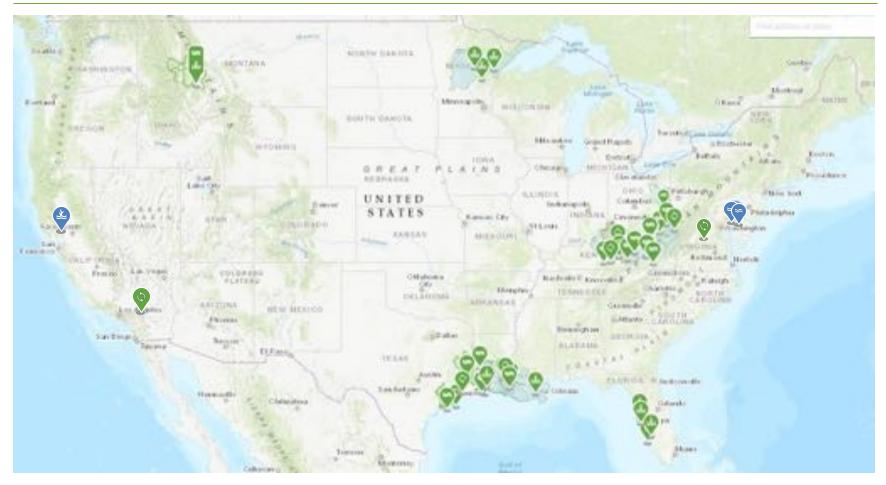




#### **EIP Portfolio Map**



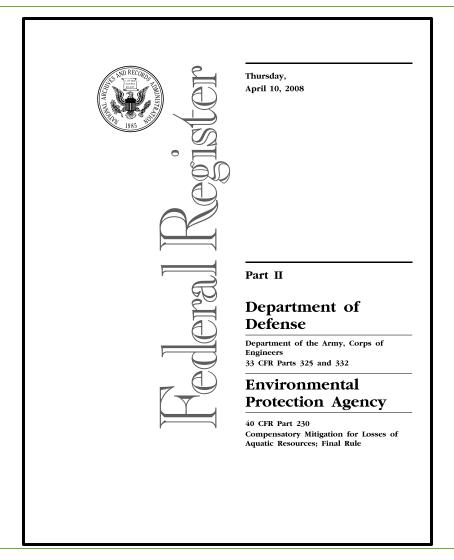








## **Federal Regulatory Context**





#### **Federal Legislative Context**

Rivers and Harbors Act of 1899 (Section 10,13)

Federal Water Pollution Control Act 1948,1956, **1972, 1977** 

# Section 314 of the National Defense Authorization Act of 2004

WRDA 07

#### WRRDA 16



#### Constitution of the United States Article 1, Section 8, Clause 3

"The Congress shall have power to..... To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;"



#### **Payment for Ecosystem Services**

"[C]onservation will ultimately boil down to rewarding the private landowner who conserves the public interest. It asserts the new premise that if he fails to do so, his neighbors must ultimately pay the bill. It pleads that our jurists and economists anticipate the need for workable vehicles to carry that reward."

Aldo Leopold, "Conservation Economics", Journal of Forestry, 1934



#### **Payment for Ecosystem Services**

# **LIMIT**

- "no net loss"
- "cap and trade"
- "individual tradable quota"
- "total maximum daily load"

# • functional acres • tons CO<sub>2</sub>e • lbs of fish landed • lbs of N reduction

# **GEOGRAPHY**

- service area
- historical range of species
- fishery
- watershed

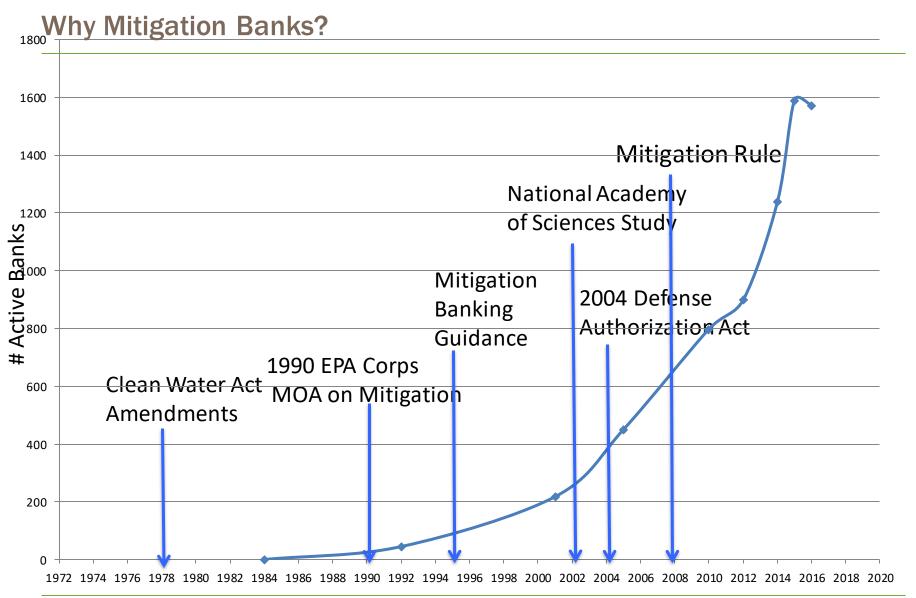
# **TRANSFER**

- mitigation bank
- · conservation barritigation
- catch shares

- bank
- water quality trading



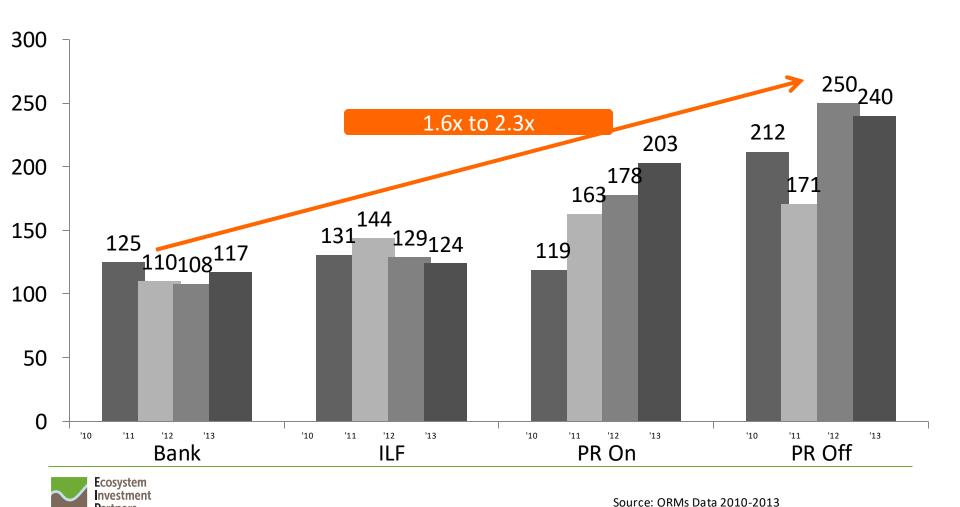
#### **# OF ACTIVE MITIGATION BANKS IN US**





# Permit Time (days) for various forms of mitigation

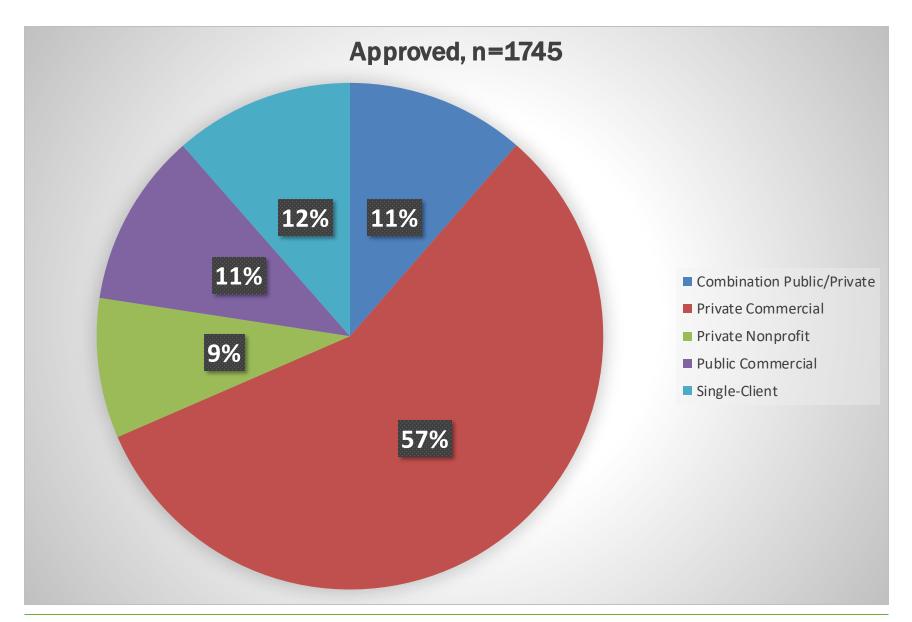
**Partners** 



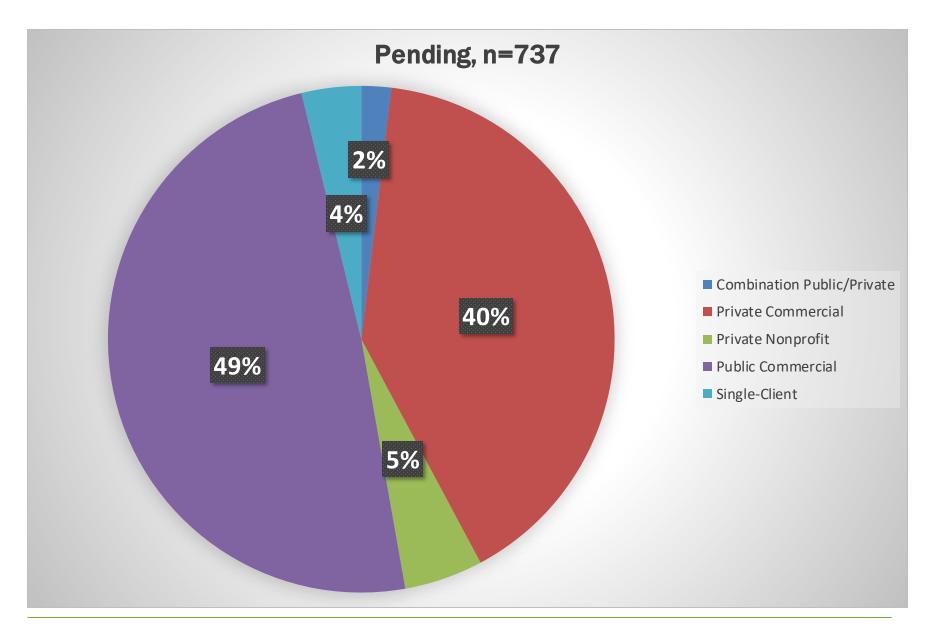
# MITIGATION OPTIONS AS REPORTED BY RIBTS

RIBITS data (Nov 3, 2018)	Approved		Sold Out	Suspended	Terminated	Total
Combination	100	4.4	F-7			274
Public/Private	199	14	57		4	274
Private Commercial	996	297	171	20	70	1554
Private Nonprofit	156	37	75		6	274
Public Commercial	194	361	199		22	776
Single-Client	200	28	47	2	20	297
Total	1745	737	549	22	122	3175

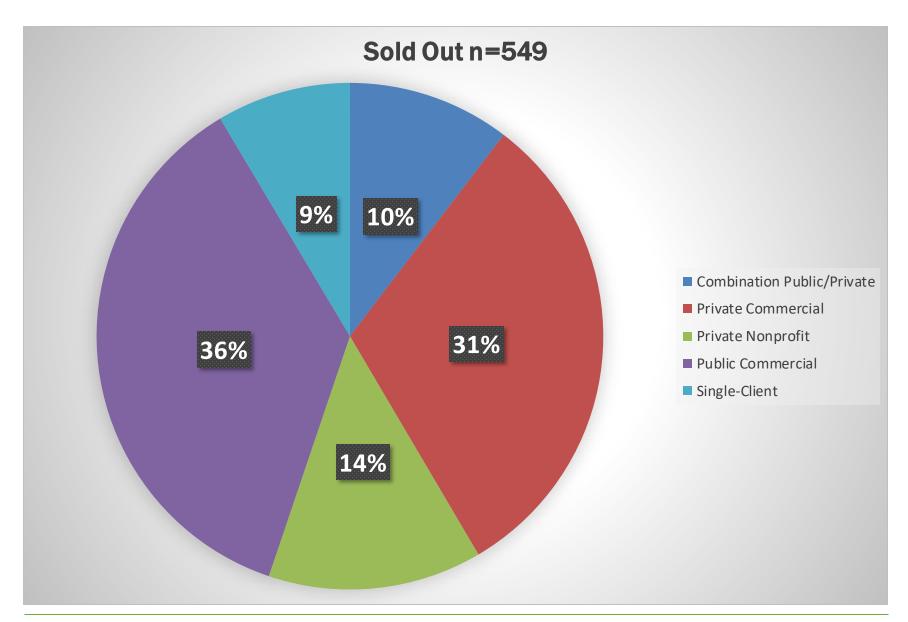














## MITIGATION OPTIONS AS REPORTED BY RIBTS

RIBITS data (Nov 3, 2018)	Approved		Sold Out	Suspended	Terminated	Total
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## **THREE EXAMPLES**

Kentucky Public Sector Mitigation

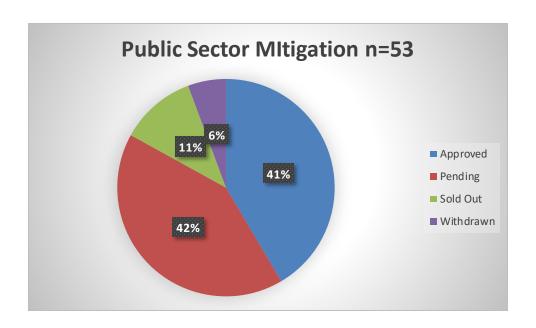
Lake Superior Mitigation Bank

Lookout Slough





#### **Kentucky Public Sector Mitigation**



Туре	Approved	Pending	Sold Out	Withdrawn	Total
DOT	9	1	6		16
ILF	13	21		3	37
Total	22	22	6	3	53

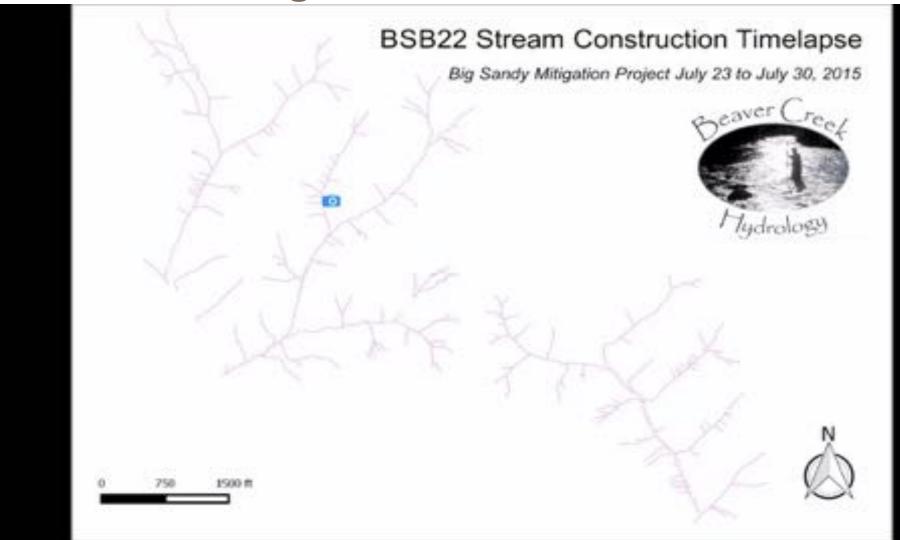


# Kentucky Fee In Lieu





# **Restoration in Progress**









# **Lake Superior Mitigation Bank**

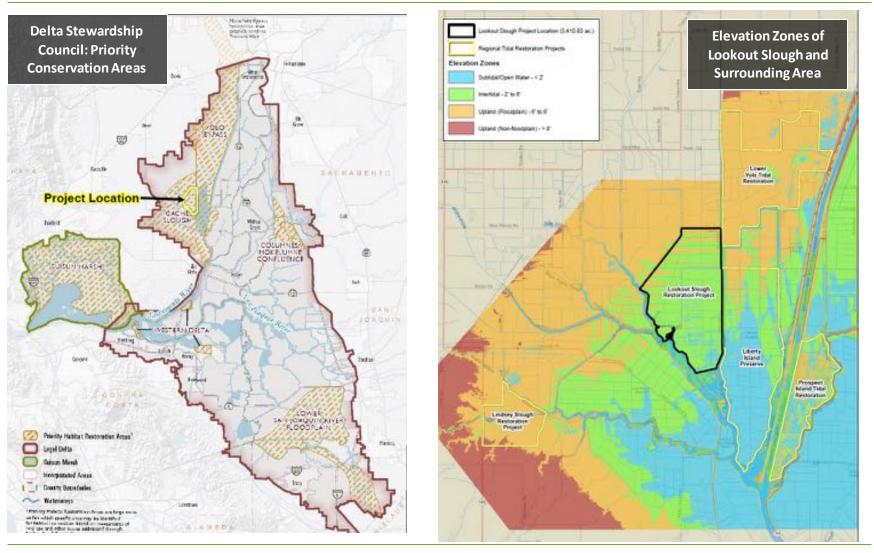




# **Lake Superior Mitigation Bank**



#### **Lookout Slough**





# **Lookout Slough**



