



2022 Annual Report

Range-wide Oil and Gas Candidate Conservation Agreement with Assurances (CCAA) for the Lesser Prairie-Chicken

Permit #TE27289B-0
(2014-2044)



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by the
Western Association of Fish and Wildlife Agencies
&
WAFWA Species Restoration Fund

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The Range-Wide Oil and Gas Candidate Conservation Agreement with Assurances for the Lesser Prairie-Chicken in Colorado, Kansas, New Mexico, Oklahoma, and Texas (CCAA) is a voluntary conservation strategy that establishes a mitigation framework which is administered by the Western Association of Fish and Wildlife Agencies (WAFWA) and permitted by the U.S. Fish and Wildlife Service (Service). Established in 2014, the CCAA is a partnership between the states of New Mexico, Colorado, Kansas, Oklahoma and Texas, the oil and gas industry and private landowners. The CCAA is available on WAFWA’s website (<https://wafwa.org/initiative-programs/lesser-prairie-chicken/>).

RECOMMENDED CITATION

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EXECUTIVE SUMMARY

Provided is a summary of the key findings for the reporting period of January 1, 2022, to December 31, 2022.

Enrollment

- Industry participation remains high in 2022. There were 126 industry Participants with 5,707,580 acres of industry leased or controlled private lands enrolled in the CCAA ([Industry Enrollment](#)).
- WAFWA/SRF secured 52,787 acres of private farm and ranch land, providing 44,730 acres of high-quality LPC habitat, to mitigate enrolled impacts and to provide a net conservation benefit ([Conservation Enrollment](#)).
- The CCAA goal to provide at least 25% permanent conservation enrollment was met and exceeded by having enrollment consist of 39% permanent conservation of high-quality LPC habitat ([Conservation Enrollment](#)).

Conservation Benefits

- Industry Participants continue to demonstrate their commitment to implementing the discretionary conservation measure of avoiding high-quality LPC habitat areas, by having 79% percent of new impacts occur outside of high-quality LPC habitat. Specifically, 34% of the impacts occurred in non-habitat areas ([Conservation Benefits, Section I](#)). In comparison, 98% of the conservation properties occurrence is within areas of greatest importance to the LPC ([Conservation Benefits, Section V](#)).
- This is further demonstrated by assessment of the habitat quality of the areas impacted by industry development. In 2022, the quality of habitat impacted was very low, with a mean habitat quality score of 0.25 on a scale of 0.0-1.0 ([Conservation Benefits, Section I](#)). In comparison, the conservation properties demonstrated a high-quality habitat score of 0.74 ([Conservation Benefits, Section V](#)).
- Lek occurrence is another measure to demonstrate that impact activities are occurring in low-quality habitat. Since the inception of the program, 38 of the 1,392 impact projects (2.7%) have had documented active leks within 1.25 miles ([Conservation Benefits, Section I](#)). In comparison, 91.6% of the conservation properties have had documented active leks within 1.25 miles ([Conservation Benefits, Section V](#)).
- Collocation of industry impacts is an avoidance strategy of the CCAA to greatly reduce the impact to LPC and their habitat. In 2022, new oil and gas developments exhibited a 69% co-location rate with pre-existing infrastructure which avoided habitat impacts by 504 acres ([Conservation Benefit, Section II](#)). Since the inception of the CCAA, collocation resulted in avoidance of impacts to 25,395 acres of LPC habitat.
- When industry impacts occur to LPC habitat which cannot be fully addressed through avoidance, the CCAA employs a biologically based mitigation framework at a 2:1 mitigation ratio; to ensure conservation offset is greater than impacts, resulting in a Net Conservation Benefit (NCB) for the species. In 2022, WAFWA processed twenty-one (21) mitigation projects which impacted 227 acres (45 impact units) of potential LPC habitat, totaling \$59,318 in mitigation fees paid by industry Participants ([Conservation Benefit, Section III](#)). Since the inception of the CCAA industry has provided \$13,452,801 for habitat conservation ([Appendix B](#)).
- The CCAA framework provides mitigation of impacts into perpetuity. Since the inception of the program, mitigated impacts generated 11,244 impact units, which needs to be offset by 11,244 offset units generated annually ([Conservation Benefit, Section III](#)). In 2022, conservation efforts generated 55,331 offset units ([Conservation Benefits, Section V](#)). The excess of 44,087 offset units further strengthens the CCAA's contribution to providing a Net Conservation Benefit (NCB) for the species.
- High-quality habitat on the conservation properties is resultant from the mitigation structure ensuring ongoing habitat enhancement and restoration. The CCAA has provided 17,602 acres of restoration and 52,787 acres of habitat enhancement within LPC important geographic areas ([Conservation Benefits, Section V](#)). The CCAA Conservation Enrollment Strategy targets an increase in restoration over the next 3 years.

INTRODUCTION AND BACKGROUND

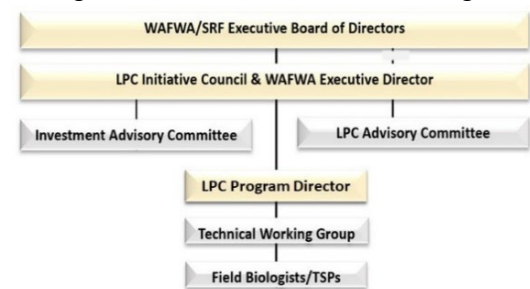
Entities and Business Structure

The Western Association of Fish and Wildlife Agencies (WAFWA) is a 501(c)4 nonprofit organization representing the state and provincial fish and wildlife agencies from 24 states and Canadian provinces, an area covering nearly 3.7 million square miles of western North America. WAFWA holds the Federal Fish and Wildlife permit (# TE27289B-0) issued by the U.S. Fish and Wildlife Service (Service) on 02/28/2014 for the Range-Wide Oil and Gas Candidate Conservation Agreement with Assurances for the Lesser Prairie-Chicken in Colorado, Kansas, New Mexico, Oklahoma, and Texas (CCAA). WAFWA is the CCAA program administrator with responsibility to ensure activities under the CCAA are in-compliance with the terms and conditions of this 30-year permit, and that operations are conducted following the CCAA Business Plan (WAFWA, 2021). The business plan was recently updated with the help of third-party consultants, to identify actionable improvements and designated benchmarks for the continued success of the CCAA.

The Species Restoration Foundation (SRF) is a 501(c)4 nonprofit organization created by WAFWA solely to manage the financial operations of the CCAA. WAFWA and SRF share a principal interest in the success and governance of the CCAA by having a mutual Executive Board of Directors. The board is composed of the directors of each member agency and is the ultimate decision maker for the CCAA.

The LPC Initiative Council (LPCIC) is the governing body of the CCAA, comprised of the directors, or their designee, of the five-state fish and wildlife agencies within the LPC range, to provide support and oversight of the CCAA's administration. The LPCIC is informed by advisory committees providing a mix of expertise and experience. The LPC Program Director oversees the day-to-day operations.

Figure 1. CCAA Business Structure Diagram



Financial Audit

The SRF financial operations are audited annually through an independent third-party accounting firm according to *Government Auditing Standards* supported by sound accounting procedures. Since the organization was created in 2014, there have been no material findings identified in any financial audit. The 2022-2023 financial audit and accompanying IRS form 990, provides findings that the CCAA is financially sustainable at its current rate of use (see consolidated financial statement, note L). The audit results and accompanying IRS form 990 are publicly disclosed and available on WAFWA's website (www.wafwa.org/about-us/).

Third-party Annual Programmatic Review

In addition to the financial audit, a programmatic review is conducted annually by an independent third-party consultant to evaluate conservation performance and compliance with the terms of the CCAA. This process supports a predictable feedback loop for continued adaptive management and improvement. The 2022 programmatic review provides findings that the annual report herein fairly reflects the expenditures and conservation achievements of the program and has passed all compliance points of the CCAA (Dillon, 2023). The review is publicly disclosed and available on WAFWA's website (<https://wafwa.org/initiative-programs/lesser-prairie-chicken/>).

New for 2022: Clarification on the CCAA Coverage Area and the 2021 Estimated Occupied Range (EOR)

On November 24, 2021, the U.S. Fish and Wildlife Service (Service) published a final rule adding the Lesser Prairie Chicken to the list of threatened and endangered species. With this listing, the Service revised and updated the species' Estimated Occupied Range (EOR) from the original 2013 version. Considering that the CCAA was established in 2014 using the 2013 EOR, the 2013 EOR plus a 10-mile buffer (2013 EOR+10, Figure 2) will continue to serve as the CCAA 'coverage area' and will use the ecoregions as defined under the 2013 EOR. The Southern Great Plains CHAT online map (www.sgpchat.org) provides both the 2013 and the 2021 versions of EOR.

ENROLLMENT

Industry Enrollment

As of December 31, 2022, there were 126 industry Participants¹ with 5,707,580 acres of industry leased or controlled private lands enrolled in the CCAA (Appendix A, Table 1). Of note, the program was last open to new Participants in 2019, by WAFWA/SRF Executive Board decision.

Enrollment Changes in 2022

- Eligible Participants enrolled in the WAFWA Conservation Agreement (WCA) mitigation program were offered an opportunity to transfer their enrollment into the CCAA as part of a strategy to help ensure that Endangered Species Act (ESA) regulatory assurances for the lesser prairie-chicken are provided to all range-wide plan Participants. Eighteen (18) companies elected to transfer their enrollment by executing a Certificate of Inclusion (CI) into the CCAA.
- There was a net reduction of three (3) industry Participants. Six (6) Participants were voluntary terminated resulting from company merger or sale, and three (3) new companies were enrolled through transfer of enrollment from an existing Participant.
- No Participants were suspended or terminated due to compliance issues.

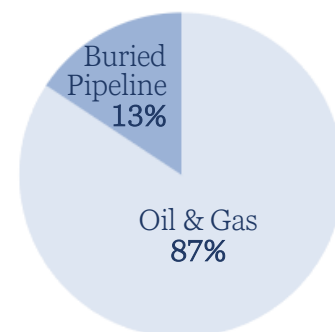
The enrollment of industry leased or controlled private land totaled 5,707,580 acres (Table 1). There was a net reduction of 518,561 acres from the prior year. The reduction was resultant from industry Participants updating their enrollment by terminating parcels no longer under their ownership/lease or control. It's important to note that land enrollment may overlap; two or more companies may have a lease on a parcel of land, where both have enrolled said land. If the enrollment overlap is removed, there are 5,081,747 acres covered by CCAA enrollments (11% overlap). It is also important to recognize that buried pipeline enrollment does not constitute a source of LPC habitat loss when the CCAA Conservation Measures are implemented (Section XVII, CCAA).

Table 1. Industry enrollment by ecoregion, as of December 31, 2022.

Ecoregion	Enrolled Acres*	Acres Covered by Enrollment	% Enrollment by Ecoregion
OIL & GAS ENROLLMENTS			
Mixed Grass Prairie	2,122,135	1,966,994	39%
Sand Sagebrush Prairie	1,836,029	1,654,010	33%
Shinnery Oak Prairie	565,316	519,595	10%
Shortgrass Prairie	287,503	282,064	6%
Oil & Gas Total:	4,810,983	4,422,663	87%
BURIED PIPELINE ENROLLMENTS			
Mixed Grass Prairie	511,526	365,932	7%
Sand Sagebrush Prairie	117,550	95,700	2%
Shinnery Oak Prairie	228,844	167,300	3%
Shortgrass Prairie	38,675	30,152	1%
Pipeline Total:	896,595	659,084	13%
TOTAL:	5,707,580	5,081,747	--

*Linear or point enrollments (e.g., pipeline, roads) are buffered by the CCAA's impact buffer distances to obtain acreage.

Industry Enrolled Lands



¹ Enrolled Industry Participants - Industry companies with oil and gas related activities that have an executed CCAA Certificate of Inclusion (CI).

Conservation Enrollment

WAFWA/SRF secured 52,787 acres of private farm and ranch land, providing 44,730 acres of high-quality LPC habitat, to mitigate enrolled industry development impacts and to provide a LPC net conservation benefit (Appendix C, Table 2). Voluntary enrollment in the CCAA by private property owners is secured by iterative 10-year term agreements and permanent conservation easements. Enrollment into the program remains open as needed to ensure the CCAA fulfills its mitigation and conservation requirements, and as guided by the CCAA's Conservation Enrollment Strategy.

Enrollment Changes in 2022

- WAFWA/SRF decreased enrollment by implementation of a strategic plan to right-size the investment of conservation properties. See Conservation Benefits, Section V for more information.
- One conservation property, under three contracts, was terminated by mutual agreement.

Of the 52,787 enrolled acres, the program only utilizes those acres considered to be LPC habitat that are unaffected by existing development on the landscape (unimpacted acres) as defined in the CCAA. A field review of the conservation properties is conducted annually to determine if impacts have changed. In 2022, the review confirmed 44,730 habitat acres enrolled, representing 84.7% of the total enrolled acreage. The remaining enrolled acres (8,057 acres) serve a valuable function as a habitat buffer, however from this point forward in the report we only refer to the unimpacted acres enrolled. Please see the [Financial Summary](#) for information relating to expenditures.

Table 2. Conservation enrollment by ecoregion, as of December 31, 2022.

Ecoregion	No. of Properties	Enrolled Acres	Habitat Acres ²	% Habitat by Ecoregion
10-YEAR TERM CONTRACTS				
Mixed Grass Prairie	2	19,077	14,294	32%
Sand Sagebrush Prairie	1	2,251	1,897	4%
Shinnery Oak Prairie	2	9,824	7,765	17%
Shortgrass Prairie	3	3,421	3,121	7%
Term Total:	8	34,588	27,077	61%
PERMANENT EASEMENTS				
Mixed Grass Prairie	2	2,726	2,708	6%
Sand Sagebrush Prairie	1	13,934	13,737	31%
Shinnery Oak Prairie	1	1,554	1,208	3%
Shortgrass Prairie	0	0	0	0%
Permanent Total:	4	18,214	17,653	39%
TOTAL:	12	52,787	44,730	--

Net Conservation Benefit: Provide >25% Permanent Conservation

The CCAA provides for conservation enrollment to be based on a shifting habitat mosaic strategy which targets at least 25% of enrollments toward permanent easements and 75% or less toward term (10-year) renewable agreements to support long-term, dynamic conservation and population strongholds.

As of December 31, 2022, enrollment includes 10-year term contracts totaling 27,077 unimpacted habitat acres and permanent easements totaling 17,653 unimpacted habitat acres (Table 2). The CCAA goal was met and exceeded by having enrollment consists of 39% permanent conservation of habitat. If viewed from a credit generating standpoint, permanent conservation provides for 35% of the total credits generated. This permanency of conservation contributes further to the Net Conservation Benefit to the species.



² Habitat Acres - habitat not impacted by development, crop conversion, or by woody vegetation encroachment.

CONSERVATION BENEFITS

The CCAA conservation strategy provides incentives for industry Participants to avoid and minimize impacts to LPC while providing assurances regarding the effect, if any, that listing would have on their operations. The incentive promotes: I] minimization of new oil and gas developments in high-quality LPC habitat; II] avoidance of new oil and gas developments within areas not already impacted by infrastructure; and III] implementation of a biologically based mitigation framework to minimize and mitigated for impacts to LPC and their habitat when avoidance is not possible.

I. Minimization of Impacts to High-Quality Habitat

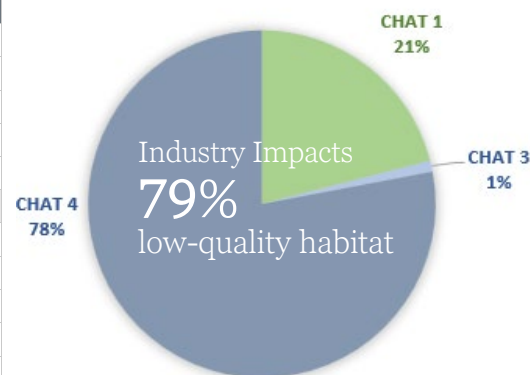
Industry Participants continue to demonstrate their commitment to implementing the discretionary conservation measure of not only avoiding high-quality LPC habitat areas but avoiding habitat in general.

Demonstrated by CHAT Score. Under the CCAA, high-quality habitat is defined as having a CHAT score of 1 or 2 (focal areas & connectivity zones) and low to no quality habitat areas (CHAT ranking of 3 or 4). The conservation strategy incentives avoidance of high-quality habitat by assigning higher mitigation fee ratios to these areas.

In 2022, the percentage of new impacts occurring outside of high-quality habitat areas is 79% (Table 3, CHAT 3 & 4). Since the start of the program, the percentage of new impacts occurring outside of high-quality habitat areas is 74% (Table 3, CHAT 3 & 4). Specifically, 34% of the impacts are occurring in non-habitat (Chart 2, CHAT 4). This demonstrates the effectiveness of the program's incentivization to avoid new industry developments within high-quality habitat areas. It also demonstrates industry Participants commitment to implementing the discretionary conservation measure of avoiding high-quality habitat areas.

Table 3. Industry impacts by CHAT category in 2022.

CHAT Category	# of Projects	Potential Impact Ac. ³	Impact Acres ⁴	% of Total
2022 Industry Impacts				
CHAT 1 - Focal Areas	3	112	47	21%
CHAT 2 - Connectivity Zones	0	0	0	0%
CHAT 3 - Modeled Habitat	3	65	2	1%
CHAT 4 - Modeled Non-Habitat	15	556	178	78%
2022 Total:	21	732	227	--
2014-2021 Industry Impacts				
CHAT 1 - Focal Areas	161	5,065	3,182	18%
CHAT 2 - Connectivity Zones	86	2,722	1,423	8%
CHAT 3 - Modeled Habitat	371	11,578	7,131	40%
CHAT 4 - Modeled Non-Habitat	753	23,159	5,898	33%
2014-2021 Total:	1,371	42,524	17,634	--
TOTAL:	1,392	43,256	17,861	--



³ Potential Impact - Includes the footprint of the impact activity (i.e., new oil & gas development) plus a defined buffer within which LPC habitat is deemed to be impacted because of the activity. The buffer distances vary depending upon the activity, refer to the CCAA for buffer distances.

⁴ Impact Acres - Within the 'potential impact' area, a review is conducted to identify any areas that have not already been impacted by existing developments. These new areas of impact are then mitigated. Of note, the CCAA was designed to mitigate for some non-habitat areas, such as cropland and areas impacted by woody vegetation encroachment.

Demonstrated by Habitat HEG Score. In addition to the CHAT score, a Habitat Evaluation Guide (HEG) rapid assessment is conducted for each oil and gas development to determine LPC habitat quality within a one (1) mile radius. The HEG assessment is based on four variables: vegetation cover, vegetative composition, presence of tall woody plants, and availability of potential habitat. The assessment provides a mean HEG score (0 to 1.0 scale) where 0 represents low-quality habitat and 1.0 represents high-quality habitat. This is also referred to as the ‘Habitat Score’. In 2022, the quality of habitat impacted by industry development was very low, with a mean HEG score of 0.25 on a scale of 0-1.0 (Table 4). Since the start of the program, the quality of habitat impacted has had a mean score of 0.29.

Table 4. Industry impacts by mean HEG score (Habitat Score) to relate habitat quality.

Ecoregions	2014	2015	2016	2017	2018	2019	2020	2021	2022*	Avg. 2014-2022
Mixed Grass Prairie	0.35	0.35	0.38	0.43	0.44	0.63	--	0.03	0.38	0.38
Sand Sagebrush Prairie	0.09	0.16	0.04	0.03	0.10	0.07	0.02	0.12	0.06	0.10
Shinnery Oak Prairie	0.23	0.25	0.12	0.18	0.55	0.56	0.21	--	0.76	0.31
Shortgrass Prairie	0.22	0.18	0.12	0.27	0.24	0.03	--	--	0.01	0.20
MEAN:	0.29	0.29	0.16	0.23	0.46	0.38	0.10	0.10	0.25	0.29

*The median score is 0.04. The minimum- maximum score is 0.0 – 1.0. The variance is 0.11. The count is 21.

Demonstrated by Lek Occurrence. Lek occurrence is another measure to demonstrate that impact activities are occurring in low-quality habitat. Since the inception of the program, 38 of the 1,392 impact projects (2.7%) have had documented active leks within 1.25 miles (Appendix B). In comparison, 91.6% of the conservation properties have had documented active leks within 1.25 miles (Table 10). Lek information results from lek surveys conducted prior to implementation. Since 2014, over 84% of the potential impact areas³ were surveyed prior to implementation.

II. Avoidance of Habitat Impacts

The location of new oil and gas developments within areas already impacted by infrastructure (collocation) will greatly reduce the impact to LPC and their habitat. Collocation includes siting new developments within existing common rights-of-ways or by clustering of facilities. The CCAA strategy incentivizes collocating by not requiring mitigation (no mitigation fee charged) on lands already impacted with existing infrastructure.

In 2022, new oil and gas developments exhibited a 69% co-location rate with pre-existing infrastructure which decreased habitat impacts by 505 acres (Table 5). Since 2014, the collocation rate has been 64%, which decreased the habitat potentially impacted by 25,395 acres (Table 5). This demonstrates the effectiveness of the program’s incentivization to avoid industry impacts within areas not previously impacted. It also demonstrates industry Participants commitment to implementing the discretionary conservation measure of avoiding new habitat impacts.

Table 5. Industry impacts by ecoregion with collocation rates in 2022.

Ecoregion	# of Projects	Potential Impact Ac. ⁴	Impact Acres ⁵	% Overlap	Acres of Impact Avoided by Collocation
2022 Industry Impacts					
Mixed Grass Prairie	4	156	61	61%	95
Sand Sagebrush Prairie	11	397	124	68%	273
Shinnery Oak Prairie	4	98	4	96%	94
Shortgrass Prairie	2	81	39	53%	42
2022 Total:	21	732	227	69%	505
2014-2021 Industry Impacts					
Mixed Grass Prairie	569	17,854	10,297	42%	7,557
Sand Sagebrush Prairie	237	7,292	3,383	54%	3,909
Shinnery Oak Prairie	452	14,012	1,646	88%	12,366
Shortgrass Prairie	113	3,365	2,308	31%	1,057
2014-2021 Total:	1,371	42,524	17,634	59%	24,890
TOTAL:	1,392	43,256	17,861	64%	25,395

III. Mitigation of Industry Impacts

When industry impact activities occur to LPC habitat which cannot be fully addressed through avoidance, the CCAA employs a mitigation framework that is a biologically-based system that incorporates space, time, and habitat quality to quantify both the impacts to habitat (impact units) and improvements to habitat (offset units); that is, the mitigation framework does not evaluate impacts based merely on the acreage amount of surface disturbance that results from industry activities.

Impact Unit - A quantified measurement of impacts to LPC habitat resulting from impact activities. Impact Units are a function of the number of acres impacted by an impact activity, the quality of the impacted LPC habitat (HEG score), and a multiplier that reflects the CHAT category where the impacts occur.

In 2022, WAFWA processed twenty-one (21) mitigation projects totaling \$59,318 in mitigation fees paid by industry Participants (Table 6). Mitigation projects impacted a total of 227 acres of LPC potential habitat (Impact Acres) and resulted in 45 Impact Units. Since the inception of the program (2014-2022), a total of 1,392 projects have been mitigated totaling \$13,452,801 in mitigation fees paid. Mitigation projects impacted a total of 17,861 acres of LPC habitat and resulted in 11,244 Impact Units (Table 6).

Table 6. Industry impact activities mitigated by ecoregion in 2022.

Ecoregion	# of Projects	Impact Acres ⁵	Mitigation Fee	Impact Units
2022 Industry Impacts				
Mixed Grass Prairie	4	61	\$44,495	31
Sand Sagebrush Prairie	11	124	\$9,383	8
Shinnery Oak Prairie	4	4	\$4,871	5
Shortgrass Prairie	2	39	\$570	1
2022 Total:	21	227	\$59,318	45
2014-2021 Industry Impacts				
Mixed Grass Prairie	569	10,297	\$11,356,720	8,622
Sand Sagebrush Prairie	237	3,383	\$345,271	645
Shinnery Oak Prairie	452	1,646	\$1,175,271	1,315
Shortgrass Prairie	113	2,308	\$516,220	617
2014-2021 Total:	1,371	17,634	\$13,393,482	11,199
TOTAL:	1,392	17,861	\$13,452,801	11,244

Net Conservation Benefit: 2:1 Ratio

The CCAA mitigation framework provides an average 2:1 mitigation ratio to ensure that mitigation efforts are greater than impacts, resulting in a Net Conservation Benefit for the species. For every 1 habitat unit of impact, 2 habitat units are conserved. This 2:1 ratio is built into the final unit amount (i.e., 1 Impact Unit is offset by 1 Offset Unit) by using the following calculation: Impact Unit = Impact Acres⁴ x Habitat Quality (HEG Score) x CHAT Multiplier

Example: If an industry action impacts 1.0 acre of habitat, with a habitat quality score of 1.0, in a habitat focal area CHAT 1, it has an 'impact unit' of 2.5. Mitigation of this action would require 2.5 'offset units' which are generated in the same ecoregion occurring in an equal or higher CHAT score. It would take 2 acres of unimpacted habitat with a habitat quality score of 1.0, in a habitat focal area CHAT 1 to generate the necessary 2.5 offset units to provide mitigation.

CHAT	Impact Multiplier	Offset Multiplier
CHAT 1	2.5	1.25
CHAT 2	2.1	1.05
CHAT 3	1.8	0.9
CHAT 4	1.6	0.8

VI. Remediation of Industry Impacts

The mitigation framework incentivizes the remediation of industry impacts on the landscape to restore LPC habitat as part of the program's conservation benefit to the species. Industry Participants may elect to mitigate impact activities by generating 'remediation units' to offset the impact rather than pay for offset units and, in some cases, remediation may be required. When Participants remediate an existing impact to CCAA standards (i.e., restore the impact area), remediation units are generated same as an offset unit and credited to the Participant's Habitat Conservation Fund Account. Remediation units may then be used by the Participant as needed within the ecoregion in which the remediation occurred. Remediation units will be reserved for the Participant that performed the remediation; however, the Participant may elect to transfer the remediation units.

In some instances, remediation is required to maintain compliance with the terms of the CCAA. The CCAA provides impact thresholds for LPC focal areas and connectivity zones (FACZ). Only 30% of a focal area, or 60% of a connectivity zone, may be impacted by oil & gas development. If a focal area or connectivity zone is over the threshold, then any new CCAA impacts requires remediation of existing impacts before new impacts may occur. Please visit the Southern Great Plains Crucial Habitat Assessment Tool (SGP CHAT) to view the focal areas and connectivity zones: www.sgpchat.org

In 2022, there was one remediation project to allow two impact activities to occur within a Focal Area or Connectivity Zone (FACZ) over the allowable threshold of impact (Table 7). Over the life of the program, there have been two (2) remediation projects that generated 1,730 units. Of the 1,730 units generated by remediation, 969 impact units were used for industry impacts. The remaining balance of 761 units is providing a conservation benefit until, or unless, used to offset industry impacts. For example, the remediation balance of 738 in the mixed-grass prairie has been providing conservation benefits since 2015.

Table 7. Remediation ledger of industry impact activities by ecoregion.

Ecoregion	# Impact Projects	# Remediation Projects	Remediation Fee	Remediation Units Generated	Remediated Impact Units	Remediation Balance
2022 Industry Impacts						
Mixed Grass Prairie	0	0	0	0	0	0
Sand Sagebrush Prairie	2	1	\$1,382	31.03	-7.78	23.25
Shinnery Oak Prairie	0	0	0	0	0	0
Shortgrass Prairie	0	0	0	0	0	0
2022 Total:	2	1	\$1,382	31.03	-7.78	23.25
2014-2021 Industry Impacts						
Mixed Grass Prairie	1	1	\$121,565	1,698.95	-961.12	737.83
Sand Sagebrush Prairie	0	0	0	0	0	0
Shinnery Oak Prairie	0	0	0	0	0	0
Shortgrass Prairie	0	0	0	0	0	0
2014-2021 Total:	1	1	\$121,565	1,698.95	-961.12	737.83
TOTAL:	3	2	\$122,947	1,729.98	-968.90	761.08

Minimization of Impacts by Conservation Measures: In addition to mitigation/remediation, the conservation strategy includes both required and discretionary Conservation Measures (CM) to minimize or avoid impacts to LPC and their habitat. For example, the CCAA includes a seasonal timing restriction limiting oil and gas construction and maintenance activities in areas within 1.25 miles of leks to avoid potential disturbance of LPC and, where such activities cannot be avoided, the CCAA includes a daily timing restriction to benefit LPC by reducing indirect disturbance during the lekking, nesting and brooding seasons. Implementation of these CMs is monitored through annual compliance reviews, see section [Participant Compliance Monitoring and Reporting](#).

V. Habitat Restoration & Enhancement

The CCAA conservation strategy ensures that the mitigation efforts are greater than impacts, resulting in a Net Conservation Benefit (NCB) for the species. In addition to the 2:1 mitigation ratio and the other benefits mentioned prior, the strategy concentrates resources to provide restoration, enhancement, and maintenance of large blocks of habitat in the areas of greatest importance to the LPC on private and state-owned lands.

Right-Sizing Conservation in 2022

As part of the 2021 updated CCAA Business Plan, WAFWA/SRF made a commitment to adjust “right size” the conservation allocations to ensure long-term success in implementing the CCAA’s NCB goals and objectives. This process was initiated in 2021 through an assessment of the program needs for offset units for the remaining duration of the permit and re-evaluation of goals and objectives. Through this assessment it was identified that the program was carrying an annual excess of over 83,500 offset units. The expense to generate these excess units was greater than the CCAA’s revenues and was putting the sustainability of the program at risk. This resulted in the development of a strategic plan to right size WAFWA/SRF’s investment of conservation properties. The strategic plan identified the need to reduce the amount of term agreements in favor of prioritizing permanent protections and restoration actions, and to strategically increase the proportion of parcels that have the greatest conservation value to the species. WAFWA evaluated each conservation property with a ranking tool to identify the management units best suited to remain in the program by using a decision support tool to identify right-sizing options: 1] maintain until expiration, 2] voluntary partial termination or 3] full voluntary termination. This strategic plan also offered early renewal for key management units in exchange for early termination of non-desired management units. In all cases, property owners were given the opportunity to work with partnering state wildlife agencies to seek enrollment in other conservation programs. The right-sizing plan was fully implemented in 2022, with the following key results:

- The percentage of permanent easements to term agreements increased from 20% in 2021 to 39% in 2022; meeting the CCAA’s goal of having at least 25% of enrollment providing permanent protections.
- The excess/unused credits (494,950 offset units) maintained over the years, from 2014-2021, contributed to the CCAA’s overall Net Conservation Benefit.
- No properties with LPC leks were terminated. WAFWA/SRF voluntarily maintained six properties solely for leks occurrence. The cost to maintain these properties until their expiration is \$302,679 in annual landowner payments plus management and monitoring expenses.
- After right-sizing, WAFWA/SRF is still maintaining approximately 30,000 excess credits to provide a buffer to any unforeseeable drop in conservation enrollment or credit generation.
- Enough credits have been secured in two ecoregions to cover foreseeable impacts for the duration of the permit (Shortgrass Prairie and Sand Sagebrush Prairie).
- The CCAA Business Plan goal of reducing the annual conservation payment to within \$400-\$600K was met.
- The overall performance of the conservation portfolio has increased by strategically retaining the properties with the greatest conservation value, as demonstrated in the following sections. For example, the overall habitat quality HEG score elevated from a 0.70 to a 0.74 (Appendix C).

Summary of the 2022 right-sizing results.

Ecoregion	Habitat Acre ³ Reduction	Annual Credit Reduction	Annual Payment Reduction
Mixed Grass Prairie	-48,161	-11,032	-\$270,045
Sand Sagebrush Prairie	-6,909	-1,679	-\$24,875
Shinnery Oak Prairie	-4,957	-753	-\$9,383
Shortgrass Prairie	-8,585	-3,316	-\$52,750
TOTAL:	(68,612)	(16,780)	(\$357,053)

See Appendix C for full details by property.

Note for 2022: In consideration that the right-sizing effort was implemented in the spring prior to the monitoring season, the HEG scores for terminated properties were carried over from 2021 to prorate the offset units and credits for the duration of enrollment in 2022.

Strategic Location. The CCAA conservation strategy provides habitat in geographic areas of greatest conservation value to the species by targeting the enrollment lands within focal areas (CHAT 1) and connectivity zones (CHAT 2). In 2022, the conservation properties retained after right-sizing had a location rate of ninety-eight percent (98%) occurrence within areas of greatest importance to the LPC (Table 9).

Table 9. Conservation acreage overview by ecoregion and CHAT category, as of December 31, 2022 (post right-sizing).

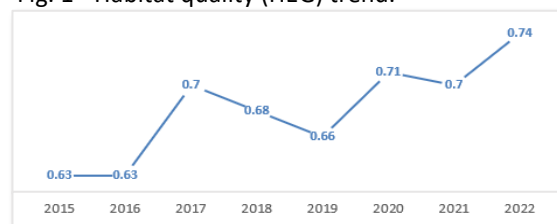
Ecoregion	Habitat Acres ³					% Habitat CHAT 1 & 2
	Total	CHAT 1	CHAT 2	CHAT 3	CHAT 4	
Mixed Grass Prairie	17,002	16,570	0	184	248	97.5%
Sand Sagebrush Prairie	15,634	15,634	0	0	0	100%
Shinnery Oak Prairie	8,973	8,212	296	466	0	94.8%
Shortgrass Prairie	3,121	3,121	0	0	0	100%
TOTAL:	44,730	43,536	296	650	248	98%

Habitat Quality. Conservation properties are annually monitored in the field during the LPC breeding season using standardized habitat monitoring protocol to assess habitat quality and to ensure compliance with the terms and conditions of the Participant's Certificate of Inclusion. Monitoring is conducted by a WAFWA certified Technical Service Providers (TSP) trained in the protocols and in identifying potential compliance issues.

Monitoring includes the use of an on-site rapid assessment, the WAFWA Habitat Evaluation Guide (HEG), which utilizes four consistent categorical variables to assess habitat quality: 1] Proportion of vegetation versus bare ground, 2] Percent cover of preferred species of vegetation for the LPC, 3] Density of trees per acre present, and 4] Percentage of suitable habitat expressed as grassland within one mile of the site.

These variables are designed to describe LPC habitat quality and track trends quickly and accurately through time. A HEG is completed for all areas with homogenous vegetation under similar management (called a management unit) and each HEG includes a component of vegetation monitoring using transect sampling. The HEG results in a score of 0.0 to 1.0, with 1.0 representing the highest habitat condition. It is important to recognize that not all conservation properties or management units have the characteristics to achieve a 1.0 score, often due to soil structure, slope or for other reasons. Therefore, each management unit is further assessed to identify its highest potential score, to manage the property to its highest potential.

Fig. 1 - Habitat quality (HEG) trend.



In 2022, the conservation properties retained after right-sizing had an average HEG score of 0.74 (Table 4). This HEG score represents a very high level of habitat quality (a score of 1.0 represents the highest quality).

Table 10. Conservation habitat quality indicators by ecoregion, as of December 31, 2022 (post right-sizing).

Ecoregion	Habitat Acres ¹	Habitat Score (weighted average)	% Suitable Habitat (weighted average)	Active Leks w/in 3 mi.	Active Leks w/in 1.25 mi.
Mixed Grass Prairie	17,002	0.92	90.1	2	2
Sand Sagebrush Prairie	15,634	0.65	89.3	19	17
Shinnery Oak Prairie	8,973	0.78	96.9	87	41
Shortgrass Prairie	3,121	0.52	65.6	63	63
TOTAL:	44,730	0.74	85.5	171	123

Lek Occurrence. Lek occurrence is another measure of habitat quality and conservation success. In 2022, 11 of the 12 conservation properties (91.7%) have one or more active leks onsite or within 1.25-miles of the property (Table 10). This indicates that these properties are providing LPC lekking, nesting, brooding, and foraging habitat. Lek information results from having lek survey coverage covering 43% of the conservation areas.

Management Plans. WAFWA works with Participants to develop a site-specific management plan for all enrolled acres focused on addressing LPC threats and improving habitat quality. The CCAA provides for two types of management plans, 1] a Rangeland Management Plan to address LPC threats on native grazed rangelands, and 2] a Planted Grass Management Plan to address LPC threats on lands conversions back to native vegetation. Implementation of the WAFWA-approved management plan is a compliance requirement of the Certificate of Participation (agreement) to generate offsite units.

In 2022, all conservation properties had a site-specific management plan in place and were found to be in compliance with the terms of their respective plans, as demonstrated by the results of the 2022 annual habitat monitoring.

Restoration & Enhancement Activities. Under the CCAA, restoration is achieved by conversion of cropland to native vegetation, restoration of impacted areas, and conversion of unsuitable grassland habitat due to the presence of exotic or invasive woody species to suitable habitat. Enhancement is achieved by management activities such as improved grazing systems, non-woody weed control, and suitable disturbance practices. All restoration and enhancement areas include the removal of LPC threats such as installation of tank ladders and fence markers.

In 2022, there were no new restoration activities. All restoration opportunities on enrolled lands were completed in the early years of their enrollment, largely between 2015-2018, resulting in 17,602 acres of habitat restoration (Table 11). The next phase of restoration is strategically planned to occur when new properties are enrolled upon expiration of the existing 10-year term agreements in 2024. The CCAA has a goal (i.e., a mitigation fee cost assumption) that 5-10% of management agreements would contain a restoration practice. As of December 31, 2022, this goal was exceeded by having one or more restoration practices completed on 42% of the active agreements (5 of the 12 contracts). The fee structure also provides a goal of targeting restoration on 13% of the conservation enrollment. As of 2022, the restoration percentage was 12%. The CCAA Conservation Enrollment Strategy is to target an increase of the restoration percentage up to 25% over the next 3 years.

In 2022, there were 52,787 acres enhanced by grazing management (Table 11). Of note, an additional 79,914 acres were enhanced for the grazing season leading into the LPC breeding season (until March 31st), see the section on right-sizing conservation. Since the inception of the program, 132,701 acres have been enhanced (Table 11). The desired and expected conservation outcome of these grazing management plans is to ensure enrolled rangelands are managed sustainably for ranching operations, while providing healthy ecological processes and high-quality habitat for LPC conservation. This is demonstrated in section V of [Conservation Benefits](#) for demonstrated habitat quality.

Table 11. Restoration/enhancement under management agreements.

Ecoregion	ENHANCEMENT		RESTORATION	
	Grazing Mgmt.	Brush Mgmt.	Crop to Native	Total
2022 Conservation				
Mixed Grass Prairie	21,802	0	0	0
Sand Sagebrush Prairie	16,185	0	0	0
Shinnery Oak Prairie	11,378	0	0	0
Shortgrass Prairie	3,421	0	0	0
2022 Total:	52,787	0	0	0
2014-2022 Conservation				
Mixed Grass Prairie	76,627	2,516	0	2516
Sand Sagebrush Prairie	26,509	0	0	0
Shinnery Oak Prairie	16,987	13,837	629	14,466
Shortgrass Prairie	12,578	0	620	620
2014-2021 Total:	132,701	16,352	1,250	17,602
TOTAL:	132,701	16,352	1,250	17,602



Offset Units Generated. Offset units are generated when a conservation Participant implements conservation and/or habitat restoration practices on enrolled lands to the terms of the agreement and the WAFWA-approved management plan. Each year that a property is under agreement, it will generate offset units based on the LPC habitat quality (HEG score) and the acreage of unimpacted LPC habitat on that property. This system is performance-based in the sense that higher quality habitat generates more offset units per acre and will result in higher payments for landowners who manage their property well. The calculation to generate offset units is the same as impact units, where a 2:1 ratio ensures that mitigation efforts are greater than impacts, resulting in a Net Conservation Benefit for the species. Refer to section III of Conservation Benefits for an overview of the 2:1 ratio calculation.

In 2022, conservation efforts generated 55,331 offset (credit) units (Table 12). This includes prorated credits generated by the properties which were terminated under the right-sizing effort or by mutual agreement.

Table 12. Conservation efforts to generate the 2022 offset units (credits).

Site ID	Term	Expiration	Plan Type	Enrolled Acres	Habitat Acres	Habitat Score	% Suitable Habitat	Active Leks w/in 3 mi.	Active Leks w/in 1.25 mi.	Credits Generated
Mixed Grass Prairie										
CZ008*	10-Yr Term	03/31/22	Range	625	604	0.36	84.6%	1	0	67
CZ036	10-Yr Term	09/30/4	Range	18,904	14,121	0.86	96.3%	0	0	15,031
CZ036*	10-Yr Term	03/31/22	Range	8,727	6,897	0.79	97.7%	--	--	1,661
CZ037*	10-Yr Term	03/31/22	Range	10,255	9,057	0.82	94.9%	0	0	1,527
CZ038*	10-Yr Term	03/31/22	Range	21,257	18,448	0.71	95.8%	0	0	3,524
CZ040*	10-Yr Term	03/31/22	Range	1,222	1,169	0.66	87.8%	10	0	239
CZ063	Permanent	--	Range	1,758	1,740	1.00	98.4%	2	2	2,125
CZ065	Permanent	--	Range	968	968	0.90	84.6%	2	2	1,091
CZ066	10-Yr Term	09/30/26	Range	172	172	0.90	81.2%	2	2	194
CZ067*	10-Yr Term	04/30/22	Range	12,739	11,988	0.80	94.9%	0	0	4,013
				76,627	65,163	0.78	91.6%	13^a	2^a	29,474
Sand Sagebrush Prairie										
CZ016	10-Yr Term	09/30/24	Range	2,251	1,897	0.72	90.8%	1	1	1,715
CZ016*	10-Yr Term	03/31/22	Range	10,324	6,909	0.78	81.8%	--	--	1,679
CZ088	Permanent	--	Range	13,934	13,737	0.57	87.7%	18	16	9,348
				26,509	22,543	0.69	86.8%	19	17	12,743
Shinnery Oak Prairie										
CZ003	10-Yr Term	09/30/24	Range	9,508	7,485	0.61	98.3%	62	37	5,577
CZ003*	10-Yr Term	03/31/22	Range	5,925	4,687	0.49	85.8%	--	--	677
CZ013	10-Yr Term	09/30/24	Grass	316	280	1.00	97.7%	46	12	351
CZ014*	10-Yr Term	03/31/22	Grass	310	269	0.90	86.7%	0	0	76
CZ026	Permanent	--	Range	1,554	1,208	0.72	94.6%	9	5	1,022
				17,613	13,930	0.74	92.6%	87^a	41^a	7,702
Shortgrass Prairie										
CZ033*	10-Yr Term	03/31/22	Range	4,024	3,808	0.55	79.0%	0	0	547
CZ035	10-Yr Term	09/30/24	Range	1,109	1,066	0.72	84.9%	3	3	949
CZ061	10-Yr Term	09/30/25	Range	1,692	1,497	0.38	67.3%	36	36	887
CZ061*	10-Yr Term	03/31/22	Range	2,056	1,862	0.47	73.0%	--	--	219
CZ062	10-Yr Term	09/30/25	Grass	620	559	0.37	39.0%	24	24	261
CZ081**	Permanent	12/31/22	Range	276	232	0.84	97.6%	0	0	243
CZ082**	Permanent	12/31/22	Range	1,429	1,123	0.71	96.3%	0	0	1,002
CZ083**	Permanent	12/31/22	Range	1,991	1,559	0.67	90.5%	0	0	1,305
				13,198	11,706	0.59	78.4%	63^a	63^a	5,413
Total Contributed in 2022:				133,948	113,343	0.70	87.2%	182 ^a	123 ^a	55,331
Total as of 12/31/22:				52,787	44,730	0.74	85.5%	171 ^a	123 ^a	55,331

*Voluntary Termination in 2022 to implement the WAFWA/SRF right-sizing strategic plan, see section V of Conservation Benefits for details.

** Voluntary Termination in 2022 by mutual agreement.

^aTotal is less than the sum of the column because some lek sites occur near multiple enrolled properties.

UNIT LEDGER

Tracking the Balance of Units (Credits/Debits)

Transactions through the mitigation program are tracked in real time with a data management system designed specifically for this program to safeguard confidentiality and ensure appropriate tracking and accountability of the impact units (debits) and offset units (credits) by the ecoregion in which they occur. This tracking ledger ensures impact units are debited from the same ecoregion in which they occurred and credited in an equal or higher CHAT category. Credits are generated and applied to the ledger on August 01 of each year. Any unused credits on this date expire (expired/unused credits). Table 14 provides a year-end snapshot of the ledger balance by ecoregion and year since the start of the program in 2014.

In addition to tracking the balance of mitigation units, the data management system also tracks the remediation units. See section VI. Remediation of Industry Impacts for a summary of the remediation ledger.

Ledger Balance Summary

As of December 31, 2022, the credits to debits were balanced for each of the four ecoregions. The mixed-grass prairie ecoregion utilized 29% of the available credits. The sand sagebrush prairie ecoregion utilized 5% of the available credits. The shinnery oak prairie ecoregion utilized 17% of the available credits. The short-grass prairie ecoregion utilized 11% of the available credits.

Across the ecoregions, 20% of the available credits were utilized (Table 13). These credits will carry-over into 2023, to be available until July 31, 2023. At which point, any unused credits will expire, and the new credits generated in 2023 will be applied to the ledger. It is anticipated, based on unit forecasting, that approximately 32,000 credits will expire July 31, 2023. This is down significantly from the prior year where 85,765 credits expired (Table 13). The reduction in expired/unused credits results from the 2022 right-sizing effort being partially implemented prior to credits being generated (see section V of Conservation Benefits). Although unused credits provide a net conservation benefit, it was not sustainable long-term for the CCAA to maintain the cost of generating this high level of excess credits.

Table 13. 2022 year-end ledger of impact units (debits) and offset units (credits).

Ecoregion	Expired/Unused Credits ¹	Credits ²	Debits ³	Balance
Mixed Grass Prairie	47,439	29,474	-8,653	20,821
Sand Sagebrush Prairie	24,858	12,743	-653	12,090
Shinnery Oak Prairie	5,894	7,702	-1,320	6,382
Shortgrass Prairie	7,574	5,413	-618	4,794
2022 TOTAL:	85,765	55,331	-11,244	44,087

Unit Forecast

The data management system described above also allows WAFWA/SRF the ability to forecast the need for future offset units, so that the conservation strategy can be adjusted accordingly in a timely manner. WAFWA/SRF conducts an annual review of the unit ledger to build a forecast based on the highest percent increase over the last 3 years. This is refined through annual Participant reporting of anticipated project submittals, and then buffered to ensure flexibility to adjust for unforeseen change in conservation habitat conditions, such as drought, and to allow for unanticipated increases to project enrollments. This forecast system is reviewed and adjusted annually, or as significant changes arise.

UNIT LEDGER (Cont.)

Table 14. Calendar year-end ledger of impact units (debits) and offset units (credits) by ecoregion (2014-2022).

Ecoregion	Year	Expired/Unused Credits	YEAR-END BALANCE		
			Credits	Debits	Balance
Mixed Grass Prairie	2014	N/A	4,542	-2,599	1,943
	2015	0	28,820	-7,283	21,537
	2016	3,139	40,042	-7,352	32,690
	2017	24,510	56,409	-8,293	48,115
	2018	40,114	55,380	-8,513	46,868
	2019	38,907	54,325	-8,621	45,704
	2020	37,845	57,361	-8,621	48,740
	2021	40,932	56,658	-8,622	48,036
	2022	47,439	29,474	-8,653	20,821
	Total	232,884	383,011	-8,653	--
Sand Sagebrush Prairie	2014	N/A	0	-7	-7
	2015	0	8,488	-522	7,966
	2016	7,269	8,385	-575	7,810
	2017	7,763	32,805	-596	32,209
	2018	32,121	30,765	-608	30,157
	2019	30,071	32,795	-638	32,157
	2020	32,075	34,045	-644	33,401
	2021	33,259	23,747	-645	23,102
	2022	24,858	12,743	-653	12,090
	Total	167,417	183,773	-653	--
Shinnery Oak Prairie	2014	N/A	288	-162	126
	2015	0	10,060	-794	9,266
	2016	7,812	7,649	-906	6,744
	2017	6,178	8,881	-1,106	7,774
	2018	7,187	7,637	-1,225	6,412
	2019	5,792	8,238	-1,315	6,923
	2020	6,393	8,744	-1,315	7,428
	2021	6,907	7,512	-1,315	6,197
	2022	5,894	7,702	-1,320	6,382
	Total	46,162	66,709	-1,320	--
Shortgrass Prairie	2014	N/A	147	-209	-62
	2015	4	1,994	-553	1,441
	2016	820	3,928	-568	3,361
	2017	3,209	7,847	-583	7,264
	2018	7,181	7,377	-617	6,760
	2019	6,710	7,331	-618	6,714
	2020	6,664	8,521	-618	7,904
	2021	7,854	8,193	-618	7,575
	2022	7,574	5,413	-618	4,794
	Total	40,014	50,750	-618	--
2022 TOTAL:		85,765	55,331	-11,244	44,087
CUMULATIVE TOTAL:		486,477	684,243	-11,244	--

Expired/Unused Credits - Credits generated resulting from the prior year's habitat monitoring that were un-used as of July 31st.

Credits - Credits generated resulting from that year's habitat monitoring, applied to the ledger on August 1st.

Debits - Impact Units generated within the calendar year.

FINANCIAL SUMMARY

WAFWA and SRF continue to focus on growing the conservation endowment to provide support for permanent land easements, budgeted administrative and management costs, and to provide liquidity required to secure the necessary annual conservation offset units as prescribed in the CCAA. The 2022-2023 financial audit and accompanying IRS form 990 provides findings that the CCAA is financially sustainable at its current rate of use (available to the public online at www.wafwa.org/about-us/). In addition to the details provided in the audit, Table 15 provides a yearly payment overview of conservation payments made from the conservation endowment.

In 2022, habitat conservation payments in the amount of \$938,519 secured 113,343 habitat acres to provide 55,331 conservation offset units (Table 12,15). A payment breakdown by conservation property is available in Appendix C.

Table 15. Summary of annual habitat conservation payments by ecoregion.

Ecoregion	Years	Sign-up Incentives	Restoration Payments	Annual Payments (Easements)	Annual Payments (10-Yr Term)	Total
Mixed Grass Prairie	2015	\$199,084	\$37,208	\$0	\$737,699	\$973,991
	2016	\$5,262	\$28,227	\$0	\$848,388	\$881,877
	2017	\$69,414	\$342,769	\$66,530	\$1,309,999	\$1,788,712
	2018	\$5,634	\$23,573	\$64,323	\$1,289,461	\$1,382,990
	2019	\$0	\$0	\$61,673	\$1,266,287	\$1,327,960
	2020	\$0	\$46,773	\$78,099	\$1,332,904	\$1,457,776
	2021	\$0	\$0	\$78,099	\$1,307,117	\$1,385,216
	2022	\$0	\$0	\$77,966	\$638,807	\$716,773
	Total:	\$279,393	\$478,549	\$426,690	\$8,730,662	\$9,915,296
Sand Sagebrush Prairie	2015	\$49,988	\$0	\$0	\$121,021	\$171,009
	2016	\$148,733	\$0	\$0	\$120,405	\$269,138
	2017	\$0	\$0	\$351,466	\$125,016	\$476,482
	2018	\$0	\$0	\$329,189	\$126,741	\$455,930
	2019	\$0	\$0	\$361,859	\$124,166	\$486,025
	2020	\$0	\$0	\$370,701	\$133,853	\$504,554
	2021	\$0	\$0	\$0	\$128,669	\$128,669
	2022	\$0	\$0	\$0	\$50,280	\$50,280
	Total:	\$198,721	\$0	\$1,413,215	\$930,151	\$2,542,087
Shinnery Oak Prairie	2015	\$60,797	\$433,074	\$9,007	\$89,839	\$592,717
	2016	\$5,843	\$41,908	\$9,627	\$65,448	\$122,826
	2017	\$0	\$915,154	\$10,655	\$91,429	\$1,017,238
	2018	\$0	\$183,426	\$11,988	\$78,878	\$274,292
	2019	\$0	\$0	\$11,369	\$82,483	\$93,852
	2020	\$0	\$110,831	\$6,568	\$91,092	\$208,491
	2021	\$0	\$0	\$0	\$80,996	\$80,996
	2022	\$0	\$0	\$0	\$75,604	\$75,604
	Total:	\$66,640	\$1,684,393	\$59,214	\$655,769	\$2,466,016
Shortgrass Prairie	2015	\$17,624	\$0	\$0	\$32,328	\$49,952
	2016	\$19,478	\$0	\$0	\$59,934	\$79,412
	2017	\$0	\$40,727	\$44,603	\$80,319	\$165,649
	2018	\$14,518	\$55,668	\$42,414	\$78,171	\$190,771
	2019	\$0	\$0	\$37,086	\$86,056	\$123,142
	2020	\$0	\$0	\$47,190	\$95,117	\$142,307
	2021	\$0	\$0	\$47,282	\$89,587	\$136,869
	2022	\$0	\$0	\$40,762	\$55,099	\$95,861
	Total:	\$51,620	\$96,395	\$259,337	\$576,611	\$983,519
2022 Total:	\$0	\$0	\$118,728	\$819,790	\$938,519	
2014-2022 Total:	\$596,375	\$2,259,338	\$2,158,456	\$10,893,193	\$15,907,362	

Sign-Up Incentives - A one-time payment to incentivize land enrollment in a 10-year term Certificate of Participation agreement.

Restoration Payments – To implement CCAA-approved LPC habitat restoration activities on enrolled conservation properties.

Annual Payments – An annual, payment based on the field-determined, habitat quality of the enrolled conservation property.

MORTALITY OR INJURY REPORT

There have been no LPC mortalities or injuries observed or reported since the start of the program in 2014.

INCIDENTAL TAKE

The permit issued to WAFWA/SRF by the USFWS (Permit # TE27289B-0) stipulates that incidental take of LPC may not exceed 8,530 birds, as measured by habitat impacts:

- a) 10 years from the effective date of this permit, more than 622,272 acres of habitat are developed by oil and gas activities within the Covered Area.
- b) At 20 years, more than 1,244,545 acres of habitat are developed by oil and gas activities within the Covered Area.
- c) At 30 years, more than 1,866,855 acres of habitat are developed by oil and gas activities within the Covered Area.

The CCAA is in its ninth year (2014-2022) from the effective date of the permit. As of December 31, 2022, the acres impacted through the CCAA total 17,862 acres (Appendix B, Impact Acres). This represents 2.87% of the impacted acreage allowed by the CCAA permit in the first 10 years of the program (622,272 acres) and 0.96% of the total allowable impact over the 30-year life of the program (1,866,855 acres).

PARTICIPANT COMPLIANCE

I. Industry Compliance: Unpaid Enrollment Fees

If an industry Participant fails to remit the Enrollment Fee in accordance with the terms of Section XIII (Enrollment and Mitigation Fees) of the CCAA, WAFWA may suspend the participant's Certificate of Inclusion until paid. In 2022, there were no compliance issues with outstanding payments.

II. Industry Compliance: Mandatory Conservation Measures

The CCAA includes a series of Conservation Measures (CMs) intended to 'avoid' and 'minimize' impacts on LPC and their habitat, as well as mitigate for any remaining habitat impacts. Some of the avoidance and minimization measures are required and some may be applied at the discretion of the industry Participant (Section XII of the CCAA - Conservation Measures). If a Participant chooses not to implement a discretionary Conservation Measure, such as the avoidance of an impact, then the Participant has agreed to mitigate for the resulting impacts (as reported in the Conservation Benefits section). If a Participant fails to implement a mandatory Conservation Measure, and the issue cannot be resolved to the terms of the agreement (Certificate of Inclusion), then the Participant may be subject to the provisions of Section XXX of the CCAA for termination. In 2022, there were no compliance issues following and implementing the Conservation Measures.

WAFWA evaluates industry Participant's compliance annually based on two methods:

1] Annual Field Review of Randomly Sampled Mitigated Projects (Third-Party Review)

Overview. Industry projects eligible for review include those associated with active Participants (those not terminated, suspended, or cancelled) where the project has been in-part or wholly constructed and where the project has not been previously reviewed within the last three (3) years. Of eligible projects to review, a random selection of 50 projects per ecoregion are selected. There is a limitation of reviewing no more than 10 projects, per company, in any given year. The review consists of trained WAFWA staff or their representative meeting with industry Participants at the project site (a field review). Starting in 2021, WAFWA has elected to utilize an independent, third-party contractor to perform the reviews. A standardized reporting form is completed, along with photo documentation and a geospatial location review.

Results. In 2022, all reviewed industry projects were found to be complying with the terms of their enrollment. The random sample resulted in 16 projects to be reviewed. Two (2) were not constructed and were deferred to the 2023 compliance season. Of the resulting 14 projects reviewed, all were found to be in-compliance. See Appendix C for a compliance summary of the items reviewed and the results.

2] Review of Project Submittals

Overview. As part of WAFWA's annual compliance monitoring protocol, WAFWA voluntarily reviews state well permitting data for active Oil and Gas Participants to help ensure their activities on enrolled lands comply with the requirements of the CCAA and their Certificate of Inclusion. This review was initiated by WAFWA in 2017 with the acquisition of membership to www.welldatabase.com, at which time a review was conducted for the years 2014-2016. The reviews continued in 2018 but were discontinued in 2019. In 2021, WAFWA resumed the review process to cover the missing years of 2018-2021 and now conducts this review on an annual basis.

Results. The 2022 review was conducted with the Participants, and it was determined that the wells under review were either not completed or not owned/operated by the participant companies.

III. Industry Compliance: Operations During the Breeding Season

Overview. There are several avoidance and minimization measures related to emergency⁵ and non-emergency operations⁶ occurring during the LPC breeding season (March 1 and July 15) that are within 1.25 miles of active leks. Participants are required to report to WAFWA within 30 days of an emergency operation, and to annually report (by February 15) any non-emergency operations. The online data management solution for the CCAA provides an online portal for Participants to report emergency or non-emergency incidents. WAFWA sends Participants an annual reminder to report emergency and non-emergency operations.

Results. In 2022, there were no instances of emergency or non-emergency operations reported by Participants. Since the start of the program, there have been six (6) reports of emergency operations and 26 non-emergency operations occurring. All occurrences occurred within the first 5 years of the program.

IV. Conservation Participant Compliance

Overview. Compliance monitoring of conservation properties occurs during annual field monitoring by WAFWA's certified Technical Service Providers (TSPs), through pre- and post-grazing season review of grazing systems, and by certification of completed restoration or enhancement activities.

Results. In 2022, no compliance issues were found occurring on the conservation sites, and no impacts or actions off-site were found that would adversely affect habitat conditions onsite. For each property, habitat monitoring results demonstrate an increase in LPC habitat conditions (see section V of [Conservation Benefits](#)). Where individual pastures or management units have not yet met the site's expected maximum potential, the management and grazing plan were revisited to look for ways to improve the site. In 2022, this resulted in one management plan revision and three grazing plan revisions. It is expected that all management plans and grazing plans will be revised as part of the 5-year enrollment review in 2023.

⁵ Emergency operations are defined as those activities unexpectedly and urgently required to prevent or address immediate threats to human health, safety, or property; the environment; or national defense or security.

⁶ Non-emergency operations are defined as construction and maintenance activities that occurred on undisturbed areas in rangeland or planted grass cover (e.g., outside of a well pad, road, or facility).

POPULATION SURVEYS

Range-wide aerial surveys were conducted for the tenth year (2012-2018 and 2020-2022) to estimate the annual range-wide population size of LPC and evaluate trends in time of the range-wide population size. Surveys were conducted by Western EcoSystems Technology, Inc. (WEST) from Fort Collins, Colorado. WEST estimated LPC population sizes annually from 2012 to 2018, and 2020 to 2022 in the 2011 estimated occupied range (EOR) of the LPC. In 2022, a redefined area of the estimated occupied range was utilized.

Results

The total population size of LPC in 2022 is estimated to be 26,591 (Nasman et al., 2022). WEST determined an estimated total population decrease of 6,913 LPC was observed from 2021 to 2022 (20.6% decrease); however, this decrease was not statistically significant at the 90% confidence level (90% CI: -22,205, 6,328).

WEST estimated the total population sizes of lesser prairie-chicken to be:

- 30,682 (90% CI: 20,938, 39,385) in 2012
- 16,724 (90% CI: 10,420, 23,538) in 2013
- 20,378 (90% CI: 13,563, 27,410) in 2014
- 24,678 (90% CI: 17,500, 32,915) in 2015
- 22,278 (90% CI: 15,437, 28,600) in 2016
- 28,600 (90% CI: 19,565, 37,745) in 2017
- 36,278 (90% CI: 25,471, 47,559) in 2018
- 36,077 (90% CI: 25,345, 46,688) in 2020
- 33,504 (90% CI: 22,262, 45,111) in 2021
- 26,591 (90% CI: 16,321, 38,259) in 2022

Annual estimates within each ecoregion were also calculated; however, there is more uncertainty in these estimates relative to the range-wide population estimates, especially for ecoregions with a low density of LPC, and should be interpreted with caution:

- WEST observed a stable to increasing population of LPC from 2015 to 2020 and a decrease in the population from 2020 to 2022 in the Shinnery Oak Prairie ecoregion of eastern New Mexico and western panhandle of Texas. Note that the survey was designed to measure trends in the range-wide population of LPC over time, and estimates can be variable in low-density ecoregions, such as the Shinnery Oak Prairie ecoregion.
- WEST observed a stable to increasing population of LPC from 2014 to 2018 in the Sand Sage Prairie ecoregion of southeastern Colorado, southwestern Kansas, and the northwest Oklahoma Panhandle, with a decrease in the LPC population from 2019 to 2020, and a slight increase in the population from 2020 to 2022. Note that the survey was designed to measure trends in the range-wide population of LPC over time, and estimates can be variable in low-density ecoregions such as the Sand Sage Prairie ecoregion.
- WEST observed an increasing population of LPC from 2013 to 2015 in the Mixed Grass Prairie ecoregion of northeast Panhandle of Texas, northwest Oklahoma, and south-central Kansas. There was a slight decrease in the population of LPC in 2016, the population was stable in 2017 and 2018, a decrease in the population was observed from 2020 to 2021, and an increase in the population was observed from 2021 to 2022.
- WEST observed a stable to increasing population of LPC from 2013 to 2021 in the Short Grass CRP Prairie ecoregion of northwestern Kansas and east-central Colorado and a decrease in the population from 2021 to 2022.

The full report can be found online at: <https://wafwa.org/initiative-programs/lesser-prairie-chicken/>

SUMMARY

The CCAA continues to result in a variety of conservation benefits to the LPC in the form of avoidance, minimization, and mitigation of impacts to the LPC and its habitat and provides enhancement and restoration of habitat intended to contribute to establishing, augmenting, and maintaining populations. Conservation measures that minimize new surface disturbance also minimize habitat fragmentation and preserve contiguous expanses of LPC habitat. LPC reproductive behavior is promoted by conservation measures that limit activities and operations during lekking, nesting, and brooding seasons. Further, the conservation offsets implemented with funds contributed by Participants are expected to further enhance LPC habitat through the removal of infrastructure and remediation of impacts to restore LPC habitat. When considered together, the provisions of the CCAA are expected to preserve, enhance, and restore LPC habitat and remove threats to the LPC, and are expected to yield increases to LPC populations.

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Please visit WAFWA's Lesser Prairie-Chicken webpage for more information:
<https://wafwa.org/initiative-programs/lesser-prairie-chicken/>

APPENDICES

Appendix A. Enrolled Industry Participants

#	Company Name	Status	#	Company Name	Status	#	Company Name	Status
1	Anadarko Minerals, Inc	Active	41	EnerVest Operating, LLC	Active	81	Osage Investors, LLC	Active
2	Apache Corporation (Permian)	Active	42	Enterprise Products Operating, LLC*	Active	82	Osage Oil, LLC	Active
3	Bailey County Electric Cooperative*	Active	43	EOG Resources, Inc	Active	83	Oxy Oil and Gas	Active
4	Beren Corporation	Active	44	Farmers Electric Cooperative*	Active	84	Panhandle Topeka, LLC	Active
5	Berexco, LLC	Active	45	Fasken Oil and Ranch, Ltd	Active	85	Pickerell Drilling Company, Inc	Active
6	BP America Production Company	Active	46	Greenbelt Electric Cooperative*	Active	86	Pintail Petroleum, Ltd	Active
7	Casillas Petroleum Corporation	Active	47	Griffin Management, LLC	Active	87	Pioneer Natural Resources USA, Inc	Active
8	Castelli Exploration, Inc	Active	48	Imperial American Oil, Inc	Active	88	Plains All American Pipeline, LP	Active
9	Central Operating, Inc	Active	49	Jayhawk Pipeline, LLC	Inactive	89	Prairie Wind Transmission, LLC*	Active
10	Centurion Pipeline, LP	Active	50	JMA Energy Company, LLC	Active	90	QEP Energy Company	Active
11	Cimarex Energy Company	Active	51	John O. Farmer, Inc*	Active	91	Questa Energy, Corporation	Active
12	Cimarex Energy Company (West TX)	Active	52	Jolen Operating Company	Active	92	Range Production Company, LLC	Active
13	CKenergy Electric Cooperative, Inc*	Active	53	Kenneth W. Cory, Ltd	Active	93	Red Oak Energy, Inc	Active
14	CMX, Inc	Active	54	Kinder Morgan, Inc	Inactive	94	RG Exploration, LLC	Active
15	Coats Energy, Inc	Active	55	Kirkpatrick Oil Company, Inc	Active	95	Rio Petroleum, Inc	Active
16	COG Operating, LLC	Active	56	Laddex, Ltd	Active	96	Riviera Operating, LLC	Active
17	Continental Resources, Inc	Active	57	Landmark Resources, Inc	Active	97	Samson Lone Star, LLC*	Inactive
18	Corlena Oil Company	Active	58	Lea County Electric Coop., Inc.*	Inactive	98	Samuel Gary Jr. & Associates, Inc	Active
19	CP Bloom Wind, LLC*	Inactive	59	Legacy Reserves Operating, LP	Active	99	SandRidge Exploration and Production, LLC	Active
20	Crawley Petroleum Corporation	Active	60	Lyntegar Electric Cooperative*	Active	100	Slawson Exploration Company, Inc*	Active
21	Culbreath Oil and Gas Company, Inc	Inactive	61	M&M Exploration, Inc	Active	101	Southwestern Public Service/Xcel Energy Inc*	Active
22	Cynosure Energy, LLC	Active	62	Magellan Midstream Partners, LP	Active	102	Strand Energy, LC	Active
23	DaMar Resources, Inc	Active	63	MarkWest Oklahoma Gas Company, LLC	Active	103	Strat Land Exploration Company	Active
24	Daystar Petroleum, Inc	Active	64	Maverick Brothers Resources, LLC	Active	104	Superior Pipeline Company, LLC	Inactive
25	DCP Midstream, LLC	Active	65	Maverick Natural Resources, LLC**	Active	105	Tabula Rasa Partners, LLC	Inactive
26	Devon Energy Corporation (KS)	Active	66	McGinness Oil Company of Kansas, Inc	Inactive	106	Tandem Energy Corporation	Active
27	Devon Energy Corporation (OK)	Active	67	Meridian Energy, Inc	Active	107	Tapstone Energy, LLC	Active
28	Devon Energy Corporation (Permian)	Active	68	Merit Energy Company, LLC	Active	108	Tengasco, Inc	Active
29	Devon Energy Corporation (Rockies)	Active	69	Mewbourne Oil Company	Active	109	Texakoma Exploration Production, LLC	Active
30	Devon Energy Corporation (TX)	Active	70	MIDCO Exploration, Inc	Active	110	Texland Petroleum, LP	Inactive
31	Diehl Oil, Inc	Active	71	Midcoast Operating, LP	Active	111	Thomason Petroleum, Inc	Active
32	Diversified Production LLC**	Active	72	Mid-Con Energy Operating, LLC	Inactive	112	Toto Energy, LLC	Active
33	Dorchester Minerals Operating, LP	Active	73	Midnight Hour, LLC	Active	113	Triad Energy, Inc	Active
34	Duncan Oil Properties, Inc	Active	74	Murfin Drilling Company, Inc	Active	114	Tri-County Electric Cooperative*	Active
35	Edison Operating Company, LLC	Active	75	Northfork Electrical Cooperative*	Active	115	Unit Petroleum Company	Active
36	Edmiston Oil Company, Inc	Active	76	O'Benco IV, LP - O'Brien Resources, LLC	Active	116	Versado Gas Processors, LLC	Inactive
37	Elevation Resources, LLC	Active	77	OGE Corporation*	Inactive	117	Viking Resources, Inc	Active
38	Empire Energy E&P, LLC	Inactive	78	ONE Gas, Inc*	Active	118	Vincent Oil Corporation	Active
39	Energy Alliance Company, Inc	Active	79	ONEOK Partners, LP	Active	119	W.R. Williams, Inc	Active

40	Energy Transfer Partners, LP**	Active	80	Oolite Energy Corporation	Active	120	Ward Petroleum Corporation	Active
121	Western Farmers Electric Coop*	Active						
122	Western Operating Company	Active						
123	White Exploration, Inc	Active						
124	Williams Midstream	Active						
125	Younger Energy Company	Active						
126	Zinszer Oil Company, Inc	Active						

Enrolled Companies - have an executed Certificate of Inclusion (CI) with no outstanding compliance notices, suspensions, or terminations. An Inactive status where the company does not have a current mitigation balance and/or enrolled assets. A Suspended status is for notice of non-compliance with the terms of the CI.

* Indicates a company that transferred from the WCA mitigation program into the CCAA. See the section 'Participant Enrollment' for more details.

** Indicates a new participating company by process of an existing company fully or partially transferring their enrollment.

Appendix B. Industry Impact by Year (2014-2022)

Year	# of Projects	Potential Impact Ac.	Impact Acres	Habitat Score	CHAT Score	Active Leks w/in 1.25 mi.	Mitigation Fee	Impact Units	Annual Impact Units
Mixed Grass Prairie									
2014	180	5,600	3,274	0.35	2.6	9	\$3,416,061	2,599	2,599
2015	299	9,346	5,655	0.37	2.6	13	\$6,079,395	4,684	7,283
2016	10	371	105	0.38	3.1	0	\$92,955	69	7,352
2017	53	1,656	908	0.43	3.0	4	\$1,296,426	941	8,293
2018	19	632	268	0.44	2.7	0	\$315,055	219	8,513
2019	6	186	80	0.63	2.5	0	\$156,195	109	8,621
2020	0	0	0	--	--	--	\$0	0	8,621
2021	2	62	7	0.03	3.5	0	\$632	1	8,622
2022	4	156	61	0.25	3.8	0	\$44,495	31	8,653
Total	573	18,010	10,357	0.38	2.6	26	\$11,401,215	8,653	8,653
Sand Sagebrush Prairie									
2014	45	1,367	629	0.09	3.7	0	\$4,441	7	7
2015	72	2,236	1,345	0.16	3.4	0	\$271,212	515	522
2016	22	683	338	0.04	3.6	0	\$28,993	53	575
2017	33	1,024	534	0.03	3.6	0	\$11,444	21	596
2018	16	497	136	0.10	3.4	0	\$7,238	12	608
2019	30	902	285	0.07	3.9	2	\$17,759	30	638
2020	12	372	71	0.02	3.8	0	\$3,494	6	644
2021	7	211	45	0.12	4.0	0	\$690	1	645
2022	11	397	124	0.06	3.2	0	\$9,383	8	661
Total	248	7,670	3,506	0.10	3.6	2	\$354,654	653	661
Shinnery Oak Prairie									
2014	47	1,453	162	0.23	3.8	0	\$146,512	162	162
2015	124	3,844	752	0.25	3.8	0	\$549,689	632	794
2016	71	2,203	222	0.12	3.9	0	\$98,322	112	906
2017	78	2,403	242	0.18	3.9	0	\$181,925	200	1,106
2018	77	2,372	169	0.55	3.9	0	\$112,836	119	1,225
2019	46	1,427	99	0.56	3.9	0	\$85,986	90	1,315
2020	9	310	0	0.21	4.0	0	\$0	0	1,315
2021	0	0	0	--	--	--	\$0	0	1,315
2022	4	98	4	0.76	3.5	0	\$4,871	5	1,320
Total	456	14,111	1,651	0.31	3.9	0	\$1,180,142	1,320	1,320
Shortgrass Prairie									
2014	31	950	783	0.22	3.2	5	\$166,374	209	209
2015	71	2,074	1,350	0.18	3.3	3	\$293,655	344	553
2016	5	155	83	0.12	4.0	0	\$12,344	15	568
2017	3	93	56	0.27	3.0	0	\$13,615	16	583
2018	2	62	34	0.24	2.5	2	\$30,154	34	617
2019	1	31	2	0.03	4.0	0	\$78	0	618
2020	0	0	0	--	--	--	\$0	0	618
2021	0	0	0	--	--	--	\$0	0	618
2022	2	81	39	0.01	4.0	0	\$570	1	618
Total	115	3,446	2,327	0.20	3.3	10	\$516,790	618	618
2022 Total:	21	732	227	0.25	3.4	0	\$59,318	45	11,252
TOTAL:	1,392	43,237	17,862	0.29	3.3	38	\$13,452,801	11,244	11,252

* Results are based on a lek surveys conducted prior to impacts occurring. From 2014 to 2022, 84% of the impact projects were surveyed.

Habitat Score – Weighted average, HEG score (1.0 to 0.0 scale) where 1.0 represents high-quality habitat.

CHAT Score – Weighted average, (1 to 4 scale) where 1 represents high-quality habitat 4 is non-habitat.

Appendix C. Conservation by Year (2014-2022)

Year	# of Mgmt. Plans	Enrolled Acres	Habitat Acres	Habitat Score	CHAT Score	% Suitable Habitat	Active Leks w/in 1.25 mi	Enhancement Acres	Restoration Acres	Credit Units
Mixed Grass Prairie										
2014	2	23,305								4,542
2015	4	62,127	49,880	0.55	1.4	85.6%	4	62,127	638	28,820
2016	4	61,185	50,471	0.63	1.4	91.5%	0	61,185	965	40,042
2017	9	76,627	65,773	0.75	1.4	88.0%	6	76,627	240	56,409
2018	9	76,627	65,090	0.72	1.4	88.0%	4	76,627	317	55,380
2019	9	76,627	65,022	0.71	1.4	88.0%	4	76,627	357	54,325
2020	9	76,627	65,163	0.79	1.4	91.0%	4	76,627	0	57,361
2021	9	76,627	65,163	0.77	1.4	91.0%	2	76,627	0	56,658
2022	9	76,627	65,163	0.78	1.4	91.6%	2	21,802	0	29,474
Total	9	76,627	65,773^a	0.73	1.4	89.5%	--	76,627^a	2,516	383,011
Sand Sagebrush Prairie										
2014	0	--	--	--	--	--	--	--	--	0
2015	1	12,689	9,012	0.75	1.0	83.1%	0	12,689	0	8,488
2016	1	12,683	8,954	0.75	1.0	83.0%	0	12,683	0	8,385
2017 ^b	2	42,309	22,692	0.72	1.0	89.3%	5	42,309	0	32,805
2018 ^b	2	42,168	22,532	0.70	1.0	89.3%	10	42,168	0	30,765
2019 ^b	2	42,168	22,536	0.72	1.0	89.3%	9	42,168	0	32,795
2020 ^b	2	42,168	22,543	0.76	1.0	84.4%	12	42,168	0	34,045
2021	2	28,598	24,616	0.75	1.0	84.4%	12	26,509	0	23,747
2022	2	26,509	22,543	0.69	1.0	86.8%	17	16,185	0	12,743
Total	2	42,168	24,616^a	0.71	1.0	86.1%	--	26,509^a	0	183,773
Shinnery Oak Prairie										
2014	2									288
2015	4	17,707	13,788	0.79	1.1	92.6%	28	17,060	7,721	10,060
2016	4	17,600	13,975	0.69	1.1	90.9%	26	16,974	2,867	7,649
2017	4	17,613	13,975	0.82	1.1	94.8%	19	16,987	2,081	8,881
2018	4	17,613	13,917	0.78	1.1	94.8%	33	16,987	993	7,637
2019	4	17,613	13,917	0.72	1.1	94.8%	39	16,987	803	8,238
2020	4	17,613	13,930	0.63	1.1	93.1%	56	16,987	0	8,744
2021	4	17,613	13,930	0.69	1.1	93.1%	61	16,987	0	7,512
2022	4	17,613	13,930	0.74	1.1	92.6%	41	11,378	0	7,702
Total	4	17,613	13,975^a	0.73	1.1	93.3%	--	16,987^a	14,466	66,709
Shortgrass Prairie										
2014	0									147
2015	2	5,142	5,052	0.43	1.7	82.9%	0	5,142	0	1,994
2016	4	9,501	8,857	0.33	1.1	65.9%	14	8,881	242	3,928
2017	7	13,192	11,722	0.60	1.1	82.3%	22	12,572	378	7,847
2018	7	13,192	11,674	0.56	1.1	82.3%	15	12,572	0	7,377
2019	7	13,198	11,652	0.56	1.1	82.3%	91	12,578	0	7,331
2020	7	13,198	11,706	0.66	1.1	79.6%	93	12,578	0	8,521
2021	7	13,198	11,706	0.62	1.1	79.6%	61	12,578	0	8,193
2022	7	13,198	11,706	0.59	1.1	78.4%	63	3,421	0	5,413
Total	7	13,198	11,722^a	0.57	1.1	79.6%	--	12,578^a	620	50,750
2022 Total:	22	133,948	113,343	0.70	1.1	87.2%	--	52,787	0	55,331
TOTAL:	22	149,606	116,086^a	0.68	1.1	86.9%	--	132,701	17,602	684,243


^aTotal, not cumulative, acreage of land.

^bIncludes the portions of CZ024 that were split off to provide mitigation to the WCA.

Habitat Score – Weighted average, HEG score (1.0 to 0.0 scale) where 1.0 represents high-quality habitat.

CHAT Score – Weighted average, (1 to 4 scale) where 1 represents high-quality habitat 4 is non-habitat.

Appendix D. Compliance Summary

 WAFWA LPC-RWP Compliance Summary for 2022						
Were efforts to reach the company successful?	Yes	No	Sold	Dry		
	14	0	0	2		
Is the project constructed?				Yes	No	
				8	6	
Is the location of the project mapped accurately within CCAA standards?				Yes	No	
				8	0	
If this is a transmission project, are all poles in CHAT 1-3 monopole?			Yes	No	N/A	
			0	0	8	
If the site is within 1.25 miles of a lek and in CHAT 1-3, are there any impacts under the control of the participant company that were not mitigated for in this project that are not represented in the impact buffer map, including new above ground distribution lines?				Yes	No	
				0	8	
If the site is within 1.25 miles of a lek and in CHAT 1-3, are there escape ramps in all associated human-made water containment sources?	Yes	No	N/A			
	0	0	8			
If the site is within 1.25 miles of a lek and in CHAT 1-3, is there evidence of broadcast herbicide use outside the facility boundary that is attributed to the participant?				Yes	No	
				0	8	
If the site is within 1.25 miles of a lek and in CHAT 1-3, is the project compliant with respect to noise levels recorded at 30 feet from the facility boundary?	Yes	No	N/A			
	5	0	3			
Estimated wind speed using the Beaufort Scale (miles/hour)	0-4	5-7	8-11	12-18	19-24	25+
	0	0	2	6	0	0
Maximum recorded decibels				<= 75dB	>75dB	
				8	0	
Are all fences associated with this project, and under the control of the participant, marked as needed (Necessary if not surveyed or within 0.25 miles of known leks)?				Yes	No	
				8	0	
Is there evidence of off-road travel during the breeding season?			Yes	No	N/A	
			0	7	1	
Is there evidence of violations of breeding season timing restrictions?			Yes	No	N/A	
			0	8	0	
Were there any compliance issues found?				Yes	No	
				0	8	