

# "Achieving Nutrient Water Quality Goals: Bringing Market-like Principles to Water Quality Management"

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# PS-NPS Trading: Program Purpose

- secure revenues from customers of regulated sources
- to pay farmers, ranchers, forestry land owners
- to install BMPs
- predicted (with varying degrees of certainty) to reduce loads of pollutants of concern

# USDA and EPA Water Quality Credit Trading Agreement -Press Release, October 13 2006

- “Private sector water quality markets complement existing federally supported conservation efforts **by creating additional revenue streams** for water quality improvement.”

# When is trading promoted?

- Water quality standards are not being met
- New (or renewed) CWA (NPDES) discharge permit
- Regulator feels pressure
  - deny permit unless zero discharge is achieved, effectively prohibiting the discharge **OR**
  - create a new set of permits and technology requirements for unregulated nonpoint sources **OR**
  - promise success of voluntary program, and be subject to criticism
- Trading is a pressure relief valve

# Begin with a “regulatory driver”

- NPDES permits
  - limits-of-technology effluent control required for individual sources
- Require regulated source to pay for offsets for
  - uncontrollable load
  - until control technology is in place (interim compliance)

# Specify Acceptable Offsets

- BMPs are identified by regulators
- Assurances of equivalency
  - Water quality effects
  - Ratios

# The “Trade”

- Regulators require citizen ratepayers of POTWs to pay for BMPs, or other reductions,
  - because their POTW cannot technologically reduce discharges that will attain WQS
- BMPs implementation and maintenance are permit conditions

Now, let me be clear about something. In my view, market mechanisms (*he means "trading"*) should supplement -- but not replace -- federal efforts to encourage conservation and environmental protection using the more traditional tools that government has at its disposal. Yet we all know that **the demand for conservation is far greater than funding that is typically available. There is almost always an unmet need.**

Agriculture Secretary Mike Johanns, January 23, 2007

# Past Revenues and Future Prospects

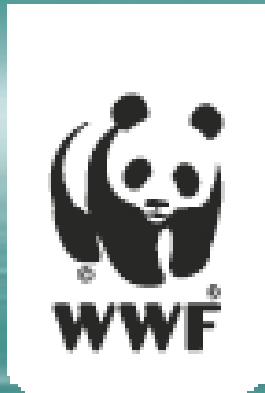
# What needs to be different?

- Clear Legislative Authority
  - Questionable basis in PS- NPS “trading”
  - Contrast with SO<sub>2</sub> program
- Stability of revenue stream
  - Highly uncertain in PS-NPS “trading”
- Adequacy of revenue stream
  - Will match the scale of the need
- Ease of administration
  - Fairness, equivalency concerns create administrative cost in PS-NPS “trading”

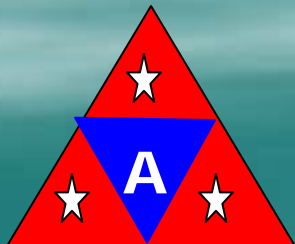
# Paying For Environmental Services

- Designing a Program for Florida Ranch Lands





**NRCS** Natural Resources  
Conservation Service



# Beyond BMP Subsidy Logic

- **Premise:** Environmental protection is a regulatory burden to be lessened
- **Program:** Provide capital cost reimbursement for financial costs to install **agency listed BMPs**
  - Logic for EQUIP
  - Logic for conservation plans

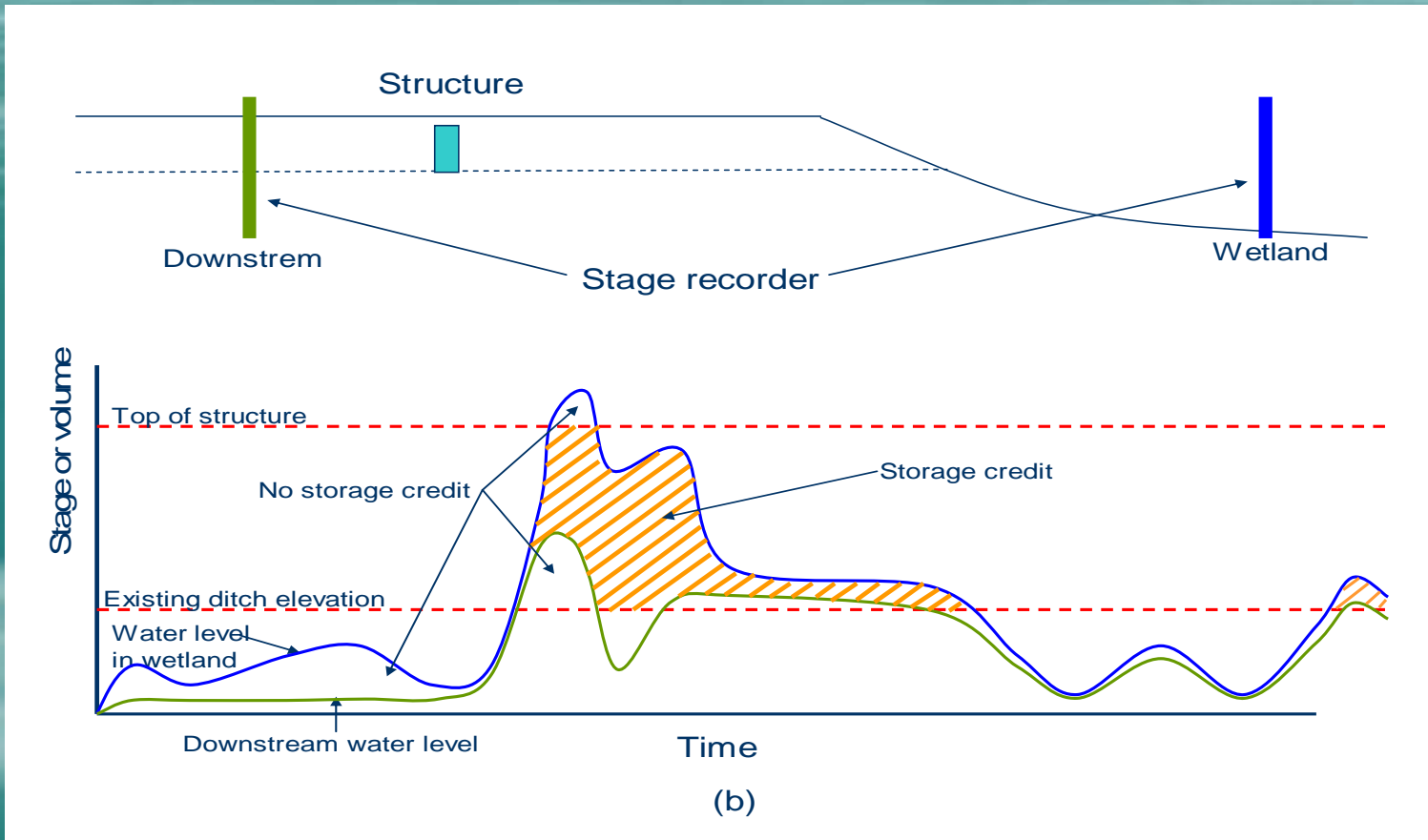
# Goal: Pay for Results

- **Premise:** Working landscapes can provide environmental enhancement
- **Program:** Environmental service payments can become a profit center
  - Commodity: Cash receipts reward *documented* environmental performance, however achieved
  - Supply: Incentives *and* opportunity for ranchers to innovate in context of their own operations
  - Demand: Payments target most valued services
    - Which service
    - Location

# Services of Interest

- Increases in the annual volume of water retained in soils and ground water
- Sequester P
- Habitat Lift

# Accuracy, not Precision



# Central Program Design Challenges

- Securing a dedicated and reliable funding stream
- Designing payment system that targets funds
- Documenting services, while accommodating measurement uncertainty
- Reducing participation costs of service sellers

