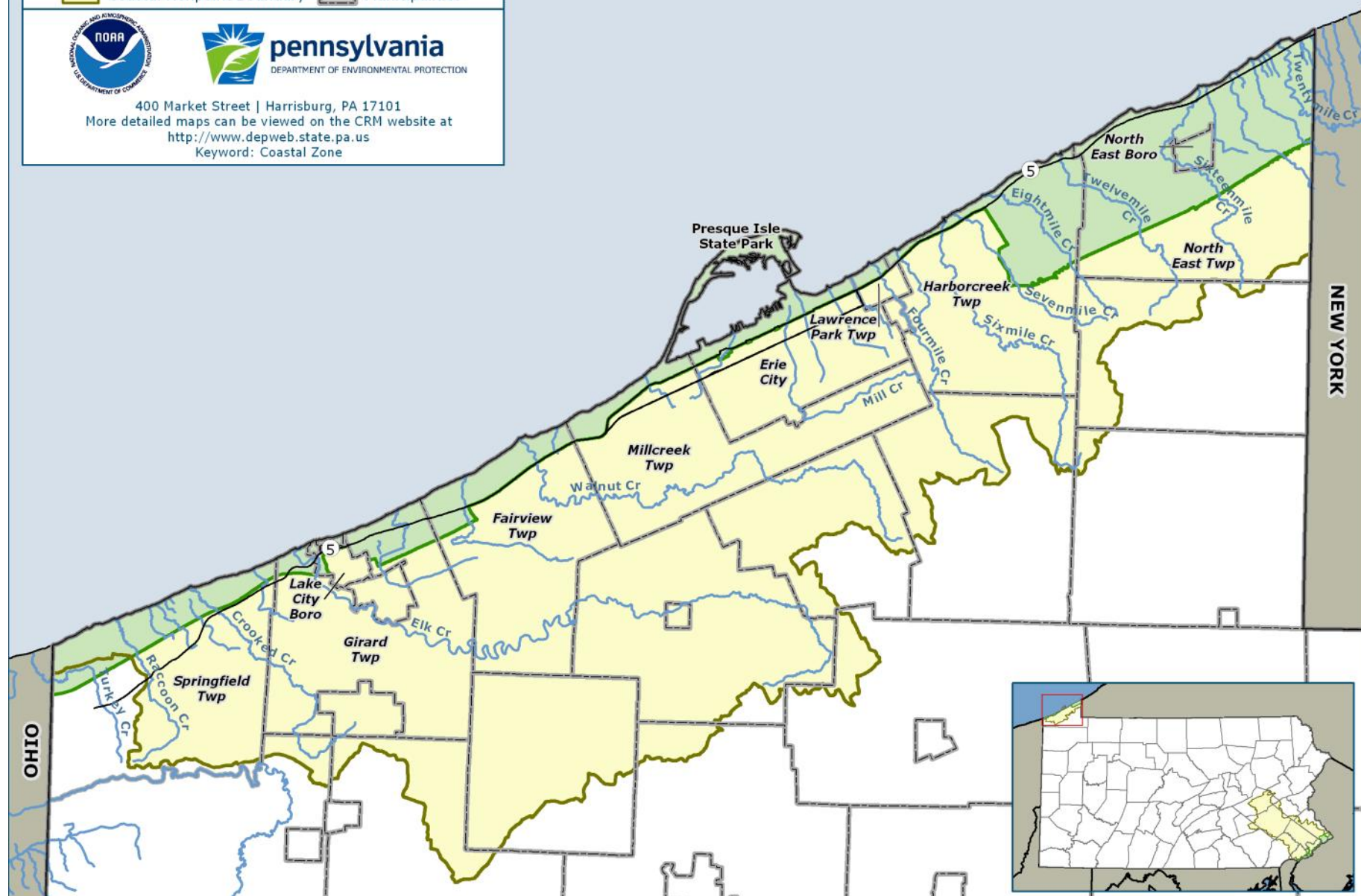
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400 Market Street | Harrisburg, PA 17101

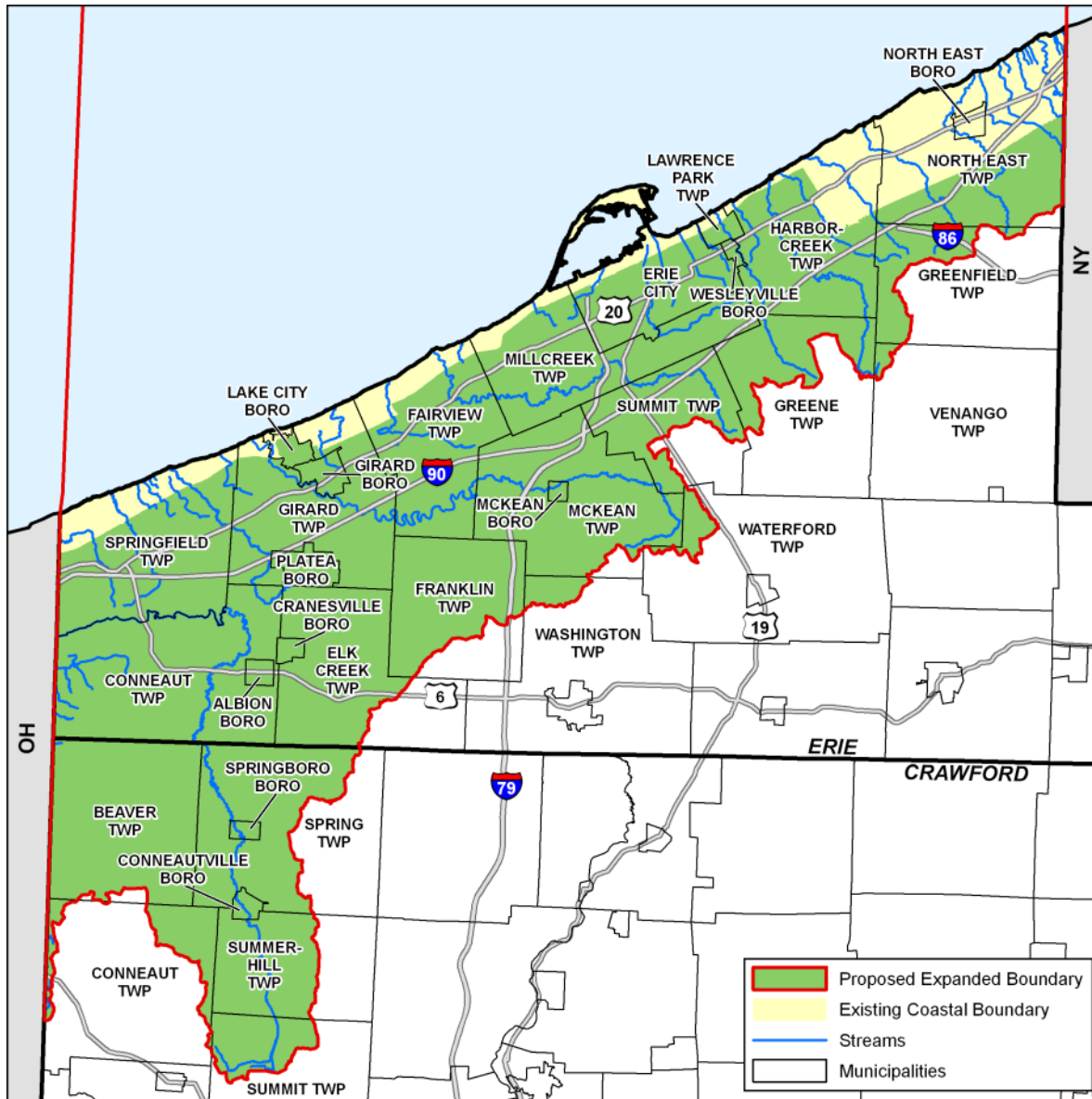
More detailed maps can be viewed on the CRM website at

<http://www.depweb.state.pa.us>

Keyword: Coastal Zone



Lake Erie CZ Boundary Expansion



▶ Expanding The Boundary Will Add

- 1,006 additional stream miles (*131)
- 332,600 additional acres (*40,602)
- 807 acres of fresh emergent wetlands (*438)
- 1 new county (*1)
- 23 new municipalities (*10)
- 206,431 new Pennsylvania residents (*37,235)
- ** In the current CZ Boundary*

Pros/Cons

- Pros:
 - Additional funding opportunities for your community and area
 - Improve water quality in the Lake Erie drainage basin
- Cons:
 - The amount of grant funding for the area will stay the same
 - It will be a larger area to provide technical assistance

PA Coastal Program Priorities

State CRM Priorities Defined by:

- CRM Program Guidance – 11 Enforceable Policies
- 309 Strategy – 5-year Priorities Document
 - Developed by CRM, approved by NOAA
 - 9 NOAA-Defined Enhancement Areas

Both documents available on the CRM Website:

<http://www.dep.state.pa.us/river/reference/reference.htm>

PA Coastal Program Priorities

11 Enforceable Policy Areas (from Guidance):

1. Coastal Hazards
2. Dredging and Spoil Disposal
3. Fisheries Management
4. Wetlands
5. Public Access for Recreation
6. Historic Sites and Structures
7. Port Activities
8. Energy Facility Siting
9. Intergovernmental Coordination
10. Public Involvement
11. Ocean Resources (ANS/AIS)

PA Coastal Program Priorities

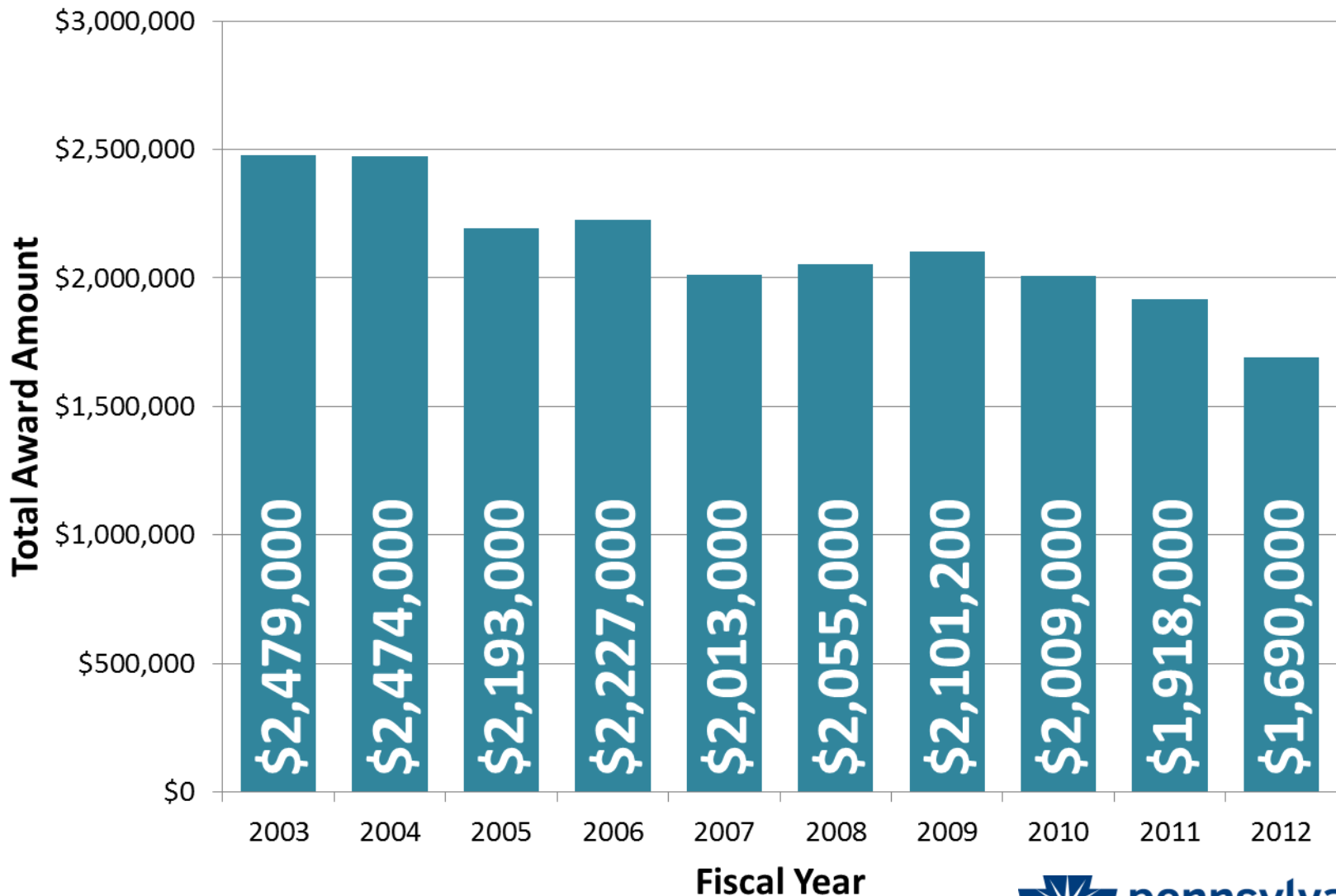
309 Strategy – 5-year Priorities Document

	9 Enhancement Areas	Priority		
		High	Med	Low
1	Coastal Wetlands	X		
2	Coastal Hazards		X	
3	Public Access	X		
4	Marine Debris			X
5	Cumulative and Secondary impacts	X		
6	Special Area Management Planning		X	
8	Ocean/Great Lakes Resources	X		
7	Energy and gov't facility siting/activities	X		
9	Aquaculture		X	

CRM Implementation: Grants Program

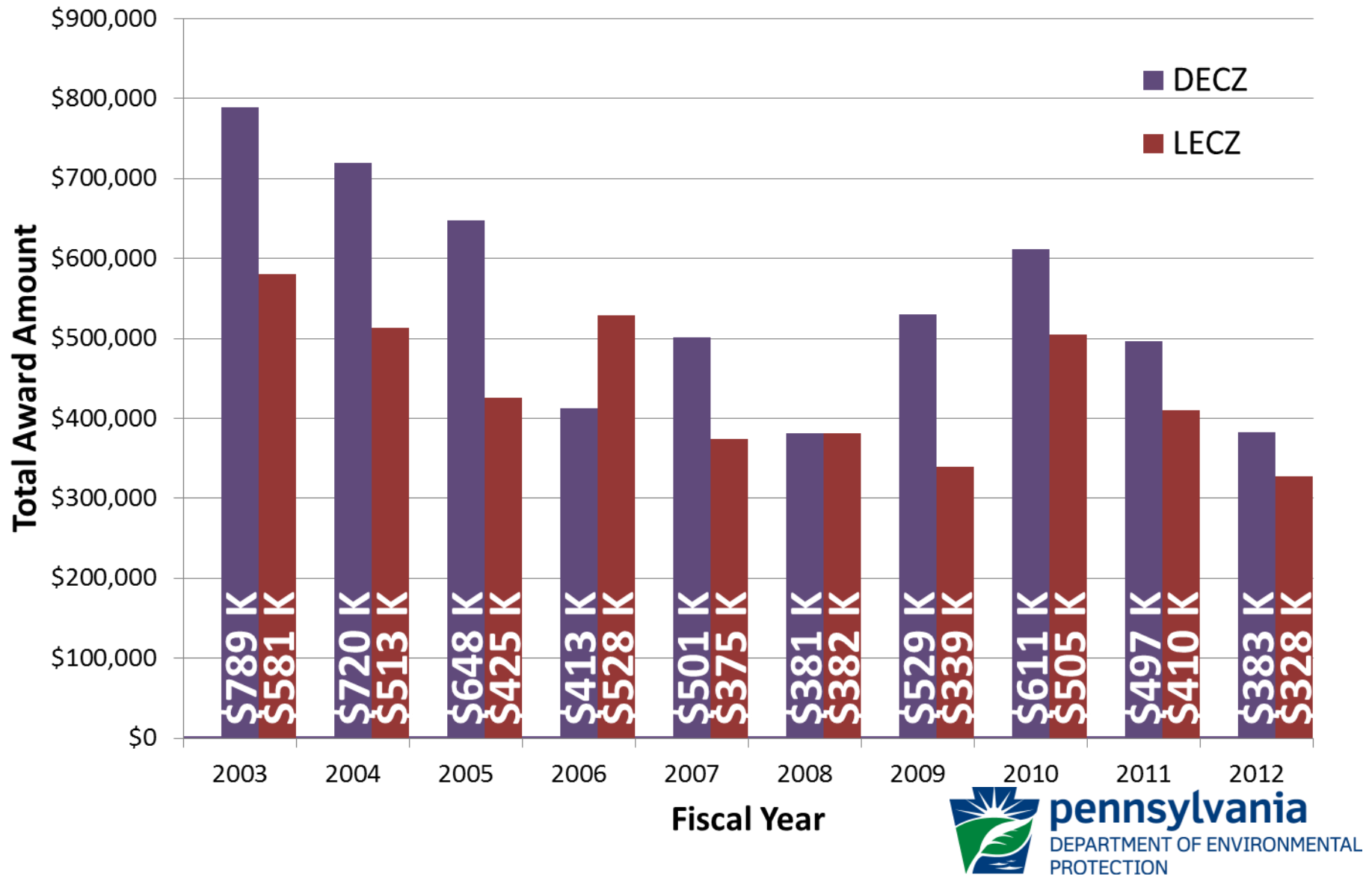
- NOAA funding \$1.6 million/yr. for 2013
 - Determined, in part, by shoreline and population
 - Allocated approx. 60/40 DECZ/LECZ
 - \$50K “soft” cap on individual awards
- Annual grant cycle
 - Opens in August, closes in October
- Local input through Steering Committees

Coastal Zone Federal Award: 2003-2012



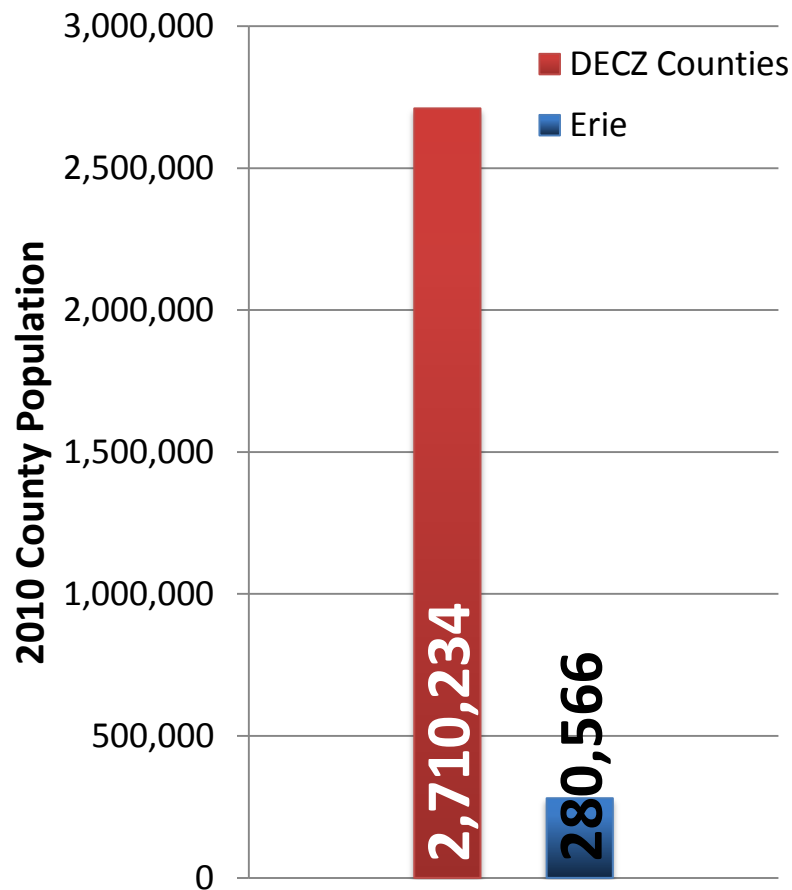
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306/306A/309 Awards by Coastal Zone: 2003-2012

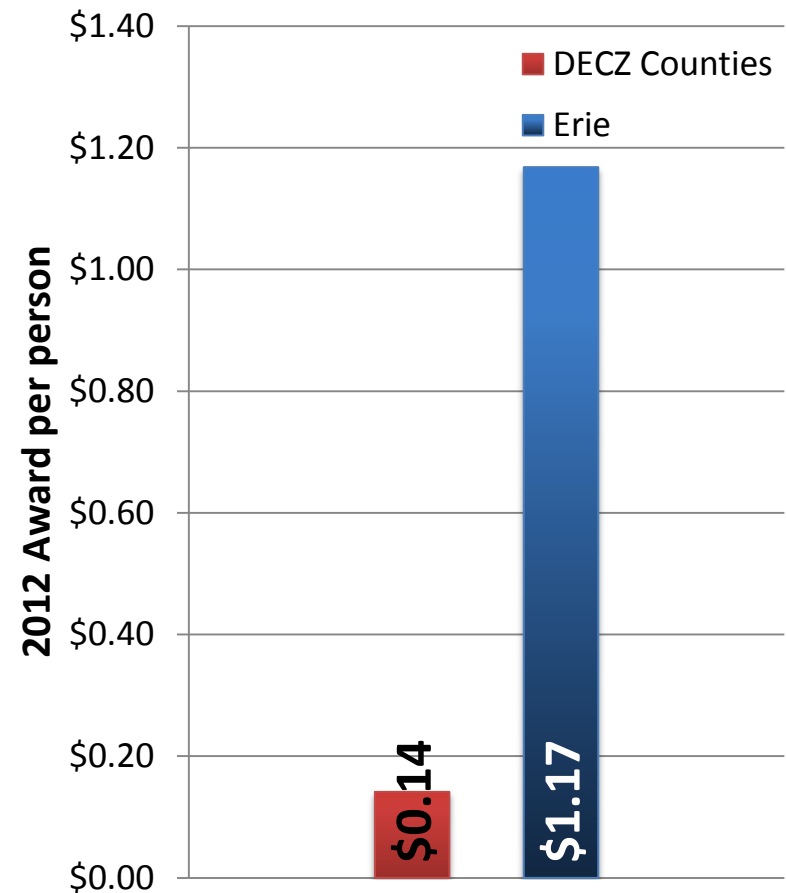


2010 Coastal Zone County Populations

Delaware, Bucks, Phila
vs Erie County Populations



FFY 2012 Coastal zone grant funds
awarded per person



▶ CRM Implementation: Grants Program

Awards Process:

1. Applications submitted through eGRANTS
 - Distributed to local steering committees and CRM staff
2. Evaluated by criteria established in Application Guidelines
3. Applicant Oral presentations to the Steering Committee
 - Committee rankings submitted to CRM
4. CRM develops final ranking and award amounts
5. Final approval of grant awards by DEP Executive Staff, then NOAA

See Handout (FY2011 List)

CRM Implementation: Grants Program

Grantee responsibilities:

1. 50% matching funds, minimum
 - Cannot be matched by Federal Funds, generally
2. Semiannual Performance Reports to CRM
 - Due Oct and April 1
3. Final Report upon project completion
 - Final report must meet contract terms
 - E.g., provide geospatial data, etc.

CRM Implementation: Grants Program

Delaware Estuary: Race Street Pier



▶ CRM Implementation: Grants Program

Delaware Estuary: Lardner's Point



CRM Implementation: Grants Program

Delaware Estuary:

Coast Day



CRM Implementation: Grants Program

Delaware Estuary:

Levee Plaza



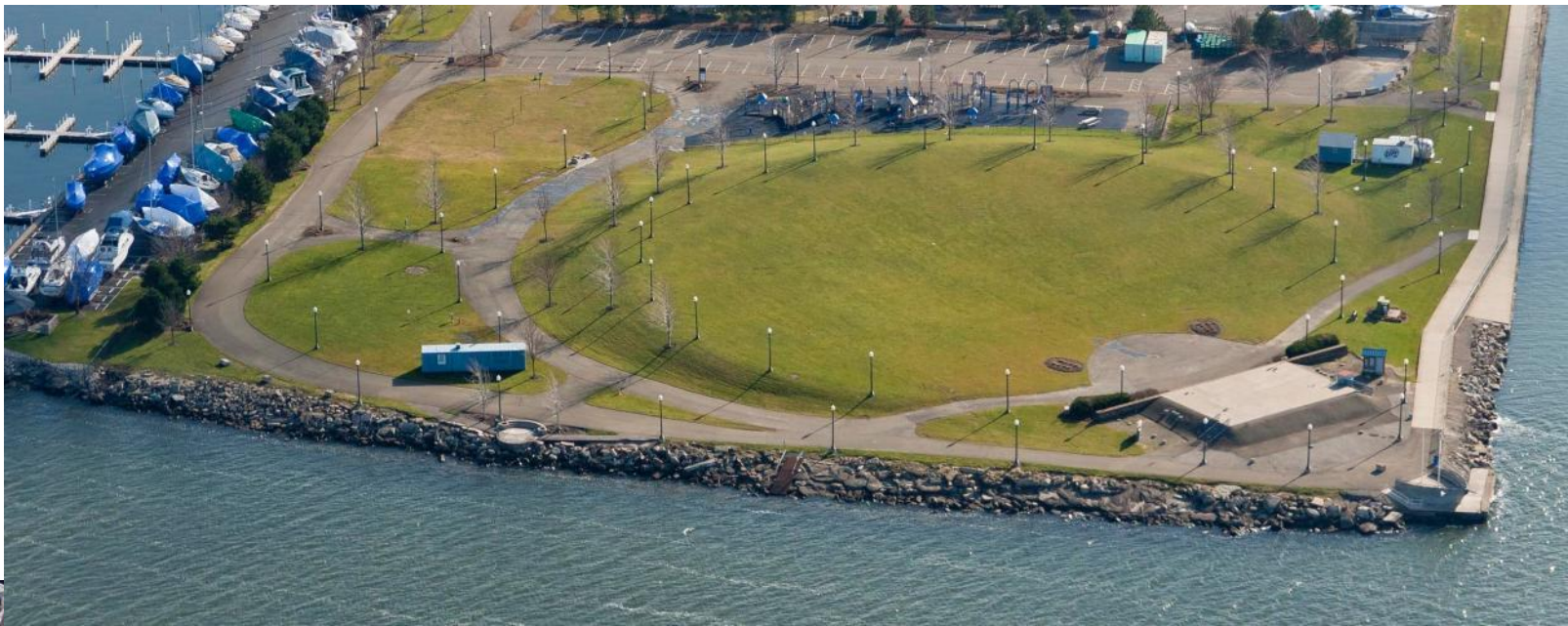
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Delaware Estuary: Silver Lake Nature Center



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Lake
Erie:
Liberty
Park



2011



2013

▶ CRM Implementation: Grants Program

Lake Erie: Liberty Park



CRM Implementation: Grants Program

Lake Erie: Four Mile Creek Fish Ladder



CRM Implementation: Grants Program

Lake Erie: Avonia Beach Park



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Lake Erie: Erie Times News in Education

Reconnect with your environment

Learn about environmental issues, their effect on your community and actions for your involvement.



Help keep Presque Isle beautiful. Volunteer for the 57th annual cleanup on Saturday, April 28.

Register now to join Presque Isle cleanup

By ANNA MCCARTNEY
Contributing writer

Your help is needed to keep Presque Isle beautiful by removing litter and unwanted debris left on the beaches by the powerful fall and spring storms. Get into the springtime mood and join the Presque Isle environmental education staff, United Way of Erie County, the S.O.S. of Lake Erie and the Great Pennsylvania Cleanup for its 27th Annual Spring Cleanup at Presque Isle State Park on Saturday, April 28, from 9 a.m. to 1 p.m.

Meet at the History Pavilion at 9 a.m. to register and receive your materials and cleanup location. Lunch will be served for all registered participants from

11 a.m. until 1 p.m. Prizes will be awarded for the most unusual piece of trash found that day. This event is appropriate for all ages and organizations and service hours are available. Be sure you come prepared for the weather.

If your group has 20 participants or more, please pre-register by April 13 by e-mail to Brian Gula at lgula@pa.gov. No phone calls, please.

ANNA MCCARTNEY is a communications and education specialist for Pennsylvania Sea Grant, can be reached by e-mail at amccartney@pa.gov. Or see to like the NIE page on Facebook at www.facebook.com/PennsylvaniaSeaGrant.



The deadline to register for the teacher workshop about state songbirds is April 2.

Note this: Teacher workshop focuses on state songbirds

By ANNA MCCARTNEY
Contributing writer

The "Pennsylvania Songbirds K-12 Teacher's Guide for Activities in the Classroom" is the focus for this exceptional professional development opportunity for teachers on Saturday, April 27, and Saturday, May 4, from 9 a.m. to 3 p.m. at the Tom Ricks Environmental Center. Act II credits will be awarded (you must attend both days for credit).

Experienced hands-on modeling for instruction and learning about Pennsylvania songbirds. You will:

- Be introduced to basic bird biology.
- Explore songbird identification through behavioral and physical features, bird song and habitat associations.
- Address critical wildlife concepts like habitat evaluation.
- Explore the concept of migration.
- Learn about research methods and tools used for observing populations and trends.
- Focus on interactions be-

tween people, birds and the environment.

- Learn about specific actions you can help songbirds.

The cost for both days is \$80 and includes "Pennsylvania Songbirds K-12 Teacher's Guide for Activities in the Classroom," which was developed by the Pennsylvania Department of Conservation and Natural Resources, Bureau of State Parks, Audubon Pennsylvania and the Pennsylvania Game Commission. This guide was reviewed and is supported by the Pennsylvania Department of Education, ornithologists, educators, and professors from Pennsylvania and national organizations.

Deadline to register is April 2. Contact the Presque Isle State Park office at 833-7434.

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Wetlands, native plants and natural habitats did not survive development in the previous 150 years in many areas along the Great Lakes shoreline. The City of Erie's healthy ecosystem has been replaced with buildings, roads and other impervious surfaces that degrade water quality. However, new sustainable development practices can preserve the green spaces with less impact on the environment only if we use them.

Stress test

Project tallies threats from humans to Great Lakes

By ANNA MCCARTNEY
Contributing writer

The environmental degradation of the Great Lakes shoreline has been a long and painful process. The shoreline is under stress from human development. Unchecked coastal exploitation resulted from the mistaken belief that their enormous volumes of water could indefinitely deal with a growing human population and unsustainable development.

Four of the largest U.S. metro areas and hundreds of large and smaller cities are located on the shores of the Great Lakes. With a population of approximately 40 million Americans and Canadians, the only way to restore and protect the integrity and quality of this important freshwater ecosystem is to understand the anthropogenic human causes that threaten and work together to eliminate or alleviate them.

Lake Erie and the other Great Lakes are showing signs of environmental crisis that will eventually require our attention and action. The Great Lakes Environmental Assessment and Mapping (GLEAM) project assesses coastal development along the Great Lakes. Human use of the land and water for energy production, industry, housing, recreation and transportation substantially alter the natural healthy coastal ecosystems. Habitat loss and fragmentation, increased water pollution, increased runoff and flooding, reduced groundwater recharge, increased pollutant discharge and climate change caused by these activities jeopardize the health and economic vitality of the region.

Did you know there are 114 coastal power plants located within 2 kilometers (1.2 miles) of

the Great Lakes shoreline? You may be aware of the pollutants they discharge into the air and water, including mercury and gases that cause acid rain and climate change. But did you know that most of these plants use "once-through" cooling systems that have water intake systems so powerful that they kill staggering numbers of fish when they are pulled into the screens? Billions more eggs, larvae and juvenile fish and other aquatic life small enough to pass through the screens are cooked to death by intense heat and high pressure inside the coolers, gas and nuclear plants.

The Great Lakes shoreline is also home to more than 1,300 public beaches that draw millions of visitors each year. Impacts of coastal recreational use include: increased traffic to coastal areas, potential pollution caused by recreational use and activities associated with beach management, such as beach grooming.

You can imagine the number of paved roads that have been constructed to provide access to the lakeshore. They add to the impervious surface area and increase runoff. Runoff is polluted with road surface materials from cars, salt, sand, etc. Furthermore they cause habitat fragmentation and act as barriers to animal movement.

Finally GLEAM considers all metal mines (historic and active) and active limestone mines within 2 kilometers of the Great Lakes shoreline to be potential sources of contaminants due to human development. Read more about mines and other lake stressors at http://www.greatlakesmapping.org/great_lake_stressors.

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This power plant in Dunkirk, NY is one of 114 coastal power plants within 2 kilometers of the Great Lakes shoreline. The cooling technology used by most of them kills staggering numbers of fish grazed by anglers and consumers, and billions of smaller fish and other aquatic organisms they depend on for food.



Millions of visitors and recreational users impact the Great Lakes shoreline, which is home to more than 1,300 public beaches including this one at Presque Isle State Park in Erie.



Miles and miles of coastal roads provide access to the lakeshore. They add to the amount of impervious surface area and contribute to polluted runoff and flooding.

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CRM Implementation: Grants Program

Lake Erie: Lake Sturgeon and Round Goby Research



Lake Sturgeon photo-Rob Criswell, PA FBC Website



Round Goby, PA FBC Website

CRMP Goal

The PA Coastal Resources Management Program's goal is to protect and restore the natural and historic resources of the Great Lakes coastal area and its watersheds





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