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## Lake Mead National Recreation Area Monitoring and Evaluation of Sensitive Wildlife: Quarterly Progress Report, Period Ending March 31, 2009

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## QUARTERLY PROGRESS REPORT

University of Nevada, Las Vegas  
Period Ending March 31, 2009

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**

- Translocation field season has begun; eggs have been collected, tadpoles are being reared and some tadpoles have been released to an existing translocation site
- Egg mass surveys for the season have been completed
- Nocturnal surveys have begun
- Sampling for the amphibian chytrid fungus conducted at multiple sites
- Data transferal to County conducted this quarter
- A modified annual work plan and timeline was provided for delivery to the County
- All milestones and deliverables associated with the MSHCP project are on schedule

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

- Winter bald eagle count successfully conducted
- Data successfully transferred to County
- An updated timeline and work plan provided to transferal to County
- All MSHCP milestones and deliverables are on schedule

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

- Extended monthly observations on resident peregrine falcon non-breeding activity at five territories was completed this quarter
- Peregrine falcon monitoring of 2009 breeding activities initiated
- A draft habitat suitability model has been used to guide exploratory surveys for previously unknown breeding areas, five additional breeding sites were identified
- Data associated with monitoring and preliminary habitat modeling and assessment has been organized, quality assured, and provide to NPS for transfer to the County
- The MSHCP projects are on schedule for all milestones and deliverables

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

- Data from 2008 intensive area surveys and habitat assessments transferred to County
- Thrasher habitat modeling nearing completion and we are working on the final report.
- Compilation of historical location data for targeted songbird species mostly completed this quarter.
- Field surveys initiated for targeted species at historical sites
- Project is on schedule for all associated MSHCP milestones and deliverable

#### **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**

- Twenty-four surveys were conducted at eight intensively monitored sites on Lakes Mead and Mohave
- Preliminary results were presented at two professional meetings

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

- Data processing and field components completed for this project
- No efforts on this project were requested this quarter

**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 March 31, 2009, 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 to match Clark County quarterly report requirements.

**Hiring and Student Opportunities**

We have continued an hourly contract for an undergraduate student to assist part-time with expanded efforts on songbird surveys, data entry and field work associated with the other projects under this task agreement. In addition, a graduate student has been funded part-time (10% effort) to assist with the Relict Leopard Frog project.

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

The MSHCP project titled ‘Relict Leopard Frog Monitoring and Management’ (2005-NPS-476-P) was initiated on September 4, 2007. The following information has been formatted to meet Clark County quarterly report requirements.

**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 for this project. All milestones and deliverables for this quarter have been accomplished as summarized below.

**Milestone 10. Start of translocation field season**

The translocation program started this quarter and is well under way. Partial egg masses were collected from three natural sites in the Black Canyon this winter for release at five existing translocation sites, including the most-recently approved site in the Gold Butte area. A total of 796 tadpoles were taken to the Willow Beach Fish Hatchery for rearing this season and 705 of

these have already been released to an existing translocation site. Tadpoles are also being reared at the National Park Service in Boulder City for release at additional translocation sites.

**Milestone 11. Start of monitoring survey field season**

Spring monitoring surveys for 2009 have begun. Efforts during this quarter included a total of 46 diurnal surveys and 5 nocturnal surveys at 14 sites, including expanded efforts for egg mass surveys to further understand breeding phenology. Under this milestone, fall surveys are still required, and expanded efforts for further egg mass surveys are planned.

**Deliverable 11. Quarterly Progress Report**

A quarterly report summarizing efforts through December 31, 2008 was submitted to Clark County.

**Deliverable 12. GIS and Data transfer to County**

Data associated with this project was delivered to the County this quarter to meet the January 31, 2009 deadline.

**Deliverable 13. Annual Work Plan and Detailed Timeline**

An updated Annual Work Plan and Detailed Timeline was delivered to the County this quarter.

**Other activities**

The following efforts fall under Milestones 5 and 19 to assist with efforts to identify and establish new sites for translocations. UNLV personnel and NPS GIS personnel assessed a spring in Black Canyon as a potential sites to translocate Relict Leopard Frogs. A field visit was conducted to potential sites on January 29, 2009, to determine the suitability of habitat and the presence of invasive potential predators/competitors before initiating further efforts.

Sampling of Relict Leopard Frogs and other amphibians for the amphibian chytrid fungus was conducted at multiple sites this quarter.

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

No problems were encountered this quarter.

**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, other than what has been noted previously.

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

There are approximately 14 quarters (some partial) that constitute this project and 7 have been completed; therefore, approximately 50% 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?**

Identification of appropriate translocation sites within the Potential Management Zone for the Relict Leopard Frog has been a continuing challenge because of the limited availability of appropriate sites. Coordination and collaboration through the RLFCT with cosignatory state and federal agencies to the Conservation Assessment Strategy is continuing.

**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 (Deliverable 11)
2. Tadpoles for translocation efforts (Milestone 10)
3. Field observations on the status of natural and experimental populations (Milestone 11)
4. Assistance provided towards the identification and compliance of future translocation sites (progress towards Milestone 19)
5. Data transferal to County (Deliverable 12)
6. Modified Annual Work Plan and Timeline (Deliverable 13)

**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:**

Milestone 1.	Contract Award and Mobilization: completed
Milestone 2.	Project Kick-off and Training Meeting: completed
Milestone 3.	Start of Coordination of Habitat Management Activities: completed
Milestone 4.	Start of Collaboration and Oversight of Population Estimation at Targeted Springs: completed
Milestone 5.	Start of Assessment and Coordination of Compliance for Future Translocation Sites: completed (progress continuing)
Milestone 6.	Start of Translocation Program (2008) Field Season: completed
Milestone 7.	Start of (2008) Monitoring Survey Field Season: completed
Milestone 8.	End of (2008) Translocation Program Field Season: completed
Milestone 9.	End of (2008) Monitoring Survey Field Season: completed
Milestone 10.	Start of Translocation Program (2009) Field Season: completed
Milestone 11.	Start of (2009) Monitoring Survey Field Season: completed
Milestones 12– 21:	Pending
Deliverable 1.	Quarterly Progress Report: completed
Deliverable 2.	Annual Work Plan and Detailed Timeline: completed
Deliverable 3.	Data Management Plan: completed
Deliverable 4.	Quarterly Progress Report: completed
Deliverable 5.	Quarterly Progress Report: completed
Deliverable 6.	Quarterly Progress Report: completed
Deliverable 7.	Quarterly Progress Report: completed
Deliverable 8.	Host RLFCT meeting: completed
Deliverable 9:	Written Annual Report to RLFCT of Conservation Actions: completed
Deliverable 10:	Annual Project Review Presentation: completed
Deliverable 11:	Quarterly Progress Report: completed

- Deliverable 12: GIS and Data Transfer to County: completed
- Deliverable 13: Annual Work Plan and Detailed Timeline: completed
- Deliverable 14: Quarterly Progress Report: in progress
- Deliverable 15–34: Pending

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

A summary of products for this project as described in the task agreement are provided below. The milestones and deliverables described for this project are associated with the MSHCP projects titled, 'Bald Eagle Monitoring' (2005-NPS-476-P) and the associated project 'Bald Eagle Modeling' (2005-NPS-609B-P). These projects were initiated on January 2, 2008. The following 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 for the project, Bald Eagle Monitoring. Also included herein is reporting on milestones and deliverables for the associated project, Bald Eagle Modeling (2005-NPS-609B-P). All milestones and deliverables scheduled for this quarter have been accomplished, as summarized below.

#### **Deliverable 7. Annual Project Data (2008 data)**

Data associated with the 2008 Bald Eagle Count were transferred to the County by January 31, 2009.

#### **Deliverable 9. Quarterly Progress Report**

A quarterly report summarizing efforts for the period ending on December 31, 2008 was submitted to Clark County.

#### **Milestone 4. Conduct 2009 Bald Eagle Count**

Training for the Data Recorders for the winter count took place on January 5, 2009. The winter count was conducted on January 7, 2009. Surveys on two routes could not be completed because of mechanical problems with the boats, and these routes were surveyed on January 8, 2009. Participants on the surveys included 50 individuals from the following agencies: National Park Service, Public Lands Institute/UNLV, Great Basin Institute, U.S. Geological Survey, Bureau of Reclamation, Nevada Department of Wildlife, and Clark County. As part of our efforts to assess variation in numbers of eagles observed during counts, a second survey of the Overton route was conducted on January 26, 2009.

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

No problems were encountered during this quarter.

**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.**

As defined in the Annual Timeline, all scheduled activities were completed this quarter.

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

This project has approximately 12 quarters, and 5 quarters have been completed; therefore, approximately 42% 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?**

The annual project data (Deliverable 3 on the associated Project 609B-P), consisting of data associated with preliminary habitat modeling, was transferred to the County this quarter.

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

1. Annual Project Data transferred to the County (Deliverable 7 for project 476-P, and Deliverable 3 for project 609B-P) .
2. Count of wintering bald eagles (Milestone 4).
3. Quarterly Progress Report (Deliverable 9).

**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:**

For Project, 2005-NPS-540-P

Milestone 1.	Contract Awards and Mobilization: completed
Milestone 2.	Project Kickoff & Training Meeting: completed
Milestone 3.	Conduct 2008 Bald Eagle Count: completed
Milestone 4.	Conduct 2009 Bald Eagle Count: completed
Milestone 5.	Pending
Deliverable 1.	Work Plan: completed
Deliverable 2.	Detailed Timeline: completed
Deliverable 3.	Data Management Plan: completed
Deliverable 4.	Quarterly Report: completed
Deliverable 5.	Quarterly Report: completed
Deliverable 6.	Quarterly Report: completed
Deliverable 7.	Annual Project Data (2008 Data): completed
Deliverable 8.	Annual Project Review and Presentation: completed
Deliverable 9.	Quarterly Report: completed
Deliverable 10.	Quarterly Report: in progress
Deliverable 11–25:	Pending

For Project, 2005-NPS-609B-P

Milestone 1.	Contract Awards and Mobilization: completed
Milestone 2:	Pending
Deliverable 1.	Detailed Timeline: completed
Deliverable 2.	Data Management Plan: completed
Deliverable 3.	Annual Project Data: completed
Deliverable 5.	Habitat Suitability Model: in progress
Deliverable 6.	Habitat Suitability Map: in progress
Deliverable 8.	Verbal Report (if requested): completed
Deliverable 4,7:	Pending

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

The MSHCP projects titled ‘Peregrine Falcon Monitoring and Evaluation (*Falco peregrinus*)’ (2005-NPS-475-P) and the associated project ‘Peregrine Falcon Modeling’ (2005-NPS-609C-P) were initiated on March 3, 2008. The following information has been formatted to meet Clark County quarterly report requirements.

**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 for this project and covers actions conducted on the associated project, 2005-NPS-609C-P, which covers technical aspects of this project. All deliverables for this quarter were accomplished, as summarized below.

#### **Deliverable 8. Quarterly Progress Report**

A report for the quarterly period ending on December 31, 2008 was submitted to Clark County.

#### **Milestone 5. Begin Peregrine Falcon Monitoring**

Monitoring of peregrine territories during the breeding season was begun on February 10, 2009. By the end of the current quarter 25 passive and 165 active surveys have been conducted. Additional exploratory surveys have been conducted at 102 individual sites (121 surveys total) identified from a draft habitat suitability model developed in association with this project. These surveys have resulted in the identification of 5 previously unknown breeding territories and the pinpointing of 3 breeding sites in areas of previously suspected peregrine activity.

#### **Deliverable 9, for Project 475-P (and Deliverable 4 for Project 609C-P)– Annual Project Data**

Data associated with monitoring and preliminary habitat modeling and assessment has been organized and quality assured and transferred to the County.

#### **Other Activities**



As part of an extended effort to better document peregrine falcon habitat use during the non-breeding portion of the year, monthly monitoring efforts at five territories (begun in August 2008) was completed on January 21, 2009.

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

No problems were encountered this quarter.

**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?**

There are approximately 9 quarters (some partial) that constitute this project and 5 quarters have been completed; therefore, approximately 56% 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.

**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. A quarterly report (Deliverable 8)
2. Observations on resident peregrine falcon non-breeding activity
3. Draft habitat suitability model (project 609C-P)
4. Observations on initial occupancy and reproductive efforts at known peregrine breeding sites during 2009 (Milestone 5)
5. Exploratory surveys at numerous sites park-wide
6. Data transfers (Deliverable 9 project 475-P, and Deliverable 4 project 609C-P)

**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-475-P**

Milestone 1.	Contract Award and Mobilization: completed
Milestone 2.	Project Kick-off and Training Meeting: completed
Milestone 3.	Begin Peregrine Falcon Monitoring: completed
Milestone 4.	Complete Peregrine Falcon Monitoring: completed
Milestone 5.	Begin Peregrine Falcon Monitoring: completed
Milestones 6-7:	Pending

- Deliverable 1. Quarterly Progress Report: completed
- Deliverable 2. Annual Work Plan: completed
- Deliverable 3. Detailed Timeline: completed
- Deliverable 4. Data Management Plan: completed
- Deliverable 5. Quarterly Progress Report: completed
- Deliverable 6. Quarterly Progress Report: completed
- Deliverable 7. Annual Project Review Presentation: completed
- Deliverable 8. Quarterly Progress Report: completed
- Deliverable 9. Annual Project Data: completed
- Deliverable 10. Quarterly Progress Report: in progress
- Deliverable 11-21: Pending

**Project, 2005-NPS-609C-P**

- Milestone 1. Contract Award and Mobilization: completed
- Milestone 2: Pending

- Deliverable 1. Detailed Timeline: completed
- Deliverable 2. Data Management Plan: completed
- Deliverable 3. Draft Conceptual Model: completed
- Deliverable 4. Annual Project Data: completed
- Deliverable 6. Oral Report: completed
- Deliverable 5,7-10: Pending

**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 11. Quarterly Progress Report**

A quarterly report summarizing efforts for the period ending on December 31, 2008 was submitted to Clark County.

**Deliverable 12. GIS & Data Transfer**

Preliminary database of historical locations and search efforts, as well as field data from intensive area searchers were transferred to the County this quarter.

### **Deliverable 13. Annual Work Plan and Detailed Timeline**

A modified Annual Work Plan and Detailed Timeline was delivered to the County this quarter.

### **Milestone 6. Begin Targeted Surveys (2009 season)**

The compilation of historical location data (work associated with M3 and M12) was mostly completed this quarter. These data were georeferenced and assessed to determine potential usefulness for targeted surveys. Due to the low number of useable historical observations obtained through our search efforts it was decided, during a meeting with the County project manager, to increase the time frame from pre-1986 to pre-1995 for several of the species. This quarter we developed and tested field protocols and datasheets for the targeted surveys, and have begun field surveys for some species.

### **Activities associated with Project 2005-NPS-609A-P**

Efforts continue on the habitat-modeling portion of this project. Collaboration continued with a UNLV biostatistician, as well as UNLV professors, on data analysis and habitat modeling. In addition, consultation was acquired on our modeling efforts on thrasher habitat from a modeling specialist within the USGS. This quarter, preliminary habitat suitability maps for the Le Conte's thrasher were created using GIS and the program Maxent, and habitat variables for use in the final assessments were determined.

### **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, 6 quarters have been completed; therefore, by this assessment approximately 46% 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 11)
2. Compellation of historical location data for targeted species (work associated with M3 and M12).
3. Final field protocols and datasheets for targeted surveys and field observations on targeted species (Milestone 6).
4. Electronic data transferred to the County (Deliverable 12).
5. A modified Annual Work Plan and Detailed Timeline document (Deliverable 12).

**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 5.	Complete Intensive Area Surveys (2008 season): completed
Milestone 6	Begin Targeted Surveys (2009 season): completed
Milestone 7-15:	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 (if requested): completed
Deliverable 11	Quarterly Progress Report: completed
Deliverable 12	GIS & Data Transfer: completed
Deliverable 13	Annual Work Plan & Detailed Timeline: completed
Deliverable 14	Quarterly Progress Report: in progress
Deliverable 15-30	Pending

Project 2005-NPS-609A-P

Deliverable.	Data Management Plan: completed
Deliverable.	Verbal Report (if requested): completed
Deliverable.	Annual Bird Expert Team Meeting: completed
Deliverable.	Annual Report: completed
Deliverable	Draft Conceptual Models: in progress

**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 following information summarizes products as described in the task agreement. This is not an MSHCP project, thus the information herein is not presented in the format associated with those reporting requirements.

**Monthly inventory and monitoring surveys** – Ongoing monthly surveys were conducted on 8 intensively monitored sites on Lakes Mead and Mohave throughout the quarter for a total of 24 surveys (Table 1). All data collected during these surveys were entered into a database and have been shared with the GBBO.

**Table 1.** Survey sites and numbers of surveys conducted for aquatic and shorebirds on Lakes Mead and Mohave since March 2004 and during the current quarter.

Lake and Site	Number of Surveys	
	Mar. 04 – Mar. 09	Jan. 09 – Mar. 09
<b>Lake Mead</b>		
Las Vegas Bay	61	3
Muddy River	59	3
Virgin River	59	3
Grand Wash	41	3
Bonelli Bay	12	0
Misc. sites	13	0
<b>Lake Mohave</b>		
Arizona Bay	59	3
Nevada Bay	59	3
Willow Beach	56	3
Black Canyon	12	3
Misc. sites	15	0
<b>Total</b>	<b>446</b>	<b>24</b>

**Water Grab samples** – No water samples were requested this quarter.

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

Major elements of this project in the form of data retrieval, data management, and associated field efforts, have been completed. No requests for additional efforts on this project were made this quarter.

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

### **Personnel Development –**

Both Ms. Fletcher and Mr. Barnes are continuing their graduate student programs with the School of Live Science at UNLV.

To gain further experience with raptor field studies, Mr. Barnes assisted the raptor specialist, Mr. Al Hinde, on personal time during January 1-4, 2009 to assist with an ongoing raptor survey and banding study in central Nevada.

Dr. Jaeger was an invited manuscript reviewer this quarter for the journal, *Herpetological Conservation and Biology*.

### **Technical Assistance and Regional Coordination –**

Dr. Jaeger acted as the meeting coordinator and a session moderator at the 2009 meeting of the California/Nevada Amphibian Population Task Force at the Bodega Marine Laboratory and Reserve, CA.

Ms. Fletcher attended the Colorado River Terrestrial and Riparian Meeting on January 27, 2009 at Harrah's Casino in Laughlin, Nevada.

Ms. Fletcher attended the Partner's in Flight Meeting on March 5, 2009 at the Fish and Wildlife Service Office, Las Vegas, Nevada. At this meeting Dawn assisted with writing the Draft Bid Conservation Plan for Nevada for upland Mojave Desert birds.

Mr. Barnes provided raptor and aquatic bird identification training at the request of National Park Service Interpretive staff for their all-volunteer Trail Tracker program on March 21, 2009, Boulder City, NV.

### **Publication Efforts, professional outreach –**

The following article is now publically available: Jezkova T., J.R. Jaeger, Z.L. Marshall, and B.R. Riddle. 2009. Pleistocene impacts on the phylogeography of the desert pocket mouse (*Chaetodipus penicillatus*). *Journal of Mammalogy* 90:306-320.

### **Presentations, professional outreach –**

Barnes, J., and J. Jaeger. Inventory and Temporal Variation of Aquatic Birds Using Lakes Mead and Mohave. Presentation at the Lake Mead Science Symposium, January 14, 2009. University of Nevada, Las Vegas.

Barnes, J., and J. Jaeger. Inventory and Temporal Variation of Aquatic Birds Using Lakes Mead and Mohave. Presentation at the Colorado River Terrestrial and Riparian Meeting, January 27, 2009. Laughlin, NV.

Jaeger, J.R., M.E. Raskin, D.M. Fletcher, J. Hutcheson, J.M. Sappington, J.G. Barnes. Monitoring Wintering Bald Eagles at Lakes Mead and Mohave: Assessing Historic Data, Improving Counts, and Modeling Habitat Use. Presentation, Lake Mead Science Symposium, January 13-14, 2009. University of Nevada, Las Vegas.

Submitted by:

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Margaret N. Rees, Project Administrator

03/31/2009

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Date