Monitoring Inventory & Needs Assessment for the Delaware Estuary



Credit: Ron MacGillivray, Fortescue, NJ

Credit: PDE, Longwood

Credit: PDE, Milford, DE

Credit: Andrea Rose Photography

Partnership for the DELAWARE STUARY ACCECCAFENT?

ASSESSMENT?

Monitoring Goals for Delaware Estuary Program (DELEP)

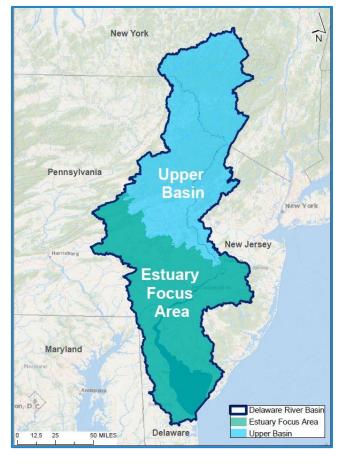
- Inventory critical monitoring in region
- Create a list of monitoring priorities

DELEP Focus

- Measures needed to track Comprehensive Conservation & Management Plan (CCMP) outcomes
- Study Region: Delaware Estuary Focus Area

Monitoring Approach in 2019 CCMP

- STAC-MACC Meeting (every year)
- TREB Collaboration/State of Estuary (every 5 years)
- Monitoring Workshop (every 5 years)







DELAWARE ESTUARY WHAT'S IN THE MONITORING INVENTORY?

- **620** monitoring parameters total
- Monitoring programs submitted by **36** organizations or partnerships

American Rivers Berks Nature and volunteers **Bucks County Conservation District Delaware Nature Society Delaware State** University

Delaware StreamWatch

DNHP & DNREC DNREC

DNREC & DNERR

DNREC & PDE

DRBC

DRBC & DNREC

DRBC & NJDEP

DRBC & NPS

DVRPC

Independence Seaport

Museum

Lower Merion

Conservancy

NJDEP

PADEP & CRM

Pennypack Ecological

Restoration Trust

PWD

PWD & USGS

Rutgers Haskin Shellfish

Research Laboratory

Temple University

TNC DF Volunteers

TNC NJ & Rutgers University

Tookany Tacony-Frankford

Partnership

USGS

Villanova University

White Clay Wild and Scenic

River Program

Wissahickon Valley Watershed

Association





Partnership for the DELAWARE WHAT'S IN THE MONITORING INVENTORY?



Living Resources

Animals (29)

Vegetation (24)

Microbiological (15)

Biological (7)

Water

Nutrients (118)

Water Quality (111)

Inorganics (81)

Organics (79)

Chemical/Chemistry (25)

Toxicity (6)

PCBs/Pesticides (4)



Habitats

Physical (33)

Sediment (30)

Spatial (11)

Hydrology (10)

Habitat (7)

Geology (6)

Buffer (5)

Atmospheric (2)





Monitoring Workshop (October 2018)

- Review draft inventory of monitoring parameters
- Identify gaps
- Gather input to help prioritize future monitoring efforts

Post-Workshop Survey (January 2019)

- Evaluate results from Monitoring Workshop
- Aid in prioritizing/ranking monitoring parameters (nonplant living resources, plant and habitat, water quality)

Final Monitoring Report

Baseline Monitoring Inventory

(February 2019)

 620 regional monitoring activities

• 36 contributing organizations





White Paper on the Status and Needs of Science in the Delaware Estuary

> A Publication of the Partnership for the Delaware Estu A National Estuary Program Report Number 06-01 January 25, 2006

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Suggested Method for Referencing this Document:

"Kreeper, D. R. Tudor, J. Shary, S. Kilham, D. Soeder, M. Maxwell-Doyle, J. Kraeuter, D. Frizzera,
I. Hanneedi and C. Collier. 2006. White paper on the status and needs of science in the Delaware
Statuary. Partnership for the Delaware Estuary, Report #06-01. 72 pp.

2017 TREB Indicators

(Performance Measures & Key Deliverables Monitoring Assessment & Evaluation

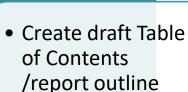
 Gap Analysis reviewing monitoring workshop/survey results against CCMP strategies and TREB indicators

Prioritization ('top 10' list)



Partnership for the DELAWARE FINAL MONITORING REPORT NEXT STEPS

TOC REVIEW



(March 2020)

INTERNAL REVIEW & ASSESSMNET

- Inventory w/ corresponding **CCMP** strategies
- Gap Analysis to identify future priorities and create 'top 10' list

FEEDBACK & PEER REVIEW

 Provide STAC and MACC opportunity for peer review (summer 2020 and STAC-MACC meeting in late 2020)

Final report to also include:

- Monitoring workshop summary report
- Post-workshop summary report
- NOAA ERMA Delaware Estuary monitoring layer Background information on:
 - Watershed & Delaware Estuary Program
- TREB Environmental **Indicators**
- CCMP (Performance Measures, Monitoring Approach & Inventory)





Let's Collaborate

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