

PECE EVALUATION FOR THE NEW MEXICO CCA/CCAA AND TEXAS CONSERVATION PLAN

Background

After the dunes sagebrush lizard (lizard) became a candidate species in 2001, a variety of conservation initiatives were put in place to preserve the lizard's habitat while continuing oil/gas and ranching activities in the area. The document which served as the foundation for the conservation of the dunes sagebrush lizard, also known as the sand dune lizard, was the Collaborative Conservation Strategies for the Lesser Prairie-Chicken and the Sand Dune Lizard in New Mexico (2005). This effort (Strategy) was the result of a multi-stakeholder effort called the New Mexico Lesser Prairie-Chicken/Sand Dune Lizard Working Group. The Strategy provided the conservation framework necessary for the development of the Bureau of Land Management (BLM) 2008 Special Status Species Resource Management Plan Amendment (RMPA), and the combined Candidate Conservation Agreement (CCA) and Candidate Conservation Agreement with Assurances (CCAA) for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico. The CCA with the U.S. Fish and Wildlife Service (Service), BLM, and the Center of Excellence for Hazardous Materials Management (CEHMM), a non-profit organization, and the CCAA with CEHMM were signed on December 8, 2008.

In May 2011, Texas representatives comprised of local, State, and Federal officials, along with private and commercial representatives (Stakeholders), convened to develop the Texas Conservation Plan for the Dunes Sagebrush Lizard (TCP) prescribing conservation and management strategies for the lizard over a 30 year period. On February 17, 2012, the Service issued an Enhancement of Survival permit to the Texas Comptroller of Public Accounts (Comptroller) in support of the TCP. The TCP provides guidance in the development and implementation of a conservation strategy, sets minimum requirements to benefit the dunes sagebrush lizard while accommodating economic development, and includes an adaptive management strategy to address the concerns and future management of the lizard and its associated habitat in Texas. The TCP includes a CCAA for conservation actions benefitting the lizard while the species is in candidate status. It also proposes a Habitat Conservation Plan (HCP) to support a future application to the Service for incidental take authorization in the event the lizard becomes listed.

In 2012, the Service completed an analysis of the New Mexico CCA/CCAA and the TCP under the Policy for Evaluation of Conservation Efforts When Making Listing Decisions (PECE), as summarized below. The Service and NOAA Fisheries published PECE on March 28, 2003 (FR 68 15100). The purpose of PECE is to ensure consistent and adequate evaluation of recently formalized conservation efforts when making listing decisions. The policy provides guidance on how to evaluate conservation efforts that have not yet been implemented or have not yet demonstrated effectiveness. The evaluation focuses on the certainty that the conservation efforts will be implemented and effective. The policy reviews nine criteria for evaluating the certainty of implementation and six criteria for evaluating the certainty of effectiveness for conservation efforts. The policy lists many evaluation criteria in order to determine if the

agreement in question will be both certain to be implemented and effective. The criteria to be evaluated are:

The certainty that the conservation effort will be implemented:

1. The conservation effort, the party(ies) to the agreement or plan who will implement the effort, and the staffing, funding level, funding source, and other resources necessary to implement the effort are identified.
2. The legal authority of the party(ies) to the agreement or plan to implement the formalized conservation effort, and the commitment to proceed with the conservation effort are described.
3. The legal procedural requirements (e.g., environmental review) necessary to implement the effort are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort.
4. Authorizations (e.g., permits, landowner permission) necessary to implement the conservation effort are identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will implement the effort will obtain these authorizations.
5. The type and level of voluntary participation (e.g., number of landowners allowing entry to their land, or number of participants agreeing to change management practices and acreage involved) necessary to implement the conservation effort is identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will implement the conservation effort will obtain that level of voluntary participation (e.g., an explanation of how incentives to be provided will result in the necessary level of voluntary participation).
6. Regulatory mechanisms (e.g., laws, regulations, ordinances) necessary to implement the conservation effort are in place.
7. A high level of certainty is provided that the party(ies) to the agreement or plan who will implement the conservation effort will obtain the necessary funding.
8. An implementation schedule (including incremental completion dates) for the conservation effort is provided.
9. The conservation agreement or plan that includes the conservation effort is approved by all parties to the agreement or plan.

The certainty that the conservation effort will be effective:

1. The nature and extent of threats being addressed by the conservation effort are described, and how the conservation effort reduces the threats is described.

2. Explicit incremental objectives for the conservation effort and dates for achieving them are stated.
3. The steps necessary to implement the conservation effort are identified in detail.
4. Quantifiable, scientifically valid parameters that will demonstrate achievement of objectives, and standards for these parameters by which progress will be measured, are identified.
5. Provisions for monitoring and reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort are provided.
6. Principles of adaptive management are incorporated.

These criteria are not considered comprehensive evaluation criteria. The certainty of implementation and effectiveness of a formalized conservation effort may also depend on species-specific, habitat-specific, location-specific, and effort-specific factors. We consider all appropriate factors in evaluating formalized conservation efforts. The specific circumstances will also determine the amount of information necessary to satisfy these criteria.

To consider that a formalized conservation effort contributes to forming a basis for not listing a species or for listing a species as threatened rather than endangered, we must find that the conservation effort is sufficiently certain to be implemented and effective so as to have contributed to the elimination or adequate reduction of one or more threats to the species identified through the section 4(a)(1) analysis. The elimination or adequate reduction of section 4(a)(1) threats may lead to a determination that the species does not meet the definition of threatened or endangered, or is threatened rather than endangered. An agreement or plan may put in place one conservation effort that is designed to address the primary threats to the species, or may contain numerous conservation efforts, not all of which are sufficiently certain to be implemented and effective. Any conservation effort that is 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. Regardless of the adoption of a conservation agreement or plan, however, if the best available scientific and commercial data indicate that the species meets the definition of “endangered species” or “threatened species” on the day of the listing decision, then we must proceed with appropriate rule-making activity under section 4 of the Endangered Species Act (Act).

The first part of this document will evaluate the certainty of implementation and effectiveness of the habitat conservation efforts outlined in the New Mexico CCA and CCAA for the lizard (though the CCA and CCAA also put into place conservation efforts for the lesser-prairie chicken, this document does not analyze the implementation and effectiveness of the conservation efforts for that species). We have concluded that the CCA and CCAA in New Mexico each puts in place one conservation effort for the lizard—that is, an effort to enroll participants (with respect to the CCA, participants using federal lands; with respect to the

CCAA, participants using state and private lands) to commit voluntarily to modify the way they conduct their activities so as to minimize threats to the lizard. In addition, the creation and management of a central fund is not viewed as a separate conservation effort because the acquisition of the funds is directly tied to the implementation of the CAA and CCAA. Each Agreement both establishes the structure within which BLM and CEHMM will enroll participants and identifies the specific conservation measures that participants can commit to that would reduce the threats to the lizard. Because the conservation efforts set up in the CCA and CCAA are so similar, we will evaluate them together, and note where there are any differences in the way the efforts work that would affect the PECE analysis. The second part of this document will evaluate the certainty of implementation and effectiveness of the habitat conservation effort outlined in the TCP.

NEW MEXICO CCA/CCAA PECE ANALYSIS

The certainty that the conservation effort will be implemented:

- 1. The conservation effort, the party(ies) to the agreement or plan who will implement the effort, and the staffing, funding level, funding source, and other resources necessary to implement the effort are identified.**

Conservation effort: The document that first served as the foundation for the conservation of the lizard in New Mexico, was the Collaborative Conservation Strategies for the Lesser Prairie-Chicken and the Sand Dune Lizard in New Mexico (2005). This effort (Strategy) was the result of a multi-stakeholder effort called the New Mexico Lesser Prairie-Chicken/Sand Dune Lizard Working Group. The Working Group included staff from the Bureau of Land Management (BLM), the U. S. Fish and Wildlife Service (Service), the current Executive Director of CEHMM, various state and federal agencies, private landowners, industry representatives, and several conservation-based non-government organizations. Its task was to devise conservation measures for the lesser prairie-chicken and the dune sagebrush lizard that would be adequate to minimize the threats affecting the species so that neither species would decline to the point of needing to be listed as endangered or threatened species under the ESA.

The Strategy developed by the Working Group provided the conservation framework necessary for the development of the BLM 2008 Special Status Species Resource Management Plan Amendment (RMPA), and the combined Candidate Conservation Agreement (CCA) and Candidate Conservation Agreement with Assurances (CCAA) for the Lesser Prairie-Chicken and Sand Dune Lizard in New Mexico

The RMPA applies to federal lands managed by BLM. It amends the BLM's land use plan required under the Federal Land Policy and Management Act (FLPMA, Section 307, 43 USC 1737). The RMPA amendments for the lizard require BLM to conserve habitat for the species by avoiding lizard habitat on public lands. The RMPA is legally binding on BLM in its management responsibilities for oil and gas leasing and livestock grazing leases on federal lands in southeastern New Mexico. We have not analyzed the RMPA under PECE, because there is already a track record showing the implementation and effectiveness of that conservation effort.

The CCA is an agreement among BLM, the Service, and CEHMM to ensure that lessees of federal public lands managed by BLM take additional conservation measures for lizard which are not currently required by law. These include requiring new oil and gas wells, well pads, pipelines, and other infrastructure to be placed at least 30 meters outside of lizard habitat, requiring oil and gas lessees to reclaim any wells or well pads, or roads, or other infrastructure no longer in use. If such "legacy" facilities have been reclaimed to the minimum standards required by law at the time of their abandonment, then the new participant is required to bring the reclamation to current minimum standards. Reclamation of "legacy" facilities is undertaken to address fragmentation of lizard habitat. Grazing leases are required to avoid spraying herbicide in lizard habitat, another past practice which has eliminated habitat and resulted in habitat fragmentation.

The CCAA is an agreement between the Service and CEHMM to enlist private landowners, lessees of private lands, and the State of New Mexico and its lessees to undertake voluntarily the same conservation measures on private and state lands that are contained in the CCA for federal lands. Once the participant voluntarily enrolls property, the conservation measures become required to retain the benefits of enrollment.

Within the New Mexico range of the lizard, there are currently 373,335 acres enrolled in the CCA/CCAA under ranching agreements, and 276,906 acres enrolled under mineral agreements. On March 1, 2012, the New Mexico State Land Office enrolled all State Trust lands in lesser prairie-chicken and lizard habitat in a unique certificate of inclusion under the CCAA. Eighty-three percent of the lizard’s habitat in New Mexico is now enrolled in the CCA/CCAA.

A list of some of the specific conservation measures that enrollees would commit to under the CCA/CCAA, and the threat they are designed to address, is given in Table 1.

Table 1: Summary of Enrollee Conservation Measures in the New Mexico CCA/CCAA

Threat	Conservation Measure to Address the Threat
O&G Infrastructure	No new development in lizard habitat
Habitat Fragmentation	Habitat Reclamation
Pipelines	No new pipelines in lizard habitat/trenching stipulation
Herbicide (Tebuthiuron) Treatments	Do not treat the dunes (buffer)
Mesquite encroachment	Mesquite removal in shinnery oak dunes

Parties to the Agreement: The parties to the CCA have been identified and have signed the agreement; they include the BLM, the Service, and CEHMM. The parties to the CCAA have also been identified and have signed the agreement; they include the Service and CEHMM.

- (1) CEHMM: As the administrator of the CAA and holder of the section 10(a)(1)(A), Enhancement of Survival permit, for the CCAA, CEHMM issues Certificates of Participation (CP) and Certificates of Inclusion (CI) to participating cooperators. This organization was incorporated as a New Mexico non-profit in 2004. It is a scientific research organization with the mission of working towards practical

solutions that affect human health and the environment. It seeks opportunities to be involved with projects that would benefit the public and the environment. It has worked on a variety of issues in New Mexico, including the Department of Energy Waste Isolation Pilot Plant, and the development of sustainable systems for growing and harvesting algal cultures which may prove important for renewable transportation fuel. CEHMM has a long-standing partnership with the BLM and the Service on several conservation initiatives, including wildlife water replacements, and archeological mitigation in southeast New Mexico (Permian Basin Memorandum of Understanding). CEHMM's office is in Carlsbad, New Mexico. For these reasons, this organization is qualified to act as the administrator of the CCA and permit holder for the CCAA. In addition, the Executive Director of CEHMM has been intensely involved in wildlife conservation for over 20 years. Once the lizard became a candidate species, he started early conversations with local ranchers regarding a CCAA and was instrumental in forming a stakeholder group to develop conservation measures for the lesser prairie-chicken and the lizard.

CEHMM provides fund management and administration, and is responsible for implementing, monitoring, and reporting on projects completed with funds generated from CCA/CCAA participation. Each certificate (CP or CI) addresses additional conservation measures a participating cooperator agrees to implement on lands described in their certificate. The certificate also places conditions on activities (e.g., drilling permits, rights-of-way, grazing, seismic activity) that will be required on the cooperator's lands or minerals.

- (2) BLM: BLM manages oil and gas leasing of federal minerals in southeastern New Mexico pursuant to various federal statutes. It also issues grazing leases on the surface of federal lands in southeastern New Mexico.
- (3) The Service: The Service helps BLM in designing and prioritizing conservation projects, evaluates monitoring data, and reviews and approves CPs.

Funding: BLM and the Service are Federal agencies that will use existing staff to meet their responsibilities under these conservation efforts. CEHMM staff working on the CCA/CCAA is funded through the central fund. For each of the first three years after enrolling, a participant must pay \$2 per acre, (or a minimum of \$20,000 for smaller tracts) into a central fund that is managed by the CEHMM for purposes of implementing conservation actions and monitoring enrollee projects. Up to 10 percent of those funds can be used to pay CEHMM's administrative costs. When CEHMM identifies a function of administering the agreements that requires additional funding, CEHMM can propose specific requests to utilize project funding from the central fund. The Funds Team will consider the proposal and choose whether to fund the request based on priority and available funds. In previous funding sessions, the Funds Team has chosen to fund the hiring of a biologist dedicated to implementing the agreements. Details of how the central fund works can be found in Appendix 1.

2. The legal authority of the party(ies) to the agreement or plan to implement the formalized conservation effort, and the commitment to proceed with the conservation effort are described.

Section 2 of the ESA allows the Service to enter into a CCA with other cooperating partners. Section 2 of the ESA states that encouraging interested parties, through Federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the Nation's heritage in fish, wildlife, and plants.

The Federal Land Policy and Management Act (FLPMA, Section 307, 43 USC 1737), which provides overall direction to the BLM for conservation and management of public lands, allows the BLM to participate in conservation agreements. The BLM manual, Section 6840 (Special Status Species Management") provides overall policy direction to BLM managers to conserve listed threatened or endangered species on BLM administered lands, and to assure that actions authorized on BLM administered lands do not contribute to the need to list species deemed by BLM to be "sensitive."

Federal oil and gas provisions governing oil and gas production and transportation on public lands are in place to govern well location, reclamation of oil and gas facilities, and other related issues. Permitting of wells on public lands must consider critical elements as defined in the National Environmental Policy Act (NEPA) and regulations set forth in the BLM Gold Book (43 CFR 3160 – Onshore Oil and Gas Operations).

With respect to any of the conservation measures that would be implemented by Participants to the CIs or CPs, all participating cooperators will have the legal authority to take actions, or refrain from taking actions, on enrolled lands as required by the CCA and CCAA. The legacy locations for any potential reclamation, for example, are under the Participant's legal responsibility although reclamation for legacy facilities is not required under any current lease and individual well permit. However, because the Participant has the legal right to re-enter the well bore, they also have primary responsibility of the location under the lease, and have the authority to relinquish and reclaim the location. For locations where the permitting agency does not have the ability to authorize surface actions (e.g., private lands) land owner permission is required prior to reclamation activities. However, eighty-three percent of the lizard's habitat is enrolled in the agreements, leaving few private lands where gaining permission would be necessary. CEHMM works with participants and surface landowners to acquire these permissions.

With respect to mesquite treatments, treatments that occur on public lands are under the authority of BLM, who is a partner in the CCA. Due to the popularity of BLM's Restore New Mexico program, proposed treatments include both public and non-Federal lands. The treatments are developed with the landowner/BLM permittee/State Lands lessee towards a Cooperative Resource Management Plan (CRMP). This CRMP is required by NRCS prior to the Participant being qualified to accept certain NRCS funds for habitat improvements. Although a CRMP is not required for CCA/CCAA enrollment, CRMPs are encouraged to involve the Participant early in the habitat restoration process and thus provide the permissions required to treat mesquite on enrolled lands.

3. The legal procedural requirements (e.g., environmental review) necessary to implement the effort are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort.

On Federal lands, the BLM has completed National Environmental Policy Act (NEPA) analyses for their Restore New Mexico Program, which includes reclamation of legacy sites and mesquite removal. Legacy sites are those that are considered officially abandoned according to the reclamation standards at the time of abandonment although they may not meet the current reclamation standards. There are specific requirements to guarantee all environmental and archaeological requirements are met, but we do not anticipate that this will preclude the ability to restore a developed area. CEHMM and BLM work with Participants to ensure that all NEPA requirements will be completed prior to reclamation activities or mesquite removal. We concluded that the fulfillment of environmental requirements will not preclude participating cooperators' abilities to complete these conservation measures.

4. Authorizations (e.g., permits, landowner permission) necessary to implement the conservation effort are identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will implement the effort will obtain these authorizations.

With respect to any reclamation required under the CIs or CPs, the participating cooperators have the authority to implement conservation measures on private land, and as a signatory, BLM has agreed to allow the conservation measures to be implemented on BLM land. The New Mexico State Land Office (NMSLO) is now a cooperating agency, and has enrolled all State Trust Lands under a certificate of inclusion specific to the State. Their participation grants permission for conservation measures on State land. CEHMM works to acquire private landowner permissions for activities where the mineral interest is enrolled but the surface is not. Also, CEHMM is an established 501(c)(3) non-profit corporation responsible for operating under Internal Revenue Service regulations 26 U.S.C. § 501(c) that require substantial bookkeeping and reporting of the funds they manage under the CCA and CCAA. The Service works with CEHMM to ensure that biological data gathering and reporting is performed to the requirements and under the authority of the Service. With the authority to enroll all land ownership types, we conclude that the conservation measure directing the reclamation of enrolled leases is authorized and can be implemented under these agreements.

5. The type and level of voluntary participation (e.g., number of landowners allowing entry to their land, or number of participants agreeing to change timber-management practices and acreage involved) necessary to implement the conservation effort is identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will implement the conservation effort will obtain that level of voluntary participation (e.g., an explanation of how incentives to be provided will result in the necessary level of voluntary participation).

There is a high level of certainty that the parties to the CCA/CCAA will obtain a high level of voluntary participation. Although the CCA/CCAA does not designate a minimum level of participation, 83 % of the lizard's habitat in New Mexico is already enrolled in the CCA/CCAA, and additional enrollments continue to occur. Enrollment into the agreements is

voluntary for all types of surface and mineral ownership and no landowners are required to participate. Industry and ranching enrollees are listed in Appendix 1.

Although the participants can cancel their enrollment at their discretion, there are incentives built into the program to increase the likelihood of continued participation. First, once a participant is enrolled, the enrollee receives assurances under the CCAA, or is covered under BLM's conference opinion for the CCA. The CCA/CCAA provides assurances to participating cooperators that there will not be additional restrictions on their activities, above and beyond those agreed to in their CI or CP. However, these assurances apply only as long as the enrollee continues to participate and to implement conservation measures within the CI or CP. Although the agreements are voluntary, participants such as ranchers and oil and gas companies have an incentive to continue to participate, because participation provides certainty and a stable foundation for planning and future growth.

Another reason to anticipate that enrollees will continue with their participation in the agreements is that they must make annual payments into the centralized CEHMM fund in each of the first three years of participation. Therefore, to continue their participation after that, they do not need to pay any more to the central fund unless the participant further develops enrolled lands. This three-year commitment to stay enrolled applies to oil and gas Participants because they have three years to execute their reclamation. Cooperating ranchers may voluntarily withdraw at any point, with 30 days written notice. In addition, many of the cooperators are also carrying out conservation measures for the lesser prairie-chicken, another candidate species covered by these same agreements. The cooperators have an incentive to fulfill their conservation actions on behalf of the lizard so that these actions will be considered in connection with the Service's upcoming evaluation of the threats facing the lesser prairie-chicken. These are the main incentives for enrolling and staying enrolled in the agreements if the proposal to list the lizard is withdrawn.

Finally, continued implementation with respect to the herbicide prohibition in lizard habitat is further supported by the fact that the prohibition has not caused any Participants to avoid enrollment of their lands, and there have been no Tebuthiuron treatments on enrolled properties. Moreover, Federal land management agencies, specifically the BLM and NRCS, have discontinued funding projects that involve the use of Tebuthiuron in habitat conducive for the lizard (RMPA, NRCS Technical Note No. 55).

Within the lizard's habitat in New Mexico, mesquite removal near shinnery oak dunes has already been done and future locations that could benefit from mesquite removal have been identified. Although removing mesquite is not required by enrollment, landowners have been willing to allow habitat improvement through funding from BLM's Restore New Mexico and various NRCS programs. By working with these agencies, projects designed to improve lizard habitat through CCA/CCAA funding have been successful. Participants have sufficient incentive to remain enrolled and continue to fund conservation of habitat for the lizard through development-based fees. Those benefits in New Mexico include opportunities to improve habitat for lesser prairie-chicken and the lizard simultaneously within this conservation measure and an industry-wide willingness to avoid having a species become listed on lands on which Participants depend. If Participants were to leave the agreements and discontinue funding, the

lizard would again be considered for listing. To date, not one enrolled Participant has declined to have mesquite removed from their property. The quantity of lizard habitat improved by the implementation of this conservation measure is dependent on the amount of habitat that is being impacted by encroaching mesquite. Because this habitat restoration activity is reducing a known threat to the species, it is being implemented as necessary when problem areas are identified by aerial photos, or on-the-ground surveys, by Service and BLM biologists.

6. Regulatory mechanisms (e.g., laws, regulations, ordinances) necessary to implement the conservation effort are in place.

As discussed in criterion 2, the parties to the CCA/CCAA have the legal and regulatory authority to implement the CCA/CCAA.

7. A high level of certainty is provided that the party(ies) to the agreement or plan who will implement the conservation effort will obtain the necessary funding.

Oil and gas companies are required to provide funds to assist in restoration or protection of habitat for the lesser prairie-chicken or lizard (see Appendix 1). Based on the amount of contributed funds available, CEHMM, BLM, and the Service work cooperatively with other agencies to determine which habitat improvement projects are of the highest priority to benefit one or both of the species' habitats. Using available funds, the team of biologists ranks the proposals and selects the highest priority projects that improve habitat and reduce risk to either species (regardless of land ownership). CEHMM then uses the approved list and contracts with appropriate parties to implement the projects.

There is a high level of certainty that the enrollees will pay into the fund as required, because the fund has already received more than \$3 million and future funding is based on participants' desire to further develop enrolled lands for minerals. In addition, participants pay for implementation of the required conservation measures: increased planning and coordination towards implementation, increased cost of developing non-conventional drilling plans (directional, horizontal well bores to accommodate a surface location move to avoid habitat), providing and training human biological monitors, increased facility monitoring to prevent habitat contamination events, routing infrastructures (roads, pipelines, power lines) to avoid habitat, and reclaiming abandoned well sites. Information concerning the past payments into the central fund and applications of those funds by the Funds Team is included in Appendix 1.

8. An implementation schedule (including incremental completion dates) for the conservation effort is provided.

There is no deadline by which CEHMM must enroll a minimum number of participants. However, once enrolled, oil and gas companies must reclaim legacy sites, or submit a plan for reclaiming them, within three years of enrollment. Other timelines included in the agreements include those utilized by CEHMM to alert participants of reporting requirements, obtain those reportable data, and address situations of non-compliance.

9. The conservation agreement or plan that includes the conservation effort is approved by all parties to the agreement or plan.

The CCA with the U.S. Fish and Wildlife Service (Service), BLM, and the Center of Excellence for Hazardous Materials Management (CEHMM), a non-profit organization, and the CCAA with CEHMM were signed on December 8, 2008. Industry and ranching enrollees are listed in Appendix 1.

The certainty that the conservation effort will be effective:

1. The Nature and Extent of the Threat Is Addressed.

The scientific conservation strategy was the result of a multi-stakeholder effort called the New Mexico Lesser Prairie-Chicken/Sand Dune Lizard Working Group. The Working Group included staff from the Bureau of Land Management (BLM), the U. S. Fish and Wildlife Service (Service) and personnel that are now employed at CEHMM, landowners, and industry representatives. Its task was to devise conservation measures for the lesser prairie-chicken and the lizard that would be adequate to minimize the threats affecting the species so that neither species would decline to the point of needing to be listed as endangered or threatened species under the ESA. As such, the conservation effort is based on the best available science regarding the measures needed to reduce threats to the lizard or its habitat.

The CCA/CCAA provides for participating cooperators enrolled in the CCA/CCAA to commit to a number of specific conservation measures, including agreeing not to conduct new development in lizard habitat, to reclaim inactive structures on enrolled lands within three years, not to place oil and gas pipelines in shinnery dune complexes, not to apply herbicide (Tebuthiuron) within 500 meters of lizard habitat, and to allow removal of mesquite from lizard habitat. We describe below how these measures are designed to conserve lizard habitat.

No New Development in Lizard Habitat: The CCA and CCAA describe threats to the lizard and indicate that habitat loss and fragmentation are the primary threats to its continued existence. The first conservation measure states that there will be no new surface occupancy, seismic activities, wind development, or power poles within areas designated as occupied or as suitable unoccupied lizard dune complexes or within delineated shinnery oak corridors. This is the foundational conservation measure that provides the greatest benefit to the lizard. With this measure, at the time of enrollment, there will be an agreement that all future development activities will be placed outside of shinnery oak dune habitat and corridors.

This conservation measure is designed to eliminate or significantly reduce the threat of loss of suitable habitat by having cooperators agree to place wells, roads, and other infrastructure outside of dune complexes and shinnery oak corridors. This conservation measure, which protects existing populations, in combination with other conservation measures that restore degraded habitat, improves the long-term stability of the lizard by directly addressing habitat loss and fragmentation. This conservation measure, which ultimately results in the placement of all activities outside of lizard habitat, addresses the overall threat of habitat loss and fragmentation. It also reduces other threats, such as increased predator perches, and direct mortality due to seismic operations and other activities in the dunes.

Habitat Reclamation on Enrolled Lands: This conservation measure addresses “legacy” parcels associated with oil well production facilities on unused or abandoned wells, roads, power lines, or other facilities which were in place at the time the participating cooperator enrolls a parcel. The CCA and CCAA states that the cooperator shall remediate and reclaim these “legacy” facilities within three years of enrolling in the CCA or CCAA, or submit a detailed plan (including dates) and receive approval prior to the three year deadline. One exception to this requirement is if the participating cooperator can demonstrate that it will put the facilities back into use.

All remediation and reclamation on federal lands shall be performed in accordance with BLM requirements and be approved in advance by the Authorized Officer. On private and state owned lands, the standard for remediation and reclamation is set by CEHMM and is identical to the current reclamation standards used by BLM to reduce confusion among activities on various landowner types. This measure applies to all properties enrolled under mineral agreements, and is tracked by the BLM (CCA) on federal lands or CEHMM (CCAA) on private and state lands. BLM reports CCA related reclamation activities to CEHMM and CEHMM reports all reclamation activities administered under the agreements to the Service in monthly and annual reports.

Existing infrastructure (inactive sites and associated roads) within lizard habitat fragments the remaining habitat. As stated previously, habitat fragmentation is a serious threat to the lizard. Although it is currently unknown how many miles of roads or inactive sites exist within lizard habitat, this conservation measure, when combined with other conservation measures and projects funded from Habitat Conservation Fees (see Appendix 1)), is instrumental in cumulative efforts that will connect patches of lizard habitat and restore connectivity. Based on previous research, we know that habitat fragmentation is detrimental to local lizard populations and can conclude that by removing fragmentation, including abandoned roads and well locations, the result would be larger patches of habitat with reduced stressors to the species. We have evidence that lizards will use roads that have been reclaimed. BLM and CEHMM actively monitor sites reclaimed under the agreements. BLM confirmed in a 2011 report that lizards were utilizing habitat where road and well pad reclamation had occurred within suitable lizard habitat. Removing these habitat fragmenting features reconnected two occupied habitat patches and lizards were afforded the opportunity to traverse the reclaimed locations. We do not have the ability to create shinnery oak dune habitat. However, restoring connectivity between currently suitable shinnery oak dunes by removing unsuitable habitat is instrumental in restoring larger contiguous habitat patches. Reclaiming roads and pads should restore connectivity and reduce fragmentation

No New Pipelines in Lizard Habitat: During construction, pipelines pose a threat to lizards when heavy equipment used to dig ditches removes habitat. Heavy equipment can cause direct mortality by potentially running over lizards and crushing nests. Trenches that are left open during construction also pose a threat by creating large pitfalls where lizards can become trapped and then buried upon installation of the pipeline. The conservation measures outlined in the agreement are designed to eliminate or significantly reduce the threat of loss of suitable habitat by placing pipelines outside of dune complexes and shinnery oak corridors. Furthermore, this conservation measure specifically addresses the threat of open trenches needed for the

installation of buried pipelines that are placed within the range of the species, though not within the actual shinnery oak dune complexes. This measure addresses trenches that act as pitfall traps for vertebrates, including the lizard.

This conservation measure states that there will be no new surface occupancy, including pipelines within 30 meters of areas designated as occupied or suitable unoccupied lizard dune complexes or within delineated shinnery oak corridors. Additionally, a requirement specifically for the development of pipeline corridors is addressed. Pipelines can continue to be installed within sand-shinnery oak habitat if they avoid the dune complexes and lizard dispersion corridors. This pipeline conservation measure is designed to remove the threat of open trenches by limiting how long trenches can remain open, requiring biological monitors (personnel dedicated to the construction site) to remove any vertebrate from open trenches, and requiring exit ramps be periodically installed along the trenches to allow trapped animals to escape in areas adjacent to shinnery oak dunes and corridors. These monitors will also provide feedback to further aid the Service in determining if open trenches are a threat to the lizard. Once a company has enrolled a lease in the CCA/CCAA, they agree that all new pipelines must be placed outside of occupied dune complexes, and agree that the trench measures will apply to all new pipelines in sand shinnery habitat.

No Herbicide Treatments: The greatest threat to the lizard is the loss of habitat and continued habitat fragmentation. This conservation measure states that there will be no herbicide (specifically Tebuthiuron) treatment within 500 meters of areas designated as occupied or suitable unoccupied lizard dune complexes or within areas biologists have delineated as shinnery oak corridors. The elimination of herbicide treatment in lizard habitat reduces the threat of habitat loss and habitat fragmentation. Staff from the Service, CEHMM, and the BLM work together to identify habitat that is considered suitable, and occupied, along with shinnery oak corridors in the affected area. Once a participant has enrolled in the CCA/CCAA, they agree that all shinnery oak herbicide treatments must be kept outside of lizard habitat.

Mesquite Treatment: The CCA/CCAA promotes activities that will reduce threats to the lizard, and benefit lizard habitat. One of these activities is the removal of mesquite that is encroaching on shinnery oak dunes and threatening the integrity of lizard habitat. Participants are not required to identify and fund mesquite removal projects directly. However, funds accrued from habitat conservation fees (see Appendix 1) can be used to identify areas where mesquite encroachment is a threat, and remove the mesquite in a targeted approach to restore degraded lizard habitat. The CCA/CCAA Funding Team has approved funding for multiple mesquite removal projects using mechanical and chemical treatment methods. These projects are monitored by the BLM and CEHMM and reported by CEHMM to the Service in monthly and annual reports. All proposals to treat mesquite are evaluated by the conservation team (Service, CEHMM, BLM, the New Mexico Department of Game and Fish, and the New Mexico State Land Office).

This restoration activity was developed when researchers and managers began to note areas where mesquite trees were beginning to encroach inside shinnery oak dunes. In areas where mesquite has actually moved into the dunes, the dunes no longer have unvegetated blowouts that are an integral part of lizard habitat. The mesquite can act as drift fences that accumulate

blowing sand, causing fundamental changes in the shape, size, and structure of dune blowouts, eventually causing the dunes to flatten. Mesquite also serves as predator perches for raptors and shrikes that are known to prey on lizards. This restoration activity directly addresses the threat of mesquite encroachment in shinnery dune habitat.

2. Incremental Objectives Are Stated

We then analyzed if explicit incremental objectives for the conservation effort and dates for achieving components of the conservation are stated. This criterion is designed to ensure that, if information is incomplete, implementation can nevertheless proceed to move towards incremental objectives until the additional information is available, at which time implementation can be modified in accordance with the new information (68 FR 15103, 15105-06).

Although the CCA and CCAA have only limited descriptions of any incremental objectives or schedule, we are satisfied that the purpose of this criterion has been met. Clearly one incremental objective, though not specifically stated as such in the CCA or CCAA, would be obtaining enrollment at adequate levels. A substantial amount of enrollment has already occurred so this is not a situation where there is a lack of information regarding enrollment.

The CCA and CCAA do describe incremental objectives and a schedule with respect to reclamation of previous oil and gas infrastructure. At the time of enrollment, oil and gas industry cooperators agree to complete reclamation activities or obtain approval of a detailed reclamation plan within three years. A plan for remediation is submitted to CEHMM, reviewed, and approved. CEHMM (CCAA) and BLM (CCA) are responsible for monitoring and ensuring compliance. BLM reports any CCA related activities to CEHMM. Reclamation activities occurring on all enrollments are reported by CEHMM to the Service under monthly and annual reporting requirements (see Appendix 1).

The other specific conservation measures contained in the CCA and CCAA do not include incremental objectives or schedules. At the time of enrollment, oil and gas industry cooperators are committing to place new oil and gas facilities, pipelines, roads, and power lines outside of lizard habitat thus ensuring that the conservation measure will be implemented. Because this conservation measure is applicable only at the time of new development, there are no incremental objectives or schedules for this conservation measure. Similarly, at the time of enrollment, ranching cooperators commit to not apply herbicide in lizard habitat. Because this activity is precluded under the terms of enrollment, there are no incremental objectives or schedules for this conservation measure. Finally, there is no incremental schedule for mesquite removal treatments. Mesquite removal treatments occur as funding is available in the Habitat Conservation Fund (see Appendix 1). Proposals for habitat restoration are accepted and ranked on priority by the conservation team. Priorities are determined by the level of conservation that will be gained for both the lizard and the lesser prairie-chicken. The conservation team is responsible for determining which restoration activities will most benefit the species and provide connectivity across the landscape. Because this activity removes an imminent, specific threat, it is one of the restoration priorities, and mesquite removal projects have been funded by the conservation team in the past. Previously funded projects are described in monthly and annual reports submitted to the Service by CEHMM (see Appendix 1).

3. Steps Necessary for Implementation Are Identified

We then determined if the steps necessary to implement the CCA and CCAA were identified in detail. The first step necessary for implementing the CCA/CCAA would be to enroll participants. The CCA/CCAA includes copies of the CI and CP that enrollees would need to sign to participate, and therefore not only is this step identified, but the detailed document to be used is provided. BLM and CEHMM have already used that document to enroll numerous participants. The CCA/CCAA also identifies the types of conservation measures that would be included in the CI or CP as enrollee commitments, depending on the nature of the activities that the enrollee intends to conduct.

As part of the enrollment process, it is clear in the CCA that BLM and in the CCAA that CEHMM must obtain concurrence from the Service before finalizing the enrollment. Moreover, for enrollees the CI or CP clearly defines each conservation measure that applies to the enrolled conservation land. All certificates include baseline conservation measures for enrolled properties along with additional individual measures that apply specifically to each participant. Baseline measures in all certificates include limiting development and seismic activity to areas outside of lizard habitat and corridors, and limiting herbicide treatments to areas outside of lizard habitat and corridors (see Appendix 1). Participants are encouraged to design and implement long-term plans of development for enrolled parcels, place more than one well on a pad, and utilize directional/horizontal drilling in order to implement this conservation measure.

Baseline measures in all oil and gas certificates require the Participant to reclaim legacy oil and gas infrastructure on enrolled leases, or to submit a detailed plan with dates of projected completion, within three years of enrollment. In order to perform this reclamation work, approval for removal of existing structures, and roads would be needed from BLM on public lands, from the State of New Mexico on State owned lands, and from the private landowner on private lands. Approval for removal of electric lines would need to be obtained from the owner of the installation. Coordination with the power company may be required, and is always recommended, to ensure that the power line is truly abandoned and no other permit holders are assigned to the structure or that removing the line would not jeopardize an authorized use further down the line.

At enrollment, participating cooperators are aware that they are responsible for providing trained biological monitors to implement the open trench portion of the conservation measure. Data reported to CEHMM and BLM by the biological monitors will be reviewed and will guide adaptive management, when necessary, to more effectively implement this conservation measure.

To increase the certainty and effectiveness of implementation by Participating cooperators, the BLM, CEHMM, and the Service have worked with contracted pipeline companies to develop a training course for biological monitors. The Service, BLM, and CEHMM biologists work together to guide the plans of development for individual enrollments and to identify dune habitat and corridors where mesquite may be encroaching into shinnery oak dune habitat, and BLM and CEHMM biologists work together to track reclamation activities, though participating cooperators are responsible for implementing certain conservation

measures. We concluded that the steps necessary to implement the conservation measures, as summarized above, are identified, in detail, in the CCA/CCAA and certificates of participation/inclusion.

With respect to any reclamation work, each participating cooperator enrolled is responsible for conducting the necessary steps to plan and implement any reclamation of enrolled leases, including funding these actions. This applies to locations within the enrolled parcels for which the participating cooperator has legal responsibility and that are not subject to reclamation requirements identified in a currently active permit. These sites are officially abandoned locations according to the permitting agency (BLM, State of New Mexico), and are no longer subject to existing reclamation standards. For example, if the location was previously reclaimed to standards at the time, but is not compliant to current reclamation standards, the Participating cooperator agrees to reclaim the locations to the standards identified at the time of enrollment. CEHMM and BLM work with the participating cooperator to identify locations for which the participating cooperator is responsible that require reclamation. Participating cooperators are aware of this requirement prior to enrollment and the conservation measure is considered during the enrollment process. There have been cases where a Participating cooperator chose to not enroll parcels based on the reclamation requirement; however, the Participating cooperator does not receive the benefits of enrollment on those properties. Participants are required to report any reclamation activities on enrolled properties. Because the burden is placed on the Participating cooperator to reclaim sites within their enrolled properties, funding and staff availability to implement the conservation measure is required of the Participant for compliance.

With respect to mesquite removal, the conservation team is responsible for reviewing and approving proposals to conduct the necessary steps to plan and implement mesquite removal in shinnery oak dunes. Funds are gathered from surface disturbing activities associated with mineral development and utilized by the CCA/CCAA Funds Team to implement prioritized actions that remove threats or otherwise benefit the species and their habitats. The BLM and CEHMM will monitor treatments for effectiveness and to determine if there is a biological response. This information is included in monthly and annual reports to the Service. Funding and staff requirements are recognized prior to funding a specific project to remove mesquite.

To date, approximately 20,000 acres of mesquite infested shinnery oak habitat has been treated using funds generated by the CCA/CCAA to improve habitat for the lizard. BLM and other funding agencies have treated additional acres to remove mesquite and improve lizard habitat. Because mesquite removal is also a priority for BLM's Restore New Mexico, future projects have already been identified through that program

4. Quantifiable, Scientifically Valid Parameters

We then evaluated whether quantifiable, scientifically valid parameters that demonstrate achievement of objectives, and standards, by which progress will be measured, are identified.

As discussed above, the scientific conservation strategy was the result of a multi-stakeholder effort called the New Mexico Lesser Prairie-Chicken/Sand Dune Lizard Working

Group. The Working Group included staff from the Bureau of Land Management (BLM), the U. S. Fish and Wildlife Service (Service) and personnel that are now employed at CEHMM, landowners, and industry representatives. Its task was to devise conservation measures for the lesser prairie-chicken and the lizard that would be adequate to minimize the threats impacting the species so that neither species would decline to the point of needing to be listed as endangered or threatened species under the ESA. The conservation strategy also included scientific input or information from New Mexico Department of Game and Fish, New Mexico State Land Office, non-governmental conservation organizations, and universities then currently involved in lizard research. Scientifically valid parameters were derived from the best science available at the time including ongoing research and previously published scientific articles.

Quantifiable parameters are based on enrollment, along with CEHMM and BLM's tracking and review process, compliance monitoring, and habitat monitoring and CEHMM's reporting on conservation actions funded or undertaken in monthly and annual reports. In addition the biological monitors will report on how many animals, including lizards, are discovered and removed from the open trenches.

Although the agreements were signed in 2008, enrollment interest did not increase until 2010, prior to the lizard becoming proposed for listing as endangered. CEHMM has provided the Service monthly and annual reports since 2010. To date, the CCA and CCAA have 29 mineral interest enrollments, 39 surface enrollments, and surface/mineral lands enrolled by the New Mexico State Land Office that totals 452,462 acres of lizard habitat or 83.3% of the total lizard habitat known in New Mexico. The mineral enrollments have generated over \$3 million towards implementing activities that improve habitats for the lizard and lesser prairie-chicken. The reports also show that there have been no cases of non-compliance with the conservation measure to avoid lizard habitat. For additional details, see Appendix 1.

5. Provisions for Monitoring

Next we determined if provisions for monitoring of the conservation effort were provided.

CEHMM has a detailed monitoring strategy in place (see Appendix 1). CEHMM is responsible for enrollment and tracking activities associated with the CCAA and BLM has similar responsibilities for the CCA. They are also responsible for tracking development—including receiving reports from participant-provided biological monitors assigned to open trenches for the installation of pipelines—on enrolled acres, ensuring that all pipelines and oil and gas development are placed outside of suitable lizard habitat and occupied shinnery oak dune complexes, and guiding participants to avoid suitable lizard habitat and occupied shinnery oak dune complexes when conducting herbicide treatments. CEHMM monitors activities on CCAA related activities and BLM monitors CCA activities. The BLM reports data to CEHMM to be included in monthly and annual reports. The Service, CEHMM and BLM work together to identify lizard occupied and suitable habitat, along with shinnery oak corridors. CEHMM has trained biologists that work with the participating cooperators to direct the placement of activities outside of lizard habitat on non-federal lands. BLM staffs are responsible for ensuring activities on enrolled public lands only occur outside of lizard habitat. The participating cooperator is responsible for ensuring that all provisions of these agreements are implemented by

its agents, sub-contractors, and other interest holders on all parcels enrolled under these agreements.

The CCA/CCAA requires CEHMM to provide the Service with monthly and annual reports with data submitted by the Participating cooperators, BLM, and through CEHMM's own compliance monitoring. Scientific evidence of the successes or needs for improvement are also reported to CEHMM for inclusion in the reports. CEHMM's monthly and annual reports include new enrollments, funds that came in or are deducted from accounts or applied towards projects such as pipelines or mesquite removal, summaries of any surface disturbing activities that resulted in habitat conservation fees (see Appendix 1), any compliance monitoring conducted on enrolled lands to ensure that lizard habitat was not disturbed, any reclamation that has occurred as part of agreements, monitoring classes held, and reports of violations. All reported violations are investigated by CEHMM, and the results of the investigation are included in the reports. Examples of reports are provided in Appendix 1. To date, there have been no documented cases of non-compliance for no development in habitat.

In addition, CEHMM, BLM, and the Service have collaborated on developing training related to the conservation efforts. One such course is for participant-provided biological monitors who will be responsible for removing vertebrates from open pipeline trenches (once the pipeline route has been designed to occur outside of dune complexes and corridors, the participating cooperator is responsible for providing trained biological monitors and ramps to remove lizards from open trenches). BLM has trained 55 monitors representing ten companies responsible for the installation of buried pipelines. This course continues to be offered for potential biological monitors to be trained on how to properly survey for lizards in trenches, remove wildlife from the trenches, report any wildlife removed from trenches, and perform these activities while complying with other requirements (e.g., individual company policy and those set forth by the Occupational Safety and Health Administration). Staff at CEHMM has also trained with BLM staff to determine how to direct development outside of habitat. BLM utilizes a robust geographic information system (GIS) to track activities including new developments, reclamation activities, and vegetation treatments. CEHMM has adopted a similar GIS to track activities and has access to public lands information made available by BLM. Both BLM and CEHMM have staff and GIS capabilities to compile monitoring data for activities related to the CCA and CCAA. CEHMM uses the GIS and other data sources to complete required reports to the Service.

In light of this detailed monitoring plan, we conclude that there are provisions for monitoring and reporting activities regarding this conservation measure.

6. Adaptive Management

Our final task regarding the conservation efforts outlined in the CCA and the CCAA was to determine if principles of adaptive management were incorporated into the effort.

We conclude that the CCA and CCAA incorporate principles of adaptive management. BLM is currently funding research to analyze the efficacy of their Best Management Practices in relation to the conservation of lizard habitat. Results and management recommendations from

the research will be incorporated in future development guidelines and reclamation efforts. Monitoring of lizard populations following reclamation through BLM's Restore New Mexico, projects funded by CCA/CCAA Habitat Funds, and Participant's reclamation efforts will also aid in identification of successful techniques to restore connectivity between patches of lizard habitat. New techniques for site reclamation and dune habitat restoration are also being researched and evaluated and will be adapted as necessary to provide the greatest benefit for the species. The CCA/CCAA Funding Team is working with Texas Tech University to develop improved reclamation techniques and potential dune habitat restoration techniques that will benefit the habitat for the lizard. As these techniques are developed and tested, we will update the reclamation standards in our agreements. Based on this, we have concluded that principles of adaptive management are incorporated into this conservation measure, and can be adjusted if necessary.

In addition, the CCA and CCAA provide that, if it is determined that the current distance from habitat within which certain actions must be avoided—which is currently at least 30 meters outside of lizard habitat for pipelines and development and at least 500 meters outside of habitat for herbicide (Tebuthiuron) treatments—is proven not to protect the lizard adequately, the avoidance distance will be revised, based on new scientific information. Another example is mesquite treatment. Mesquite encroachment has only recently been identified as a threat to the lizard. This threat will continue to be researched and mesquite removal will be adapted as necessary to provide the greatest benefit for the species. The Service, BLM, and CEHMM are developing a standardized protocol to monitor treatments prior to and following mesquite treatments to scientifically document successes or any unintended results that would lead to adaptive management. The CCA/CCAA Funds Team is working with Texas Tech University to develop potential and improve existing restoration and reclamation techniques that will benefit the lizard. Additionally, monitoring data gathered by partner agencies conducting similar activities in lizard habitat can be utilized to identify any techniques that would improve CCA/CCAA funded mesquite removal and could be included in adaptive management.

In light of these flexibilities incorporated into the conservation efforts, we have concluded that principles of adaptive management will be employed in implementing the specific conservation measures identified, and can be adjusted when needed and determined by the best available science.

Summary of Analysis for the Conservation Effort

In summary, using the criteria in PECE (68 FR 15115, March 28, 2003), we evaluated the certainty of implementation and effectiveness of the New Mexico CCA and CCAA. We have determined that the conservation efforts have a high certainty of being implemented. Our reasons for concluding that our level of certainty is high are because the level of enrollment is high (over 83 % of lizard habitat is enrolled), the mechanism and authorities for collecting funds are in place, the process for allocating funds to support reclamation work and research in lizard habitat is in place, the monitoring and documentation of compliance with the conservation measures are in place, and monthly and annual reports are complete, and all parties have the legal authorities to carry out their responsibilities under the New Mexico agreements. We have determined that the conservation efforts are effective at eliminating or reducing threats to the

species because they direct new development and herbicide treatments outside of suitable and occupied habitat, restore habitat, and reduce fragmentation. We are confident that the efforts will continue to be implemented because we have a documented track record of compliance on all of the enrolled lands to date. In three and a half years of implementation, neither CEHMM nor the BLM have reported incidence of non-compliance with the conservation measures. Measures, such as reclamation, are placed on an implementation schedule and will be effective upon completion. Participants have sufficient incentive to remain enrolled and continue conservation of habitat for the lizard. The agreements have sufficient monthly and annual monitoring and reporting requirements to ensure that all of the conservation measures are implemented as planned, and are effective at removing threats to the lizard and its habitat. The collaboration between the Service, CEHMM, and BLM requires regular team meetings and involvement of all parties in order to implement the agreements fully. We find that the conservation efforts in the New Mexico CCA/CCAA and its implementing CIs/CPs have a high level of certainty of implementation (for those measures not already implemented) and effectiveness and can be considered as part of the basis for our final listing determination for the lizard.

Conclusion

Using the criteria specified in PECE (68 FR 15115, March 28, 2003), we have evaluated the certainty of effectiveness of the CCA/CCAA that has been implemented by CEHMM and the BLM. Based on our evaluation, we have determined that all of the PECE criteria for the certainty of effectiveness have been satisfied. In addition, the Service will have an on-going role in the implementation of the conservation effort by reviewing the monitoring reports and continuing discussion with BLM and CEHMM. We are satisfied that the conservation efforts evaluated will be effective in reducing threats to the lizard; however, in order to do so they do not need to be applied on every acre of suitable lizard habitat. For instance, not all of the mesquite encroaching on occupied dune complexes needs to be removed. The effort needs to occur at a level that keeps mesquite encroachment in check, such that it does not present a significant threat to the lizard and its habitat. We find that the New Mexico CCA/CCAA, in which the majority of the conservation effort has already been implemented, has a high level of certainty of effectiveness, and can be considered as part of the basis for our listing determination.

TEXAS CONSERVATION PLAN (TCP) PECE ANALYSIS

Background

The Texas Conservation Plan (TCP) is structured differently than the New Mexico CCA/CCAA in its implementation of conservation measures (e.g., avoidance, minimization, and mitigation). The TCP focuses on the avoidance of activities within lizard habitat that would further degrade habitat, improvement (including reclamation) and re-connection of lizard habitat patches to reduce fragmentation, and, due to the pervasiveness of mesquite in lizard habitat, the removal of mesquite that is encroaching into shinnery oak dunes. If avoidance of lizard habitat cannot be accomplished, the Participant may adopt conservation measures that minimize habitat disturbance, and as a last resort, mitigate for the loss of lizard habitat. The Service issued a Section 10(a)(1)(A) Enhancement of Survival Permit for the dunes sagebrush lizard to the Texas Comptroller of Public Accounts (Comptroller; permittee) on February 17, 2012.

The TCP was developed and approved after the proposed rule to list the lizard published. It was developed in conjunction with the Comptroller and many Stakeholders, including Federal, State, and private partners representing interests in the natural resource, oil and gas, ranching, and agricultural industries. In support of the TCP, the Service issued a permit to the Comptroller who then contracted with Texas A&M University to administer the TCP. Texas A&M University designated several of the administrative functions of the TCP to the newly formed Texas Habitat Conservation Foundation (Foundation). The Foundation is a non-profit organization (Section 501(c)(3) of the Internal Revenue Code of 1986 and the Texas Tax Code, Section 11.18) which works to promote the conservation of Texas wildlife and sensitive and candidate species and related habitat, as well as other natural resources, including raising and distributing research funds, administering research activities to further scientific knowledge about sensitive and candidate species and related habitat, and implementing and monitoring compliance with voluntary conservation plans.

The Service completed a PECE analysis on the TCP by analyzing the conservation effort of enrolling participants to commit voluntarily to modify the way they conduct their activities so as to minimize threats to the lizard. This analysis considered the specific conservation measures that participants could commit, which can be found in Appendix E of the TCP, based on the nature of their activities and as research determines which measures are the most efficient and effective for lizard conservation. Therefore, not all 34 potential conservation activities are applicable or required for lizard conservation at each site.

Participants enroll in the TCP by signing a Certificate of Inclusion (CI) that will be developed upon enrollment and will be crafted for all sites enrolled under that CI. Prior to negotiating and signing a CI, interested parties are required to submit an enrollment form (Appendix 2) committing in writing to enroll specific acreages under the TCP through a CI within 45 days. Upon submission of the enrollment forms, interested parties are required to remit payment based on a per acre cost to secure that commitment to financially support administration and implementation of the TCP. All payments are deposited into the Habitat Protection Account administered by the TCP (see Funding discussion below).

Avoidance

Although we do not know which specific conservation measures are going to be included in each CI at this time, the TCP as a whole limits the amount of habitat loss within lizard habitat to 1 % in the first three years. As detailed in the section 10 permit and the TCP, the permittee must first demonstrate avoidance and show that all appropriate minimization measures have been utilized before any lizard habitat is degraded. Then, if lizard habitat loss is unavoidable, the permittee must secure mitigation commensurate with the impact prior to authorizing any habitat loss in a CI, and that habitat loss cannot exceed 1 % over the first three years of implementation of the TCP (2012 – 2015). After the first three years, the Service and the permittee will evaluate the TCP's accomplishments, and analyze any lizard habitat loss authorized by the CIs, to determine if future habitat loss (potentially up to 10 %; see section 10 permit condition K) may be authorized.

To reduce or remove the threat of further habitat degradation, the TCP focuses first on avoidance of activities in lizard habitat by applying a limit to the amount of lizard habitat loss that may be authorized by the permit (< 1 % in the first three years 2012-2015). If habitat loss or degradation is unavoidable, the participant and permittee must first demonstrate, in writing, how they considered and exhausted all other options to avoid habitat (see Appendix H of the TCP – Avoidance Criteria) prior to authorizing any habitat loss in a CI and mitigation for that loss must be secured prior to development. Based on the industry's review of the TCP, they determined that most of the production (ongoing and projected) occurs or will likely occur either outside of habitat complexes or within the spaces in between where habitat does not occur. It is the smaller operators who do not have the large acreages with the flexibility to move development in order to avoid lizard habitat that necessitates the need for a small amount of incidental take coverage, and those operators represent a small part of the habitat acreage as a whole. Due to the 1 % limit for the first three years, participants in those situations will be required to minimize the footprint of their impact in habitat in order to preserve the allowance of habitat loss for those rare situations where habitat loss may be unavoidable. Additionally, mitigation rates are based on the proximity of the activity to lizard habitat. The closer the impact is to habitat, the higher the mitigation cost is to the participant, discouraging development near or within habitat.

Habitat improvement and/or re-connection of habitat patches

In addition to the avoidance strategy, the permittee will implement conservation strategies that link occupied habitat patches through conservation on lands in between those patches while researching methods to reclaim and/or restore lizard habitat, if biologically possible. Where possible, participants will remove unused roads and infrastructure in order to improve habitat and restore fragmented areas by creating corridors for lizards to move between habitat patches and colonize currently unoccupied patches.

Mesquite removal

Due to the prevalence of mesquite in west Texas, the TCP is designed to financially incentivize landowners to participate in the TCP through a CI that targets mesquite removal on their lands, specifically mesquite that occurs within lizard habitat or is encroaching into shinnery oak dunes. Prioritizing mesquite control and/or removal by offering funding collected from plan

participants, the TCP financially incentivizes landowners and operators to conserve, restore, and enhance existing lizard habitat with a goal of increasing the overall quantity and quality of currently available lizard habitat in Texas through permit duration (30 years).

Other conservation actions

In addition to specific conservation measures listed in Appendix E of the TCP, another provision of the TCP is based on the Conservation Recovery Award System and mitigation for loss of habitat (which is also monitored by the Foundation)(see sections 8 and 12 of the TCP). These two strategies form the basis for determining habitat impacts and calculating mitigation requirements to ensure that mitigation accomplished on the ground is commensurate with the impact resulting from the participant’s activities. Through the enrollment process, Foundation biologists determine habitat impacts, if any, and work with the participant to further minimize those impacts. If necessary, the Foundation biologist will determine what mitigation requirements will be stipulated in the CI. Mitigation requirements increase based on the severity of the impact to habitat. For example, a one-acre impact in high quality habitat may necessitate 2.5 acres of mitigation of the same or better habitat resulting in more habitat being protected than that which is lost or degraded.

To inform the application of conservation measures, mitigation strategy and effectiveness of conservation efforts, the TCP and the section 10 permit require the implementation of a robust adaptive management plan to inform conservation decisions in order to maximize conservation benefits to the lizard, whereby adjustments may be applied to future CIs, or may be added to existing CIs with participant permission, in order to maximize benefits to the lizard.

Table 2: Summary of Conservation Measures in the TCP Evaluated Under PECE (A full list of conservation measures may be found in Appendix E of the TCP)

Threat	<i>Conservation Measure to Address the Threat</i>
O&G Infrastructure	New development in dunes sagebrush lizard habitat will avoid habitat and if unavoidable, will constitute no more than 1% loss of all lizard habitat
Fragmentation	Reclamation
Pipelines	New development in lizard habitat will avoid habitat and if unavoidable, will constitute no more than 1% loss of all lizard habitat
Power lines	Powerlines will follow oil and gas conservation measure, and will be limited to the 1% habitat loss cap
Seismic	Limit to areas outside lizard habitat or utilize walk-in geophones where possible

Wind Development	Not specifically stated; new development will avoid habitat and if unavoidable, will constitute no more than 1% loss of all lizard habitat
Herbicide (Tebuthiuron) Treatments	Do not treat the dunes (buffer)
Mesquite Treatment	Not a conservation measure, but restoration activity

Enrollment

Interested participants work with the permittee biologists (as discussed above, the permittee is the Comptroller, but many of the administrative functions of the permittee have been contracted to the Foundation) to develop individual CIs through a process identified in Appendix F of the TCP. Generally, the enrollment process involves a habitat impact assessment, discussion of conservation options under the TCP, determination of mitigation needs, and development of a property specific management plan. This is agreed upon through the signing of the CI. A copy of a signed CI is provided in Appendix 2. A Participant is then responsible for proper implementation, annual and monthly reporting, and compliance monitoring (via Foundation biologists making post construction site visits).

As of May 2012, 227,235 acres are enrolled in the TCP. Of those 227,235 acres, 138,640 acres (71 %) are within mapped lizard. Of this amount, 70,087 acres (56 %) represent lizard habitat that is classified as low, high, and very high likelihood of lizard occupancy. The remaining 88,595 enrolled acres represent areas adjacent to mapped lizard habitat that may buffer or connect patches of lizard habitat. We anticipate these numbers to increase as additional CIs are signed and more detailed information on enrolled lands is provided.

TEXAS CONSERVATION PLAN PECE ANALYSIS

The certainty that the conservation effort will be implemented:

- 1. The conservation effort, the party(ies) to the agreement or plan who will implement the effort, and the staffing, funding level, funding source, and other resources necessary to implement the effort are identified.**

We first had to determine if the TCP, the parties to the plan that will implement the effort, and the staffing, funding level, funding source and other resources necessary to implement the effort are identified. The plan clearly details the roles and responsibilities of the parties involved in implementation (see section 8.0 of the TCP).

Staffing and Resources

The TCP was developed in conjunction with the Texas Comptroller's Office (the permittee) and many Stakeholders, including Federal, State, and private partners representing interests in the natural resource, oil and gas, ranching, and agricultural industries. In support of the TCP, the Service issued a section 10 permit to the Comptroller who contracted with Texas

A&M University to administer the TCP. Texas A&M University designated several of the administrative functions of the TCP to the newly formed Texas Habitat Conservation Foundation (Foundation). The Foundation is a non-profit organization (Section 501(c)(3) of the Internal Revenue Code of 1986 and the Texas Tax Code, Section 11.18) which works to promote the conservation of Texas wildlife and sensitive and candidate species and related habitat, as well as other natural resources, including raising and distributing research funds, administering research activities to further scientific knowledge about sensitive and candidate species and related habitat, and implementing and monitoring compliance with voluntary conservation plans. The Foundation has an Executive Director who is responsible for administering the TCP including performing outreach, enrollment, monitoring and reporting requirements of the TCP. The newly hired Executive Director is a former Texas Parks and Wildlife biologist from the Permian Basin who is very familiar with the area and the industry representatives and ranching communities who operate in the area. Individuals responsible for biological determinations required by the TCP, such as those hired by the Foundation and/or Texas A&M University, must have the professional competencies required for making such determinations as prescribed by section 10 permit condition P(a).

In addition to the resources identified above, the Permittee will continue to activate and use the Stakeholder Committees to review, assess, and manage the TCP. The Stakeholder Committees are comprised of a Science Committee, a Policy Committee, and a Steering Committee. Decisions were made either on a consensus basis or by vote. The Science Committee includes biologists from the Texas Parks & Wildlife Department, Texas Department of Agriculture, United States Department of Agriculture's Natural Resources Conservation Service, Texas A&M University, and the Texas Wildlife Association. The Policy and Steering Committees included various stakeholders from the above agencies and the Railroad Commission of Texas and affected parties, including landowners, Texas and Southwestern Cattle Raisers Association, Texas Farm Bureau, Texas Oil and Gas Association, Texas Royalty Council, and University of Texas System University Lands. The Service will participate fully in Stakeholder Committee meetings to ensure biological and regulatory consistency with the section 10 permit. Specifically, the Stakeholder Committees will be activated to deliberate and will inform decisions with regard to funding, mitigation, science application, dispute resolution, and violations and remedies.

Funding

Funding is secured through permit duration (30 years) with annual participation fees, mitigation funds, and voluntary recovery funds in order to complete necessary conservation actions (See Section 11.0 of the TCP). The Comptroller is authorized under Texas S.B. 1 to create the Habitat Protection Fund to hold all fees and contributions made in support of the TCP. *See* Act of June 29, 2011, 82nd Leg., 1st C.S., S.B. 1, §67.01 (to be codified at TEX. GOV'T CODE §403.452 (a)(4)). The Habitat Protection Fund is "held outside the treasury" which under state law means that it is not subject to the biennial appropriation process of the Texas Legislature. Monies held in a fund outside the state treasury are not subject to being used for other purposes at the end of the last fiscal year of the biennium. As such, fees and contributions deposited to the Habitat Protection Fund may only be used for the purposes identified in the statute creating the Habitat Protection Fund. Pursuant to the statute, the Habitat Protection Fund

can be used to support the development or coordination of the TCP and to pay the costs of monitoring and administering the implementation of the Plan. The permittee has the authority to provide for the imposition of fees in connection with the Plan. These fees may be used to implement, monitor, or support the implementation of the Plan. The permittee may solicit and accept appropriations, fees, gifts, or grants from any public or private source, including the federal government, the State of Texas, a public agency or a political subdivision of the state, for deposit to the credit of the Habitat Protection Fund. The permittee has activated three accounts (the Administration Account, Mitigation Account, and Recovery Account) to administer the following three types of program activities requiring funding under the TCP: Program Administration (Section 11.1.1); Mitigation (Section 11.1.2); and Recovery (Section 11.1.3).

Program Administration

Program administration funding refers to the monetary and in-kind contributions of the Permit Holder and Participants to set up the Plan, conduct public outreach and involvement, oversee the enrollment of Participants into the Plan, compliance and effectiveness monitoring, periodic audit of the Plan, facilitate the generation, registration and transfer of Mitigation Credits and Recovery Awards, research activities, conduct remedial measures for changed circumstances, and implement the Adaptive Management provisions. Program administration costs are estimated to be \$3,000,000 for the first four years of implementation, and thereafter \$250,000 annually, adjusted upward at an inflation rate of 3%. It is anticipated that Participation Fees and Participation Assessments will generate \$710,100 annually to cover the costs of Program Administration as detailed in Appendix D of the TCP. The Permit Holder may allocate surplus funds in the Administration Account to the Recovery Account or, after listing, to the Mitigation Account, in order to provide funding for the generation of Recovery Awards or Mitigation Credits.

Mitigation

Mitigation funding includes the monetary and in-kind contributions that will be necessary to implement the mitigation contemplated under the Plan for incidental take resulting from Covered Activities. The Mitigation Account will be used to manage Mitigation Credits, including directed research that may be conducted into the effectiveness of the contemplated Mitigation Activities. Funds generated for mitigation shall be deposited into a Mitigation Account in the Habitat Protection Fund. Because all mitigation must occur prior to a take occurring, initial mitigation credits may be available from surplus Participation Fees or in-kind contributions from entities.

Recovery

Recovery funding includes the monetary and in-kind contributions that will be necessary to implement Recovery Activities contemplated. The Recovery Account will be used to manage Recovery Awards, including directed research that may be conducted into the effectiveness of the proposed Recovery Activities. Recovery funding shall be deposited into a Recovery Account in the Habitat Protection Fund. As with mitigation funds, initial recovery awards may be available from surplus Participation Fees or in-kind contributions from entities.

Private, Local, State or Federal Funding and In-Kind Contributions

Other private individuals or companies, as well as local, State and Federal governmental units may provide additional monetary or in-kind contributions to assist in program

administration and implementation. The current estimate of private, local, state and federal funding and in-kind contributions is \$135,750 for the first year and \$543,000 for the first four years. Any monetary contributions shall be deposited into the Administration Account, Mitigation Account, or Recovery Account, as appropriate. Federal funds cannot be used to obtain mitigation.

Mitigation Account for Covered Activities

Participants, who enroll voluntarily in the Plan, shall provide funds to the Mitigation Account for the performance of Mitigation Activities required under the Plan in an amount sufficient to create mitigation credits for their incidental take. The amount payable by Participants shall be determined by the Foundation in accordance with Section 12 in the TCP and as described above in **Other Conservation Actions**. The Foundation may also generate and sell mitigation credits for research and other mitigation activities conducted by the Foundation and/or Texas A&M University. Funds for mitigation credits shall be deposited in the Mitigation Account, but fees can be used for Program Administration as appropriate.

Recovery Account for Recovery Activities

Participants, who enroll voluntarily in the TCP, may provide funds to the Recovery Account for the performance of recovery activities required under the TCP and section 10 permit for the creation of Recovery Awards. The amount payable by these participants shall be determined in accordance with Section 12 in the TCP. The Foundation may also generate and sell Recovery Awards for recovery activities conducted by the Foundation and/or Texas A&M University. The use of Recovery Awards by the Foundation and Participants is subject to the Recovery Award Use Limitations set forth in Section 8.8 of the TCP describing the advantages of financially incentivizing landowners to implement conservation strategies pursuant to the TCP. Funds generated by sale of Recovery Awards shall be deposited in the Recovery Account, but fees held back in reserve can be used for Program Administration.

Adjustment of Fees and Potential Imposition of Participation Assessment

To ensure that the fees are adequately covering TCP costs as required by the section 10 permit, a thorough fee audit will be completed by the permittee on a periodic basis through permit duration consistent with adaptive management reviews conducted under Section 8.3 of the TCP. Following completion of the fee audits, if the audit shows that the collected fees were inadequate to fund the essential activities of the TCP, as required by the section 10 permit, the permittee may request that the Stakeholder's Steering Committee review the audit and make recommendations to implement one or more the procedures identified in Section 10.1.1 of the TCP to resolve the issue and ensure funding. Acting on the recommendations of the Steering Committee, the permittee may initiate any of the procedures in Section 10.1.1 of the TCP including adjustment of fees to the extent necessary to adequately fund and implement the essential aspects of the TCP, as required by the section 10 permit. Additionally, to the extent that the funding sources described in Sections 11.2.1 to 11.2.4 of the TCP are insufficient to fund Program Administration, the permittee may assess a periodic participation assessment on participants, who enroll voluntarily, following the completion of the audit. Additionally, the permittee, in consultation with the Foundation may assess a fee necessary to pay for the direct cost of any site screenings on a per site basis. Such a fee would be set following the same procedures described above.

Summary of Funding

The following funding Table 11-1 estimates the costs and revenues for the first four years of the TCP. The permittee will review the need for an assessment and reasonable adjustment of fees as part of the adaptive management reviews outlined under Section 8.3 of the TCP once a year for the first five years and will adjust the funding as necessary to assure adequate funding for program administration. Other sources of funding may also change.

Table 11-1. Anticipated Estimated Funding Sources Summary Table		
	Year 1	Years 1 – 4
Projected Costs		
Program Administration	\$662,000	\$3,000,000 ¹
Projected Revenues by Source		
Participation Fees & Participation Assessments	\$710,100 ²	\$2,840,400
Orphan Well Clean Up	\$85,750	\$343,000
Foundations and Other Donors	\$50,000	\$200,000
Total Revenue	\$822,350	\$3,289,400

- 1 Assumes higher initial cost of start-up for program administration.
- 2 Estimated fees based on Participants that may have need for incidental take coverage.

As of May 2012, \$773,000 has been collected from enrolled participants and exceeds the projections for the first year as depicted in Table 11-1 above (\$662,000). The funds have been deposited into the Habitat Protection Fund, as prescribed above and by the TCP. These and future fees will be used to fund the conservation strategy, along with administration of the TCP.

It is reasonable to conclude that, with current funding in place, the TCP’s funding structure is capable of supporting the implementation of the TCP through permit duration. Further, the TCP clearly defines procedures, as described above and in the TCP, to identify and resolve any funding issues that may arise in the future. We conclude that there is staffing, funding levels, and resources necessary to implement the conservation plan.

- 2. The legal authority of the party(ies) to the agreement or plan to implement the formalized conservation effort, and the commitment to proceed with the conservation effort are described.**

Permit Issuance

Sections 2, 7, and 10 of the ESA allow the Service to enter into a CCAA with the permittee. Section 10(a)(1)(A) of the Act authorizes the issuance of permits to the permittee to “enhance the survival” of a listed species if it finds that: (1) the take will be incidental to an otherwise lawful activity and will be in accordance with the terms of the CCAA; (2) the CCAA complies with the requirements of the CCAA Policy available from the Service; (3) the probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of survival and recovery in the wild of any species; (4) implementation of the terms of the CCAA is consistent with applicable Federal, State, and Tribal laws and regulations; (5) implementation of the terms of the CCAA will not be in conflict with any ongoing conservation programs for species covered by the permit; and (6) the applicant has shown capability for and commitment to implementing all of the terms of the CCAA. 50 CFR § 17.22(d)(2); 17.32(d)(2). The Service has determined that all conditions stipulated above have been satisfied (see “Findings and Recommendation on Issuance of an Endangered Species Act section 10(a)(1)(A) Enhancement of Survival Permit to the Texas Comptroller of Public Accounts associated with a Candidate Conservation Agreement with Assurances and review of a proposed Habitat Conservation Plan for the Dunes Sagebrush Lizard, for 14 counties in northwest Texas” issued February 17, 2012). The Comptroller is the permittee for the ESA Section 10(a)(1)(A) enhancement of survival permit in support of the CCAA and in the event that the DSL is listed as a threatened or endangered species, may apply for the ESA Section 10(a)(1)(B) incidental take permit to support the TCP.

Permit Administration

The Office of the Texas Comptroller was created by the Republic of Texas provisional government as an appointed position on December 30, 1835. After statehood, the office became an elected position authorized by Article IV, Section 23, of the Texas Constitution of 1850. The Comptroller serves as the chief financial officer for the state of Texas. Most of the powers and duties of the Comptroller are enumerated in Chapter 403 of the Texas Government Code and the Texas Tax Code. The agency is the state’s chief tax collector, accountant, revenue estimator, and purchasing manager.

In 2009, the Texas Legislature assigned the Comptroller to chair the Interagency Task Force on Economic Growth and Endangered Species to help local officials implement the regulatory programs of the ESA and to coordinate economic development in conjunction with the implementation of the ESA. The Comptroller actively seeks to balance economic growth and endangered species regulation, and to do so by developing strategic alliances among farmers, ranchers, industry, conservation groups and agencies, universities and research institutions. To further this effort, Article 67 of Texas Senate Bill 1 in the first called Special Session of the 82nd Texas Legislature (S.B. 1) authorizes the Comptroller to apply for and receive permits under the ESA. S.B. 1 further authorized the creation of a Habitat Protection Fund to be held in the Texas state treasury.

The Comptroller’s Office will use their procurement authority to contract with third party administrators for research, administration, and audits of the TCP to meet the terms of the section 10 permit to include but may not be limited to the enrollment of participants, tracking of the mitigation and recovery activities and funds, distribution of research funds, performance of research activities, distribution of funds for mitigation and recovery activities, and compliance monitoring and reporting. To obtain these services, the Comptroller may execute contracts with governmental entities such as state universities and state agencies through interagency contracts.

The Comptroller may also solicit qualifications and/or proposals from individuals or companies following state procurement requirements. It is expressly understood that wherever in the TCP there is a duty, responsibility, or function assigned or undertaken by the permittee, the Comptroller may, at its discretion, have such duty, responsibility, or function performed by its designated qualified third party administrators.

Permit Participation

Under Texas law, information collected by the permittee from a private landowner or other participant or potential participant in the TCP and relating to the specific location, species identification, or quantity of any animal or plant life cannot be disclosed to the Service or any other person, including a state or federal agency the information; and, further, it is not subject to the Texas Public Information Act. *See* Act of June 29, 2011, 82nd Leg., 1st C.S., S.B. 1, § 67.01 (to be codified at TEX. GOV'T CODE § 403.454). The permittee may only disclose to the person who provided it information that relates to the specific location or quantity of the species for which the TCP is being prepared, unless the person consents in writing to full or specified partial disclosure of such information.

Notwithstanding this statutory confidentiality provision, the permittee must provide sufficient information as required by Section 8.2 of the TCP or other provisions of the TCP to enable the Service to enforce the section 10 permit and monitor compliance, but participant and other identifying information will be removed.

By reporting all information separately by mapped dune complexes (see 8.2.3), the TCP satisfies legal confidentiality requirements while simultaneously providing information to the Service at a scale-of-resolution appropriate for assessing status/trends as well as operational decisions regarding compliance, effectiveness and adaptive management.

Because participation in the TCP is voluntary, participants document acceptance of all terms and conditions stipulated by the TCP and the supporting section 10 permit by signing a CI. It is reasonable to conclude that once a participant executes a CI, they accept all responsibilities that come with the agreement. Therefore, it is not anticipated that participation in the TCP will result in any type of infraction of legal authority by the Service or permittee.

The TCP thoroughly addresses the legal authority of the permittee, enrolled participants, and the Service. Federal and State laws are all addressed and landowners have the authority to enroll conservation acres. The entire TCP plan area is located on private lands or on State trust lands administered by University Lands which are largely dedicated to providing funding for Texas schools. In order to comply with Texas private property rights laws, industry participants or lessees must have the private landowner's permission to enroll surface acres. We conclude that all parties have the legal authority to enroll conservation lands in the plan, and execute prescribed conservation measures. Regarding the permittee's and participants' commitment to enroll and execute the prescribed conservation measures, the TCP clearly defines the need for the TCP in order to continue operations while providing conservation benefit to the lizard.

3. The legal procedural requirements (e.g., environmental review) necessary to implement the effort are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort.

Next, we determined if the legal procedural requirements (e.g., environmental review) necessary to implement the plan are described, and information is provided indicating that fulfillment of these requirements does not preclude commitment to the effort. From the Service's permitting process and evaluation of the section 10 permit application, we have adhered to all legal and procedural requirements to issue a section 10 permit in support of the TCP.

The Service evaluated the section 10 permit application and draft TCP pursuant to NEPA, solicited public comment, reviewed, evaluated and incorporated or otherwise address comments all in accordance with NEPA (see "FINAL Environmental Assessment For The Texas Conservation Plan for the Dunes Sagebrush Lizard: a Candidate Conservation Agreement with Assurances and/or a Habitat Conservation Plan for the Dunes Sagebrush Lizard (*Sceloporus arenicolus*) February 17, 2012" and the attached appendix for the Service's review of public comment.). It is not anticipated that implementation of the TCP, beyond that which was required for permit issuance, will necessitate further NEPA evaluation as the covered area occurs exclusively on non-federal lands and the permittee and its third party administrators have assumed all roles associated with TCP implementation avoiding the need for federal action to implement actions prescribed by the TCP.

The Service evaluated the section 10 permit application and draft TCP pursuant to ESA, specifically with regards to issuance criteria required for section 10 permit issuance and determined that all regulatory criteria required to issue the section 10 permit to the Comptroller were satisfied (see "Findings and Recommendation on Issuance of an Endangered Species Act section 10(a)(1)(A) Enhancement of Survival Permit to the Texas Comptroller of Public Accounts associated with a Candidate Conservation Agreement with Assurances and review of a proposed Habitat Conservation Plan for the Dunes Sagebrush Lizard, for 14 counties in northwest Texas, February 17, 2012")

Participants are required to adhere to all state and federal laws that govern actions associated with the covered activities including, but not limited to, well placement and oil and gas operations, in established procedural processes not associated with the TCP.

4. Authorizations (e.g., permits, landowner permission) necessary to implement the conservation effort are identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will implement the effort will obtain these authorizations.

We then had to determine if authorizations necessary to implement the conservation plan are identified. Because the TCP requires that surface landowner authorization is obtained before enrollment, we have a high degree of certainty that all authorizations will be secured to the satisfaction of all interested parties prior to enrollment. The process as a whole is designed to be transparent to all interested parties minimizing or removing any chance that surface landowners or other interested party may object to implementing required conservation actions.

5. The type and level of voluntary participation (e.g., number of landowners allowing entry to their land, or number of participants agreeing to change timber-management practices and acreage involved) necessary to implement the conservation effort is identified, and a high level of certainty is provided that the party(ies) to the agreement or plan who will

implement the conservation effort will obtain that level of voluntary participation (e.g., an explanation of how incentives to be provided will result in the necessary level of voluntary participation).

There is high degree of certainty that the TCP will attract a high level of voluntary participation that will ensure successful implementation of the TCP through the permit duration (30 years, see section 5.0 of the TCP). An individual Certificate of Inclusion may be executed for 1-30 years, per the participant's request. However, companies already enrolled in the TCP are agreeing to 30-year terms (see attached Certificate of Inclusion Section XII). In addition to the regulatory assurances and oil and gas operators desire prior to a listing decision to maintain operations without delays or burdensome regulations, the TCP employs a market-based incentive strategy (Conservation Recovery Award System) to encourage additional participation by private landowners to improve the status of the lizard on their lands (see section 12.0 of the TCP). Much of the improvements such as mesquite removal will also be beneficial to grazing operations and provide further incentives to cattle ranchers to enroll their lands. Mesquite removal provides opportunities for high quality grasses to expand and/or become re-established providing additional grazing areas for cattle.

As of May 2012, there are 138,640 total dunes sagebrush lizard habitat acres or 71 % of all lizard habitat in Texas enrolled in the TCP. Enrollees have collectively remitted approximately \$773,000 in participation fees into the Habitat Protection Fund administered by the TCP, all funds which cannot be used by the Texas Legislature for any other purpose.

Excerpt from Figure 1-2 of the TCP: Areas that are Dark Green (Very High Likelihood of Occurrence) had positive results from multiple surveys or were areas that are known to have recently contained DSL (based on museum records within the last 20 years). Survey sites in the Dark Green areas also had habitat descriptions that were generally "Shinnery dunes with large open blowouts." Dune "complexes" (expanses of the same geologic dune formation) could also be identified from aerial photography and, unless survey data was available to indicate otherwise, entire dune "complexes" were considered the same likelihood of occurrence. Areas that are Light Green (High Likelihood of Occurrence) had some historical records or had few positive surveys. Survey site habitat descriptions in these areas were generally similar to those of Dark Green areas but the areas of good habitat were generally smaller. Orange areas (Low Likelihood of Occurrence) were areas where no records of DSL were known; however, these areas are in all cases in contact with areas of Dark Green or Light Green. Survey site habitat descriptions varied from "shinnery dunes with blowouts" to "some shinnery dunes with sparse blowouts and lots of mesquite in flats and blowouts." Areas that are Red (Very Low Likelihood of Occurrence) were areas where no DSL have been found in surveys and the habitat patches were usually separated from areas that were considered Dark Green or Light Green by patches of unsuitable habitat. Within the very high, high, and low likelihood of occurrence habitat categories (see Figure 1-2 of the TCP), 70,078 acres (56 %) have been enrolled with 90 % of the very low likelihood category enrolled.

Some of the same companies who are enrolled in the New Mexico CCA/CCAA have also either enrolled or committed to enroll acres in Texas. Two major operators, Conoco-Phillips and Bopco, are enrolled in both plans. As evidenced by the enrollment acreages and funds collected

thus far, numerous other companies have submitted enrollment forms to enroll in the TCP. However, due to confidentiality protections provided by the TCP, those company names have not been disclosed to date.

Because the TCP was finalized more recently than the New Mexico conservation agreements, there is less information regarding the voluntary participation we can expect. However, it is reasonable to conclude that due to the high level of participation and compliance with the New Mexico conservation agreements and additional voluntary conservation efforts prescribed by the TCP (see Appendix E of the TCP), and the fact that some of the biggest participants in the TCP are also enrolled in the New Mexico conservation agreements, a large percentage of lizard habitat in Texas will be enrolled in the TCP and that the specific conservation measures called for will be implemented and successful.

6. Regulatory mechanisms (e.g., laws, regulations, ordinances) necessary to implement the conservation effort are in place.

We then determined if the regulatory mechanisms necessary to implement the conservation effort are in place. The TCP thoroughly describes the regulatory role of the permittee, enrolled participants, and the Service (see Legal Authority above).

Pursuant to section 10 of the ESA, the Service is required to enforce all terms and conditions stipulated in the permit which provides the regulatory mechanism to enforce all permit terms and conditions. Further, pursuant to section 7 of the ESA, the Service is required to adhere to all terms and conditions of the Conference Opinion issued in support of permit issuance (see “Intra-Service Section 7 Conference Opinion on: the proposed Issuance of a Section 10(a)(1)(A) Enhancement of Survival Permit for the Dunes Sagebrush Lizard to the Texas Comptroller of Public Accounts, the proposed implementation of the *Texas Conservation Plan for the Dunes Sagebrush Lizard*, and a potential future application from the Texas Comptroller of Public Accounts for a 10(a)(1)(B) Incidental Take Permit with a supporting proposed Habitat Conservation Plan February 16, 2012”).

Pursuant to the TCP governed by the section 10 permit, the permittee is provided with the regulatory mechanism to issue and enforce CIs to all participations who voluntarily participate in the TCP. The participants must adhere to all terms and conditions of the section 10 permit, TCP, and CIs or risk revocation or suspension of those agreements losing all regulatory assurances provided by the section 10 permit (see sections 8.1.3 and 8.1.4 of the TCP).

Landowners have the legal authority to enroll surface conservation acres or any interest for which they hold the rights. An eligible participant is a “Property Owner,” as defined by 50 CFR §17.3, who has a fee simple, leasehold, or property interest (including owners of water or other natural resources), or any other entity that may have a property interest, sufficient to carry out the proposed management activities, subject to applicable State law, on non-Federal land (see Appendix F of the TCP: Certificate of Inclusion and section 10 permit condition J(c)). As required by the TCP, Lessees (e.g., industry participants), must have the surface landowner’s authorization to enroll mineral interests that also involve their surface interests. From Appendix F of the TCP: “Consistent with the definition of Property Owner under 50 CFR § 17.3,

Participant has provided to Permit Holder a description of its property interest enabling it to enroll in this CI (Exhibit A). Participant is responsible for ensuring that the provisions of this CI are implemented by its employees and contractors. For the purposes of this CI, Permit Holder shall include any contractor acting on Permit Holder's behalf unless otherwise specified".

Pursuant to section 10 permit condition K(c)(i) and Table 8-2 of the TCP, the permit issued to support the implementation of the TCP limits authorization of habitat loss to 1 % (2,173 acres) during the first three years of the permit. During the first three years of implementation, the permittee will report any habitat loss authorized by CIs monthly to the Service (see section 10 permit condition K(a). Through this limitation, the permittee is therefore prohibited from authorizing additional habitat loss. After the first three years of implementation, the Service and the permittee will determine how much, if any, habitat may be lost, if necessary (see section 10 permit condition K(h)). Additionally, the permit requires comprehensive annual reports from the permittee to evaluate participant compliance and biological effectiveness of the TCP (see section 10 permit condition P(b) and section 8.2 of the TCP). Further, the TCP prescribes a robust adaptive management plan to inform conservation decisions in order to maximize conservation benefits to the lizard, whereby adjustments may be applied to future CIs, or may be added to existing CIs with participant permission. We conclude that plan adequately addresses and employs the regulatory mechanisms for implementing the plan.

7. A high level of certainty is provided that the party(ies) to the agreement or plan who will implement the conservation effort will obtain the necessary funding.

Refer to the discussion of funding under #1 above. We conclude that there is a high level of certainty that conservation effort will obtain the necessary funding. Funds are secured at the time of enrollment, and, as of May 2012, \$773,000 had been collected from enrollees.

8. An implementation schedule (including incremental completion dates) for the conservation effort is provided.

Next, we had to determine if an implementation schedule (including incremental completion dates) for the conservation effort is provided. The TCP is not based on an implementation schedule, but the plan's design requires that a positive biological response must precede habitat loss authorized by the CIs. Habitat loss must be compensated at varying rates, depending on the suitability of the habitat to be taken, and mitigation must be commensurate with the impact for which the mitigation is required. This requires the plan to implement stringent monitoring and research to develop conservation actions that benefit the species prior to any further habitat loss, as proposed in the TCPs adaptive management strategy. Mitigation rates are prescribed such that habitat will be reconnected (defragmented) at a higher rate than that lost during the life of the plan. Despite not having an implementation schedule, the Service has determined that the plan has sufficient structure, regulatory mechanisms, and planning to achieve the necessary conservation benefit. Further, as agreed to by the Stakeholders and the Service, the first three years of implementation of the TCP will be strictly monitored by the Service through monthly and annual reports, annual meetings, research findings and decisions through adaptive management that may be informed by research findings, consistent communication with the permittee and third party contractors. Three consecutive years of data collection is generally

acceptable by statistical standards to establish a trend. If the TCP is effective, the TCP aims to establish a positive trend reflecting improvement of habitat quality and/or quantity through evaluation of the first three years of data collected through the adaptive management strategy. A communication protocol is under development that will ensure that the Service and all Stakeholders will be involved in many of the decisions made by the permittee to implement the conservation actions prescribed by the TCP. After three years, the Service will evaluate the TCP's effectiveness and determine how much, if any, additional habitat loss may be authorized through the TCP.

9. The conservation agreement or plan that includes the conservation effort is approved by all parties to the agreement or plan.

Finally, we had to determine if the conservation plan that includes the conservation effort is approved by all parties to the agreement or plan. On February 17, 2012, the TCP, submitted by the permittee, with the endorsement of State and Federal resource agencies and numerous industry (ranching, oil and gas, and agriculture) stakeholders, was approved by the Service. Individual CIs will continue to be developed and implemented in coordination with the Foundation and participants who wish to enroll in the plan.

Certainty that the Conservation Effort Will Be Effective

1. The Nature and Extent of the Threat is Addressed

We first had to determine if the nature and extent of the threats being addressed by the TCP are described, and how the combined conservation efforts within the plan will reduce the threats. Section 13.1 of the TCP describes the threats and the expected benefits of the plan. The conservation measures outlined in the agreement are designed to significantly reduce or remove the threat of habitat loss, degradation, and fragmentation within dune complexes and shinnery oak corridors. The conservation measures address the overall threat of habitat loss and fragmentation by prioritizing avoidance as the first conservation action each participant must consider and accommodate if possible. If avoidance is not possible, the TCP limits habitat loss to no more than 1 % of the total habitat within the first three years of plan implementation. If mitigation of habitat impacts is needed, the TCP places a high priority on mesquite control or removal in or near lizard habitat as a conservation measure due to the recognized threat of mesquite encroachment into dune systems in Texas. The TCP also reduces other threats, such as predator perches, and habitat loss and direct mortality due to roads and other activities in or near habitat. We have determined that these conservation measures directly address the threat of habitat loss, degradation, and fragmentation, as well as direct mortality and increased predation risk due to oil and gas development in habitat.

2. Incremental Objectives are Stated

We then had to determine if explicit incremental objectives for the conservation effort and dates for achieving them are stated. Each CI will prescribe a list of the conservation measures that are specific to each site. Mitigation objectives would be commensurate with activities/impacts and will first exhaust all options to avoid disturbing habitat, and if necessary,

the TCP may only authorize habitat loss up to 1 % of the lizard habitat in Texas. It is not that each participant is authorized to take 1 % of lizard habitat, rather all impacts authorized by the TCP, or a cumulative loss of habitat, may not exceed 1 % of lizard habitat in Texas. If habitat loss is unavoidable, mitigation commensurate with the impact will be required and secured prior to habitat loss. Mitigation credits will be generated by implementing on-the-ground conservation actions prior to authorizing any activities that may result in habitat loss. A positive biological response must first be demonstrated before full credit is given for a mitigation activity. Despite not having an implementation schedule, the plan and the permit have requirements that will ensure that mitigation results in positive biological responses, and increase the long term survival of the species and its habitat. The adaptive management strategy in the TCP and required by the section 10 permit prescribes the development and implementation of specific measurable monitoring strategies that will inform each conservation decision and will be utilized to determine biological responses to the implementation of conservation measures.

3. Steps Necessary for Implementation are Identified

Next, we determined if the steps necessary to implement the TCP are identified in detail. The enrollment process (Appendix F), adaptive management strategy (Section 8.3), implementation (8.6), reporting (8.2.3), and compliance/effectiveness monitoring (8.2.1, 8.2.2) are clearly defined in the plan.

4. Quantifiable, Scientifically Valid Parameters

Quantifiable, scientifically valid parameters that will demonstrate achievement of objectives, and standards for these parameters by which progress will be measured are identified. Demonstrated achievement with the TCP will be based on the amount of habitat that is enrolled, along with the tracking and review process. It is the permittee's responsibility, as required by the section 10 permit (condition P) to monitor and report acres of developed habitat, along with any required avoidance, minimization, and mitigation performed under the CIs. Due to the robust feedback mechanisms (e.g., reporting requirements, adaptive management strategy), there is a high degree of certainty that the biological objectives will be accomplished through implementation, research, and then adjustment of the strategy, as appropriate. Further, the certainty of positive biological response is heightened by the requirement to secure commensurate mitigation, often at a rate higher than that which is impacted, prior to habitat disturbance. Based on the amount of enrolled acres projected and accomplished to date, and rigorous processes for implementation, monitoring, and adaptive management, we have determined that the objectives under the TCP are measurable and can be achieved (see Voluntary Participation, above).

5. Provisions for Monitoring

Provisions for monitoring and reporting progress on implementation (based on compliance with the conservation goals and objectives prescribed by the TCP) and effectiveness (based on evaluation of quantifiable parameters of those conservation goals and objectives) of the overall conservation effort are provided (see section 10 permit condition P and section 8.2 of the TCP). The TCP requires the permittee to report monthly to the Service during the first three

years of implementation, in addition to annual reports, which are required over the life of the permit. These monthly and annual reports will include information on new enrollments, acres of habitat developed, any monitoring activities, and any avoidance, minimization, or mitigation that has occurred as required by the TCP. These reports will be used to determine the effectiveness of the avoidance, minimization, and mitigation activities. They will also be used to assist the Service in determining if future habitat loss will be authorized under the permit, beyond that which is currently authorized. Provisions for monitoring and reporting for this conservation plan are in place. The permittee's third-party contractor (Texas A&M University) and the Foundation will represent the permittee in the field, work with landowners and operators, and collect all information required by the section 10 permit and the TCP. Once compiled, the Foundation will provide the required information to the permittee who will submit the information to the Service annually, and monthly for the first three years. Also annually, the permittee will conduct a meeting to include representatives from both New Mexico and Texas with the intent to discuss ongoing research and research findings, adjust future implementation strategies in both states, and discuss the range-wide status of the lizard prior to submitting an annual report to the Service.

6. Adaptive Management

Finally, we had to determine if the principles of adaptive management are incorporated in the TCP. This plan is built on the principles of adaptive management, and has specifically designed mechanisms and measureable standards to inform all conservation decisions associated with the TCP and to ensure the plan results in benefits to the species. The third-party administrator (Texas A&M University) employs a research team that works on dunes sagebrush lizards in both New Mexico and Texas whereby research may be applied range-wide. The techniques for habitat improvement and/or restoration of habitat are being researched, and will be adapted as necessary to provide the greatest benefit for the species. The program will establish a better understanding of the threats to the species and modify existing or develop potentially new conservation measures (e.g., restoration and reclamation techniques), to maximize benefits to the lizard. We have concluded that principles of adaptive management are incorporated into this TCP.

Summary of Analysis for the Texas Conservation Plan

In summary, after review and analysis of the TCP pertaining to the lizard in Texas, we have determined that the conservation effort will be effective at eliminating or reducing threats to the species, because it first avoids habitat and if necessary, limits development within suitable and occupied habitat as a priority, and it also improves and strives to restore habitat and reduces fragmentation. We are confident that the conservation effort will be implemented on enrolled acres, and the loss of habitat will be limited to 1 % in the first three years of the plan, and not more than 10 % over the life of the permit. We conclude that the possible loss of 10 percent of lizard habitat over the life of the permit is not a significant threat to the lizard. Mitigation measures, such as habitat improvement and mesquite removal, are priorities in the plan, and will be effective upon completion due to the requirement of a biological response. The agreements have sufficient monthly and annual monitoring and reporting requirements, to ensure that all of the conservation measures are implemented as planned, and are effective at removing threats to the lizard and its habitat. In addition, the Foundation will be conducting independent monitoring

of the enrolled lands to ensure compliance. The Service receives and reviews monitoring reports, providing another level of review of compliance monitoring. Finally, if the lizard is listed, the enrolled participants would continue to implement the conservation effort under the proposed HCP. The collaboration between the Service and other stakeholders requires regular meetings and involvement of all parties in order to implement the agreements fully. For this reason, we have determined that the TCP will be implemented and effective at reducing the threats to the lizard in Texas, given that the majority of known lizard habitat in Texas has been enrolled.

In addition to the listed criteria for evaluating the certainty of implementation and effectiveness, PECE also expressly provides for the Service to consider other species-specific, habitat-specific, location-specific, and effort-specific factors. One such factor is that Texas is primarily comprised of private and state owned lands and, as a result, the federal role in oil and gas development in particular is far less extensive. Based on our experience, section 7 consultations for activities in areas occupied by the lizard would take place less often in Texas because there is no federal nexus requiring consultation for these activities on private or state lands unless a federal permit for the private or state action is required. As a result, voluntary conservation measures on private and state lands are likely to have more significant benefits for the conservation of the species in Texas.

As of May 2012, there are 138,640 total dunes sagebrush lizard habitat acres or 71 % of all lizard habitat in Texas, enrolled in the TCP. Enrollees have collectively remitted approximately \$773,000 in participation fees into the Habitat Protection Fund administered by the TCP, all funds which cannot be used by the Texas Legislature for any other purpose. Within the very high, high, and low likelihood of occurrence habitat categories, 70,078 acres (56 %) have been enrolled with 90 % of the very low likelihood category enrolled. Excerpt from Figure 1-2 of the TCP: Areas that are Dark Green (Very High Likelihood of Occurrence) had positive results from multiple surveys or were areas that are known to have recently contained DSL (based on museum records within the last 20 years). Survey sites in the Dark Green areas also had habitat descriptions that were generally “Shinnery dunes with large open blowouts.” Dune “complexes” (expanses of the same geologic dune formation) could also be identified from aerial photography and, unless survey data was available to indicate otherwise, entire dune “complexes” were considered the same likelihood of occurrence. Areas that are Light Green (High Likelihood of Occurrence) had some historical records or had few positive surveys. Survey site habitat descriptions in these areas were generally similar to those of Dark Green areas but the areas of good habitat were generally smaller. Orange areas (Low Likelihood of Occurrence) were areas where no records of DSL were known; however, these areas are in all cases in contact with areas of Dark Green or Light Green. Survey site habitat descriptions varied from “shinnery dunes with blowouts” to “some shinnery dunes with sparse blowouts and lots of mesquite in flats and blowouts.” Areas that are Red (Very Low Likelihood of Occurrence) were areas where no DSL have been found in surveys and the habitat patches were usually separated from areas that were considered Dark Green or Light Green by patches of unsuitable habitat.

Some of the same companies who are enrolled in the New Mexico CCA/CCAA have also either enrolled or committed to enroll acres in Texas. Two major operators, Conoco-Phillips and Bopco, are enrolled in both plans. As evidenced by the enrollment acreages and funds collected

thus far, numerous other companies have submitted enrollment forms to enroll in the TCP. However, due to confidentiality protections provided by the TCP, those company names have not been disclosed to date. The high level of participation and compliance with the New Mexico conservation agreements and additional voluntary conservation efforts prescribed by the TCP (see Appendix E of the TCP) supports our determination that similar enrollment, implementation, and effectiveness is likely to be achieved in Texas.

The Service issued the permit to the permittee on February 17, 2012. Since then, in a short time, the permittee has enrolled significant acreages, collected funds from current enrollees, and has created and set into motion a non-profit organization to administer specific functions of the TCP, including but not limited to, outreach to attract more participation. As of May 2012, the third party administrator is negotiating agreements with interested parties. It is reasonable to conclude that the enrollments will continue and lizard habitat placed into under conservation through the TCP will increase over time.

Conclusion

Using the criteria specified in PECE (68 FR 15115, March 28, 2003), we have evaluated the certainty of implementation and effectiveness of the TCP. Based on our evaluation, we have determined that all of the PECE criteria for the certainty of implementation and effectiveness of the conservation effort have been satisfied. We find that the TCP has a high level of certainty of implementation and effectiveness, and can be considered as part of the basis for our listing determination.