

# Pre-Summit 101 on Environmental Markets & Finance

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Troutman Sanders



ENVIRONMENTAL MARKETS  
and FINANCE SUMMIT

# Overview

1. Demand Drivers
2. Spectrum of Demand
3. Project Examples
  - a) Fully Regulated Programs
  - b) Partially Regulated Programs
  - c) Pre-Compliance Programs
4. Next Gen Drivers



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# Spectrum of Demand

## Traditional “Big Project” Mitigation Markets

- National Environmental Policy Act
- Endangered Species Act
- Clean Water Act
  - (Sections 401, 404 and RHA 10)
- National Historic Preservation Act
- Federal Land Policy

## Evolving “Operational” Mitigation Markets

- NPDES Permits
- TBELs
- WQBELs
- TMDLs
- State Reduction Targets

# Fully Regulated Programs — Chesapeake Bay Examples



## Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment

Established by the U.S. Environmental Protection Agency



*Shawn M. Garvin*

Shawn M. Garvin, Regional Administrator  
U.S. Environmental Protection Agency  
Region 3

*Judith A. Enck*

Judith A. Enck, Regional Administrator  
U.S. Environmental Protection Agency  
Region 2

DATE

12/29/10

## Exchange Compliance Plan 2019 Annual Update



Submitted to the  
Virginia Department of Environmental Quality  
February 1, 2019

Virginia Administrative Code  
Title 9. Environment  
Agency 25. State Water Control Board  
Chapter 870. Chapter 870 Virginia Stormwater Management Program (VSMP) Regulation

### 9VAC25-870-63. Water Quality Design Criteria Requirements.

A. In order to protect the quality of state waters and to control the discharge of stormwater pollutants from regulated activities, the following minimum design criteria and statewide standards for stormwater management shall be applied to the site.

1. **New development.** The total phosphorus load of new development projects shall not exceed 0.41 pounds per acre per year, as calculated pursuant to 9VAC25-870-65.

#### 2. Development on prior developed lands.

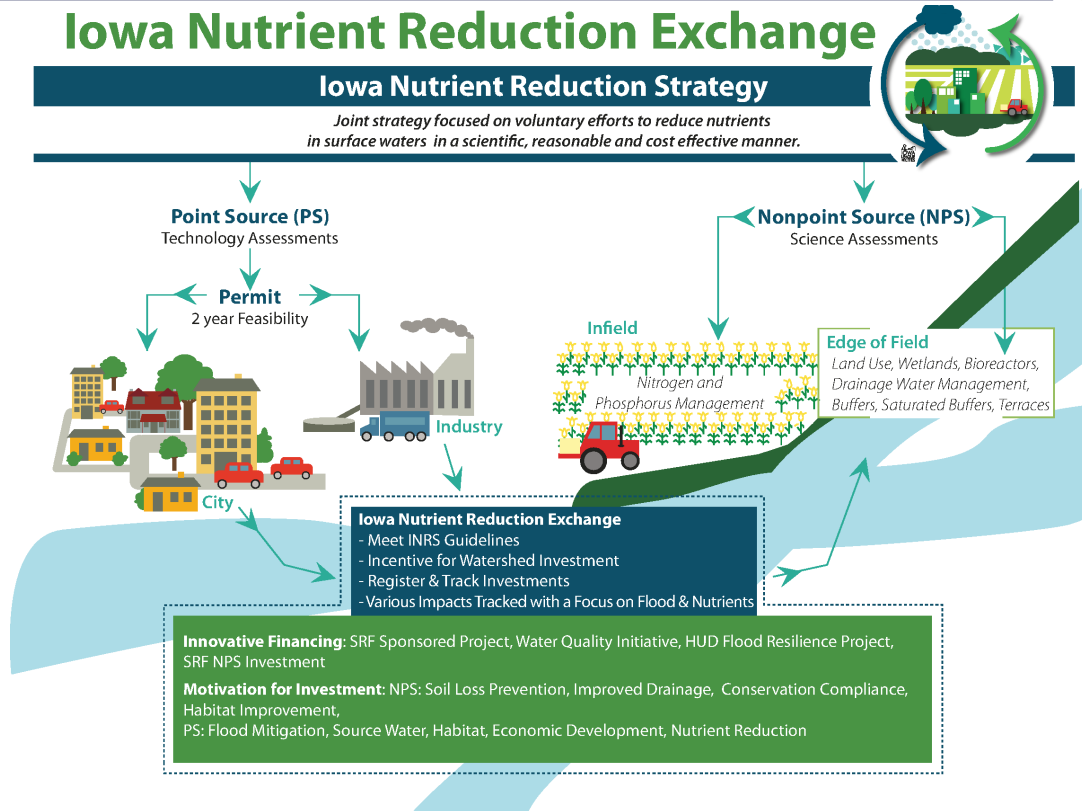
- For land-disturbing activities disturbing greater than or equal to one acre that result in no net increase in impervious cover from the predevelopment condition, the total phosphorus load shall be reduced at least 20% below the predevelopment total phosphorus load.
- For regulated land-disturbing activities disturbing less than one acre that result in no net increase in impervious cover from the predevelopment condition, the total phosphorus load shall be reduced at least 10% below the predevelopment total phosphorus load.
- For land-disturbing activities that result in a net increase in impervious cover over the predevelopment condition, the design criteria for new development shall be applied to the increased impervious area. Depending on the area of disturbance, the criteria of subdivisions a or b above, shall be applied to the remainder of the site.
- In lieu of subdivision c of this subsection, the total phosphorus load of a linear development project occurring on prior developed lands shall be reduced 20% below the predevelopment total phosphorus load.
- The total phosphorus load shall not be required to be reduced to below the applicable standard for new development unless a more stringent standard has been established by a locality.

B. Compliance with subsection A of this section shall be determined in accordance with 9VAC25-870-65.

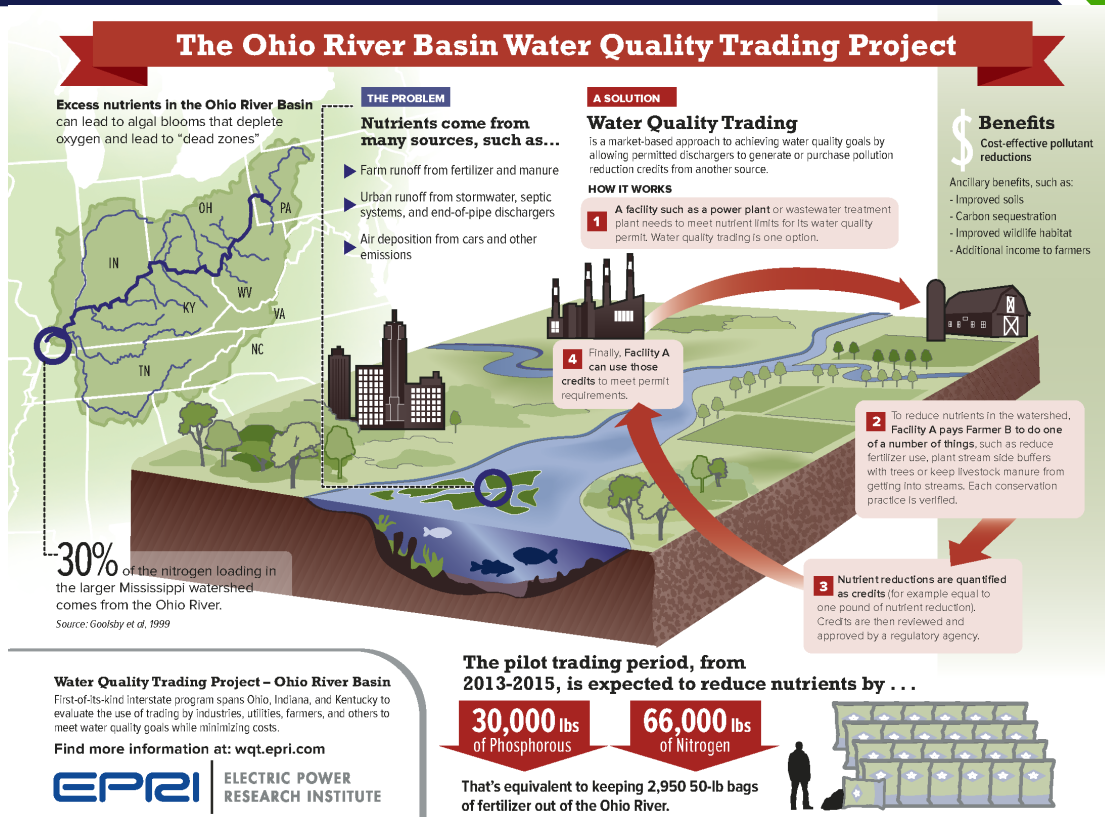
C. Upon completion of the 2017 Chesapeake Bay Phase III Watershed Implementation Plan, the department shall review the water quality design criteria standards.

D. Nothing in this section shall prohibit a locality's VSMP authority from establishing more stringent water quality design criteria requirements in accordance with § 62.1-44.15:33 of the Code of Virginia.

# Partially Regulated Programs — Iowa Example



# Pre-Compliance Programs — ORB Example



**Water Quality Trading Project – Ohio River Basin**

First-of-its-kind interstate program spans Ohio, Indiana, and Kentucky to evaluate the use of trading by industries, utilities, farmers, and others to meet water quality goals while minimizing costs.

Find more information at: [wqt.epri.com](http://wqt.epri.com)

**EPRI** | ELECTRIC POWER RESEARCH INSTITUTE

**The pilot trading period, from 2013-2015, is expected to reduce nutrients by ...**

**30,000 lbs**  
of Phosphorous

**66,000 lbs**  
of Nitrogen

That's equivalent to keeping 2,950 50-lb bags of fertilizer out of the Ohio River.

# Next Gen Drivers

- Command-and-control
- Avoidance of command-and-control
- Corporate social responsibility / sustainability
- Public “shaming”
- Co-benefits (flood control, ag yield, habitat, community, etc.)

***But none is as direct or immediate as big project mitigation drivers...***

# Thank you!



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