



The Rivanna River Basin and Ecosystem Services

*A New Paradigm for a New Era of
Environmental Policy*

Outline

- THE BIG VISION
- Conserv Background
- The Current Conservation Mental Model
- Ecosystem Services-Another Model for the 21st Century
- Aquatic Ecosystem Services
- Emerging Markets for Aquatic Ecosystem Services
- The Rappahannock Exchange
- A Rivanna Exchange?
- Resources

Conserv

- 501 c-6 “trade organization”
- Created to develop and operate regional environmental markets that benefit their communities
- Business model: Conserv works under multi-year contract with bioregional entity to run marketplace.
- Began in 2004 with pilot grant from TNC

The Big Vision

- Bioregional markets to restore ecosystem health.
- Located within zones of contribution of worldwide keystone environmental assets.



The Current Conservation Mental Model

- Government adopts laws to regulate the private sector.
- Pro – relatively simple and somewhat successful.
- Con – only impacts a fraction of totality of ecosystem health.

Ecosystem Services-Another Model for the 21st Century

- Ecosystem services is a new mental model.
- Nature is viewed a vendor of services for human civilization.
- Services include pollination, water filtration, carbon absorption and storage, etc.
- As a vendor, “nature” should be paid for services.

Aquatic Ecosystem Services

- Water supply for fish, waterfowl, mussels, and in-stream users
- Water filtration
- Surface water storage
- Ground water storage
- River base flow
- Soil maintenance and enhancement
- Flood control
- Nutrient uptake and delivery
- Recreation, culture, beauty, spiritual fulfillment
- Biodiversity

Emerging Markets for Aquatic Ecosystem Services

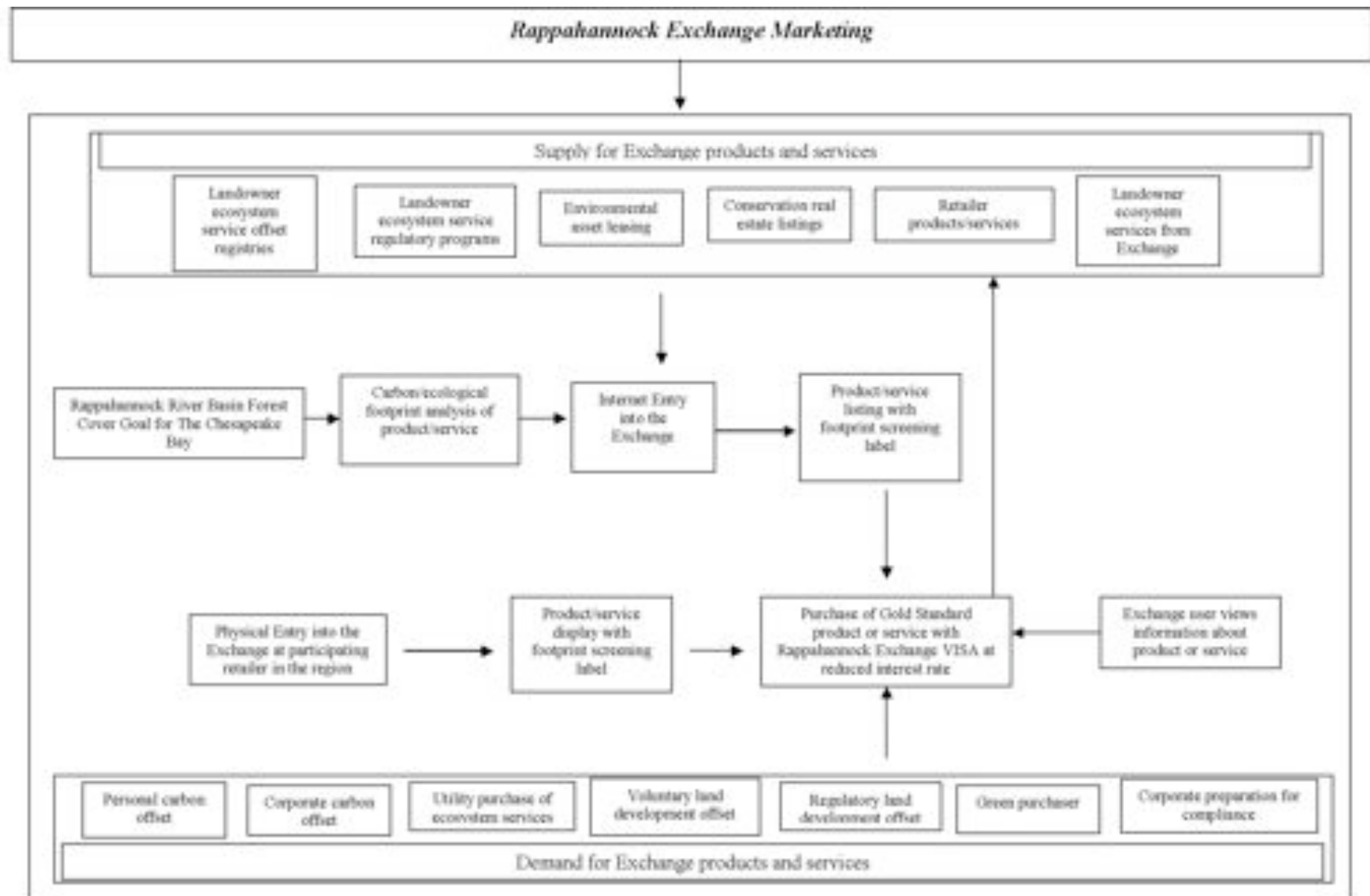
- Water utility payments for water quality services
- Energy utility preparation for compliance
- Corporate carbon offset
- Personal carbon offset
- Environmental asset leasing
- Regulatory offsets
- Bundled services

The Rappahannock Exchange

- Began two years ago as a study of “market-based conservation” by the non-point source workgroup (NPSWG) of the RRBC.
- The Exchange is proposed as a bioregional marketplace to restore ecosystem health of the Rappahannock River Basin and Chesapeake Bay.

Exchange Details

- Five year initial project life
- Year 1: Design
- Year 2: Marketplace construction
- Years 3-5: Operation
- Year 5: Evaluation
- 80 member Ecosystem Services Council
- Kickoff December 9
- 3-day Future Search Business Plan Development Spring, 2010



The Rappahannock Exchange:
A Bioregional Marketplace to enhance ecosystem health of the Rappahannock River and Chesapeake Bay

A Rivanna Exchange?

- The Rivanna Basin has a strong “brand” presence in the region.
- Gaining the assistance of commerce with the implementation of river policy goals could assist the Commission’s efforts.
- Some demand drivers may be stronger in the Rivanna than in the Rappahannock – strong sustainability culture.
- Desire for South Fork Rivanna “Resilience” – Recent U.S. Endowment Grant Proposal

A Rivanna Exchange cont'd

- The Commission could create a Rivanna Exchange study committee.
- The Committee could:
 - Study the idea of a bioregional marketplace
 - “shadow” the Rappahannock Project
 - Create a Rivanna Exchange Board Game to test a program?
 - Other?

Resources

- Conserv Sustainability Blackboard
- Gretchen Daly - *Nature's Services*
- Willamette Partnership
- The Bay Bank
- USFS Ecosystem Services Newsletter
- Ohio River Basin Trading Pilot Project
- Land Care – Southwest Virginia