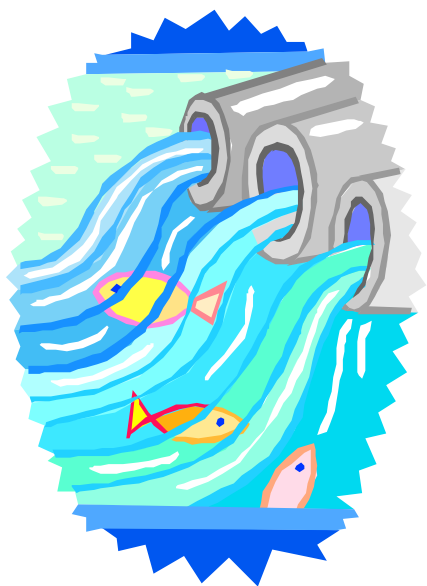


Water Quality Trading for Nutrients

February 4, 2020



What is Water Quality Trading?



- **Water quality trading** is a voluntary exchange of **water quality credits** generated through pollutant reductions.
- Pollutant reductions can be made **more cost efficient** by sources with higher costs purchasing credits from sources with lower costs.
- This flexibility means that innovations in **nonpoint source controls** and other types of pollutant reductions can be monetized through trading, giving greater **incentive** for individuals and corporations **to innovate** in these sectors.

Trading Between Two Point Sources

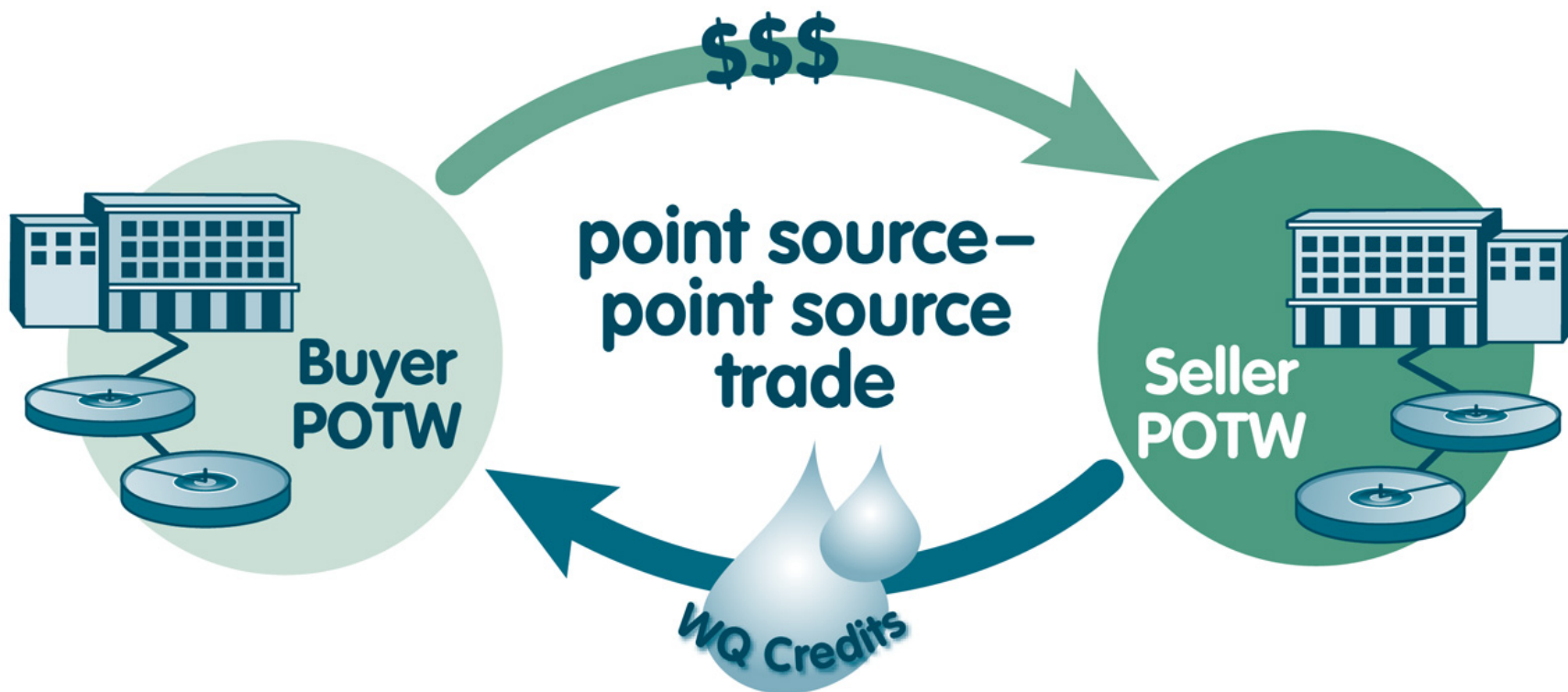
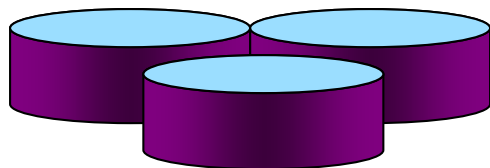


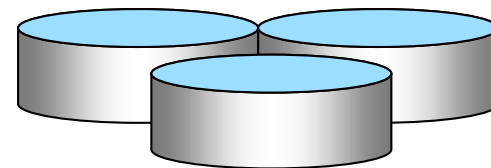
Illustration of a Trade Between Point Sources

Facility A



**Technology
Reduces
200 lbs**

Facility B



Need: 120 lbs reduction



Selects: Treatment



**200 lbs – 120 lbs
= 80 lbs**

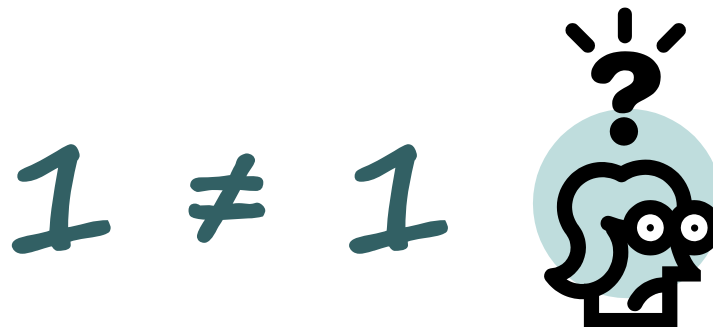
Need: 50 lbs reduction



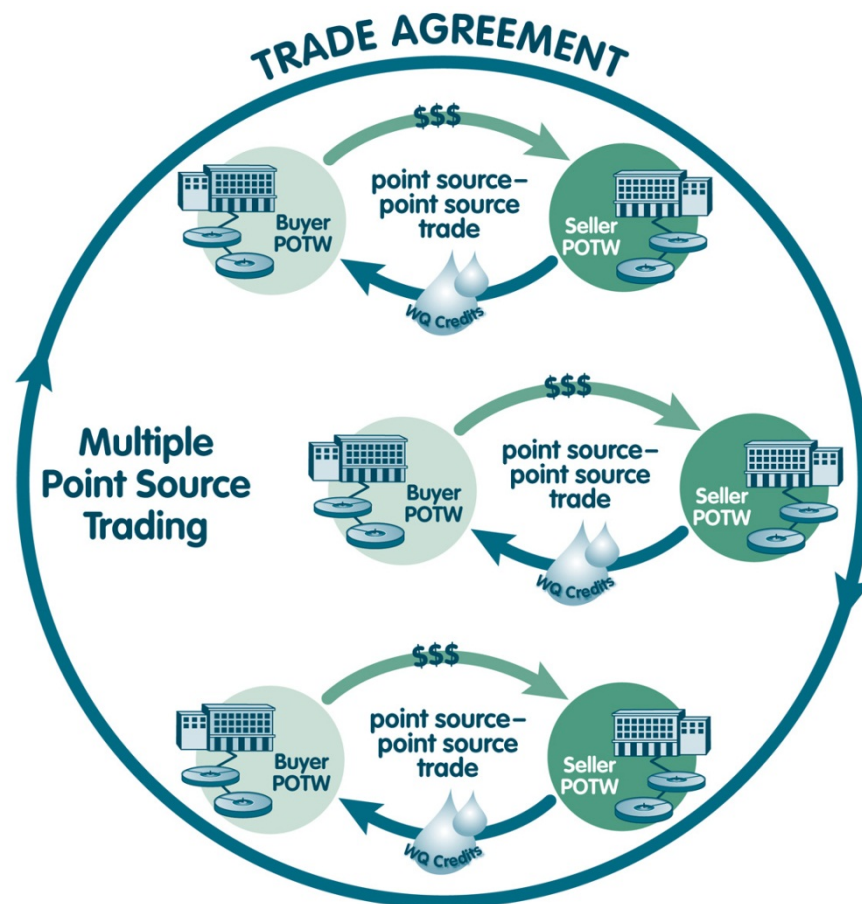
Selects: Trading

How Do Pollutant Load Reductions Become Tradable Credits?

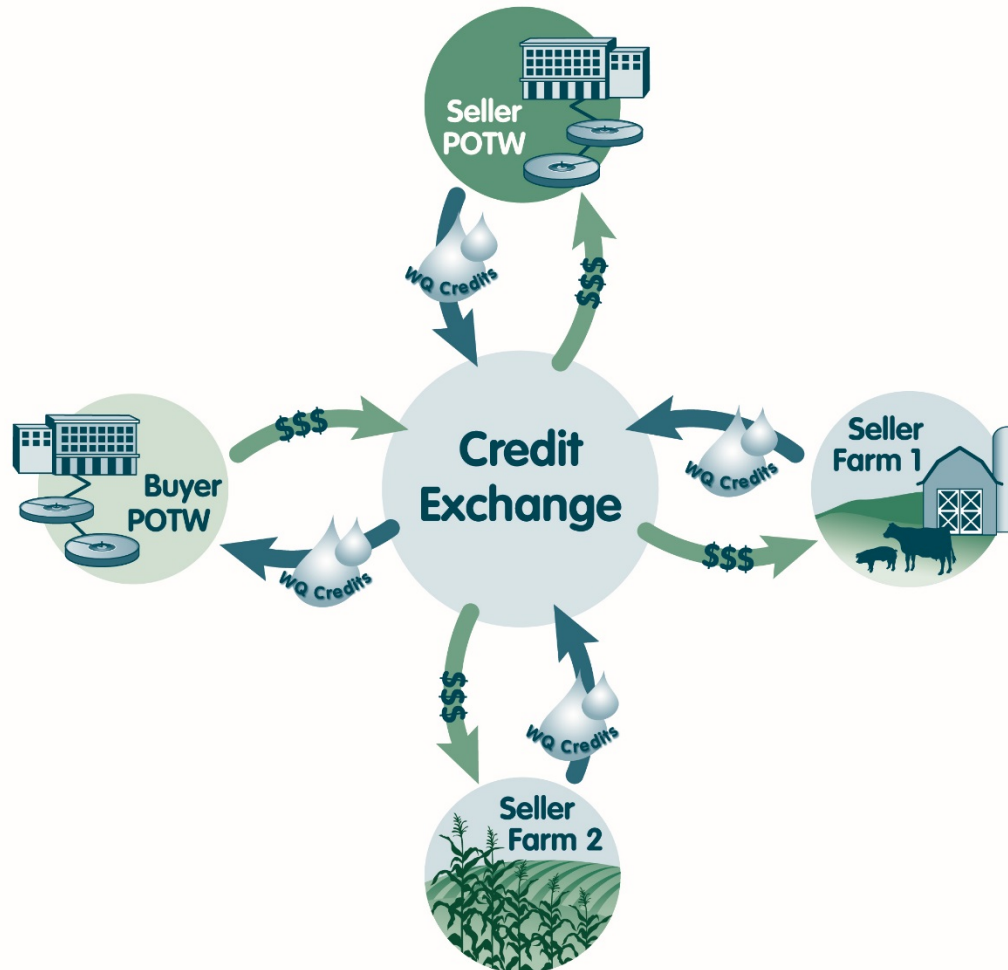
- One credit isn't always equivalent to one pound of pollutant reduction
- Consider factors that affect the water body and effectiveness of reductions, commonly called a trade ratio



Multiple Facility Point Source Trading

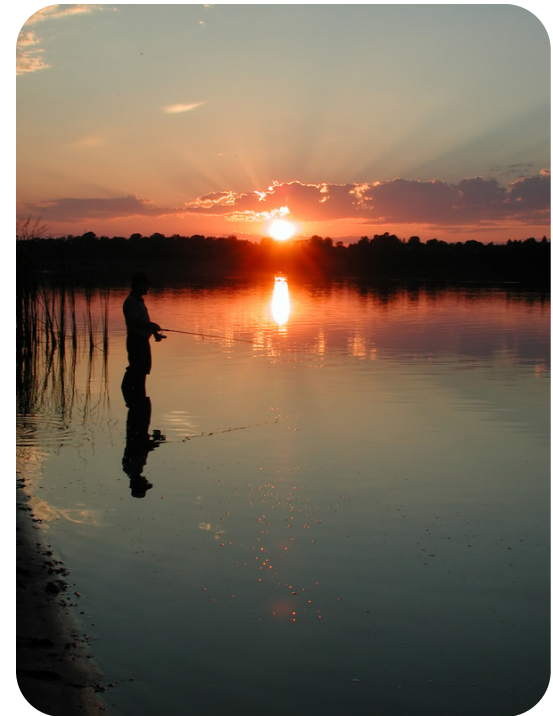


Credit Exchange



Under What Water Body Conditions May Trading Occur?

- Unimpaired waters to maintain WQS
- Impaired waters
 - Pre-TMDL
 - TMDL



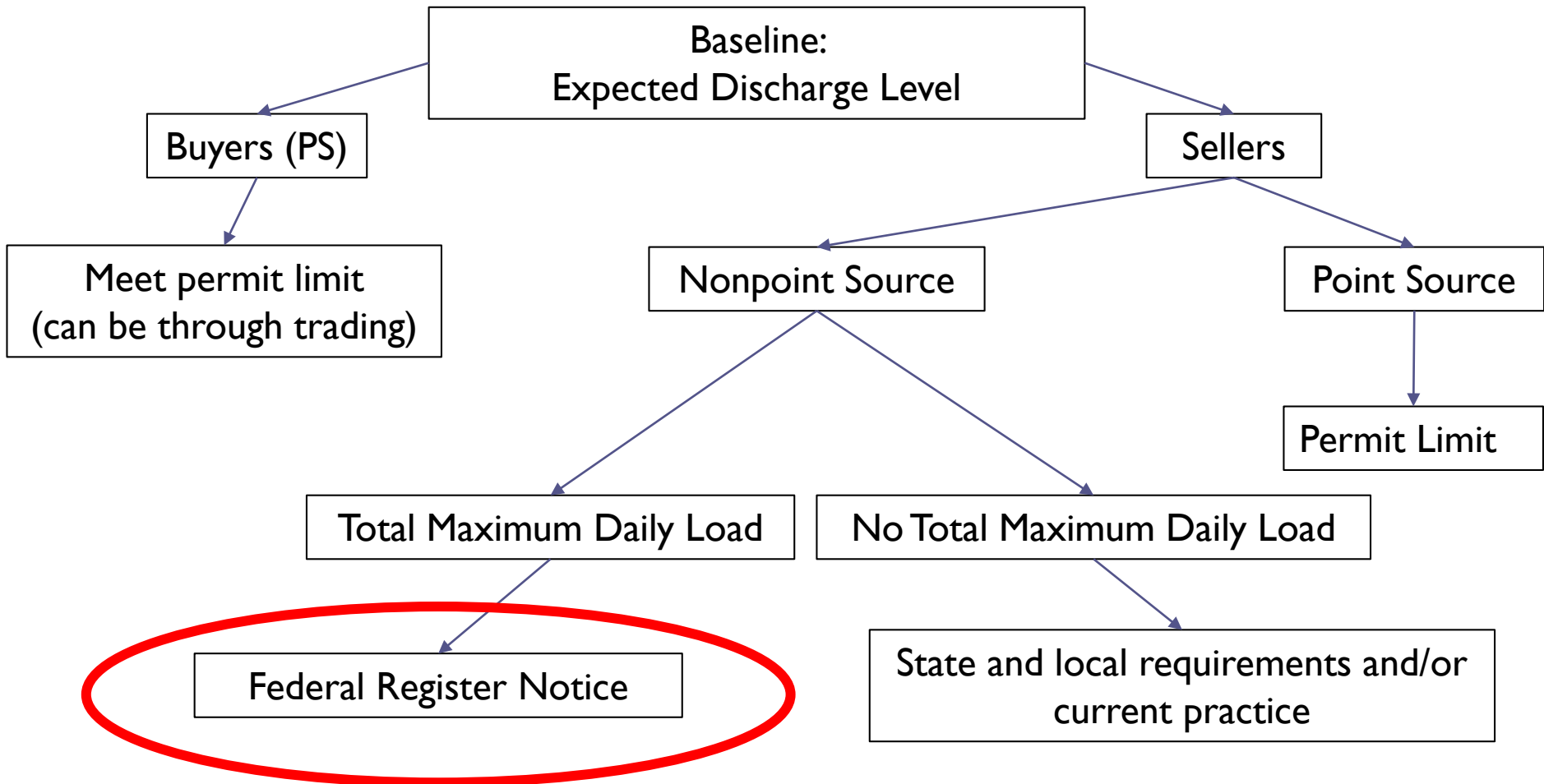
What Limits Apply When Trading?

- **Baseline:** Discharge level that applies in the absence of trading (*buyers and sellers*)
- **Minimum control level:** Discharge level that a buyer must meet through treatment before buying credits (*buyer only*)
- **Trading limit:** Discharge level a seller would be held to in order to generate and sell credits (*point source sellers only*)

Water Quality Trading Baselines

- A **water quality credit** is a unit of pollutant reduction available for trading. It is usually measured in pounds equivalent.
- The **baseline** is the discharge level expected of the source. It applies to both buyers and sellers of credits.
- Previous policy expected credit sellers to **meet their baseline** on a site specific basis before they could **generate credits**.

Baseline



February 6, 2019 Memorandum

- Established a new vision for market-based approaches for making water quality improvements. 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

Baselines Federal Register Notice (FRN)

- EPA's first effort to implement the February 6 Memo principle on baselines.
- Proposes six options.
- Some policy changes, some are intended to clarify existing policy.
- These options can be used individually or together in developing a program.

Baselines Federal Register Notice :

Six Options

- Redefining baseline
- Incremental baselines
- Compliance schedules
- Variances
- Alternative approaches to disaggregation
- In-lieu fee program

Additional Resources

- Water Quality Trading Web Site
<https://www.epa.gov/npdes/water-quality-trading>
 - Baselines FRN and Docket
 - February Memo
 - Historic Policy and Guidance