DEFENDERS OF WILDLIFE ESA POLICY WHITE PAPER SERIES

DUNES SAGEBRUSH LIZARD:

THE CAUTIONARY TALE OF A CANDIDATE SPECIES DENIED

ABOUT THIS PUBLICATION

This white paper is the second in a series laying out Defenders of Wildlife's vision for the Endangered Species Act (ESA) over the next 10 years. The ESA is the most important and far-reaching wildlife conservation law in the United States, and Defenders has long been a leading advocate for science-based, pragmatic interpretation and implementation of the law. Our endangered species policy and legal experts carefully evaluate the application of the ESA. We look for opportunities to promote innovative strategies and reforms to make the ESA more effective and efficient and pursue initiatives that are bold, transformational and strategic. Through the ESA Policy White Paper Series, we are presenting our ideas to foster collaboration with others who share our vision for the recovery of North America's imperiled plants and wildlife.

Coauthors: Ya-Wei Li and Tim Male
Designer: Kassandra Kelly

Defenders of Wildlife is a national, nonprofit membership organization dedicated to the protection of all native wild animals and plants in their natural communities.

Jamie Rappaport Clark, President and CEO
Donald Barry, Executive Vice President

1130 17th Street, N.W.
Washington, D.C. 20036-4604
202.682.9400
www.defenders.org

Cover: Former candidate species discussed in this white paper: Dunes sagebrush lizard, courtesy Diana-Terry Hibbitts. Back cover: Lesser prairie chicken, courtesy Larry Lamsa, Flickr.

INTRODUCTION

Defenders of Wildlife supports using incentives to increase public and private investments in the conservation of all wildlife, including species that warrant protection under the Endangered Species Act (ESA) but have not yet received it. For these "candidate" species, earlier conservation may reduce the overall time and cost of recovery or even negate the need for listing. As director of the U.S. Fish and Wildlife Service (FWS) from 1997 to 2001, our president and CEO, Jamie Rappaport Clark, helped launch a number of innovative candidate conservation policies.

In the following decade, candidate conservation progressed at a steady but modest pace, rarely attracting overwhelming fanfare or controversy. That trend changed in the summer of 2011, when FWS announced that it would decide whether to list more than 250 candidate species during the next six years.[1] The news prompted a surge of interest in voluntary conservation for these species. The idea is that landowners would agree to conserve species on their property, hoping to either forestall a listing or minimize the land-use restrictions that would accompany one.

For some candidate species, enough conservation could be accomplished to obviate the need for listing. For many other species, however, intervention may come too little, too late. By the time conservation measures are deployed, these species have declined to such dangerously low levels or suffered such incessant threats that listing becomes the only option. In the past, FWS has rarely declined to list a species based on voluntary conservation efforts on private or state lands.

FWS has suggested, however, that these efforts might play a more prominent role in avoiding listings in the future. On June 13, 2012, FWS announced its decision that the dunes sagebrush lizard, a candidate species for over a decade, no longer warranted listing.[2] This last-minute reversal was based largely on two conservation agreements for the species, one for New Mexico and another for Texas.[3] Interior Secretary Ken Salazar remarked that the public should "take inspiration" from the withdrawal decision in their work to conserve another candidate species, the greater sage grouse, which has a listing deadline in 2015.[4] Likewise, when FWS proposed to list the lesser prairie chicken in December 2012, Senator James Inhofe stated that FWS Director Dan Ashe assured him there is "still a good chance" of withdrawing the proposed listing if enough successful voluntary conservation measures were implemented.[5] These signals imply that FWS may rely increasingly on voluntary agreements to prevent listings, especially agreements covering state and private lands.

But when are voluntary agreements an effective substitute for the protections of the ESA? The answer may seem clear for some species, such as geographically restricted plants facing threats that can be easily managed through proven conservation measures. For other species, however, threats are widespread, poorly understood or evade simple solutions. It can be far more difficult to design effective voluntary conservation agreements for those species. Once the agreements are finalized, it can be equally challenging to assess whether they make listing unnecessary. Often, the underlying conservation strategies require many years to reveal their effectiveness and shortcomings. Another difficulty is FWS's limited experience with voluntary agreements for private or state lands. FWS has finalized only 26 such agreements, also known as candidate conservation agreements with assurances (CCAAs).[6] Of these agreements, only three have contributed to decisions not to list a species.[7] Much remains unsettled and unproven about the use of CCAAs to preclude listing.

This white paper recommends improvements to how FWS evaluates CCAAs and other voluntary conservation commitments in listing decisions. Many of our recommendations are best illustrated through the lens of the withdrawal decision for the dunes sagebrush lizard. In that decision, FWS concluded that the best available scientific data showed the lizard no longer warranted listing. We scrutinized the decision, filed requests for government records, and spoke with FWS staff involved in the decision. The first part of this report reveals our findings, many of which are troubling. The next two parts address these problems and recommend a series of pragmatic improvements that begin before a species is ever placed on the candidate list and end years after FWS decides that the species no longer warrants listing.

How do CCAAs differ from other candidate agreements and what "assurance" do they offer?
FWS offers two types of conservation agreements for candidate species: candidate conservation agreements (CCAs) and candidate conservation agreements with assurances (CCAAs). Any landowner can enter into a CCA, but only nonfederal landowners can enter into CCAAs, which were introduced in 1999. Unlike CCAs, CCAAs provide participants with a regulatory assurance that if the candidates species covered by the agreement is later listed, the landowner will not be required to take any conservation measures beyond those identified in the agreement. Because federal agencies are obligated under section 7(a)(1) of the ESA to affirmatively conserve species, FWS has declined to grant assurances to federal agencies. CCAA participants also receive an assurance against unlawful "take" of the species should it become listed, so long as the level of take is consistent with the levels specified in the agreement.

1 Exposing the Problems with Dunes Sagebrush Lizard Decision

When the dunes sagebrush lizard was proposed for listing in December 2010, it had been almost 28 years since FWS first recognized its troubled status.[8] By 2001, the lizard was so imperiled that FWS assigned it a "listing priority number" of 2 (on a scale from 1 to 12), which is reserved only for species facing threats that are both imminent and of a high magnitude.[9] The lizard is found only in sand dunes that support shinnery oak. By 1982, New Mexico had lost an estimated 85 percent of this habitat. Over the next 18 years, the state would lose another 40 percent of the remaining habitat to oil and gas development, agriculture, grazing and other land uses. Similar losses occurred in Texas, the only other state the lizard inhabits. Because of the "immediacy, severity and scope" of threats to the species, FWS proposed to list it as endangered on December 14, 2010.[10]

Eighteen months later, FWS made a 180-degree turn, finding that the lizard was no longer endangered or threatened and withdrawing the proposed listing.[11] The withdrawal cites several reasons for not listing the lizard, including the discovery of additional sites the lizard occupied and the more protective standards for oil and gas development on lands in New Mexico managed by the Bureau of Land Management. But most importantly, FWS relied on the large amount of private land enrolled in two candidate conservation agreements for the lizard: one for New Mexico, finalized in December 2008, and another for Texas, finalized in February 2012—only four months before the withdrawal decision. By May 2012, about 95 percent (523,129 acres) of the lizard's habitat in New Mexico was enrolled in that state agreement, while 64 percent (138,640 acres) of the lizard's mapped habitat in Texas (217,365 acres) was enrolled in that state agreement.[12] Both agreements offer private and state landowners an important incentive to participate: a legal assurance that if the lizard became listed, the landowners will not be required to take any conservation measures or face any land-use restrictions beyond those identified in the agreement.

The crux of both agreements is the conservation measures that participants will implement. The New Mexico agreement describes a host of measures to avoid, minimize and mitigate harmful impacts to the lizard, including mandatory "no leasing" of designated conservation lands to oil, gas or wind power development.[13] No single participant implements all of the measures. Instead, each implements only the subset of measures described in their individual certificate of inclusion, which is a subagreement within the overarching New Mexico agreement. As a result, only the certificates reveal the measures that landowners will actually implement.

The Texas agreement is structured similarly to the New Mexico agreement. It also uses certificates of inclusion to enroll landowners and document the actual conservation practices they have agreed to implement. In both cases, it is the certificates of inclusion—not the overarching state agreements—that are critical to understanding the scope of the conservation practices.

Despite this similarity between the agreements, the Texas one suffers from two unique flaws that challenge our ability to comprehend how FWS approved it. First, many of its conservation measures are diluted by discretionary or qualifying language. It is nearly impossible to know the extent to which participants need to comply with these measures because they are given tremendous latitude to decide, on their own, when and how rigorously to implement the measures. Below are several examples, with the discretionary language italicized.

- *When feasible in the reasonable judgment of the Participant,* Well Sites *should* be developed outside of dunes sagebrush lizard (DSL) Habitat.

- *When feasible in the reasonable judgment of the Participant,* utilize closed loop drilling systems to reduce pit construction and heavy equipment activity.

- *When feasible in the reasonable judgment of the Participant,* avoid DSL Habitat; if necessary, lay lines over DSL Habitat via foot, while seismic truck can be located 200 meters from lines.

- Utilize directional drilling for avoidance of DSL Habitat, *when practical.*

- Limit seismic surveying to areas outside of DSL Habitat or utilize walk-in geophone (or other smaller seismic surveying equipment) *where possible.*

- *When feasible,* schedule temporary surface disturbance activities such as installation of lines during periods of seasonal DSL inactivity (i.e., October to March).[14]

All this discretion means that the Texas agreement says little about what conservation measures will actually be implemented. As a result, each certificate of inclusion becomes essential to understanding the effectiveness of the agreement.

This brings us to the second flaw with the agreement. When FWS announced its withdrawal decision, it provided the certificate for only one landowner.[15] That sample contained very specific conservation measures, including avoidance requirements for oil and gas development. But what did all the other certificates say? We sought copies of these certificates, but were dismayed to learn that FWS did not have them. In fact, it never reviewed them. As it turns out, each certificate is negotiated, drafted and approved by the Texas Habitat Conservation Foundation, a contractor hired by the Texas Comptroller of Public Accounts to administer the agreement. The comptroller's office holds the ESA permit for the agreement, so it is responsible for enrolling landowners and other vital aspects of implementing the agreement. The Foundation, the comptroller's office, and FWS all confirmed that FWS is not involved in negotiations, reviews or approvals of individual certificates.

We also learned that FWS could not obtain or review the certificates because the comptroller's office considers them confidential under Texas law. In response to our Texas Public Information Act request, the comptroller's office indicated that the certificates, in their entirety, are "confidential by law, and excepted from public access under Texas Government Code, Section 552.101."[16] That provision protects from disclosure any information relating to the specific location, species identification or quantity of any animal or plant covered by a candidate conservation plan in Texas, if that information was

Why Use Certificates of Inclusion?

Many CCAAs are agreements between FWS and one landowner, but others are "umbrella" or "programmatic" agreements between FWS and a state or local government or other entity, which in turn enrolls multiple landowners under the CCAA. These programmatic CCAAs specify the minimum requirements for enrolling landowners, but not the exact conservation measures that landowners must agree to implement. Rather, those details are worked out between each landowner and the state or local government or other entity, and captured in certificates of inclusion or certificates of participation. Both the New Mexico and Texas agreements are programmatic CCAAs and involve certificates with landowners.

collected by a Texas state agency from a private landowner participating in the conservation plan.[17] The comptroller's office has interpreted this confidentiality provision so expansively that it refuses to disclose any portion of a certificate unless a participant consents to disclosure in writing.[18] By this logic, every sentence of every certificate contains information relating to the location, identification or quantity of dunes sagebrush lizard. The Office of the Texas Attorney General has affirmed this expansive interpretation in an opinion dated December 3, 2012.[19]

If FWS had not reviewed the certificates, we find it difficult to understand the basis of some of their positive statements about the conservation measures in the Texas agreement. For example, the withdrawal decision states that the agreement "direct[s] that new power-line construction be allowed only outside of shinnery oak dune habitat."[20] The agreement itself does not actually require this avoidance measure. Instead it states only that, on a "case-by-case basis as appropriate," participants may "maximize use of existing developed areas and rights-of-ways for infrastructure supporting the development of the well (roads, power lines, pipelines, flowlines)."[21] This is far from a blanket prohibition on new power-line construction in dune habitat. Another example is the claim that the Texas and New Mexico agreements "restrict or limit seismic exploration within dunes sagebrush lizard habitat."[22] In reality, the Texas agreement allows participants and the comptroller's office to decide, on a case-by-case basis, whether to "limit seismic surveying to areas outside of DSL Habitat…where possible."[23] This final qualifier shows that the agreement itself does not restrict or limit seismic exploration.

If FWS did not review the certificates, how could it have determined whether the agreement was adequate to preclude listing? It appears that FWS relied heavily on the fact that the Texas agreement "limits habitat loss to 1 percent of delineated dunes sagebrush lizard habitat within the first three years, with a total of 10 percent of the entire delineated habitat allowed to be taken over the 30-year life of the plan."[24]

We believe FWS is unable to directly monitor, evaluate and enforce this cap. To stop the loss of over 1 percent of delineated or mapped habitat in the first three years, logic dictates that FWS must be able to protect at least 99 percent of this habitat. If unprotected habitat exceeded 1 percent, FWS could not cap habitat loss at that amount. But according to our calculations, FWS had not protected at least 99 percent of all mapped habitat at the time of the withdrawal decision. The Texas agreement states that there are 217,367 acres of mapped habitat in Texas (including a 10 percent buffer).[25] To protect at least 99 percent of this habitat, FWS had to enroll 215,193 acres. The withdrawal decision states that only 138,640 acres of mapped habitat had been enrolled as of May 2012, accounting for only 64 percent of the total habitat. Because the remaining 36 percent had not been enrolled, we cannot understand how FWS could be "confident that…the loss of habitat will be limited to 1 percent in the first three years of the plan."[26]

Perhaps FWS's confidence is based on its optimistic assumption about future enrollment under the Texas agreement. In several instances, the withdrawal decision states that "it is reasonable to conclude that the enrollments [in the Texas CCAA] will continue and the dunes sagebrush lizard habitat placed under conservation…will increase over time."[27] FWS never explains why it believes enrollment will continue when the threat of a listing has practically disappeared because of the withdrawal decision. After all, it was this very threat that motivated landowners to rapidly enroll 64 percent of the habitat in the months preceding the decision.

Even if FWS had enrolled 99 percent of the habitat, it never explains how it can verify compliance with the one-percent cap or determine the level of impacts on any given property. The reference point for any reliable impacts assessment is the terms of the certificates of inclusion. Because FWS has not reviewed the certificates, the very basis of any future impacts assessment is suspect. FWS would presumably rely on self-reporting of impacts provided by participants and periodic verification by the comptroller's office.[28] But it has no ability to confirm or confute the estimates. This is an extremely troubling scenario, especially if landowners end up underestimating the extent of impacts.

Another issue with the withdrawal decision is that it assumes habitat restoration performed under the Texas agreement would offset adverse impacts to the lizard.

According to the decision, "[t]hough there may be some habitat impacts, habitat restoration done through the award system will offset this and have the positive effect of decreasing habitat fragmentation and providing for the long-term conservation of the species."[29] This optimistic view of habitat restoration conflicts with statements in the earlier proposed listing rule. In that rule, FWS concluded that "for now there are no known methods to restore the dunes sagebrush lizard's habitat…."[30] The withdrawal decision neither refutes this earlier conclusion nor identifies any scientific findings that would support FWS's newfound confidence about the effectiveness of habitat restoration. The proposed rule further affirms that "shinnery oak community is not spreading, and its boundaries have not changed since early surveys, suggesting that new habitat is not being created."[31] These facts support a skeptical approach toward habitat creation and a presumption that it would not be effective at achieving biological outcomes until proven otherwise, not the other way around.

One way to address these uncertainties is through adaptive management, a process in which FWS uses monitoring results to plug knowledge gaps and improve the initial conservation strategy. In deciding whether a voluntary conservation agreement is likely to be effective at achieving its goals, FWS is required by its own policy to evaluate whether the agreement incorporates principles of adaptive management. That policy, the Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE), was created to determine the extent to which listing a species is unnecessary because of formal conservation efforts that have yet to be implemented or to show their effectiveness.[32]

Through a PECE analysis, FWS concluded that the Texas agreement incorporates principles of adaptive management, in part because Texas A&M University is researching techniques for improving habitat restoration and creation, the results of which will be used to "modify existing or develop potentially new conservation measures…."[33] While the adaptive management provision of the agreement does prescribe a series of research tasks and effectiveness reviews, there are few opportunities for this information to be used to modify on-the-ground activities. The agreement prevents any changes to the conservation strategies from being applied to the 138,640 acres enrolled under the agreement, which amounts to 64 percent of the lizard's mapped habitat in the state. Rather, modifications "will only be applied" to future properties enrolled under the agreement.[34] It seems unlikely that many participants will enroll in the agreement in the future, as the threat of listing is largely gone. The withdrawal decision never discusses this obstacle to adaptive management. As a result, we cannot understand how the results of the Texas A&M research will have any meaningful ability to "modify existing" conservation measures or help create new measures implementable at a large scale. The decision also never discusses how FWS or even the comptroller's office will secure access to monitor lizard populations on private property, which is the only type of property with lizard habitat in Texas. Without access, we cannot understand how FWS will have first-hand knowledge of whether conservation measures under the Texas agreement are effective or whether they need to be modified through adaptive management.

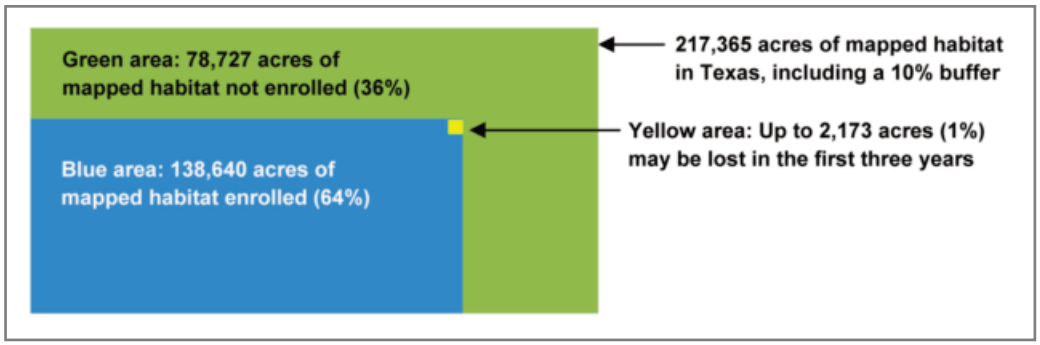

Figure 1: Status of mapped habitat for dunes sagebrush lizard under the Texas agreement. The green area represents the habitat not enrolled under the agreement and hence not subject to the protection it provides.

In summary, the withdrawal decision is riddled with troubling gaps. The most significant ones are as follows:

- FWS is unable to determine what conservation measures participants will, in fact, implement under the Texas agreement. This is the result of several compounding factors, including the vagueness of the agreement and FWS never having reviewed or approved any of the certificates of inclusion.

- The confidentiality provisions of Texas law, as currently interpreted by the comptroller's office and the Texas Office of the Attorney General, will prevent FWS from ever reviewing the original certificates, unless a participant voluntarily discloses his or her certificate.

- The one percent limit on habitat loss within the first three years cannot be ensured because FWS has not enrolled enough habitat (99 percent) under the Texas agreement. In fact, FWS was about 76,550 acres short of this goal. FWS's assumption that landowners will continue to enroll habitat under the agreement is undermined by the withdrawal decision, which eliminated the threat of listing.

- To determine when the limits on habitat loss have been exceeded, the Texas agreement suggests that FWS will rely entirely on self-reporting by participants, augmented by periodic monitoring by an agent of the comptroller's office. FWS has not explained how it can verify any of this data when it lacks access to the certificates of inclusion and the enrolled properties.

- FWS has not explained why it believes habitat restoration will effectively offset adverse impacts to the dunes sagebrush lizard, especially when the proposed listing rule suggests that no new dunes habitat has ever been successfully created for the species.

- Adaptive management under the Texas agreement is circumvented by the fact that FWS has not granted itself the authority to require existing participants to adopt different conservation strategies in the future, even if scientific research shows that current strategies are ineffective. The withdrawal decision neither identifies this obstacle nor explains how FWS will overcome it.

We are concerned that the problems with the dunes sagebrush lizard withdrawal decision will repeat themselves in future listing decisions. To reduce this risk, FWS should improve its process for deciding whether to list candidate species. In the next two sections, we present our recommended improvements—first, those that can be implemented before a final listing decision for a candidate species, then those that can be implemented through the decision itself.

2 Laying a Sound Foundation for Final Listing Decisions

Before FWS decides whether to list a candidate species, it can lay the foundation necessary to make an informed listing decision and any pre-listing conservation. We believe the following three recommendations will further this goal.

1. Equate conservation goals for candidate species with those for listed species.

Candidate conservation efforts often center on the question of how much a species' status must improve before it no longer warrants listing. The answer tells regulated entities whether their goals of preventing listing are within reach. It also tells conservationists whether the species may be secure enough to forgo ESA protection. To understand our first recommendation, we start by underscoring a fundamental point: all candidate species have already met the ESA's definition of threatened or endangered. In other words, they face the same risk of extinction as listed species face.

For listed species, the ESA's goal is to reduce this extinction risk "to the point at which the measures provided pursuant to this Act are no longer necessary."[35] By that point, the species no longer meets the definition of

threatened or endangered. For candidate species, however, the ESA does not articulate a conservation goal. Rather, the assumption is that "expeditious progress is being made to add qualified species" to the lists of threatened and endangered species.[36] The statute does not prescribe when candidate species should *not* be listed.

We believe that a candidate species no longer warrants listing when its status has improved to the point where delisting would be appropriate had the species been listed. This ensures that a species does not receive less conservation if it is made a candidate (and then not listed) rather than listed (and then delisted). We recommend this position for three reasons. First, the alternative is to create a loophole around the robust recovery requirements intended for species that have met the definition of threatened or endangered. Second, a lower goal for candidate species lacks any scientific or biological basis. Species are not placed on the candidate list because they are less imperiled than listed species. The sole reason is inadequate funding to complete the listing process. Third, lower goals for candidate species may undermine support for funding candidate conservation, because many species could be better off if those funds were used to expedite their listing decisions.

In practice, it is unclear whether FWS equates conservation goals for candidate species with those for listed species. For example, the decision to withdraw the proposed listing rule for the dunes sagebrush lizard lacks information to infer whether the species was abundant enough to be deemed biologically recovered had it been a listed species. The same is true of whether threats to the lizard were adequately reduced through the two voluntary conservation agreements for the species. Would the species have benefited from more threat reduction had it been listed? Without a policy that answers this question, the public is left wondering whether the species was shortchanged and spirit of the ESA foiled. Rather than raise suspicion, FWS can garner greater public confidence in its listing decisions by clarifying when and how it will decide not to list a candidate species.

2. Specify conservation goals for candidate species early.

FWS rarely attempts to describe what conservation outcomes are sufficient to preclude listing of candidate species. By remaining silent or ambiguous, FWS retains ample discretion to decide on a case-by-case basis what outcomes are good enough. While this flexibility is important to FWS, it can also lead to listing decisions that appear arbitrary, inconsistent or influenced by a political desire to placate opposition to listing.

We urge FWS to increase the transparency and predictability of any decisions to withdraw a warranted finding or proposed listing rule for any candidate species. One approach is to specify conservation goals for candidate species as early as practicable, particularly for species that FWS believes it may be possible not to list. This will allow the public to understand when FWS believes listing is no longer warranted and to opine on the goal. We recommend FWS specify conservation goals in a document akin to a recovery outline for listed species. That document, which we will call a candidate conservation outline, could be issued shortly after a species is declared a candidate and no longer than 5 to 15 pages for most species. Like recovery outlines, candidate conservation outlines should describe "what full recovery for the species, or group of species, could 'look like.'"[37] As FWS has recognized, "it is difficult to be proactive, if the destination cannot be envisioned."[38] A candidate conservation outline should describe a vision for successful conservation in one of three ways, depending on the extent of information available on the species and the complexity of its conservation strategy.

The first option, which we consider the preferred standard, is to describe the specific level of threat-reduction and demographic or population improvement that, if met, would likely eliminate the need to list the species, and how to achieve that goal. This approach is similar to the use of threat-based and demographic criteria in recovery plans for listed species. If the criteria are met, FWS considers the species "recovered" and is expected to delist it. Likewise, if the threat-reduction and demographic goals in a candidate conservation outline are met, FWS would likely not list the candidate species. We

recognize, however, that such level of specificity is difficult to provide for many candidate species, particular those with wide ranges or complex life-history traits. For those species, we offer an alternative below.

The second option is to describe threat-reduction and/or demographic outcomes not as a precise target, but a range of possibilities. For example, assume a candidate species is threatened by wetlands destruction and poaching. FWS could indicate that listing would likely be unnecessary if, by the time of the listing decision, 70 to 90 percent of the species' remaining wetlands habitat were protected, poaching were reduced by 50 to 80 percent, and 60 to 90 percent of populations exhibited a positive growth rate. Unlike with the first option, FWS does not define in advance the precise thresholds sufficient to preclude listing. Rather, the thresholds would be set through the decision of whether to withdraw a warranted finding or proceed with a proposed or final listing rule. For many species, this approach strikes a good balance between feasibility and discretion for FWS and predictability for the public. For other species, however, the approach may still be too complex and demanding. These include species for which FWS has limited information on their conservation needs or life-history traits. For those species, we describe a third alternative.

A third option is merely to describe the threat reduction goals for the species qualitatively rather than numerically. Also absent from this option are any demographic goals. In this respect, option three resembles the approach taken in FWS's Sage-Grouse Conservation Objectives Draft Report from August 2012.[39] That report categorizes and ranks threats to the sage grouse, assigns risk levels to each population or species management area, and then recommends that risk levels be reduced.

As recommended earlier, FWS should try to describe what conservation outcomes it believes are sufficient to preclude listing. But it should also recognize that many species are unlikely to stabilize or improve their status quickly enough to avoid listing, regardless of the amount of pre-listing conservation achieved. For example, rapid recovery may be impossible for species that have experienced drastic range reductions, respond slowly to human intervention, or lack conservation strategies that are known to be effective. Those species will likely always require listing. Conservation outlines remain useful even in those situations because they can help prioritize conservation efforts well before listing and jumpstart recovery upon listing. Conservation outlines can also be drafted in a way that enables FWS to easily convert them to recovery outlines after listing. This will help justify the use of FWS resources to draft conservation outlines. Consistent with current practice, FWS should encourage willing state wildlife agencies to take the lead in drafting conservation outlines as soon as they or FWS believe that a species could become a candidate for listing.

3. Create additional opportunities for public input.

We also recommend that FWS seek public input on proposed decisions to withdraw a proposed listing rule. In other words, FWS should give the public advance notice before it issues a final decision to not list a candidate species it has already proposed to list as threatened

The Vital Role of States in Candidate Species Conservation

States have primary authority and responsibility to regulate wildlife not protected under the ESA or other federal laws. Using this authority, states have created important programs such as State Wildlife Action Plans, non-game wildlife conservation programs, and the Western Wildlife Crucial Habitat Assessment Tool. They have also partnered with federal agencies on bold conservation initiatives, including the recent Working Lands for Wildlife program that will conserve seven at-risk or imperiled species across 37 states. Some states like Florida are even protecting candidate and federally-listed species under their state laws. In some instances, the states have taken the lead in drafting and implementing conservation plans for species. These efforts and state leadership could play an integral role in developing candidate conservation outlines, plans, and agreements and in promoting other conservation measures described in this report.

or endangered. To better understand this recommendation, consider the public input opportunities for listed species. Before these species can be delisted, FWS must provide several opportunities for public comment on documents and proposed decisions affecting the species. These include issuing draft recovery plans, proposed delisting rules, and draft post-delisting monitoring plans. Additional opportunities for public engagement are offered through five-year status reviews and downlisting proposals for endangered species. Each of these steps puts the public on notice and allows them to better understand the reason for a proposed decision and help shape the final decision, often by identifying gaps in FWS's analysis.

By contrast, none of these steps occurs when a candidate species is not listed. Specifically, if FWS withdraws a proposed listing rule, it does not provide public notice and comment on the withdrawal. There is no "proposed" withdrawal; the only decision is a final one. FWS has completely reversed course without offering the public advance notice or a chance to supplement FWS's administrative files with additional data on the species. Such was the case in June 2012, when FWS withdrew its December 2010 proposed rule to list the dunes sagebrush lizard as endangered. Compared to the process for delisting a species, the process for withdrawing a listing decision occurs in a black box and lacks crucial opportunities for seeking and considering the best available data on the species. This is particularly problematic when important new information on the species becomes available during or after the public comment period for a proposed listing rule. To fill this void, FWS should create an opportunity for the public to offer input on any future decision to withdraw a proposed listing rule. This opportunity would thus occur after the close of the public comment period on the proposed rule but before the Service decides whether to finalize that rule or withdraw it. By seeking public input at this stage, FWS may identify

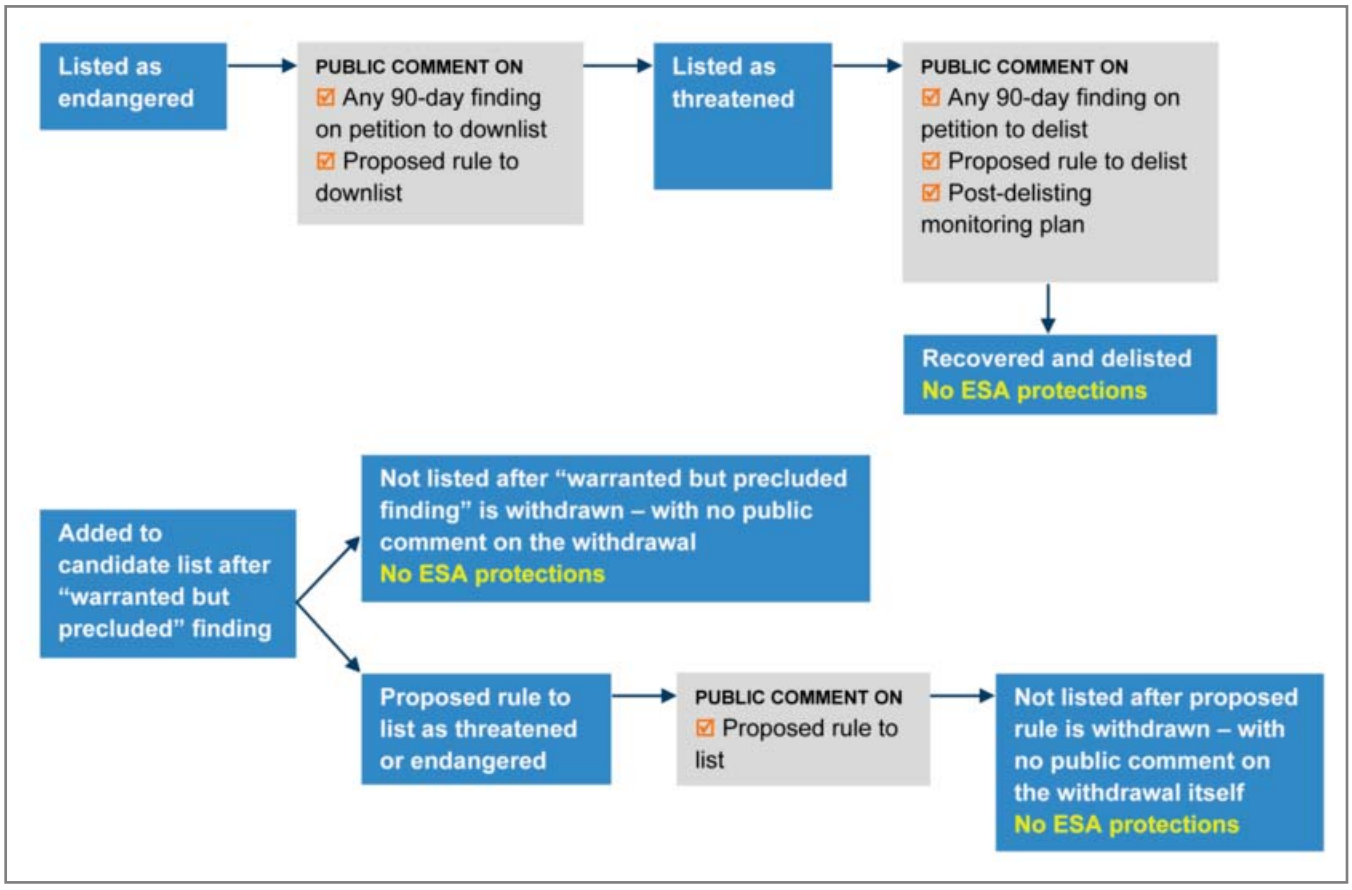

Figure 2: Comparison of current public comment opportunities for downlisting then delisting an endangered species and not listing a candidate species. All such opportunities are denoted by a red checkbox.

gaps in its analysis and thus strengthen its final decision.

For candidate species that FWS has not yet proposed to list, we support FWS clarifying in its annual candidate notice of review whether it might withdraw the species from the candidate list in the near future. This early notice would allow the public to submit any information pertaining to the possible withdrawal and would not require FWS to modify its current procedures on public notice and comment.

3 Making Better Final Candidate Species Listing Decisions

Decisions to withdraw either a warranted but precluded finding or a proposed listing rule can be especially challenging because FWS needs to explain why a species is no longer threatened or endangered despite the absence of any formal recovery efforts under the ESA. For some species, such as those with wide ranges or facing multiple threats, a withdrawal decision can stumble in many ways. To avoid repeating many of the pitfalls in the withdrawal decision for the dunes sagebrush lizard, FWS should reevaluate how it makes decisions in the future. Specifically, in any decision to withdraw listing for a candidate species, FWS should ensure it completes the following five tasks.

1. Explain why the species no longer warrants listing based on both its biological status and the threats it faces.

As explained earlier, we assume that the point at which a candidate species no longer warrants listing is the same point that a listed species has been recovered. To recover a listed species, FWS must ensure that it is sufficiently abundant and well distributed (demographic recovery criteria) and that the threats to its abundance are eliminated or reduced (threat-based recovery criteria), such that the species no longer meets the definition of "threatened." These criteria are described in all new recovery plans. Thus, had the dunes sagebrush lizard been listed, FWS would have been required to draft a recovery plan for the species that identified both demographic and threat-based criteria, thereby ensuring that each is carefully considered in any delisting decision for the species.

What actually happened, of course, was that the lizard did not have a recovery plan or comparable substitute because it was a candidate species. As a result, it was up to FWS to articulate in its withdrawal decision why the species no longer warranted listing from both a demographic and threat-based perspective, especially because the species warranted listing as endangered only 18 months earlier. This did not happen and is most evident from FWS's attempt to apply the definitions of "threatened" and "endangered" to the lizard. The withdrawal decision states that the lizard was neither threatened nor endangered, but fails to provide a satisfactory explanation of why that was the case. The decision attempts to address the demographic component of imperilment when it states that the lizard occurs in "an area of sufficient size and distribution that it is expected to be resilient to random natural impacts," and that the species has not "currently declined to the point that it is subject to impacts from stochastic events…."[40] But there is no clear discussion of what size and distributions are sufficient to warrant a threatened or endangered finding for the species. Nor is there an analysis of why the current population is large enough to be resilient to stochastic events or has "sufficient resilience, redundancy, and representation to be viable now and in the foreseeable future."[41] In other words, the application of the best available science is missing. Without this analysis, the public is left speculating whether the firestorm of public and political backlash against a positive listing decision tipped the scales in the withdrawal decision.

Some people may argue that the withdrawal decision did not need to elaborate on the lizard's demographic status because the proposed listing rule did not either. Instead, it focused on threats to the species, as do most listing decisions.[42] We disagree and believe that the analysis supporting a withdrawal decision should be comparable to that of a delisting decision, not a listing decision. The reason is that withdrawal and delisting decisions have the same effect of denying ESA protections for a species that had once warranted listing. A delisting decision is

based on both demographic and threat-based criteria established in recovery plan.[43] Although candidate species are not assigned recovery criteria, a withdrawal decision should nonetheless articulate why a species no longer warrants listing based on its demographic and threat statuses.

2. Ensure that the basis for relying on any voluntary conservation agreement is transparent to the public.

If a withdrawal decision relies on conservation actions described in agreements or other documents, FWS should ensure that it specifically describes how those actions adequately reduce threats and resolve demographic concerns. It should also ensure that the public has access to these files. This is another test that the dunes sagebrush lizard withdrawal decision failed. Unlike with the New Mexico agreement, the certificates of inclusion for the Texas agreement are not available to the public or FWS, because the Texas Attorney General's Office and the comptroller's office interpret Texas state law as protecting the certificates from public disclosure. The only exception is if a participant consents to disclosure, but we understand that only one has. As a result, neither FWS nor the public could have known what conservation actions and adverse impacts are expected to occur on properties enrolled in the Texas agreement.

We recognize that participants in voluntary conservation agreements may object to public disclosure of information in certificates of inclusion and similar documents. The Texas confidentiality provision, for example, protects information relating to the "specific location, species identification, or quantity of any animal or plant life." But the Texas Attorney General's Office and the comptroller's office have argued that the certificates, in their entirety, contain information that falls within the three protected categories. This argument is flatly contradicted by the one example certificate for ConocoPhillips, which contains multiple pages of information on conservation measures, anticipated adverse effects, and boilerplate provisions that do not relate to the location, identification, or quantity of the dunes sagebrush lizard. It also defies common sense to expect that every sentence of every certificate contain such species-specific data. Yet this is the interpretation adopted by the state and the reason that FWS and the public have been denied access to even redacted copies of the certificates.

The certificates should have been not only part of FWS's administrative record for the withdrawal decision, but also made readily accessible and posted online. The public should not have to rely on public records requests from state agencies to obtain documents needed to understand why and how FWS arrives at fundamental decisions. In the case of the sagebrush lizard, those requests were denied, leaving the public in the dark.

3. Identify key uncertainties and describe how they will be managed.

Efforts to conserve at-risk and imperiled species are often fraught with substantial uncertainties. Biologists often lack a complete picture of how many populations of a species exists and where they occur, how species will respond to conservation measures, and how climate change and future threats will affect a species' long-term persistence. Yet, decisions must be made. The dunes sagebrush lizard withdrawal decision is an example where FWS had neither fully identified key uncertainties in the Texas agreement nor adequately managed them.

The starting point for evaluating uncertainties in a candidate conservation agreement is FWS's Policy on the Evaluation of Conservation Efforts (PECE). PECE is used to determine "whether formalized conservation efforts that have yet to be implemented or to show effectiveness contribute to making listing a species as threatened or endangered unnecessary."[44] For efforts that have yet to demonstrate their effectiveness, the PECE evaluation focuses on whether the efforts are "sufficiently certain" to be effective based on at least six criteria, including whether the effort incorporates principles of adaptive management. PECE is clear that "those conservation efforts that are not sufficiently certain to be implemented and effective cannot contribute to a determination that listing is unnecessary or a determination to list as threatened rather than endangered."[45]

We cannot understand how FWS concluded that the Texas agreement is "sufficiently certain" to be effective,

when it has never reviewed the underlying certificates of inclusion. Without knowing the conservation measures that participants have agreed to in their certificates, FWS cannot properly assess the effectiveness of the agreement. FWS's PECE analysis largely dismisses this concern, noting that "although we do not know which specific conservation measures are going to be included in each [certificate] at this time, the [Texas agreement] as a whole limits the amount of habitat loss within lizard habitat to 1 percent in the first three years."[46] The analysis repeatedly falls back on this 1 percent limit as a measure to avoid or minimize impacts from activities such as oil and gas infrastructure, powerlines, and wind development.[47] Unfortunately, the analysis never grapples with the fact that this limit cannot be ensured because FWS has not enrolled enough habitat (99 percent) under the Texas agreement. To make up for this shortfall, landowners must continue to enroll under the agreement, an outcome FWS believes is reasonable. But with the threat of listing having practically disappeared because of the withdrawal decision, FWS never explains why landowners would continue to enroll. In short, the PECE analysis of habitat loss under the Texas agreement is riddled with speculation and gaps in logic, preventing FWS from convincingly explaining how the agreement is "sufficiently certain" to be effective at conserving the dunes sagebrush lizard.

Another problem with the PECE analysis is FWS's unsupported reliance on future habitat restoration for the lizard. On the one hand, the proposed listing rule states that "for now there are no known methods to restore the dunes sagebrush lizard's habitat…" and that the "shinnery oak community is not spreading, and its boundaries have not changed since early surveys, suggesting that new habitat is not being created."[48] On the other hand, the withdrawal decision relies on habitat restoration, stating that "[t]hough there may be some habitat impacts, habitat restoration done through the award system [under the Texas agreement] will offset this and have the positive effect of decreasing habitat fragmentation and providing for the long-term conservation of the species."[49] Nowhere does the withdrawal decision or PECE analysis explain why FWS suddenly concluded that habitat restoration will likely succeed.

We recognize that FWS may have been referring to different types of habitat restoration in these conflicting statements. Perhaps the proposed rule referred to large-scale restoration of entire shinnery oak sand dunes, whereas the withdrawal decision referred to small-scale restoration, such as removal of invasive weeds and removal of well pads from oil and gas development. If this is true, FWS has never explained it to be so for the Texas agreement.

Another problem is that FWS has never explained why it is "sufficiently certain" that the lizard would respond positively to even the small-scale habitat restoration measures under the Texas agreement. Rather than citing any peer-reviewed scientific literature on this issue, the withdrawal decision and the Texas agreement simply state that habitat impacts are an acceptable proxy for impacts to the lizard, because it is a habitat specialist and because case law supports the approach. Nowhere does FWS refute the scientific literature that cautions against the uncritical use of habitat as a proxy for species.[50] Indeed, the Texas agreement suggests that FWS has little idea of whether habitat restoration will result in positive biological responses. For example, the agreement identified at least seven research tasks specific to habitat restoration, including "test and establish techniques for reclamation of abandoned oil and gas locations and roads," "evaluate whether [dunes sagebrush lizards] use or traverse previously reclaimed Oil and Gas Locations and roads," and "examine creation of shinnery oak dune habitat."[51] There are an additional nine research tasks to determine how human activities impact the lizard and five tasks to study basic aspects of the lizard's biology, including conducting a population viability analysis, which is used to determine the likelihood that a species will go extinct. All of this suggests that when FWS withdrew the proposed listing rule, it had little information on how conservation measures would actually benefit the lizard.

One method to justify making decisions such as these is to require the use of adaptive management. In fact, under PECE, FWS must determine whether the agreement incorporates principles of adaptive management. The PECE analysis for the Texas agreement concludes that it incorporates these principles. As previously mentioned, however, the provision of the agreement on

adaptive management is so limited as to have questionable conservation value. A better approach is the one used in the recent CCAA for the spring pygmy sunfish. The section on "Reevaluation of Status of the Covered Species" states that if a 15 percent decline in the status of the species is determined, there will be a reevaluation of the conservation measures set forth in the CCAA.[52] If a reevaluation reflects a need to change the conservation measures, the CCAA participant must either implement the new or additional measures "notwithstanding the assurances" provided in the CCAA, or terminate the CCAA and surrender the accompanying permit that provides incidental take coverage.[53]

These provisions for changed circumstances can be a critical safety net for responding to unexpected events that may prevent a CCAA from fulfilling its conservation goals, particularly in cases of substantial scientific uncertainty. In developing CCAAs, FWS should identify important sources of scientific uncertainty and attempt to account for them by negotiating provisions similar to the ones in the pygmy sunfish.

With any future withdrawal decisions, FWS should also provide an unbiased appraisal of significant uncertainties and either list the species or conclude through PECE that those uncertainties can be resolved without shifting the risk onto the species. What FWS did with the dunes sagebrush lizard was to withdraw a listing decision without first concluding that it could resolve major sources of uncertainty.

4. Evaluate and explain why the species is not threatened or endangered in only a significant portion of its range.

FWS is required to list a species if it is threatened or endangered in all or a significant portion of its range.[54] There are thus four combinations that could trigger listing. Even if FWS concludes that a species warrants listing as threatened, FWS must still evaluate whether the species is endangered in a significant portion of its range. Without exhausting this possibility, FWS overlooks an important component of any listing analysis and runs the risk of being re-petitioned to list the species as endangered. This analysis is important also because a species' status may have declined in the years since FWS issued its warranted but precluded finding.

The dunes sagebrush lizard withdrawal decision illustrates how FWS neglected to explain why the species was not threatened or endangered in a significant portion of its range. In fact, the decision makes only one reference to this geographic concept:

> Based on our review of the best available scientific and commercial information, we find that the current and future threats are not of sufficient imminence, intensity, or magnitude to indicate that the dunes sagebrush lizard is in danger of extinction (endangered), or likely to become endangered within the foreseeable future (threatened), throughout all or a significant portion of its range.[55]

FWS never explains why a species that only 18 months earlier was considered endangered throughout all of its range is no longer threatened in only a significant portion of its range. For example, there is no explanation of why the 78,727 acres of habitat (or some subset of it) not protected under the Texas agreement are not a significant portion of the species' range. Had FWS concluded that none of the populations in that area was "significant"? If so, what definition of significant did FWS use and why did those populations or the habitat not meet this definition? These explanations would have been important because, at the time of the withdrawal decision, FWS did not have an established policy defining "significant portion of its range."[56] To be sure, we are not asking FWS to assess every conceivable area that presents the remote possibility of being a significant portion. But where, as here, FWS refers to the phrase "significant portion" only once in the entire withdrawal decision, it seems to have ignored this concept.

A similar problem affects FWS's December 11, 2012 proposed rule to list the lesser prairie chicken as threatened.[57] FWS explained that the species was not endangered "throughout all of its range now," and therefore "more appropriately meets the definition of a threatened species."[58] But a species that is not endangered throughout all of its range could very well be endangered in a significant portion of its range. FWS never analyzes this

latter possibility. This omission is troubling because the species has disappeared from 84 percent of its historic range and has been on the candidate list for over 14 years.[59] During that time, the threats to the species escalated from "moderate" to "high" and, hence, FWS increased the species' priority for listing from 8 to 2 (on a scale from 1 to 12).[60] These circumstances raise the strong possibility that in those 14 years, the species has gone from threatened to endangered in a significant portion of its range. But FWS would never know this unless it completed the analysis.

5. Explain how FWS will monitor and evaluate the status of the species after the withdrawal decision.

The ESA does not require FWS to conserve candidate or other unlisted species or to monitor and report on the status of former candidate species FWS declined to list. But FWS should nonetheless use its discretion to create a new policy that provides this monitoring and reporting periodically. Monitoring and reporting should last at least five years (the same as for delisted species) because a candidate species withdrawn from listing is not necessarily more secure than a delisted species. In fact, because the Texas agreement relies mostly on unproven conservation measures, species like the dunes sagebrush lizard are less secure than many delisted species.

Long-term monitoring and reporting is also important because CCAA participants can unilaterally terminate their involvement in the agreement. The Texas agreement, for example, allows participants to terminate with a thirty-day written notice to the comptroller's office.[61] The only penalty for early termination is the requirement to "surrender the benefits" of the enhancement of survival permit, including its incidental take authority and regulatory assurances.[62] These benefits are important only if the lizard will be listed, a scenario that became highly unlikely when FWS withdrew its proposed listing. With the incentive for continued participation diminished, FWS must track whether participants terminate their involvement and, if so, determine how that imperils the lizard.

Another problem—one more difficult to detect—is perfunctory compliance with certificates of inclusion, resulting in an underperforming CCAA. With many CCAAs, FWS can identify this problem by comparing the condition of an enrolled property with the terms of its certificate of inclusion. But with the Texas agreement, FWS lacks access to the certificates, making it impossible for FWS to directly verify the level of compliance firsthand. FWS is limited to self-reporting by participants, supplemented by partial monitoring that a contractor of the comptroller's office undertakes periodically. FWS could provide some verification of CCAA compliance and evaluate habitat protection activities by reviewing satellite or other images of habitat conditions, but the agreement does not indicate plans to do so.

FWS should partner with state wildlife agencies to monitor and report on the status of former candidate species that were not listed. FWS should also commit to directly verifying compliance and performance under any candidate conservation agreement that supported a withdrawal decision and should make all reports easily accessible to the public. Only then can FWS offer the minimum level of public transparency and accountability needed to validate the use of voluntary conservation agreements as a substitute for listing. And only then can FWS determine for itself whether a species has relapsed to a point where listing is once again warranted.

CONCLUSION

Candidate conservation can undoubtedly stabilize and improve the status of candidate and other unlisted species. But it is far more complex to determine when those efforts should replace the protections afforded by the ESA. FWS rarely has had an opportunity to grapple with this issue, and the withdrawal decision for the dunes sagebrush lizard reveals the many ways that these decisions can falter. But FWS could improve its process with a few key changes.

FWS should first ensure that it lays a proper foundation for making a decision on whether to list a candidate species. This includes clarifying the general criteria for when candidate species no longer warrant listing. If FWS decides to withdraw a warranted but precluded finding or a proposed listing rule, that withdrawal should exercise precaution when resolving scientific uncertainties and rebut the presumption that the species warrants listing. As part of this explanation, FWS should always articulate answers to the five questions presented in section 3 of this white paper. By doing so, FWS will offer more transparency and build greater trust in its listing decisions and support for candidate conservation programs.

ENDNOTES

[1] U.S. Fish & Wildlife Service (FWS), *Fish and Wildlife Service Strengthens Work Plan to Restore Biological Priorities and Certainty to Endangered Species Listing Process*, FWS (July 12, 2011).

[2] Endangered and Threatened Wildlife and Plants; Proposed Rule to List Dunes Sagebrush Lizard (*Sceloporus arenicolus*) as Endangered, 75 Fed. Reg. 77801 (Dec. 14, 2010) [hereinafter Proposed Rule for Sagebrush Lizard].

[3] Candidate Conservation Agreement for the Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*) and Sand Dune Lizard (*Sceloporus arenicolus*) In New Mexico (Dec. 8, 2008) [hereinafter New Mexico Conservation Agreement]. Texas Conservation Plan for the Dunes Sagebrush Lizard (*Sceloporus arenicolus*) (Feb. 13, 2012) [hereinafter Texas Conservation Agreement].

[4] Phil Taylor, *Though Voluntary, Lizard Conservation Agreements Will be Kept* – DOI, E&E Daily, Jun. 13, 2012.

[5] Phil Taylor, *A Key ESA Critic Pleased by 'Threatened' Proposal for Prairie Chicken*, E&E Daily, Dec. 5, 2012.

[6] FWS online database lists 24 CCAAs, available at http://ecos.fws.gov/conserv_plans/PlanReport (accessed on Feb. 13, 2013). Two additional CCAAs not listed on the database are the Texas Conservation Agreement, supra note 3, and the Eastern Massasauga Rattlesnake (*Sistrurus catenatus catenatus*) CCAA for the Lower Chippewa River Bottoms, Buffalo and Pepin Counties, Wisconsin.

[7] FWS declined to list the lesser and greater Adams Cave beetles based on a CCAA for both species. Endangered and Threatened Wildlife and Plants; Revised 12-Month Finding for the Greater Adams Cave Beetle (*Pseudanophthalmus pholeter*) and the Lesser Adams Cave Beetle (*Pseudanophthalmus cataryctos*), 70 Fed. Reg. 72973 (Dec. 8, 2005). FWS also declined to list the dunes sagebrush lizard based in part on the Texas CCAA for the species. Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule To List Dunes Sagebrush Lizard (*Sceloporus arenicolus*) as Endangered, 77 Fed. Reg. 36872 (Jun. 19, 2012) [hereafter Withdrawal of Proposed Rule for Sagebrush Lizard].

[8] Endangered and Threatened Wildlife and Plants; Review of Vertebrate Wildlife for Listing as Endangered or Threatened Species, 47 Fed. Reg. 58454, 58457 (Dec. 30, 1982).

[9] Endangered and Threatened Wildlife and Plants; Review of Plant and Animal Species That Are Candidates or Proposed for Listing as Endangered or Threatened, Annual Notice of Findings on Recycled Petitions, and Annual Description of Progress on Listing Actions, 66 Fed. Reg. 54808, 54811 (Oct. 30, 2001).

[10] Proposed Rule for Sagebrush Lizard, *supra* note at 2, at 77813.

[11] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note at 7.

[12] *Id.* at 36885. FWS states that 71 percent of the species' habitat in Texas has been protected under the agreement, but that figure is based on the total acres of habitat in Texas without a 10 percent buffer. Since FWS uses the acres with the buffer to calculate

the percentage of habitat that can be lost within the first three and ten years of the agreement, we have also used this same acreage value in this white paper.

[13] New Mexico Conservation Agreement, *supra* note 3, at 7.

[14] Texas Conservation Agreement, *supra* note 3, at 39-42.

[15] Certificate of Inclusion Number 2 under the CCAA
Component of the Texas Conservation Plan for the Dunes Sagebrush Lizard, PECE Evaluation for the New Mexico CCA/CCAA and the Texas Conservation Plan, available at
http://www.fws.gov/southwest/es/Documents/R2ES/DSL_PECE_Appendix_2.pdf

[16] Letter from James G. Nolan, Open Records Section of Texas Comptroller of Public Accounts, to Ya-Wei Li, Defenders of Wildlife (Sept. 27, 2012) (letter on file with Defenders of Wildlife).

[17] Tex. Gov't Code Ann. tit. 2, § 403.454.

[18] Letter from James G. Nolan, Open Records Section of Texas Comptroller of Public Accounts, to the Honorable Greg Abbott, Attorney General of Texas (Oct. 5, 2012) ("In summary, we request that your office issue a ruling protecting the entire Certificates of Inclusion response to the request, as confidential under Government Code Section 552.101 in conjunction with Government Code Section 403.454.") (letter on file with Defenders of Wildlife).

[19] Texas Attorney General Opinion OR2012-19353 (Dec. 3, 2012), available at https://www.oag.state.tx.us/opinions/openrecords/50abbott/orl/2012/htm/or201219353.htm.

[20] Withdrawal of Proposed Rule for Sagebrush Lizard, supra note 7, at 36890.

[21] Texas Conservation Agreement, *supra* note 2, at 41.

[22] Withdrawal of Proposed Rule for Sagebrush Lizard, supra note 7, at 36890.

[23] Texas Conservation Agreement, *supra* note 2, at 40.

[24] Withdrawal of Proposed Rule for Sagebrush Lizard, supra note 7, at 36898.

[25] Texas Conservation Agreement, *supra* note 2, at 61.

[26] PECE Evaluation for the New Mexico CCA/CCAA and the Texas Conservation Plan, pg. 38, available at http://www.fws.gov/southwest/es/Documents/R2ES/DSL_PECE_Appendix_2.pdf [hereinafter PECE Analysis].

[27] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note 7, at 36886.

[28] See Texas Conservation Agreement, *supra* note 2, at 44-5.

[29] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note 7, at 36887.

[30] Proposed Rule for Sagebrush Lizard, *supra* note 2, at 77811.

[31] *Id.* at 77803.

[32] Announcement of Final Policy for the Evaluation of Conservation Efforts When Making Listing Decisions, 68 Fed. Reg. 15100 (Mar. 28, 2003) [hereinafter PECE].

[33] PECE Analysis, *supra* note 26, at 38.

[34] Texas Conservation Agreement, *supra* note 2, at 35.

[35] 16 U.S.C. § 1532(3).

[36] *Id.* at § 1533(b)(3)(B)(iii)(I).

[37] National Marine Fisheries Service, Interim Endangered and Threatened Species Recovery Planning Guidance, 3.2-4 (2004) [hereinafter Interim Recovery Guidance].

[38] *Id.*

[39] Sage-Grouse Conservation Objectives Team, Sage-Grouse Conservation Objectives Draft Report (Aug. 1, 2012).

[40] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note 7, at 36898.

[41] *Id.*

[42] In fact, FWS's Sage-Grouse Conservation Objectives Draft Report states that "listing analyses conducted by FWS are primarily based on threats to the species, and not population numbers and distributions (although those are considered)." Sage-Grouse

Conservation Objectives Draft Report, *supra* note 39, at 29.

[43] Interim Recovery Guidance, *supra* note 37, at 5.1-18.

[44] PECE, *supra* note 32, at 15114.

[45] *Id.* at 15115.

[46] PECE Analysis, *supra* note 26, at 23.

[47] *Id.* at 24.

[48] Proposed Rule for Sagebrush Lizard, *supra* note 2, at 77811.

[49] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note 7, at 36885.

[50] U.S. Department of Agriculture, Committee of Scientists, *Sustaining the People's Land: Recommendations for Stewardship of the national Forests and Grasslands into the Next Century* (1999) ("Habitat alone cannot be used to predict wildlife populations…."). Courtney A. *Schultz et al., Wildlife Conservation Planning Under the United States Forest Service's 2012 Planning Rule*, forthcoming in The Journal of Wildlife Management (2013) ("However, vegetation is often a poor proxy for more influential, but difficult to measure resources, and the frequent failure of vegetation-based habitat models to predict a species' distribution and abundance may be because of limitations of this assumed relationship").

[51] Texas Conservation Agreement, *supra* note 2, at 36-7.

[52] CCAA for the Spring Pygmy Sunfish between Belle Mina Farm, Ltd. and the U.S. Fish & Wildlife Service (Jun. 7, 2012).

[53] *Id.* at 13.

[54] 16 U.S.C. § 1532(6) & (20).

[55] Withdrawal of Proposed Rule for Sagebrush Lizard, *supra* note 7, at 36898.

[56] See Notice of Draft Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species", 76 Fed. Reg. 76987 (Dec. 9, 2011).

[57] Endangered and Threatened Wildlife and Plants; Proposed Rule to List the Lesser Prairie-Chicken *(Tympanuchus pallidicinctus)* as a Threatened Species, 77 Fed. Reg. 73828 (Dec. 11, 2012).

[58] *Id.* at 73884.

[59] *Id.* at 73846.

[60] *Id.* at 73830.

[61] Texas Conservation Agreement, *supra* note 2, at 56.

[62] *Id.*

Defenders of Wildlife
1130 17th Street, N.W.
Washington D.C. 20036-4604
202.682.9400
www.defenders.org