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EPA Perspective: EPA National WQT Policy

Water Quality

Agricultural Outlook
Forum

March 2, 2007

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TRADING



Topics

- 💧 **Overview of Environmental Markets**
- 💧 **What is water quality trading**
- 💧 **Who is involved in water quality trading**
- 💧 **When can water quality trading occur**
- 💧 **National view – what's happening now**



Overview of Environmental Markets

- Have been around for over two decades

- Water:

- Colorado WQ Trades – mid 1980's

- Cherry Creek

- Dillon Reservoir

- Air:

- SOx and NOx markets

- Climate Change Trading



Benefits of Environmental Markets

- 💧 Documented lower costs
- 💧 Faster reductions early in the program
- 💧 For Water markets involving nonpoint sources there are additional benefits:
 - 💧 Reduced erosion
 - 💧 Flood control
 - 💧 Increased and improved habitat
 - 💧 Control of multiple pollutants



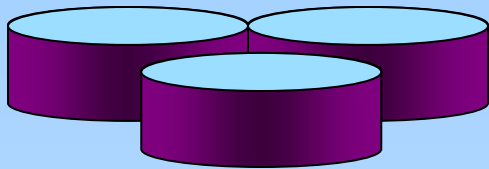
What is Water Quality Trading?

- 💧 **Voluntary exchange of pollutant reduction credits**
- 💧 **Sources with higher pollutant control costs may purchase pollutant credits from sources with lower control costs**



Illustration of a Trade

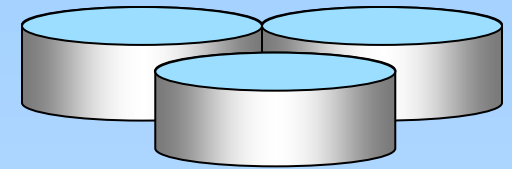
Facility A



Needs: 120 lbs

**Technology
Reduces
200 lbs**

Facility B



Needs: 50 lbs

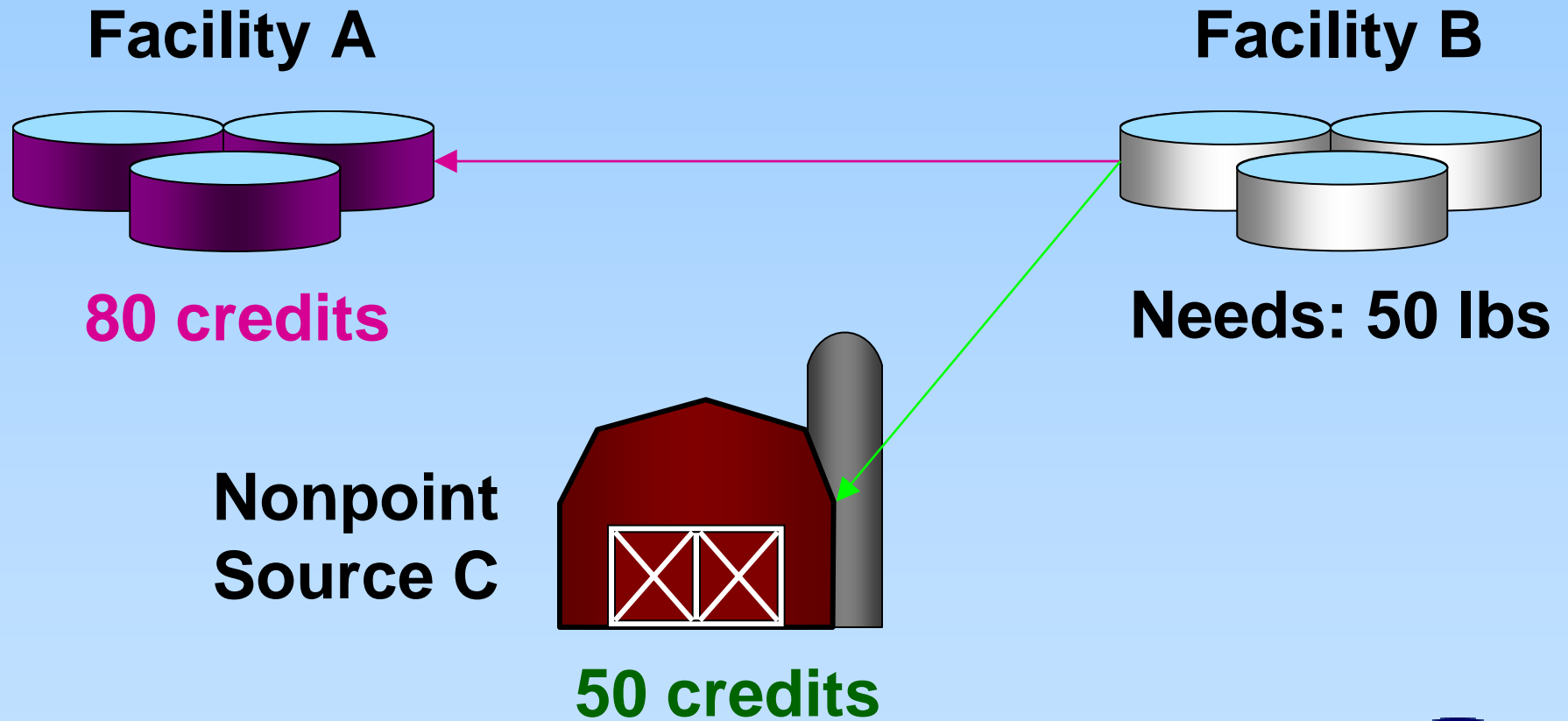
Best Option: **Technology**

Best Option: **Trading**

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



Illustration of a Trade



B can trade with A or C



What is Being Traded?

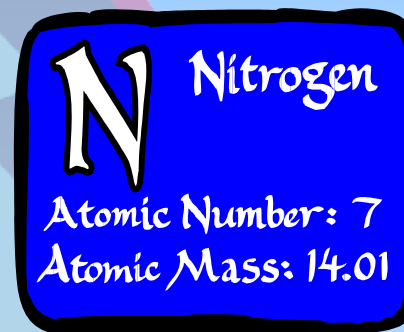
💧 Credits:

- 💧 A unit of pollutant reduction usually measured in pounds equivalent
- 💧 Generated by a point source over-controlling its discharge
- 💧 Generated by a nonpoint source from the installation of best management practices beyond those required for baseline



What pollutants are "tradable"?

- ◆ National Policy allows trades for:
 - ◆ Total Nitrogen
 - ◆ Total Phosphorus
 - ◆ Sediment
 - ◆ Cross-pollutant trading
 - ◆ Other pollutants?
- ◆ National Policy does not support trades for:
 - ◆ Persistent bioaccumulative toxics (PBTs)



Who is Involved in WQ Trading?

- 💧 Point Sources
- 💧 Nonpoint Sources
- 💧 States
 - 💧 Permit Authority
 - 💧 Others (DNR, DEP)
- 💧 EPA
- 💧 Brokers (3rd parties bringing together buyers and sellers)
- 💧 Others (conservation organizations, watershed groups, etc.)



Requires Local Champions

- **A party interested in trading**
 - (Neuse River)
- **A third party broker**
 - (Great Miami River)
- **A state permit authority**
 - (Long Island Sound)



When can trading occur?

- 💧 Trading in unimpaired waters
- 💧 Trading in Impaired Waters with TMDL
- 💧 Trading in Impaired Waters without TMDL
- 💧 Pretreatment
- 💧 Intra-plant



When can trading NOT occur?

- 💧 Trading cannot be used to meet technology-based effluent limitations
- 💧 Trades cannot result in nonattainment of an applicable water quality standard.
- 💧 Trading may not adversely affect water quality at an intake for drinking water supply
- 💧 Trading cannot allow a discharger to exceed a cap established under a TMDL



Trading Scenarios:



Water Quality Trading

What is in it for you?

💧 Point Source Buyer

- 💧 cost-savings

💧 Point Source Seller

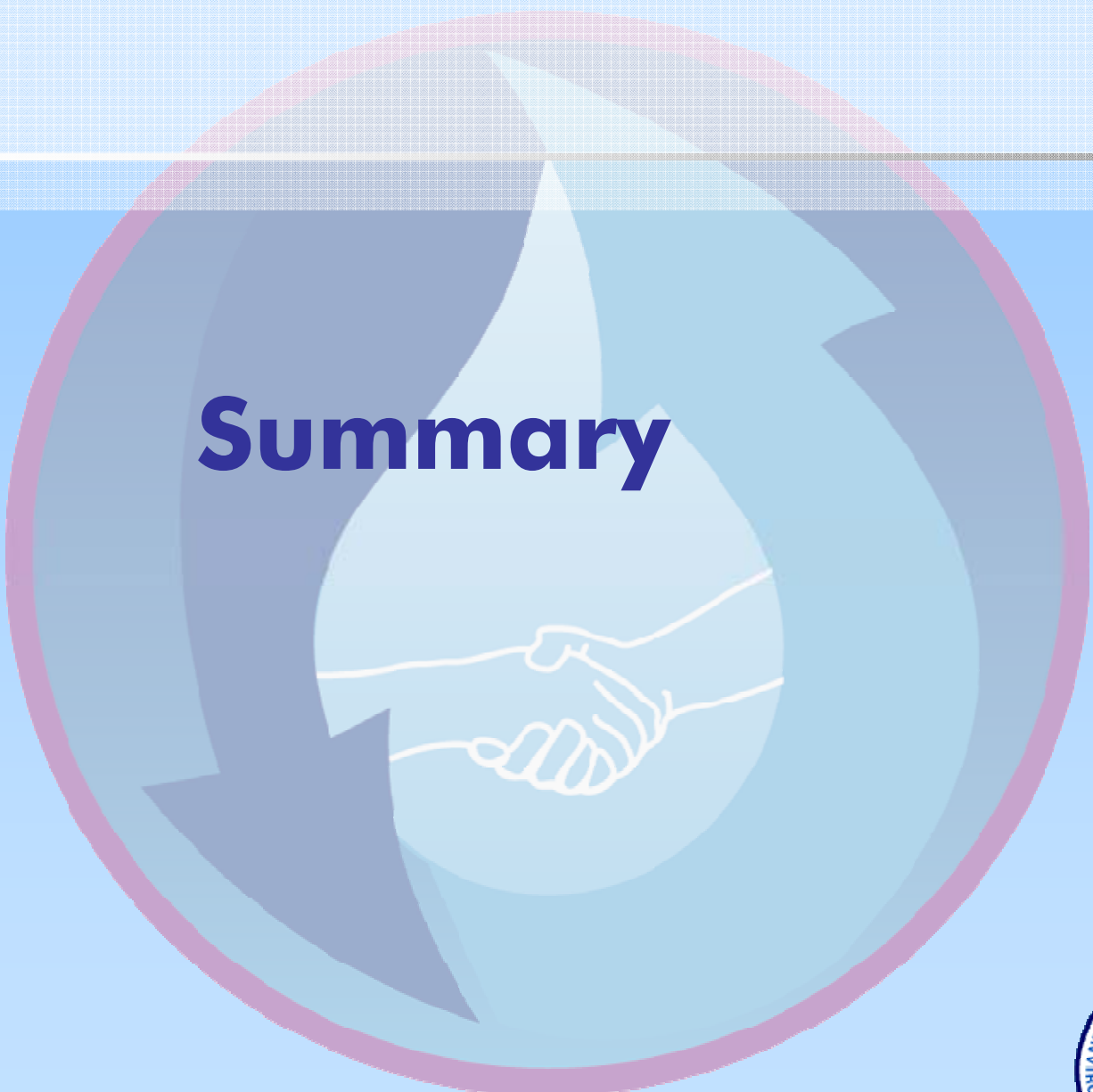
- 💧 earlier return on investment

💧 Nonpoint Source Seller

- 💧 Source of income while:

- 💧 Investing in land improvement
- 💧 Investing in cost-saving practices





Summary



WATER QUALITY TRADING

**IS ANOTHER OPTION
FOR A REGULATED
FACILITY TO MEET ITS
PERMIT LIMITS**



Formula for Water Quality Trading:

💧 Trading is:

- 💧 **DRIVEN** by regulation
- 💧 **MOTIVATED** by economics
- 💧 **GOVERNED** by local trading rules
- 💧 **BUILT** on trust

**TRADING WILL NOT BE
VIABLE EVERYWHERE**



WQT Keys to Success

- 💧 **Transparent**
- 💧 **Real**
- 💧 **Accountable**
- 💧 **Defensible**
- 💧 **Enforceable**



Future of Trading

- 💧 **Point-nonpoint Trading – current focus**
 - 💧 **Considerable potential for water quality improvement**
- Potential win-win-win solution for point sources, agriculture and the environment**



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