




Environmental Markets: New Ag Roles in Watershed Restoration

Don Stuart -- American Farmland Trust

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The common threat

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- **Rapid growth**
  - 3-7 times more people in PNW by 2100
  - Land cost pressure from development
  - Mitigation transfers footprint of growth
- **Sensitive environment**
  - Ag already driven into sensitive areas
  - More people = environmental loss
- **Limited land base**
  - Public lands, cities, private farms/forests
  - Big money in mitigation

What is an environmental market?

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An environmental market is an opportunity to sell credits for environmental services generated on working farms or ranches at full value

What Drives an ag Environmental Market?

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- Environmental regulations limit environmental impacts
- Regulatory agencies allow flexibility in meeting regulatory limit
- Developers/permittees buy credits or offsets to meet limit
- Farmers supply and get paid for credits or offsets

Who needs environmental credits – a few examples:

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- A manufacturer marketing products or stocks to green consumers & investors seeks offsets for climate impacts
- A public utility seeks credits to reduce high costs of compliance with water quality standards
- A transportation development agency seeks mitigation for impacts on endangered species habitat
- An energy utility seeks renewable energy credits required for its portfolio by law

Practices that Can Produce Credits

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- Conservation tillage
- Restoration of non-farmed areas
- Precision fertilizer application
- Conservation rangeland management
- Cover crops & wildlife-friendly rotations
- Protecting active farmland
- Irrigation efficiencies
- Riparian restoration/estuaries
- Wetlands
- Wind, solar, digester energy

Our premise in studying ag environmental markets

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- If conservation is more profitable to farmers and ranchers then…
- Farmers and ranchers will undertake far more conservation projects, and…
- Water quality, habitat, and other environmental resources will significantly improve, and…
- Conservation actions will become more profitable to farmers and ranchers…

Theory on Price Versus Participation

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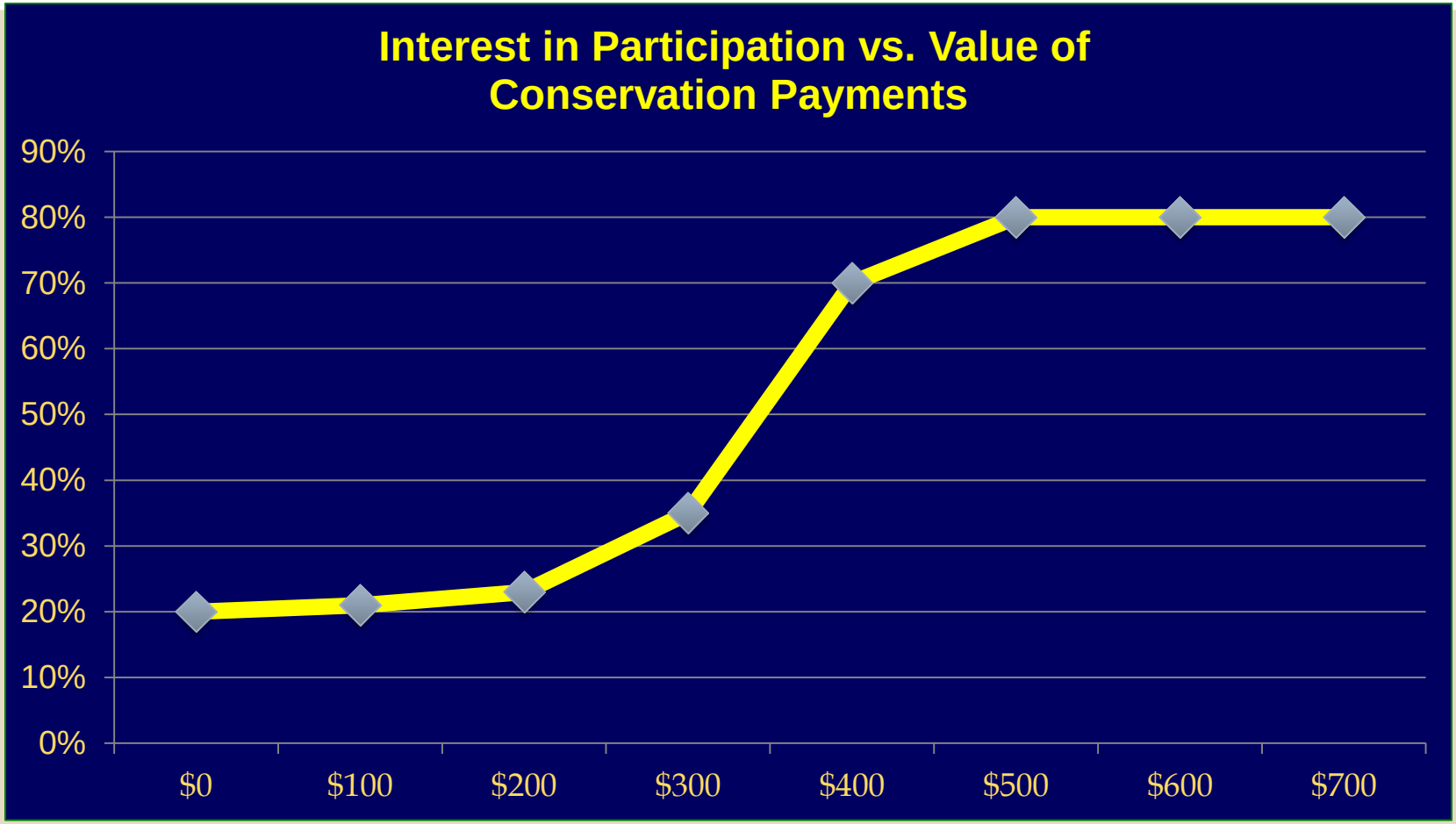

Moving from a Scattershot Approach…

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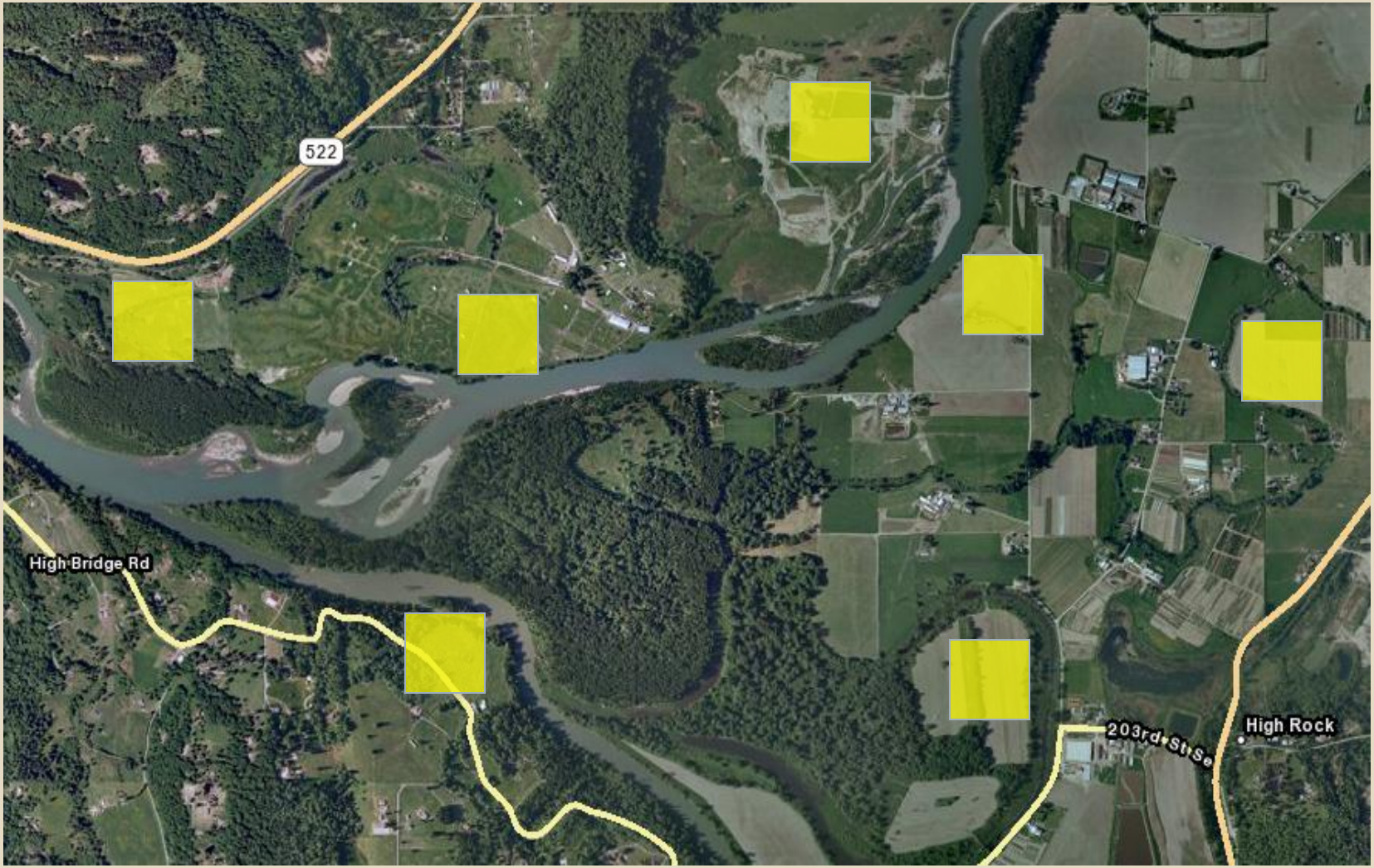

To a More Strategic Product

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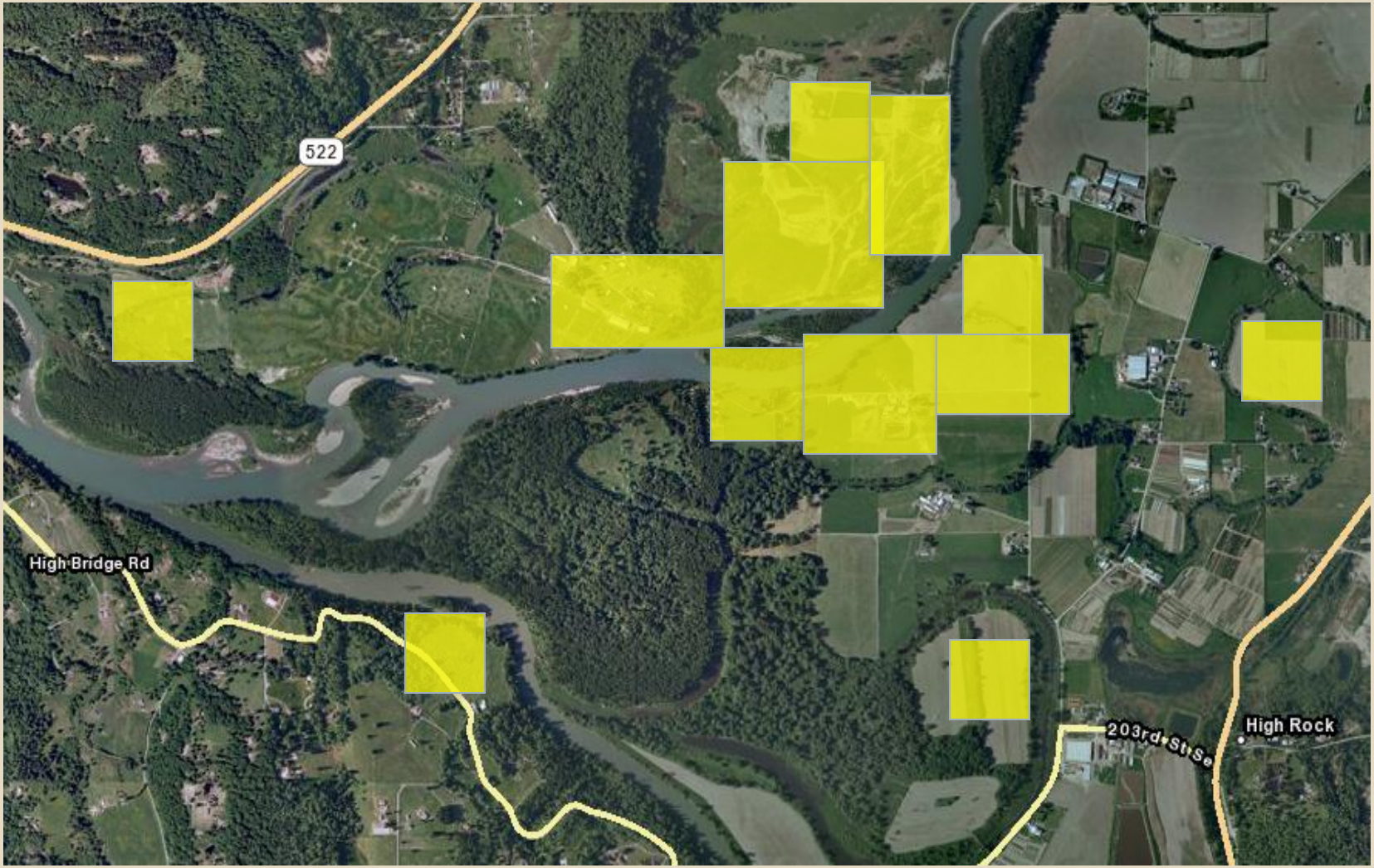

Environment as a Liability

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Environment as a Marketable Asset

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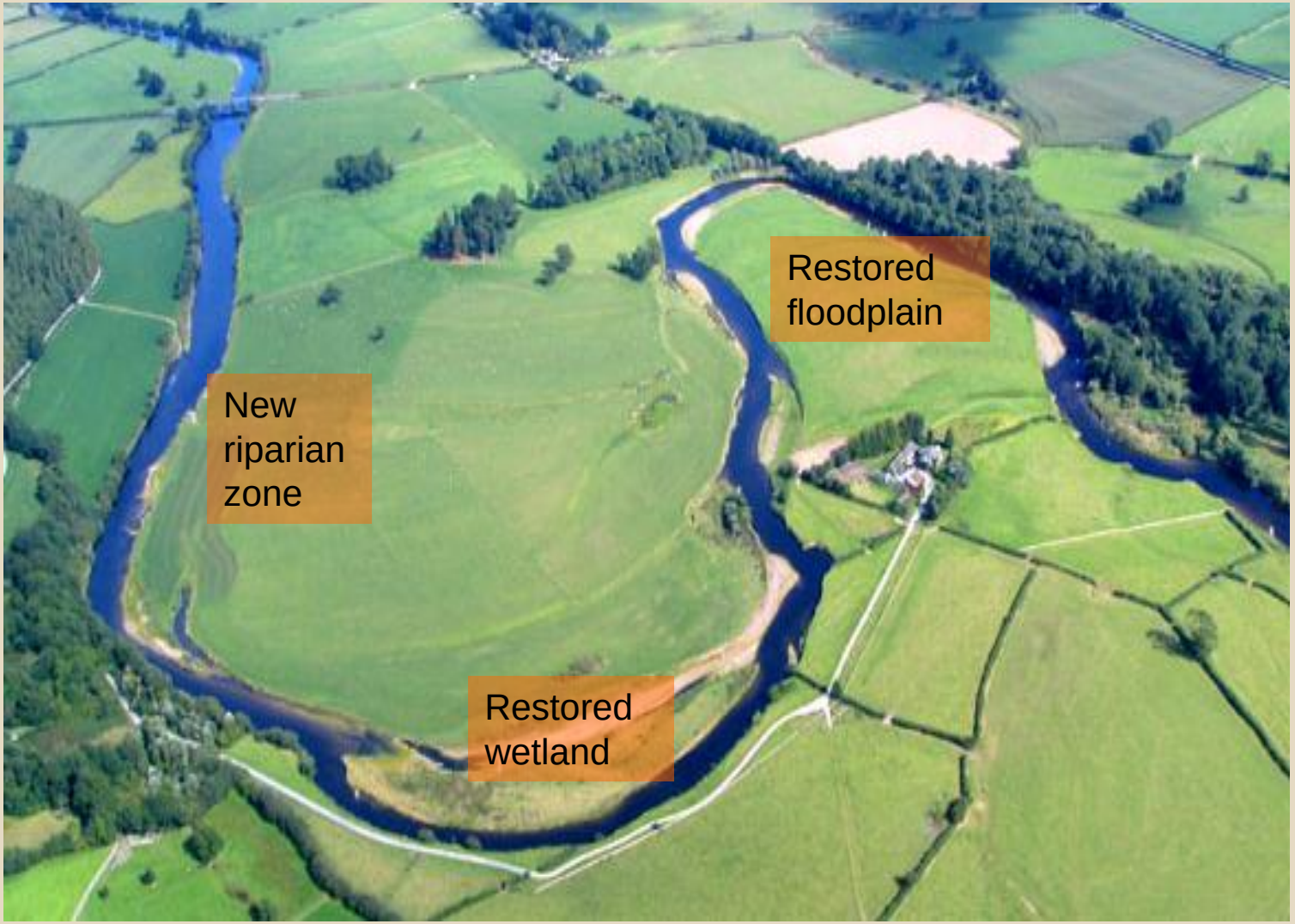

A Potential Market Solution

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Why Stack?

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- CREP buffer is worth $100-200 per acre per year (twice soil rental rate)
- May also produce nutrient credits (adds $250-400 per acre per year)
- Possibly also/instead habitat and greenhouse gas credits
- If markets are available and fully used, income from the buffer could double or triple

AN Example: Clean Water Services (OR)

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- Utility to reduce effluent temperature to meet permit requirement
- Buffers as effective and far cheaper
- Used CREP incentives as first layer
- Doubled rental rates and contributed 100% of installation and maintenance
- Annual payments higher than net crop income for all local crops
- Program is fully subscribed, with 28 participating farmers
- Benefits reach far beyond water quality

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Questions,

Comments,

Suggestions . . .

More information at:

www.farmland.org/environmentalmarkets