

# ***PLAYA LAKES JOINT VENTURE***

***Area Implementation Plan  
for the  
Central Mixed-grass Prairie  
Bird Conservation Region (19)  
of Texas***



**PLAYA LAKES**  
JOINT VENTURE

**March 2008**

# APPROVALS

By adopting this plan, PLJV Texas partners signify:

- Endorsement of the planning process used to develop these habitat conservation recommendations, and an understanding that these recommendations may change based on new, or better, information.
- Endorsement of the habitat objectives herein, and acknowledgement that working toward those habitat objectives is necessary to sustain bird populations.
- Intent to work toward and foster programs that will deliver habitat conservation at the scales identified.
- Intent to develop and support evaluation initiatives (testing assumptions inherent in the planning process) to facilitate refinement and improvements to the habitat recommendations.

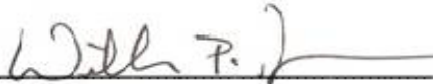
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## EXECUTIVE SUMMARY

This Plan presents habitat management recommendations that, if implemented, should allow priority bird species to reach and sustain objective levels in the Central Mixed-grass Prairie Bird Conservation Region of Texas. The goal of this plan is to *“Determine the quantity, quality, and distribution of habitat needed to maintain bird numbers at levels that satisfy socio-economic desires.”* Management recommendations in this plan are intended to direct attention and resources toward habitats and habitat management actions that are most important for priority bird species. This plan also may help identify new habitat programs or changes to existing programs that are needed to deliver conservation at a scale sufficient to produce positive changes in bird numbers. The primary audience for this plan is habitat program managers and field delivery staff.

The following recommendations represent the major habitat actions (i.e., conversion, restoration, management) needed to bring priority birds to desired levels. Priority bird species that are expected to increase to goal levels as a result of the actions are shown in parentheses, with the primary “driver” species in bold.

- Convert 744,516 acres of cropland to CRP or CRP-like habitat (**Cassin’s and Grasshopper Sparrow**); new acres should be planted to native grasses with forbs (**Lesser Prairie-Chicken**)
- Manage 19,115 acres of shinnery so it contributes to large blocks of habitat by targeted placement of CRP-like habitat (**Lesser Prairie-Chicken**)
- Convert 1,000,000 acres of Juniper to mixed grass prairie (**Swainson’s Hawk, Loggerhead Shrike**)
- Convert 3,708,500 acres of Mesquite/Juniper habitat to mixed grass prairie (**grassland birds**)
- Manage 6,581,113 acres of mixed grass with few shrubs (1-3% cover) (**grassland birds**)
- Convert 3,162,817 acres of current mesquite shrubland to savannah (**Scissor-tailed Flycatcher, Lark Sparrow**)
- Increase large native cottonwoods in urban/suburban areas by 137,060 acres (**Mississippi Kite**)
- Increase late successional riparian forest by 234,923 acres (**Mississippi Kite**)
- Increase native riparian shrubland, especially along the Canadian and Red Rivers, by 174,983 acres (**Bell’s Vireo**)
- Manage 28,424 acres of shortgrass prairie for few shrubs and high grass, within the northern third of the Area (**Lark Bunting**)
- Restore and employ moist-soil management practices on 36,704 acres of wetlands (**waterfowl**)

Other important actions to preserve the function of existing habitats (e.g., buffering wetlands) also are needed. These recommendations are intended for implementation over a 30-year timeframe (2007-2037). Implementing these actions within the next 30 years will be a major undertaking, requiring greater commitments of human and fiscal resources in the future than has occurred in the past. By adopting these objectives, we hope and expect that PLJV partners are inspired to redouble their efforts towards bird habitat conservation and management.

## BACKGROUND AND INTRODUCTION

This Area Implementation Plan (AIP) is an end product of the PLJV biological planning process. It presents habitat management recommendations that, if implemented, should allow priority bird species to reach and sustain objective levels as prescribed by the four national/continental bird conservation initiatives (*North American Waterfowl Management Plan*, *U. S. Shorebird Conservation Plan*, *Waterbird Conservation for the Americas*, and *Partners in Flight*).

### ***Goal, Purpose, and Intended Audience***

The goal of this plan is consistent with the goal of PLJV biological planning: ***“Determine the quantity, quality, and distribution of habitat needed to maintain bird numbers at levels that satisfy socio-economic desires.”*** Management recommendations in this plan are intended to direct attention and resources toward habitats and habitat management actions that are most important for priority bird species. This plan also may help identify new habitat programs or changes to existing programs that are needed to deliver conservation at a scale sufficient to produce positive changes in bird numbers. The primary audience for this plan is habitat program managers and field delivery staff.

### ***Plan Format***

Habitat management recommendations in this plan are grouped as follows. First, we present recommendations for nonbreeding birds (waterfowl, shorebirds, and waterbirds) and breeding birds (by guild; e.g., grassland birds). In these sections we discuss priority species, abundance trends, seasonal importance of the Area, important habitats and threats to those habitats, abundance targets, planning approach, results of carrying capacity analyses, and specific habitat management recommendations and justification. Details of the carrying capacity analyses are shown in Tables 1 and 2 for all priority species/guilds, including estimated current carrying capacity, and expected carrying capacity after the habitat recommendations are implemented. These sections should be of interest to readers interested in specific birds or bird groups.

Next, we present integrated bird habitat recommendations by habitat. In these sections we explain which birds benefit from recommended management actions, and how birds may be increased or maintained by implementing those actions. We also summarize estimated current habitat acreages, and desired future acreages, in Table 3. These sections should be of interest to readers wanting to know the implications of management actions in a specific habitat to all priority birds.

## ***General Planning Approach***

Briefly, we used a process based on principles of *Strategic Habitat Conservation* (USFWS and USGS 2006) to develop habitat management recommendations in this plan. In general, we developed (1) bird abundance targets that are stepped-down from continental objectives in the bird initiatives, and (2) *habitat* objectives that are linked biologically to the abundance targets.

More specifically, we used the following model to estimate current carrying of each habitat for each priority bird species:

$$\text{Birds} = \text{Acres of habitat} * \text{habitat availability factor} * \text{habitat suitability factor} * \text{large block factor} * \text{bird density}$$

The estimated number of birds supported in each habitat is summed, and compared to the bird abundance target. This process quantifies the importance of each habitat to each species. It also quantifies current carry capacity relative to desired carrying capacity, which allows crafting specific habitat acreage recommendations to bring a species to desired levels.

Habitat recommendations herein are only as good as the model inputs used to develop them. Readers interested in providing information to update the model inputs and resulting habitat recommendations are encouraged to contact the PLJV.

## ***Implementation Timeframe***

These recommendations are intended for implementation over a 30-year timeframe (2007 – 2037), although some management actions may require longer intervals to develop desired conditions (e.g., creating late successional riparian forest).

## ***Decision Support Tools***

The biological planning results and recommendations in this plan are intended to address the question of whether there is enough habitat (in the right quantity and quality) to support desired levels of birds. Another aspect of the planning process (beyond the scope of this plan) can be to delineate specific places on the landscape where habitat work can best benefit priority species. PLJV staff is available to work with partners to develop spatial models and maps (“decision support tools”) as needed. Habitat program managers with specified funding levels, priority species, habitats, or project areas are encouraged to contact PLJV staff to begin developing these tools for targeting habitat dollars for maximum benefit.

## ***Relationship of this Plan to other PLJV Biological Planning Reports***

This plan presents detailed habitat recommendations for the Area. It is beyond the scope of this plan to present all the details of the planning process. Some users may want to consult sources of additional information relevant to PLJV biological planning in general, and specifically to the habitat recommendations in this plan:

- *Implementation Planning Guide* (PLJV 2007a). This document describes the PLJV's general approach to biological planning, and describes in detail the *Hierarchical All Bird System* (HABS) database. This database stores the biological data used to model the current carrying capacity of the PLJV for priority birds (e.g., Tables 1, 2), and to design a landscape that supports desired numbers of all priority bird species.
- *Habitat Assessment Procedures* (PLJV 2006c). This document describes the PLJV's habitat classification system and procedures for estimating acreages of important habitats as shown in this plan (Tables 1, 2). These acreages were determined from the PLJV's GIS database and additional non-spatial data.
- *Planning Team Reports for Waterfowl* (PLJV 2005), *Shorebirds* (PLJV 2007b), *Waterbirds* (PLJV 2006b), and *Landbirds* (PLJV 2007c). These reports present details on priority species selection, determining important seasonal use periods, developing abundance and vital rate targets, determining limiting factors, and describing the planning approach used to develop habitat objectives. Consult these reports for background and justification for the carrying capacity model parameters shown in Tables 1 and 2.

## ***Related Bird or Habitat Plans for this Area***

In the *Texas Comprehensive Wildlife Conservation Strategy* (Texas Parks and Wildlife Department [TPWD] 2005), habitat and monitoring/evaluation recommendations for the Rolling Plains ecological region are consistent with an earlier iteration of this Area Implementation Plan, signifying TPWD's intent to work cooperatively with the PLJV partnership on bird habitat conservation this region (see TPWD 2005:209-213).

The *Grassland Conservation Plan for Prairie Grouse* (Vodehnal and Haufler 2007) recommends more than 11 million acres of grassland conservation for BCR19, but there are no specific recommendations for the Texas portion of the BCR. The *Lesser Prairie-Chicken Conservation Initiative* (Davis et al. 2006) contains habitat conservation recommendations consistent with the prairie grouse plan (Vodehnal and Haufler 2007), and it describes the PLJV planning initiative for this species.

## ***Plan Updates***

Consistent with the principles of adaptive management, this plan is intended to be dynamic. It will be updated as new bird and habitat information becomes available, to accommodate changes



in strategic direction for habitat conservation, or as otherwise desired by PLJV partners and staff. Interested users of this plan should check the PLJV web site ([www.pljv.org](http://www.pljv.org)) for updates.

## **NONBREEDING BIRDS**

### ***Waterfowl***

This Area is primarily important to migrating and wintering waterfowl. Although several species of waterfowl also breed in the Area, they are at low densities relative to primary waterfowl breeding areas. During the nonbreeding seasons, waterfowl must obtain enough food resources to maintain body condition during winter, and increase body condition during fall and spring for subsequent migration. Studies have shown that birds in better body condition survive at higher rates during the nonbreeding seasons. Waterfowl can best meet energetic and nutritional needs through native foods provided in wetland habitats. Agricultural habitats also are used, especially when wetlands are unavailable due to drought, ice cover, etc.

Priority waterfowl species for this Area include Northern Pintail, Mallard, and Greater White-fronted Goose (Midcontinent Population) for the nonbreeding seasons only. However, the PLJV used a bioenergetics approach to habitat conservation planning, which assumes foraging habitat is the primary factor limiting waterfowl abundance, body condition, and survival. This approach assesses foraging habitat availability versus energetic demands of priority species and all other waterfowl species common to the region. Therefore, habitat needs of all nonbreeding waterfowl species are included in the habitat recommendations.

Waterfowl abundance targets for the Area include approximately 500,000 ducks and 52,000 geese during midwinter (early January). For bioenergetics planning purposes, waterfowl abundance targets were translated to “use-days” for two seasons during the nonbreeding period: fall (mid-Aug. to late Dec.) and spring (early Jan. to mid-May). Use-day targets are approximately 66 million for fall and 169 million for spring.

Habitat assessments and bioenergetics modeling suggested that this Area cannot support the foraging use-day objectives during either season. The top three waterfowl foraging habitats are stock ponds, emergent marshes, and playas (Table 1). For fall, we estimated the Area can support about 21% of the use-day objective (approx. 52 million use-day deficit). For spring, we estimated the Area can support only about 8% of the use-day objective (approx. 155 million use-day deficit).

This Area needs additional wetland foraging habitat to support its waterfowl objectives. To accomplish this, we recommend restoring 36,704 acres of floodplain marshes and managing them using moist-soil techniques. This strategy is proven to sharply increase the foraging carrying capacity of wetlands for waterfowl compared to unmanaged wetlands. Of this acreage, 12,307 acres should be flooded in fall, and the entire acreage should be flooded in spring.

Playas are not nearly as predominant in this Area as in the BCR-18 (Shortgrass Prairie) region of Texas, but they do occur and provide waterfowl foraging habitat. Rainfall patterns in the region tend to produce more wet playas during fall than spring. Hydroperiod of playas in this region has been greatly reduced due to sedimentation (primarily water-induced erosion from adjacent croplands). Many playas are pitted to concentrate water for irrigation or livestock, which reduces shallow water foraging habitat. Further, stands of tall, dense, non-native grasses within CRP fields encompass many playas and restrict overland water flow to the basins. Combined, these factors likely have resulting in reductions in playa foraging habitat for waterfowl. Additionally, livestock grazing in playas reduces production of valuable seeds of moist-soil plants.

We recommend additional management actions to restore degraded playas, protect functioning playas from degradation, and enhance foraging value for waterfowl. First, install grass buffers on playas located in cropland. Buffer width, species composition, and management should be carefully considered to protect playas from sedimentation yet allow overland water flow to reach the basin. Additionally, pits should be filled and accumulated sediments should be removed from playas. Fences should also be installed around playas to manage livestock grazing. Regarding fences, double-fencing (a fence around the playa basin and another around the upland buffer) should be considered to allow grazing in the uplands while protecting moist-soil plants for waterfowl.

Although stock ponds currently provide the most waterfowl foraging habitat in the Area, the quantity and quality of this habitat are believed to be increasing or stable. However, fencing stock ponds can reduce the amount of important waterfowl food plants consumed by livestock.

### ***Shorebirds – Wetland Guild***

Migratory shorebirds use this Area from early July through late October (peak in late September) for fall migration, and from early March through late May (peak in mid May) for spring migration. During migration, shorebirds must obtain enough food resources to maintain and increase body condition. Most migratory shorebirds meet energetic and nutritional needs primarily through invertebrate foods obtained in wetland habitats, although other foods are used (e.g., some seeds).

Priority shorebirds in this guild include Snowy Plover, Piping Plover, American Avocet, Long-billed Curlew, Hudsonian Godwit, Semipalmated Sandpiper, Least Sandpiper, White-rumped Sandpiper, Baird's Sandpiper, Pectoral Sandpiper, Stilt Sandpiper, and Long-billed Dowitcher. However, the PLJV used a bioenergetics approach to habitat conservation planning, which assumes foraging habitat is the primary factor limiting shorebird abundance, body condition, and survival. This approach assesses foraging habitat availability versus energetic demands of priority species and all other migrant shorebird species (approx. 30 total species) common to the region. Therefore, habitat needs of all migrant, wetland-foraging shorebird species were considered during habitat conservation planning.

Existing shorebird survey data for this Area were used to develop an abundance target of approximately 27,000 use-days, which includes abundance increases recommended in the U. S. Shorebird Conservation Plan. Habitat assessments and bioenergetics modeling suggested that existing wetland habitats in this Area are more than sufficient to support this abundance target (Table 1). Therefore, no habitat recommendations are developed specifically for wetland shorebirds in this Plan, but habitat actions designed to benefit waterfowl (see Waterfowl section) will also benefit shorebirds.

## **Waterbirds**

Priority nonbreeding waterbirds include Eared Grebe, Western Grebe, American White Pelican, Sandhill Crane, Whooping Crane, Franklin's Gull, Forster's Tern, and Black Tern. Similar to waterfowl and shorebirds, nonbreeding waterbirds must obtain enough food resources to maintain body condition during winter, and increase body condition during fall and spring for subsequent migration. Waterbirds meet energetic and nutritional needs primarily through foods provided in wetland and aquatic habitats, although agricultural habitats also are used, especially by cranes and sometimes by gulls.

The Area is important to migrating and wintering Sandhill Cranes, second within the PLJV only to the BCR-18 portion of Texas. Whooping Cranes occasionally use the Area during migration in low numbers. Abundance targets for cranes were developed by stepping down objectives from existing plans (*Central Flyway Plan* for Sandhill Cranes and the *International Recovery Plan* for Whooping Cranes). Sandhill Crane abundance targets are approximately 3.8 million use-days in fall, and 3.5 million use-days in spring. The Whooping Crane abundance target is 456 use-days in both fall and spring.

In this Area, the most important wetland types for cranes are wet meadows, emergent marshes, and playas (Table 1). Wet meadows (estimated acreage approximately 121,000) provide important crane foraging habitat. However, the quality of existing wet meadows is suspect due to reductions in hydroperiod (reduced stream flows caused by water impoundments and diversions, irrigation, infestations of exotic hydrophytes, etc.). Emergent marshes and playas (estimated acreage approximately 2,600 and 24,000, respectively) also provide important foraging and roosting sites.

Rainfall patterns in the region tend to produce more wet playas during fall than spring. Studies have shown that the hydroperiod of playas in this region has been greatly reduced due to sedimentation (primarily water-induced erosion from adjacent croplands). Many playas are pitted to concentrate water for irrigation or livestock, which reduces shallow water foraging habitat. Further, stands of tall, dense, non-native grasses within CRP fields encompass many playas and restrict overland water flow to the basins. Also, supplemental water flow to playas has been reduced due to more efficient cropland irrigation technologies. Combined, these factors have reduced playa hydroperiods, resulting in reductions in playa foraging habitat for waterbirds.

Habitat assessments and bioenergetics modeling suggested that this Area can support the use-day objectives for cranes during all seasons (Table 1). However, the degraded and declining state of

many wetlands important to cranes calls for restoration and protection efforts. For playas and emergent marshes, restoration and protection recommendations described above for waterfowl also apply to cranes. Additionally, wet meadows should be restored by controlling hydrophytes (exotic and native), increasing in-stream flows (e.g., through water use and management policies and through controlling exotic brush, such as salt cedar) where possible, and actively managing water levels (e.g., developing impoundments with water management capabilities) if necessary.

For other priority waterbird species (grebes, pelicans, gulls, and terns), we lacked any meaningful information to relate abundance and/or vital rates to habitat conditions. Therefore, we defer developing abundance targets and habitat objectives for these species until such information becomes available. However, we note that conservation recommendations were made for wetland habitats used by these species during the PLJV planning process for nonbreeding waterfowl, shorebirds, and cranes. Until more explicit planning can be conducted, we assume that fulfilling habitat needs for waterfowl, shorebirds, and cranes will also fulfill habitat needs for other nonbreeding waterbirds.

## **BREEDING BIRDS**

In addressing needs of priority landbirds for this Area, the PLJV assumed that providing the habitat needs for breeding landbirds would also provide the habitat needs for migrant and wintering landbirds. Secondly, we assumed that appropriate breeding habitat was the primary limiting factor for breeding grassland birds. The planning approach assigned a density to each condition of every habitat that a priority species occupied, developed an estimation of current carrying capacity for each priority species, evaluated trends in the BCR to determine those species with statistically significant declining trends from Breeding Bird Survey (BBS) data (Sauer et al. 2005), and then used those trends to determine a number of birds needed to bring a species up to goal, by calculating the birds lost over the last thirty years and adding to the current estimated carrying capacity. Species with trends which did not fit our data quality requirements or with significant positive trends were assigned a goal of maintaining the current carrying capacity.

For some species when data dictated an abundance goal greater than 100% of the current estimated numbers, a provisional goal of doubling was utilized. In this Area, those species were Mississippi Kite, Swainson's Hawk, Western Kingbird, Bell's Vireo, Loggerhead Shrike, Cassin's Sparrow, Lark Bunting, Lark Sparrow and Bullock's Oriole. The abundance goal for Lesser Prairie-Chicken was determined by the Texas representative to the Lesser Prairie-Chicken Interstate Working Group (H. Whitlaw, *pers. comm.*).

### ***Shrubland Guild***

Shrublands include shinnery, sand sage, mesquite, and mesquite/juniper, comprising the largest amount of acreage in the Area. These shrublands are important to priority species such as Lesser Prairie-Chicken, Scaled Quail, Western Kingbird, Scissor-tailed Flycatcher, Bell's Vireo,

Loggerhead Shrike, Chihuahuan Raven, Cassin's Sparrow, Lark Sparrow, Painted Bunting and Bullock's Oriole.

The majority of these acres is comprised of mesquite, or juniper/mesquite, which has invaded grasslands from the slopes where this vegetation occurred historically. While these species do require shrubs, it is often within a grassland context and they will tend to have higher densities when the habitat is primarily grassland with a small amount of shrub cover. A few species such as Bell's Vireo and Painted Bunting require dense shrubby vegetation; however, this vegetation is best produced in drainages and along slopes where juniper and mesquite occurred historically, or in the case of Bell's Vireo, shrubby habitats within drainages of primarily grassland situations.

Of the shrub-associated species often associated with riparian areas or more mesic drainages, Bell's Vireo is the species driving shrubland needs. Within the shrub-associated species found amid grasslands, Western Kingbird is the primary driver of acreage recommendations, followed closely by Swainson's Hawk, Loggerhead Shrike and Lark Sparrow.

Habitat recommendations include 1) converting 4,000,000 acres of Juniper/Mesquite and 1,000,000 acres of Juniper to mixed grass prairie with few shrubs, 2) managing 3,928,986 additional acres of mesquite shrubland so that its condition is changed to a savannah habitat (i.e., a grassland with very few mesquite per acre), and 3) increasing 89,241 acres of juniper/mesquite within drainages in the southeastern third of the Area and maintaining or increasing dense vegetation with plum, sumac or other appropriate shrubs in drainages within mixed grass prairie, especially if standing water is often available.

Threats to shrubland birds include the elimination of shrubby patches within more mesic drainages for such species as Bell's Vireo and Painted Bunting. Surprisingly, perhaps, for other shrub-associated birds, too many shrubs can often be a problem, especially with the increase in eastern redcedar in mixed grass prairie. This is most true with species that do well within a grass/shrub matrix. Fire suppression, in particular, has allowed eastern redcedar, mesquite and other shrubs to increase in areas with a more moderate topography, where fire historically kept these shrubs under control. Other threats include conversion to agriculture, although many agricultural fields are utilized by some priority birds to some extent. The extent of agricultural conversion on the landscape may be a factor; while Lesser Prairie-Chickens thrived with small-scale agriculture adjacent to nearby grass/shrub prairie, in more recent decades they have declined with large-scale conversion to agriculture. Likewise, the extent to which unutilized agricultural lands are maintained or converted back to native grasses will have an effect on some species, such as Ring-necked Pheasant, Northern Bobwhite, and Dickcissel, though these effects have not been well quantified.

Bell's Vireo is declining at a rate of -3.9%/yr in BCR 19. This rate of decrease would require more than tripling the population to reach goal. For a provisional goal of just doubling the population, increase the suitability of drainages which contain dense shrubs in juniper/mesquite areas to permit colonization by Bell's Vireo. Maintain dense vegetation in drainages while ensuring patchy distribution of shrub clumps, especially if standing water is often available in the vicinity. Adding 89,241 acres of this type of habitat, especially in the southeastern third of the Area, will support an additional 5,342 birds. Increasing the amount of native riparian shrubland,

especially along the Canadian and Red Rivers by 174,983 acres (for a total of 284,068 acres) will provide 3,149 birds. Managing an additional 51,315 acres of shinnery in areas of rolling topography, so that drainage bottoms contain dense thickets of shrubs such as plum, will support an additional 772 birds. The PLJV has not analyzed topography to ensure that enough acres of juniper/mesquite and shinnery are in areas of appropriate topography to meet this goal. However, there are additional habitat types such as mixed grass prairie which may also contain appropriate topography and/or shrub patches which will support these birds. Promoting grazing and other land management practices, which ensure that dense shrub patches increase within mesic drainages will support increased numbers of these birds. The effects of maintaining dense shrubs along fencerows and areas such as stock tanks has not been evaluated but may also increase the number of these birds in the Area. Note that this is but one possible scenario for supporting Bell's Vireo in this Area.

Scissor-tailed Flycatcher is declining at a rate of -2.3% /yr in BCR 19. This rate requires a doubling of the population to reach goal. To do this would require converting 2,213,972 acres of Mesquite shrubland to mesquite savannah, that is, a mixed grass prairie with less than 25% shrub cover and preferably around 5% shrub cover. This can be achieved through regular burning and appropriate range management.

Lark Sparrow is declining at a rate of -2.5%/yr in BCR 19, and would require more than doubling the population to reach goal. With a provisional goal of just doubling the population, convert 4,100,000 acres of Juniper/Mesquite and/or Juniper to mixed grass prairie. This will support 241,170 birds, assuming the same management scenarios in current PLJV modeling. If all of this new total acreage were managed so that 3,486,497 acres contained many shrubs this would support an additional 64,242 birds. Currently the PLJV estimates that 1,184,994 acres are managed in such a condition. Converting Mesquite shrubland habitat (>25% mesquite cover) to 4,066,479 acres of savannah habitat with just a few mesquite per acre, will support an additional 216,879 birds. Currently the PLJV estimates that 1,355,493 acres of mesquite are in this condition. These manipulations should bring the species to goal. There are several scenarios that could bring Lark Sparrow to goal; this is the most limiting of all priority birds in the Area.

There is high concern about past Lesser Prairie-Chicken declines (Davis et. al 2006). Lesser Prairie-Chicken is poorly modeled with the current PLJV landcover. Nevertheless, assuming that landcover is correct, to bring the species to goal would require converting 1,582 acres of CRP within current chicken range to native grass mixtures (preferably interseeded with forbs). Currently the PLJV estimates that 176 acres are in such mixtures. This would provide an additional 13 birds. Convert 8,719 acres of cropland within or near current prairie-chicken range to native grass CRP. This should be targeted towards areas of mixed grass, sand sage or shinnery to contribute to large blocks of habitat. This will support an additional 76 birds. If CRP targets Shinnery habitat, then 19,115 additional acres of shinnery would have to contribute to large blocks. This would support 52 additional birds. Currently the PLJV estimates that 2,565 acres contribute to large blocks of habitat. There are a variety of methods that may help bring this bird to the current goal; this is only one suggestion. For example, if one were to target mixed grass prairie to create large blocks of habitat, 8,464 additional acres of mixed grass would have to contribute to large blocks. Currently the PLJV estimates that 7,487 acres contribute.

Loggerhead Shrike is declining at a rate of -3.9%/yr in BCR 19. This would require more than tripling the population to reach goal. To reach a provisional goal of just doubling the population, convert 4,100,000 acres of Juniper/Mesquite and/or Juniper to mixed grass prairie. This will support 22,981 additional birds, assuming the same management scenarios in current PLJV modeling. Converting 2,349,522 acres of mesquite shrubland to savannah habitat with just a few mesquite per acre, will support an additional 18,092 birds. Adding 744,516 acres of CRP will provide an additional 2,903 birds, bringing the species to goal. This is not the only potential strategy, but alternatives are relatively limited with this species.

Western Kingbird is declining at a rate of -2.4%/yr in BCR 19. This would require slightly more than doubling the population to reach goal. With a provisional goal of just doubling the population, converting 4,000,000 acres of Juniper/Mesquite and 1,000,000 to mixed grass prairie would support 276,742 additional birds, assuming current estimated management scenarios. Managing this resultant acreage for 6,821,997 acres with few shrubs will support an additional 58,038 birds. PLJV currently estimates that 976,643 acres of mesquite habitat is in savannah like conditions, i.e. with very few mesquite per acre. Managing an additional 3,079,794 acres of mesquite habitat so that savannah conditions are created would support an additional 73,061 birds. Increase the amount of CRP type habitat by 744,516 acres. This should support an additional 44,670 birds. These four manipulations should bring the species up to goal.

## ***Grassland Guild***

Grasslands comprise a large portion of the acreage in the Area. Grasslands here support priority species such as Lesser Prairie-Chicken, Scaled Quail, Swainson's Hawk, Burrowing Owl, Western Kingbird, Loggerhead Shrike, Chihuahuan Raven, Cassin's Sparrow, Lark Sparrow, Lark Bunting, and Grasshopper Sparrow. As a guild, grassland birds are declining more rapidly than any other group of landbirds.

The grassland bird guild includes both those species that need primarily grass and those that require shrubs within a grassland matrix. However, the species that are driving this Area's grassland needs are those that reach their highest densities with 1-3% shrub cover within grassland, such as Swainson's Hawk and Western Kingbird. Note, however, that Lesser Prairie-Chicken could well be considered a grassland bird.

Grassland birds which utilize prairie-dog colonies (Burrowing Owl and Lark Bunting) have either non-statistically declining trends (Burrowing Owl) or have habitat preferences that can also be replicated through appropriate management of shortgrass prairie (Lark Bunting).

Threats to grassland habitats include fire suppression and grazing regimes which overutilize grass and foster shrub encroachment. In some areas mesquite and eastern redcedar have taken hold in areas outside of historic occurrences on rocky slopes and in drainages. In other areas, fire suppression has allowed juniper, mesquite and other shrubs to increase in areas with a more moderate topography. This has had a deleterious effect on those species which require grasslands with few shrubs. Other threats include conversion to agriculture, although many agricultural fields are utilized by some priority birds to some extent. The extent of agricultural

conversion on the landscape may be a factor, as Lesser Prairie-Chickens thrived with small-scale agriculture adjacent to nearby grass/shrub prairie, but in recent decades with large-scale conversion to agriculture they have declined. Likewise, the extent to which unutilized agricultural lands are maintained or converted back to native grasses will have an effect on some species, such as Ring-necked Pheasant, Northern Bobwhite or Dickcissel, though these effects have not been well quantified.

Swainson's Hawk is declining at a rate of -4.0%/yr in BCR 19. This would require more than tripling the population to reach goal. With a provisional goal of just doubling the population, converting 4,000,000 acres of Juniper/Mesquite and/or Juniper to mixed grass prairie would support 6,260 additional birds. Managing a total of 4,092,090 of these resultant acres for few shrubs would support an additional 1,886 birds. Managing 3,928,986 additional acres of mesquite shrubland so that its condition is changed to a savannah habitat, with very few mesquite per acre, would provide 4,067 additional birds. Currently the PLJV estimates that 1,355,493 acres of mesquite are managed in this way. Managing 213,180 additional acres of shortgrass prairie so that there are few shrubs would support 280 additional birds. Currently the PLJV estimates that 355,301 acres of shortgrass are managed in this way. This still leaves the species at 89% of goal. Converting all 5,250,000 acres Juniper/Mesquite habitat to mixed grass prairie and managed so that 5,814,372 acres of the resultant total were managed for few shrubs would be required to bring the species to goal.

The advent of CRP in the 1985 Farm Bill has helped to increase numbers of many grassland birds. Recent research has shown that the seed mixtures used in various CRP fields, and the ultimate field species composition, greatly influences the bird community utilizing those fields. Programs which may allow increased management of CRP fields, such as burning or short-term grazing as well as conversion to native grass seed mixtures or interseeding with forbs and legumes, may greatly increase use by priority grassland birds. CRP acreage recommendations in the Area are being driven by the needs of Cassin's and Grasshopper Sparrows, both of which show their highest densities occurring in this grassland type.

Cassin's Sparrow is declining at a rate of -3.6%/yr in BCR 19. This would require almost tripling the population to reach goal. With a provisional goal of just doubling the population, convert non-native CRP to native mixtures so that a total of 703,282 acres is planted to native mixtures. Currently the PLJV estimates that 87,910 acres are in such a condition. CRP is where the PLJV models the largest gains can be made for Cassin's Sparrow. This should support an additional 635,064 birds. Convert 1,300,000 acres of Juniper/Mesquite habitat to Mixed-grass prairie. Assuming current PLJV modeled management scenarios, this should support an additional 46,658 birds. Convert 2,710,986 acres of Mesquite so that there are very few mesquite per acre with a native grass understory. This should support an additional 33,481 birds. Currently the PLJV estimates that 1,355,493 acres exist in that condition. These three manipulations should bring the species up to the provisional goal. Note that there are several possible scenarios that could be employed to bring the species to goal.

Grasshopper Sparrow is declining at a rate of -1.4%/yr in BCR 19. Grasshopper Sparrows have very high densities in CRP type habitat. Increasing the amount of CRP type habitat by 744,516 acres should support an additional 85,842 birds. Converting 1,350,000 acres of Juniper/Mesquite



habitat to mixed grass prairie, given the current model inputs for grazing and burning, should support an additional 36,365 birds. These two manipulations should bring the species to goal. Note that this is but one of several scenarios to bring the bird to goal. For example, converting a total of 4,093,589 acres of mesquite so that all acres were in a savannah type conditions would support an additional 36,964 birds.

Shortgrass acreage is estimated at 710,602 acres and thus provides little of the overall objectives for grassland birds in this Area. However, PLJV modeling currently suggests that 12% of the Chihuahuan Raven and Lark Bunting objectives and 13% of the Scaled Quail objectives are maintained through this grassland. Current recommendations include ensuring that 28,424 acres of shortgrass prairie is managed for few shrubs and high grass within the northern third of the Area. Currently the PLJV estimates that 17,765 acres are managed this way. Preferably these acres should come from areas which previously maintained grass less than 15cm high. Additionally, increase prairie dog acres by 2,500 within the northern third of the Area.

Lark Bunting is declining at a rate of -5.7%/yr in BCR 19. This would require more than tripling the population to reach goal. With a provisional goal of just doubling the population, change management to ensure that 324,968 acres of mixed grass prairie, in the northern one-third of the Area, is managed for low grass (simulating “good” grass conditions of the shortgrass prairie) and preferably with only a few shrubs. Currently PLJV estimates that 118,500 acres are managed in such a manner. This should support 7,618 additional birds. Change management to ensure that 28,424 acres of shortgrass prairie is managed for few shrubs and high grass within the northern third of the Area. Currently the PLJV estimates that 17,765 acres are managed this way. Preferably these acres should be changed from management which produced few shrubs and low grass in this habitat. This should support an additional 445 birds. Additionally, increasing prairie dog acres by 2,500 within the northern third of the Area should support an 76 birds, bringing the species up to goal in this Area. Note that this is just one possible scenario for achieving goal.

## ***Riparian Guild***

Riparian areas (estimated at 980,462 acres) comprise less than 1/20<sup>th</sup> of the total area, however, they are important to priority species such as Mississippi Kite, Red-headed Woodpecker, Bell’s Vireo, Painted Bunting, and Baltimore and Bullock’s Oriole. Of the riparian-associated landbirds with statistically significant declining trends in BCR 19, Mississippi Kite and Bell’s Vireo are driving habitat recommendations.

Habitat goals are to increase the amount of native riparian shrubland, especially along the Canadian and Red Rivers by 174,983 acres (for a total of 284,068 acres) to support Bell’s Vireo populations. Increasing the acreage of late successional riparian forest by 234,923 additional acres will only support 4,140 Mississippi Kite given current modeling inputs. It assumes that only 40% of all appropriate habitat is occupied. If all appropriate riparian habitat were occupied, this should help to bring this species to population goal levels.

However, current PLJV GIS has not evaluated exotic versus native riparian shrubland. We know that exotic riparian shrubland (consisting primarily of salt cedar [tamarisk] and Russian olive) comprises a portion of much, if not all riparian shrubland in the Area. In order to maintain a species such as Painted Bunting, the exotic riparian shrubland should be converted to native riparian shrubland.

Mississippi Kite is declining at a rate of -2.9%/yr in BCR 19. This would require more than doubling the population to reach goal. With a provisional goal of just doubling the population, increasing large trees capable of supporting Kite nests, especially native cottonwoods in areas such as greenbelts within city limits, as well as backyard trees, by 137,060 acres (for a total of 411,178 acres) should support an additional 11,115 birds. Currently PLJV estimates that 274,119 acres of towns/cities have enough tall trees to support populations of Mississippi Kite. Increasing the acreage of late successional riparian forest within towns/cities by 234,923 additional acres should add 4,140 birds. However, if all acres of this habitat type were occupied it should bring the species to goal. We are unsure whether this is attainable.

Baltimore Oriole is declining at a rate of -1.1% /yr. in BCR 19. Studies in South Dakota have demonstrated that densities increase with increasing riparian forest age. Increasing the amount of late successional riparian forest in the northeastern corner of the panhandle (primarily on the Canadian River) by 47,160 acres should support an additional 283 birds and bring the species up to goal.

Bullock's Oriole is declining at a rate of -3.8%/yr in BCR 19. This would require tripling the population to reach goal. For a provisional goal of just doubling the population, convert a total of 4,093,589 acres of mesquite so that there are very few mesquite per acre with a native grass understory. This should support an additional 49,526 birds. Currently the PLJV estimates that 1,355,493 acres exist in that condition. Increasing the amount of late successional riparian forest by 47,160 acres should support an additional 2,090 birds (if this acreage is reduced from early successional riparian forest), and would bring the species up to the goal.

## **INTEGRATED BIRD HABITAT RECOMMENDATIONS**

### **(By Association)**

#### ***Cropland***

For Cassin's and Grasshopper Sparrow, and to some extent Lesser Prairie-Chicken, reduce the amount of cropland by 744,516 acres and convert to CRP or a similar grassland type.

Some manipulations of agricultural fields have not been modeled for their contribution towards bird population goals. For example, planting grass corners (as with CP-33) on irrigated cropland may improve carrying capacity for species such as Northern Bobwhite, Ring-necked Pheasant, and grassland species such as Dickcissel and Grasshopper Sparrow and reduce the need for crop conversion.

## **CRP**

Increase CRP by 744,516 acres and/or develop programs which will create CRP type habitat. CRP should include only native grasses mixes, preferably with forbs and a few shrubs. This will support Cassin's and Grasshopper Sparrow as well as additional prairie species such as Dickcissel and Western Kingbird.

Convert 8,719 acres of cropland within or near current Lesser Prairie-Chicken range to native grass CRP. This should be targeted towards areas of mixed grass, sand sage or shinnery in order to form large blocks of habitat (see Lesser Prairie-Chicken model in the Shinnery section). Ensure that these acres and 1,582 additional acres of CRP within current Lesser Prairie-chicken range are planted to native grass mixtures (preferably interseeded with forbs). Currently the PLJV estimates that 176 acres of CRP within Lesser Prairie-Chicken range are in such mixtures.

## ***Juniper***

Juniper or Eastern Redcedar habitat currently does not support any priority species. Juniper has expanded since settlement due to fire suppression. Converting 1,000,000 acres of this type back to mixed grass prairie in areas of relatively level topography will support priority species such as Swainson's Hawk, Loggerhead Shrike and Western Kingbird, among others. Most juniper and eastern redcedar should be relegated to slopes, where it had remained prior to widespread fire suppression.

## ***Juniper/Mesquite***

In areas with a moderate to level topography, this habitat type may represent a very late successional stage of savannah habitat. Convert 3,708,500 acres of this habitat type back to mixed grass prairie. Regular burning and appropriate grazing management should then maintain this habitat with a less than 25% juniper and mesquite canopy cover, preferably less than 5%, within a native grassland to return this habitat to more historic conditions that will support Western Kingbird, Scissor-tailed Flycatcher, Loggerhead Shrike and Lark Sparrow, among other species. Note that at least 203,091 acres of Juniper/Mesquite needs to be retained within mesic drainages to support Bell's Vireo. This will require adding 89,241 acres of this type of habitat, within appropriate topographical features (drainages), especially in the southeastern third of the BCR. Currently the PLJV estimates that 113,850 acres of juniper/mesquite exists in this Area in drainages.

## ***Mesquite Savannah***

Prior to large-scale cattle grazing in the region, mesquite was a shrub relegated to rocky slopes and arroyos. This habitat, primarily in a savannah condition, is important to priority species such

as Scaled Quail, Scissor-tailed Flycatcher, Chihuahuan Raven, and Eastern Meadowlark among others. Much of the habitat type has been created by the invasion of mesquite into more level areas of shortgrass prairie. Further, there are many areas where mesquite cover is greater than 25%. We recommend restoring all 3,162,817 acres of current mesquite shrubland back to savannah habitat through such practices as regular burning and appropriate grazing management, so that this habitat has less than 25% mesquite canopy cover, preferably less than 5%, within a grassland prairie. All the priority species which use this habitat type require only a low amount of shrub cover and all have higher densities in mesquite savannah (primarily grassland) rather than mesquite shrub (primarily shrub). Currently PLJV estimates that 1,355,493 acres of this habitat have appropriate mesquite cover.

### ***Mixed Grass***

PLJV estimates that there are 3,255,479 acres of mixed grass prairie in the Area. This habitat type is important to a number of priority species such as Swainson's Hawk, Western Kingbird, Loggerhead Shrike and Eastern Meadowlark among others. Convert 4,708,500 of Juniper and Juniper Mesquite habitat back to mixed grass prairie for a total of 7,963,979 acres. This habitat can be maintained through regular burning and appropriate grazing management. Most priority species have higher densities in areas with low, but not absent, shrub cover. We recommend ensuring that 6,581,113 acres are maintained in this condition. Note that this habitat supports large numbers of Lesser Prairie-Chicken in Kansas and with the current recommendations is also modeled to support significant populations in Texas.

### ***Other***

Urban/Suburban areas are important to species such as Mississippi Kite, Western Kingbird and Bullock's Oriole. Increase large trees capable of supporting Kite nests, especially native cottonwoods, in areas such as greenbelts within city limits, as well as backyard trees, by 137,060 acres (for a total of 411,179 acres). Currently, PLJV estimates that 274,119 acres of towns/cities have enough tall trees to support populations of Mississippi Kite.

### ***Other Wetlands***

Restore (ideally from converted cropland) and manage 36,704 acres of wetlands with moist-soil techniques to provide shallow water foraging habitat for waterfowl. These should be managed for dense stands of seed-producing plants attractive to waterfowl, and flooded during fall (12,307 acres) and spring (36,704 acres). Provide supplemental water as needed if rainfall is insufficient to flood these areas. These actions will provide approximately 206.9 million additional foraging use-days for waterfowl (51.9 million in fall and 155 million in spring), and will increase the foraging carrying capacity to desired levels. Emphasize the floodplain of the Red River along the Oklahoma border, where natural oxbow wetlands exist but have been impacted by agriculture.

Maintain/increase the quantity and quality of emergent marshes, with emphasis in the Winchester Lakes area of Knox and Haskell counties. This habitat is important for foraging waterfowl, and the Area is below desired carrying capacity.

Protect known colonial waterbird colonies and areas where marsh birds breed.

## ***Playa***

Protect playas from further sedimentation by installing grass buffers around playas located in cropland. Buffer width, species composition, and management should be carefully considered to protect playas from sedimentation yet allow overland water flow to reach the basin. Restore natural hydrology by filling pits and removing excessive accumulated sediments. Install fences around playa basins to manage livestock grazing. Consider double-fencing (a fence around the playa basin and another around the upland buffer) to allow grazing in the uplands while protecting moist-soil plants for waterfowl. Playas provide important waterfowl foraging habitat, and the Area is below the carrying capacity objective.

## ***Reservoirs, Lakes, and Ponds***

Improve stock pond foraging habitat for waterfowl by fencing cattle from the shallow upper ends. Stock ponds currently support more foraging use-days for waterfowl than any other habitat, and the Area is below desired foraging carrying capacity.

## ***Riverine Systems***

PLJV estimates that 109,125 acres of riparian shrubland exist in the Area. Bell's Vireo are found in high densities in riparian shrubland. Increase the amount of native riparian shrubland, especially along the Canadian and Red Rivers by 174,983 acres for a total of 284,108 acres. Increasing native riparian shrubland will also support Painted Buntings. Note that PLJV modeling does not include determining the amount of exotic riparian shrubland. In order to maintain the current carrying capacity for these species we encourage the elimination of all invasive exotics, such as salt cedar and Russian olive, in riparian areas in conjunction with native shrub replanting.

PLJV estimates that 293,550 acres of late successional riparian forest exist in the Area. Increase the acreage of late successional riparian forest by 234,923 additional acres or a total of 528,473 acres. This will help to support Mississippi Kite goals which require older trees adjacent to more open areas for nesting. This type of habitat takes time to develop from young forest (at least 30 years) before it is capable of trees which can support Kite nesting. Plan for the maintenance of these acres by planting small patches of cottonwood/willow along river channels.

Protect known colonial waterbird colonies and areas where marsh birds breed.

## ***Sand Sage***

This habitat is important to such priority species as Lesser Prairie-Chicken, Scaled Quail, Chihuahuan Raven and Lark Bunting among others. The PLJV estimates that 554,731 acres of this habitat type exists within the Area. Maintaining existing acres of this habitat, managed with appropriate grazing, will help to support these species.

## ***Shinnery***

PLJV currently estimates that 2,565 acres of existing shinnery habitat contributes to large blocks of habitat necessary for Lesser Prairie-Chicken. At least 19,115 acres of all shinnery should contribute to large blocks of habitat. Shinnery should be the focus of CRP acreage planted nearby to create 5,000 acre blocks containing at least 1,000 acres of Shinnery, a maximum of 2,000 acres of cropland and CRP, a maximum of 1) 50 acres of woodland types, 2) 125 acres of mesquite, and 3) no more than 50 acres of roads, none of them 4-lane roads. PLJV can help with determining areas of Shinnery which could be targeted.

Maintaining all acres of shinnery will help to support species such as Bell's Vireo, Scissor-tailed Flycatcher and Chihuahuan Raven among others.

## ***Shortgrass***

PLJV estimates that 710,602 acres of shortgrass prairie is found within the Area. This habitat supports priority species such as Scaled Quail, Chihuahuan Raven and Lark Bunting. Change management to ensure that 28,424 acres of shortgrass prairie is managed for few shrubs and high grass within the northern third of the Area. Currently the PLJV estimates that 17,765 acres are managed this way. Preferably these acres should be changed from management that currently produces few shrubs and low grass in shortgrass. This will support desired numbers of Lark Bunting.

## **RECOMMENDED READING**

Davis, D. M., H. Whitlaw, R. Horton, R. D. Rodgers, and E. Odell. 2006. Lesser Prairie-Chicken Conservation Initiative. Lesser Prairie Chicken Interstate Working Group. Unpublished Report. New Mexico Department of Wildlife, Santa Fe, New Mexico, USA.

PLJV. 2005. Waterfowl team report, v. 1.0. Technical companion document to the PLJV Implementation Planning Guide. 34pp.

PLJV. 2006a. PLJV master plan, v. 2.4. 31pp.

- PLJV. 2006b. Waterbird team report, v. 1.0. Technical companion document to the PLJV Implementation Planning Guide. 17pp.
- PLJV. 2006c. Habitat assessment procedures, v. 2.0. Technical companion document to the PLJV Implementation Planning Guide. 37pp.
- PLJV. 2007a. PLJV implementation planning guide, v. 2.0. 38pp.
- PLJV. 2007b. Shorebird team report, v. 2.0. Technical companion document to the PLJV Implementation Planning Guide. 52pp.
- PLJV. 2007c. Landbird team report, v.1.0. Technical companion document to the PLJV Implementation Planning Guide.
- TPWD. 2005. Texas comprehensive wildlife conservation strategy. Austin, TX.
- Sauer, J. R., J. E. Hines, and J. Fallon. 2005. The North American Breeding Bird Survey, Results and Analysis 1966 - 2005. Version 6.2.2006. [USGS Patuxent Wildlife Research Center](#), Laurel, MD
- USFWS and USGS. 2006. Strategic habitat conservation. Final report of the National Ecological Assessment Team. 45pp.
- Vodehnal, W. L., and J. B. Haufler, Compilers. 2007. A grassland conservation plan for prairie grouse. North American Grouse Partnership, Fruita, CO.

## **GUIDELINES FOR INTERPRETING THE TABLES**

### **Tables 1 and 2**

These tables show the carrying capacity models for each priority bird species/guild and are intended to show the details of the model parameters. Carrying capacity is shown for each Association/Condition (i.e., habitat type); under each, the top line shows estimated current habitat conditions and the bottom line shows desired future habitat conditions per recommendations in this Plan (note any acreage changes). The population goal is shown and carrying capacity is expressed as percent of goal. Some nonbreeding birds have separate goals and carrying capacities for multiple seasons (e.g., fall, winter, spring). The post-planning sum over all habitats should show each priority species/guild at or above 100% of goal.

Carrying capacity for each Association/Condition is estimated as (also see General Planning Approach section in this Plan, and the PLJV Implementation Planning Guide):

$$\text{Carrying Capacity} = \text{Condition Acres} * \text{Availability} * \text{Suitability} * \text{Large Block} * \text{Units}$$

Note: Decimal places for some parameters (e.g., Condition Acres) are carried further in the HABS database than shown in this table. So, some rounding errors will occur when multiplying these parameters manually.

### **Explanation of Column Headings**

**Assoc Name:** “Association Name”; broad level PLJV habitat classification.

**Condition Name:** Finest level PLJV habitat classification.

**Condition Acres:** Acreage estimate of this habitat using GIS and other data sources.

**Avail.:** “Availability Factor”; estimated proportion of Condition Acres that are available to a priority bird/guild (e.g., proportion of acreage within bird’s breeding range, proportion not frozen in winter, etc.).

**Suit.:** “Suitability Factor”; estimated proportion of Condition Acres that are suitable for a priority bird/guild (e.g., proportion of acreage shallow enough for efficient foraging by wetland birds, etc.).

**Large Block:** “Large Block Factor”; estimated proportion of Condition Acres that are in block sizes sufficient to support priority species that require large blocks of habitat (e.g., Lesser Prairie-Chicken, Long-billed Curlew). See definitions of large block models in text.

**Units:** Bird densities in habitats that support them, expressed as breeding birds per acre for breeding species, or “use-days” per acre for nonbreeding birds (bioenergetics approach to planning; see planning team reports for details). These estimates were derived from the literature or expert opinion.

**CC:** “Carrying Capacity”; estimated number of birds (or use-days) that can be supported on a specific habitat type; also summed over all habitats used by a priority species to estimate carrying capacity for a planning Area.

**Goal:** Bird abundance target (breeding birds or use-days) for an Area; stepped-down from the continental bird initiatives (see planning team reports for details).

**% of Goal:** Carrying capacity of a priority species/guild expressed as a percent of goal; shown for each habitat and also summed for the planning Area. This number should be at least 100% for all priority species/guilds in the planning Area after habitat recommendations are implemented. However, due to habitat actions need for other species, this number could be well over 100%.



### **Table 3**

This table shows the estimated current habitat acreages, and desired future acreages based on habitat recommendations in this plan. Sums should equal the total area of the planning unit. Pre- and post-planning acreage sums should be approximately equal (not exactly equal due to rounding errors in database calculations).

#### **Explanation of Column Headings**

**Association Name:** Broad level PLJV habitat classification.

**Condition Name:** Finest level PLJV habitat classification.

**Pre-Condition Acres:** Current acreage estimate of this habitat (using GIS and other data sources).

**Post Condition Acres:** Desired future acreage of this habitat, after recommendations in this Plan are implemented.

**Net Change:** Difference between pre- and post Condition acres, representing the change in acreage of a habitat type after recommendations in this plan are implemented.

**Table 1.** Carrying capacity models for priority **nonbreeding birds**. Under each Condition Name, the top row represents estimated current habitat conditions, and the bottom row is the desired future habitat conditions.

**Species/Guild Name: Cranes**

**Season: Fall**

Assoc Name	Condition Name	Condition			Large		Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block					
Other Wetlands	Moist-soil unit	92	1.0000	1.0000	1.00000	1,253.0000	115,203	3,787,458	3.04%	
		36,796	1.0000	1.0000	1.00000	1,253.0000	46,105,863	3,787,458	1217.30%	
Other Wetlands	Saline	0	1.0000	1.0000	1.00000	396.0000	0	3,787,458	0.00%	
		0	1.0000	1.0000	1.00000	396.0000	0	3,787,458	0.00%	
Other Wetlands	Emergent marsh	2,550	1.0000	1.0000	1.00000	396.0000	1,009,823	3,787,458	26.66%	
		2,550	1.0000	1.0000	1.00000	396.0000	1,009,650	3,787,458	26.60%	
Playa	Wet	4,864	1.0000	1.0000	1.00000	127.0000	617,703	3,787,458	16.31%	
		4,864	1.0000	1.0000	1.00000	127.0000	617,703	3,787,458	16.30%	
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	396.0000	47,872,822	3,787,458	1263.98%	
		52,259	1.0000	1.0000	1.00000	396.0000	20,694,415	3,787,458	546.30%	
Riverine Systems	Floodplain marsh	98	1.0000	1.0000	1.00000	396.0000	38,826	3,787,458	1.03%	
		98	1.0000	1.0000	1.00000	396.0000	38,826	3,787,458	1.00%	
<b>Summary for Fall (6 records)</b>					<b>Pre-planning Sum</b>		<b>49,654,377</b>		<b>1311.02%</b>	
					<b>Post-planning Sum</b>		<b>68,466,457</b>		<b>1807.50%</b>	

**Species/Guild Name: Cranes**

**Season: Spring**

Assoc Name	Condition Name	Condition			Large		Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block					
Other Wetlands	Moist-soil unit	92	1.0000	1.0000	1.00000	1,253.0000	115,203	3,531,279	3.26%	
		36,796	1.0000	1.0000	1.00000	1,253.0000	46,105,863	3,531,279	1305.60%	
Other Wetlands	Saline	0	1.0000	1.0000	1.00000	396.0000	0	3,531,279	0.00%	
		0	1.0000	1.0000	1.00000	396.0000	0	3,531,279	0.00%	
Other Wetlands	Emergent marsh	2,550	1.0000	1.0000	1.00000	396.0000	1,009,823	3,531,279	28.60%	
		2,550	1.0000	1.0000	1.00000	396.0000	1,009,650	3,531,279	28.50%	
Playa	Wet	4,864	1.0000	1.0000	1.00000	127.0000	617,703	3,531,279	17.49%	
		4,864	1.0000	1.0000	1.00000	127.0000	617,703	3,531,279	17.40%	
Riverine Systems	Floodplain marsh	98	1.0000	1.0000	1.00000	396.0000	38,826	3,531,279	1.10%	
		98	1.0000	1.0000	1.00000	396.0000	38,826	3,531,279	1.00%	
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	396.0000	47,872,822	3,531,279	1355.68%	
		52,259	1.0000	1.0000	1.00000	396.0000	20,694,415	3,531,279	586.00%	
<b>Summary for Spring (6 records)</b>					<b>Pre-planning Sum</b>		<b>49,654,377</b>		<b>1406.13%</b>	
					<b>Post-planning Sum</b>		<b>68,466,457</b>		<b>1938.50%</b>	

**Species/Guild Name: Shorebirds-Nonbreeding-Wetland**

**Season: Nonbreeding**

Assoc Name	Condition Name	Condition			Large		Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block					
Other Wetlands	Saline	0	1.0000	0.1500	1.00000	696.0000	0	26,886	0.00%	
		0	1.0000	0.1500	1.00000	696.0000	0	26,886	0.00%	
Other Wetlands	Moist-soil unit	92	1.0000	0.1500	1.00000	696.0000	9,599	26,886	35.70%	
		36,796	1.0000	0.1500	1.00000	696.0000	3,841,542	26,886	14288.20	
Other Wetlands	Emergent marsh	2,550	1.0000	0.1000	1.00000	696.0000	177,484	26,886	660.14%	
		2,550	1.0000	0.1000	1.00000	696.0000	177,454	26,886	660.00%	
Playa	Wet	4,864	1.0000	0.1000	1.00000	696.0000	338,520	26,886	1259.09%	
		4,864	1.0000	0.1000	1.00000	696.0000	338,520	26,886	1259.00%	
Playa	Wet pit only	1,216	1.0000	0.0010	1.00000	696.0000	846	26,886	3.15%	
		1,216	1.0000	0.0010	1.00000	696.0000	846	26,886	3.10%	
Reservoirs Lakes Ponds	Stock pond	51,879	1.0000	0.0050	1.00000	696.0000	180,539	26,886	671.50%	
		51,879	1.0000	0.0050	1.00000	696.0000	180,539	26,886	671.40%	
Reservoirs Lakes Ponds	Lagoon	4,318	1.0000	0.0050	1.00000	696.0000	15,025	26,886	55.88%	
		4,318	1.0000	0.0050	1.00000	696.0000	15,025	26,886	55.80%	
Reservoirs Lakes Ponds	Freshwater lake	0	1.0000	0.0050	1.00000	696.0000	0	26,886	0.00%	
		0	1.0000	0.0050	1.00000	696.0000	0	26,886	0.00%	
Reservoirs Lakes Ponds	Reservoir	164,340	1.0000	0.0050	1.00000	696.0000	571,904	26,886	2127.14%	
		164,340	1.0000	0.0050	1.00000	696.0000	571,904	26,886	2127.10%	
Riverine Systems	Floodplain marsh	98	1.0000	0.0130	1.00000	696.0000	887	26,886	3.30%	
		98	1.0000	0.0130	1.00000	696.0000	887	26,886	3.20%	
Riverine Systems	River channel	12,648	1.0000	0.0100	1.00000	696.0000	88,030	26,886	327.42%	
		12,648	1.0000	0.0100	1.00000	696.0000	88,030	26,886	327.40%	

**Summary for Nonbreeding (11 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**1,382,834**  
**5,214,747**

**5143.32%**  
**19395.20%**

**Species/Guild Name: Waterfowl-Nonbreeding**

**Season: Fall**

Assoc Name	Condition Name	Condition			Large		CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block	Units			
Cropland	Sorghum	187,042	1.0000	0.0000	1.00000	849.0000	0	65,867,780	0.00%
		143,997	1.0000	0.0000	1.00000	849.0000	0	65,867,780	0.00%
Cropland	Peanuts	106,929	1.0000	0.0000	1.00000	849.0000	0	65,867,780	0.00%
		82,321	1.0000	0.0000	1.00000	849.0000	0	65,867,780	0.00%
Cropland	Corn	9,844	1.0000	0.0000	1.00000	668.0000	0	65,867,780	0.00%
		7,579	1.0000	0.0000	1.00000	668.0000	0	65,867,780	0.00%
Cropland	Wheat	2,045,918	1.0000	0.0000	1.00000	1,336.0000	0	65,867,780	0.00%
		1,575,076	1.0000	0.0000	1.00000	1,336.0000	0	65,867,780	0.00%
Other Wetlands	Saline	0	1.0000	1.0000	1.00000	1,336.0000	0	65,867,780	0.00%
		0	1.0000	1.0000	1.00000	1,336.0000	0	65,867,780	0.00%
Other Wetlands	Moist-soil unit	92	1.0000	1.0000	1.00000	4,223.0000	388,269	65,867,780	0.59%
		36,796	1.0000	1.0000	1.00000	4,223.0000	155,391,109	65,867,780	235.90%
Other Wetlands	Emergent marsh	2,550	1.0000	1.0000	1.00000	1,336.0000	3,406,878	65,867,780	5.17%
		2,550	1.0000	1.0000	1.00000	1,336.0000	3,406,293	65,867,780	5.10%
Playa	Wet	4,864	1.0000	1.0000	1.00000	428.0000	2,081,706	65,867,780	3.16%
		4,864	1.0000	1.0000	1.00000	428.0000	2,081,706	65,867,780	3.10%
Reservoirs Lakes Ponds	Reservoir	164,340	1.0000	0.0500	1.00000	225.0000	1,848,826	65,867,780	2.81%
		164,340	1.0000	0.0500	1.00000	225.0000	1,848,826	65,867,780	2.80%
Reservoirs Lakes Ponds	Stock pond	51,879	1.0000	0.4000	1.00000	225.0000	4,669,121	65,867,780	7.09%
		51,879	1.0000	0.4000	1.00000	225.0000	4,669,121	65,867,780	7.00%
Reservoirs Lakes Ponds	Lagoon	4,318	1.0000	0.4000	1.00000	428.0000	739,180	65,867,780	1.12%
		4,318	1.0000	0.4000	1.00000	428.0000	739,180	65,867,780	1.10%
Reservoirs Lakes Ponds	Freshwater lake	0	1.0000	0.0500	1.00000	225.0000	0	65,867,780	0.00%
		0	1.0000	0.0500	1.00000	225.0000	0	65,867,780	0.00%
Riverine Systems	River channel	12,648	1.0000	1.0000	1.00000	50.0000	632,398	65,867,780	0.96%
		12,648	1.0000	1.0000	1.00000	50.0000	632,398	65,867,780	0.90%
Riverine Systems	Floodplain marsh	98	1.0000	1.0000	1.00000	1,336.0000	130,990	65,867,780	0.20%
		98	1.0000	1.0000	1.00000	1,336.0000	130,990	65,867,780	0.10%

**Summary for Fall (14 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**13,897,368**  
**168,899,623**

**21.10%**  
**256.00%**

**Species/Guild Name: Waterfowl-Nonbreeding**

**Season: Spring**

Assoc Name	Condition Name	Condition			Large		CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block	Units			
Cropland	Corn	9,844	1.0000	0.0000	1.00000	668.0000	0	168,896,60	0.00%
		7,579	1.0000	0.0000	1.00000	668.0000	0	168,896,60	0.00%
Cropland	Wheat	2,045,918	1.0000	0.0000	1.00000	1,336.0000	0	168,896,60	0.00%
		1,575,076	1.0000	0.0000	1.00000	1,336.0000	0	168,896,60	0.00%
Cropland	Sorghum	187,042	1.0000	0.0000	1.00000	849.0000	0	168,896,60	0.00%
		143,997	1.0000	0.0000	1.00000	849.0000	0	168,896,60	0.00%
Cropland	Peanuts	106,929	1.0000	0.0000	1.00000	849.0000	0	168,896,60	0.00%
		82,321	1.0000	0.0000	1.00000	849.0000	0	168,896,60	0.00%
Other Wetlands	Emergent marsh	2,550	1.0000	1.0000	1.00000	1,336.0000	3,406,878	168,896,60	2.02%
		2,550	1.0000	1.0000	1.00000	1,336.0000	3,406,293	168,896,60	2.00%
Other Wetlands	Saline	0	1.0000	1.0000	1.00000	1,336.0000	0	168,896,60	0.00%
		0	1.0000	1.0000	1.00000	1,336.0000	0	168,896,60	0.00%
Other Wetlands	Moist-soil unit	92	1.0000	1.0000	1.00000	4,223.0000	388,269	168,896,60	0.23%
		36,796	1.0000	1.0000	1.00000	4,223.0000	155,391,109	168,896,60	92.00%
Playa	Wet	4,864	1.0000	1.0000	1.00000	428.0000	2,081,706	168,896,60	1.23%
		4,864	1.0000	1.0000	1.00000	428.0000	2,081,706	168,896,60	1.20%
Reservoirs Lakes Ponds	Stock pond	51,879	1.0000	0.4000	1.00000	225.0000	4,669,121	168,896,60	2.76%
		51,879	1.0000	0.4000	1.00000	225.0000	4,669,121	168,896,60	2.70%
Reservoirs Lakes Ponds	Reservoir	164,340	1.0000	0.0500	1.00000	225.0000	1,848,826	168,896,60	1.09%
		164,340	1.0000	0.0500	1.00000	225.0000	1,848,826	168,896,60	1.00%
Reservoirs Lakes Ponds	Lagoon	4,318	1.0000	0.4000	1.00000	428.0000	739,180	168,896,60	0.44%
		4,318	1.0000	0.4000	1.00000	428.0000	739,180	168,896,60	0.40%
Reservoirs Lakes Ponds	Freshwater lake	0	1.0000	0.0500	1.00000	225.0000	0	168,896,60	0.00%
		0	1.0000	0.0500	1.00000	225.0000	0	168,896,60	0.00%
Riverine Systems	River channel	12,648	1.0000	1.0000	1.00000	50.0000	632,398	168,896,60	0.37%
		12,648	1.0000	1.0000	1.00000	50.0000	632,398	168,896,60	0.30%

Riverine Systems	Floodplain marsh	98	1.0000	1.0000	1.00000	1,336.0000	130,990	168,896.60	0.08%
		98	1.0000	1.0000	1.00000	1,336.0000	130,990	168,896.60	0.00%
<b>Summary for Spring (14 records)</b>					<i>Pre-planning Sum</i>		<b>13,897,368</b>		<b>8.22%</b>
					<i>Post-planning Sum</i>		<b>168,899,623</b>		<b>99.60%</b>

**Table 2.** Carrying capacity models for priority **breeding birds**. Under Condition Name, the top row represents estimated current habitat conditions, and the bottom row is the desired future habitat conditions.

<i>Species/Guild Name: Baltimore Oriole</i>			<i>Season: Breeding</i>						
Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Other	Urban/Suburban	89,013	1.0000	0.1000	1.00000	0.0266	237	1,030	23.01%
		89,013	1.0000	0.1000	1.00000	0.0266	237	1,030	23.01%
Riverine Systems	Riparian canopy - early successional w/o understory	220,212	1.0000	0.2000	1.00000	0.0018	79	1,030	7.67%
		66,671	1.0000	0.2000	1.00000	0.0018	24	1,030	2.33%
Riverine Systems	Riparian canopy - late successional w/o understory	146,775	1.0000	0.2000	1.00000	0.0060	176	1,030	17.09%
		193,935	1.0000	0.2000	1.00000	0.0060	233	1,030	22.62%
Riverine Systems	Riparian canopy - late successional w/ understory	146,775	1.0000	0.2000	1.00000	0.0060	176	1,030	17.09%
		300,021	1.0000	0.4100	1.00000	0.0060	738	1,030	71.65%
Riverine Systems	Riparian canopy - early successional w/ understory	220,212	1.0000	0.2000	1.00000	0.0018	79	1,030	7.67%
		66,966	1.0000	0.2000	1.00000	0.0018	24	1,030	2.33%
<b>Summary for Breeding (5 records)</b>			<i>Pre-planning Sum</i>				<b>747</b>		<b>72.52%</b>
			<i>Post-planning Sum</i>				<b>1,256</b>		<b>121.94%</b>

<i>Species/Guild Name: Bell's Vireo</i>			<i>Season: Breeding</i>						
Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Juniper/Mesquite	NA	5,692,522	0.4000	0.0500	1.00000	0.0600	6,831	18,778	36.38%
		1,977,522	0.4000	0.2559	1.00000	0.0600	12,145	18,778	64.68%
Riverine Systems	Native riparian shrubland	109,125	0.3000	1.0000	1.00000	0.0600	1,964	18,778	10.46%
		284,040	0.3000	1.0000	1.00000	0.0600	5,113	18,778	27.23%
Shinnery	Few shrubs/low grass	128,287	1.0000	0.1000	1.00000	0.0150	192	18,778	1.02%
		205,260	1.0000	0.2000	1.00000	0.0150	616	18,778	3.28%
Shinnery	Many shrubs/high grass	128,287	1.0000	0.1000	1.00000	0.0150	192	18,778	1.02%
		51,315	1.0000	0.2000	1.00000	0.0150	154	18,778	0.82%
Shinnery	Few shrubs/high grass	128,287	1.0000	0.1000	1.00000	0.0150	192	18,778	1.02%
		205,260	1.0000	0.2000	1.00000	0.0150	616	18,778	3.28%
Shinnery	Many shrubs/low grass	128,287	1.0000	0.1000	1.00000	0.0150	192	18,778	1.02%
		51,315	1.0000	0.2000	1.00000	0.0150	154	18,778	0.82%
<b>Summary for Breeding (6 records)</b>			<i>Pre-planning Sum</i>				<b>9,563</b>		<b>50.92%</b>
			<i>Post-planning Sum</i>				<b>18,798</b>		<b>100.10%</b>

<i>Species/Guild Name: Bullock's Oriole</i>			<i>Season: Breeding</i>						
Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0172	23,314	100,922	23.10%
		4,518,310	1.0000	1.0000	1.00000	0.0172	77,715	100,922	77.01%
Other	Urban/Suburban	89,013	1.0000	1.0000	1.00000	0.0086	766	100,922	0.76%
		89,013	1.0000	1.0000	1.00000	0.0086	766	100,922	0.76%
Riverine Systems	Riparian canopy - early successional w/o understory	220,212	1.0000	1.0000	1.00000	0.0195	4,294	100,922	4.25%
		66,671	1.0000	1.0000	1.00000	0.0195	1,300	100,922	1.29%
Riverine Systems	Riparian canopy - late successional w/ understory	146,775	1.0000	1.0000	1.00000	0.0638	9,364	100,922	9.28%
		300,021	1.0000	1.0000	1.00000	0.0638	19,141	100,922	18.97%
Riverine Systems	Riparian canopy - early successional w/ understory	220,212	1.0000	1.0000	1.00000	0.0195	4,294	100,922	4.25%
		66,966	1.0000	1.0000	1.00000	0.0195	1,306	100,922	1.29%
Riverine Systems	Riparian canopy - late successional w/o understory	146,775	1.0000	1.0000	1.00000	0.0638	9,364	100,922	9.28%
		193,935	1.0000	1.0000	1.00000	0.0638	12,373	100,922	12.26%
<b>Summary for Breeding (6 records)</b>			<i>Pre-planning Sum</i>				<b>51,396</b>		<b>50.92%</b>
			<i>Post-planning Sum</i>				<b>112,601</b>		<b>111.57%</b>

<i>Species/Guild Name: Burrowing Owl</i>			<i>Season: Breeding</i>						
Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Mixed Grass	PD town	5,860	1.0000	1.0000	1.00000	0.2132	1,249	1,249	100.00%
		7,970	1.0000	1.0000	1.00000	0.2132	1,699	1,249	136.03%

**Summary for Breeding (1 record)**

*Pre-planning Sum*  
*Post-planning Sum*

**1,249**  
**1,699**

**100.00%**  
**136.03%**

**Species/Guild Name: Cassin's Sparrow**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
CRP	Native	87,910	1.0000	1.0000	1.00000	1.3760	120,965	1,468,516	8.24%
		1,623,619	1.0000	1.0000	1.00000	1.3760	2,234,100	1,468,516	152.13%
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.3440	272,170	1,468,516	18.53%
		0	1.0000	1.0000	1.00000	0.3440	0	1,468,516	0.00%
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0494	66,961	1,468,516	4.56%
		4,518,310	1.0000	1.0000	1.00000	0.0494	223,205	1,468,516	15.20%
Mesquite Savannah	Shrubland	3,162,817	1.0000	1.0000	1.00000	0.0247	78,122	1,468,516	5.32%
		0	1.0000	1.0000	1.00000	0.0247	0	1,468,516	0.00%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0826	48,940	1,468,516	3.33%
		1,743,941	1.0000	1.0000	1.00000	0.0826	144,050	1,468,516	9.81%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0160	9,480	1,468,516	0.65%
		2,237,313	1.0000	1.0000	1.00000	0.0160	35,797	1,468,516	2.44%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0160	9,480	1,468,516	0.65%
		2,237,313	1.0000	1.0000	1.00000	0.0160	35,797	1,468,516	2.44%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0826	48,940	1,468,516	3.33%
		1,743,941	1.0000	1.0000	1.00000	0.0826	144,050	1,468,516	9.81%
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0541	1,501	1,468,516	0.10%
		27,737	1.0000	1.0000	1.00000	0.0541	1,501	1,468,516	0.10%
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.0541	28,510	1,468,516	1.94%
		526,994	1.0000	1.0000	1.00000	0.0541	28,510	1,468,516	1.94%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0541	6,940	1,468,516	0.47%
		51,315	1.0000	1.0000	1.00000	0.0541	2,776	1,468,516	0.19%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0541	6,940	1,468,516	0.47%
		205,260	1.0000	1.0000	1.00000	0.0541	11,105	1,468,516	0.76%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0541	6,940	1,468,516	0.47%
		205,260	1.0000	1.0000	1.00000	0.0541	11,105	1,468,516	0.76%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0541	6,940	1,468,516	0.47%
		51,315	1.0000	1.0000	1.00000	0.0541	2,776	1,468,516	0.19%
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.0826	14,674	1,468,516	1.00%
		71,060	1.0000	1.0000	1.00000	0.0826	5,870	1,468,516	0.40%
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0160	2,842	1,468,516	0.19%
		284,241	1.0000	1.0000	1.00000	0.0160	4,548	1,468,516	0.31%
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0826	14,674	1,468,516	1.00%
		284,241	1.0000	1.0000	1.00000	0.0826	23,478	1,468,516	1.60%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0160	2,842	1,468,516	0.19%
		71,060	1.0000	1.0000	1.00000	0.0160	1,137	1,468,516	0.08%

**Summary for Breeding (18 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**747,861**  
**2,909,805**

**50.92%**  
**198.14%**

**Species/Guild Name: Chihuahuan Raven**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Mesquite Savannah	Savannah	1,355,493	0.7000	1.0000	1.00000	0.0010	949	2,789	34.03%
		4,518,310	0.7000	1.0000	1.00000	0.0010	3,163	2,789	113.41%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0010	592	2,789	21.23%
		1,743,941	1.0000	1.0000	1.00000	0.0010	1,744	2,789	62.53%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0003	178	2,789	6.38%
		2,237,313	1.0000	1.0000	1.00000	0.0003	671	2,789	24.06%
Sand Sage	Low grass	526,994	0.7000	1.0000	1.00000	0.0010	369	2,789	13.23%
		526,994	0.7000	1.0000	1.00000	0.0010	369	2,789	13.23%
Sand Sage	High grass	27,737	0.7000	1.0000	1.00000	0.0010	19	2,789	0.68%
		27,737	0.7000	1.0000	1.00000	0.0010	19	2,789	0.68%
Shinnery	Many shrubs/low grass	128,287	0.7000	1.0000	1.00000	0.0010	90	2,789	3.23%
		51,315	0.7000	1.0000	1.00000	0.0010	36	2,789	1.29%
Shinnery	Few shrubs/high grass	128,287	0.7000	1.0000	1.00000	0.0010	90	2,789	3.23%
		205,260	0.7000	1.0000	1.00000	0.0010	144	2,789	5.16%
Shinnery	Many shrubs/high grass	128,287	0.7000	1.0000	1.00000	0.0010	90	2,789	3.23%
		51,315	0.7000	1.0000	1.00000	0.0010	36	2,789	1.29%
Shinnery	Few shrubs/low grass	128,287	0.7000	1.0000	1.00000	0.0010	90	2,789	3.23%

		205,260	0.7000	1.0000	1.00000	0.0010	144	2,789	5.16%
Shortgrass	Many shrubs/high grass	177,650	0.7000	1.0000	1.00000	0.0010	124	2,789	4.45%
		284,241	0.7000	1.0000	1.00000	0.0010	199	2,789	7.14%
Shortgrass	Few shrubs/high grass	177,650	0.7000	1.0000	1.00000	0.0003	37	2,789	1.33%
		284,241	0.7000	1.0000	1.00000	0.0003	60	2,789	2.15%
Shortgrass	Few shrubs/ low grass	177,650	0.7000	1.0000	1.00000	0.0003	37	2,789	1.33%
		71,060	0.7000	1.0000	1.00000	0.0003	15	2,789	0.54%
Shortgrass	Many shrubs/low grass	177,650	0.7000	1.0000	1.00000	0.0010	124	2,789	4.45%
		71,060	0.7000	1.0000	1.00000	0.0010	50	2,789	1.79%
<b>Summary for Breeding (13 records)</b>					<i>Pre-planning Sum</i>		<b>2,789</b>		<b>99.99%</b>
					<i>Post-planning Sum</i>		<b>6,650</b>		<b>238.43%</b>

**Species/Guild Name: Dickcissel**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Cropland	Pasture	0	1.0000	1.0000	1.00000	0.0675	0	319,220	0.00%
		0	1.0000	1.0000	1.00000	0.0675	0	319,220	0.00%
Cropland	Peanuts	106,929	1.0000	1.0000	1.00000	0.0544	5,817	319,220	1.82%
		82,321	1.0000	1.0000	1.00000	0.0544	4,478	319,220	1.40%
Cropland	Hay	0	1.0000	1.0000	1.00000	0.0675	0	319,220	0.00%
		0	1.0000	1.0000	1.00000	0.0675	0	319,220	0.00%
Cropland	Wheat	2,045,918	1.0000	1.0000	1.00000	0.0015	3,069	319,220	0.96%
		1,575,076	1.0000	1.0000	1.00000	0.0015	2,363	319,220	0.74%
Cropland	Corn	9,844	1.0000	1.0000	1.00000	0.0026	26	319,220	0.01%
		7,579	1.0000	1.0000	1.00000	0.0026	20	319,220	0.01%
Cropland	Sunflowers	0	1.0000	1.0000	1.00000	0.1048	0	319,220	0.00%
		0	1.0000	1.0000	1.00000	0.1048	0	319,220	0.00%
Cropland	Alfalfa	0	1.0000	1.0000	1.00000	0.1048	0	319,220	0.00%
		0	1.0000	1.0000	1.00000	0.1048	0	319,220	0.00%
Cropland	Soybeans	2,376	1.0000	1.0000	1.00000	0.0544	129	319,220	0.04%
		1,829	1.0000	1.0000	1.00000	0.0544	100	319,220	0.03%
Cropland	Sorghum	187,042	1.0000	1.0000	1.00000	0.0026	486	319,220	0.15%
		143,997	1.0000	1.0000	1.00000	0.0026	374	319,220	0.12%
CRP	Native	87,910	1.0000	1.0000	1.00000	0.2266	19,920	319,220	6.24%
		1,623,619	1.0000	1.0000	1.00000	0.2266	367,912	319,220	115.25%
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.2266	179,284	319,220	56.16%
		0	1.0000	1.0000	1.00000	0.2266	0	319,220	0.00%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0462	27,373	319,220	8.57%
		2,237,313	1.0000	1.0000	1.00000	0.0462	103,364	319,220	32.38%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0462	27,373	319,220	8.57%
		2,237,313	1.0000	1.0000	1.00000	0.0462	103,364	319,220	32.38%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0081	979	319,220	0.31%
		52,259	1.0000	1.0000	1.00000	0.0081	423	319,220	0.13%
Riverine Systems	Native riparian shrubland	109,125	1.0000	1.0000	1.00000	0.0081	884	319,220	0.28%
		284,040	1.0000	1.0000	1.00000	0.0081	2,301	319,220	0.72%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.1400	17,960	319,220	5.63%
		205,260	1.0000	1.0000	1.00000	0.1400	28,736	319,220	9.00%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0700	8,980	319,220	2.81%
		51,315	1.0000	1.0000	1.00000	0.0700	3,592	319,220	1.13%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.1400	17,960	319,220	5.63%
		51,315	1.0000	1.0000	1.00000	0.1400	7,184	319,220	2.25%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0700	8,980	319,220	2.81%
		205,260	1.0000	1.0000	1.00000	0.0700	14,368	319,220	4.50%
<b>Summary for Breeding (19 records)</b>					<i>Pre-planning Sum</i>		<b>319,220</b>		<b>99.99%</b>
					<i>Post-planning Sum</i>		<b>638,579</b>		<b>200.04%</b>

**Species/Guild Name: Eastern Meadowlark**

**Season: Resident**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Cropland	Hay	0	1.0000	1.0000	1.00000	0.0600	0	448,664	0.00%
		0	1.0000	1.0000	1.00000	0.0600	0	448,664	0.00%
Cropland	Pasture	0	1.0000	1.0000	1.00000	0.4180	0	448,664	0.00%
		0	1.0000	1.0000	1.00000	0.4180	0	448,664	0.00%
CRP	Native	87,910	1.0000	1.0000	1.00000	0.0840	7,384	448,664	1.65%
		1,623,619	1.0000	1.0000	1.00000	0.0840	136,384	448,664	30.40%

CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.0840	66,460	448,664	14.81%
		0	1.0000	1.0000	1.00000	0.0840	0	448,664	0.00%
Mesquite Savannah	Shrubland	3,162,817	1.0000	1.0000	1.00000	0.0300	94,885	448,664	21.15%
		0	1.0000	1.0000	1.00000	0.0300	0	448,664	0.00%
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0600	81,330	448,664	18.13%
		4,518,310	1.0000	1.0000	1.00000	0.0600	271,099	448,664	60.42%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0600	35,550	448,664	7.92%
		2,237,313	1.0000	1.0000	1.00000	0.0600	134,239	448,664	29.92%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0600	35,550	448,664	7.92%
		2,237,313	1.0000	1.0000	1.00000	0.0600	134,239	448,664	29.92%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0363	4,388	448,664	0.98%
		52,259	1.0000	1.0000	1.00000	0.0363	1,897	448,664	0.42%
<b>Summary for Resident (9 records)</b>							<b>325,547</b>		<b>72.56%</b>
							<b>677,858</b>		<b>151.08%</b>

**Species/Guild Name: Grasshopper Sparrow**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.1153	91,225	357,678	25.50%
		0	1.0000	1.0000	1.00000	0.1153	0	357,678	0.00%
CRP	Native	87,910	1.0000	1.0000	1.00000	0.1153	10,136	357,678	2.83%
		1,623,619	1.0000	1.0000	1.00000	0.1153	187,203	357,678	52.34%
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0135	18,299	357,678	5.12%
		4,518,310	1.0000	1.0000	1.00000	0.0135	60,997	357,678	17.05%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0790	46,807	357,678	13.09%
		2,237,313	1.0000	1.0000	1.00000	0.0790	176,748	357,678	49.42%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0690	40,882	357,678	11.43%
		2,237,313	1.0000	1.0000	1.00000	0.0690	154,375	357,678	43.16%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0300	3,627	357,678	1.01%
		52,259	1.0000	1.0000	1.00000	0.0300	1,568	357,678	0.44%
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0135	374	357,678	0.10%
		27,737	1.0000	1.0000	1.00000	0.0135	374	357,678	0.10%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0690	12,258	357,678	3.43%
		71,060	1.0000	1.0000	1.00000	0.0690	4,903	357,678	1.37%
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0790	14,034	357,678	3.92%
		284,241	1.0000	1.0000	1.00000	0.0790	22,455	357,678	6.28%
<b>Summary for Breeding (9 records)</b>							<b>237,642</b>		<b>66.44%</b>
							<b>608,623</b>		<b>170.16%</b>

**Species/Guild Name: Lark Bunting**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Mixed Grass	PD town	5,860	1.0000	1.0000	1.00000	0.0336	197	16,402	1.20%
		7,970	1.0000	1.0000	1.00000	0.0336	268	16,402	1.63%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	0.1000	1.00000	0.0418	2,477	16,402	15.10%
		2,237,313	1.0000	0.1000	1.00000	0.0418	9,352	16,402	57.02%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	0.1000	1.00000	0.0320	1,896	16,402	11.56%
		1,743,941	1.0000	0.1000	1.00000	0.0320	5,581	16,402	34.03%
Sand Sage	Low grass	526,994	1.0000	0.1000	1.00000	0.0338	1,781	16,402	10.86%
		526,994	1.0000	0.1000	1.00000	0.0338	1,781	16,402	10.86%
Sand Sage	High grass	27,737	1.0000	0.1000	1.00000	0.0338	94	16,402	0.57%
		27,737	1.0000	0.1000	1.00000	0.0338	94	16,402	0.57%
Shortgrass	Few shrubs/high grass	177,650	1.0000	0.1000	1.00000	0.0418	743	16,402	4.53%
		284,241	1.0000	0.1000	1.00000	0.0418	1,188	16,402	7.24%
Shortgrass	Many shrubs/low grass	177,650	1.0000	0.1000	1.00000	0.0336	597	16,402	3.64%
		71,060	1.0000	0.1000	1.00000	0.0336	239	16,402	1.46%
Shortgrass	Many shrubs/high grass	177,650	1.0000	0.1000	1.00000	0.0320	568	16,402	3.46%
		284,241	1.0000	0.1000	1.00000	0.0320	910	16,402	5.55%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	0.1000	1.00000	0.0000	0	16,402	0.00%
		71,060	1.0000	0.1000	1.00000	0.0000	0	16,402	0.00%
<b>Summary for Breeding (9 records)</b>							<b>8,353</b>		<b>50.92%</b>
							<b>19,413</b>		<b>118.36%</b>



**Species/Guild Name: Lark Sparrow**

**Season: Breeding**

Assoc Name	Condition Name	Condition		Large		Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block				
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0800	108,439	1,064,899	10.18%
		4,518,310	1.0000	1.0000	1.00000	0.0800	361,465	1,064,899	33.94%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.1205	71,396	1,064,899	6.70%
		1,743,941	1.0000	1.0000	1.00000	0.1205	210,145	1,064,899	19.73%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0411	24,352	1,064,899	2.29%
		2,237,313	1.0000	1.0000	1.00000	0.0411	91,954	1,064,899	8.63%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0411	24,352	1,064,899	2.29%
		2,237,313	1.0000	1.0000	1.00000	0.0411	91,954	1,064,899	8.63%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.1205	71,396	1,064,899	6.70%
		1,743,941	1.0000	1.0000	1.00000	0.1205	210,145	1,064,899	19.73%
Riverine Systems	Native riparian shrubland	109,125	1.0000	1.0000	1.00000	0.0016	175	1,064,899	0.02%
		284,040	1.0000	1.0000	1.00000	0.0016	454	1,064,899	0.04%
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.1420	74,833	1,064,899	7.03%
		526,994	1.0000	1.0000	1.00000	0.1420	74,833	1,064,899	7.03%
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.1420	3,939	1,064,899	0.37%
		27,737	1.0000	1.0000	1.00000	0.1420	3,939	1,064,899	0.37%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0730	9,365	1,064,899	0.88%
		205,260	1.0000	1.0000	1.00000	0.0730	14,984	1,064,899	1.41%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0730	9,365	1,064,899	0.88%
		205,260	1.0000	1.0000	1.00000	0.0730	14,984	1,064,899	1.41%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.2139	27,441	1,064,899	2.58%
		51,315	1.0000	1.0000	1.00000	0.2139	10,976	1,064,899	1.03%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.2139	27,441	1,064,899	2.58%
		51,315	1.0000	1.0000	1.00000	0.2139	10,976	1,064,899	1.03%
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.1885	33,487	1,064,899	3.14%
		71,060	1.0000	1.0000	1.00000	0.1885	13,395	1,064,899	1.26%
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.1885	33,487	1,064,899	3.14%
		284,241	1.0000	1.0000	1.00000	0.1885	53,579	1,064,899	5.03%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0643	11,423	1,064,899	1.07%
		71,060	1.0000	1.0000	1.00000	0.0643	4,569	1,064,899	0.43%
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0643	11,423	1,064,899	1.07%
		284,241	1.0000	1.0000	1.00000	0.0643	18,277	1,064,899	1.72%
<b>Summary for Breeding (16 records)</b>				<b>Pre-planning Sum</b>			<b>542,314</b>		<b>50.92%</b>
				<b>Post-planning Sum</b>			<b>1,186,629</b>		<b>111.42%</b>

**Species/Guild Name: Lesser Prairie-Chicken**

**Season: Resident**

Assoc Name	Condition Name	Condition		Large		Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block				
CRP	Non-native	791,193	1.0000	1.0000	0.00200	0.0027	4	209	1.91%
		0	1.0000	1.0000	0.05000	0.0027	0	209	0.00%
CRP	Native	87,910	1.0000	1.0000	0.00200	0.0108	2	209	0.96%
		1,623,619	1.0000	1.0000	0.02000	0.0108	351	209	167.94%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	0.00230	0.0108	15	209	7.18%
		1,743,941	1.0000	1.0000	0.01000	0.0108	188	209	89.95%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	0.00230	0.0108	15	209	7.18%
		2,237,313	1.0000	1.0000	0.01000	0.0108	242	209	115.79%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	0.00230	0.0108	15	209	7.18%
		1,743,941	1.0000	1.0000	0.01000	0.0108	188	209	89.95%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	0.00230	0.0027	4	209	1.91%
		2,237,313	1.0000	1.0000	0.01000	0.0027	60	209	28.71%
Sand Sage	Low grass	526,994	1.0000	1.0000	0.00080	0.0135	6	209	2.87%
		526,994	1.0000	1.0000	0.00100	0.0135	7	209	3.35%
Sand Sage	High grass	27,737	1.0000	1.0000	0.00080	0.0135	0	209	0.00%
		27,737	1.0000	1.0000	0.00100	0.0135	0	209	0.00%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	0.00550	0.0034	2	209	0.96%
		51,315	1.0000	1.0000	0.00600	0.0034	1	209	0.48%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	0.00550	0.0008	1	209	0.48%
		205,260	1.0000	1.0000	0.00600	0.0008	1	209	0.48%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	0.00550	0.0034	2	209	0.96%
		205,260	1.0000	1.0000	0.00600	0.0034	4	209	1.91%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	0.00550	0.0034	2	209	0.96%
		51,315	1.0000	1.0000	0.00600	0.0034	1	209	0.48%

**Summary for Resident (12 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**68**  
**1,043**

**32.53%**  
**499.04%**

**Species/Guild Name: Loggerhead Shrike**

**Season: Resident**

Assoc Name	Condition Name	Condition		Large			Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block	Block				
CRP	Native	87,910	1.0000	1.0000	1.00000	0.0039	343	89,957	0.38%	
		1,623,619	1.0000	1.0000	1.00000	0.0039	6,332	89,957	7.04%	
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.0039	3,086	89,957	3.43%	
		0	1.0000	1.0000	1.00000	0.0039	0	89,957	0.00%	
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0077	10,437	89,957	11.60%	
		4,518,310	1.0000	1.0000	1.00000	0.0077	34,791	89,957	38.68%	
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0047	2,785	89,957	3.10%	
		2,237,313	1.0000	1.0000	1.00000	0.0047	10,515	89,957	11.69%	
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0107	6,340	89,957	7.05%	
		1,743,941	1.0000	1.0000	1.00000	0.0107	18,660	89,957	20.74%	
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0047	2,785	89,957	3.10%	
		2,237,313	1.0000	1.0000	1.00000	0.0047	10,515	89,957	11.69%	
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0107	6,340	89,957	7.05%	
		1,743,941	1.0000	1.0000	1.00000	0.0107	18,660	89,957	20.74%	
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.0077	4,058	89,957	4.51%	
		526,994	1.0000	1.0000	1.00000	0.0077	4,058	89,957	4.51%	
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0077	214	89,957	0.24%	
		27,737	1.0000	1.0000	1.00000	0.0077	214	89,957	0.24%	
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0077	988	89,957	1.10%	
		51,315	1.0000	1.0000	1.00000	0.0077	395	89,957	0.44%	
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0077	988	89,957	1.10%	
		205,260	1.0000	1.0000	1.00000	0.0077	1,580	89,957	1.76%	
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0077	988	89,957	1.10%	
		205,260	1.0000	1.0000	1.00000	0.0077	1,580	89,957	1.76%	
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0077	988	89,957	1.10%	
		51,315	1.0000	1.0000	1.00000	0.0077	395	89,957	0.44%	
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.0107	1,901	89,957	2.11%	
		71,060	1.0000	1.0000	1.00000	0.0107	760	89,957	0.84%	
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0047	835	89,957	0.93%	
		71,060	1.0000	1.0000	1.00000	0.0047	334	89,957	0.37%	
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0107	1,901	89,957	2.11%	
		284,241	1.0000	1.0000	1.00000	0.0107	3,041	89,957	3.38%	
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0047	835	89,957	0.93%	
		284,241	1.0000	1.0000	1.00000	0.0047	1,336	89,957	1.49%	

**Summary for Resident (17 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**45,812**  
**113,166**

**50.92%**  
**125.79%**

**Species/Guild Name: Mississippi Kite**

**Season: Breeding**

Assoc Name	Condition Name	Condition		Large			Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block	Block				
Other	Urban/Suburban	89,013	0.9000	0.4000	1.00000	0.6937	22,229	84,206	26.40%	
		89,013	0.9000	0.6000	1.00000	0.6937	33,344	84,206	39.60%	
Riverine Systems	Riparian canopy - late successional w/o understory	146,775	1.0000	0.4000	1.00000	0.1759	10,327	84,206	12.26%	
		193,935	1.0000	0.4000	1.00000	0.1759	13,645	84,206	16.20%	
Riverine Systems	Riparian canopy - late successional w/ understory	146,775	1.0000	0.4000	1.00000	0.1759	10,327	84,206	12.26%	
		300,021	1.0000	0.4000	1.00000	0.1759	21,110	84,206	25.07%	

**Summary for Breeding (3 records)**

*Pre-planning Sum*  
*Post-planning Sum*

**42,883**  
**68,099**

**50.92%**  
**80.87%**

**Species/Guild Name: Northern Bobwhite**

**Season: Resident**

Assoc Name	Condition Name	Condition		Large			Units	CC	Goal	% of Goal
		Acres	Avail.	Suit.	Block	Block				
Cropland	Wheat	2,045,918	1.0000	1.0000	1.00000	0.0390	79,791	378,591	21.08%	
		1,575,076	1.0000	1.0000	1.00000	0.0390	61,428	378,591	16.23%	
Cropland	Alfalfa	0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%	
		0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%	
Cropland	Pasture	0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%	
		0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%	
Cropland	Sunflowers	0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%	

		0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%
Cropland	Hay	0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%
		0	1.0000	1.0000	1.00000	0.0390	0	378,591	0.00%
Cropland	Peanuts	106,929	1.0000	1.0000	1.00000	0.0390	4,170	378,591	1.10%
		82,321	1.0000	1.0000	1.00000	0.0390	3,211	378,591	0.85%
Cropland	Soybeans	2,376	1.0000	1.0000	1.00000	0.0390	93	378,591	0.02%
		1,829	1.0000	1.0000	1.00000	0.0390	71	378,591	0.02%
Cropland	Sorghum	187,042	1.0000	1.0000	1.00000	0.0390	7,295	378,591	1.93%
		143,997	1.0000	1.0000	1.00000	0.0390	5,616	378,591	1.48%
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.0960	75,954	378,591	20.06%
		0	1.0000	1.0000	1.00000	0.0960	0	378,591	0.00%
CRP	Native	87,910	1.0000	1.0000	1.00000	0.0960	8,439	378,591	2.23%
		1,623,619	1.0000	1.0000	1.00000	0.0960	155,867	378,591	41.17%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0283	16,768	378,591	4.43%
		1,743,941	1.0000	1.0000	1.00000	0.0283	49,354	378,591	13.04%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0102	6,043	378,591	1.60%
		2,237,313	1.0000	1.0000	1.00000	0.0102	22,821	378,591	6.03%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0102	6,043	378,591	1.60%
		2,237,313	1.0000	1.0000	1.00000	0.0102	22,821	378,591	6.03%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0283	16,768	378,591	4.43%
		1,743,941	1.0000	1.0000	1.00000	0.0283	49,354	378,591	13.04%
Riverine Systems	Native riparian shrubland	109,125	1.0000	1.0000	1.00000	0.0980	10,694	378,591	2.82%
		284,040	1.0000	1.0000	1.00000	0.0980	27,836	378,591	7.35%
Riverine Systems	Riparian canopy - early successional w/ understory	220,212	1.0000	1.0000	1.00000	0.0980	21,581	378,591	5.70%
		66,966	1.0000	1.0000	1.00000	0.0980	6,563	378,591	1.73%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0559	6,758	378,591	1.79%
		52,259	1.0000	1.0000	1.00000	0.0559	2,921	378,591	0.77%
Riverine Systems	Riparian canopy - late successional w/ understory	146,775	1.0000	1.0000	1.00000	0.0980	14,384	378,591	3.80%
		300,021	1.0000	1.0000	1.00000	0.0980	29,402	378,591	7.77%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.1618	20,757	378,591	5.48%
		51,315	1.0000	1.0000	1.00000	0.1618	8,303	378,591	2.19%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.2428	31,148	378,591	8.23%
		205,260	1.0000	1.0000	1.00000	0.2428	49,837	378,591	13.16%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.1618	20,757	378,591	5.48%
		51,315	1.0000	1.0000	1.00000	0.1618	8,303	378,591	2.19%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.2428	31,148	378,591	8.23%
		205,260	1.0000	1.0000	1.00000	0.2428	49,837	378,591	13.16%
<b>Summary for Resident (22 records)</b>					<i>Pre-planning Sum</i>	<b>378,591</b>	<b>99.99%</b>		
					<i>Post-planning Sum</i>	<b>553,545</b>	<b>146.20%</b>		

**Species/Guild Name: Painted Bunting**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Juniper/Mesquite	NA	5,692,522	0.8000	0.3000	1.00000	0.1800	245,917	616,040	39.92%
		1,977,522	0.8000	0.8607	1.00000	0.1800	245,096	616,040	39.79%
Mesquite Savannah	Shrubland	3,162,817	0.8000	1.0000	1.00000	0.0900	227,723	616,040	36.97%
		0	0.8000	1.0000	1.00000	0.0900	0	616,040	0.00%
Mesquite Savannah	Savannah	1,355,493	0.8000	1.0000	1.00000	0.0900	97,595	616,040	15.84%
		4,518,310	0.8000	1.0000	1.00000	0.0900	325,318	616,040	52.81%
Riverine Systems	Native riparian shrubland	109,125	0.8000	1.0000	1.00000	0.0900	7,857	616,040	1.28%
		284,040	0.8000	1.0000	1.00000	0.0900	20,451	616,040	3.32%
Shinnery	Many shrubs/low grass	128,287	0.8000	1.0000	1.00000	0.0900	9,237	616,040	1.50%
		51,315	0.8000	1.0000	1.00000	0.0900	3,695	616,040	0.60%
Shinnery	Few shrubs/low grass	128,287	0.8000	1.0000	1.00000	0.0900	9,237	616,040	1.50%
		205,260	0.8000	1.0000	1.00000	0.0900	14,779	616,040	2.40%
Shinnery	Many shrubs/high grass	128,287	0.8000	1.0000	1.00000	0.0900	9,237	616,040	1.50%
		51,315	0.8000	1.0000	1.00000	0.0900	3,695	616,040	0.60%
Shinnery	Few shrubs/high grass	128,287	0.8000	1.0000	1.00000	0.0900	9,237	616,040	1.50%
		205,260	0.8000	1.0000	1.00000	0.0900	14,779	616,040	2.40%
<b>Summary for Breeding (8 records)</b>					<i>Pre-planning Sum</i>	<b>616,040</b>	<b>100.00%</b>		
					<i>Post-planning Sum</i>	<b>627,813</b>	<b>101.91%</b>		

**Species/Guild Name: Red-headed Woodpecker****Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Condition		Large		Units	CC	Goal	% of Goal
			Avail.	Suit.	Block	Block				
Riverine Systems	Riparian canopy - late	146,775	0.3000	1.0000	1.00000	0.1197	5,271	10,542	50.00%	
	successional w/o understory	193,935	0.3000	1.0000	1.00000	0.1197	6,964	10,542	66.06%	
Riverine Systems	Riparian canopy - late	146,775	0.3000	1.0000	1.00000	0.1197	5,271	10,542	50.00%	
	successional w/ understory	300,021	0.3000	1.0000	1.00000	0.1197	10,774	10,542	102.20%	
<b>Summary for Breeding (2 records)</b>					<b>Pre-planning Sum</b>			<b>10,542</b>		<b>100.00%</b>
					<b>Post-planning Sum</b>			<b>17,738</b>		<b>168.26%</b>

**Species/Guild Name: Ring-necked Pheasant****Season: Resident**

Assoc Name	Condition Name	Condition Acres	Condition		Large		Units	CC	Goal	% of Goal
			Avail.	Suit.	Block	Block				
Cropland	Fallow	0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
		0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
Cropland	Alfalfa	0	1.0000	0.5000	1.00000	0.0036	0	11,541	0.00%	
		0	1.0000	0.5000	1.00000	0.0036	0	11,541	0.00%	
Cropland	Sunflowers	0	1.0000	0.5000	1.00000	0.0036	0	11,541	0.00%	
		0	1.0000	0.5000	1.00000	0.0036	0	11,541	0.00%	
Cropland	Pasture	0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
		0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
Cropland	Hay	0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
		0	1.0000	0.5000	1.00000	0.0013	0	11,541	0.00%	
Cropland	Wheat	2,045,918	1.0000	0.5000	1.00000	0.0036	3,683	11,541	31.91%	
		1,575,076	1.0000	0.5000	1.00000	0.0036	2,835	11,541	24.56%	
Cropland	Corn	9,844	1.0000	0.5000	1.00000	0.0036	18	11,541	0.16%	
		7,579	1.0000	0.5000	1.00000	0.0036	14	11,541	0.12%	
Cropland	Sorghum	187,042	1.0000	0.5000	1.00000	0.0036	337	11,541	2.92%	
		143,997	1.0000	0.5000	1.00000	0.0036	259	11,541	2.24%	
Cropland	Soybeans	2,376	1.0000	0.5000	1.00000	0.0036	4	11,541	0.03%	
		1,829	1.0000	0.5000	1.00000	0.0036	3	11,541	0.03%	
Cropland	Peanuts	106,929	1.0000	0.5000	1.00000	0.0036	192	11,541	1.66%	
		82,321	1.0000	0.5000	1.00000	0.0036	148	11,541	1.28%	
CRP	Non-native	791,193	1.0000	0.5000	1.00000	0.0094	3,719	11,541	32.22%	
		0	1.0000	0.5000	1.00000	0.0094	0	11,541	0.00%	
CRP	Native	87,910	1.0000	0.5000	1.00000	0.0094	413	11,541	3.58%	
		1,623,619	1.0000	0.5000	1.00000	0.0094	7,631	11,541	66.12%	
Mixed Grass	Few shrubs/high grass	592,497	1.0000	0.5000	1.00000	0.0013	385	11,541	3.34%	
		2,237,313	1.0000	0.5000	1.00000	0.0013	1,454	11,541	12.60%	
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	0.5000	1.00000	0.0013	385	11,541	3.34%	
		2,237,313	1.0000	0.5000	1.00000	0.0013	1,454	11,541	12.60%	
Playa	Dry	18,239	1.0000	0.5000	1.00000	0.0013	12	11,541	0.10%	
		18,239	1.0000	0.5000	1.00000	0.0013	12	11,541	0.10%	
Riverine Systems	Wet meadow	120,891	1.0000	0.5000	1.00000	0.0367	2,218	11,541	19.22%	
		52,259	1.0000	0.5000	1.00000	0.0367	959	11,541	8.31%	
Riverine Systems	Native riparian shrubland	109,125	1.0000	0.5000	1.00000	0.0032	175	11,541	1.52%	
		284,040	1.0000	0.5000	1.00000	0.0032	454	11,541	3.93%	
<b>Summary for Resident (17 records)</b>					<b>Pre-planning Sum</b>			<b>11,541</b>		<b>99.99%</b>
					<b>Post-planning Sum</b>			<b>15,223</b>		<b>131.90%</b>

**Species/Guild Name: Scaled Quail****Season: Resident**

Assoc Name	Condition Name	Condition Acres	Condition		Large		Units	CC	Goal	% of Goal
			Avail.	Suit.	Block	Block				
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0046	6,235	19,000	32.82%	
		4,518,310	1.0000	1.0000	1.00000	0.0046	20,784	19,000	109.39%	
Mesquite Savannah	Shrubland	3,162,817	1.0000	1.0000	1.00000	0.0027	8,540	19,000	44.95%	
		0	1.0000	1.0000	1.00000	0.0027	0	19,000	0.00%	
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0032	89	19,000	0.47%	
		27,737	1.0000	1.0000	1.00000	0.0032	89	19,000	0.47%	
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.0032	1,686	19,000	8.87%	
		526,994	1.0000	1.0000	1.00000	0.0032	1,686	19,000	8.87%	
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0032	568	19,000	2.99%	
		284,241	1.0000	1.0000	1.00000	0.0032	910	19,000	4.79%	
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0037	657	19,000	3.46%	
		71,060	1.0000	1.0000	1.00000	0.0037	263	19,000	1.38%	

Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0037	657	19,000	3.46%
		284,241	1.0000	1.0000	1.00000	0.0037	1,052	19,000	5.54%
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.0032	568	19,000	2.99%
		71,060	1.0000	1.0000	1.00000	0.0032	227	19,000	1.19%
<b>Summary for Resident (8 records)</b>							<b>Pre-planning Sum</b>	<b>19,000</b>	<b>100.00%</b>
							<b>Post-planning Sum</b>	<b>25,011</b>	<b>131.63%</b>

**Species/Guild Name: Scissor-tailed Flycatcher**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0566	76,721	273,297	28.07%
		4,518,310	1.0000	1.0000	1.00000	0.0566	255,736	273,297	93.57%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0056	3,318	273,297	1.21%
		2,237,313	1.0000	1.0000	1.00000	0.0056	12,529	273,297	4.58%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0056	3,318	273,297	1.21%
		2,237,313	1.0000	1.0000	1.00000	0.0056	12,529	273,297	4.58%
Other	small roads	537,502	1.0000	1.0000	1.00000	0.0566	30,423	273,297	11.13%
		537,502	1.0000	1.0000	1.00000	0.0566	30,423	273,297	11.13%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0566	7,261	273,297	2.66%
		205,260	1.0000	1.0000	1.00000	0.0566	11,618	273,297	4.25%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0424	5,439	273,297	1.99%
		51,315	1.0000	1.0000	1.00000	0.0424	2,176	273,297	0.80%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0566	7,261	273,297	2.66%
		205,260	1.0000	1.0000	1.00000	0.0566	11,618	273,297	4.25%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0424	5,439	273,297	1.99%
		51,315	1.0000	1.0000	1.00000	0.0424	2,176	273,297	0.80%
<b>Summary for Breeding (8 records)</b>							<b>Pre-planning Sum</b>	<b>139,180</b>	<b>50.92%</b>
							<b>Post-planning Sum</b>	<b>338,805</b>	<b>123.97%</b>

**Species/Guild Name: Snowy Plover**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Riverine Systems	Unvegetated sandbar	3,824	1.0000	1.0000	1.00000	0.0059	23	23	100.00%
		3,824	1.0000	1.0000	1.00000	0.0059	23	23	100.00%
<b>Summary for Breeding (1 record)</b>							<b>Pre-planning Sum</b>	<b>23</b>	<b>100.00%</b>
							<b>Post-planning Sum</b>	<b>23</b>	<b>100.00%</b>

**Species/Guild Name: Swainson's Hawk**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Cropland	Alfalfa	0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
		0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
Cropland	Wheat	2,045,918	1.0000	1.0000	1.00000	0.0022	4,501	32,667	13.78%
		1,575,076	1.0000	1.0000	1.00000	0.0022	3,465	32,667	10.61%
Cropland	Hay	0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
		0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
Cropland	Pasture	0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
		0	1.0000	1.0000	1.00000	0.0022	0	32,667	0.00%
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0015	2,033	32,667	6.22%
		4,518,310	1.0000	1.0000	1.00000	0.0015	6,777	32,667	20.75%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0015	889	32,667	2.72%
		1,743,941	1.0000	1.0000	1.00000	0.0015	2,616	32,667	8.01%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0028	1,659	32,667	5.08%
		2,237,313	1.0000	1.0000	1.00000	0.0028	6,264	32,667	19.18%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0028	1,659	32,667	5.08%
		2,237,313	1.0000	1.0000	1.00000	0.0028	6,264	32,667	19.18%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0015	889	32,667	2.72%
		1,743,941	1.0000	1.0000	1.00000	0.0015	2,616	32,667	8.01%
Riverine Systems	Riparian canopy - late successional w/o understory	146,775	1.0000	1.0000	1.00000	0.0022	323	32,667	0.99%
		193,935	1.0000	1.0000	1.00000	0.0022	427	32,667	1.31%
Riverine Systems	Riparian canopy - late successional w/ understory	146,775	1.0000	1.0000	1.00000	0.0022	323	32,667	0.99%
		300,021	1.0000	1.0000	1.00000	0.0022	660	32,667	2.02%
Riverine Systems	Riparian canopy - early successional w/ understory	220,212	1.0000	1.0000	1.00000	0.0022	484	32,667	1.48%
		66,966	1.0000	1.0000	1.00000	0.0022	147	32,667	0.45%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0022	266	32,667	0.81%

		52,259	1.0000	1.0000	1.00000	0.0022	115	32,667	0.35%
Riverine Systems	Riparian canopy - early	220,212	1.0000	1.0000	1.00000	0.0022	484	32,667	1.48%
	successional w/o understor	66,671	1.0000	1.0000	1.00000	0.0022	147	32,667	0.45%
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0015	42	32,667	0.13%
		27,737	1.0000	1.0000	1.00000	0.0015	42	32,667	0.13%
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.0015	790	32,667	2.42%
		526,994	1.0000	1.0000	1.00000	0.0015	790	32,667	2.42%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0015	192	32,667	0.59%
		51,315	1.0000	1.0000	1.00000	0.0015	77	32,667	0.24%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0015	192	32,667	0.59%
		205,260	1.0000	1.0000	1.00000	0.0015	308	32,667	0.94%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0015	192	32,667	0.59%
		51,315	1.0000	1.0000	1.00000	0.0015	77	32,667	0.24%
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0015	192	32,667	0.59%
		205,260	1.0000	1.0000	1.00000	0.0015	308	32,667	0.94%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0028	497	32,667	1.52%
		71,060	1.0000	1.0000	1.00000	0.0028	199	32,667	0.61%
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0028	497	32,667	1.52%
		284,241	1.0000	1.0000	1.00000	0.0028	796	32,667	2.44%
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0015	266	32,667	0.81%
		284,241	1.0000	1.0000	1.00000	0.0015	426	32,667	1.30%
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.0015	266	32,667	0.81%
		71,060	1.0000	1.0000	1.00000	0.0015	107	32,667	0.33%
<b>Summary for Breeding (24 records)</b>									
					<i>Pre-planning Sum</i>		<b>16,636</b>		<b>50.92%</b>
					<i>Post-planning Sum</i>		<b>32,628</b>		<b>99.87%</b>

**Species/Guild Name: Western Kingbird**

**Season: Breeding**

Assoc Name	Condition Name	Condition Acres	Avail.	Suit.	Large Block	Units	CC	Goal	% of Goal
Cropland	Pasture	0	1.0000	1.0000	1.00000	0.0600	0	913,855	0.00%
		0	1.0000	1.0000	1.00000	0.0600	0	913,855	0.00%
CRP	Non-native	791,193	1.0000	1.0000	1.00000	0.0600	47,472	913,855	5.19%
		0	1.0000	1.0000	1.00000	0.0600	0	913,855	0.00%
CRP	Native	87,910	1.0000	1.0000	1.00000	0.0600	5,275	913,855	0.58%
		1,623,619	1.0000	1.0000	1.00000	0.0600	97,417	913,855	10.66%
Mesquite Savannah	Savannah	1,355,493	1.0000	1.0000	1.00000	0.0461	62,488	913,855	6.84%
		4,518,310	1.0000	1.0000	1.00000	0.0461	208,294	913,855	22.79%
Mesquite Savannah	Shrubland	3,162,817	1.0000	1.0000	1.00000	0.0230	72,745	913,855	7.96%
		0	1.0000	1.0000	1.00000	0.0230	0	913,855	0.00%
Mixed Grass	Many shrubs/low grass	592,497	1.0000	1.0000	1.00000	0.0461	27,314	913,855	2.99%
		1,743,941	1.0000	1.0000	1.00000	0.0461	80,396	913,855	8.80%
Mixed Grass	Many shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0461	27,314	913,855	2.99%
		1,743,941	1.0000	1.0000	1.00000	0.0461	80,396	913,855	8.80%
Mixed Grass	Few shrubs/high grass	592,497	1.0000	1.0000	1.00000	0.0646	38,275	913,855	4.19%
		2,237,313	1.0000	1.0000	1.00000	0.0646	144,530	913,855	15.82%
Mixed Grass	Few shrubs/ low grass	592,497	1.0000	1.0000	1.00000	0.0646	38,275	913,855	4.19%
		2,237,313	1.0000	1.0000	1.00000	0.0646	144,530	913,855	15.82%
Other	small roads	537,502	1.0000	1.0000	1.00000	0.0600	32,250	913,855	3.53%
		537,502	1.0000	1.0000	1.00000	0.0600	32,250	913,855	3.53%
Riverine Systems	Wet meadow	120,891	1.0000	1.0000	1.00000	0.0646	7,810	913,855	0.85%
		52,259	1.0000	1.0000	1.00000	0.0646	3,376	913,855	0.37%
Riverine Systems	Riparian canopy - late	146,775	1.0000	1.0000	1.00000	0.0600	8,807	913,855	0.96%
	successional w/ understory	300,021	1.0000	1.0000	1.00000	0.0600	18,001	913,855	1.97%
Riverine Systems	Riparian canopy - late	146,775	1.0000	1.0000	1.00000	0.0600	8,807	913,855	0.96%
	successional w/o understory	193,935	1.0000	1.0000	1.00000	0.0600	11,636	913,855	1.27%
Sand Sage	High grass	27,737	1.0000	1.0000	1.00000	0.0461	1,279	913,855	0.14%
		27,737	1.0000	1.0000	1.00000	0.0461	1,279	913,855	0.14%
Sand Sage	Low grass	526,994	1.0000	1.0000	1.00000	0.0461	24,294	913,855	2.66%
		526,994	1.0000	1.0000	1.00000	0.0461	24,294	913,855	2.66%
Shinnery	Many shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0461	5,914	913,855	0.65%
		51,315	1.0000	1.0000	1.00000	0.0461	2,366	913,855	0.26%
Shinnery	Many shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0461	5,914	913,855	0.65%
		51,315	1.0000	1.0000	1.00000	0.0461	2,366	913,855	0.26%
Shinnery	Few shrubs/low grass	128,287	1.0000	1.0000	1.00000	0.0461	5,914	913,855	0.65%
		205,260	1.0000	1.0000	1.00000	0.0461	9,462	913,855	1.04%

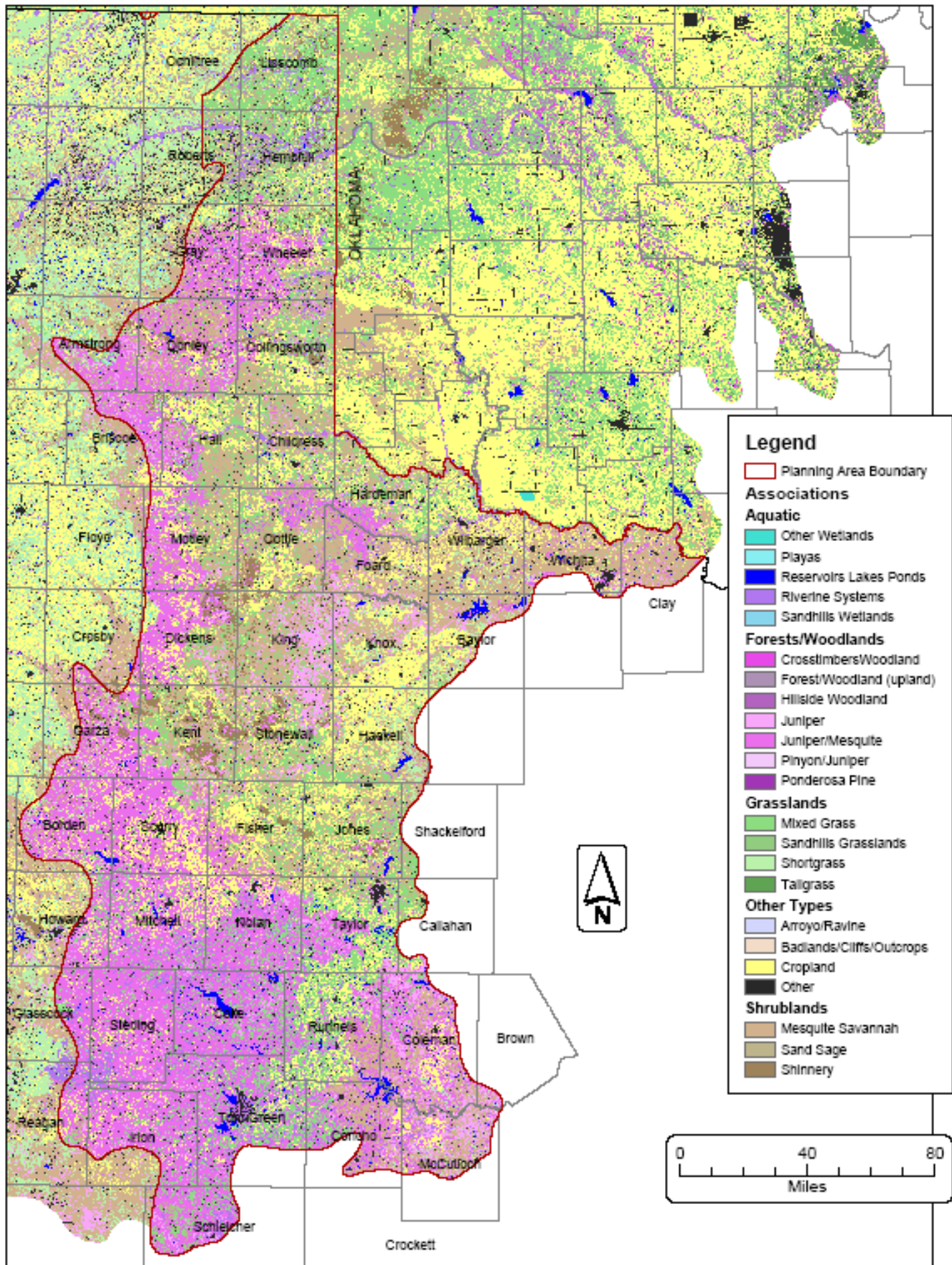
Shinnery	Few shrubs/high grass	128,287	1.0000	1.0000	1.00000	0.0461	5,914	913,855	0.65%
		205,260	1.0000	1.0000	1.00000	0.0461	9,462	913,855	1.04%
Shortgrass	Many shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0461	8,190	913,855	0.90%
		284,241	1.0000	1.0000	1.00000	0.0461	13,104	913,855	1.43%
Shortgrass	Few shrubs/ low grass	177,650	1.0000	1.0000	1.00000	0.0646	11,476	913,855	1.26%
		71,060	1.0000	1.0000	1.00000	0.0646	4,590	913,855	0.50%
Shortgrass	Many shrubs/low grass	177,650	1.0000	1.0000	1.00000	0.0461	8,190	913,855	0.90%
		71,060	1.0000	1.0000	1.00000	0.0461	3,276	913,855	0.36%
Shortgrass	Few shrubs/high grass	177,650	1.0000	1.0000	1.00000	0.0646	11,476	913,855	1.26%
		284,241	1.0000	1.0000	1.00000	0.0646	18,362	913,855	2.01%
<b>Summary for Breeding (23 records)</b>							<b>465,393</b>		<b>50.92%</b>
							<b>909,387</b>		<b>99.50%</b>

**Table 3.** Estimated current acreage and desired future acreage of important bird habitats. Sums may not equal due to rounding errors in database calculations (discrepancies <5%).

Association Name	Condition Name	Pre-Condition Acres	Post Condition Acres	Net Change
Cropland	Other	1,041,459	801,781	-239,678
Cropland	Wheat	2,045,918	1,575,076	-470,842
Cropland	Hay	0	0	0
Cropland	Sorghum	187,042	143,997	-43,045
Cropland	Sunflowers	0	0	0
Cropland	Sod farm	339	261	-78
Cropland	Soybeans	2,376	1,829	-547
Cropland	Corn	9,844	7,579	-2,265
Cropland	Fallow	0	0	0
Cropland	Pasture	0	0	0
Cropland	Peanuts	106,929	82,321	-24,608
Cropland	Alfalfa	0	0	0
CRP	Native	87,910	1,623,619	1,535,709
CRP	Non-native	791,193	0	-791,193
Juniper	NA	1,440,969	440,969	-1,000,000
Juniper/Mesquite	NA	5,692,522	1,977,522	-3,715,000
Mesquite Savannah	Savannah	1,355,493	4,518,310	3,162,817
Mesquite Savannah	Shrubland	3,162,817	0	-3,162,817
Mixed Grass	Many shrubs/high grass	592,497	1,743,941	1,151,444
Mixed Grass	Many shrubs/low grass	592,497	1,743,941	1,151,444
Mixed Grass	Few shrubs/high grass	592,497	2,237,313	1,644,816
Mixed Grass	Few shrubs/ low grass	592,497	2,237,313	1,644,816
Mixed Grass	PD town	5,860	7,970	2,110
Other	Urban/Suburban	89,013	89,013	0
Other	small roads	537,502	537,502	0
Other	4-lane roads	22,996	22,996	0
Other	Other	0	0	0
Other Wetlands	Saline	0	0	0
Other Wetlands	Emergent marsh	2,550	2,550	0
Other Wetlands	Moist-soil unit	92	36,796	36,704
Playa	Wet	4,864	4,864	0
Playa	Wet pit only	1,216	1,216	0
Playa	Dry	18,239	18,239	0
Reservoirs Lakes Ponds	Freshwater lake	0	0	0
Reservoirs Lakes Ponds	Pit	4,318		
Reservoirs Lakes Ponds	Reservoir	164,340	164,340	0
Reservoirs Lakes Ponds	Stock pond	51,879	51,879	0
Reservoirs Lakes Ponds	Lagoon	4,318	4,318	0
Riverine Systems	Warmwater slough	0	0	0
Riverine Systems	Riparian canopy - early	220,212	66,671	-153,541
Riverine Systems	Riparian canopy - late	146,775	193,935	47,160
Riverine Systems	Wet meadow	120,891	52,259	-68,632
Riverine Systems	River channel	12,648	12,648	0
Riverine Systems	Native riparian shrubland	109,125	284,040	174,915
Riverine Systems	Exotic riparian shrubland	0	0	0
Riverine Systems	Floodplain marsh	98	98	0
Riverine Systems	Unvegetated sandbar	3,824	3,824	0
Riverine Systems	Riparian canopy - late	146,775	300,021	153,246
Riverine Systems	Riparian canopy - early	220,212	66,966	-153,246
Sand Sage	High grass	27,737	27,737	0
Sand Sage	Low grass	526,994	526,994	0
Shinnery	Many shrubs/high grass	128,287	51,315	-76,972
Shinnery	Many shrubs/low grass	128,287	51,315	-76,972
Shinnery	Few shrubs/high grass	128,287	205,260	76,973
Shinnery	Few shrubs/low grass	128,287	205,260	76,973
Shortgrass	Few shrubs/ low grass	177,650	71,060	-106,590



Shortgrass	Few shrubs/high grass	177,650	284,241	106,591
Shortgrass	Many shrubs/low grass	177,650	71,060	-106,590
Shortgrass	Many shrubs/high grass	177,650	284,241	106,591
<hr/>				
	<b>Sum</b>	22,836,400	21,961,025	



**Figure 1.** Bird habitat associations for the Central Mixed-grass Prairie Bird Conservation Region of Texas.