

# Environmental Banc & Exchange, LLC

Presented to:

The logo for the Electric Power Research Institute (EPRI), featuring the letters 'EPRI' in a stylized, blue, blocky font.

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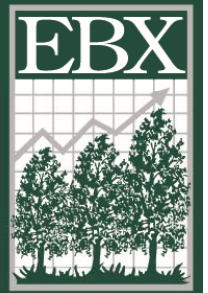
## Confessions of an Admitted Stacker

George W. Kelly  
November 9, 2012  
Washington, DC

# **EBX'S STACKING CASE STUDY**

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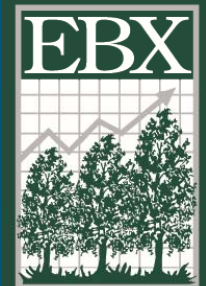
- **EBX Information**
- **Case Study**
- **Lessons Learned – In Support and Against Stacking**
- **Conclusion**



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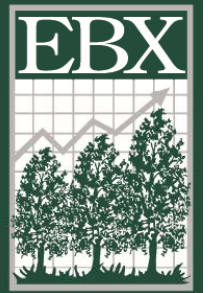
EBX Mitigation Site Status				
Turnkey Mitigation Projects				
	<i>Completed</i>	<i>In Monitoring</i>	<i>In Construction</i>	<i>In Design</i>
<i>Wetland</i>	10	8	1	2
<i>Stream</i>	17	13	1	5
<i>Buffer</i>	2	-	-	2
<i>Nutrient</i>	-	-	-	-
<i>Forest</i>	-	-	-	-
<i>Habitat</i>	-	-	-	1
<b>Total Turnkey Sites</b>	<b>29</b>	<b>21</b>	<b>2</b>	<b>10</b>
Mitigation Bank Projects				
	<i>Completed</i>	<i>In Monitoring</i>	<i>In Construction</i>	<i>In Design</i>
<i>Wetland</i>	11	6	1	4
<i>Stream</i>	4	4	2	2
<i>Buffer</i>	3	2	-	-
<i>Nutrient</i>	3	2	2	-
<i>Forest</i>	1	-	-	-
<i>Habitat</i>	-	2	-	2
<b>Total Bank Sites</b>	<b>22</b>	<b>16</b>	<b>5</b>	<b>8</b>
<b>Total Sites</b>	<b>51</b>	<b>37</b>	<b>7</b>	<b>18</b>

- Founded in 1997 and is a leader in the nationwide practice of environmental banking and turn-key mitigation for impacts to environmental resources.
- Offices in Baltimore, Maryland; Raleigh, North Carolina, Camden, South Carolina; and Oak Hill, West Virginia.
- 51 completed mitigation projects and is in the implementation stage of another 62 mitigation projects.



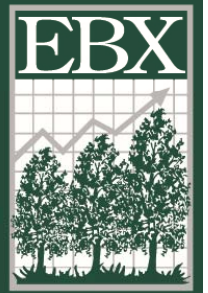
## PERSPECTIVE

- Viewpoint of practitioner that has sold over \$100 million in environmental credits
- Entrepreneur that has participated in projects resulting in the restoration and enhancement of over 100 miles of stream; 10,500 acres of restored wetlands; the protection of 4,400 acres of critical species habitat forest and buffer; and 337,000 pounds of nutrients reduced
- President of National Mitigation Banking Association – 2010 (during the time Federal rules for wetlands / streams implemented)
- Participant in Nutrient Trading Task Forces in Chesapeake Bay, including serving on the Advisory Committee of the Water Quality Fund for the Chesapeake Bay; Member of the Maryland Climate Change Commission (Mitigation Work Group); Delaware Advisory Group on Water Quality Trading



# PERSPECTIVE

- Early stage private sponsor of Ecosystem Marketplace – [www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)
- EBX maintains a cooperative arrangements with conservation investors
- Primarily focused on U.S. domestic market



# CASE STUDY - REGULATORY BACKDROP

## 1. Federal

### Clean Water Act and State Counterparts - (Section 404)

- Wetland - "No Net Loss" - Preceded 2008 Federal Rules
- Stream - "No Net Loss" - Preceded 2008 Federal Rules

## 2. State

### a. Nutrient

- 1998 Offset in Neuse River Watershed for new development
- 2009 - law made clear that private entities must buy from riparian buffer or nutrient offset bank, if bank existing

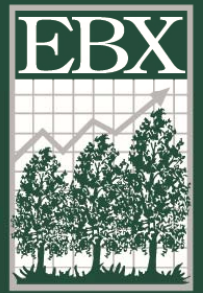


# CASE STUDY - REGULATORY BACKDROP

## b. Buffer

- Neuse - protect 50 foot buffer, certain activities allowed but must mitigate if it intrudes into the buffer
- Four Options: 1) restore or enhance non-forested buffer; 2) buy credits from bank; 3) donate conserved property; or 4) pay a fee to NCEEP
- 2009 - If bank exists, applicant must buy credits

3. All forms of Mitigation must have perpetual conservation easement and five year monitoring



# CASE STUDY - EBX

- 1999 EBX – 3,000 acres Neu-Con Umbrella Wetland Mitigation and Stream Restoration Bank
- 2000 DOT paid for mitigation credits on 8 EBX sites
- 2007 State Policy – Riparian buffer for stream restoration can count towards state buffer mitigation
- 2007 Session law 2007 – 930 became effective, allowing the sale of nutrient offset credits from private mitigation
- 2008 EBX-Neuse Umbrella Buffer Bank (3 sites already used for wetland and stream – Westbrook, Marston, Nahunta)
- 2008 Amended Bank to add nutrient credits. DWQ relied on 2007 policy that allowed buffer on existing stream restoration projects to also allow nutrients on existing wetland restoration area



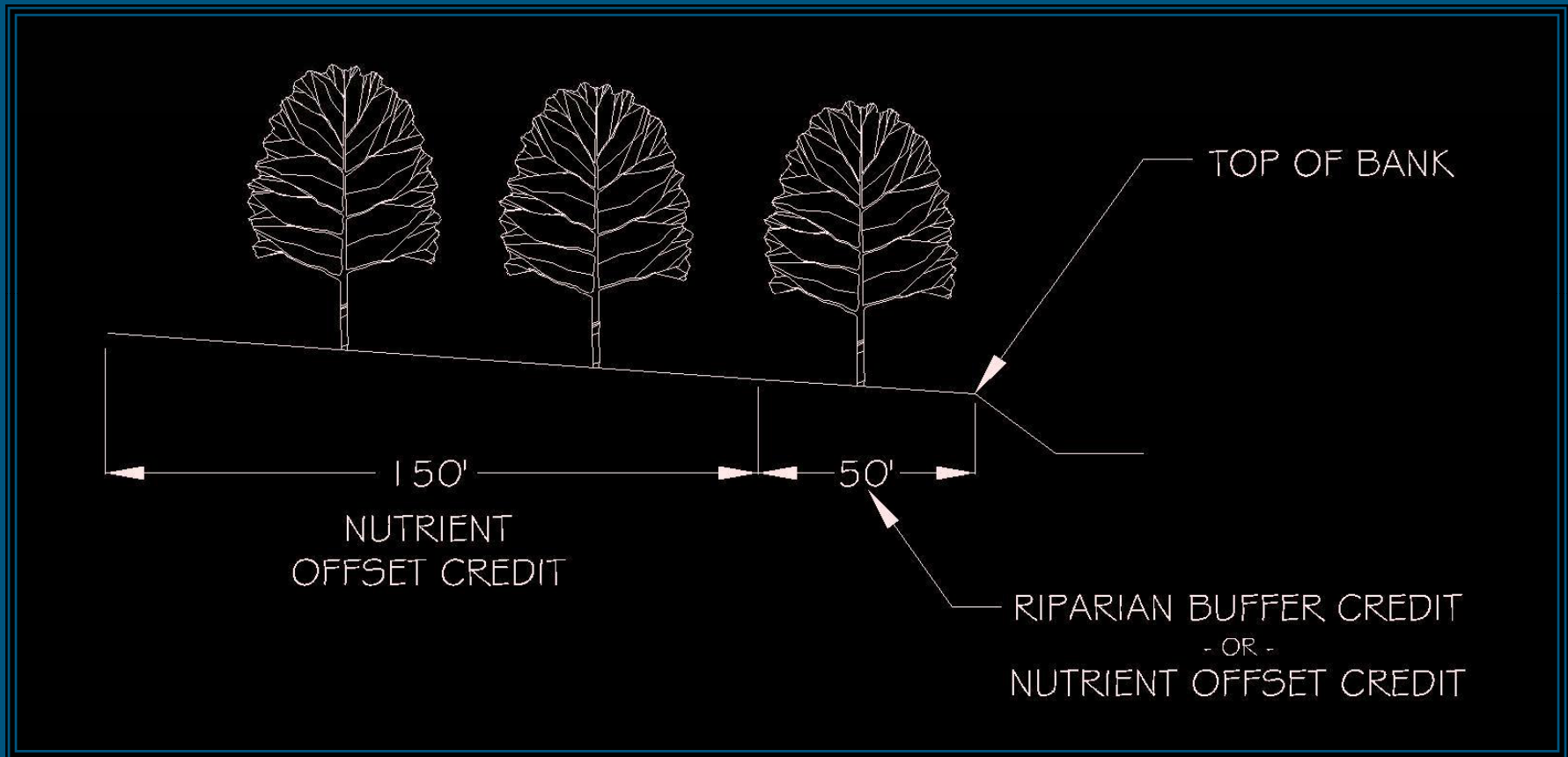


# CASE STUDY - EBX

- 2008 DWQ issued banking instrument for buffer and nutrients – 31.2 acres of buffer and 192,000 pounds of nutrients
- 2009 Awarded contract by NCEEP for sale of nutrients from 2 sites – Westbrook and Nahunta (issue – sell nutrients and wetlands on same area)
- 2010 DWQ changed policy:
- Stream riparian buffer may still be used for state buffer mitigation
  - Riparian zone – either buffer or nutrient
  - Wetlands not allowed to be credited within 50' of stream
  - Areas between 50 – 200' – either wetland or nutrients (not both)




# ILLUSTRATION

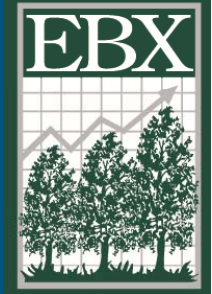


# WESTBROOK



<b>Title</b> Westbrook Buffer Restoration (Pre-Construction 1998 Aerial Photograph)						
	<b>Project</b> EBX Neuse Riparian Buffer Umbrella Mitigation Banking Instrument Johnston County, North Carolina					
	<table border="1"> <tr> <td><b>Date</b></td> <td><b>Project Number</b></td> <td><b>Figure</b></td> </tr> <tr> <td>11/11/08</td> <td>012620018</td> <td>2</td> </tr> </table>	<b>Date</b>	<b>Project Number</b>	<b>Figure</b>	11/11/08	012620018
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11/11/08	012620018	2				

Prepared by Laura Thornborough



# LESSONS LEARNED IN SUPPORT OF STACKING

## 1. Permit Symetry

- Four types of mitigation components required to be mitigated at impact stage (2 federal - wetland and stream, 2 state - buffer and nutrient) for impact to one area
- Why not allow multiple credits on the credit side of ledger?

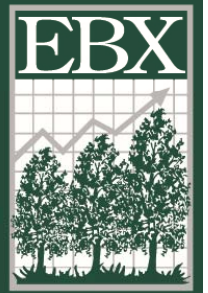
## 2. Environmental assets should be recognized similar to other property rights

- Mineral Rights
- Timber
- TDRs
- Cell Towers
- Billboards



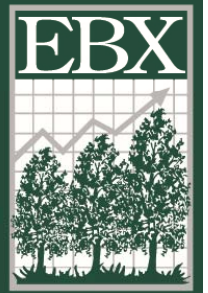
# LESSONS LEARNED IN SUPPORT OF STACKING

3. Landowners - Increases values for Natural Resource Restoration
  - Addresses biggest policy issue - undervaluing resources
  - Encourages landowners to participate in environmental projects
4. Buyers - Benefit from more cost - effective credits
5. Sellers - Benefit from more economic incentives and less risk



# LESSONS LEARNED ISSUES AGAINST STACKING

1. Environmental Additionality - not meet "additionality" test
2. Accounting Issues
  - Double counting poses risk of complicated accounting
3. Negative Implications with Market Concepts

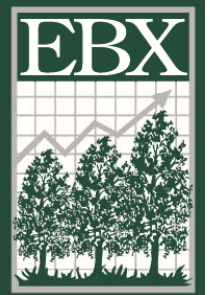


# CURRENT STATUS

## Generally Acceptable Approaches

- "Williamette Style" - recognized multiple functions on same area, but only sell one of those functions
- Horizontal Stacking - different practices allowed on non-spatially overlapping areas

CWA - Wetland and Stream - Federal Rules state that property used for mitigation cannot be used for other purpose (raises sequencing question - which environmental asset to develop first)



# CURRENT STATUS

## Nutrients, Carbon, Species and Stormwater

- No formal policy

## Cost Share Payments

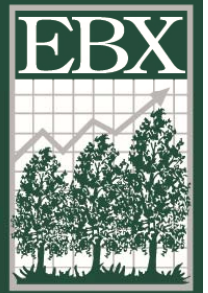
- Varying policies on stacking environmental credits





## CONCLUSION

- Issues with “Market” Concepts override Stacking benefits
- Complicated accounting
- Williamette approach and horizontal stacking appear to be preferred methodologies
- Opportunity for policy input on carbon, nutrient and species



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