U.S. Fish and Wildlife Service
Division of Migratory Birds – Southwest Region

Migratory Bird Monitoring, Assessment and Conservation
Catalog of Federal Domestic Assistance (CFDA) Number: 15.655

Notice of Funding Opportunity

I. Description of Funding Opportunity

In the Chihuahuan Desert, grassland deterioration continues to be one of the major problems facing ecosystem health (Savory and Parsons, 1980). Brush encroachment has infested large swathes of grasslands throughout the Chihuahuan Desert ecotone of the Southwestern United Stated and northwestern Mexico (Buffington and Herbel, 1965; Hastings and Turner, 1965, Van Auken, 2000). Increases in woody plant encroachment in semiarid grasslands can be attributed to many factors (see for example: Archer 1994; Archer et al. 1995; Archer et al. 1988; Bahre 1991; Bahre 1995; Belsky et al. 1999; Bush and Van Auken 1995; Fleischner 1994; Humphrey 1958; Milton et al. 1994; Neilson 1986; Polley et al. 1994; Schmutz et al. 1991; Van Auken 2000; Van Auken and Bush 1997; Van Devender 1995; Wiltzen et al. 1997). However, recent short-term impacts appear to be the result of enduring, high intensity herbivory by domestic livestock (Van Auken, 2000). Over-grazing reduces above ground grass and forb biomass, which increases woody plant establishment by enhancing seed production, seed dispersal, seedling establishment, plant longevity, and stand development (Archer, 1994; Archer et al., 1995).

The objective of this study is to quantify grassland health using Mearns, scaled, and Gambel's quail as indicators. Because these three quail species inhabit a diversity of distinct niches (ranging from grasslands to riparian corridors) within the Chihuahuan Desert, they appear to be ideal indicators of broad-scale ecosystem change resulting from overgrazing. We predict overgrazed grasslands will show decreased abundances of quail relative to ungrazed grasslands. Furthermore, we predict heavily grazed grasslands will show decreased diversity of grasses and forbs relative to ungrazed grasslands, which will be reflected by decreased diversity of seed/invertebrate material in quail crop samples. Grazed pastures will be quantified as any pasture heavily grazed within the preceding five years, whereas ungrazed pastures will be those free from grazing in the preceding five years. This study will be conducted on ranchlands within south-central New Mexico and the Trans-Pecos region of Texas on which we already have pre-existing quail research being conducted. We will compared quail abundance (estimated using pointing dogs and flush surveys) and diet (determined from crop samples) across species, treatments (grazed vs ungrazed), and seasons (fall, winter, spring, summer) using multivariate analyses of variance. We will then use resource selection function models as a predictive tool for future habitat needs and/or to predict population changes resulting from increasing or decreasing commercial livestock production in the Chihuahuan Desert. These models will further our understanding of the population status of these three desert quail species, and will highlight habitat partitioning between the species in addition to quantifying their respective habitat needs.

This study will compliment and expand already existing research being conducted by the Borderlands Research Institute at Sul Ross State University. In addition to the partnership between the Borderlands Research Institute and Sul Ross State University, this project will

improve partnership capacities with the Bureau of Land Management, Texas Parks and Wildlife Department, US Fish and Wildlife Service, NRCS, Quail Forever, Southern New Mexico Safari Club International, National Wild Turkey Federation, and the Texas Quail Coalition.

Authorizations: Fish and Wildlife Act of 1956, as amended, 16 U.S.C. 742a-754; Fish and Wildlife Coordination Act of 1958, 16 U.S.C. 661-667(e); Fish and Wildlife Conservation Act, 16 U.S.C. 2901-2911; Migratory Bird Treaty Act, 16 U.S.C. 709a.

The U.S. Fish and Wildlife Service (Service) uses a science-based, adaptive framework for setting and achieving broad-scale conservation objectives that strategically address the problems fish and wildlife will face in the future. This framework, called Strategic Habitat Conservation, is based on the principles of adaptive management and uses population and habitat data, ecological models, and focused monitoring and assessment efforts to develop and implement strategies that result in measurable fish and wildlife population outcomes. This process uses the best available scientific information to predict how fish and wildlife populations will respond to changes in the environment, thus enabling the Service to focus habitat conservation and other management activities where they will be most effective. In addition, the Service needs focused, applied science directed at high impact questions surrounding threats to fish and wildlife resources for which management and/or mitigation is required to maintain species at healthy, sustainable, desired levels. The Service must base its decisions on the best science available, in order to defend its regulatory decisions, biological opinions and species conservation recommendations to land managers.

II. Award Information

This program will use a cooperative agreement as the financial assistance instrument. The Service will be responsible for the following: (1) Provide assistance with analyzing data on identified locations in New Mexico and Texas; (B) Provide logistical support (e.g., expert opinion, manuscript review) for Recipient personnel. There is only ONE expected award and the estimated total program funding is $23,760.

III. Basic Eligibility Requirements

Eligible Applicants:

This Single Source Award is being awarded in accordance with Department of the Interior (DOI) Policy 505 DM 2.14 B(1) Unsolicited Proposal: The recipient, Sul Ross State University (SRSU) is uniquely qualified to perform the Chihuahuan Desert Grassland Ecosystem Health Assessment due to their location in the heart of the Chihuanhuan desert, availability of multiple data sets, current research topics, and having expertise within their program. SRSU also has the expertise to organize and coordinate the work duties of the project due to proximity and track record working with the U.S. Fish and Wildlife Service Region 2 Migratory Bird Office.

U.S. non-profit, non-governmental organizations must provide a copy of their Section 501(c)(3) or (4) status determination letter received from the Internal Revenue Service.

Federal law mandates that all entities applying for Federal financial assistance must have a valid Dun & Bradstreet Data Universal Number System (DUNS) number and have a current registration in the System for Award Management (SAM). See Title 2 of the Code of Federal Regulations (CFR), Part 25 for more information. Exemptions: The SAM registration requirement does not apply to individuals submitting an application on their own behalf and not on behalf of a company or other for-profit entity, state, local or Tribal government, academia or other type of organization.

A. DUNS Registration

Request a DUNS number online at http://fedgov.dnb.com/webform. U.S.-based entities may also request a DUNS number by telephone by calling the Dun & Bradstreet Government Customer Response Center, Monday – Friday, 7 AM to 8 PM CST at the following numbers:

U.S. and U.S Virgin Islands: 1-866-705-5711
Alaska and Puerto Rico: 1-800-234-3867 (Select Option 2, then Option 1)
For Hearing Impaired Customers Only call: 1-877-807-1679 (TTY Line)

Once assigned a DUNS number, entities are responsible for maintaining up-to-date information with Dun & Bradstreet.

B. Entity Registration in SAM

Register in SAM online at http://www.sam.gov/. Once registered in SAM, entities must renew and revalidate their SAM registration at least every 12 months from the date previously registered. Entities are strongly urged to revalidate their registration as often as needed to ensure that their information is up to date and in synch with changes that may have been made to DUNS and IRS information. Foreign entities who wish to be paid directly to a United States bank account must enter and maintain valid and current banking information in SAM.

C. Excluded Entities

Applicant entities or their key project personnel identified in the SAM.gov Exclusions database as ineligible, prohibited/restricted or excluded from receiving Federal contracts, certain subcontracts, and certain Federal assistance and benefits will not be considered for Federal funding, as applicable to the funding being requested under this Federal program.

D. Cost Sharing or Matching:

No cost sharing or matching is required

IV. Application Requirements

To be considered for funding under this funding opportunity, an application must contain:

A. A completed, signed and dated Application for Federal Assistance form. The SF-424 form is available online at http://apply07.grants.gov/apply/FormLinks?family=15. Do not include other Federal sources of funding, requested or approved, in the total entered in the "Federal" funding box on the Application for Federal Assistance form. Enter only the amount being requested under this program in the "Federal" funding box. Include any other Federal sources of funding in the total funding entered in the "Other" box.

B. Project Summary

Project Title: *USING QUAIL AS INDICATORS OF CHIHUAHUAN DESERT GRASSLAND ECOSYSTEM HEALTH*, Project Location: Brewster, Presidio, and Jeff Davis County, Texas and Socorro and Lincoln County, New Mexico. Summary: In the Chihuahuan Desert, grassland deterioration continues to be one of the major problems facing ecosystem health (Savory and Parsons, 1980). Brush encroachment has infested large swathes of grasslands throughout the Chihuahuan Desert ecotone of the Southwestern United Stated and northwestern Mexico (Buffington and Herbel, 1965; Hastings and Turner, 1965, Van Auken, 2000). Increases in woody plant encroachment in semiarid grasslands can be attributed to many factors (see for example: Archer 1994; Archer et al. 1995; Archer et al. 1988; Bahre 1991; Bahre 1995; Belsky et al. 1999; Bush and Van Auken 1995; Fleischner 1994; Humphrey 1958; Milton et al. 1994; Neilson 1986; Polley et al. 1994; Schmutz et al. 1991; Van Auken 2000; Van Auken and Bush 1997; Van Devender 1995; Wiltzen et al. 1997). However, recent short-term impacts appear to be the result of enduring, high intensity herbivory by domestic livestock (Van Auken, 2000). Over-grazing reduces above ground grass and forb biomass, which increases woody plant establishment by enhancing seed production, seed dispersal, seedling establishment, plant longevity, and stand development (Archer, 1994; Archer et al., 1995).

The objective of this study is to quantify grassland health using Mearns, scaled, and Gambel's quail as indicators. Because these three quail species inhabit a diversity of distinct niches (ranging from grasslands to riparian corridors) within the Chihuahuan Desert, they appear to be ideal indicators of broad-scale ecosystem change resulting from overgrazing. We predict overgrazed grasslands will show decreased abundances of quail relative to ungrazed grasslands. Furthermore, we predict heavily grazed grasslands will show decreased diversity of grasses and forbs relative to ungrazed grasslands, which will be reflected by decreased diversity of seed/invertebrate material in quail crop samples. Grazed pastures will be quantified as any pasture heavily grazed within the preceding five years, whereas ungrazed pastures will be those free from grazing in the preceding five years. This study will be conducted on ranchlands within south-central New Mexico and the Trans-Pecos region of Texas on which we already have pre-existing quail research being conducted. We will compared quail abundance (estimated using pointing dogs and flush surveys) and diet (determined from crop samples) across species, treatments (grazed vs ungrazed), and seasons (fall, winter, spring, summer) using multivariate analyses of variance. We will then use resource selection function models as a predictive tool for future habitat needs and/or to predict population changes resulting from increasing or decreasing commercial livestock production in the Chihuahuan Desert. These models will further our understanding of the population status of these three desert quail species, and will highlight habitat partitioning between the species in addition to quantifying their respective habitat needs.

Quail abundance

To address the objective of this study we will use quail abundance as the response variable. Thus, quail abundance will be used as a surrogate for ecosystem health. Quail abundance in the respective study sites will be estimated from flush counts and camera trap surveys. Flush counts will be conducted along fixed transects though each study site, and/or through the use of pointing dogs. Detection probability of flush counts will be estimated using standard methods (see for example McCallum 2005). Since pointing dogs do not follow a consistent path while finding

quail, detection probability will be estimated using a time-based detection probability (Rollins and Redeker 2007).

Grazing treatment

Under the context of depleted grasslands resulting from overgrazing, to determine if quail abundance is a reliable indicator of ecosystem health, we will explore the relationship between quail abundance and the availability of preferred forage (seed and invertebrate) in the landscape. Study sites will be assigned to one of four categories relating to the level of grazing pressure a particular study site has received. The treatments will be defined based on the ratio of actual stocked livestock on the range against potential maximum Animal Use Months (AUM's). Study sites will be categorized as follows:

1) Heavily grazed (≥66% of carrying capacity)
2) Moderately grazed (33% - 65% of carrying capacity)
3) Lightly grazed (0% - 32% of carrying capacity)
4) No grazing in preceding 5 years

Vegetation condition and invertebrate abundance

Estimates of seed and invertebrate availability will be made from stratified samples collected at random locations across each treatment. Random locations will be created using GIS software, with the number of random points generated per treatment being dependent on total area available within that treatment. Stratification of random locations within each treatment will reduce bias associated with sampling intensity between sites of different size.

At each random location a 1 m^2 quadrat will be placed at the GPS location of the point. Within each quadrat the following vegetation characteristics will be recorded:

1) Identity of each plant species
2) Number of each individual plant species
3) Height of each plant species (measured to tallest part of plant)
4) Average greenness of each plant species (estimated visually using a Walker 8 point scale)
5) Average basal cover of each plant species (estimated visually using a Walker 8 point scale)

To reduce the number of variables (and reduce model variance), vegetation variables 2 - 5 will be entered into principal components analyses to provide a single metric of condition for each plant species. Mean condition for each plant species within each treatment with be estimated as:

$$C_{ij} = \frac{\sum Species_{ij}}{N_j}$$

Where: C_{ij} = Mean condition of species *i* in treatment *j*

$\sum Species\ i =$ Sum of condition metric of species *i* from all quadrats within treatment *j*

N = Total number of quadrats within treatment *j*

All invertebrates within each 1 m^2 quadrat will be collected from vegetation with the use of a 15 inch diameter sweep net, and any insects visible on the ground will be collected by hand. All insects will be placed in alcohol to prevent deterioration prior to identification. Insects will be

classified to genus, dried to constant mass (in oven at 60 ºC for 48 hours), and the proportionate dry mass (DM) availability of each genus within each treatment will be estimated using the following formula:

$$\%DM_{ij} = \frac{\sum Species_{ij}}{\sum All\ Species_j} * 100$$

Where: $\%DM_{ij}$ = Proportionate dry mass availability of species *i* in treatment *j*

$\sum Species\ i$ = Sum of DM of species *i* from all quadrats within treatment *j*

$\sum All\ Species$ = Sum of DM of all species from all quadrats within treatment *j*

We will account for seasonal variation in vegetation condition and invertebrate abundance by partitioning the study period into the following four seasons:

1. Winter – January to March
2. Spring – April to June
3. Summer – July to September
4. Fall – October to December

Model structure

Using the estimates of vegetation condition and invertebrate biomass, we will use linear mixed model regression to determine how these factors influence quail abundance. Each model will be structured as follows:

- Dependent variable: Quail abundance
- Fixed factors: Quail species, treatment, season, all 2-way interactions
- Random effects: Year, state

Model Selection

From the fixed effects, we will determine an *a priori* set of candidate models. We will then use a model selection approach to investigate which *a priori* model best explains quail abundance at study sites (Burnham & Anderson, 2002). Akaike's information criterion corrected for small sample size (AICc) will be used to evaluate model support from the data. The model with the lowest AICc value is considered to be the best approximating model, and models with $\Delta AICc \leq 2$ are considered to be competitive and equally supported. Akaike model weights will be calculated for each model to represent the relative likelihood of each model from the candidate set of models (Burnham & Anderson, 2002). If more than one model is equally supported, we will use model averaging on coefficients from each competitive model. A model containing no fixed or random effects will serve as a null model against which all subsequent models are compared. We will not include 3-way interactions in the models, and will only include 2-way interactions because we want to focus on models giving manageable explanations of quail abundance at sites.

We will use restricted maximum likelihood estimates (REML) in all models. In contrast to maximum likelihood estimation, REML provides better fit for mixed models and produces

unbiased estimates of variance and covariance parameters (Laird and Ware, 1982; McLean et al., 1991; Fitzmaurice et al., 2004). In all models the covariance structure will be set as autoregressive 1 (AR1), which specifies homogenous variances and correlations that decline exponentially with temporal distance. The AR1 covariance structure assumes constant variability in each quail abundance measurement, and accounts for measurements which are temporally closer to each other being more correlated than replicates father apart. We will assess the assumption of constant variance by plotting model predicted values against residuals and looking for a random distribution of points within the scatter plot.

Generalized Model Validation

We will perform a generalized cross-validation to determine if the models reasonably fit the data (Pineiro et al., 2008; Hoffman et al., 2010). To do this we will calculate the calibration slope of each model. Calibration represents the agreement between observed and predicted values of the dependent variable. The calibration slope evaluates the departure of the curve from a line with slope = 1. Models with good calibration have slope =1, whereas slopes of $x < 1 < x$ represent over- or underestimation of the predicted values (Pearce and Ferrier, 2000; Hoffman et al., 2010). Using the 'Curve Estimation' function in SPSS, we will regress the observed values against the model predicted values and fit 95% confidence intervals (CI's) to the curve. Observed values will be placed in the *y*-axis and predicted values in the *x*-axis (Pineiro et al., 2008). We will then insert a reference line with slope =1 and an intercept matching the intercept of the regression. If the reference line falls within the CI's of the regression line, this indicates the model fits the data sufficiently.

Estimating variance explained by quail abundance models

In each model the amount of variance in quail abundance explained by the model will be estimated by calculating marginal R^2 values for fixed effects (Edwards et al., 2008; Nakagawa & Schielzeth, 2013). We acknowledge that R^2 values from mixed models can be derived in a number of ways, and hence lead to some questionability of their appropriateness (Kramer, 2005; Edwards et al., 2008). The R^2 values presented here will measure multivariate association between the repeated measures and the model fixed effects. The R^2 value results from a 1:1 function of an appropriate F-statistic for testing fixed effects in a full model (Edwards et al., 2008). While maintaining the same covariance structure (AR1), the marginal R^2 statistic compares the full model with a null model with all fixed effects removed (Edwards et al., 2008; Nakagawa & Schielzeth, 2013). To estimate the amount of variance explained in the dependent variable by the fixed effects, we will determine statistical significance of raw correlations but report disattenuated correlations (Muchinsky 1996; Schauber et al. 2009). Disattenuated correlations adjust for the reduction in correlation coefficient magnitude due to sampling variability (Schauber et al. 2009). Disattenuated correlations remove the irreducible variance from the R^2 allowing interpretation of the fraction of explainable variance in the model. Observed correlations will be disattenuated by:

$$R_{xy} = \frac{r_{xy}}{\sqrt{r_{xx}}}$$

Where: r_{xy} = the observed correlation between vectors *x* and *y*

r_{xx} = is the reliability of vector *x*.

We will use a bootstrap method (using PopTools add-in Microsoft Excel) to estimate the reliability for each species. To do so, we assume the observed abundance of observations at sites

will be the true estimate of abundance and variance. We will then generate a random sample (*n* = 1000) from the original data and calculate the variance of this random sample. The variance of the random sample (irreducible variance) will then be subtracted from the total variance of the original model (i.e. calculated from fixed effects) to give the estimate of reliability (i.e. the fraction of explainable variance).

Proposed Budget

Year 1 expense	Cost
Supplies (< $5000.00)	$12,000.00
Travel	
• Site visits (@ $0.54 per mile)	$5,000.00
• Conferences	$1000.00
Subtotal	$18,000.00
Indirect Cost (@ 32%)	$5,760.00
Total Requested	**$23,760.00**

6. **Description of Entities Undertaking the Project**: Provide a brief description of the applicant organization and all participating entities and/or individuals. Identify which of the proposed activities each agency, organization, group, or individual is responsible for conducting or managing. Provide complete contact information for the individual within the organization that will oversee/manage the project activities on a day-to-day basis. If eligibility for funding is based in whole or in part on the qualifications of key personnel, provide for each key person a brief (**1-2 pages**) but descriptive overview of their education, experience and other skills that make them qualified to carry out the proposed project. To prevent unnecessary transmission of Personally Identifiable Information, ***do not include Social Security numbers, the names of family members, or any other personal or sensitive information including marital status, religion or physical characteristics on the description of key personnel qualifications.***

D. Budget Form

Complete the Budget Information for Non-Construction Programs (SF 424A) or Budget Information for Construction Programs (SF 424C) form. Use the SF 424A if your project does not include construction and the SF 424C if the project includes construction or land acquisition. The budget forms are available on the Internet at http://apply07.grants.gov/apply/FormLinks?family=15. When developing your budget, keep in mind that financial assistance awards and subawards are subject to the Federal cost principles in Title 2 of the Code of Federal Regulations Part 200, as applicable to the recipient organization type. Links to the full text of the Federal cost principles are available on the Internet at http://www.ecfr.gov/.

Multiple Federal Funding Sources: If the project budget includes multiple Federal funding sources, you must show the funds being requested from this Federal program *separately* from any other requested/secured Federal sources of funding on the budget form. For example,

enter the funds being requested from this Federal program in the first row of the Budget Summary section of the form and then enter funding related to other Federal programs in the subsequent row(s). Be sure to enter each Federal program's CFDA number in the corresponding fields on the form. The CFDA number for this Federal program appears on the first page of this funding opportunity.

E. Budget Justification

In a separate narrative titled "**Budget Justification**", explain and justify all requested budget items/costs. Detail how the SF 424 Budget Object Class Category totals were determined and demonstrate a clear connection between costs and the proposed project activities. For personnel salary costs, include the base-line salary figures and the estimates of time (as percentages) to be directly charged to the project. Describe any item that under the applicable Federal cost principles requires the Service's approval and estimate its cost.

If Federally-funded equipment will be used for the project, provide a list of that equipment, including the Federal funding source. [Insert any other program-specific information for applicants to detail in their budget justifications].

Required Indirect Cost Statement: All applicants except individuals applying for funds separate from a business or non-profit organization he/she may operate must include in the budget justification narrative one of the following statements and attach to their application any required documentation identified in the applicable statement:

"We are:

1. A U.S. state or local government entity receiving more than $35 million in direct Federal funding each year with an indirect cost rate of [insert rate]. We submit our indirect cost rate proposals to our cognizant agency. A copy of our most recently approved rate agreement/certification is attached.
2. A U.S. state or local government entity receiving less than $35 million in direct Federal funding with an indirect cost rate of [insert rate]. We are required to prepare and retain for audit an indirect cost rate proposal and related documentation to support those costs.
3. A [insert your organization type; U.S. states and local governments, please use one of the statements above or below] that has previously negotiated or currently has an approved indirect cost rate with our cognizant agency. Our indirect cost rate is [insert rate]. A copy of our most recently approved rate agreement is attached.
4. A [insert your organization type] that has never submitted an indirect cost rate proposal to our cognizant agency. Our indirect cost rate is [insert rate]. In the event an award is made, we will submit an indirect cost rate proposal to our cognizant agency within 90 calendar days after the award is made.
5. A [insert your organization type] that has never submitted an indirect cost rate proposal to our cognizant agency. Our indirect cost rate is [insert rate]. However, in the event an award is made, we will not be able to meet the requirement to submit an indirect cost rate proposal to our cognizant agency within 90 calendar days after

award. We request as a condition of award to charge a flat *de minimus* indirect cost rate of 10% of modified total direct costs as defined in Title 2 of the Code of Federal Regulations Part 200, section 200.68. We understand that the 10% *de minimus* rate will apply for the life of the award, including any future extensions for time, and that the rate cannot be changed even if we do establish an approved rate with our cognizant agency at any point during the award period

6. A [insert your organization type] that is submitting this proposal for consideration under the [insert either "Cooperative Fish and Wildlife Research Unit Program" or "Cooperative Ecosystem Studies Unit Network"], which has a Department of the Interior-approved indirect cost rate cap of [insert program rate]. If we have an approved indirect cost rate with our cognizant agency, we understand that we must apply this reduced rate against the same direct cost base as identified in our approved indirect cost rate agreement. If we do not have an approved indirect cost rate with our cognizant agency, we understand that the basis for direct costs will be the modified total direct cost base defined in 2 CFR 200.68 "Modified Total Direct Cost (MTDC)". We understand that we must request prior approval from the Service to use the MTDC base instead of the base identified in our approved indirect cost rate agreement, and that Service approval of such a request will be based on: 1) a determination that our approved base is only a subset of the MTDC (such as salaries and wages); and 2) that use of the MTDC base will still result in a reduction of the total indirect costs to be charged to the award.

7. A [insert your organization type] that will charge all costs directly.

All applicants are hereby notified of the following:

- Recipients without an approved indirect cost rate are prohibited from charging indirect costs to a Federal award. Accepting the 10% *de minimus* rate as a condition of award is an approved rate.
- Failure to establish an approved rate during the award period renders all costs otherwise allocable as indirect costs unallowable under the award.
- Only the indirect costs calculated against the Federal portion of the total direct costs may be charged to the Federal award. Recipients may not charge to their Service award any indirect costs calculated against the portion of total direct costs charged to themselves or charged to any other project partner, Federal and non-Federal alike.
- Recipients must have prior written approval from the Service to transfer unallowable indirect costs to amounts budgeted for direct costs or to satisfy cost-sharing or matching requirements under the award.
- Recipients are prohibited from shifting unallowable indirect costs to another Federal award unless specifically authorized to do so by legislation."

Applicants who are individuals applying for funds separate from a business or non-profit organization he/she may operate are not eligible to charge indirect costs to their award. If you are an individual applying for funding, do not include any indirect costs in your proposed budget.

For more information on indirect cost rates, see the Service's **Indirect Costs and Negotiated Indirect Cost Rate Agreements** guidance document on the Internet at http://www.fws.gov/grants/.

Negotiating an Indirect Cost Rate with the Department of the Interior: Entities that do not have a NICRA must first have an open, active Federal award before they can submit an indirect cost rate proposal to their cognizant agency. The Federal awarding agency that provides the largest amount of direct funding to your organization is your cognizant agency, unless otherwise assigned by the White House Office of Management and Budget (OMB). If the Department of the Interior is your cognizant agency, your indirect cost rate will be negotiated by the Interior Business Center (IBC). For more information, contact the IBC at:

Indirect Cost Services
Acquisition Services Directorate, Interior Business Center
U.S. Department of the Interior
2180 Harvard Street, Suite 430
Sacramento, CA 95815
Phone: 916-566-7111
Email: ics@nbc.gov
Internet address: http://www.doi.gov/ibc/services/Indirect_Cost_Services/index.cfm

F. Single Audit Reporting Statements: As required in Title 2 of the Code of Federal Regulations Part 200, Subpart F, all U.S. states, local governments, federally-recognized Indian tribal governments, and non-profit organizations expending $750,000 USD or more in Federal award funds in a fiscal year must submit a Single Audit report for that year through the Federal Audit Clearinghouse's Internet Data Entry System. All U.S. state, local government, federally-recognized Indian tribal government and non-profit applicants must provide a statement regarding if your organization was/was not required to submit a Single Audit report for the organization's most recently closed fiscal year and, if so, state if that report is available on the Federal Audit Clearinghouse Single Audit Database website (http://harvester.census.gov/sac/) and provide the EIN under which that report was submitted. Include these statements at the end of the Project Narrative in a section titled "**Single Audit Reporting Statements**".

G. Assurances: Include the appropriate signed and dated Assurances form available online at http://apply07.grants.gov/apply/FormLinks?family=15. Use the **Assurances for Construction Programs (SF 424D)** for construction and land acquisition projects Use the **Assurances for Non-Construction Programs (SF 424B)** for all other projects. Signing this form does not mean that all items on the form are applicable. The form contains language that states that some of the assurances may not be applicable to your organization and/or your project or program.

H. Certification and Disclosure of Lobbying Activities: Under Title 31 of the United States Code, Section 1352, an applicant or recipient must not use any federally appropriated funds (both annually appropriated and continuing appropriations) or matching funds under a grant or cooperative agreement award to pay any person for lobbying in connection with the

award. Lobbying is defined as influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress connection with the award. Submission of an application also represents the applicant's certification of the statements in 43 CFR Part 18, Appendix A-Certification Regarding Lobbying. If you/your organization have/has made or agrees to make any payment using non-appropriated funds for lobbying in connection with this project AND the project budget exceeds $100,000, complete and submit the **SF LLL, Disclosure of Lobbying Activities** form. See 43 CFR, Subpart 18.100 for more information on when additional submission of this form is required. Submission of an application also represents the applicant's certification of the statements in 43 CFR Part 18, Appendix A-Certification Regarding Lobbying.

I. Conflict of Interest Disclosures: Applicants must notify the Service in writing of any actual or potential conflicts of interest that are known at the time of application or that may arise during the life of this award, in the event an award is made. Conflicts of interest include any relationship or matter which might place the recipient, the recipient's employees, or the recipient's subrecipients in a position of conflict, real or apparent, between their responsibilities under the award and any other outside interests. Conflicts of interest may also include, but are not limited to, direct or indirect financial interests, close personal relationships, positions of trust in outside organizations, consideration of future employment arrangements with a different organization, or decision-making affecting the award that would cause a reasonable person with knowledge of the relevant facts to question the impartiality of the applicant, the applicant's employees, or the applicant's future subrecipients in the matter. Upon receipt of such a notice, the Service Project Officer in consultation with their Ethics Counselor will determine if a conflict of interest exists and, if so, if there are any possible actions to be taken by the applicant to reduce or resolve the conflict. Failure to resolve conflicts of interest in a manner that satisfies the Service may result in the project not being select for funding.

Application Checklist

- ☐ **Evidence of non-profit status**: If a non-profit organization, a copy of their Section 501(c)(3) or (4) status determination letter received from the Internal Revenue Service.
- ☐ **SF 424, Application for Federal Assistance**: A complete, signed and dated SF 424, SF 424-Mandatory, or SF 424-Individual form.
- ☐ **Project narrative**
- ☐ **Single Audit Reporting statement**: If a U.S. state, local government, federally-recognized Indian tribal government, or non-profit organization, statements regarding applicability of and compliance with Single Audit reporting requirements.
- ☐ **SF 424 budget form**: A complete SF 424A or SF 424C Budget Information form.
- ☐ **Budget justification**
- ☐ **NICRA**: When applicable, a copy of the organization's current Negotiated Indirect Cost Rate Agreement.
- ☐ **SF 424 Assurances form:** Signed and dated SF 424B or SF 424D Assurances form.

Failure to provide complete information may cause delays, postponement, or rejection of the application.

V. Submission Instructions
SUBMISSION DEADLINE: 25 July 2015

Intergovernmental Review: Before submitting an application, U.S. state and local government applicants should visit the following website (http://www.whitehouse.gov/omb/grants_spoc/) to determine whether their application is subject to the state intergovernmental review process under Executive Order (E.O.) 12372 "Intergovernmental review of Federal Programs." E.O. 12372 was issued to foster the intergovernmental partnership and strengthen federalism by relying on state and local processes for the coordination and review of proposed Federal financial assistance and direct Federal development. The E.O. allows each state to designate an entity to perform this function. The official list of designated entities is posted on the website. Contact your state's designated entity for more information on the process the state requires to be followed when applying for assistance. States that do not have a designated entity listed on the website have chosen not to participate in the review process.

Download the Application Package linked to this Funding Opportunity on Grants.gov to begin the application process. Downloading and saving the Application Package to your computer makes the required government-wide standard forms fillable and printable. Completed applications may be submitted by mail, by email, electronically through Grants.gov, or as otherwise described in the Grants.gov funding opportunity. Please select **ONE** of the submission options:

To submit an application by e-mail:
Format all of your documents to print on Letter size (8 ½" x 11") paper. Format all pages to display and print page numbers. Scanned documents should be scanned in Letter format, as black and white images only. Where possible, save scanned documents in .pdf format. E-mail your application to the Service program point of contact identified in the Grants.gov funding opportunity.

The required SF 424 Application for Federal Assistance and Assurances forms and any other required standard forms MUST be signed by your organization's authorized official. The Signature and Date fields on the standard forms downloaded from Grants.gov are pre-populated with the text "Completed by Grants.gov upon submission" or "Completed on submission to Grants.gov". Remove this text (manually or digitally) before signing the forms.

To submit an application through Grants.gov:
Go to the Grants.gov Apply for Grants page (http://www07.grants.gov/applicants/apply_for_grants.jsp) for an overview of the process to apply through Grants.gov. You/your organization must complete the Grants.gov registration process before submitting an application through Grants.gov. Registration can take between three to five business days, or as long as two weeks if all steps are not completed in a timely manner.

Important note on Grants.gov application attachment file names: Please do not assign application attachments file names longer than 20 characters, including spaces. Assigning file names longer than 20 characters will create issues in the automatic interface between Grants.gov and the Service's financial assistance management system.

VII. Award Administration

Award Notices: Following review, applicants may be requested to revise the project scope and/or budget before an award is made. Successful applicants will receive written notice in the form of a notice of award document. Notices of award are typically sent to recipients by e-mail. If e-mail notification is unsuccessful, the documents will be sent by courier mail (e.g., FedEx, DHL or UPS). Award recipients are not required to sign/return the Notice of Award document. Acceptance of an award is defined as starting work, drawing down funds, or accepting the award via electronic means. Awards are based on the application submitted to, and as approved by, the Service. The notice of award document will include instructions specific to each recipient on how to request payment. If applicable, the instructions will detail any additional information/forms required and where to submit payment requests.

Domestic Recipient Payments: Prior to award, the Service program office will contact you/your organization to either enroll in the U.S. Treasury's Automated Standard Application for Payments (ASAP) system or, if eligible, obtain approval from the Department of the Interior to be waived from using ASAP.

Transmittal of Sensitive Data: Recipients are responsible for ensuring any sensitive data being sent to the Service is protected during its transmission/delivery. The Service strongly recommends that recipients use the most secure transmission/delivery method available. The Service recommends the following digital transmission methods: secure digital faxing; encrypted emails; emailing a password protected zipped/compressed file attachment in one email followed by the password in a second email; or emailing a zipped/compressed file attachment. The Service strongly encourages recipients sending sensitive data in paper copy to use a courier mail service. Recipients may also contact their Service Project Officer and provide any sensitive data over the telephone.

Award Terms and Conditions: Acceptance of a financial assistance award (i.e., grant or cooperative agreement) from the Service carries with it the responsibility to be aware of and comply with the terms and conditions applicable to the award. Acceptance is defined as the start of work, drawing down funds, or accepting the award via electronic means. Awards are based on the application submitted to and approved by the Service and are subject to the terms and conditions incorporated into the notice of award either by direct citation or by reference to the following: Federal regulations; program legislation or regulation; and special award terms and conditions. The Federal regulations applicable to Service awards are available on the Internet at http://www.fws.gov/grants/. If you do not have access to the Internet and require a full text copy of the award terms and conditions, contact the Service point of contact identified in the Agency Contacts section below.

Recipient Reporting Requirements:
Financial and Performance Reports: Interim financial reports and performance reports may be required. Interim reports will be required no more frequently than quarterly, and no less frequently than annually. A final financial report and a final performance report will be required and are due within 90 calendar days of the end date of the award. Performance reports must contain: 1) a comparison of actual accomplishments with the goals and objectives of the award as detailed in the approved scope of work; 2) a description of reasons why established goals were not met, if appropriate; and 3) any other pertinent information relevant to the project results.

Significant Developments Reports: Events may occur between the scheduled performance reporting dates that have significant impact upon the supported activity. In such cases, recipients are required to notify the Service in writing as soon as the following types of conditions become known:

- Problems, delays, or adverse conditions that will materially impair the ability to meet the objective of the Federal award. This disclosure must include a statement of any corrective action(s) taken or contemplated, and any assistance needed to resolve the situation.
- Favorable developments that enable meeting time schedules and objectives sooner or at less cost than anticipated or producing more or different beneficial results than originally planned.

The Service will specify in the notice of award document the reporting and reporting frequency applicable to the award.

Conflict of Interest Disclosures: Recipients are responsible for notifying the Service Project Officer in writing of any actual or potential conflicts of interest that may arise during the life of this award. Conflicts of interest include any relationship or matter which might place the recipient, the recipient's employees, or the recipient's subrecipients in a position of conflict, real or apparent, between their responsibilities under this award and any other outside interests. Conflicts of interest may also include, but are not limited to, direct or indirect financial interests, close personal relationships, positions of trust in outside organizations, consideration of future employment arrangements with a different organization, or decision-making affecting the award that would cause a reasonable person with knowledge of the relevant facts to question the impartiality of the Recipient, the Recipient's employees, or the Recipient's subrecipients in the matter. Upon receipt of such a notice, the Service Project Officer in consultation with their Ethics Counselor will determine if a conflict of interest exists and, if so, if there are any possible actions to be taken by the Recipient, the Recipient's employee(s), or the Recipient's Subrecipient(s) that could reduce or resolve the conflict. Failure to resolve conflicts of interest in a manner that satisfies the Service may result in any of the remedies described in 2 CFR 200.338, Remedies for Noncompliance, including termination of this award.

Other Mandatory Disclosures: Recipients and their subrecipients must disclose, in a timely manner and in writing, to the Service or pass-through entity all violations of Federal criminal law involving fraud, bribery, or gratuity violations potentially affecting this award. Failure to make required disclosures can result in any of the remedies described in 2 CFR 200.338, Remedies for

noncompliance, including suspension or debarment (See 2 CFR 200.113, 2 CFR Part 180, and 31 U.S.C. 3321).

VIII. Agency Contacts

Technical Point of Contact:
Dan Collins, PhD
Migratory Bird Coordinator
USFWS-Region 2 Migratory Bird Office
P. O. Box 1306
Albuquerque, NM 87103
Office: (505) 248-6881
Cell: (505) 377-4517
Fax: (505) 248-6674

Administrative Point of Contact:
Sara Nicole Williams, Budget-Grants Analyst
U.S. Fish and Wildlife Service
Region 2 Migratory Bird Office
500 Gold Ave SW
Albuquerque, New Mexico 87102
Email: sara_n_williams@fws.gov
Phone: (505) 248-7462