

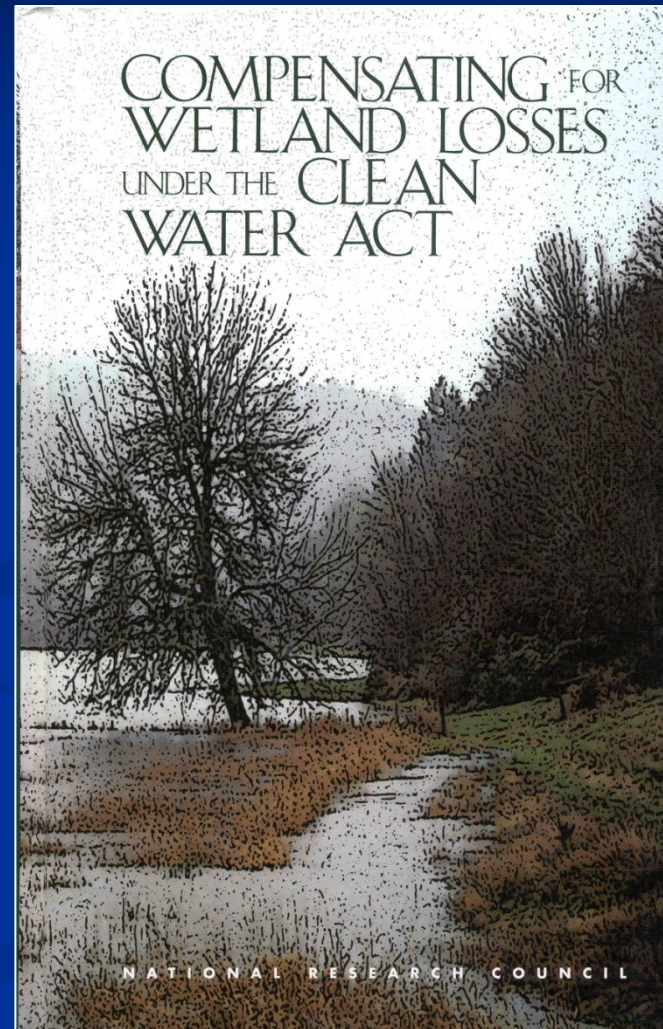
# Long-Term Management of Mitigation Projects



July 2013

# Problem

- *“The presumption that once mitigation sites meet their permit criteria they will be self-sustaining in the absence of any management or care is flawed.”*
  - National Research Council Report 2001



# Why long term management?

- Mitigation should be *self-sustaining* but management *may be needed* to meet objectives
- Ensure sustainable mitigation *after* performance standards are met



# Long Term Management of Mitigation Projects

*(33 CFR 332.7(d))*

- Permit or instrument must:
  - Identify responsible party
  - Allow for transfer of long-term management responsibilities
  - Address financing required for long-term management



# Timing of Financing

- Permittee-Responsible Mitigation - funding mechanisms approved *in advance of* impact (332.(7)(d)(4))
- Banks/ILF programs - timing of transfer of LTM & funding must be spelled out in instrument (or site-specific plan) (332.8(u))

# Long-Term Management Plans

- Include:
  - Description of management tasks
  - Annual cost estimates
  - Funding mechanism needed
- Funding mechanisms:
  - Non-wasting endowments, trusts, contractual arrangements with future responsible parties
  - Address inflation & other contingencies

# Examples of LTM Activities

- Fencing
- Signs
- Maintain structures
- Inventories
- Inspection
- Species management
- Protect from encroachment



# Long-Term Manager

- Identified in permit/instrument
- Default Manager
- Qualifications





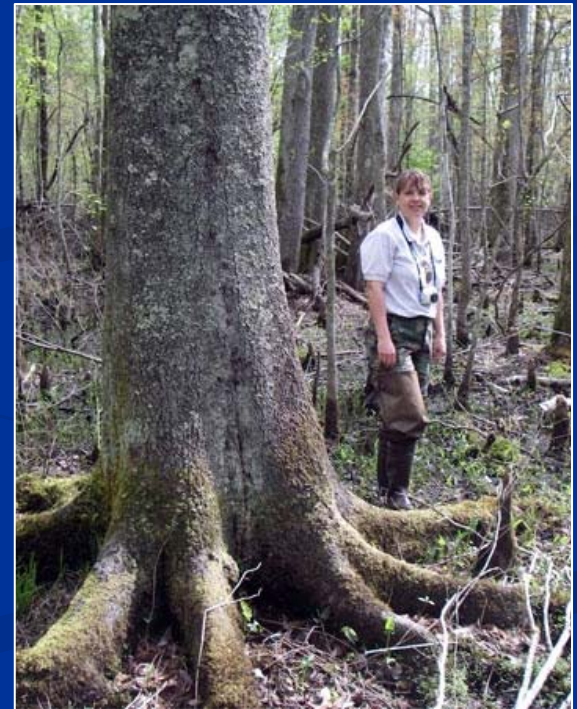
# Elements of a LTM Plan

- Background conditions
- Characterize site
- Permit/instrument requirements
- Management goals & objectives
- Management strategies & tasks
- Reporting
- Contingencies
- Legal provisions
- Funding



## Element: Describe background conditions:

- History
- Surrounding area
- Management context
- Legal, title, policy, and scientific guidance



## Element: Characterize the site

- Physical characteristics
- Ecosystem type(s) and processes
- Biological characteristics
- Physical improvements, previous enhancement, management history
- Management constraints  
e.g. burning, grazing, flooding, climate change



# Element: Permit or instrument requirements

- Compare to Reference Sites
- Vegetation - monitoring, % cover, etc.
- Wildlife
- Hydrology
- Site condition
- Reporting



# Element: Management Goals and Objectives

- Identify specific objectives and strategies
- Frame objectives in realistic terms



# Element: management strategies & tasks

- Tied to objectives
- Realistic and Feasible
- Reflected in the budget
- Adaptive management (incorporating new information over time)



# Element: Reporting Requirements

- Identify type, frequency, & recipients
- Schedule site visits with Agency representatives.
- Specify reporting period

# Element: Contingencies

- Liability/Insurance
- Remediation Plans
- Agency Coordination
- Adaptive Management
- Source of Funding
- 3<sup>rd</sup> Party Beneficiary
- Force Majeure/Acts of God

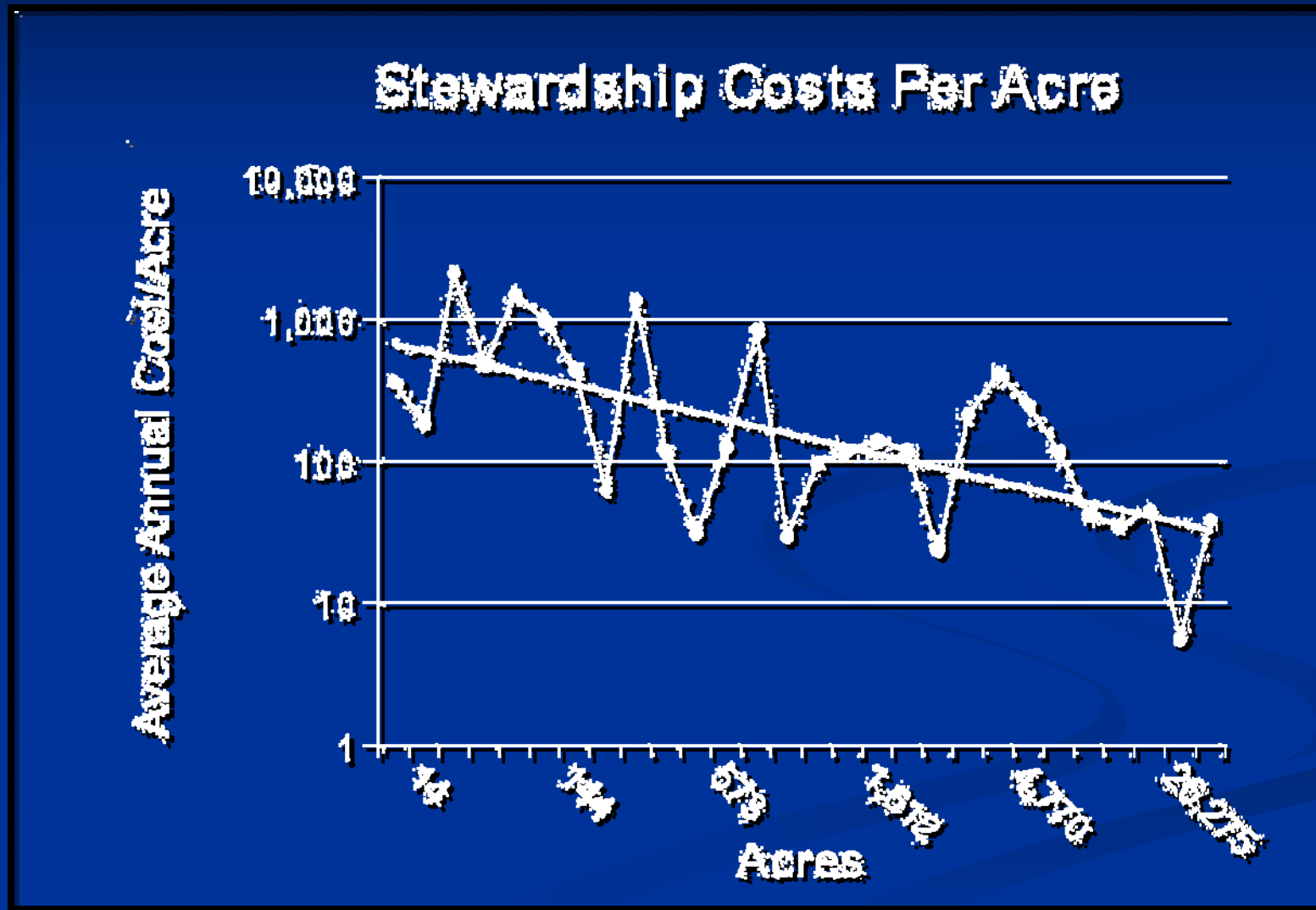




# Element: Funding

- Funding mechanism
  - Non-wasting endowments, trusts, contractual arrangements with future responsible parties
- Funding method
  - Lump sum
  - Payment schedule (e.g. tied to credit release)
  - Credit Sales – Timing of Sales & Contribution to Endowment
  - Annual Payments – Public Entity

# What Does LTM Cost? (answer: it depends)



# Determining Funding Amount

Key elements to look for:

- Itemized analysis of required actions
- Funding strategies
- Inflation rates
- Capitalization rates



# Itemized analysis

Section 8 - Initial & Capital Tasks and Costs  
 Property Title: East Coyote Hills/UNOCAL      Dataset: CA004      PAR ID: P141VER1      05/17/2005  
 Budget: PAR

Task list	Specification	Unit	Number of Units	Cost / Unit	Annual Cost	Times Years	Total Cost
<b>ACQUISITION</b>							
Inspection	Property inspection	L. Hours	4.00	43.00	172.00	1.0	172.00
Legal Assistance	Prepare/review documents	C. Hours	6.00	215.00	1,290.00	1.0	1,290.00
Conservation Easement	Acquisition - Lots 46, 172, A	L. Hours	8.00	50.00	400.00	1.0	400.00
Conservation Easement	Acquisition - Lots 46, 172, A	Item	1.00	125.00	125.00	1.0	125.00
Sub-Total							1,987.00
<b>SITE CONSTRUCTION/MAINT.</b>							
Fence	Maintenance/materials	Year	1.00	250.00	250.00	1.0	250.00
Lock	Padlock	Item	1.00	9.00	9.00	1.0	9.00
Fence	Maintenance/labor	L. Hours	16.00	33.00	528.00	1.0	528.00
Sub-Total							787.00
<b>BIOTIC SURVEYS</b>							
Project Management	Plan/coordinate	L. Hours	12.00	43.00	516.00	3.0	1,548.00
Plant Ecologist	Quantitative Monitoring	L. Hours	76.00	43.00	3,268.00	1.0	3,268.00
Plant Ecologist	Qualitative Monitoring	L. Hours	20.00	43.00	860.00	3.0	2,580.00
Ornithologist	CAGN: cactus wren	L. Hours	50.00	43.00	2,150.00	3.0	6,450.00
Science Director	Oversight and Review	Hours	26.00	46.50	1,209.00	3.0	3,627.00
Other	Adaptive Management	Year	1.00	2,500.00	2,500.00	3.0	7,500.00
Sub-Total							P179TEST - Roberts Ranch Combined & Phased

- ID management tasks

- Frequency

- Assign expected costs

HABITAT MAINTENANCE

Public Services

Tasking

Ind	Cat	Task	Specific Description	Initial Cost				Ongoing Cost							
				Units	Qty	Rate	#/Yrs	Cost	Units	Qty	Rate	#/Yrs	Cost		
<input checked="" type="checkbox"/>	Acc	Boundary Survey	Survey/staking	Item		5,000	2.00	2	20.00	Item		2,000	2.00	0	0.00
<input type="checkbox"/>	Acc	Conservation Easement P	Conservation Esmt. Cost												
<input type="checkbox"/>	Acc	Escrow	Fee												
<input checked="" type="checkbox"/>	Acc	Funding Efforts	Find Funding For Purchase	L. Ho		35,000	55.00	3	5,775.00	L. Ho		35,000	55.00	0	0.00
<input type="checkbox"/>	Acc	Hazardous Materials Insp	Contract For Haz. Mat.												
<input type="checkbox"/>	Acc	Inspection	Property Inspection												
<input checked="" type="checkbox"/>	Acc	Land Purchase	Acquisition Cost	Acre		200,000	113,000.00	1	22,600,000.00	Acre		0.000	0.00	0	0.00
<input checked="" type="checkbox"/>	Acc	Legal Assistance	Prepare/review Documents	C. Ho		12,000	175.00	1	2,100.00	C. Ho		12,000	175.00	0	0.00
<input type="checkbox"/>	Acc	Loan Repayment	Principal & Interest												
<input checked="" type="checkbox"/>	Acc	Negotiation	Negotiation Of Purchase	L. Ho		42,000	55.00	1	2,310.00	L. Ho		42,000	55.00	0	0.00
<input type="checkbox"/>	Acc	Property Search	Search Ownerships/maps												
<input type="checkbox"/>	Acc	Real Estate Commission	Pay Realtor												
<input type="checkbox"/>	Acc	Recording Fees	Record Documents												
<input type="checkbox"/>	Acc	Title Insurance	Standard CLTA												

Category: Acquisition      Position: Not Assigned      Person:      Admin Rate: 24.00      Contingency Rate: 10.00      Reoccurring Yr: 0      Reinvestment:       Acct Code: 00000      Phased:

Task: Boundary Survey      Specific: Survey/staking      Ongoing: Not Assigned      Admin Rate: 24.00      Contingency Rate: 10.00

Modified Last by: LG      Modified: 10/31/2007 10:23:32 AM      Assign Position      Global Rate Change      Financial Summary      Duplicate Task      Add a User Task

- Provides justification for LTM funding

# *1970 Price Index*



Gasoline	\$0.36/gallon
Median Income	\$8,734/yr
Median Rent	\$108/month
Median Home	\$17,000
Bread	\$0.24/loaf
Harvard Tuition	\$2,600/yr

# Buying power of an endowment after inflation

Using only the spread between investment returns and inflation for management



Return on investment  
– Inflation  
Capitalization Rate

Given 7% Rate of Return  
-3% Inflation rate  
Then 4% Cap Rate

# Capitalization Rate (used to determine needed funding)

Estimating the Amount to Invest

Need \$10,000/year for management

Capitalization Rate = 4 %

$$10,000 / .04$$

Amount needed = \$250,000



# Different capitalization rates

<u>Annual Budget</u>	<u>Cap. rate</u>	<u>Endowment</u>
\$10,000	1.0%	\$1,000,000
\$10,000	2.0%	\$500,000
\$10,000	4%	\$250,000
\$10,000	10%	\$100,000

# Example – A Bank in CA

- 775 ac
- 2 T/E spp & wetland restoration
- Tasks: monitoring, fire, grazing, invasive controls, debris removal, signage, fencing
- Annual management costs = \$27K
- Cap rate of 4%
- Endowment amount = \$675K  
or \$871/ac



# Example – A Bank in VA

- 1000 ac
- 748 wetland credits
- Tasks: inspection, maintain water control structure, stand improvement, invasives,
- Annual management costs = \$5K
- Cap rate 4%
- Endowment = \$125K  
or \$167/credit



## *Questions to ask of LTM plans*

- Are management tasks defined?
- Are long-term funding requirements identified?
- How will obligations be funded?
- What inflation rate was considered?
- Is the capitalization rate realistic?