

The Role of In lieu Fee Programs in Accelerating Third Party Compensatory Mitigation

Kurt Stephenson
Virginia Tech
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Background

- Permitting programs allow third party compensation for wetland impacts since 1990s.
- 2008 mitigation rule ushers in important changes in compensatory mitigation
 - Maintained avoid & minimize sequencing
 - Changed regulatory preferences for compensatory mitigation (now prefer offsite)

2008 Compensatory Mitigation Rule: The ILF Debate

- Criticisms of ILF programs
- Retained ILF as a back-up for circumstances in which commercial mitigation credits are unavailable.
- Requires ILF to meet “equivalent” standards for compensatory mitigation providers
 - Biggest exception: ILF can accept fees in advance of mitigation (“advance credits”). Mitigation must begin within 3 years

Demand Side Challenges

- Like many environmental trading programs, compensatory wetland credit markets confronted with limited and uncertain demand.

Objectives

- Examine private investment incentives to invest in compensatory wetland mitigation projects under low credit demand
- Identify the degree to which ILF programs can provide financially feasible compensation in limited demand situations

Financial Simulation Model

- Estimates rates of return and net present value for compensatory wetland mitigation project
- Includes:
 - Pre construction design and permitting costs
 - Land acquisition
 - Construction
 - Post construction monitoring/maintenance
 - Financial Assurances
 - Maintenance and long term management fund

Example Hypothetical Project

- 50 acre wetland restoration
- 2 year planning/permitting process
- Construction in year 3
- First credit sale in year 3, credits released over 10 years
- Costs generally representative of mid-Atlantic piedmont/coastal plain

Example Hypothetical Project

Calculate rates of return under:

- Annual credit sales, ranging from 1 to 8 credits/year
- Prices ranging from \$40,000 to \$60,000

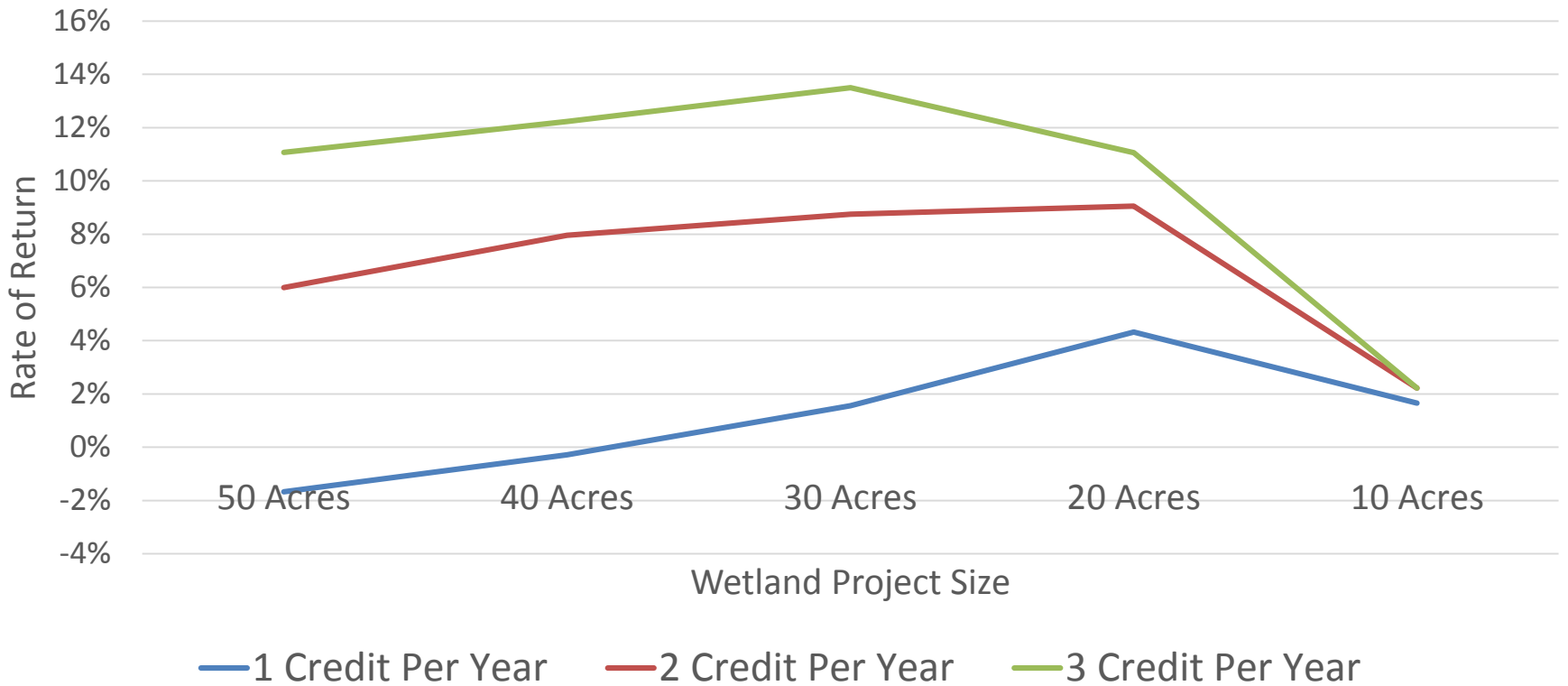
Internal Rates of Return for 50 Acre Compensatory Wetland Mitigation Site


Potential Credit Sales per year	Nontidal Wetland Credit Price		
	\$40,000	\$50,000	\$60,000
1	-3.8%	-2.0%	-0.5%
2	3.6%	6.1%	8.3%
3	7.7%	11.2%	14.3%
4	10.5%	15.3%	19.5%
5	13.4%	19.5%	24.9%
6	15.6%	22.8%	29.4%
7	16.2%	23.7%	30.6%
8	16.4%	24.1%	31.1%



To what extent can the financial situation be improved in limited demand situations by altering the size of wetland project?

Rates of Return for Different Wetland Project Sizes (Credit Price = \$50,000)



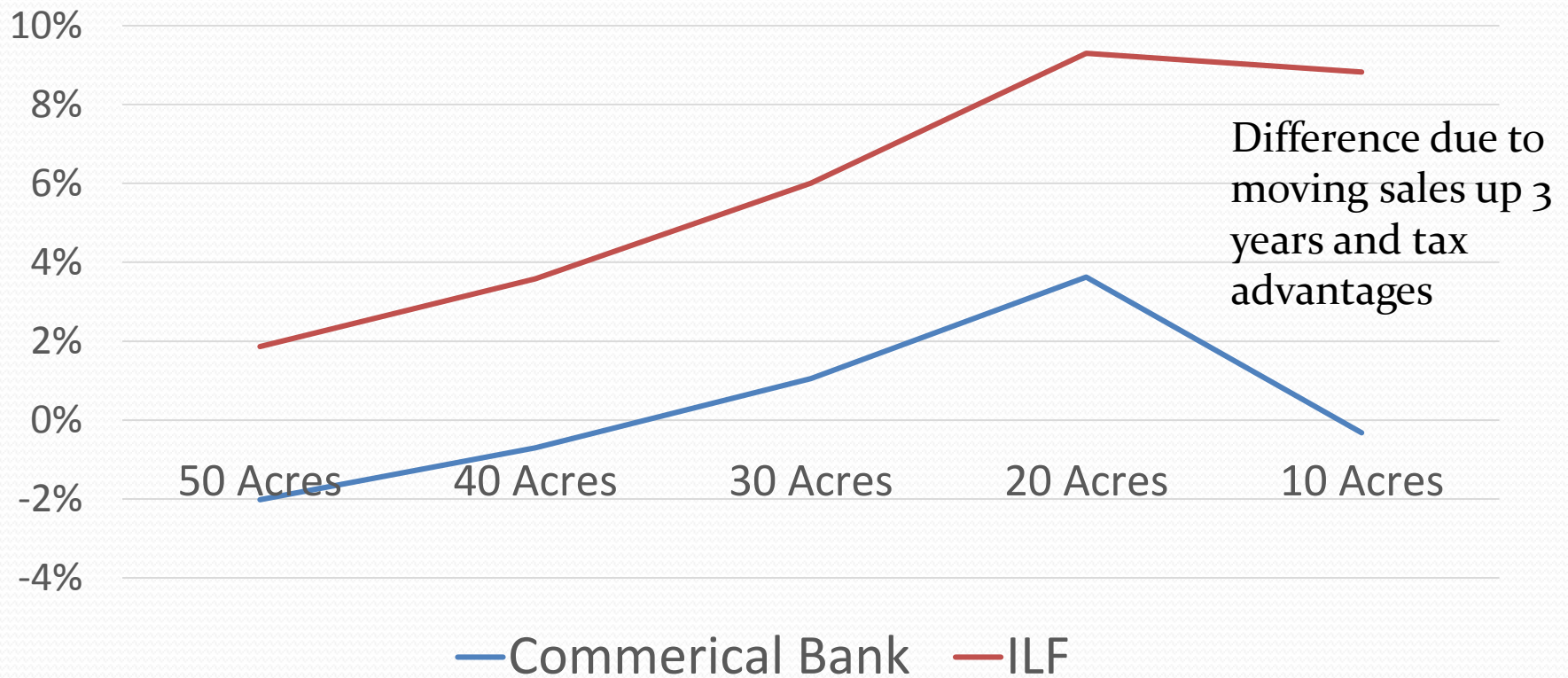


Well established credit markets still
face uneven demand and in some
regions no private supply is
forthcoming

Wetland Mitigation Credit Sales, Virginia (2011-2015)

Region	Avg Annual Credit Sales/Region	Avg Annual Credit Sales/Bank	ILF Avg Annual Adv Credit Sale
Atlantic Ocean	0.0	0	1.07
Chesapeake Bay	6.7	6.74	0.31
Chowan	53.0	6.63	1.00
Lower James	46.5	6.64	0
Middle James	30.5	6.10	0
New River	0.0	0	0.99
Potomac	27.9	1.55	0.06
Rappahannock	5.4	1.08	0.01
Roanoke	1.7	0.56	0.96
Shenandoah	0.0	0	0.36
Tennessee	0.0	0	0.46
Upper James	0.0	0	0.41
York	7.0	1.74	0.01

Rate of Return with Demand of 1 Credit per year



Note: In this simulation, ILF cannot generate positive NPV for potential demand of ½ acre

Conclusion

- Even in well developed markets, some areas face limited demand conditions.
- There are financial limits on the ability of private banks to serve off-site compensatory mitigation needs
- ILF programs selling advance credits have some financial advantages that but still face challenges



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Contact: Kurt Stephenson, Kurts@vt.edu