

# Charting the future – A revised plan for the Delaware Estuary

Emily Baumbach, Partnership for the Delaware Estuary



Photo Credit: Amy Baldwin, White Clay Creek



Photo Credit: Mark Houlday, Lewes, DE



Photo credit: Sandi Bisgood, Broadkill Beach



Photo credit: Ron MacGillivray, Fortescue, NJ



# WHERE?

THE DELAWARE RIVER WATERSHED  
INCLUDES PA, NJ, DE, AND NY

PDE is watershed-based,  
Estuary focused

- *Over 6,000 square miles*
- *6.7 million people*
- *7% of PA, 26% of NJ,  
50% of DE*

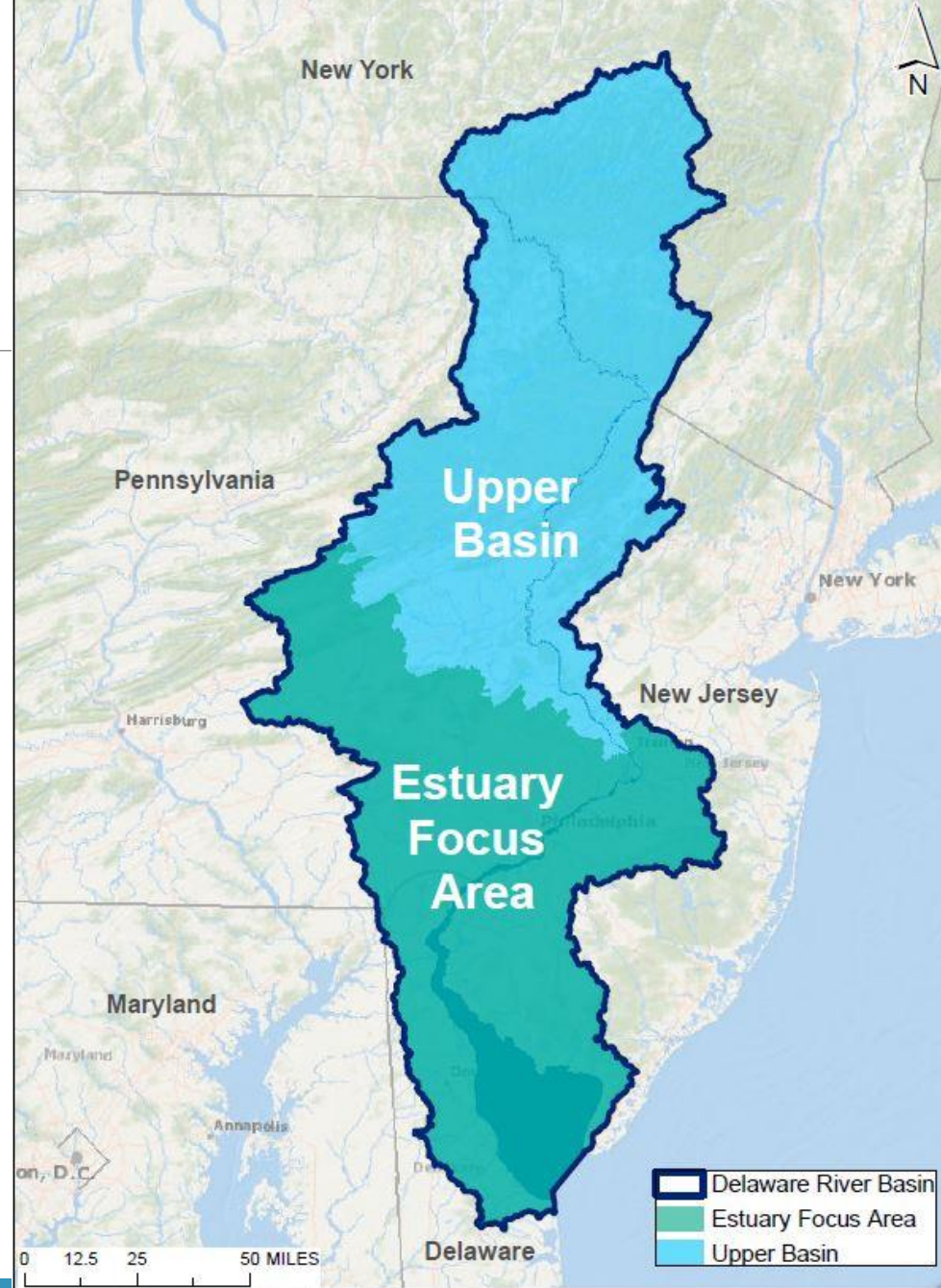


Photo Credit: Kim Cahill, Bombay Hook  
National Wildlife Refuge



# WHO?

THE PARTNERSHIP FOR THE DELAWARE ESTUARY

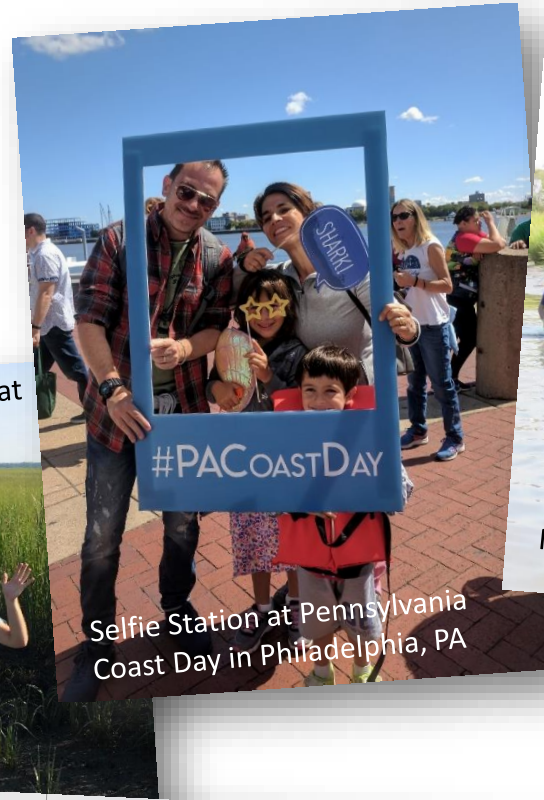
## Our Vision

*Working together for clean water, thriving fish and wildlife, and abundant recreational activities in and around the tidal Delaware River and Bay to support people, communities, and a robust economy.*

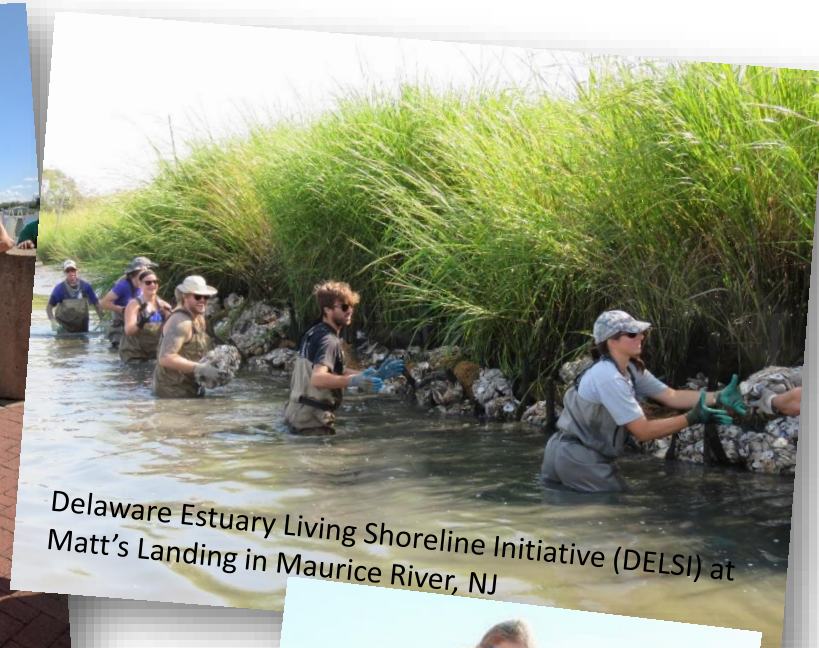
SSIM Vegetation Monitoring at  
Dividing Creek,



Selfie Station at Pennsylvania  
Coast Day in Philadelphia, PA



Delaware Estuary Living Shoreline Initiative (DELSI) at  
Matt's Landing in Maurice River, NJ



RTK Survey at Gandys Beach, NJ



Little Tinicum Island Cleanup in Tinicum Township, PA



Oyster Shell Recycling Program





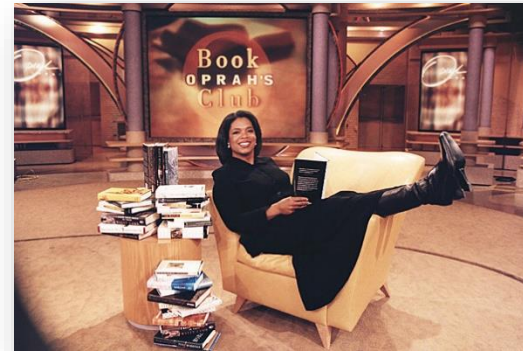
# WHY REVISE THE 1996 CCMP?



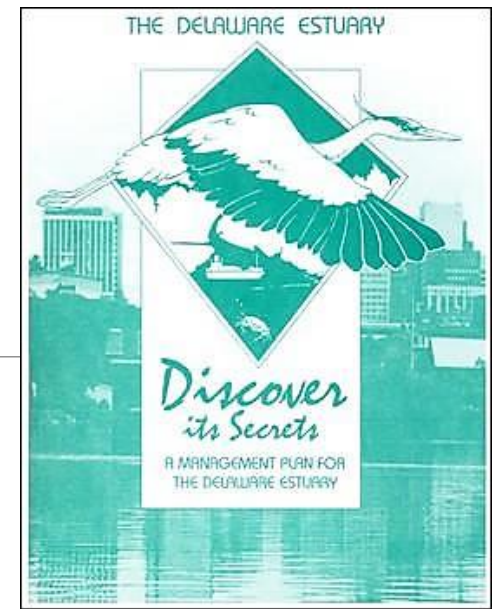
The movie *Twister* is out in theaters



IT'S THE WONDER OF NATURE, BABY!



Oprah starts her first book club



Jellies make a comeback



The Macarena is the #1 song on the charts in the United States



The Pilot 1000 is released

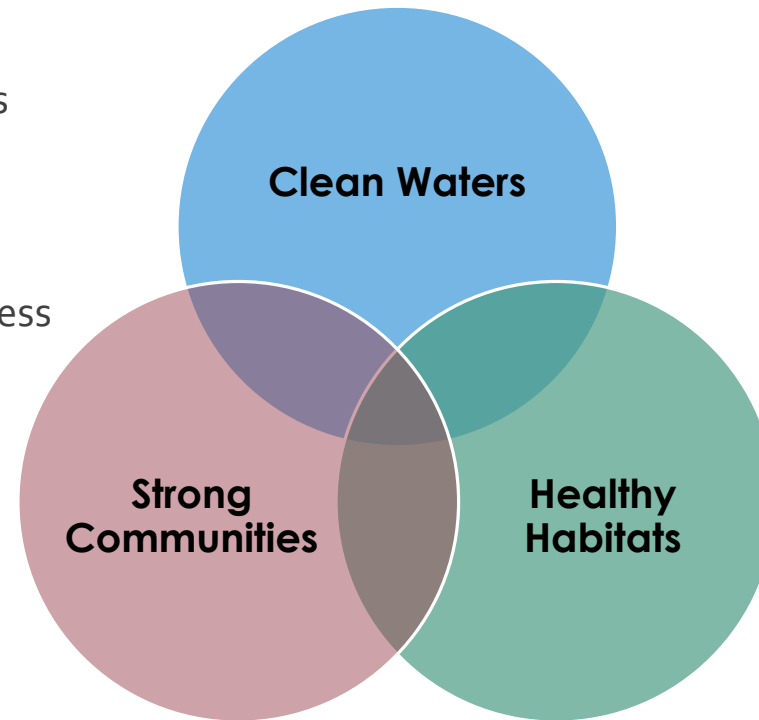
# WHAT WE'RE WORKING TOWARDS:

## ORIGINAL PLAN

- ❑ Land Use Management
- ❑ Toxics
- ❑ Water Use Management
- ❑ Education & Involvement
- ❑ Habitat & Living Resources

## REVISED PLAN

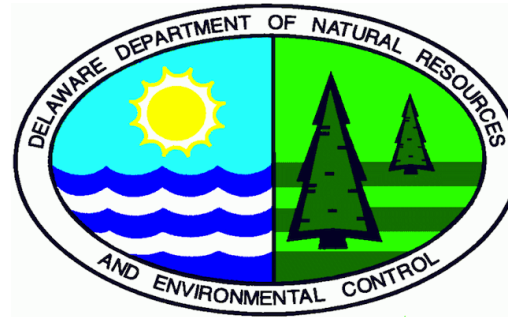
- ❑ **Clean Waters**
  - ❑ Nutrient Pollutants
  - ❑ Other Pollutants
  - ❑ Sustain Flow
- ❑ **Strong Communities**
  - ❑ Resilience and Access
  - ❑ Engagement
- ❑ **Healthy Habitats**
  - ❑ Wetlands
  - ❑ Forests
  - ❑ Fish & Shellfish





# WHO?

The Partnership for the Delaware Estuary, its **Core Partners**,  
and many more!



# Revised Plan: **3** Themes, **8** Goals, **39** Strategies

## □ Clean Waters

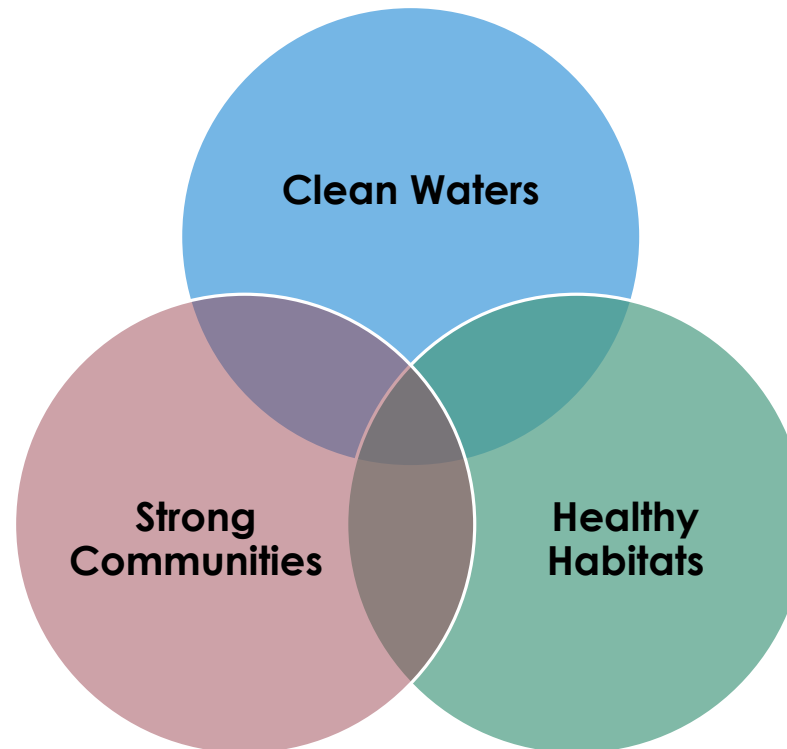
- Nutrient Pollutants
- Other Pollutants
- Sustain Flow

## ▣ Strong Communities

- ▣ Resilience and Access
- ▣ Engagement

## ▣ Healthy Habitats

- ▣ Wetlands
- ▣ Forests
- ▣ Fish & Shellfish





# CLEAN WATERS

W<sub>1</sub>: Reduce Nutrient Pollution and Its Impacts

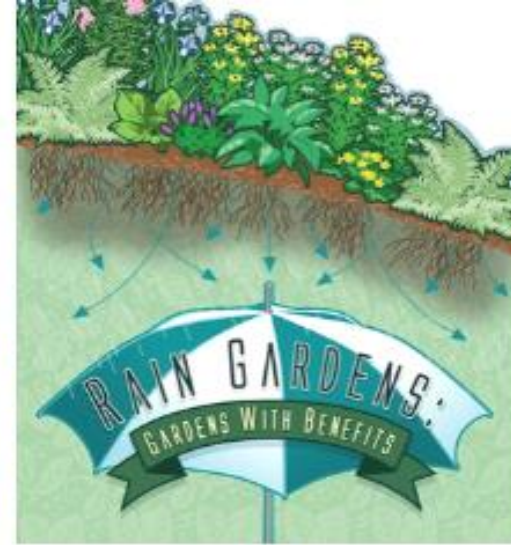
Reduce pollutants from point sources

**Reduce nutrients from stormwater and agricultural runoff**

**Land use planning by local municipalities**

Outreach to property owners to help reduce non-point sources

**Research & monitoring on nutrient impacts for biological & ecological endpoints**





# CLEAN WATERS

## W2: Reduce Other Pollutants and Their Impacts

**Reduce non-point sources of  
contaminants**

**Cleanup of contaminated  
sites**

Spill communication &  
response

**Adaptive management &  
reporting of pollution  
reductions**

Fish and shellfish  
consumption to protect  
human health

**Research & monitoring efforts**





**Help main stem Delaware River flow to meet needs of the Estuary**

Research & monitoring on water quality and habitat requirements

**Promote water conservation and efficiency**

Outreach & technical assistance

**Regional Sediment Management**





# STRONG COMMUNITIES

C1: Increase community resilience and access

## Restore working waterfronts

Provide tools & technical assistance to waterfront communities & partners

## Protect & enhance natural areas and public access

Connect people to natural areas in the Delaware Estuary





# STRONG COMMUNITIES

C2: Improve public awareness  
and stakeholder engagement

**Awareness and brand for the  
Delaware River & Bay**

Stewardship and engagement  
for new people

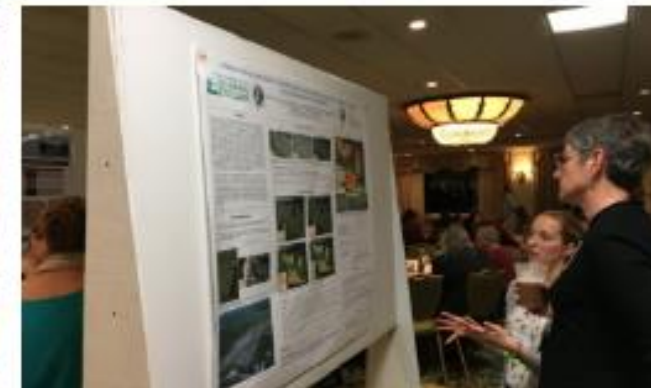
**Engage teachers and schools**

**Volunteer stewardship &  
experiential learning**

Outreach materials & scientific  
results

**Engage key stakeholders**

**Assess impacts of outreach**





# HEALTHY HABITATS

H1: Prevent Wetland Loss

## Baselines for tidal wetlands

Restore, enhance, manage  
tidal wetlands for health  
and resilience

## Natural and nature-based techniques for eroding shorelines

## Build & protect wetlands

Protect, enhance, and  
improve non-tidal wetlands





# HEALTHY HABITATS

## H2: Stem Forest Loss

### Increase connectedness & resilience of forests

Promote stewardship practices by local partners for the health and sustainability of forests

**Protect & manage high value and threatened forest management and protection**





# HEALTHY HABITATS

## H3: Increase and Improve Fish and Shellfish Habitat

### Habitat for fish & crabs

Restore oyster beds and productivity

### Inventory, restore, and manage mussel populations

### Horseshoe crabs & habitat

Manage and improve rare, endangered, important native species





# HOW DID WE GET HERE?

Healthy Habitats Workshop at Abbott's Mill Nature Center in Milford, DE

3 Listening Sessions  
**36 attendees**



9 Expert and  
3 Climate Workshops  
**232 attendees**



8 Open Houses ( &  
associated meetings)  
**95 attendees**



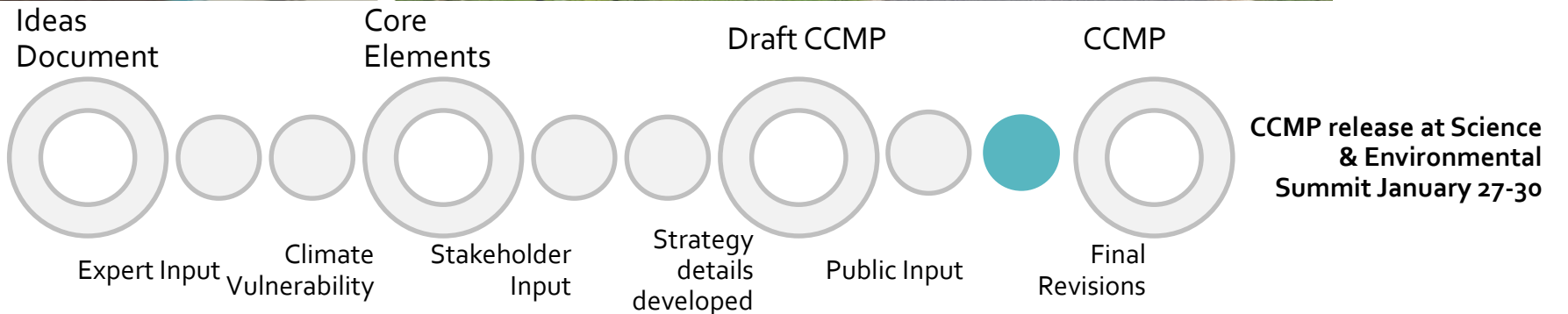
Listening Session in  
Norristown, PA



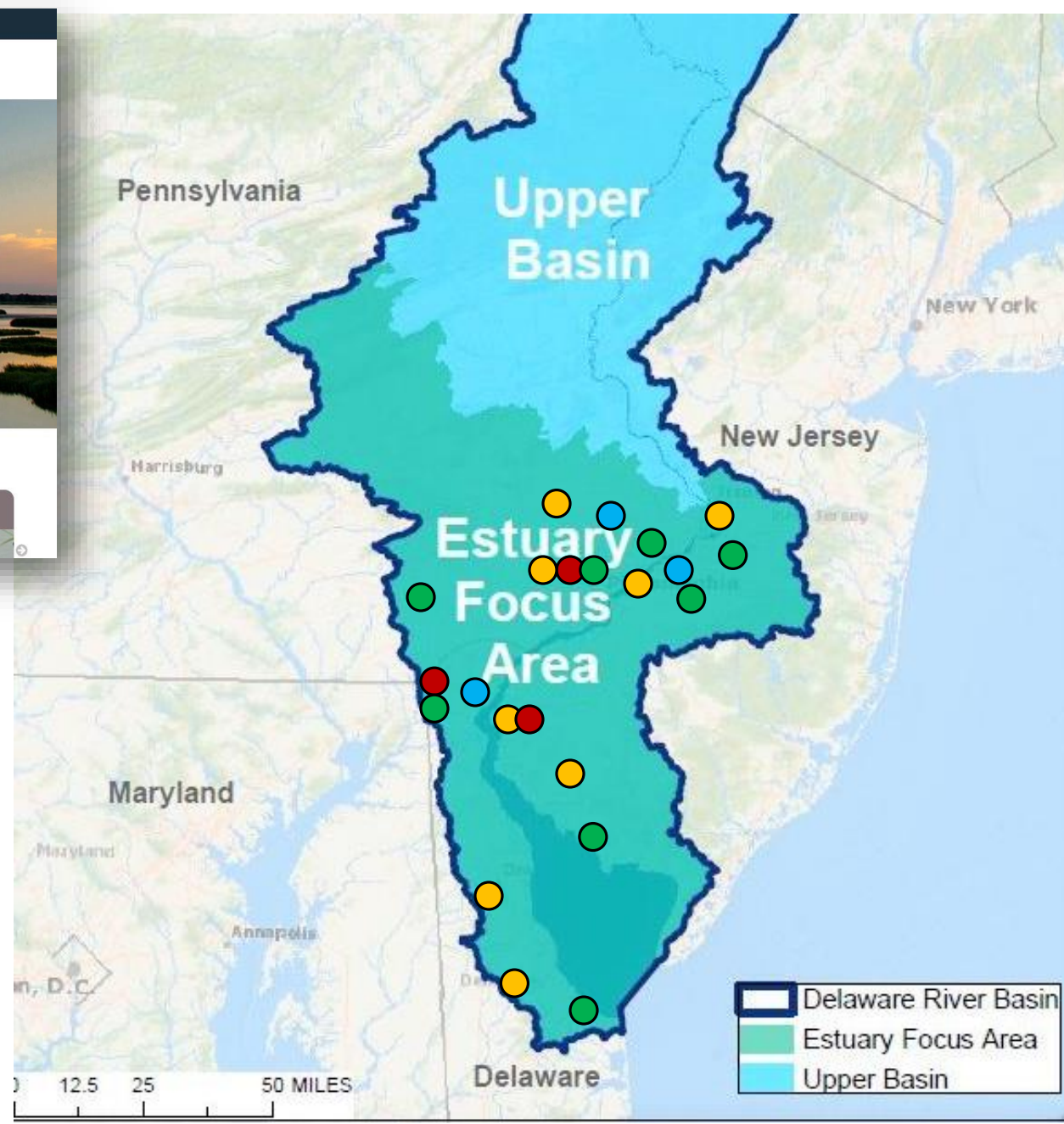
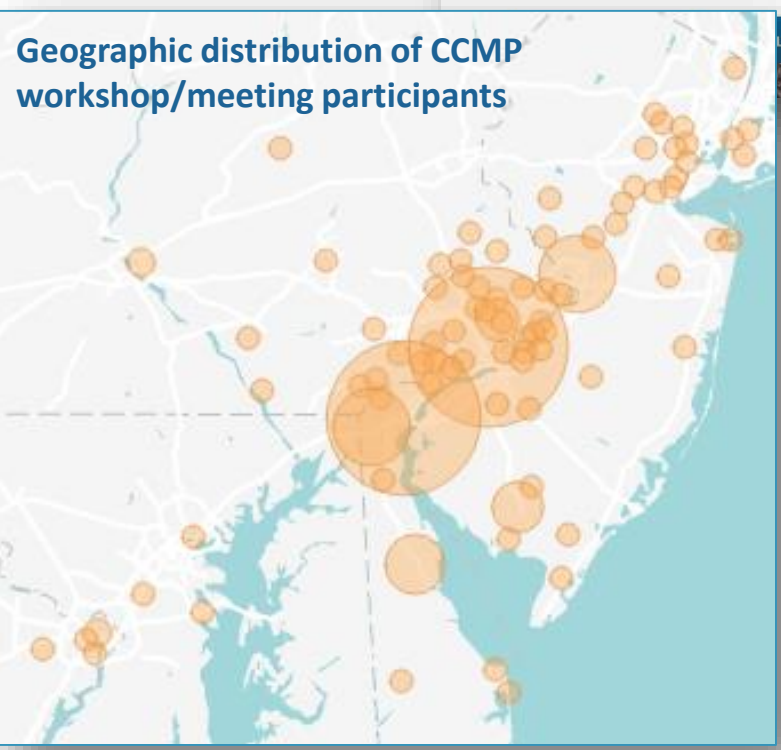
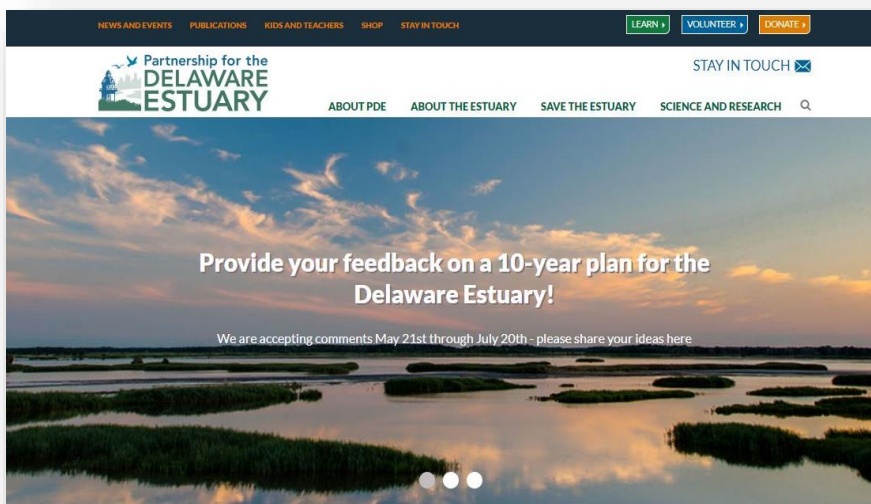
Open House at Camden County  
Environmental Education Center  
in Camden, NJ



Open House at Silver Lake Nature  
Center in Bristol, PA









# WHAT WE'VE HEARD...

## Capturing Linkages:

- Cultural and historic resources
- Opportunities for citizen science
- Tech-transfer & regional information sharing

## Engaging Different Audiences:

- Watermen, fishermen, other recreational users
- Additional partners
- *Commitment to Diversity and Environmental Justice*

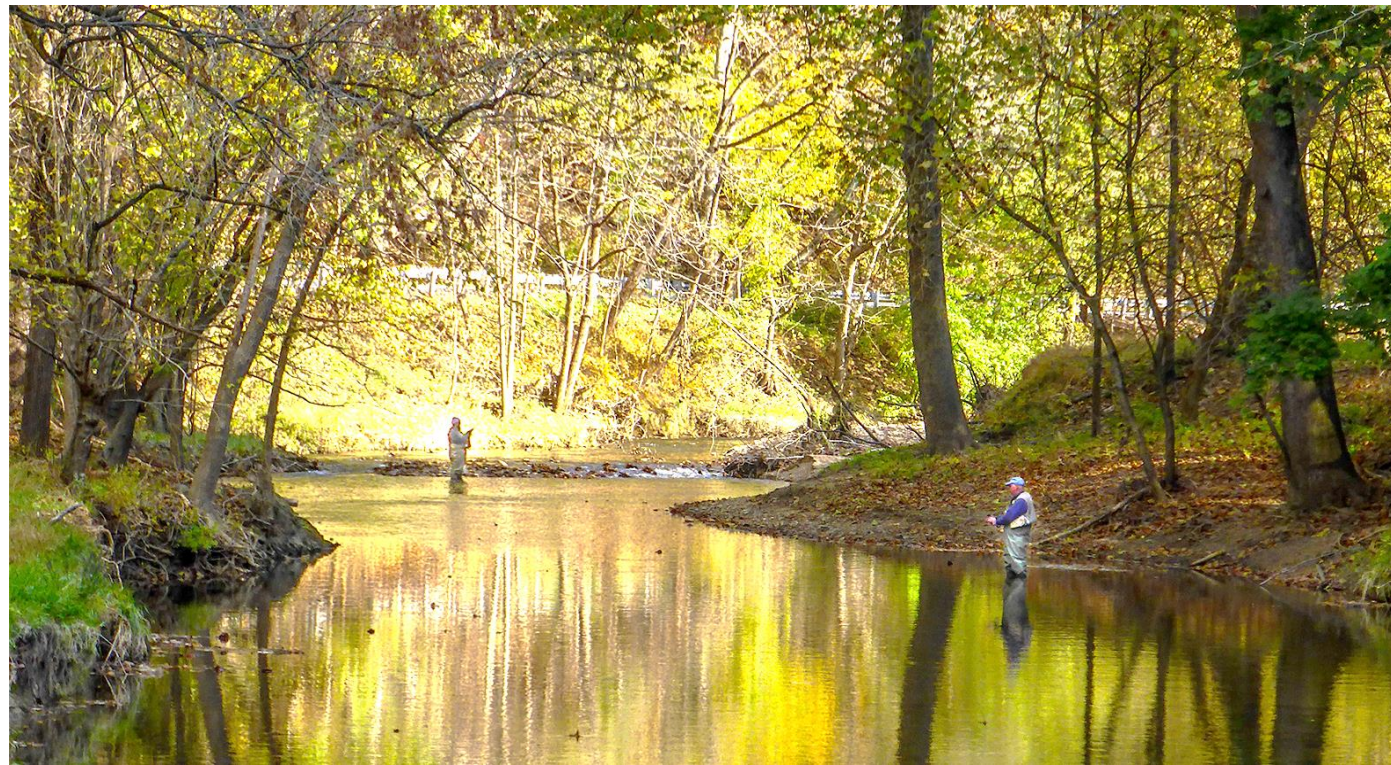


Photo Credit: Carol Brightbill, Schuylkill River, East Conventry, PA



Photo Credit: MA Leck, Native American Artifacts from Abbott Marshlands



# WHAT'S NEXT?

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## Tracking CCMP results & implementation

- National Estuary Program Work Plan & State of the Estuary Report
- Annual compilation of habitat and leveraging data from partners
  - Modification to data collection process

## CCMP Monitoring Approach

- Inventory
- Workshop
- Assessment





## LEARN MORE ABOUT OUR PROGRESS:

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View our reports and other CCMP resources here:  
[delewareestuary.org/our-plan/](https://delewareestuary.org/our-plan/)

- Stakeholder Engagement Summary Report
- Public Comment Period Summary Report
- 1996 CCMP
- May 2018 Draft Revised CCMP







Partnership for the  
**DELAWARE  
ESTUARY**

# Let's Collaborate

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**Science Planning Specialist**  
(302) 655-4990, x118 | [DelawareEstuary.org](https://DelawareEstuary.org)

*Connecting people, science, and nature  
for a healthy Delaware River and Bay*