

EPA Update on Watershed-based Permitting and Water Quality Trading

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OCTOBER 25, 2020

Why use Trading and WBP for Nutrients

- ▶ Effects vary from Site to Site
- ▶ Near and Far-Field Effects
- ▶ Point and non-point source contributions
- ▶ Complexity of the problem leading to consider different implementation solutions
- ▶ Watershed approaches and water quality trading go well together to provide wholistic approach often necessary to address nutrients

Outline

- ▶ Overview of the Watershed-based permitting and Water quality trading programs
- ▶ Current activity
- ▶ Available resources
- ▶ Contact information

Watershed-based Permitting

What Is Watershed-Based Permitting (WBP) Approach?

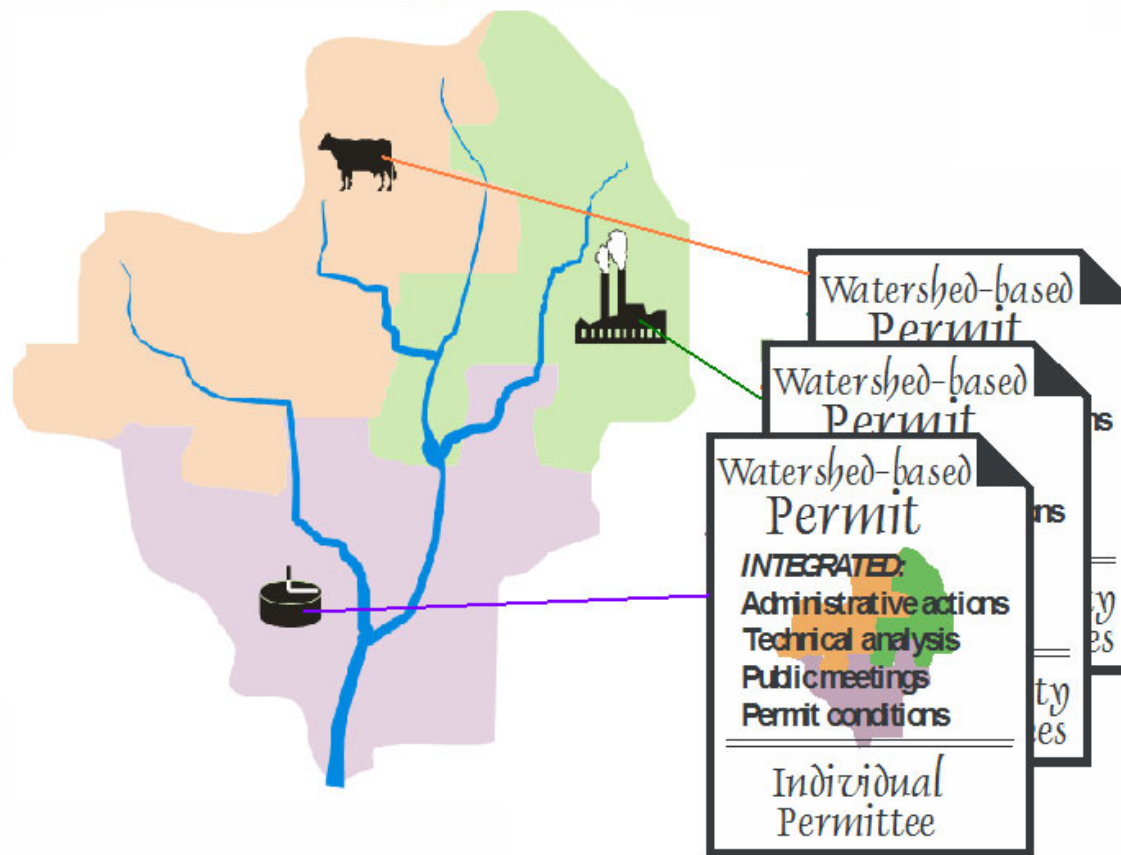
- ▶ An approach to NPDES permitting that results in permits:
 - ▶ Issued on a watershed basis
 - ▶ Focused on multiple pollutant sources
 - ▶ Targeted to achieve watershed goals
 - ▶ Integrate permit development among monitoring, water quality standards, TMDL, nonpoint sources, source water protection and other programs

Watershed-based Permits

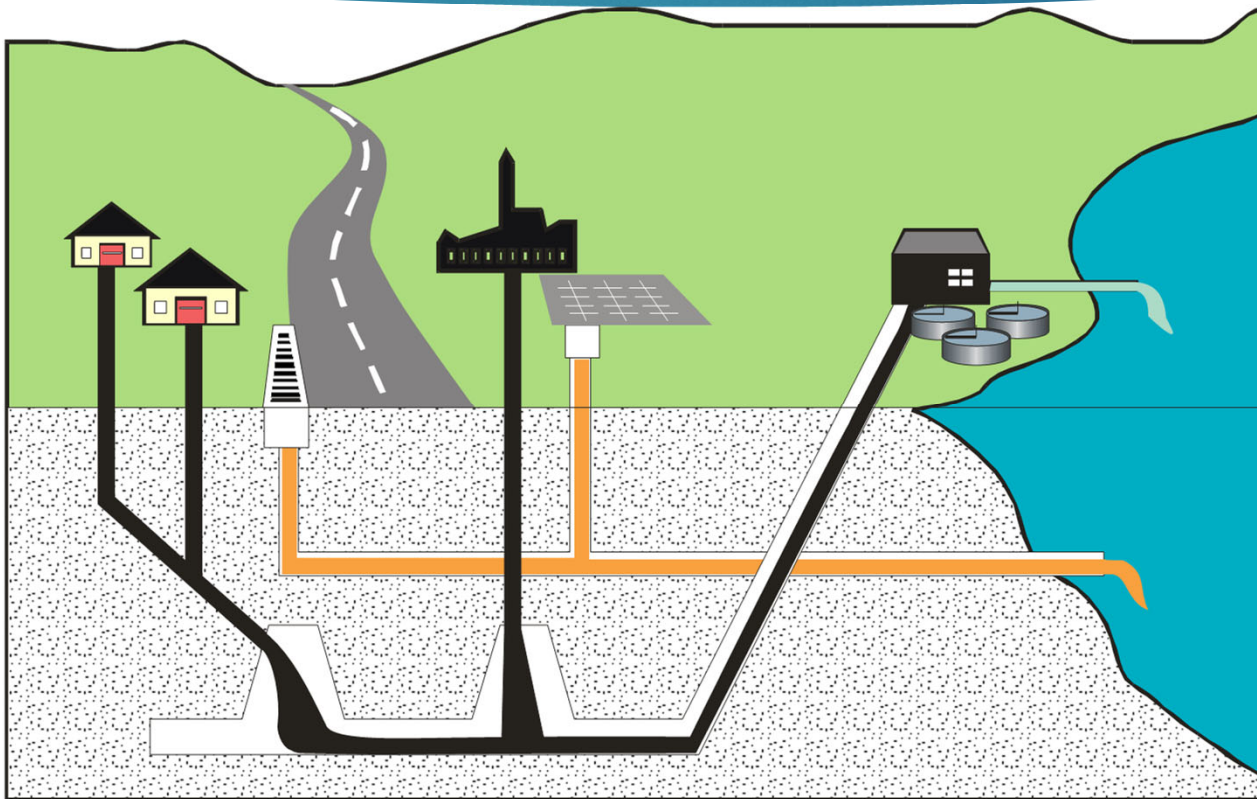
- ▶ Types of Permits
 - ▶ Coordinated individual permits
 - ▶ Integrated municipal permits
 - ▶ Multisource watershed-based permits



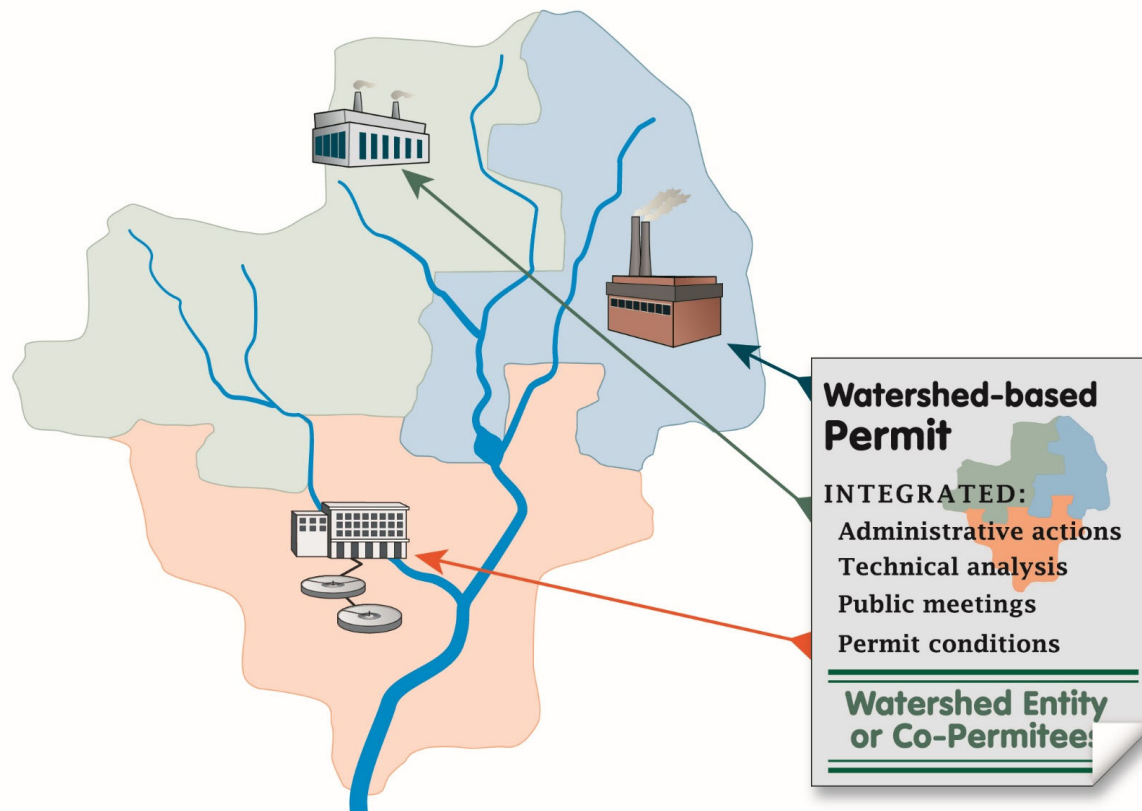
Coordinated Individual Permits



Integrated Municipal Permits



Multisource Watershed-based Permit



New Activities in Watershed-based permitting

► **Case Studies**

- Update existing case studies
- Develop new case studies
- will be working with States to develop the case studies

► **Nutrient Compendium** (coming soon!)

- Nutrient specific overview of WBP in each state that provided us with information

Water Quality Trading

What is Water Quality Trading?



- ▶ Water quality trading is a voluntary exchange of water quality credits generated through pollutant reductions
- ▶ Sources with higher pollutant control costs may purchase pollutant credits from sources with lower control costs

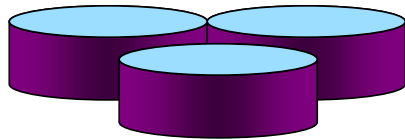
What is a Credit?

- ▶ A **water quality credit** is a unit of pollutant reduction needed by a buyer (usually measured in pounds equivalent)
 - ▶ Generated by a point source controlling its discharge beyond what is needed to meet its effluent limitations
 - ▶ Generated by a nonpoint source from the installation of best management practices provided there are reasonable assurances that the overall load allocation will be met over time.

Illustration of a Trade Between Point Sources

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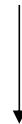
Facility A



Need: 120 lbs reduction



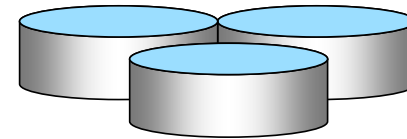
Selects: **Treatment**



$200 \text{ lbs} - 120 \text{ lbs}$
 $= 80 \text{ lbs}$

Technology
Reduces
200 lbs

Facility B

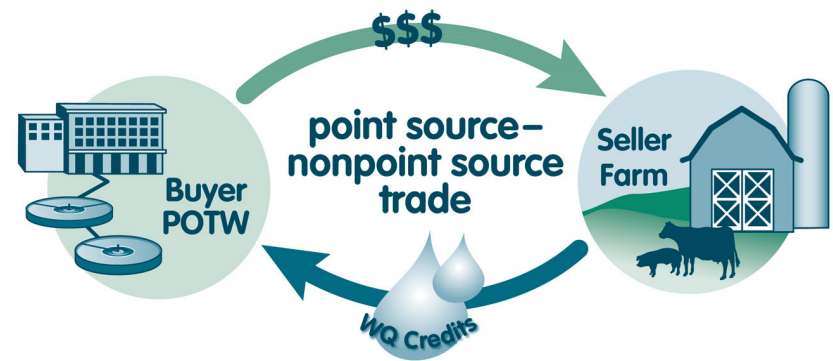
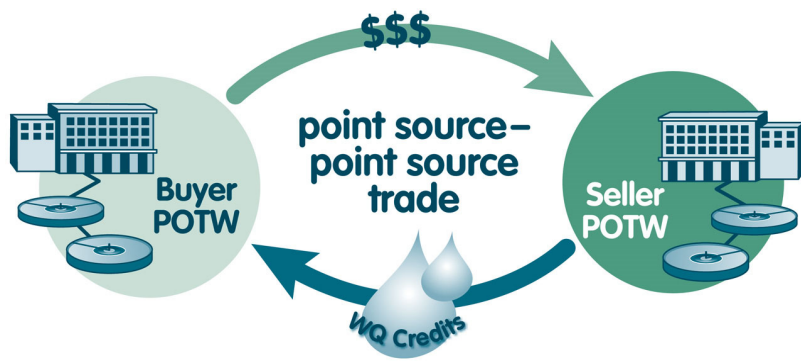


Need: 50 lbs reduction

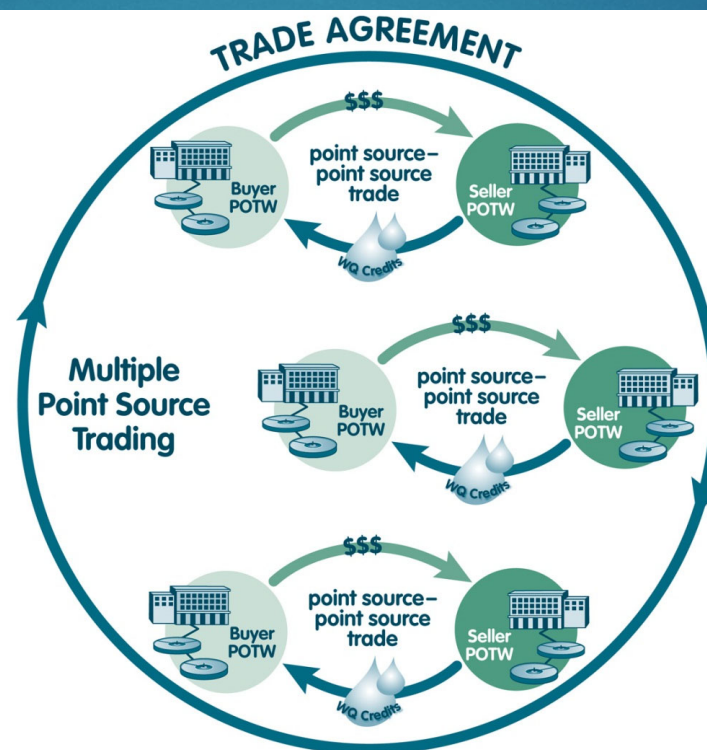


Selects: **Trading**

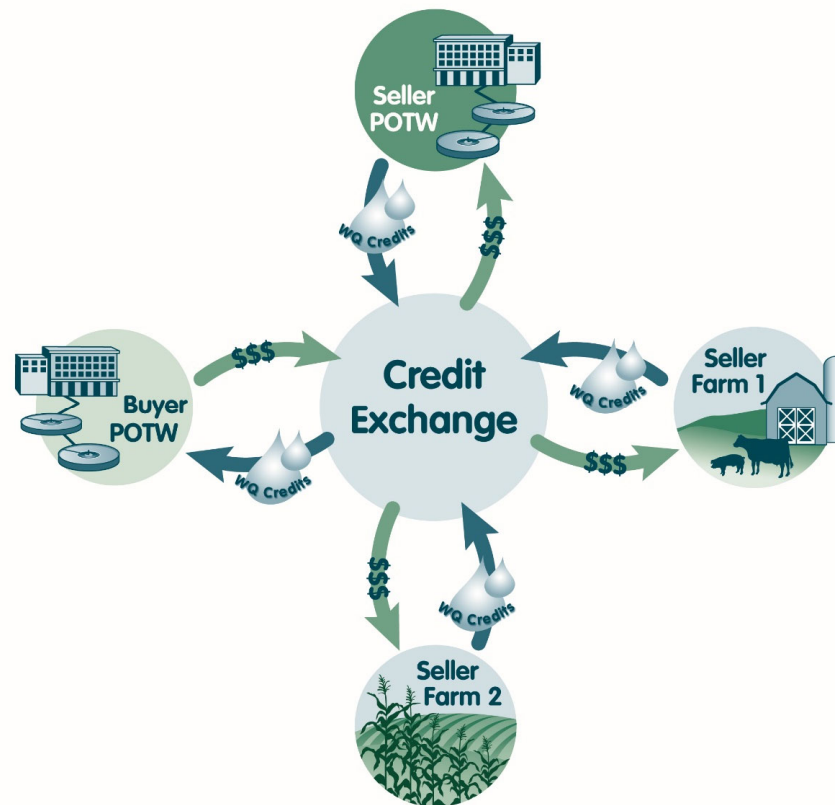
Simple Trading Between Two Sources



Multiple Facility Point Source Trading



Credit Exchange



February 6, 2019 Memorandum

Established a new vision for
market-based approaches

Takes precedence over
existing policy

- EPA's 2003 Water Quality Trading Policy and
- EPA's 2009 Water Quality Trading Toolkit for Permit Writers

Established Market-Based Principles



Watershed-scale Implementation



Adaptive Management



Banking Credits



Flexibility in Baselines



Credit Stacking



Financing for Nonpoint Practices

Recent Water Quality Trading Activities

► **Baselines Federal Register Notice**

- Addresses Implementation of the February 6 Memo principle on baselines.
- Public comment on the specific policy changes and clarifications
 - Public comment was completed on November 18, 2019
 - Expect finalization soon.

► **Market-Based Approaches Proposed Rule**

- the proposed regulation would clarify that water quality trading and other market-based approaches may be used in permits to meet applicable effluent limitations provided the permit conditions are set at a level necessary to meet local and downstream water quality standards.
- Planning to have NPRM published by end of 2020.
- While the proposed regulatory language will be narrow in scope, we are planning on using the notice and comment process to start a discussion on a broader set of issues, such as trade ratios, watershed size, and use of models.



Recent Water Quality Trading Activities

- ▶ In the near future, EPA will be issuing a technical paper entitled “**Water Quality Trading on a Watershed Scale**”
 - ▶ The paper describes factors to consider when evaluating the appropriate scale for a trading area
- ▶ EPA **financing available to support market-based water** quality improvement programs Memorandum
 - ▶ Transmit information about EPA's financing opportunities
 - ▶ Water Finance Center available for technical assistance
 - ▶ <https://www.epa.gov/ms-htf/epa-financing-available-support-market-based-water-quality-improvement-programs>
- ▶ **Nutrient Compendium** (Coming Soon!)
 - ▶ Includes write up of 15 state trading programs

Available EPA Resources

- ▶ Watershed-based permitting
 - ▶ www.epa.gov/npdes/watershed-based-permitting
- ▶ Water Quality Trading
 - ▶ <https://www.epa.gov/npdes/water-quality-trading>
- ▶ Nutrient Permitting Website
 - ▶ <https://www.epa.gov/npdes/permit-limits-nutrient-permitting>

For More Information on Watershed-based Permitting

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