

*Water Resources Plan for the Delaware River Basin*



**Basin Plan Implementation  
8th Annual Progress Report**

**~ 2012 ~**

# Background on Basin Plan



Authorized in 1999

Prepared in 2000-2004

Released in September 2004 as the

*Water Resources Plan for the  
Delaware River Basin*

Signed by 4 Governors and Regional  
Federal Executives

# Basin Plan Signing – Sept 2004



# Why a Basin Plan?



- Multiple governmental agencies, authorities, departments and private entities who supply, manage or impact the quality and availability of water resources
- 1 Regional Commission for water issues:  
Delaware River Basin Commission

It makes sense to prepare and implement

*A Common Vision for a Common Resource*

# Basin Plan Preparation

- 1998-99 *Flowing Toward the Future* process defined community issues across the Basin
- Sept 1999 Resolution of the Governors and federal partners
- Challenged the basin community to develop a unifying vision for the Basin, and
- Authorized DRBC to
  1. form a Watershed Advisory Council
  2. develop a water resources plan for the Basin
  3. periodically develop goals and indicators report

# Basin Plan Content



- A Unified Vision
- Establishes policy direction - 30 yrs
- Based on integrated management & collaboration
- Specifies results
- Suggests milestones and ways to measure progress

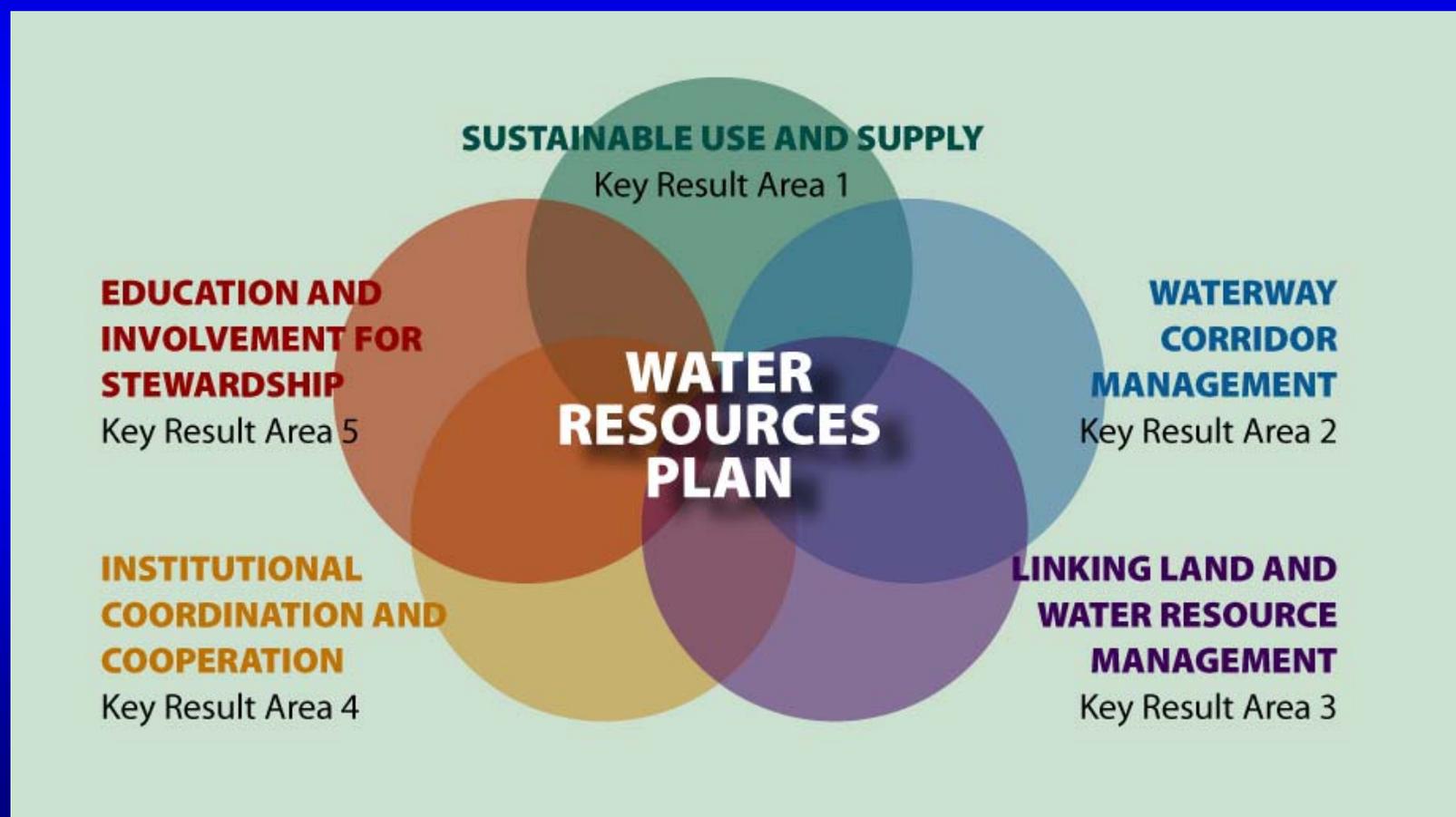
# Structure



- ★ Guiding Principles
  - ★ Key Result Areas
    - ★ Desired Results
      - ★ Goals
        - ★ Objectives
          - ★ Milestones

# Basin Plan Implementation ~ 2012

5 Key Result Areas, 21 Goals, 102 Objectives



# DRBC Strategic Planning Process



## Basin Plan (30-Year Plan)

- Comprehensive Plan
  - Water Resources Program
    - Annual Work Plan/Budget
      - Individual Work Plans

# Major Achievements ~ 2012



## **Multi-agency Efforts to Manage Natural Gas Drilling in Shale Formations**

- NY – draft SGEIS process
- PA – Act 13, Chap 78 changes
- Federal: SEAB Natural Gas Subcommittee Final report Nov 2011
- DRBC – Draft Regs Nov 2011; DST for NGDP evaluation

# Major Achievements ~ 2012

## DRBC Efforts

- Baseline monitoring
  - HOBO loggers
  - ANS analysis of archived samples
  - Biomonitoring in NY & PA
- Neversink – Pinchot project to assess relationship between land use & pollutant loadings

**6 HOBO® monitors deployed to monitor water temperature and conductivity.**



# Major Achievements ~ 2012

- **WaterSMART** – USGS Water Census:
  - One of three national focus area studies
  - Scope of Work & collaborative efforts with DRBC
- **Conservation** Priorities:
  - PDE, TNC & NLT with NFWF grant
  - 11 categories of strategies, for 5 ecosystem types: headwaters, floodplains, tidal marshes, oysters, f/w mussels
- **PA EQB** allows study of Upper Delaware for upgrade to *Exceptional Value*

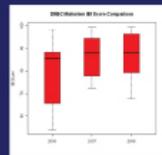
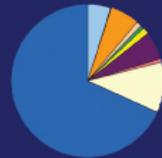
# Major Achievements ~ 2012



## Conditions Report for the Estuary and Basin

- Multi-partner collaboration to produce *Technical Report on the Estuary & Basin* (TREB) as foundation for the State of the Estuary report released in Sept by PDE.
- DRBC staff prepared 3+ (of 8) TREB chapters

# Final TREB



## Technical Report for the Delaware Estuary & Basin



Partnership for the Delaware Estuary

2012



# TREB Indicator Reporting



- 50 **Metrics**
- Indicator **Description**
- **Desired Condition** per Management Goals
- **Status**
- **Trend**
- **Actions & Needs** for improved reporting & assessment

# Key Result Area 1



*Ensuring an adequate and reliable supply of suitable quality water...*

## KRA 1: Sustainable Use & Supply

**Bethlehem Authority** protected 22,000 ac of land around Penn Forest & Wild Creek reservoirs

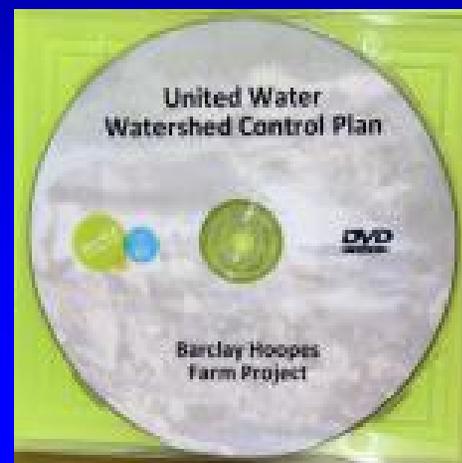
- 1<sup>st</sup> enrollment in TNC's "Working Woodlands Program"
- Certified sustainable forest management practices
- 10 years of carbon credits with market value of \$500,000 to \$1 M



# KRA 1: Sustainable Use & Supply

## United Water Delaware Watershed Control Plan

- EPA approved 5-year plan
- protects upstream water supply
- \$700,000 investment in contributions, technical assistance & projects



<http://www.youtube.com/watch?v=NHEVPFLagfM>

PWD “Green City, Clean Waters” wins US Water Prize from Clean Water America Alliance

- 1st to be profiled in webinar series

## Key Result Area 2



*Waterway corridors that function to minimize flood-induced loss of life, protect property & floodplain ecology, preserve channel stability & support aquatic & riparian ecosystems...*

## KRA 2: Waterway Corridors



### **NPS** Report on the Outstandingly Remarkable Values

- Upper, Middle & Lower Scenic River segments & 4 tributaries
- based on multi-partner workshop (spring 2012)
- Report will provide a foundation for future management of the four designated units in the Delaware River Basin as part of the Nationwide Rivers Inventory

## KRA 2: Waterway Corridors

### **New Jersey's** “*Dash for the Trash*” Cleans Up

- 10 cleanups from Sussex to Cape May
- >400 volunteers worked >1500 hrs
- 536 bags of debris & 52 tires



**NOAA** National Marine Fisheries: Atlantic Sturgeon “*Endangered*” following 4 year study



# KRA 2: Waterway Corridors

## Dam Removals



Ridley Creek (PA) is fish-friendly since the removal of Sharpless Dam (shown pre-removal)



Before & After: The Musconetcong River (NJ) confined by the Finesville Dam (L) and post dam removal (R)

## KRA 2: Waterway Corridors

Storm-damaged **oyster beds** restored

- TNC & PDE partnership



Alien Invasion!

- *Didymosphenia geminata* (aka *Didymo* or "Rock Snot") affects non-tidal Delaware



# Key Result Area 3



*Integrated management of land and  
water resources...*

# KRA 3: Linking Land & Water Management

## **Wissahickon** Win-Win at the Court

With an assist from PWD and EPA, the Fairmount Park Commission reconstructed Allens Lane Art Center's basketball court with pervious asphalt.



**Rutgers Coop. Ext. & NJRC&D** developing a restoration and protection plan for ~20 square miles of Musconetcong Watershed currently not meeting surface water quality standards for aquatic life, fecal coliform and pH.

# KRA 3: Linking Land & Water Management

## **Sullivan County's** Local Waterfront Revitalization Program

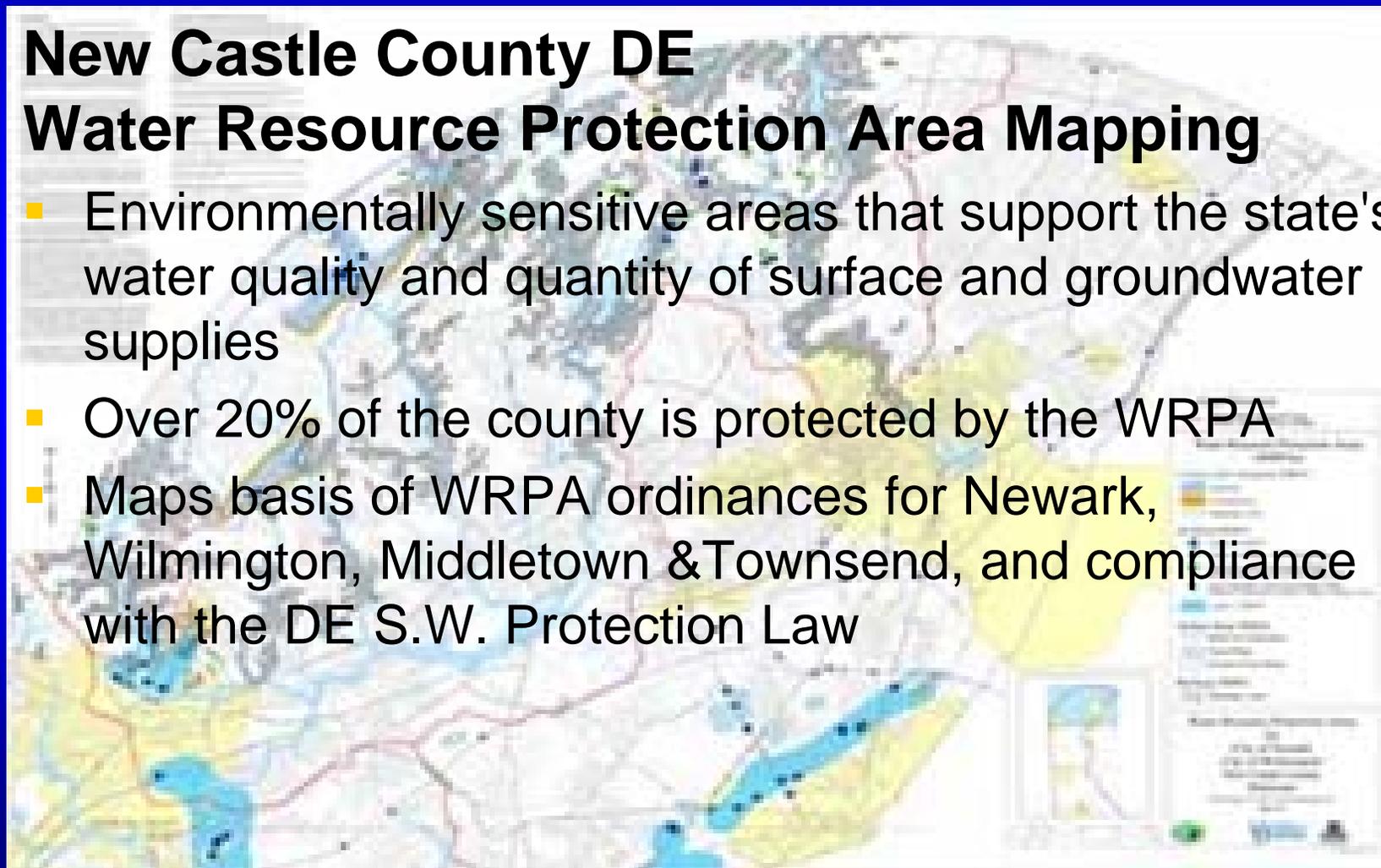
- The LWRP process rank's funding priorities and coordinates regional strategies that promote tourism in the Upper Delaware
- Sullivan County is installing Delaware River Trail water trail signs, redesigning selected river access sites and inventorying other access locations along the Upper Delaware corridor
- Upper Delaware public river access sites to be inventoried and evaluated



# KRA 3: Linking Land & Water Management

## **New Castle County DE Water Resource Protection Area Mapping**

- Environmentally sensitive areas that support the state's water quality and quantity of surface and groundwater supplies
- Over 20% of the county is protected by the WRPA
- Maps basis of WRPA ordinances for Newark, Wilmington, Middletown & Townsend, and compliance with the DE S.W. Protection Law



# Key Result Area 4



*Institutional coordination & cooperation –  
Strong partnerships*

## KRA 4: Institutional Coordination & Cooperation



### **Multi-town Collaboration to Control Stormwater**

- Eastern Delaware Co. (PA) Stormwater Collaborative
- Communities in the Darby-Cobbs watershed & SEPA RC&D

### **Delaware Livable Lawns**

- statewide educational initiative to reduce fertilizer and pesticide runoff
- Public & private partnership
- The program certifies lawn care companies that follow sustainable fertilizer application practices

## KRA 4: Institutional Coordination & Cooperation

### “Connect to Your Local Waterways”

- SJ Land & Water Trust & Subaru grant
- connects students to their local waterways
- macroinvertebrate assessments
- educational signage



### Restoring the Tidal Delaware River & Bay

- **PDE** Alliance Project Registry
- prioritizes restoration and enhancement projects
- matches restoration needs with restoration requirements—marrying “supply and demand” for ecosystem restoration and enhancement

# Key Result Area 5



*Education & Involvement for  
Stewardship*

## KRA 5: Education & Outreach for Stewardship

- **St. Joe's** Institute for Environmental Stewardship
- **Lehigh Valley** Source Water Protection Collaborative - Lehigh County & City of Allentown
- **SEPA-RC&D** Council's Conservation Planting Trailer



## KRA 5: Education & Outreach for Stewardship

- *Focus On Floods* – a flood education campaign developed by the Nurture Nature Center
- **Lehigh Valley** Water Suppliers – 10th annual HydroMania event for 1,200 third- and fourth-grade students



# Thanks to our partners

We are grateful for the responses from the many partners who have contributed to this brief, including:

Appoquinimink River Association  
Borough of Morrisville PA  
Bethlehem (PA) Authority  
Borough of Norristown PA  
Christina Basin Tributary Action Team  
Common Waters Partnership  
Chester-Delaware Farm Bureau  
City of Allentown PA  
City of Easton PA  
Delaware County (PA) Conservation District  
Delaware County (PA) Planning Dept.  
Delaware Nature Society  
Delaware Shad Fisherman's Association  
DE Department of Natural Resources and Environmental Control (DNREC)  
Eastern Delaware County (PA) Stormwater Collaborative

Fairmount Park Commission  
Greenbelt Overhaul Alliance of Levittown (PA)  
Heritage Conservancy  
Lehigh County Authority  
Lehigh Valley Water Suppliers, Inc.  
Morrisville (PA) Environmental Advisory Council  
Musconetcong Watershed Association  
Natural Lands Trust  
National Fish and Wildlife Foundation  
Northampton County (PA) Conservation District  
North Jersey Resource Conservation and Development Council  
New Castle County DE  
New Castle (DE) Conservation District  
New Castle (DE) Conservation District  
NJ Dept. of Environmental Protection (NJDEP)  
NJDEP AmeriCorps Watershed Ambassadors Program

# Thanks to our partners

NY City Dept. of Environmental Protection  
NY State Dept. of Environmental  
Conservation (NYDEC)  
NOAA National Marine Fisheries  
Partnership for the Delaware Estuary  
Pennsylvania American Water  
PA Department of Conservation & Natural  
Resources (PA DCNR)  
Philadelphia Water Department (PWD)  
Physicians for Social Responsibility-  
Philadelphia Chapter  
Pinchot Institute for Conservation  
Rutgers Cooperative Extension  
Saint Joseph's University  
Schuylkill Action Network  
Schuylkill River Heritage Area  
SE PA Resource Conservation and  
Development Council  
South Jersey Land and Water Trust

Source Water Protection Collaborative  
Sullivan County NY  
Sussex County (NJ) Municipal Utilities Authority  
Temple University - Center for Sustainable  
Communities  
The Nature Conservancy (TNC)  
University of Delaware  
United Water Delaware  
US Army Corps of Engineers (ACOE)  
US Fish and Wildlife Service  
US Forest Service  
US Geological Survey  
US National Park Service  
US Natural Resources Conservation Service  
Wallkill River Watershed Management Group  
City of Wilmington DE