desert conservation
PROGRAM

Date: August 05, 2015

TO: DISTRIBUTION

RE: DESERT CONSERVATION PROGAM PROJECT COMPLETION NOTIFICATION:
**PREDICTIVE MODELING FOR FOUR CLARK COUNTY BIRD SPECIES
2011-GBBO-901A**

The work for the above referenced project has been completed. Please see the attached for all project related information.

The purpose of the above referenced project was:

The purpose of this project was to develop new predictive species distribution models for four bird species occurring in Clark County, Nevada. The predictive species distribution models will support a revision to the list of covered species; an effort that will support a proposed amendment to the Clark County Multiple Species Habitat Conservation Plan and associated Section 10(a)(1)(B) incidental take permit. The following species were addressed by this project: golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), Costa's hummingbird (*Calypte costae*), and gilded flicker (*Colaptes chrysoides*).

The major accomplishment or findings of this project include:

The Predictive Modeling for Four Clark County Bird Species project consisted of three components: (1) creation of conceptual models that describe environmental stressors and responses by each of the four species; (2) preparation of predictive maps that project expected bird presence and/or densities of each of the species based on environmental data from occupied areas; and (3) preparation of statistical models for two species for which sufficient vegetation field data (previously collected in occupied sites) existed.

During the first phase of the project, conceptual models were developed for Golden Eagle, Costa's Hummingbird, Loggerhead Shrike, and Gilded Flicker to help illustrate

their conservation needs in Clark County. The models were based on published literature as well as experience with these species in Clark County and elsewhere in Nevada.

The second phase of the project consisted of constructing predictive maps and statistical models within the context of the conceptual models for each of the species. The primary difference between the predictive maps, which also represent habitat models, and the statistical model based on field data is that the predictive maps can only be based on remotely-sensed vegetation data that are available for the whole county and are therefore, relatively coarse in their resolution for habitat selection by birds. Whereas, the statistical models are based on precise vegetation measurements in the field and cannot be extrapolated out to unsurveyed areas. The combination of the two modeling efforts together provides a more complete picture of a bird species' habitat selection than would either one by itself.

For more information about this project and/or for other Project Reports or Symposium Reports, please visit our website at: http://www.clarkcountynv.gov/Depts/dcp/Pages/default.aspx

If you have any questions, please contact Kimberley Jenkins at (702) 455-5529.

Sincerely,

Marci D. Henson
Program Manager

cc:
> US Fish and Wildlife Service
> Board of County Commissioners (7)
> Permittees' Executive Committee
> Permittees' Process Management Group
> Thomas Boldt, Purchasing
> Catherine Jorgenson, District Attorney – Civil Division
> Desert Conservation Program Community Advisory Committee
> Desert Conservation Program Interested Parties List
> Multiple Species Habitat Conservation Plan Implementing Agencies
> Science Advisor
> SNPLMA Office (for SNPLMA projects)
> Congressional Office
> DCP Staff

DESERT CONSERVATION PROGRAM PROJECT COMPLETION NOTICE

Date of Issuance: **8/5/2015**

General Project Information

Project Category	Conservation
Compliance Category	9d-Research/Inventory/Monitoring
Project Level	Level 3
Project Title	Predictive Modeling for 4 C.C. Bird Species
Project Number	2011-GBBO-901A
Contractor	Great Basin Bird Observatory
Contractor Person of Contact	Elisabeth Ammon
Contractor Project Manager	Elisabeth Ammon
DCP Project Manager	Kimberley Jenkins
DCP Person of Contact/Contract Manager	Heather Green
Competitive Award or Sole Source	Sole Source
Contract Start Date	01/13/2015
Purchase Order Number	4500234130-004
Contract End Date	05/29/2015

Commissioner & District		
	A	Steve Sisolak
	B	Tom Collins
	C	Larry Brown
	D	Lawrence Weekly
	E	Chris Giunchigliani
	F	Susan Brager
	G	Mary Beth Scow

Congressional Rep & District		
	D1	Dina Titus
	D2	Mark Amodei
	D3	Joe Heck
	D4	Steven Horsford

Financial Breakdown

Funding Source	S10 11-13
Original Contract Amount	$23,312.00
Total Change Request Amount	0.00
Revised Contract Amount (Original Award plus Change Requests)	$23,312.00
Funds Not Used in Contract	0.00
Final Payout Amount	$23,312.00

Performance Information

Total Number of Change Requests	0
Number of Change Requests by Contractor	0
Number of Change Requests by DCP	0
Total Number of Deliverables	6
Number of Deliverables Accepted	6
Number of Deliverables Rejected	1
Number of Delinquent Deliverables	0
Total Number of Milestones	7
Number of Delinquent Milestones	1
Number of Milestones Met on Time	0
Total Number of Invoices Submitted	1
Number of Rejected Invoices	0