

Wildlife Monitoring

Lake Mead Recreational Area Research

6-30-2010

### Lake Mead National Recreation Area Monitoring and Evaluation of Sensitive Wildlife: Quartlerly Progress Report, Period Ending June 30, 2010

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#### **OUARTERLY PROGRESS REPORT**

University of Nevada, Las Vegas Period Ending June 30, 2010

Cooperative Agreement Number: H8R07060001 Task Agreement Number: J8R07060012

Monitoring and Evaluation of Sensitive Wildlife at Lake Mead National Recreation Area

#### **Executive Summary**

#### Project 1. Relict Leopard Frog Monitoring, Management, and Research

- All milestones and deliverables are on schedule
- Translocation program completed for this year
- Completed spring-season nocturnal monitoring surveys
- Completed spring-season mark-recapture efforts at Blue Point Spring
- Hosted RLFCT meeting

#### **Project 2. Bald Eagle Winter Monitoring and Evaluation**

• This project has been completed and all associated deliverables have been met

#### **Project 3. Peregrine Falcon Monitoring and Evaluation**

- This project has been completed and all final report deliverables have been met
- Although not specified in the scope of work for this project, call-broadcast surveys were conducted this quarter to provide a limited assessment of territory occupancy at easily accessed sites along lakes Mead and Mohave

#### Project 4. Assessment of Six Covered and Three Evaluation Bird Species

- Milestones and deliverables are on schedule
- Targeted historical field surveys are ongoing, and analysis of these data have been initiated
- Habitat modeling of the nine bird species continues to be a major focus

#### **Project 5. Desert Tortoise Monitoring and Management**

Efforts for this project have been completed under this Task Agreement (as modified)

#### **Project 6. Shorebird Monitoring on Lakes Mead and Mohave**

• Field efforts under the shorebird project have been completed

### Project 7. Desert Bighorn Sheep Habitat Use Monitoring in Relation to Highway Development

This project has been completed

#### **Program Activities**

The Task Agreement was awarded to the University of Nevada, Las Vegas (UNLV) on October 1, 2006. Research, monitoring, and management activities are conducted primarily by UNLV Public Lands Institute (PLI) employees. During the quarter ending on June 30, 2010, activities that have occurred toward meeting actions in the statement of work are described below.

Note that several of the projects cover agreements between Clark County and Lake Mead National Recreation Area (LAME) under the Multiple Species Habitat Conservation Plan (MSHCP). To assist the NPS with reporting requirements and in consultation with Mr. Ross Haley (Task Agreement ATR) and Mr. Kent Turner (LAME Resource Management Chief), the format for reporting on several of these projects has been modified when appropriate to match Clark County quarterly report requirements.

#### Project 1. Relict Leopard Frog Monitoring, Management and Research

The following information has been formatted to meet Clark County quarterly report requirements for MSHCP project titled 'Relict Leopard Frog Monitoring and Management' (2005-NPS-476-P).

QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan, dated January 31, 2010. All milestones and deliverables for this quarter have been accomplished as summarized below.

#### Deliverable 22. Quarterly Progress Report

A quarterly report summarizing efforts through March 31, 2010, was submitted to Clark County.

#### Milestone 23. Host RLFCT Meeting

The spring Relict Leopard Frog Conservation Team meeting was held at the NPS visitor center on May 5, 2010.

#### Other activities

The nocturnal spring-time survey efforts were completed this quarter, as was the mark-recapture effort. A site that once contained relict leopard frogs, Corral Spring, was surveyed in June, as was one of the translocation sites. Animals raised this spring as part of the head-starting program were all released this quarter.

QUESTION 2: What, if any, problems were encountered? Briefly describe those problems and how they were dealt with.

None

QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

None

QUESTION 4: What is the calculated percent of work completed?

There are approximately 14 quarters (some partial) that constitute this project and 12 have been completed; therefore, approximately 86% of the project has been completed.

## QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

No problems are foreseen other than those previously reported.

#### QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

#### QUESTION 7: What was produced during the reporting period?

- 1. Quarterly report
- 2. Tadpoles translocated to several sites
- 3. Information on frog numbers at sites
- 4. A RLFCT meeting and draft minutes

### Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

M1	Contract Award and Mobilization: completed	
M2	Project Kick-Off and Training Meeting: completed	
M3	Start of Coordination of Habitat Management Activities: completed	
M4	Start of Collaboration and Oversight of Population Estimation at Targeted Springs:	
	completed	
M5	Start of Assessment and Coordination of Compliance for Future Translocation	
	Sites: completed	
M6	Start of Translocation Program Field Season: completed	
M7	Start of Monitoring Survey Field Season: completed	
M8	End of Translocation Program Field Season: completed	
M9	End of Monitoring Survey Field Season: completed	
M10	Start of Translocation Program Field Season: completed	
M11	Start of Monitoring Survey Field Season: completed	
M12	Host RLFCT Meeting: completed	
M13	End of Translocation Program Field Season: completed	
M14	Host RLFCT Meeting: completed	
M15	End of Monitoring Survey Field Season: completed	
M16	Written Annual Report to RLFCT of Conservation Actions: completed	
M17	Start of Translocation Program Field Season: completed	
M18	Start of Monitoring Survey Field Season: completed	
M23	Host RLFCT Meeting: completed	
M19-22, 24-26 Pending		
D1	Quarterly Progress Report: completed	
D2	Annual Work Plan and Detailed Timeline: completed	
D3	Data Management Plan: completed	
D4	Quarterly Progress Report: completed	
D5	Quarterly Progress Report: completed	
D6	Quarterly Progress Report: completed	

D7	Quarterly Progress Report: completed
D8	Host RLFCT Meeting: completed
D9	Written Annual Report to RLFCT of Conservation Actions: completed
D10	Annual Project Review Presentation: completed
D11	Quarterly Progress Report: completed
D12	GIS & Data Transfer to County: completed
D13	Annual Work Plan and Detailed Timeline: completed
D14	Quarterly Progress Report: completed
D15	Quarterly Progress Report: completed
D16	Biennium Progress Summary Report: completed
D17	Quarterly Progress Report: completed
D18	Annual Project Review Presentation: completed
D19	Quarterly Progress Report: completed
D20	GIS & Data Transfer to County: completed
D21	Annual Work Plan and Detailed Timeline: completed
D22	Quarterly Progress Report: in progress
D23	Quarterly Progress Report: in progress
D24-29	Pending

#### **Project 2. Bald Eagle Winter Monitoring and Evaluation**

Efforts under this task agreement to meet deliverables for the MSHCP projects titled, 'Bald Eagle Monitoring' (2005-NPS-476-P) and 'Bald Eagle Modeling' (2005-NPS-609B-P) have been completed. There is no further quarterly report requirement to Clark County, so the County format has been dropped. A simple summarize actions that were completed towards this project is provided below.

Five site visits were made through spring to evaluate breeding success of a pair of bald eagles that had established a nest in Black Canyon. These visits were completed in June.

Data from the bald eagle count conducted on January 11, 2010 was entered into an NPS database.

#### **Project 3. Peregrine Falcon Monitoring and Evaluation**

Efforts under this task agreement to meet deliverables for MSHCP projects titled 'Peregrine Falcon Monitoring and Evaluation' (2005-NPS-475-P) and 'Peregrine Falcon Modeling' (2005-NPS-609C-P) have been completed. There is no further quarterly report requirement to Clark County, so the County format has been dropped. A simple summary of continued actions completed under this project is provided below.

Field surveys were conducted this spring using the call-broadcast approach to evaluate breeding status at selected Peregrine territories bordering Lakes Mead and Mohave. The intent of these surveys was to provide limited monitoring through the 2010 breeding season. Monitoring activities were completed in June, and a total of 90 surveys were conducted.

#### Project 4. Assessment of Six Covered and Three Evaluation Bird Species

The following information summarizes efforts under the MSHCP projects titled 'Historical and Current Assessment of Six Covered and Three Evaluation Bird Species' (2005-NPS-542-P) and the associated project 'Conceptual and Habitat Models for Six Covered and Three Evaluation Bird

Species' (2005-NPS-609A-P). The information has been formatted to match the quarterly report requirements of the Clark County MSHCP.

# QUESTION 1: What did you accomplish during this reporting period? How did these accomplishments help you reach the goal of your project? If relevant, what indicators or benchmarks were used to determine your progress?

This quarterly report describes milestones and deliverables as identified and numbered in the Annual Timeline and Work Plan submitted for this project. Also reported here are actions conducted on the associated project, 2005-NPS-609A-P that covers technical aspects of the overall project. All milestones and deliverables identified for this quarter have been accomplished, as summarized below.

#### Deliverable 22. Quarterly Progress Report

A quarterly report summarizing efforts for the period ending on March 31, 2010 was submitted to Clark County.

#### Other Actions

A total of 95 targeted surveys at historical locations were conducted this quarter, and initial efforts have begun towards the analyses of these data.

Efforts continue on developing vegetation layers for use in habitat models for targeted bird species from areal/satellite imagery. Current efforts focus on developing vegetation layers from NAIP imagery to be used in combination with medium resolution imagery (e.g. LANDSAT).

### QUESTION 2: What, if any, problems were encountered? Briefly, describe those problems and how they were dealt with?

An attempt was made to develop vegetation layers using high-resolution QuickBird imagery available for Clark County. These data, however, proved to be problematic primarily due to inconsistent county-wide coverage of the 4<sup>th</sup> band (Near-Infra Red) which is critical in the development of appropriate vegetation indices. Additionally, cloud cover, insignificant at the scale of the entire county, is problematic within some scenes hindering successful interpretation across the entire county. We have abandoned this approach and have moved on with other approaches.

# QUESTION 3: What, if any, proposed activities were not completed? Briefly describe those activities, the reasons they were not completed and your plans for carrying them out.

All scheduled activities were completed this quarter.

#### **QUESTION 4: What is the calculated percent of work completed?**

This project has approximately 13 quarters, 11 quarters have been completed; therefore, by this assessment approximately 85% of the project has been completed.

### QUESTION 5: Do you foresee any upcoming problems with future project activities? If so, how do you propose to overcome those problems?

No problems are foreseen at this time.

#### QUESTION 6: Is there anything else you want to tell the DCP about this project?

No.

#### QUESTION 7: What was produced during the reporting period?

- 1. Quarterly Progress Report (Deliverable 22).
- 2. Information from 95 targeted surveys at historical locations, and initial efforts towards the analyses of these data (Milestone 13).
- 3. Information towards habitat modeling and predictive maps for habitat suitability.

## Please report on the status of each Milestone and Deliverable, indicate whether they are not started, in progress, or completed and provide comments on the status as necessary:

Contract Award and Mobilization: completed

Project 2005-NPS-542-P

Milestone 1.

Milestone 3. Begin Review and Compilation of Historical Data: completed Milestone 4. Begin Intensive Area Surveys: completed Milestone 5. Complete Intensive Area Surveys (2008 season): completed Milestone 6. Begin Targeted Surveys (2009 season): completed	
Milestone 5. Complete Intensive Area Surveys (2008 season): completed	
Milestone 6 Begin Targeted Surveys (2009 season): completed	
Timestone o. Begin rangeted but veys (200) beabony. Completed	
Milestone 7. Begin Intensive Area Surveys (2009 season): completed	
Milestone 8. Complete Targeted Surveys (2009 season): completed	
Milestone 9. Complete Intensive Area Surveys (2009 season): completed	
Milestone 10. Begin Targeted Surveys (2010 season): completed	
Milestone 11. Begin Historic Geospatial Analyses: completed	
Milestone 12. Review and Compilation of Historic Data in Published Literature, Museum	l
Records, and Data Archives: completed	
Milestone 13-15. Pending	
Deliverable 1. Annual Work Plan & Detailed Timeline: completed	
Deliverable 2. Data Management Plan: completed	
Deliverable 3. Quarterly Progress Report: completed	
Deliverable 4. Draft Detailed Field Study Design and Protocol: completed	
Deliverable 5. Final Detailed Field Study Design and Protocol: completed	
Deliverable 6. Quarterly Progress Report: completed	
Deliverable 7. Quarterly Progress Report: completed	
Deliverable 8. Annual Project Review and Presentation: completed	
Deliverable 9. Quarterly Progress Report: completed	
Deliverable 10. Written and Oral Reports: completed	
Deliverable 11. Quarterly Progress Report: completed	
Deliverable 12. GIS and Data Transfer: completed	
Deliverable 13. Annual Work Plan and Detailed Timeline: completed	
Deliverable 14. Quarterly Progress Report: completed	

Deliverable 16. Quarterly Progress Report: completed

Deliverable 17. Annual Project Review Presentation: completed

Deliverable 20. GIS & Data Transfer: completed

Deliverable 21. Annual Work Plan & Detailed Timeline: completed

Deliverable 22. Quarterly Progress Report: completed

Deliverable 23-30. Pending

#### Project 2005-NPS-609A-P

Deliverable 1. Data Management Plan: completed Deliverable 2. Draft Conceptual Models: completed

Deliverable 3. Annual Bird Expert Team Meeting: completed

Deliverable 4. Annual Report: completed

Deliverable 5. Annual Bird Expert Team Meeting: completed

Deliverable. 6. Annual Report: completed

Deliverable. 7. Verbal Report (requested): completed

Deliverables 8-11. Pending

#### **Project 5. Desert Tortoise Monitoring and Management**

Deliverables and reporting for compliance monitoring described for Phase I of the task agreement have been completed. No other activity for this project is planned under the task agreement (as modified).

#### Project 6. Shorebird Monitoring on Lakes Mead and Mohave

The field component has been completed for this project, and efforts continue on an analysis and summary of the data for the final report.

### Project 7. Desert Bighorn Sheep Habitat Use Monitoring in Relation to Highway Development

Efforts for this project have essentially been completed, and no requests for additional efforts on this project were made this quarter.

#### Other Activities Conducted Under or Associated With the Task Agreement

#### **Student Opportunities**

Currently, two undergraduate students and one graduate student assist part-time with efforts under this Task Agreement.

#### Personnel Development:

Mr. Barnes assisted a raptor specialist, Mr. Gene Jacobs, with research on Red-shouldered Hawks in central Wisconsin during his personal time on May 30-June 5, 2010.

#### <u>Technical Assistance and Regional Coordination:</u>

At the request of Ross Haley, Mr. Barnes conducted surveys for northern goshawks on the Shivwits Plateau within the Grand Canyon-Parashant National Monument on May 19-20, 2010. These surveys were in preparation for prescribed burns to be conducted by the NPS, Fire Management Branch.

Dawn Fletcher was invited by Chris Tomlinson from NDOW to discuss identifying the bird species to be included in initial modeling efforts as part of NDOW's Wildlife Action Plan and the BLM's Resource Management Plan revisions.

Dawn Fletcher led a bird hike to demonstrate various avian survey methods for NPS employees at the annual resource management staff retreat.

Submitted by:	
	7/01/2010
Margaret N. Rees, Project Administrator	Date