

Rethinking the Endangered Species Act's Implementation on Private, Working Lands

PROBLEM DEFINITION

Conservation of private lands habitat is vital to the success of the Endangered Species Act (ESA) as these lands account for more than 2/3 of endangered species' habitat (Groves et al., 2000). The past 30 years have seen development of new, voluntary tools for the conservation of endangered species on private lands.

This research examined various incentive-based approaches to endangered species conservation to determine their effectiveness. Based on surveys of private landowners and analysis of the voluntary tools utilized by landowners, we offer recommendations to make the ESA more successful on private lands.

SURVEYS

We interviewed 16 forest landowners, agency personnel, and forestry consultants for an hour each on their perspectives on voluntary conservation agreements, regulatory assurances¹, financial incentives², technical assistance³, ecosystem-based approaches⁴, and disparities in monitoring and compliance in conservation programs.

- The importance of regulatory assurances varies between landowners. Some large landowners preferred informal handshake agreements without assurances, while others valued formal assurances.
- Financial incentives are more important for small landowners, though large landowners would welcome them if available.
- Technical assistance is more important for small landowners than large ones.
- Most landowners support an ecosystem-based approach as a way to reduce management costs and cover newly listed species impacting their property.
- Landowners are generally open to using alternative methods, such as forest certification, as a monitoring tool.

¹ Assurances are agreements to limit regulatory liability in exchange for conservation actions
² Financial incentives includes monetary support for management activities on the enrolled land
³ Technical assistance includes working expertise on wildlife management, skills training, and otherwise
⁴ Ecosystem-based approaches towards endangered species management considers the health of the habitat as a whole, not just as a species-by-species basis.

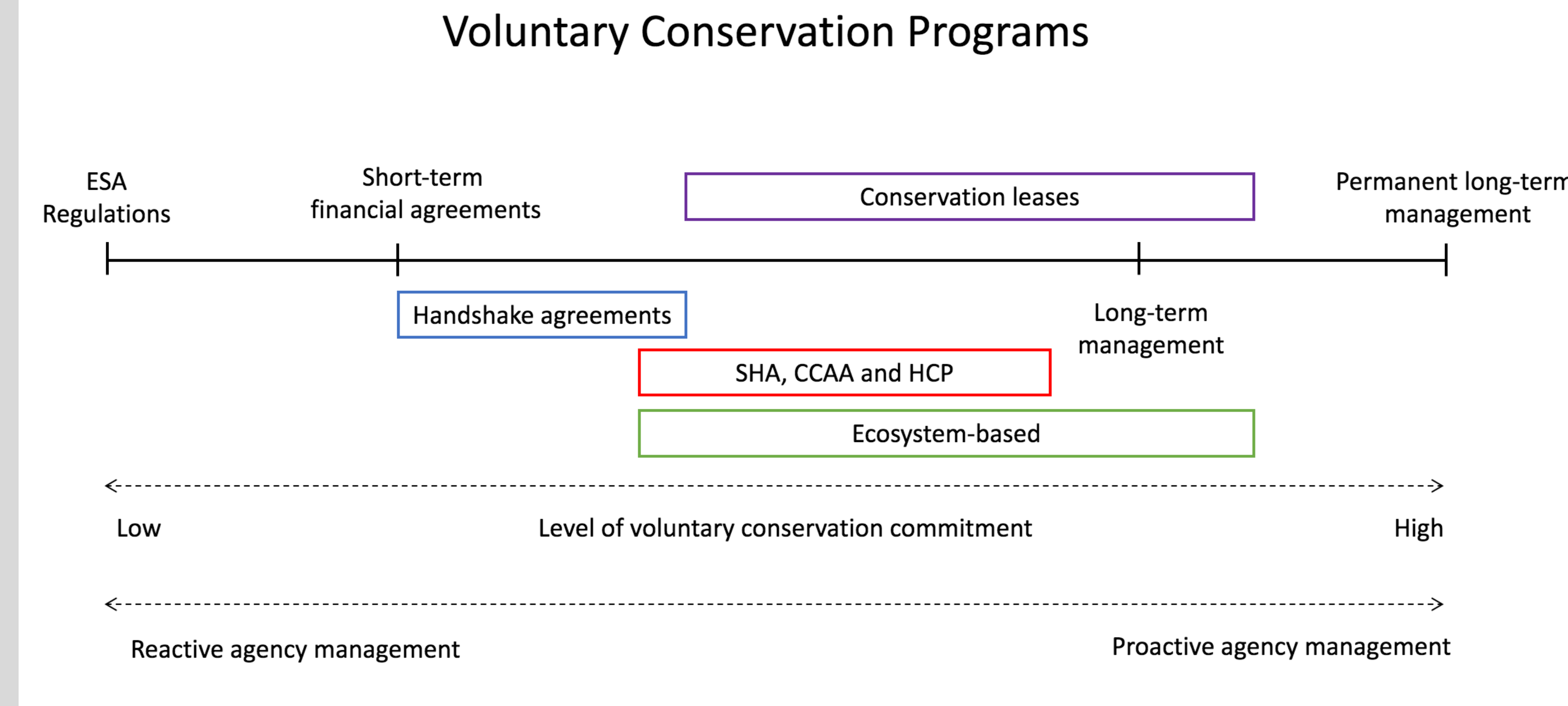


Figure 1: Voluntary opportunities for landowners enrolling in conservation programs to protect endangered species. Programs range in level of conservation commitment required by landowners to participate. Agency involvement starts with reactive management dealing with protecting endangered species to proactive management where the focus is on preventing species from being listed in the first place.

SAFE HARBOR AGREEMENT (SHA) ANALYSIS

We examined a subset of SHAs (voluntary conservation agreements) from across Fish & Wildlife Service (FWS) regions, species type, and size of enrolled land to extract patterns across several attributes.

Our study revealed:

- Landowner commitments range widely, from almost nil to highly intensive.
- Baselines are established in different ways and use many different metrics, sometimes habitat-based and sometimes population count-based.
- Monitoring requirements are equally variant and are often not implemented.

While some level of variation in these attributes is needed to reflect the diversity of the species the agreements address, these results strongly suggest a need for consistent, streamlined approaches.

Species-by-Species Approach	Longleaf Pine Forest	Ecosystem-based Approach
<p>Assurances based on species population levels</p> <ul style="list-style-type: none"> - Ex. Number of Red-cockaded woodpecker breeding pairs 		<p>Assurances based on habitat characteristics</p> <ul style="list-style-type: none"> - Ex. Acres of high quality longleaf-pine forest burned once every 3 years
<p>Pros:</p> <ul style="list-style-type: none"> - Tailored to current legal regime - Decades of agency expertise and experience - Easier to measure species-specific outcomes 		<p>Pros:</p> <ul style="list-style-type: none"> - Easier management and monitoring - Increased landowner buy-in - Incorporates new and candidate species
<p>Cons:</p> <ul style="list-style-type: none"> - Can be unwieldy and inefficient - Fails to incorporate new or candidate species 		<p>Cons:</p> <ul style="list-style-type: none"> - May be difficult to measure species-specific outcomes - Awkward fit with legal regime

Figure 2: Comparison of traditional species-by-species approach with proposed ecosystem-based framework. In the longleaf-pine ecosystem, for example, employing the former approach for Red-cockaded Woodpeckers may necessitate a specific management regime that omits other species' habitat considerations. The latter approach folds in these considerations by working at the community or ecosystem level to craft assurances.

CONSERVATION LEASING

A new tool is needed to bridge the gap between a non-permanent and multi-year agreement offering assurances and incentives to landowners.

We propose a “conservation leasing” program that would incorporate financial incentives, technical assistance, and regulatory assurances into one program. State agencies would apply for funding through the Land and Water Conservation Fund’s Cooperative Endangered Species Conservation Fund and then lease land from landowners for the conservation of endangered species on their properties.

Conservation leasing provides:

- Ability to set a time frame to best suit landowner from 5 to 15 years.
- Assurances, financial incentives, and technical assistance to participating landowners.
- State wildlife agencies with authority to oversee conservation measures, which may appeal to private landowners.

ECOSYSTEM-BASED APPROACH

While the stated purpose of the ESA is “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved,” implementation of the act is undoubtedly species-focused. In some cases, FWS has already used this and other textual hooks to implement a more ecosystem-based approach through its implementing rules and regulations. However, much more can be accomplished, at least in the context of voluntary conservation agreements, if FWS pursues an ecosystem-based pilot program - using the broad language of Sections 7(a)(4), 4(d), or 10(a)(1)(A) - that ties landowner assurances to either:

- Entirely habitat-based metrics for species baselines and monitoring (see Fig. 2)
- Carefully selected indicator species that serve as surrogates for other target species

Reference: Groves, C., Kutner, L., Stoms, D., Murray, M., Scott, J., Schafale, M., Weakley, A., Pressey, R. (2000). Owing up to our responsibilities: Who owns lands important for biodiversity? In B. A. Stein, L.S. Kutner, & J.S. Adams (Eds.), *Precious Heritage: The Status of Biodiversity in the United States* (pgs 275–300). New York: Oxford University Press.