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Lake Mead National Recreation Area Sensitive Wildlife Species Monitoring and Analysis: Final Progress Report, Period Ending September 30, 2010

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QUARTERLY PROGRESS REPORT
University of Nevada, Las Vegas
Period Ending September 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
- Reconnaissance conducted at sites in the Gold Butte during coordinated efforts with USGS
- Annual Project Review Presentation provided to Clark County
- Spring-season mark-recapture at Blue Point Spring completed this quarter
- Fall-season mark-recapture effort initiated

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
- Presentations were given at the Raptor Research Foundation Annual Conference
- A draft manuscript on call-broadcast protocol is nearing completion

Project 4. Assessment of Six Covered and Three Evaluation Bird Species
- Milestones and deliverables are on schedule
- Targeted historical field surveys were completed
- Historic geospatial analyses were completed
- Draft final project report was submitted
- Draft habitat models were submitted

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
- A quality assessment of the database was performed this quarter

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 23. Quarterly Progress Report**

A quarterly report summarizing efforts through June 30, 2010, was submitted to Clark County.

**Deliverable 25. Annual Project Review and Presentation**

On August 11, 2010, a formal annual review presentation was provided to Clark County. This presentation included summaries of survey results and translocation efforts.

**Milestone M19. End of Translocation Program Field Season**

The translocation field season was ended this quarter. All headstaring and translocations were competed earlier in the year. Laboratory equipment were dried down and cleaned this quarter.

**Milestone M20. Completion of Coordination of Habitat Management Activities**

Efforts associated with habitat management were completed this quarter. As the conservation of relict leopard frogs is an ongoing concern, further coordination and collaboration efforts through the end of the year will be conducted under NPS auspices.

**Milestone M21. Completion of Collaboration and Oversight of Population Estimation at Targeted Springs**

Efforts associated with mark-recapture estimates at one of the natural sites were completed this quarter.

**Milestone 22. Completion of Assessment and Coordination of Compliance for Future Translocation Sites**
Efforts associated with habitat management were completed this quarter. Efforts this quarter focused on training of USGS personnel conducting spring-site assessments in the Gold Butte area and in assisting on some of these surveys. As the conservation of relict leopard frogs is an ongoing concern, further coordination and collaboration efforts will be conducted under NPS auspices.

**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 13 have been completed; therefore, approximately 93% 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. Annual Project Review Presentation
3. Assistance provided toward the identification and compliance of future translocation sites
4. Information on frog numbers
5. Information on prospective sites in the Gold Butte area

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 |
| M19 | End of Translocation Program Field Season: completed |
| M20 | Completion of Coordination of Habitat Management Activities: completed |
| M21 | Completion of Collaboration and Oversight of Population Estimation at Targeted Springs: completed |
| M22 | Completion of Assessment and Coordination of Compliance for Future Translocation Sites: completed |
| M23 | Host RLFCT Meeting: completed |
| M24-26 | 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: completed |
| D23 | Quarterly Progress Report: completed |
| D24 | Quarterly Progress Report: in progress |
| D25 | Annual Project Review Presentation: completed |
| D26-29 | 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) were previously
completed. There is no further quarterly report requirement to Clark County, so the County format has been dropped. No additional actions were conducted towards this project this quarter.

**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. This project has essentially been completed.

Additional efforts have been focused on public dissemination of information. A verbal presentation on the call-broadcast protocol developed for this project and a poster on habitat use and breeding success of falcons at LMNRA were given this quarter at the Raptor Research Foundation Conference in Fort Collins, CO. A manuscript is also being developed on the call-broadcast protocol.

**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 23. Quarterly Progress Report**

A quarterly report summarizing efforts for the period ending on June 30, 2010, was submitted to Clark County.

**Deliverable 25. Draft Final Project Report**

A draft final project report was submitted this quarter in which actions associated with various milestones and deliverables were summarized.

**Deliverable 29. Annual Project Review and Presentation (also a deliverable for project 609A)**

On August 11, 2010, a formal annual review presentation was provided to Clark County. This presentation included information on the results of the targeted surveys at historical locations and preliminary results on modeling efforts for habitat suitability.

**Milestone 13. Complete Targeted Surveys (2010 season)**
Targeted surveys were completed this quarter, and a total of 575 call-broadcast surveys were conducted at 154 historical locations. Data collected at these locations were analyzed and the results were presented in the draft final report submitted to Clark County.

**Milestone 14. Complete Historic Geospatial Analyses**

The geospatial analyses for this project were completed this quarter and the results were recently submitted in the draft final report to Clark County.

**Deliverable 7, under Project 2005-NPS-609A-P. Written or Oral Report Requested.**

Progress on this project was reported to Clark County during the formal annual review presentation on August 11, 2010.

**Deliverable 8, under Project 2005-NPS-609A-P. Draft Habitat Suitability Models**

Draft Habitat Suitability Models for the nine targeted bird species were completed this quarter and submitted to Clark County.

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

No problems were encountered.

**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, 12 quarters have been completed; therefore, by this assessment approximately 92% 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?**

2. Annual Project Review and Presentation (Deliverable 29 & Deliverable 7 on 609-A)
4. Complete Targeted Surveys (Milestone 13)
5. Complete Historic Geospatial Analyses (Milestone 14)
6. Draft Habitat Suitability Models (Deliverable 8 on 609-A)

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:

Project 2005-NPS-542-P

Milestone 1. Contract Award and Mobilization: completed
Milestone 2. Project Kickoff & Training Meeting: completed
Milestone 3. Begin Review and Compilation of Historical Data: completed
Milestone 4. Begin Intensive Area Surveys: completed
Milestone 11. Begin Historic Geospatial Analyses: completed
Milestone 12. Review and Compilation of Historic Data in Published Literature, Museum Records, and Data Archives: completed
Milestone 14. Historic Geospatial Analyses: completed
Milestone 15. Pending

Deliverable 1. Annual Work Plan & Detailed Timeline: completed
Deliverable 2. Data Management Plan: completed
Deliverable 3. Quarterly Progress Report: 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 10. Written and Oral Reports: completed
Deliverable 11. Quarterly Progress Report: completed
Deliverable 12. GIS and Data Transfer: completed
Deliverable 15. Biennium Project Summary: completed
Deliverable 17. Annual Project Review Presentation: completed
Deliverable 18. Quarterly Progress Report: completed
Deliverable 20. GIS & Data Transfer: completed
Deliverable 22. Quarterly Progress Report: completed
Deliverable 29. Annual Project Review Presentation: completed
Project 2005-NPS-609A-P

Milestone 1. Pending

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 Reports: completed
Deliverable 8. Draft Habitat Suitability models: completed
Deliverables 9-11. Pending

Project 5. Desert Tortoise Monitoring and Management

Deliverables and reporting for compliance monitoring described for Phase I of the Task Agreement were previously completed. No other activities for this project are 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. This quarter a quality assurance assessment of the project database was conducted. Work has begun on the final report.

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

Efforts for this project were previously completed. No other activities for this project are planned under the task agreement (as modified).

Other Activities Conducted Under or Associated With the Task Agreement

Student Opportunities

During this quarter, two undergraduate students assisted part-time with efforts under this Task Agreement.

Mr. Barnes continued working on his M.S. program with the School of Live Science at UNLV.

Personnel Development:

Mr. Barnes assisted Chris Briggs (a PhD candidate) during his personal time on July 9-16, 2010. The work was part of an ongoing study of breeding Swainson’s Hawks in northern California.

Technical Assistance and Regional Coordination:
Two presentations associated with peregrine falcon monitoring were given at the Raptor Research Foundation Annual Conference, in Fort Collins, Colorado on September 22-26, 2010. The citations for the verbal presentation follows:

Barnes, J. G., J. Jaeger, and D. Thompson. 2010. Call-broadcast surveys as an effective tool for detecting peregrine falcons. This presentation was given the William C. Anderson Award for best student oral presentation.

Submitted by:

__________________________  10/01/2010
Margaret N. Rees, Project Administrator  Date