Synthesis of Everglades Restoration and Ecosystem Services (SERES)

Critical Ecosystem Studies Initiative

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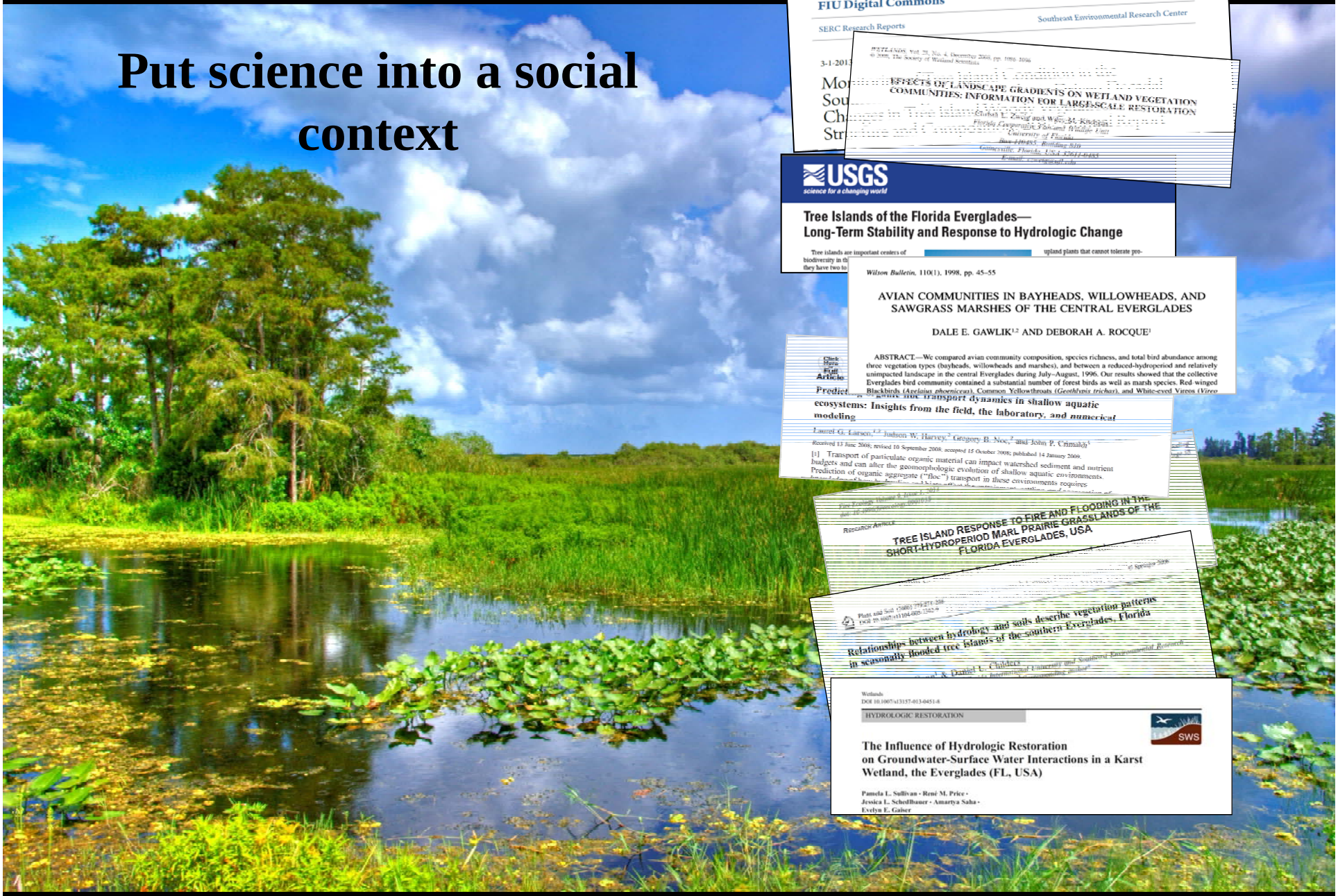
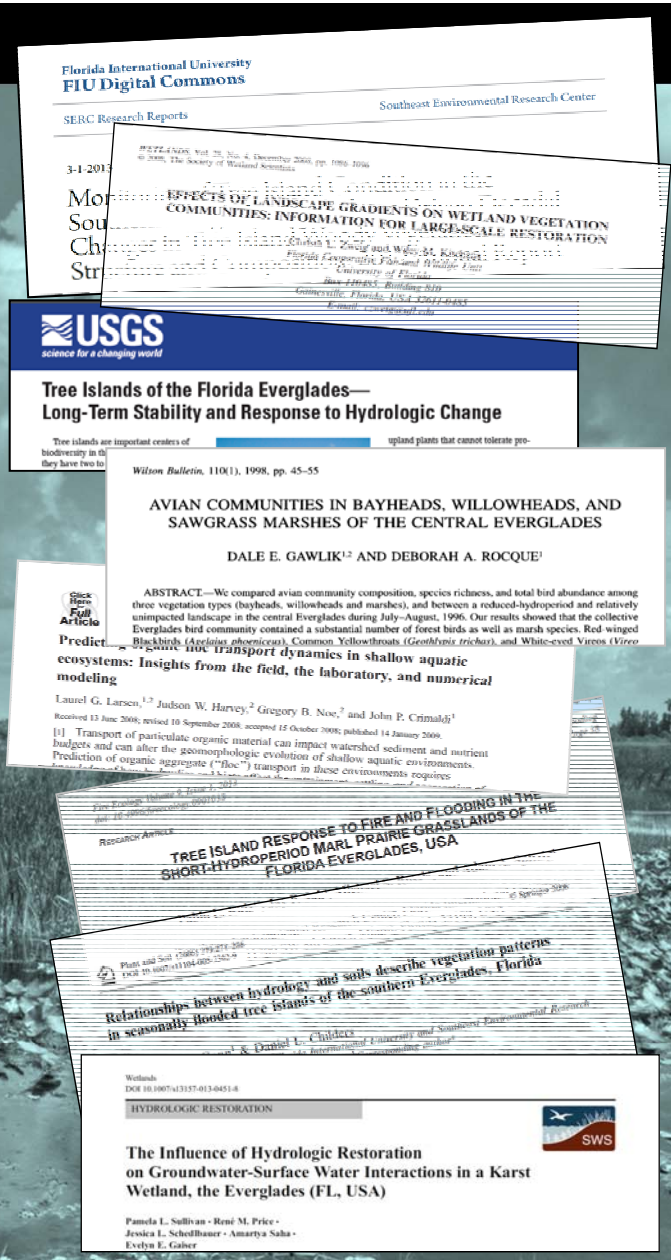
Put science into a social context



Analyze range of restoration scenarios that are relevant to decision maker questions

Alternatives evaluation process must be credible and relevant

Convey results in a useful way for multiple audiences



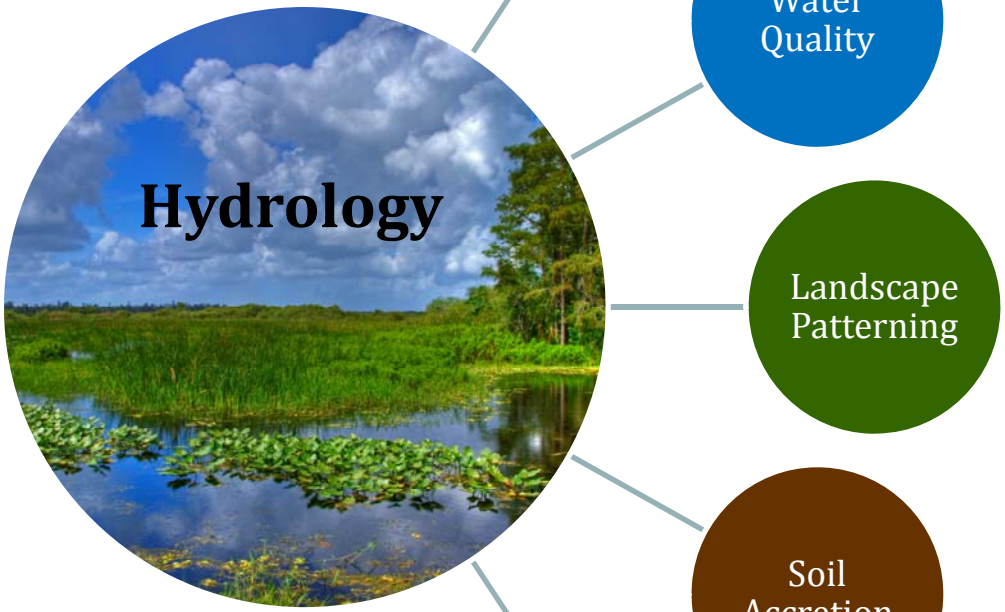
Restoration trade offs
Political considerations
Economic benefits
Desire consensus
Make decisions

Detailed and focused
Comfortable with uncertainty
Never know enough

Developed Key Restoration Questions

Decision maker questions focused on hydrology, economics, questions that help prioritize decisions

Ecosystem Services

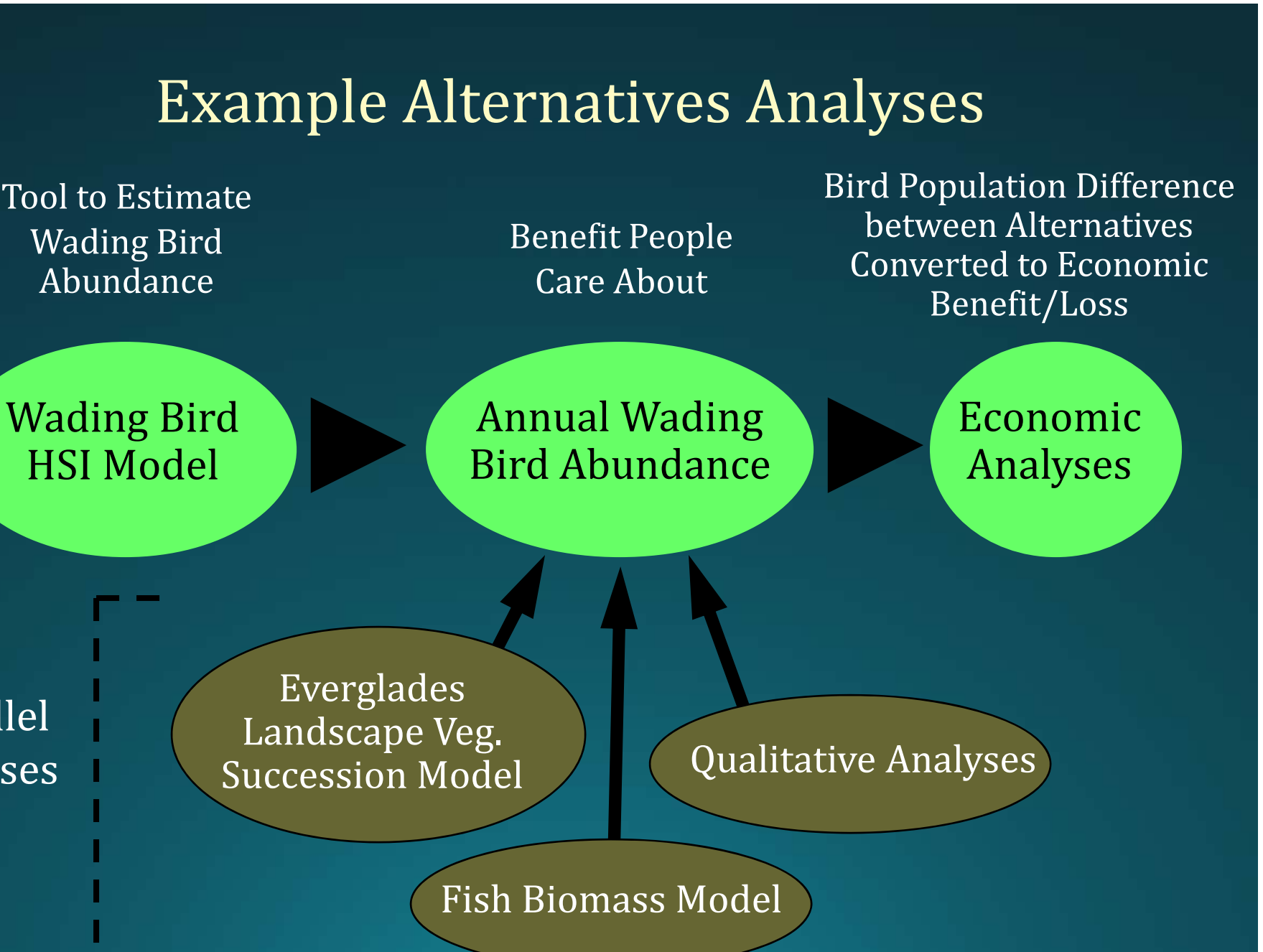


- Food Web Dynamics
- Water Quality
- Landscape Patterning
- Soil Accretion
- Florida Bay Salinity

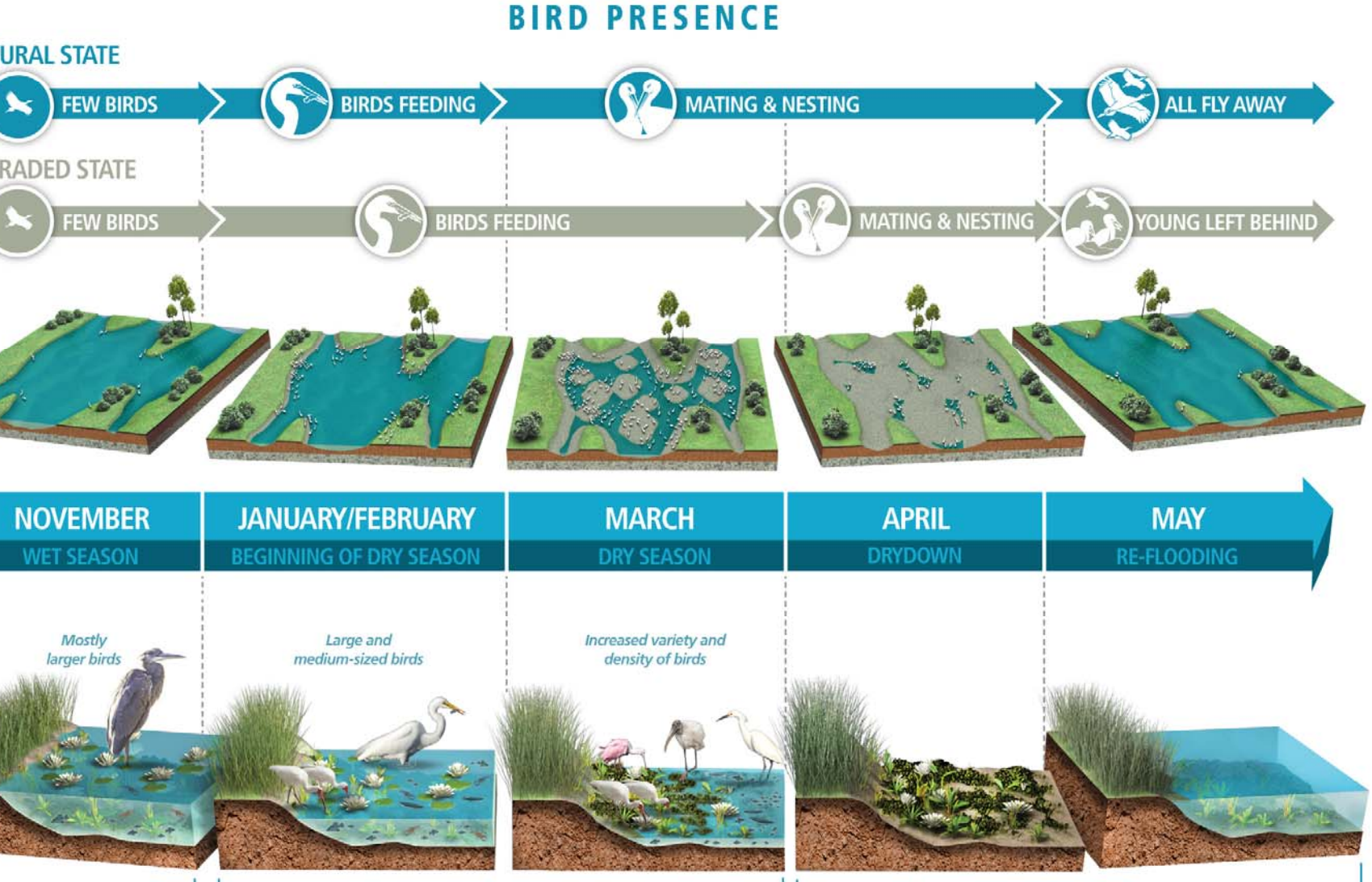
What do people care about?

- Water supply
- Real estate
- Park visitation
- Open space
- Fishing (commercial & recreational)
- Wildlife habitat & hunting

Example Alternatives Analyses



Ridge and Slough Fish Concentration and Bird Food



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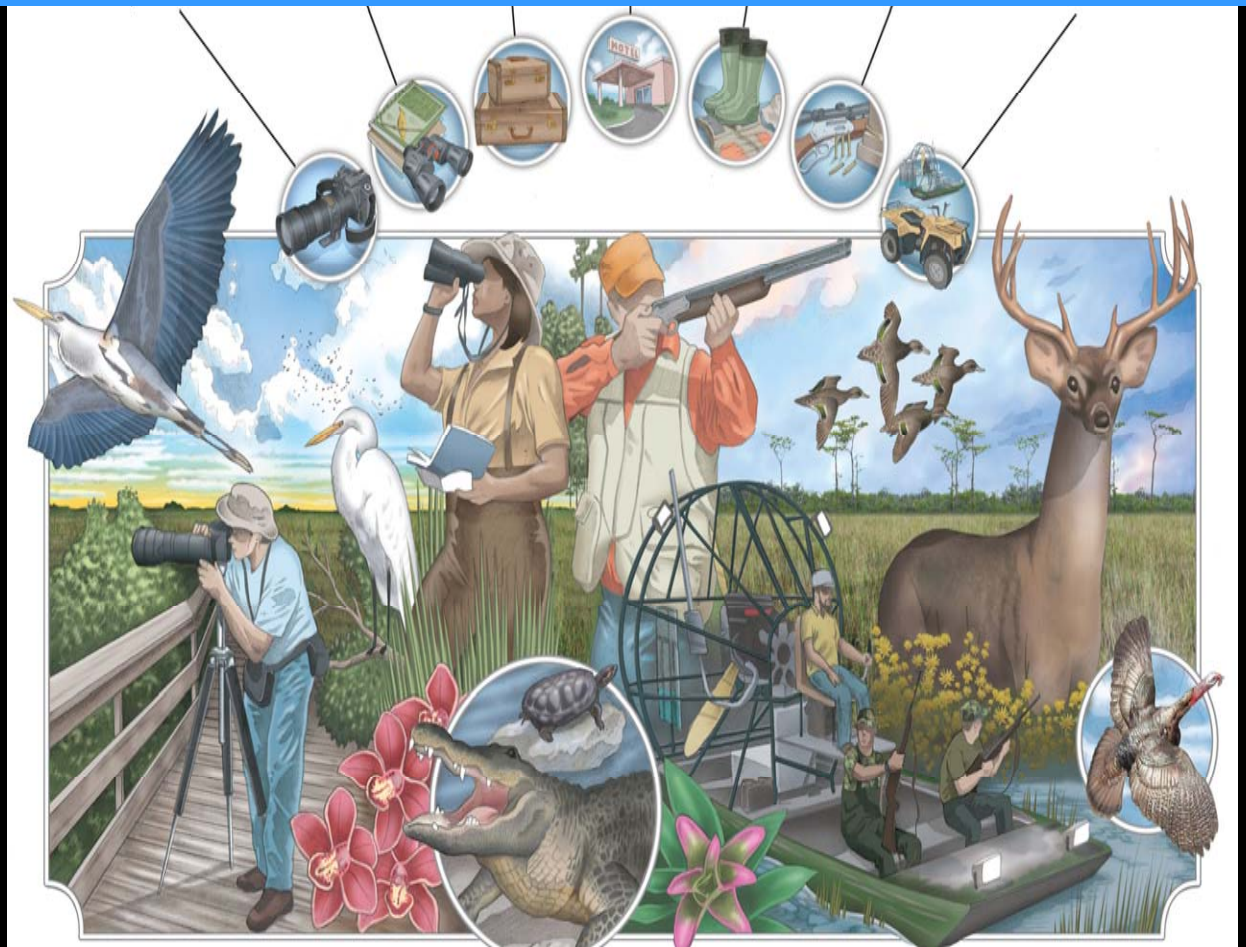
Hunting & Bird Watching

$1.04 Billion over 40 years



Storage

ASR (MGD)	EAA (kacre-feet/yr)	Lake Belt (kacre-feet/yr)
1000	360	144
250	360	0
0	1300	0
0	2500	144

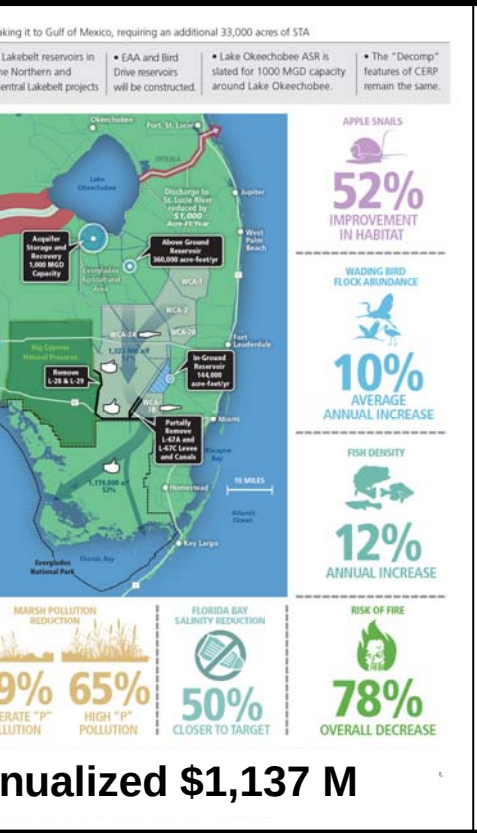
Decomp

L-67 Levees Removed	L-67A Canal Filled	L-38 (WCA-2A/3A)
Partially	Lower 4 miles	Existing
Partially	Lower 4 miles	Existing
Removed	14 miles	Existing
Removed	14 miles	Removed

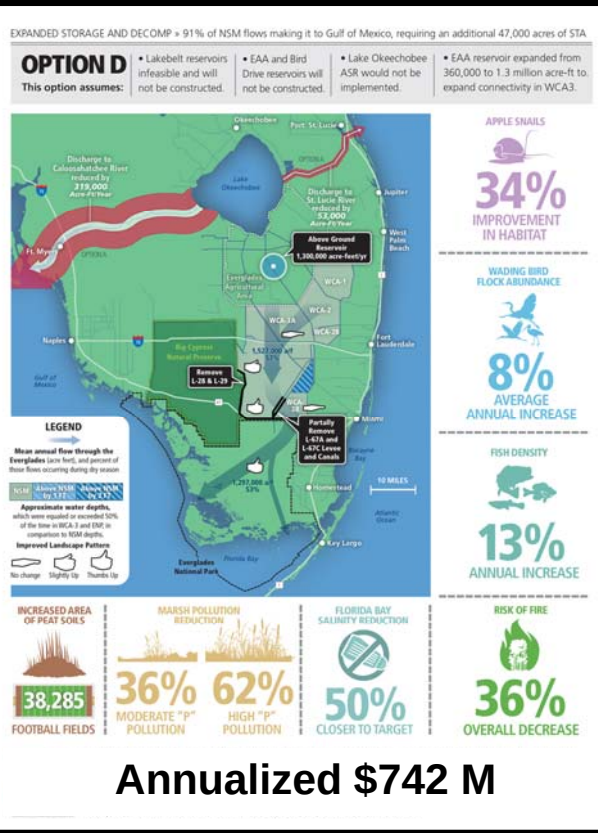
Cost

New STAs (kacres)	Annualized Cost ($ millions; 3.25% discount over 50 yrs)
33	1,137
28.5	699
47	742
30.5	1,159

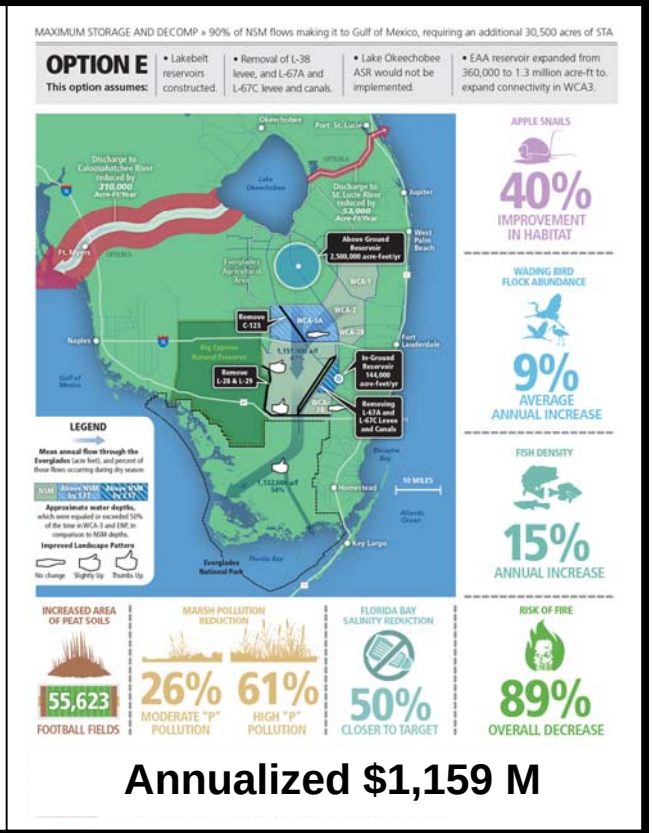
Restoration Alternatives Analyses



nualized $1,137 M



Annualized $742 M



Annualized $1,159 M

- Hydrologic improvement in all scenarios
- Sheet flow & annual hydroperiods restored

rocess for large restorations

Pros

Focus on “things people care about”

Directly addresses management needs

Best available science & scientific judgement

Uses existing tools

Cons

- Difficult to organize
- Requires centralized management
- Requires time